



MEETING AGENDA

TIME/DATE: 9:30 a.m. / Wednesday, November 13, 2019

LOCATION: BOARD ROOM
County of Riverside Administrative Center
4080 Lemon Street, First Floor, Riverside

COMMISSIONERS

Chair – Chuck Washington

Vice Chair – Ben J. Benoit

Second Vice Chair – Jan Harnik

Kevin Jeffries, County of Riverside, District 1
Karen Spiegel, County of Riverside, District 2
Chuck Washington, County of Riverside, District 3
V. Manuel Perez, County of Riverside, District 4
Jeff Hewitt, County of Riverside, District 5
Art Welch / Daniela Andrade, City of Banning
Lloyd White / Julio Martinez, City of Beaumont
Joseph DeConinck / Johnny Rodriguez, City of Blythe
Larry Smith / Linda Molina, City of Calimesa
Randall Bonner / Jeremy Smith, City of Canyon Lake
Raymond Gregory / Mark Carnevale, City of Cathedral City
Steven Hernandez / Megan Beaman Jacinto, City of Coachella
Wes Speake / Jim Steiner, City of Corona
Scott Matas / Russell Betts, City of Desert Hot Springs
Clint Lorimore / Todd Rigby, City of Eastvale
Linda Krupa / Russ Brown, City of Hemet
Dana Reed / Kimberly Muzik, City of Indian Wells

Waymond Fermon / Oscar Ortiz, City of Indio
Brian Berkson / Chris Barajas, City of Jurupa Valley
Kathleen Fitzpatrick / Robert Radi, City of La Quinta
Bob Magee / Natasha Johnson, City of Lake Elsinore
Bill Zimmerman / Dean Deines, City of Menifee
Victoria Baca / Carla Thornton, City of Moreno Valley
Scott Vinton / To Be Appointed, City of Murrieta
Berwin Hanna / Ted Hoffman, City of Norco
Jan Harnik / Kathleen Kelly, City of Palm Desert
Lisa Middleton / Jon R. Roberts, City of Palm Springs
Michael M. Vargas / Rita Rogers, City of Perris
Ted Weill / Charles Townsend, City of Rancho Mirage
Rusty Bailey / Andy Melendrez, City of Riverside
Andrew Kotyuk / Russ Utz, City of San Jacinto
Michael S. Naggar / Maryann Edwards, City of Temecula
Ben J. Benoit / Joseph Morabito, City of Wildomar
Mike Beauchamp, Governor's Appointee Caltrans District 8

RIVERSIDE COUNTY TRANSPORTATION COMMISSION

www.rctc.org

MEETING AGENDA*

***Actions may be taken on any item listed on the agenda**

9:30 a.m.

Wednesday, November 13, 2019

BOARD ROOM

**County of Riverside Administrative Center
4080 Lemon Street, First Floor, Riverside, CA**

In compliance with the Brown Act and Government Code Section 54957.5, agenda materials distributed 72 hours prior to the meeting, which are public records relating to open session agenda items, will be available for inspection by members of the public prior to the meeting at the Commission office, 4080 Lemon Street, Third Floor, Riverside, CA, and on the Commission's website, www.rctc.org.

In compliance with the Americans with Disabilities Act, Government Code Section 54954.2, and the Federal Transit Administration Title VI, please contact the Clerk of the Board at (951) 787-7141 if special assistance is needed to participate in a Commission meeting, including accessibility and translation services. Assistance is provided free of charge. Notification of at least 48 hours prior to the meeting time will assist staff in assuring reasonable arrangements can be made to provide assistance at the meeting.

1. CALL TO ORDER

2. ROLL CALL

3. PLEDGE OF ALLEGIANCE

- 4. PUBLIC COMMENTS** – *Each individual speaker is limited to speak three (3) continuous minutes or less. The Commission may, either at the direction of the Chair or by majority vote of the Commission, waive this three-minute time limitation. Depending on the number of items on the Agenda and the number of speakers, the Chair may, at his/her discretion, reduce the time of each speaker to two (2) continuous minutes. In addition, the maximum time for public comment for any individual item or topic is thirty (30) minutes. Also, the Commission may terminate public comments if such comments become repetitious. Speakers may not yield their time to others without the consent of the Chair. Any written documents to be distributed or presented to the Commission shall be submitted to the Clerk of the Board. This policy applies to Public Comments and comments on Agenda Items.*

Under the Brown Act, the Commission should not take action on or discuss matters raised during public comment portion of the agenda that are not listed on the agenda. Commission members may refer such matters to staff for factual information or to be placed on the subsequent agenda for consideration.

- 5. ADDITIONS / REVISIONS** – *The Commission may add an item to the Agenda after making a finding that there is a need to take immediate action on the item and that the item came to the attention of the Commission subsequent to the posting of the agenda. An action adding an item*

to the agenda requires 2/3 vote of the Commission. If there are less than 2/3 of the Commission members present, adding an item to the agenda requires a unanimous vote. Added items will be placed for discussion at the end of the agenda.

6. APPROVAL OF MINUTES – OCTOBER 17, 2019

7. CONSENT CALENDAR – *All matters on the Consent Calendar will be approved in a single motion unless a Commissioner(s) requests separate action on specific item(s). Items pulled from the Consent Calendar will be placed for discussion at the end of the agenda.*

7A. SINGLE SIGNATURE AUTHORITY REPORT

Page 1

Overview

This item is for the Commission to receive and file the Single Signature Authority report for the first quarter ended September 30, 2019.

7B. REVENUE ESTIMATE FOR COUNTYWIDE TRANSPORTATION IMPROVEMENT AND TRAFFIC RELIEF PLAN

Page 3

Overview

This item is for the Commission to approve a revenue estimate to guide development of the countywide Traffic Relief Plan (Plan).

7C. QUARTERLY PUBLIC ENGAGEMENT METRICS REPORT, JULY – SEPTEMBER 2019

Page 6

Overview

This item is for the Commission to receive and file the Quarterly Public Engagement Metrics Report for July – September 2019.

7D. AGREEMENT FOR EXPRESS LANES CONSULTING SERVICES

Page 12

Overview

This item is for the Commission to:

- 1) Award Agreement No. 20-31-001-00 to HNTB Corporation for express lanes consulting services for a five-year term, plus two one-year options to extend the agreement, in an amount of \$10 million, plus a contingency amount of \$500,000, for a total amount not to exceed of \$10.5 million;
- 2) Authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement, including option years, on behalf of the Commission; and

- 3) Authorize the Executive Director or designee to approve the use of the contingency amount as may be required for these services.

7E. PACHAPPA UNDERPASS CONSTRUCTION CONTRACT AWARD AND AMENDMENT FOR CONSTRUCTION SUPPORT SERVICES

Page 42

Overview

This item is for the Commission to:

- 1) Award Agreement No. 19-31-094-00 to SEMA Construction, Inc. (SEMA) to construct the Pachappa Underpass project (Project), in the amount of \$8,237,419, plus a contingency amount of \$862,581 for potential change orders and supplemental work during construction, for a total not to exceed contract authorization of \$9.1 million;
- 2) Waive informalities and minor irregularities in the SEMA bid;
- 3) Approve Agreement No. 16-31-051-04, Amendment No. 4 to Agreement No. 16-31-051-00, with Jacobs Project Management Company (Jacobs) to provide construction management (CM), materials testing, and construction surveying services for the Project, for an additional amount of \$1,245,509, and a total amount not to exceed \$3,245,509;
- 4) Authorize the Executive Director, or designee, to approve contingency work as may be required for the Project; and
- 5) Authorize the Chair or the Executive Director, pursuant to legal counsel review, to execute the agreements on behalf of the Commission.

7F. AGREEMENTS WITH THE CALIFORNIA DEPARTMENT OF TRANSPORTATION FOR STATE FUNDING AND SENATE BILL 1 FUNDING FOR THE OPERATION OF THE FREEWAY SERVICE PATROL PROGRAM IN RIVERSIDE COUNTY

Page 61

Overview

This item is for the Commission to:

- 1) Approve Agreement No. 20-45-013-00 with the California Department of Transportation (Caltrans) to provide state funding for Fiscal Year 2019/20 for the operation of the Riverside County Freeway Service Patrol (FSP) program in an amount not to exceed \$1,702,145;
- 2) Approve Agreement No. 20-45-016-00 with Caltrans to provide SB 1 funding for FY 2019/20 for the operation of the Riverside County FSP program in an amount not to exceed \$1,464,524; and
- 3) Authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreements on behalf of the Commission.

8. FRAMEWORK FOR IMPLEMENTATION OF THE STATE ROUTES 241/91 EXPRESS LANES CONNECTOR

Page 80

Overview

This item is for the Commission to:

- 1) Approve the State Routes 241/91 Express Lanes Connector term sheet as a framework for future agreements, contingent on all parties agreeing to the term sheet; and
- 2) Direct staff to work with agencies to prepare associated agreements for each respective governing board's consideration, consistent with the terms included in this report.

9. TRAFFIC RELIEF PLAN STRUCTURE: GEOGRAPHY AND EXPENDITURE CATEGORIES

Page 128

Overview

This item is for the Commission to approve geographic divisions and expenditure categories for the countywide Traffic Relief Plan (Plan).

10. ECONOMIC IMPACT STUDY

Page 133

Overview

This item is for the Commission to:

- 1) Approve Agreement No. 20-19-012-00 to University of California, Riverside (UCR) School of Business, Center for Economic Forecasting & Development (UCR Center) to perform an economic impacts analysis related to the investment of an additional sales tax for transportation improvements in Riverside County in an amount not to exceed \$199,500; and
- 2) Authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement on behalf of the Commission.

11. AGREEMENT FOR BACK OFFICE SYSTEM AND CUSTOMER SERVICE CENTER OPERATIONS FOR THE 91 EXPRESS LANES IN ORANGE AND RIVERSIDE COUNTIES

Page 167

Overview

This item is for the Commission to:

- 1) Award Agreement No. 19-31-059-00 among the Orange County Transportation Authority (OCTA), Riverside County Transportation Commission (RCTC), and Cofiroute USA, LLC (Cofiroute) to provide back-office system (BOS) and customer service center (CSC) operations services for the 91 Express Lanes (91EL) in Orange and Riverside Counties in an amount of \$88,591,344, plus a contingency amount of \$1,850,000, for a total amount not to exceed \$90,441,344;

- 2) Authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement, including options years, on behalf of the Commission;
- 3) Authorize the Executive Director or designee to approve the use of the contingency amount as may be required by the project; and
- 4) Authorize the payment of pass-through items in an amount not to exceed \$10.5 million.

12. ITEM(S) PULLED FROM CONSENT CALENDAR AGENDA

13. COMMISSIONERS / EXECUTIVE DIRECTOR REPORT

Overview

This item provides the opportunity for the Commissioners and the Executive Director to report on attended meetings/conferences and any other items related to Commission activities.

14. CLOSED SESSION

14A. CONFERENCE WITH REAL PROPERTY NEGOTIATORS

Pursuant to Government Code Section 54956.8

Agency Negotiator: Executive Director or Designee

Item	APN(s)	Property Owner	Buyer(s)
1	102-092-030, 102-092-031, 102-101-002, 102-101-033, 102-101-035, 102-101-037	RCTC	JDI Ventures Real Estate LLC
2	118-160-021	RCTC	JDI Ventures Real Estate LLC
3	117-111-005	RCTC	JDI Ventures Real Estate LLC
4	117-112-001 and 117-112-002	RCTC	Cruz Ortega
5	117-112-014 and 117-112-015	RCTC	JDI Ventures Real Estate LLC
6	117-122-001 and 117-122-002	RCTC	JDI Ventures Real Estate LLC

14B. CONFERENCE WITH REAL PROPERTY NEGOTIATORS

Pursuant to Government Code Section 54956.8

Agency Negotiator: Executive Director or Designee

Item	APN(s)	Property Owner	Buyer(s)
1	465-030-024	Lisa Li Ju Chen	RCTC

15. ADJOURNMENT

The next meeting of the Commission is scheduled to be held on **Wednesday, December 11, 2019**, Board Room, First Floor, County Administrative Center, 4080 Lemon Street, Riverside.

AGENDA ITEM 6

MINUTES

RIVERSIDE COUNTY TRANSPORTATION COMMISSION

MEETING MINUTES

Thursday, October 17, 2019

1. CALL TO ORDER

The Riverside County Transportation Commission was called to order by Chair Chuck Washington at 9:36 a.m. in the Board Room at the County of Riverside Administrative Center, 4080 Lemon Street, First Floor, Riverside, California, 92501.

2. ROLL CALL

Commissioners/Alternates Present

Rusty Bailey
Mike Beauchamp
Brian Berkson
Randall Bonner
Joseph DeConinck
Dean Deines
Kathleen Fitzpatrick**
Raymond Gregory**
Jan Harnik**
Jeff Hewitt
Kevin Jeffries
Andrew Kotyuk
Bob Magee
Scott Matas**

Michael Naggar
V. Manuel Perez
Dana Reed**
Wes Speake
Karen Spiegel
Larry Smith
Michael M. Vargas
Scott Vinton
Chuck Washington
Ted Weill**

Commissioners Absent

Victoria Baca
Ben J. Benoit
Waymond Fermon
Berwin Hanna
Steven Hernandez
Linda Krupa
Clint Lorimore
Lisa Middleton
Lloyd White
Art Welch

**Commissioners that teleconferenced into the meeting.

3. PLEDGE OF ALLEGIANCE

Commissioner Bob Magee led the Commission in a flag salute.

At this time, Chair Washington asked if there were any requests to speak, as the Commission will come back to Agenda Item 4 to present the service award.

4. PUBLIC COMMENTS

There were no requests to speak.

5. ADDITIONS / REVISIONS

There were no additions or revisions to the agenda.

6. APPROVAL OF MINUTES – SEPTEMBER 11, 2019

M/S/C (Naggar/Smith) to approve the September 11, 2019 minutes as submitted.

Abstain: Deines

7. CONSENT CALENDAR

Commissioner Jeff Hewitt requested to pull Agenda Item 7D, *“Economic Impact Study”*, for further discussion.

M/S/C (Kotyk/Perez) to approve the following Consent Calendar items.

Abstain: Speake on Agenda Item 7H

No: Jeffries on Agenda Item 7G

7A. QUARTERLY SALES TAX ANALYSIS

Receive and file the sales tax analysis for Quarter 1, 2019.

7B. QUARTERLY FINANCIAL STATEMENTS

Receive and file the Quarterly Financial Statements for the year ended June 30, 2019.

7C. QUARTERLY INVESTMENT REPORT

Receive and file the Quarterly Investment Report for the quarter ended June 30, 2019.

7E. CITY OF WILDOMAR FUNDING REQUEST FOR CONSTRUCTION OF BUNDY CANYON ROAD WIDENING PROJECT

- 1) Approve programming \$3,516,000 of Measure A Regional Arterial (MARA) funds for the city of Wildomar’s Bundy Canyon Road Widening – Segment 1 project;
- 2) Approve Agreement No. 20-72-011-00 between the Commission and the city of Wildomar for the programming of \$3,516,000 of MARA for the construction phase of the Bundy Canyon Road Widening – Segment 1 project; and

- 3) Authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement.

7F. NEXT GENERATION RAIL CORRIDORS ANALYSIS REPORT

Accept the Next Generation Rail Corridors Analysis Report.

7G. COUNTYWIDE TRANSPORTATION IMPROVEMENT & TRAFFIC RELIEF PLAN: VISION, GOALS, AND OBJECTIVES

- 1) Receive background information on the Traffic Relief Strategy Committee; and
- 2) Discuss the vision, goals, and objectives of the Countywide Transportation Improvement & Traffic Relief Plan.

7H. APPROVAL OF UTILITY AGREEMENT AMENDMENT WITH SOUTHERN CALIFORNIA GAS FOR STATE ROUTE 71/STATE ROUTE 91 INTERCHANGE PROJECT

- 1) Approve Agreement No. 18-31-103-01, Amendment No. 1 to Agreement No. 18-31-103-00, with Southern California Gas (SCG) for construction of utility relocations for the State Route 71/SR-91 Interchange (71/91 IC) project in the amount of \$338,255, plus a contingency amount of \$33,825, for an additional amount of \$372,080, and a total amount not to exceed \$3,552,115;
- 2) Authorize the Executive Director, pursuant to legal counsel review, to execute the agreement on behalf of the Commission; and
- 3) Authorize the Executive Director or designee to approve the use of the contingency amount as may be required for this utility relocation agreement.

8. 2020 STATE TRANSPORTATION IMPROVEMENT PROGRAM ADOPTED FUND ESTIMATE AND PROJECT RECOMMENDATIONS

Shirley Medina, Planning and Programming Director, presented the 2020 State Transportation Improvement Program (STIP) adopted Fund Estimate and project recommendations, highlighting the following:

- 2020 STIP:
 - Adoption – March 25, 2020 CTC meeting
 - Statewide new programming capacity - \$407 million
 - Riverside County new programming capacity - \$21.274 million
- Lower STIP Fund Estimate due to:
 - Overestimated 2018 STIP Revenues, over programming

- 2018 STIP projects were advanced to match SB 1 allocations
 - Fuel efficiencies
- Benefits of SB 1:
 - Increased the incremental excise tax to 17.8 cents per gallon in FY 2019/20 with annual adjustments for inflation beginning in FY 2020/21
 - Added \$100 million per year to STIP
 - Stabilize revenues in future STIP cycles
- Past STIP cycles from 2008 – 2020
- 2020 STIP Fund Estimate for Riverside County
- 2020 STIP Programming – Western County project recommendation:
 - 71/91 Interchange, \$66,376,513
 - Palo Verde Valley STIP trade approved at July Commission meeting, \$89,649 included in above total for Western County
 - Western Riverside County share \$16,286,864
 - \$50 million from AB 3090 replacement (previously on I-15 Express Lanes South)
 - 71/91 Interchange is high priority in the 2019-2029 Delivery Plan
 - 71/91 Interchange has approved: PSR, B/C analysis, environmental document
 - Design and right of way near complete
 - Construction funding complete with other fund sources and/or competitive programs
- 71/91 Interchange Improvement project map/rendering
- 2020 STIP programming: Coachella Valley recommendation - \$4,472,007
 - I-10/Avenue 50 Interchange, \$2 million
 - CVAG signal Synchronization Phase 2, \$2.472 million
 - 2 percent PPM - \$425,480
 - Proposed programming in FY 2022/23
 - 2018 STIP carryover Project
 - I-15 French Valley Parkway Interchange, \$47.6 million programmed in FY 2020/21

M/S/C (Naggar/Vargas) to:

- 1) Approve programming \$16,376,513 of 2020 State Transportation Improvement Program (STIP) Western Riverside County and Palo Verde Valley funding capacity and \$50 million made available from the STIP AB 3090 replacement placeholder for a total of \$66,376,513 to the State Route 71/State Route 91 (71/91) Direct Connector project, and forward to the California Transportation Commission (CTC);**
- 2) Include programming \$4,472,007 of 2020 STIP Coachella Valley funding capacity based on the project recommendation by the Coachella Valley Association of Governments (CVAG) and forward to the CTC;**

- 3) **Include programming Planning, Programming, and Monitoring (PPM) funds (2 percent of STIP programming capacity) in the amount of \$425,480 in Fiscal Year 2022/23;**
- 4) **Submit the 2020 STIP submittal to CTC by the statutory deadline of December 15, 2019;**
- 5) **Forward the Riverside County 2020 STIP project recommendations to the Southern California Association of Governments (SCAG) to conduct regional performance measures analysis as required by the CTC STIP guidelines;**
- 6) **Approve Agreement No. 07-71-028-03, Amendment No. 3 to Agreement No. 07-71-028-00, with the city of Blythe (Blythe) to trade \$89,649 of Palo Verde Valley STIP funds with Measure A Western Riverside County Highway funds to facilitate delivery of local arterial projects;**
- 7) **Authorize the Executive Director, pursuant to legal counsel review, to execute Agreement No. 07-71-028-03 on behalf of the Commission upon CTC adoption of the 2020 STIP in March 2020; and**
- 8) **Authorize the Executive Director to seek and pursue competitive funding opportunities for the 71/91 Interchange project.**

At this time, Chair Washington stated since Agenda Items 9 and 10 are receive and file, he requested the Commission go to Agenda Items Pulled from Consent Calendar for Discussion.

9. STATE AND FEDERAL LEGISLATIVE UPDATE

Jillian Guizado, Planning and Programming Manager, presented an update for the state and federal legislative activities, and bills that have been passed by the Legislature.

Receive and file an update on state and federal legislation.

10. STATE ROUTE 60 TRUCK LANES PROJECT UPDATE

Cheryl Donahue, Public Affairs Manager, announced this morning on State Route 60 between 9:00 a.m. and 2:30 p.m. heading east there would be one lane closed as Caltrans is doing a weed abatement program. She then presented an update for the SR-60 Truck Lanes project, highlighting the following:

- Improving Safety, relieving traffic:
 - Construction began in June
 - Current focus: excavation, drainage, wildlife crossings, dust control, and safety
 - \$113 million investment
- Roadway excavation:
 - Moving 2.1 million yards- about 15,000 per day

- Saving 14,000 truck trips
 - Weekend closure, October 12-13
 - For safety of passing motorists and crews – removal of giant rocks
 - Delays no more than 30 minutes
- Drone footage was played of the work that was completed October 12-13
- Cleared hillside photo after those rocks were removed
- News coverage related to the October 12-13 closure
- Other outreach efforts
- Drainage systems:
 - Extending 123 drainage systems
 - Purpose is to collect, remove water from the roadway
 - Using 15,000 feet of pipe project-wide
- Wildlife Crossings:
 - Building two 20' x 20' wildlife crossings beneath SR-60
 - Will allow daylight to enter so that animals will use the crossings
- Dust control – Constructed two temporary water reservoirs
- Corridor safety – 55 mph speed limit; 24/7 CHP enforcement in project limits; speed feedback signs; citations doubled in construction area; and CHP, CalFire attending weekly meetings; regular communication
- Corridor collisions – Monitoring corridor safety data with CHP; one tragic collision caused two fatalities on September 5, due to reckless driving by another motorist; most collisions are causing no injuries or minor injuries; and CHP: slower speeds in corridor are helping reduce severity
- Stay connected

In regards to Commissioner Rusty Bailey's inquiry about having cameras on the wildlife corridors, Cheryl Donahue replied she is unsure if there will be cameras or not but she will ask.

Commissioner Bailey explained it would be a great public relations move to show the investment on why the Commission is doing this, which is the Commission appreciates the habitat and species. This could be a fun way to connect with the public on some of the good things the Commission is doing.

Commissioner Wes Speake clarified his company did the work for Caltrans on that project and the possibility as there is quite a bit of wildlife and if there was an opportunity to put up a camera there would be some really cool wildlife to see such as bob cats. He explained they did some corridor studies for Caltrans on Highway 138 that really showed a variety of wildlife.

In response to Commissioner Michael Vargas' request that the Commission do a simplified one-page notice with the closures on the weekends to post it on social media as opposed

to a link, Cheryl Donahue replied absolutely as staff has that as a one-page pdf and will get that sent to Commissioner Vargas.

Chair Washington requested to put Commissioner Vargas on the notification list.

Commissioner V. Manual Perez expressed concern about the collisions in the construction area, the fatality and how the Commission cannot control everything. He asked if the Commission is doing everything it can to ensure it does not happen again, what was learned from that, requested more information and what are the next steps.

Cheryl Donahue discussed the details of what occurred with the fatalities on September 5 due to a reckless driver that attempted to pass illegally on the westbound shoulder. She explained there were discussions with the CHP about the incident and they are noting it as reckless driving and are charging the motorist with that. In terms of what was learned, staff has driven through there and the conditions that are in place are as safe as they can be. She expressed unfortunately this motorist chose to break the law.

At this time, Chair Washington noted the Commission has not finished the vote for Agenda Item 7D, *"Economic Impact Study"* and since there is not a quorum Chair Washington asked legal counsel if the vote can be cancelled.

Steve DeBaun concurred and stated cancel the vote and this item can be brought back to the November Commission meeting.

Receive an oral report for the State Route 60 Truck Lanes Project.

11. ITEM(S) PULLED FROM CONSENT CALENDAR FOR DISCUSSION

This item was taken out of order per the Chair in an effort to hear items that required a vote first. Commissioner Hewitt commented on why he is voting no on this agenda item, since the first two phases the Commission will be going into are redundant. He stated when the Commission gets into phases 3 and 4 more money is being spent on trying to pass another half-cent sales tax. He expressed this sales tax has a zero chance at passing and he has been against it from the beginning and wants these to stay as local transportation funds.

At this time, Commissioner Andrew Kotyuk left the meeting.

7D. ECONOMIC IMPACT STUDY

M/S/C (Reed/Naggar) to:

- 1) **Approve Agreement No. 20-19-012-00 to University of California, Riverside (UCR) School of Business, Center for Economic Forecasting & Development (UCR Center) to perform an economic impacts analysis related to the investment of an additional sales tax for transportation improvements in Riverside County in an amount not to exceed \$199,500; and**
- 2) **Authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement on behalf of the Commission.**

Due to a lack of a quorum, Chair Washington requested the Commission go back to Agenda Item 9, *"State and Federal Legislative Update"*.

At this time, Chair Washington suggested due to having additional quorum challenges to take a vote on Agenda Item 7D and hold the vote open until Commissioner Kotyuk rejoins the meeting.

At this time, Clerk of the Board Lisa Mobley, began the verbal vote on Agenda Item 7D.

Commissioner Spiegel expressed concern with the way the voting was occurring and stated she would not be voting.

In response to Chair Washington's request to elaborate on what Commissioner Spiegel's concern is with the vote, Commissioner Spiegel stated a government agency playing the game of in and out with not all members in the room; she has an issue with that.

Chair Washington requested clarification from legal counsel that this is a legitimate way to conduct a vote.

Steve DeBaun, Legal Counsel, stated he does not see any reason why it cannot be because once the vote is started people do leave the room that he has seen with other agencies. However, he does not see a restriction on actually starting the vote and finishing when that Commissioner returns.

Commissioner Spiegel stated the vote was not started with a quorum.

Steve DeBaun replied the vote would be finished and booked with a quorum.

At this time, Chair Washington stated the vote is still open due to a lack of a quorum. The Commission resumed and finished discussion on Agenda Item 9, *"State and Federal Legislative Update"* and Agenda Item 10, *"State Route 60 Truck Lanes Project Update."*

At this time, Commissioner Naggar left the meeting.

Due to a lack of a quorum, the vote was cancelled on Agenda Item 7D, and the *"Economic Impact Study"* will be brought back to the November Commission.

12. COMMISSIONERS/EXECUTIVE DIRECTOR'S REPORT

- 12A.** Commissioner Spiegel announced in District 1 they are working on the expansion of Temescal Canyon Road, as there is a roadway next to I-15, which is not on SR-91 and is why there is such a chokehold at Green River. She expressed there is no other alternative to get into Orange County and discussed how Temescal Canyon has been running but is backed up if not worse than SR-91 some days. She stated the compliment is to keep extending Temescal Canyon expansion up to I-15 at Ontario. At the November meeting, WRCOG staff is recommending approval of a \$3 million allocation from TUMF for Phase II of this project, which is the northern portion. The County has \$1 million for this project for a total of \$4 million and the design and environmental is estimated at \$3.5 million. She stated the challenging part is the property acquisition that will be needed.
- 12B.** Commissioner Smith announced that about seven days ago the city of Calimesa suffered a tragic loss due to a fire. He expressed gratitude to the Commissioners and his colleagues that reached out personally to express concern about what was going on in the city of Calimesa. He requested the continuation of everyone's thoughts and prayers for those folks in Calimesa who lost their homes and the loss of life. He expressed the city's staff of 12 is doing yeoman's work currently and managing a community that has been disrupted. He expressed his belief Calimesa will come out on the backside as a much stronger community.
- 12C.** Commissioner Hewitt announced in regards to the fire in Calimesa, it was probably the largest loss of structures in the County's history with 74 confirmed. He pointed out that when things happen so quickly transportation is important for ways out. I-10 was backed up and watching this unfold and as it is seen just the connection from Singleton Road to Bryant Street would have opened up to relieve a lot of that pressure, which will happen either later this year or by next year. He expressed gratitude to the first responders especially the Calimesa Fire Department and Cal Fire that came in and gave them all they needed to stop the fire at 1,000 acres.
- 12D.** Commissioner Bailey announced that every eight years they go through a Regional Housing Needs Assessment per state law. SCAG is tasked with coming up with a methodology that allocates a number to each city and into the unincorporated area of the County. He is a member of the SCAG Subcommittee representing Riverside County that has been meeting on this subject to try to come up with a better methodology and discussed their meeting from last week. He expressed concern with the SCAG Subcommittee proposal in terms of the methodology to be used to allocate the 1.34 million housing units. The Community, Economic and

Human Development Committee is meeting October 21, which is the next vote on the methodology before it goes to the Regional Council and expressed concern the numbers are troubling for the Inland counties compared to the coastal counties. He stated they are just playing into urban sprawl and can do better and that was his message as he voted against it and tried to come up with another option at the SCAG Subcommittee meeting, which was a 3-3 tie and the Chair broke that tie. He stated the region needs to engage on this as it does not address the jobs/housing balance and we need to do better.

Anne Mayer replied she has heard about the numbers and the conversations and she wanted to tie it back into Jillian Guizado's presentation. There is going to be an effort to link transportation investments to housing density and it is interesting in that the housing units are all coming out into Riverside and San Bernardino Counties. She stated yet the money is all going to all the coastal cities and the density in Los Angeles and San Francisco. Anne Mayer explained she is interested in hearing the Commissioners direction on how they would like the Commission to engage because the link between the housing numbers and the transportation investment has never been more clear.

At this time, Commissioner Jeffries left the meeting.

Chair Washington stated the Commission is going to go back to Agenda Item 4, to present an employee service award.

Anne Mayer, Executive Director, presented a 15-year service award to Commuter and Motorist Assistance Manager, Brian Cunanan.

Due to a lack of a quorum the Agenda Item 13, "Closed Session", was postponed until the November Commission.

13. CLOSED SESSION

13A. CONFERENCE WITH REAL PROPERTY NEGOTIATORS

Pursuant to Government Code Section 54956.8

Agency Negotiator: Executive Director or Designee

Item	APN(s)	Property Owner	Buyer(s)
1	102-092-030, 102-092-031, 102-101-002, 102-101-033, 102-101-035, 102-101-037	RCTC	MG Hospitality

14. ADJOURNMENT

There being no further business for consideration by the Riverside County Transportation Commission, Chair Washington adjourned the meeting at 10:33 a.m. The next Commission meeting is scheduled to be held at 9:30 a.m., Wednesday, November 13, 2019, Board Chambers, First Floor, County Administrative Center, 4080 Lemon Street, Riverside.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Lisa Mobley", with a long horizontal flourish extending to the right.

Lisa Mobley
Clerk of the Board

AGENDA ITEM 7A

<i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i>	
DATE:	November 13, 2019
TO:	Riverside County Transportation Commission
FROM:	Jose Mendoza, Senior Procurement Analyst Matt Wallace, Procurement Manager
THROUGH:	Anne Mayer, Executive Director
SUBJECT:	Single Signature Authority Report

STAFF RECOMMENDATION:

This item is for the Commission to receive and file the Single Signature Authority report for the first quarter ended September 30, 2019.

BACKGROUND INFORMATION:

Certain contracts are executed under single signature authority as permitted in the Commission's Procurement Policy Manual adopted in September 2019. The Executive Director is authorized to sign services contracts that are less than \$250,000 individually and in an aggregate amount not to exceed \$1.5 million in any given fiscal year. Additionally, in accordance with Public Utilities Code Section 130323(c), the Executive Director is authorized to sign contracts for supplies, equipment, materials, and construction of all facilities and works under \$50,000 individually.

The attached report details all contracts that have been executed for the first quarter ended September 30, 2019, under the single signature authority granted to the Executive Director. The unused capacity of single signature authority for services at September 30, 2019 is \$1.5 million.

Attachment: Single Signature Authority Report as of September 30, 2019

SINGLE SIGNATURE AUTHORITY

AS OF September 30, 2019

CONSULTANT	DESCRIPTION OF SERVICES	ORIGINAL CONTRACT AMOUNT	PAID AMOUNT	REMAINING CONTRACT AMOUNT
AMOUNT AVAILABLE July 1, 2019		\$1,500,000.00		
*No contracts to report for first quarter.				
AMOUNT USED		0.00		
AMOUNT USED		0.00		
AMOUNT REMAINING through September 30, 2019		\$1,500,000.00		
<hr/>				
<u>Agreements that fall under Public Utilities Code 130323 (C)</u>				
None	N/A	\$-	\$-	\$-
<hr/>				
Jose Mendoza	Theresia Trevino			
Prepared by	Reviewed by			

Note: Shaded area represents new contracts listed in the first quarter.

AGENDA ITEM 7B

<i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i>	
DATE:	November 13, 2019
TO:	Riverside County Transportation Commission
FROM:	Traffic Relief Strategy “Committee of the Whole”
SUBJECT:	Revenue Estimate for Countywide Transportation Improvement and Traffic Relief Plan

TRAFFIC RELIEF STRATEGY “COMMITTEE OF THE WHOLE” RECOMMENDATION:

This item is for the Commission to approve a revenue estimate to guide development of the countywide Traffic Relief Plan (Plan).

BACKGROUND INFORMATION:

An initial step in the development of the Plan is the estimation of projected revenues to fund the Plan. Determining a revenue estimate is critical for several reasons:

- It creates a reasonable constraint to the scope and size of the Plan;
- It ensures the Plan is achievable, which assists voters to have a reasonable expectation the Plan will be achieved;
- It provides transparent information to the public regarding the estimated revenue that may be generated from a sales tax and what it could accomplish; and
- State law requires the Commission to declare an approximate amount of annual revenue generated by a ballot measure.

The Traffic Relief Strategy “Committee of the Whole” voted unanimously in a public meeting to approve a revenue estimate to guide the development of the Plan.

DISCUSSION:

The University of California, Riverside School of Business, Center for Economic Forecasting & Development (UCR Center), through a partnership with Beacon Economics (Beacon), is a leading economic research and consulting center for the Inland Empire. The UCR Center team has extensive economic analysis and forecasting experience. The UCR Center presents an annual economic conference that includes its Inland Empire analysis and forecasts in addition to national and state forecasts. As a result of the UCR Center’s experience and understanding of the Inland Empire, it is a vital community partner and resource to businesses and local governments.

The UCR Center and Beacon have provided long-term sales tax forecasting services to the Commission since 2013. The Commission also obtained economic impact studies from Beacon related to the State Route 91 Corridor Improvement Project and the Interstate 15 Express Lanes Project for inclusion in federal loan and grant submittals. At its October meeting, the Commission

approved an agreement with the UCR Center to perform an economic impacts analysis related to the investment of an additional sales tax for transportation improvements in Riverside County. Considering the UCR Center's familiarity with the Commission, Riverside County and the Inland Empire, and Measure A, Commission staff engaged the UCR Center to estimate the revenue from an increase in the sales tax rate in Riverside County using the California Department of Finance (DOF) demographic forecasts and an alternative demographic forecast.

- According to the UCR Center, the DOF demographic model relies on net migration calculated based on total population and distributed equally based on age groups. This method does not account for shifts in net migration between generations and, therefore, does not accurately depict changes in demographics. The net migration allocation results in sharply different patterns of age in the region than what current data shows is occurring. The differences in age impact estimates of future growth as well as taxable sales. Further, the DOF estimates do not consider home production, and the link between home production and sales tax growth is important to long-term revenue projections.
- Beacon developed a modified demographic forecast using a net migration model derived from historic trends based on each age group, resulting in a more comprehensive understanding of changes in population and more accurate total population estimate. Beacon's model also uses economic variables such as home prices and unemployment as drivers for population.

The sales tax estimate using the DOF demographic forecast is 6.1 percent higher than the sales tax estimate using Beacon's alternative demographic forecast. The Fiscal Year 2019 sales tax estimates under the Beacon and DOF scenarios were comparable to each other and reasonable when benchmarked to the actual FY 2019 results. Staff also compared the two sales tax estimates and found that the DOF scenario estimate resulted in higher year-over-year growth rates than the Beacon scenario estimate.

While any revenue projection is not a guarantee of actual revenues, the Beacon scenario revenue estimate is reasonable and more conservative than the DOF scenario revenue estimate. Using this revenue estimate demonstrates the Commission's continued prudent conservatism for revenue projections.

The revenue estimate is presented in Attachment 1, which includes subregional revenue estimates based on a return to source allocations. This reinforces the importance of each subregion retaining the funding generated in each subregion:

- Western County
- Coachella Valley
- Palo Verde Valley

The Committee recommends the approval of the revenue estimate presented in Attachment 1 to guide the development of the Plan.

Attachment: Riverside County Revenue Projection for New Expenditure Plan

Riverside County Revenue Projection for New Expenditure Plan
Amounts in 2020 Real \$

FY	Projected Revenue ¹	Allocation by Geographic Area			
		WC	CV	PV	Total
2022	\$ 214,710,494	\$ 167,724,996	\$ 46,052,146	\$ 933,352	\$ 214,710,494
2023	220,185,206	172,001,667	47,226,389	957,151	220,185,206
2024	225,714,821	176,321,226	48,412,407	981,188	225,714,821
2025	231,099,968	180,527,931	49,567,440	1,004,598	231,099,968
2026	236,182,642	184,498,354	50,657,596	1,026,692	236,182,642
2027	241,243,220	188,451,516	51,743,013	1,048,690	241,243,220
2028	246,413,445	192,490,331	52,851,948	1,071,166	246,413,445
2029	251,591,898	196,535,573	53,962,648	1,093,676	251,591,898
2030	256,875,126	200,662,663	55,095,820	1,116,643	256,875,126
2031	262,136,830	204,772,939	56,224,376	1,139,516	262,136,830
2032	267,374,913	208,864,762	57,347,865	1,162,286	267,374,913
2033	272,510,602	212,876,599	58,449,393	1,184,611	272,510,602
2034	277,529,703	216,797,361	59,525,914	1,206,429	277,529,703
2035	282,385,445	220,590,512	60,567,397	1,227,537	282,385,445
2036	287,096,591	224,270,709	61,577,866	1,248,016	287,096,591
2037	291,749,672	227,905,547	62,575,881	1,268,243	291,749,672
2038	296,325,395	231,479,956	63,557,305	1,288,134	296,325,395
2039	300,867,668	235,028,235	64,531,553	1,307,879	300,867,668
2040	305,375,633	238,549,714	65,498,444	1,327,476	305,375,633
2041	309,758,408	241,973,398	66,438,482	1,346,528	309,758,408
2042	313,788,806	245,121,816	67,302,941	1,364,048	313,788,806
2043	317,721,053	248,193,562	68,146,349	1,381,142	317,721,053
2044	321,579,070	251,207,322	68,973,835	1,397,912	321,579,070
2045	325,327,122	254,135,181	69,777,735	1,414,205	325,327,122
2046	328,967,557	256,978,973	70,558,554	1,430,030	328,967,557
2047	332,567,099	259,790,820	71,330,601	1,445,678	332,567,099
2048	336,175,362	262,609,481	72,104,518	1,461,363	336,175,362
2049	339,812,355	265,450,584	72,884,598	1,477,173	339,812,355
2050	343,479,115	268,314,940	73,671,063	1,493,113	343,479,115
2051	347,135,693	271,171,342	74,455,343	1,509,008	347,135,693
	<u>\$ 8,583,680,911</u>	<u>\$ 6,705,298,010</u>	<u>\$ 1,841,069,418</u>	<u>\$ 37,313,482</u>	<u>\$ 8,583,680,911</u>
Subregional Return to Source ²					
		78.1%	21.4%	0.4%	100.0%

Source: Revenue projections per UCR Center for Economic Forecasting and Development updated September 4, 2019)

¹ Scenario is a new 1/2-cent sales tax beginning 7/1/2021 through 6/30/2051

² Assuming revenues are allocated to Western County, Coachella Valley, and Palo Verde Valley areas proportionate to the funds generated within those areas, these percentages represent the taxable sales for each geographic area generated in FY 2018, the most recent data available. Such allocations are subject to change annually.

AGENDA ITEM 7C

<i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i>	
DATE:	November 13, 2019
TO:	Riverside County Transportation Commission
FROM	Cheryl Donahue, Public Affairs Manager
THROUGH:	Anne Mayer, Executive Director
SUBJECT:	Quarterly Public Engagement Metrics Report, July – September 2019

STAFF RECOMMENDATION:

This item is for the Commission to receive and file the Quarterly Public Engagement Metrics Report for July – September 2019.

BACKGROUND INFORMATION:

Staff continues to measure public engagement activities and prepare Quarterly Public Engagement Metrics Reports for the Commission, a practice that began in early 2018. This report covers the third quarter of 2019, from July to September. The quarterly reports are a data-driven approach to monitor the Commission’s progress toward public engagement goals, to assess the effectiveness of its efforts, and to provide transparency into how the Commission is using its resources to engage with the public.

This quarterly report includes three sets of data:

- 1) Metrics for RCTC’s overall public engagement activities, including website use and access; website top pages visited; email notifications; social media likes, engagement and reach; and public sentiment
- 2) Metrics for RCTC’s Interstate 15 Express Lanes Project public engagement activities, including email activity, website sessions, and social media.
- 3) Metrics for the State Route 60 Truck Lanes Project. Note that these numbers remain small, due to only five months of data.

The quarterly report will evolve as staff refines its approaches to measuring public engagement activities and in response to any feedback from Commissioners. Staff will continue to add new project-related metrics as other projects begin.

Report highlights for this quarter follow and are included in a graphical format. It is important to note that most of the social media metrics show a decline this quarter, due to a planned decrease in digital advertising expenditures.

RCTC Overall Public Engagement

1) Website

- a. For the quarter, there were 34,234 website sessions, a 23 percent increase from last quarter's 27,950 sessions. There also were 21,761 unique users, a significant increase of 35 percent compared to the previous quarter's 16,107 unique users.
- b. Many of the visitors (42 percent) accessed the website through organic searches, such as Google. Another 29 percent used a direct search (keying in rctc.org). Others used social media (15 percent), and website referrals (13 percent).
- c. Website access via desktop versus mobile continues to see-saw. The third quarter showed 49 percent accessing the website through a desktop computer and 51 percent using mobile devices. During the second quarter of 2019, the ratio was 57 percent via a desktop computer and 43 percent via mobile devices.
- d. The homepage continues to be the most frequently visited page, followed by the SR-60 Truck Lanes page. The Employment page ranked third, and the French Valley Parkway Federal Grant page, which was a blog post, ranked fourth.

2) Social Media

- a. **Facebook:** At the end of the quarter, the Facebook page had 8,476 likes, a .3 percent increase over last quarter's 8,447 likes. The page had 8,289 forms of engagement, such as likes, comments and shares, a 70 percent reduction from last quarter's 27,584 forms of engagement. Facebook also had 823,030 impressions, which is the number of times that RCTC's content was displayed in news feeds. This was a large decrease – 74 percent – from last quarter's 3.1 million impressions. These decreases likely were due to less spending on digital advertising, compared to the previous quarter.
- b. **Twitter:** RCTC's Twitter page showed a 1 percent increase in followers, from 1,154 to 1,169. Engagement increased 47 percent, from 218 to 320. Impressions declined 13 percent from 60,296 to 52,672.
- c. **Instagram:** The Instagram page followers grew 9 percent, from 448 to 487 followers. Engagement grew 8 percent, from 309 forms of engagement to 334. Impressions increased 5 percent to 11,928, compared to last quarter's 11,311.
- d. Overall, public sentiment was positive, with strong engagement related to SR-60 lane closures, I-15 Express Lanes construction videos, rail safety, and community events.

- 3) RCTC's The Point:** RCTC continues to produce content for its online blog, *The Point*, and distributes this information and other news via email to subscribers. RCTC's subscribers grew 9 percent, from 3,260 to 3,555. Thirty-five percent of subscribers opened *The Point*, and 9 percent clicked on links to learn more.

Interstate 15 Express Lanes Construction Public Engagement

- 1) **Emails:** Total email list sign-ups since the project began grew to 2,622. This is a 2 percent increase over the 2,577 inquiries received through the end of last quarter. There also have been a total of 144 email inquiries, a 5 percent increase over the 137 inquiries through the end of last quarter.
- 2) **Website:** Total website visits since project inception grew to 56,019, a 12 percent climb from the 49,590 visits through the end of last quarter.
- 3) **Social Media:** The project's Facebook, Twitter and Instagram accounts all showed small gains. The Facebook page grew to 2,269 likes from 2,219 likes last quarter, a 2 percent increase. Twitter increased from 235 followers to 242, a 3 percent increase. Instagram followers increased 9 percent from 407 to 443.

State Route 60 Truck Lanes Construction Public Engagement

- 1) **Emails:** Total email list sign-ups since the project began grew to 263. This is a 331 percent increase* over the 61 inquiries received through the end of last quarter. There also have been a total of 77 email inquiries, a 15 percent increase over the 67 inquiries through the end of last quarter.
- 2) **Website:** Total website visits since project inception grew to 6,715, a 375 percent climb* from the 1,414 visits through the end of last quarter.
- 3) **Social Media:** The project's Facebook, Twitter and Instagram accounts all showed increases. The Facebook page grew to 314 likes from 115 likes last quarter, a 173 percent increase*. Twitter increased from 13 followers to 31, a 138 percent increase*. Instagram followers increased 180 percent* from 36 to 101.

*Please note that the SR-60 Truck Lanes Project is still new to the public. Small numbers result in large percentage increases for these metrics.

Attachments:

- 1) RCTC Overall Public Engagement Metrics
- 2) I-15 Express Lanes Construction Public Engagement Metrics
- 3) SR-60 Truck Lanes Construction Public Engagement Metrics

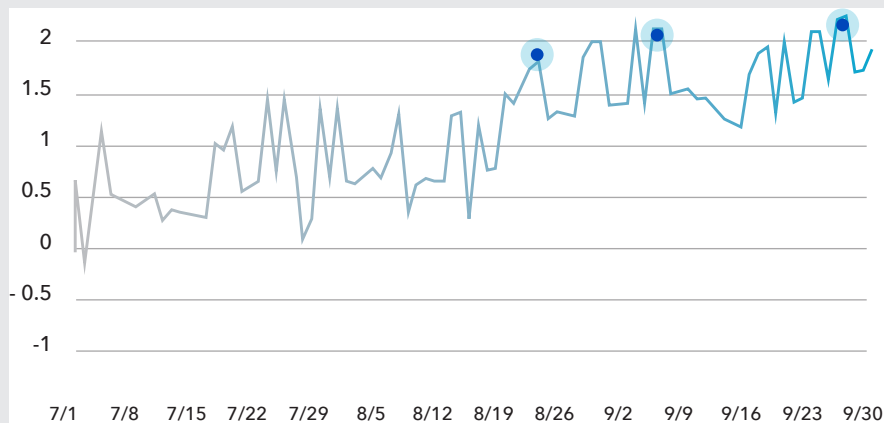


Public Engagement Metrics: Q3

ATTACHMENT 1

July - Sept 2019

Overall Social Media Sentiment



8/23 (+) State Route 60 Lane Closures causes engagement spike
9/5-6 (+) I-15 Express Lanes Videos generate dialogue
9/26-27 (+) Posts about rail safety, I-15, and community events increase positive sentiment

Eblasts



Subscribers
3,555

Average Open
35%

Average Click
9%

Web

34,234

Number of Sessions

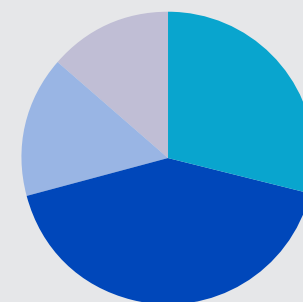
+22.5%

21,761

Number of Unique Users

+35%

Top Channels



Direct (29.1%) – 6,413
Organic (42%) – 9,261
Social (15.4%) – 3,402
Referral (13.5%) – 2,987

Differences

Paid advertising decreased in Q3.

Social Media



Page Likes

8,476

+0.3%

Engagement

8,289

-70%

Impressions

823,030

-74%



Twitter

Followers

1,169

+1%

Engagement

320

+47%

Impressions

52,672

-13%



Instagram

Followers

487

+9%

Engagement

334

+8%

Impressions

11,928

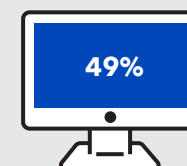
+5%

Top Pages Visited

Homepage is **#1** most visited page

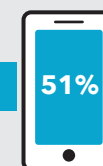
- Route 60 Truck Lanes
- Employment
- French Valley Parkway Federal Grant

Desktop vs Mobile Users

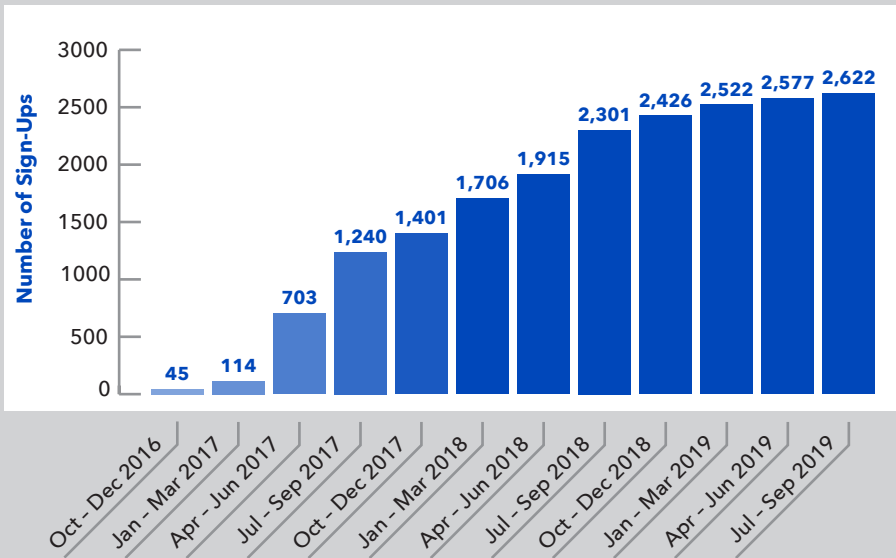


Desktop

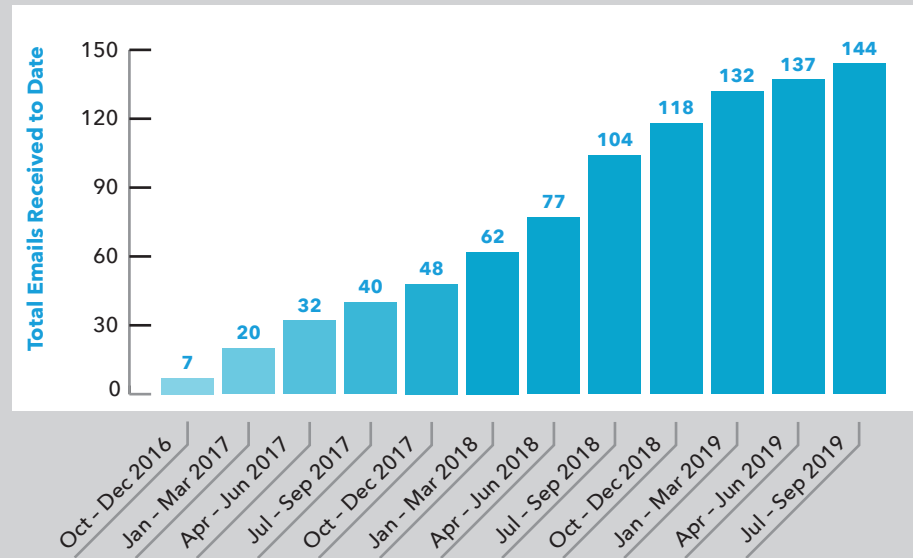
Mobile



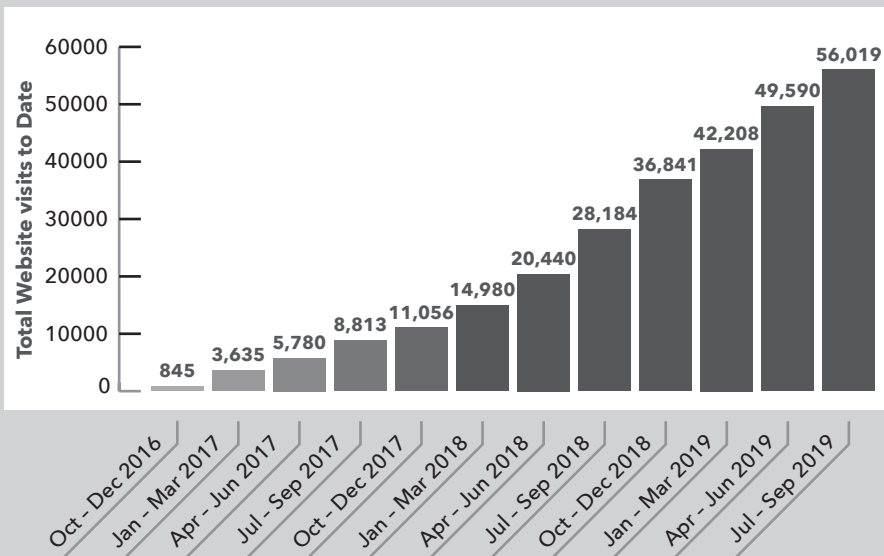
Email List Sign-Ups



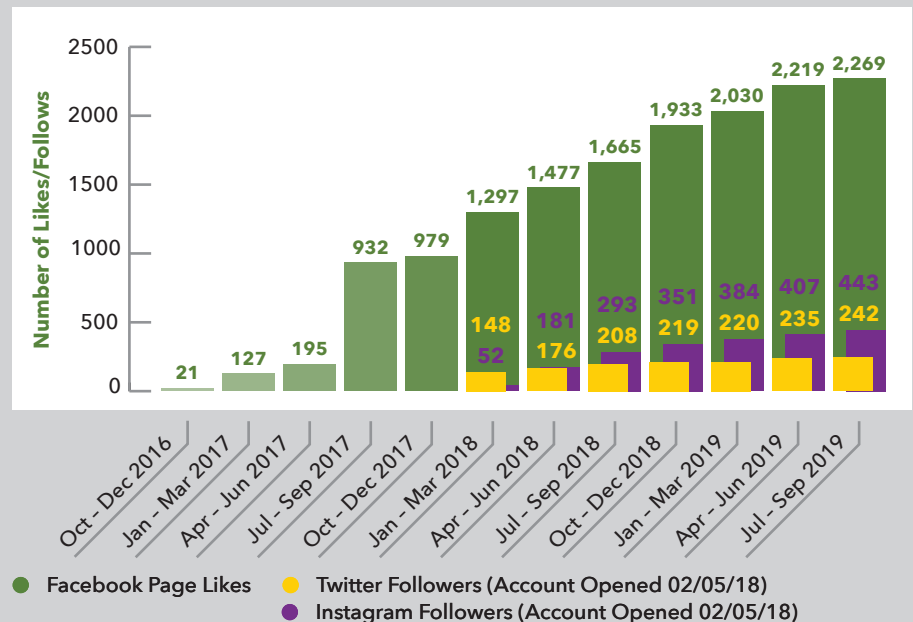
Emails Received



Website Visits

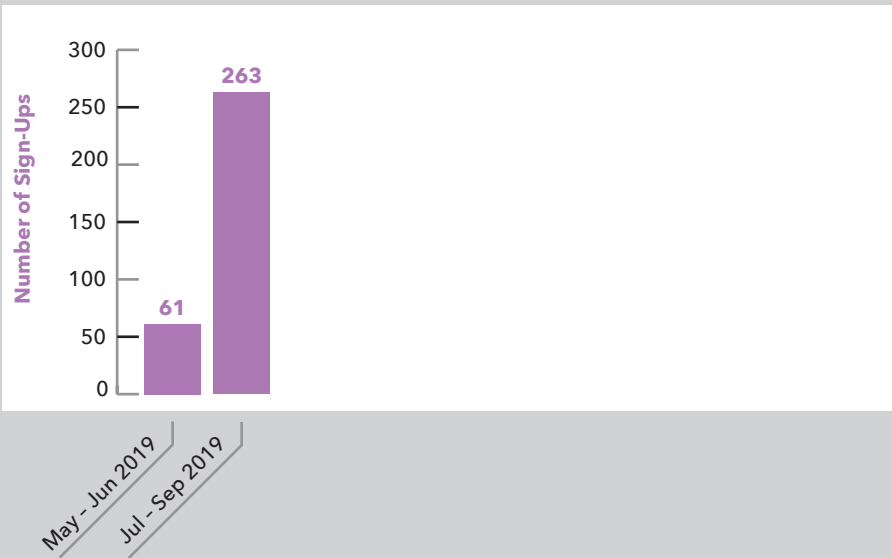


Social Media Likes/Follows





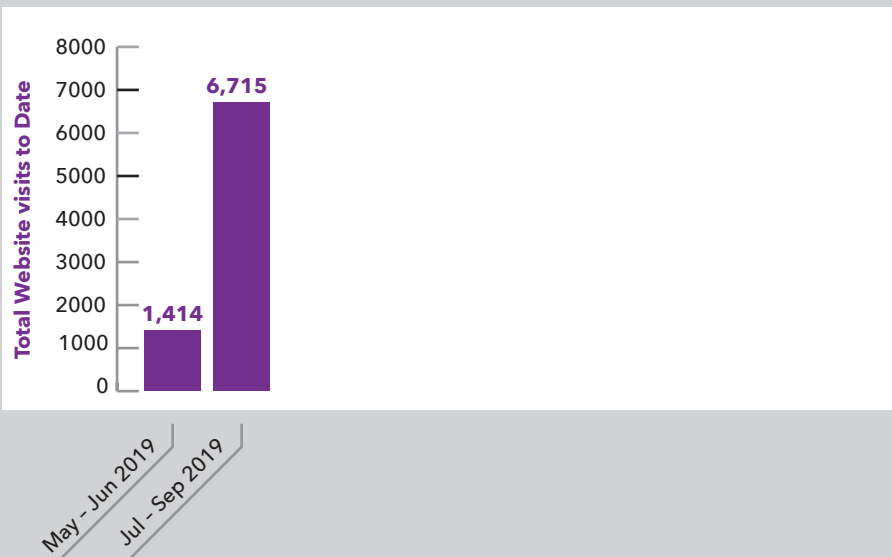
Email & Text Sign-Ups



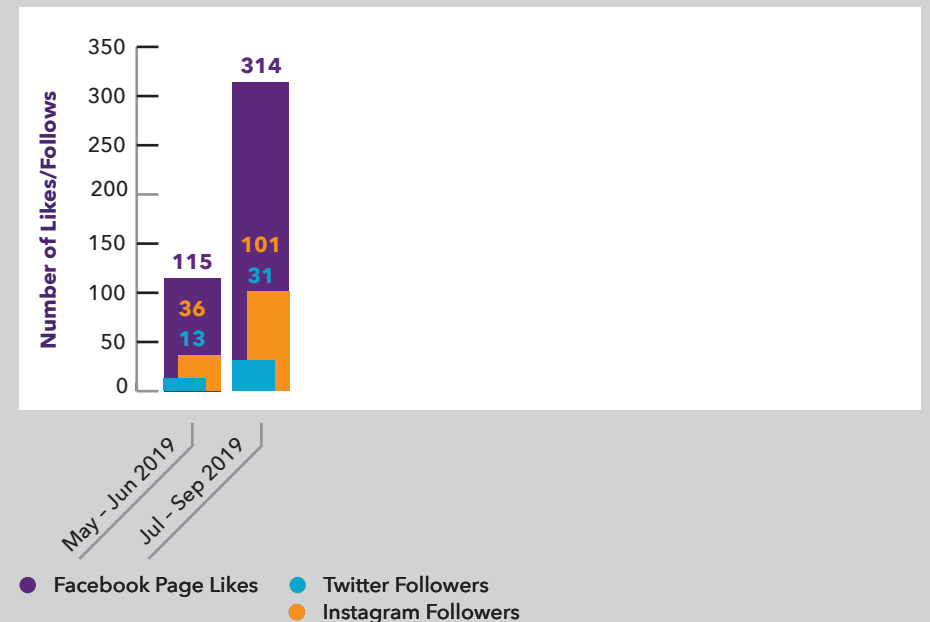
Emails to Project Team



Website Sessions



Social Media Likes/Follows



AGENDA ITEM 7D

<i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i>	
DATE:	November 13, 2019
TO:	Riverside County Transportation Commission
FROM:	Western Riverside County Programs and Projects Committee Jennifer Crosson, Toll Operations Manager
THROUGH:	Anne Mayer, Executive Director
SUBJECT:	Agreement for Express Lanes Consulting Services

WESTERN RIVERSIDE COUNTY PROGRAMS AND PROJECTS COMMITTEE AND STAFF RECOMMENDATION:

This item is for the Commission to:

- 1) Award Agreement No. 20-31-001-00 to HNTB Corporation for express lanes consulting services for a five-year term, plus two one-year options to extend the agreement, in an amount of \$10 million, plus a contingency amount of \$500,000, for a total amount not to exceed of \$10.5 million;
- 2) Authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement, including option years, on behalf of the Commission; and
- 3) Authorize the Executive Director or designee to approve the use of the contingency amount as may be required for these services.

BACKGROUND INFORMATION:

In March 2017, the Commission began operating the 91 Express Lanes. In mid-2020, the Commission will also begin operating the 15 Express Lanes. During the development and implementation of the express lanes, staff has been supported by the project and construction management consultant (PCM) team which includes toll experts. After the express lanes transition from development to operations, the support of the PCM curtails leaving staff without consultant support.

Over the past two and one-half years of operating the 91 Express Lanes, staff has had the need for consultant support on numerous occasions. Staff has utilized the 91 and 15 Express Lanes PCM and OCTA toll consultant to temporarily provide the needed support. With the continued need for long-term consultant support in toll operations, staff determined that the on-going operation of the Commission's express lanes would best be served by a dedicated express lanes consultant.

Staff assessed its needs and determined that the best approach was to issue a Request for Proposal (RFP) for a task order-based express lanes consultant contract. Staff developed a scope

of work that includes seven task categories based on a review of the needs over the past two and one-half years of operation and a future needs assessment. The seven tasks are as follows:

1. Express Lanes Planning and Policy Work
2. Technology and System Support
3. Customer Service and Toll Evasion Violation Support Technology
4. General Operations Support
5. Industry Representation
6. Express Lanes Performance
7. Express Lanes Financial Support

Exhibit A of Attachment 1 to this report includes the Statement of Services with a detailed description of the projected tasks. The work that could be performed ranges from simple short-term tasks such as assisting with the development of express lanes policies under Task 1 to longer-term tasks such as monitoring the toll service contractor's performance under Task 2 and Task 3.

The express lanes' operation is performed by toll services contractors. Staff expends much of its time providing oversight to these contractors and will be relying on the expertise of the Express Lanes Consultant to ensure the contractor is meeting the requirements of the contract, accurately processing transactions, properly maintaining the systems, and providing excellent customer service.

Additionally, the Express Lanes Consultant will provide staff with access to a wide variety of toll subject matter experts. The RFP requested that the proposer identify a subject matter expert as a task lead for each of the seven tasks. Those task leads will be available to assist staff with the wide variety of services detailed in Exhibit A of Attachment 1.

During the past eighteen months staff was challenged with deploying the new 6C transponder technology. This effort included: procuring 6C transponders, re-evaluating the existing account policies and seeking adoption of new policies, upgrading the in-lane toll system to accept the 6C transponders, creating customer communications to accompany the changes in account policies and technology, processing change orders to contracts to make the necessary system changes, working with the toll service contractors to design and test the system changes, coordinating legal matters regarding changes to policies and the required communication, and developing the roll-out plan for the replacement of transponders to over 150,000 account holders. While staff self-performed much of this work, toll operations staff's commitment to the on-going operation of the 91 Express Lanes and the design and development of the 15 Express Lanes Project and 15/91 Express Lanes Connector required them to enlist the help of several different PCM toll consultants to assist with the management of this work. The work performed on this task serves as a good example of how the proposed Express Lanes Consultant can complement the needs of the toll operations staff.

Staff developed a list of initial needs the Express Lanes Consultant may support in the coming year including the following:

- Evaluation of automated vehicle occupancy detection solutions
- Support of the 241/91 Express Connector Project for future operations and maintenance
- Support of the San Bernardino County Transportation Agency (SBCTA) 15 Express Lanes Project for future operations and maintenance
- Evaluation of the express lanes website compliancy with current regulations
- Assistance with oversight of the 15 Express Lanes contractor after opening
- Evaluation of both the 91 and 15 Express Lanes performance

Upon execution of the agreement, the Express Lanes Consultant will be available for work. The Agreement is a task order contract and each assignment will be managed through the issuance of a task which will include an agreed upon level of effort, defined delivery expectation, and budget.

Procurement Process

Staff determined the weighted factor method of source selection to be the most appropriate for this procurement, as it allows the Commission to identify the most advantageous proposal with price and other factors considered. Non-price factors include elements such as qualifications of firm, qualifications of personnel, understanding and approach, and the ability to respond to the requirements set forth under the terms of RFP No. 20-31-001-00.

RFP No. 20-31-001-00 was released on August 21, 2019. A public notice was advertised in the *Press Enterprise*, and the RFP was posted on the Commission's PlanetBids website, which is accessible through the Commission's website. Utilizing PlanetBids, emails were sent to 894 firms, 141 of which are located in Riverside County. Through the PlanetBids site, 103 firms downloaded the RFP; 12 of these firms are located in Riverside County. A pre-proposal conference was held on August 29 and attended by 13 firms. Staff responded to all questions submitted by potential proposers prior to the September 5 clarification deadline date. Two firms – HNTB Corporation (Ontario) and Parsons Transportation Group (La Palma) – submitted proposals prior to the 2:00 p.m. submittal deadline on September 18. Both firms submitted responsive and responsible proposals.

Utilizing the evaluation criteria set forth in the RFP, the two proposals were evaluated and scored by an evaluation committee comprised of Commission staff. The evaluation criteria and respective points assignment were as follows:

Evaluation Criteria	Maximum Points
Qualifications of Firm/Team	25
Qualifications of Personnel	25
Understanding and Approach	25
Price	25

The proposers were asked to provide a fully burdened rate for each of its seven task leads, the program manager, and three levels of support consultants. Staff applied a pre-determined number of hours to each labor rate based on an estimated level of work to be performed during the term of the agreement.

The price score was calculated as follows:

$$\text{Proposer Price Score} = \text{Lowest Price Proposed} / \text{Proposers Price} \times 25 \text{ points}$$

Parsons had the lowest price based on staff's estimated hours and received the maximum 25 cost points.

The overall evaluation ranking, based on highest to lowest total evaluation scores, are presented in the following table.

Firm	Overall Ranking
HNTB Corporation	1
Parsons Transportation Corporation	2

Based on the evaluation committee's assessment of the written proposals and calculated price, the evaluation committee recommends contract award to HNTB Corporation as this firm earned the highest total evaluation score.

HNTB's proposal thoroughly represented its ability to support all tasks provided in the RFP with the use of experienced subject matter experts most of whom are located in Southern California. HNTB has vast national experience providing services similar to those outlined in this RFP. HNTB's broad experience in tolling and express lanes combined with its knowledge of RCTC will provide staff with a valuable resource in the area of express lanes operation.


Staff recommends a five-year base contract with two one-year options to potentially extend the agreement. A five-year contract with the option to extend will provide for the continuity of services needed to perform the long-lead task items. Based on the level of consultant support the express lanes operation has required over the last two years and anticipated needs, staff estimates the value of this agreement over seven years to be \$10 million or approximately \$1.4 million per year. Exhibit B of Attachment 1 to this report shows an estimate by task and year.

RECOMMENDATION:

Staff recommends award of Agreement No. 20-31-001-00 to HNTB Corporation for express lanes consulting services for a five-year term, plus two one-year options to extend the agreement, in an amount of \$10 million, plus a contingency amount of \$500,000, for a total amount not to exceed of \$10.5 million; authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement, including option years, on behalf of the Commission; and authorize the Executive Director or designee to approve the use of the contingency amount as may be required for these services.

Staff estimates that the express lanes consultant support required in FY 2019/20 is \$1.4 million; support relates primarily to RCTC 91 Express Lanes, 241/91 Express Connector Project, and SBCTA's 15 Express Lanes Project. There is sufficient FY 2019/20 budget authority for the express lanes consulting services.

The Commission's professional services agreement will be entered into with the consultant subject to any changes approved by the Executive Director and pursuant to legal counsel review. Staff oversight of the contract will maximize the effectiveness of the consultant and minimize costs to the Commission.

Financial Information					
In Fiscal Year Budget:	Yes N/A	Year:	FY 2019/20 FY 2020/21+	Amount:	\$1,400,000 \$9,100,000
Source of Funds:	Toll Revenues; 2009 Measure A Western County Economic Development, Local Transportation Fund, and state Senate Bill 1 funds			Budget Adjustment:	No N/A
GL/Project Accounting No.:	009199 65520 00000 0000 591 31 65520 001599 65520 00000 0000 515 31 65520 673033 65520 00000 0000 106 67 65520 003039 65520 00000 0000 605 31 65520 003050 65520 00000 0000 268 31 65520				
Fiscal Procedures Approved:				Date:	10/21/2019

Attachment: Draft Professional Services Agreement No. 20-31-001-00

**RIVERSIDE COUNTY TRANSPORTATION COMMISSION
AGREEMENT FOR ON-CALL EXPRESS LANES CONSULTING SERVICES
WITH HNTB CORPORATION**

1. PARTIES AND DATE.

This Agreement is made and entered into this ___ day of _____, 2019, by and between the RIVERSIDE COUNTY TRANSPORTATION COMMISSION ("the Commission") and HNTB Corporation ("Consultant"), a CORPORATION.

2. RECITALS.

2.1 Consultant desires to perform and assume responsibility for the provision of certain on-call professional consulting services required by Commission on the terms and conditions set forth in this Agreement. Consultant represents that it is a professional consultant, experienced in providing express lanes consulting services to public clients, is licensed in the State of California (if necessary) and is familiar with the plans of Commission.

2.2 Services shall be provided on the terms and conditions set forth in this Agreement and in the task order(s) to be solicited, awarded and authorized by Commission as further described in this Agreement ("Task Order").

2.3 Commission desires to engage Consultant to render such services on an on-call basis. Services shall be ordered by Task Order(s) to be issued pursuant to this Agreement for future projects as set forth herein and in each Task Order (each such project shall be designated a "Project" under this Agreement).

3. TERMS.

3.1 General Scope of Services. Consultant shall furnish all technical and professional services, including labor, material, equipment, transportation, supervision and expertise, and incidental and customary work necessary to fully and adequately supply the consulting and other services required for the Projects ("Services"). The Services are

generally described in Exhibit "A" attached hereto and incorporated herein by reference. The Services shall be more particularly described in the individual Task Order requests and proposals. No Services shall be performed prior to Commission's Task Order Authorization, as defined in Section 3.3 below. All Services shall be subject to, and performed in accordance with, this Agreement, the relevant Task Order, the exhibits attached hereto and incorporated herein by reference, and all applicable local, state and federal laws, rules and regulations.

3.2 Term. The term of this Agreement shall be from the date first specified above to December 31, 2024, unless earlier terminated as provided herein. All Task Order work should be completed within the term.

3.3 Task Orders; Commencement of Services; Schedule of Services. Services under this Agreement shall be requested by the Commission pursuant to Task Order requests. If Commission accepts Consultant's Task Order proposal, Commission shall issue a purchase order or executed task order for the Services ("Commission's Task Order Authorization"). Consultant's agreement to the final terms of a proposed Task Order, Commission's Task Order Authorization and Consultant's commencement of the Services shall indicate the Parties' agreement to the terms of the relevant Task Order.

Consultant shall commence Services under a Task Order within five (5) days of receiving Commission's Task Order Authorization.

Consultant shall perform the Services expeditiously, in accordance with the Schedule of Services set forth in a Task Order. Consultant represents that it has the professional and technical personnel required to perform the Services in conformance with such conditions. In order to facilitate Consultant's conformance with the Schedule, Commission shall respond to Consultant's submittals in a timely manner. Upon request of the Commission, Consultant shall provide a more detailed schedule of anticipated performance to meet the Schedule of Services.

3.4 Independent Contractor; Control and Payment of Subordinates. The Services shall be performed by Consultant under its supervision. Consultant will determine the means, method and details of performing the Services subject to the requirements of this Agreement. Commission retains Consultant on an independent contractor basis and Consultant is not an employee of Commission. Consultant retains the right to perform similar or different services for others during the term of this Agreement. Any additional personnel performing the Services under this Agreement on behalf of Consultant shall not be employees of Commission and shall at all times be under Consultant's exclusive direction and control. Consultant shall pay all wages, salaries, and other amounts due such personnel in connection with their performance of Services under this Agreement and as required by law. Consultant shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, and workers' compensation insurance.

3.5 Conformance to Applicable Requirements. All work prepared by Consultant shall be subject to the approval of Commission.

3.6 Substitution of Key Personnel. Consultant has represented to Commission that certain key personnel will perform and coordinate the Services under this Agreement. Should one or more of such personnel become unavailable, Consultant may substitute other personnel of at least equal competence and experience upon written approval of Commission. In the event that Commission and Consultant cannot agree as to the substitution of key personnel, Commission shall be entitled to terminate this Agreement for cause, pursuant to provisions of Section 3.16 of this Agreement. The key personnel for performance of this Agreement are as follows_Greg Hulsizer; Garth Lynch; Dan Baker; Theresa Weekes; Mat Antonelli; Lisa Ganz; Shaumik Pal; and Will Allen, or as otherwise identified in a Task Order.

3.7 Commission's Representative. Commission hereby designates Executive Director, or his or her designee, to act as its representative for the performance of this Agreement ("Commission's Representative"). Commission's representative shall have the power to act on behalf of Commission for all purposes under this Agreement. Consultant shall not accept direction from any person other than Commission's Representative or his or her designee.

3.8 Consultant's Representative. Consultant hereby designates Greg Hulsizer, or his or her designee, to act as its representative for the performance of this Agreement ("Consultant's Representative"). Consultant's Representative shall have full authority to represent and act on behalf of the Consultant for all purposes under this Agreement. The Consultant's Representative shall supervise and direct the Services, using his or her best skill and attention, and shall be responsible for all means, methods, techniques, sequences and procedures and for the satisfactory coordination of all portions of the Services under this Agreement.

3.9 Coordination of Services. Consultant agrees to work closely with Commission staff in the performance of Services and shall be available to Commission's staff, consultants and other staff at all reasonable times.

3.10 Standard of Care; Licenses. Consultant shall perform the Services under this Agreement in a skillful and competent manner, consistent with the standard generally recognized as being employed by professionals in the same discipline in the State of California. Consultant represents and maintains that it is skilled in the professional calling necessary to perform the Services. Consultant warrants that all employees and subcontractors shall have sufficient skill and experience to perform the Services assigned to them. Finally, Consultant represents that it, its employees and subcontractors have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Services and that such licenses and approvals shall be maintained throughout the term of this Agreement. Consultant shall perform, at its own cost and expense and without reimbursement from Commission, any Services necessary to correct errors or omissions which are caused by the Consultant's failure to comply with the standard of care provided for herein, and shall be fully responsible to the Commission for all damages and other liabilities provided for in the indemnification provisions of this Agreement arising from the Consultant's errors and omissions.

3.11 Laws and Regulations. Consultant shall keep itself fully informed of and in compliance with all local, state and federal laws, rules and regulations in any manner affecting the performance of the Project or the Services, including all Cal/OSHA requirements, and shall give all notices required by law. Consultant shall be liable for all violations of such laws and regulations in connection with Services. If the Consultant performs any work knowing it to be contrary to such laws, rules and regulations and without giving written notice to Commission, Consultant shall be solely responsible for all costs arising therefrom. Consultant shall defend, indemnify and hold Commission, its officials, directors, officers, employees and agents free and harmless, pursuant to the indemnification provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.12 Insurance.

3.12.1 Time for Compliance. Consultant shall not commence work under this Agreement until it has provided evidence satisfactory to the Commission that it has secured all insurance required under this section, in a form and with insurance companies acceptable to the Commission. In addition, Consultant shall not allow any subcontractor to commence work on any subcontract until it has secured all insurance required under this section.

3.12.2 Minimum Requirements. Consultant shall, at its expense, procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Agreement by the Consultant, its agents, representatives, employees or subcontractors. Consultant shall also require all of its subcontractors to procure and maintain the same insurance for the duration of the Agreement. Such insurance shall meet at least the following minimum levels of coverage:

(A) Minimum Scope of Insurance. Coverage shall be at least as broad as the latest version of the following: (1) *General Liability*: Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001 or exact equivalent); (2) *Automobile Liability*: Insurance Services Office Business Auto Coverage (form CA 0001, code 1 (any auto) or exact equivalent); and (3) *Workers' Compensation and Employer's Liability*: Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

(B) Minimum Limits of Insurance. Consultant shall maintain limits no less than: (1) *General Liability*: \$2,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with general aggregate limit is used, either the general aggregate limit shall apply separately to this Agreement/location or the general aggregate limit shall be twice the required occurrence limit; (2) *Business Automobile Liability*: \$1,000,000 combined single limit each accident for bodily injury and property damage; and (3) *if Consultant has an employees, Workers' Compensation*

and Employer's Liability: Workers' Compensation limits as required by the Labor Code of the State of California. Employer's Liability limits of \$1,000,000 per accident.

3.12.3 Professional Liability. [**INCLUDE ONLY IF APPLICABLE - DELETE OTHERWISE**] Consultant shall procure and maintain, and require its sub-consultants to procure and maintain, for a period of five (5) years following completion of the Project, errors and omissions liability insurance appropriate to their profession. Such insurance shall be in an amount not less than \$1,000,000 [**INCREASE IF NECESSARY - OTHERWISE LEAVE AS IS AND DELETE THIS NOTE**] per claim. This insurance shall be endorsed to include contractual liability applicable to this Agreement and shall be written on a policy form coverage specifically designed to protect against acts, errors or omissions of the Consultant. "Covered Professional Services" as designated in the policy must specifically include work performed under this Agreement. The policy must "pay on behalf of" the insured and must include a provision establishing the insurer's duty to defend.

3.12.4 Insurance Endorsements. The insurance policies shall contain the following provisions, or Consultant shall provide endorsements on forms approved by the Commission to add the following provisions to the insurance policies:

(A) General Liability.

(i) Commercial General Liability Insurance must include coverage for (1) bodily Injury and property damage; (2) personal Injury/advertising Injury; (3) premises/operations liability; (4) products/completed operations liability; (5) aggregate limits that apply per Project; (6) explosion, collapse and underground (UCX) exclusion deleted; (7) contractual liability with respect to this Agreement; (8) broad form property damage; and (9) independent consultants coverage.

(ii) The policy shall contain no endorsements or provisions limiting coverage for (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; or (3) contain any other exclusion contrary to this Agreement.

(iii) The policy shall give the Commission, its directors, officials, officers, employees, and agents insured status using ISO endorsement forms 20 10 01 and 20 37 10 01, or endorsements providing the exact same coverage.

(iv) The additional insured coverage under the policy shall be "primary and non-contributory" and will not seek contribution from the Commission's insurance or self-insurance and shall be at least as broad as CG 20 01 04 13, or endorsements providing the exact same coverage.

(B) Automobile Liability. The automobile liability policy shall be endorsed to state that: (1) the Commission, its directors, officials, officers, employees and Cofiroute USA, Kapsch Trafficcom Transportation NA, Inc., and Bechtel Infrastructure Corporation shall be named as additional insureds with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by the Consultant or for which the Consultant is responsible; and (2) the insurance coverage shall be primary insurance as respects the Commission, its directors, officials, officers, employees and agents, or if excess, shall stand in an unbroken chain of coverage excess

of the Consultant's scheduled underlying coverage. Any insurance or self-insurance maintained by the Commission, its directors, officials, officers, employees and agents shall be excess of the Consultant's insurance and shall not be called upon to contribute with it in any way.

(C) Workers' Compensation and Employers Liability Coverage.

(i) Consultant certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and he/she will comply with such provisions before commencing work under this Agreement.

(ii) The insurer shall agree to waive all rights of subrogation against the Commission, its directors, officials, officers, employees and agents for losses paid under the terms of the insurance policy which arise from work performed by the Consultant.

(D) All Coverages.

(i) Defense costs shall be payable in addition to the limits set forth hereunder.

(ii) Requirements of specific coverage or limits contained in this section are not intended as a limitation on coverage, limits, or other requirement, or a waiver of any coverage normally provided by any insurance. It shall be a requirement under this Agreement that any available insurance proceeds broader than or in excess of the specified minimum insurance coverage requirements and/or limits set forth herein shall be available to the Commission, its directors, officials, officers, employees and agents as additional insureds under said policies. Furthermore, the requirements for coverage and limits shall be (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named insured; whichever is greater.

(iii) The limits of insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the Commission (if agreed to in a written contract or agreement) before the Commission's own insurance or self-insurance shall be called upon to protect it as a named insured. The umbrella/excess policy shall be provided on a "following form" basis with coverage at least as broad as provided on the underlying policy(ies).

(iv) Consultant shall provide the Commission at least thirty (30) days prior written notice of cancellation of any policy required by this Agreement, except that the Consultant shall provide at least ten (10) days prior written notice of cancellation of any such policy due to non-payment of premium. If any of the required coverage is cancelled or expires during the term of this Agreement, the Consultant shall deliver renewal certificate(s) including the General Liability Additional Insured Endorsement to the Commission at least ten (10) days prior to the effective date of cancellation or expiration.

(v) The retroactive date (if any) of each policy is to be no later than the effective date of this Agreement. Consultant shall maintain such coverage continuously for a period of at least three years after the completion of the work under this Agreement. Consultant shall purchase a one (1) year extended reporting period A) if the retroactive date is advanced past the effective date of this Agreement; B) if the policy is cancelled or not renewed; or C) if the policy is replaced by another claims-made policy with a retroactive date subsequent to the effective date of this Agreement.

(vi) The foregoing requirements as to the types and limits of insurance coverage to be maintained by Consultant, and any approval of said insurance by the Commission, is not intended to and shall not in any manner limit or qualify the liabilities and obligations otherwise assumed by the Consultant pursuant to this Agreement, including but not limited to, the provisions concerning indemnification.

(vii) If at any time during the life of the Agreement, any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, Commission has the right but not the duty to obtain the insurance (if commercially available, and Consultant agrees to pricing) required under this agreement and any premium paid by Commission will be promptly reimbursed by Consultant or Commission will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, Commission may cancel this Agreement for cause. The Commission shall have the right to review, at a local office of Consultant, at any time during normal business hours, complete copies of all insurance policies in effect for the duration of the Project.

(viii) Neither the Commission nor any of its directors, officials, officers, employees or agents shall be personally responsible for any liability arising under or by virtue of this Agreement.

Consultant agrees that:

3.12.5 Deductibles and Self-Insurance Retentions. Any deductibles or self-insured retentions must be declared to the Commission.

3.12.6 Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating no less than A:VIII, authorized to do business in California, and satisfactory to the Commission in its reasonable discretion..

3.12.7 Verification of Coverage. Consultant shall furnish Commission with original certificates of insurance and endorsements effecting coverage required by this Agreement on forms satisfactory to the Commission. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements must be received and approved by the Commission before work commences. The Commission reserves the right to review complete , certified copies of all required insurance policies, at any time at a local office of Consultant.

3.12.8 Subconsultant Insurance Requirements. Consultant shall not allow any subcontractors or subconsultants to commence work on any subcontract until they have provided evidence satisfactory to the Commission that they have secured all insurance required under this section. Policies of commercial general liability insurance provided by such subcontractors or subconsultants shall be endorsed to name the Commission as an additional insured using ISO form CG 20 38 04 13 or an endorsement providing the exact same coverage. If requested by Consultant, the Commission may approve different scopes or minimum limits of insurance for particular subcontractors or subconsultants.

3.13 Safety. Consultant shall execute and maintain its work so as to avoid injury or damage to any person or property. In carrying out its Services, the Consultant shall at all times be in compliance with all applicable local, state and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of employees appropriate to the nature of the work and the conditions under which the work is to be performed. Safety precautions as applicable shall include, but shall not be limited to: (A) adequate life protection and life saving equipment and procedures; (B) instructions in accident prevention for all employees and subcontractors, such as safe walkways, scaffolds, fall protection ladders, bridges, gang planks, confined space procedures, trenching and shoring, equipment and other safety devices, equipment and wearing apparel as are necessary or lawfully required to prevent accidents or injuries; and (C) adequate facilities for the proper inspection and maintenance of all safety measures.

3.14 Fees and Payment.

3.14.1 Compensation. Consultant shall receive compensation, including authorized reimbursements, for all Services rendered under this Agreement at the rates set forth in Exhibit "B" attached hereto.

The total compensation per Task Order shall be set forth in each Task Order, and shall not exceed such amount without written approval of Commission's

Executive Director. The total amount payable by Commission for all Task Orders issued under this Agreement shall not exceed a cumulative maximum total value of Ten Million Dollars ("NTE Sum"). It is understood and agreed that there is no guarantee, either expressed or implied that this dollar amount will be authorized pursuant to Task Orders. Consultant acknowledges and agrees that Commission shall not pay any amount under this Agreement that would exceed the NTE Sum, and Consultant shall not knowingly enter into a Task Order that exceeds the NTE Sum.

Extra Work may be authorized, as described below, and if authorized, will be compensated at the rates and manner set forth in this Agreement.

3.14.2 Payment of Compensation. Consultant shall submit to Commission a monthly statement which indicates work completed and hours of Services rendered by Consultant. The statement shall describe the amount of Services and supplies provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement. Commission shall, within 45 days of receiving such statement, review the statement and pay all approved charges thereon.

3.14.3 Reimbursement for Expenses. Consultant shall not be reimbursed for any expenses unless authorized in writing by Commission.

3.14.4 Extra Work. At any time during the term of this Agreement, Commission may request that Consultant perform Extra Work. As used herein, "Extra Work" means any work which is determined by Commission to be necessary for the proper completion of the Project, but which the parties did not reasonably anticipate would be necessary at the execution of this Agreement. Consultant shall not perform, nor be compensated for, Extra Work without written authorization from Commission's Executive Director.

3.15 Accounting Records. Consultant shall maintain complete and accurate records with respect to all costs and expenses incurred and fees charged under this Agreement. All such records shall be clearly identifiable. Consultant shall allow a representative of Commission during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to the Agreement for a period of three (3) years from the date of final payment under this Agreement.

3.16 Termination of Agreement.

3.16.1 Grounds for Termination. Commission may, by written notice to Consultant, terminate the whole or any part of this Agreement at any time and without cause by giving written notice to Consultant of such termination, and specifying the effective date thereof. Upon termination, Consultant shall be compensated only for those services which have been fully and adequately rendered to Commission through the effective date of the termination, and Consultant shall be entitled to no further compensation. Consultant may not terminate this Agreement except for cause.

Commission may terminate Services under a Task Order, at any time, for any or no reason, with the effective date of termination to be specified in the notice of termination of Task Order.

3.16.2 Effect of Termination. If this Agreement is terminated as provided herein, Commission may require Consultant to provide all finished or unfinished Documents and Data, as defined below, and other information of any kind prepared by Consultant in connection with the performance of Services under this Agreement. Consultant shall be required to provide such document and other information within fifteen (15) days of the request.

3.16.3 Additional Services. In the event this Agreement is terminated in whole or in part as provided herein, Commission may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated.

3.17 Delivery of Notices. All notices permitted or required under this Agreement shall be given to the respective parties at the following address, or at such other address as the respective parties may provide in writing for this purpose:

CONSULTANT:

HNTB Corporation
3633 Inland Empire Blvd
Suite 750
Ontario, CA 91764
Attn: Greg Hulsizer

COMMISSION:

Riverside County
Transportation Commission
4080 Lemon Street, 3rd Floor
Riverside, CA 92501
Attn: Executive Director

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

3.18 Ownership of Materials/Confidentiality.

3.18.1 Documents & Data. This Agreement creates an exclusive and perpetual license for Commission to copy, use, modify, reuse, or sub-license any and all copyrights and designs embodied in plans, specifications, studies, drawings, estimates, materials, data and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data").

Consultant shall require all subcontractors to agree in writing that Commission is granted an exclusive and perpetual license for any Documents & Data the subcontractor prepares under this Agreement.

Consultant represents and warrants that Consultant has the legal right to grant the exclusive and perpetual license for all such Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were prepared by design professionals other than Consultant or provided to Consultant by the Commission.

Commission shall not be limited in any way in its use of the Documents & Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at Commission's sole risk.

3.18.2 Intellectual Property. In addition, Commission shall have and retain all right, title and interest (including copyright, patent, trade secret and other proprietary rights) in all plans, specifications, studies, drawings, estimates, materials, data, computer programs or software and source code, enhancements, documents, and any and all works of authorship fixed in any tangible medium or expression, including but not limited to, physical drawings or other data magnetically or otherwise recorded on computer media ("Intellectual Property") prepared or developed by or on behalf of Consultant under this Agreement as well as any other such Intellectual Property prepared or developed by or on behalf of Consultant under this Agreement.

The Commission shall have and retain all right, title and interest in Intellectual Property developed or modified under this Agreement whether or not paid for wholly or in part by Commission, whether or not developed in conjunction with Consultant, and whether or not developed by Consultant. Consultant will execute separate written assignments of any and all rights to the above referenced Intellectual Property upon request of Commission.

Consultant shall also be responsible to obtain in writing separate written assignments from any subcontractors or agents of Consultant of any and all right to the above referenced Intellectual Property. Should Consultant, either during or following termination of this Agreement, desire to use any of the above-referenced Intellectual Property, it shall first obtain the written approval of the Commission.

All materials and documents which were developed or prepared by the Consultant for general use prior to the execution of this Agreement and which are not the copyright of any other party or publicly available and any other computer applications, shall continue to be the property of the Consultant. However, unless otherwise identified and stated prior to execution of this Agreement, Consultant represents and warrants that it has the right to grant the exclusive and perpetual license for all such Intellectual Property as provided herein.

Commission further is granted by Consultant a non-exclusive and perpetual license to copy, use, modify or sub-license any and all Intellectual Property otherwise owned by Consultant which is the basis or foundation for any derivative, collective, insurrectional, or supplemental work created under this Agreement.

3.18.3 Confidentiality. All ideas, memoranda, specifications, plans, procedures, drawings, descriptions, computer program data, input record data, written

information, and other Documents and Data either created by or provided to Consultant in connection with the performance of this Agreement shall be held confidential by Consultant. Such materials shall not, without the prior written consent of Commission, be used by Consultant for any purposes other than the performance of the Services. Nor shall such materials be disclosed to any person or entity not connected with the performance of the Services or the Project. Nothing furnished to Consultant which is otherwise known to Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use Commission's name or insignia, photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production or other similar medium without the prior written consent of Commission.

3.18.4 Infringement Indemnification. Consultant shall defend, indemnify and hold the Commission, its directors, officials, officers, employees, volunteers and agents free and harmless, pursuant to the indemnification provisions of this Agreement, for any alleged infringement of any patent, copyright, trade secret, trade name, trademark, or any other proprietary right of any person or entity in consequence of the use on the Project by Commission of the Documents & Data, including any method, process, product, or concept specified or depicted.

3.19 Cooperation; Further Acts. The Parties shall fully cooperate with one another, and shall take any additional acts or sign any additional documents as may be necessary, appropriate or convenient to attain the purposes of this Agreement.

3.20 Attorney's Fees. If either party commences an action against the other party, either legal, administrative or otherwise, arising out of or in connection with this Agreement, the prevailing party in such litigation shall be entitled to have and recover from the losing party reasonable attorney's fees and costs of such actions.

Indemnification. To the fullest extent permitted by law, Consultant shall defend (with counsel of Commission's reasonable choosing), indemnify and hold Commission, its directors, officials, officers, employees, consultants, volunteers, and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury, in law or equity, to property or persons, including wrongful death, in any manner arising out of or incident to alleged negligent acts, omissions, or willful misconduct of Consultant, its officials, officers, employees, agents, consultants, and contractors arising out of or in connection with the performance of the Services, the Project or this Agreement, including without limitation the payment of consequential damages, , expert witness fees, and attorneys fees and other related costs and expenses. Consultant shall defend, at Consultant's own cost, expense and risk, any and all such aforesaid suits, actions or other legal proceedings of every kind that may be brought or instituted against Commission, its directors, officials, officers, employees, consultants, agents, or volunteers. Consultant shall pay and satisfy any judgment, award or decree that may be rendered against Commission or its directors, officials, officers, employees, consultants, agents, or volunteers, in any such suit, action or other legal proceeding. Consultant shall reimburse Commission and its directors, officials, officers, employees, consultants, agents, and/or volunteers, for any and all legal expenses and costs, including reasonable attorney's fees, incurred by each of them in connection therewith or in enforcing the indemnity herein provided. Consultant's

obligation to indemnify shall not be restricted to insurance proceeds, if any, received by Commission, its directors, officials officers, employees, consultants, agents, or volunteers.

If Consultant's obligation to defend, indemnify, and/or hold harmless arises out of Consultant's performance as a "design professional" (as that term is defined under Civil Code section 2782.8), then, and only to the extent required by Civil Code section 2782.8, which is fully incorporated herein, Consultant's indemnification obligation shall be limited to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant, and, upon Consultant obtaining a final adjudication by a court of competent jurisdiction, Consultant's liability for such claim, including the cost to defend, shall not exceed the Consultant's proportionate percentage of fault.

Consultant's obligations as set forth in this Section shall survive expiration or termination of this Agreement.

3.21 Entire Agreement. This Agreement contains the entire Agreement of the parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings or agreements. This Agreement may only be supplemented, amended, or modified by a writing signed by both parties.

3.22 Governing Law. This Agreement shall be governed by the laws of the State of California. Venue shall be in Riverside County.

3.23 Time of Essence. Time is of the essence for each and every provision of this Agreement.

3.24 Commission's Right to Employ Other Consultants. The Commission reserves the right to employ other consultants in connection with this Project.

3.25 Successors and Assigns. This Agreement shall be binding on the successors and assigns of the parties, and shall not be assigned by Consultant without the prior written consent of Commission.

3.26 Prohibited Interests and Conflicts.

3.26.1 Solicitation. Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, Commission shall have the right to rescind this Agreement without liability.

3.26.2 Conflict of Interest. For the term of this Agreement, no member, officer or employee of Commission, during the term of his or her service with Commission, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

3.26.3 Conflict of Employment. Employment by the Consultant of personnel currently on the payroll of the Commission shall not be permitted in the performance of this Agreement, even though such employment may occur outside of the employee's regular working hours or on weekends, holidays or vacation time. Further, the employment by the Consultant of personnel who have been on the Commission payroll within one year prior to the date of execution of this Agreement, where this employment is caused by and or dependent upon the Consultant securing this or related Agreements with the Commission, is prohibited.

3.26.4 Employment Adverse to the Commission. Consultant shall notify the Commission, and shall obtain the Commission's written consent, prior to accepting work to assist with or participate in a third-party lawsuit or other legal or administrative proceeding against the Commission during the term of this Agreement.

3.27 Equal Opportunity Employment. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, sex or age. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Consultant shall also comply with all relevant provisions of Commission's Disadvantaged Business Enterprise program, Affirmative Action Plan or other related Commission programs or guidelines currently in effect or hereinafter enacted.

3.28 Subcontracting. Consultant shall not subcontract any portion of the work or Services required by this Agreement, except as expressly stated herein, without prior written approval of the Commission. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement.

Exhibit "B" may set forth the rates at which each approved subconsultant shall bill the Consultant for Services and that are subject to reimbursement by the Commission to Consultant. The subconsultant rate schedules and cost proposals contained herein are for accounting purposes only.

3.29 Prevailing Wages. By its execution of this Agreement, Consultant certified that it is aware of the requirements of California Labor Code Sections 1720 et seq. and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000 et seq. ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. If the Services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is \$1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. The Commission shall provide Consultant with a copy of the prevailing rate of per diem wages in effect at the commencement of this Agreement. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Consultant's principal place of business and at the project site. Consultant shall defend, indemnify and hold the Commission, its elected officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

3.29.1 DIR Registration. If the Services are being performed as part of an applicable "public works" or "maintenance" project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Consultant and all subconsultants must be registered with the Department of Industrial Relations. If applicable, Consultant shall maintain registration for the duration of the Project and require the same of any subconsultants. This Project may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant's sole responsibility to comply with all applicable registration and labor compliance requirements.

3.30 Employment of Apprentices. This Agreement shall not prevent the employment of properly indentured apprentices in accordance with the California Labor Code, and no employer or labor union shall refuse to accept otherwise qualified employees as indentured apprentices on the work performed hereunder solely on the ground of race, creed, national origin, ancestry, color or sex. Every qualified apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade in which he or she is employed and shall be employed only in the craft or trade to which he or she is registered.

If California Labor Code Section 1777.5 applies to the Services, Consultant and any subcontractor hereunder who employs workers in any apprenticeable craft or trade shall apply to the joint apprenticeship council administering applicable standards for a

certificate approving Consultant or any sub-consultant for the employment and training of apprentices. Upon issuance of this certificate, Consultant and any sub-consultant shall employ the number of apprentices provided for therein, as well as contribute to the fund to administer the apprenticeship program in each craft or trade in the area of the work hereunder.

The parties expressly understand that the responsibility for compliance with provisions of this Section and with Sections 1777.5, 1777.6 and 1777.7 of the California Labor Code in regard to all apprenticeable occupations lies with Consultant.

3.31 No Waiver. Failure of Commission to insist on any one occasion upon strict compliance with any of the terms, covenants or conditions hereof shall not be deemed a waiver of such term, covenant or condition, nor shall any waiver or relinquishment of any rights or powers hereunder at any one time or more times be deemed a waiver or relinquishment of such other right or power at any other time or times.

3.32 Eight-Hour Law. Pursuant to the provisions of the California Labor Code, eight hours of labor shall constitute a legal day's work, and the time of service of any worker employed on the work shall be limited and restricted to eight hours during any one calendar day, and forty hours in any one calendar week, except when payment for overtime is made at not less than one and one-half the basic rate for all hours worked in excess of eight hours per day ("Eight-Hour Law"), unless Consultant or the Services are not subject to the Eight-Hour Law. Consultant shall forfeit to Commission as a penalty, \$50.00 for each worker employed in the execution of this Agreement by him, or by any sub-consultant under him, for each calendar day during which such workman is required or permitted to work more than eight hours in any calendar day and forty hours in any one calendar week without such compensation for overtime violation of the provisions of the California Labor Code, unless Consultant or the Services are not subject to the Eight-Hour Law.

3.33 Subpoenas or Court Orders. Should Consultant receive a subpoena or court order related to this Agreement, the Services or the Project, Consultant shall immediately provide written notice of the subpoena or court order to the Commission. Consultant shall not respond to any such subpoena or court order until notice to the Commission is provided as required herein, and shall cooperate with the Commission in responding to the subpoena or court order.

3.34 Survival. All rights and obligations hereunder that by their nature are to continue after any expiration or termination of this Agreement, including, but not limited to, the indemnification and confidentiality obligations, and the obligations related to receipt of subpoenas or court orders, shall survive any such expiration or termination.

3.35 No Third Party Beneficiaries. There are no intended third party beneficiaries of any right or obligation assumed by the Parties.

3.36 Labor Certification. By its signature hereunder, Consultant certifies that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with

such provisions before commencing the performance of the Services.

3.37 Counterparts. This Agreement may be signed in counterparts, each of which shall constitute an original.

3.38 Incorporation of Recitals. The recitals set forth above are true and correct and are incorporated into this Agreement as though fully set forth herein.

3.39 Invalidity; Severability. If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.

3.40 Conflicting Provisions. In the event that provisions of any attached exhibits conflict in any way with the provisions set forth in this Agreement, the language, terms and conditions contained in this Agreement shall control the actions and obligations of the Parties and the interpretation of the Parties' understanding concerning the performance of the Services.

3.41 Headings. Article and Section Headings, paragraph captions or marginal headings contained in this Agreement are for convenience only and shall have no effect in the construction or interpretation of any provision herein.

3.42 Assignment or Transfer. Consultant shall not assign, hypothecate, or transfer, either directly or by operation of law, this Agreement or any interest herein, without the prior written consent of the Commission. Any attempt to do so shall be null and void, and any assignees, hypothecates or transferees shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer.

3.43 Authority to Enter Agreement. Consultant has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each Party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and bind each respective Party.

3.44 **Electronic Delivery of Agreement**. A manually signed copy of this Agreement which is transmitted by facsimile, email or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original executed copy of this Agreement for all purposes.

**SIGNATURE PAGE
TO
RIVERSIDE COUNTY TRANSPORTATION COMMISSION
AGREEMENT FOR ON-CALL EXPRESS LANES CONSULTING SERVICES
WITH HNTB CORPORATION**

IN WITNESS WHEREOF, this Agreement was executed on the date first written above.

**RIVERSIDE COUNTY
TRANSPORTATION COMMISSION**

**CONSULTANT
HNTB CORPORATION**

By: _____
Anne Mayer
Executive Director

By: _____
Signature

Name

[NOT NEEDED IF APPROVED BY COMMISSION]

Title

By: Anne Mayer
Executive Director

Approved as to Form:

Attest:

By: _____
Best Best & Krieger LLP
General Counsel

By: _____

Its: _____

* A corporation requires the signatures of two corporate officers.

One signature shall be that of the chairman of board, the president or any vice president and the second signature (on the attest line) shall be that of the secretary, any assistant secretary, the chief financial officer or any assistant treasurer of such corporation.

If the above persons are not the intended signators, evidence of signature authority shall be provided to RCTC.

Exhibit "A"
Scope of Services

On-call and as-needed express lanes consulting services.

Such Services may include, but are not limited to, the following work activities:

[INSERT SERVICES]

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STATEMENT OF SERVICES

Background

RCTC currently operates the 91 Express Lanes, will be operating the 15 Express Lanes upon their opening next year, and are actively developing future express lane facilities. RCTC is legislated to maintain a small but efficient staff for all of its projects, programs, and operations. As RCTC's express lanes and related facilities continue to progress through project development phases to full operations, the support of a toll consultant is needed to assist the Commission with the ongoing operation and maintenance of the express lanes and on-going operation planning activities.

Description of Work

RCTC's toll program seeks a toll consultant under a task-based contract to provide a wide variety of services to the toll program. These services are needed primarily for our operating express lane facilities but also potentially for those in development. The Commission currently operates the Riverside County segment of the 91 Express Lanes including the joint operation of the 91 Express Lanes back office and traffic operations center with the Orange County Transportation Authority. In 2020, the 15 Express Lanes will open and in 2023 a tolled connector between the 91 Express Lanes and 15 Express Lanes to the north will open. Planning work is also underway for a southerly extension of the 15 Express Lanes and a broader network of express lanes throughout Riverside County.

Contractors are providing and maintaining the 91 and 15 Express Lanes roadside systems and back office systems. Contractors are also providing all back office services and operating the traffic operations centers. In addition to the roadside and back office systems and operations, the toll program has the operations and maintenance responsibility for several buildings owned by the Commission that support toll operations.

The services are envisioned to be conducted on a task order basis for both relatively small tasks such as technical research or traffic counting as well as more significant tasks in both complexity and duration such as operations support and new technology implementation. Some task assignments may be short-term projects while others may be long-term staff augmentation requiring the consultant to work from Commission-provided offices. The list of representative tasks below are the categories of work for which RCTC is seeking qualified Proposers.

In addition to the specific task work described below, general task responsibilities could also include: develop task/project schedules, develop cost estimates, perform benefit/cost analyses, provide procurement documents, development and support, administer contracts, review invoices, oversee contractors/consultants, review contract deliverables, research industry and industry best practices, develop standard operating procedures, and coordinate with contractors, consultants, and agencies.

The estimated value of this contract is \$10 million for a five-year base contract and two, one-year option periods for a total of seven years.

Task 1 Express Lanes Planning and Policy

The Consultant shall support the Commission with strategic and operational planning and policy work for both existing and future express lanes. Planning and policy work require balancing the Commission's financial obligations and program goals with regional policy and other related requirements. The Commission may request assistance with a wide range of planning and policy work including but not limited to:

- Develop concept of operations
- Develop business rules
- Develop program and facility policies and goals
- Research and monitor legislation
- Perform financial modeling
- Conduct user surveys and focus groups

Task 2 Technology and Systems Support

The Consultant shall support the Commission with the assessment, planning, implementation and management of technology and systems used in the operation and management of the express lanes and facilities. The Commission could request assistance with a wide range of technology and system support including but not limited to:

- Monitor existing technology and systems
- Manage configuration management processes
- Provide oversight of system deployment, installation and testing
- Perform technical evaluations
- Develop long-term system replacement plans
- Validate system generated reports
- Analyze system generated data
- Review system design
- Identify and evaluate new technology
- Audit system performance
- Monitor and evaluate system maintenance
- Review system plans, documents, drawings, etc.
- Perform asset management
- Evaluate transponder or other payment method technology
- Review system interfaces

Task 3 Customer Service and Toll Evasion Violation Support

The Consultant shall support the Commission with the back office operation and toll evasion violation of the Express Lanes. The Contractors perform most of the work and the Commission is responsible for procuring and managing the contracts and providing oversight. The Commission could request assistance with a wide range of customer service and toll evasion violation support including but not limited to:

- Evaluate proposed delivery options and methods
- Develop website content, customer materials, customer correspondence
- Perform complex reporting

- Evaluate collection program
- Audit contract performance requirements
- Audit contract standard operating procedures
- Audit transactions, revenue and reconciliations
- Audit and review financial processes
- Support third party audits
- Review Service Organization Control, Payment Card Industry, Personally Identifiable Information , and Department of Motor Vehicle compliance
- Perform operational assessments and reporting
- Manage and deliver operational initiatives
- Respond to customer inquiries
- Coordinate marketing consultant
- Develop lean processes
- Support transponder purchasing
- Perform data management

Task 4 Roadway and Building Operations Support

The Consultant shall support the Commission with a wide range of roadway and building support including but not limited to:

- Coordinate express lane and regular lane closures
- Develop and coordinate roadway maintenance plan
- Coordinate roadway sign replacement or upgrade
- Develop and coordinate incident response plan
- Coordinate Freeway Service Patrol
- Coordinate California Highway Patrol enforcement
- Coordinate building maintenance coordination
- Develop and implement long term asset management, repair, and replacement plan
- Coordination with projects impacting the express lanes
- Department standard operating procedure development

Task 5 Industry Representation

The Consultant shall support the Commission with its participation with outside agencies and within the transportation industry. The Consultant could support the agency in its industry efforts or be asked to serve as an agency representative in that forum. The Commission may request support including but not limited to:

- Prepare presentation materials
- Deliver presentations
- Perform research
- Organize and conduct tours
- Coordinate events
- Participate in assigned committees
- Interface with other agencies
- Identify available industry platforms
- Manage agency initiatives

Task 6 Express Lanes Performance

The Consultant shall support the Commission with the performance monitoring of the express lanes. The Commission may request support including but not limited to:

- Perform general traffic, High-Occupancy-Vehicle, and other counts
- Monitor speeds
- Evaluate dynamic pricing
- Perform Performance Measurement System (PeMS) data collection and analysis
- Provide video and drone recordings and analyze information

Task 7 Financial Support

The Consultant shall support the Commission with work related to existing facility and future project financings and general financial support. The Commission may request support including but not limited to:

- Prepare Engineer's Technical Reports
- Estimate account and violation revenues
- Estimate annual operating costs
- Estimate life-cycle costs for toll technology, express lane pavement, and other capital costs
- Analyze surplus toll revenue, create of surplus toll revenue expenditure plans
- Coordinate with agency traffic & revenue, A/E, and financial consultants, legal counsel, bond counsel, bond rating agencies, and other agencies involved with express lane financing

Exhibit "B"
Compensation

[__INSERT__]

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Exhibit B
Express Lanes Consulting Services Agreement
Agreement No. 20-31-001-00

		Estimated Budget by Year						
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	Principal in Charge	\$ 100,000	\$ 100,000	\$ 100,000	\$ 110,000	\$ 110,000	\$ 120,000	\$ 120,000
	Project Manager	\$ 250,000	\$ 250,000	\$ 250,000	\$ 260,000	\$ 260,000	\$ 270,000	\$ 270,000
Task 1	Express Lanes Planning and Policy Work	\$ 140,000	\$ 140,000	\$ 140,000	\$ 150,000	\$ 150,000	\$ 160,000	\$ 160,000
Task 2	Technology and System Support	\$ 130,000	\$ 130,000	\$ 130,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 150,000
Task 3	Customer Service and Toll Evasion Violation Support Technology	\$ 125,000	\$ 125,000	\$ 125,000	\$ 135,000	\$ 135,000	\$ 145,000	\$ 145,000
Task 4	General Operations Support	\$ 200,000	\$ 200,000	\$ 200,000	\$ 225,000	\$ 225,000	\$ 250,000	\$ 250,000
Task 5	Industry Representation	\$ 70,000	\$ 70,000	\$ 70,000	\$ 75,000	\$ 75,000	\$ 80,000	\$ 80,000
Task 6	Express Lanes Performance	\$ 150,000	\$ 150,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Task 7	Express Lane Financial Support	\$ 100,000	\$ 100,000	\$ 100,000	\$ 110,000	\$ 110,000	\$ 115,000	\$ 115,000
	Other Direct Costs	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000
	Total by Year	\$ 1,390,000	\$ 1,390,000	\$ 1,340,000	\$ 1,430,000	\$ 1,430,000	\$ 1,505,000	\$ 1,515,000
	Total Agreement Value							\$ 10,000,000

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AGENDA ITEM 7E

<i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i>	
DATE:	November 13, 2019
TO:	Riverside County Transportation Commission
FROM:	Western Riverside County Programs and Projects Committee Bryce Johnston, Capital Projects Manager
THROUGH:	Anne Mayer, Executive Director
SUBJECT:	Pachappa Underpass Construction Contract Award and Amendment for Construction Support Services

WESTERN RIVERSIDE COUNTY PROGRAMS AND PROJECTS COMMITTEE AND STAFF RECOMMENDATION:

This item is for the Commission to:

- 1) Award Agreement No. 19-31-094-00 to SEMA Construction, Inc. (SEMA) to construct the Pachappa Underpass project (Project), in the amount of \$8,237,419, plus a contingency amount of \$862,581 for potential change orders and supplemental work during construction, for a total not to exceed contract authorization of \$9.1 million;
- 2) Waive informalities and minor irregularities in the SEMA bid;
- 3) Approve Agreement No. 16-31-051-04, Amendment No. 4 to Agreement No. 16-31-051-00, with Jacobs Project Management Company (Jacobs) to provide construction management (CM), materials testing, and construction surveying services for the Project, for an additional amount of \$1,245,509, and a total amount not to exceed \$3,245,509;
- 4) Authorize the Executive Director, or designee, to approve contingency work as may be required for the Project; and
- 5) Authorize the Chair or the Executive Director, pursuant to legal counsel review, to execute the agreements on behalf of the Commission.

BACKGROUND INFORMATION:

This Project is comprised of work that was deleted from the Caltrans-administered State Route 91 High Occupancy Vehicles project. In December 2016 the Commission approved the removal of this scope from that project and authorized this separate project (Figure 1). The majority of the work consists of the removal of the Pachappa Underpass shoofly (temporary alignment) bridge and its associated retaining walls and the construction of a new retaining wall to support the final alignment of the Union Pacific Railroad (UPRR) alignment.

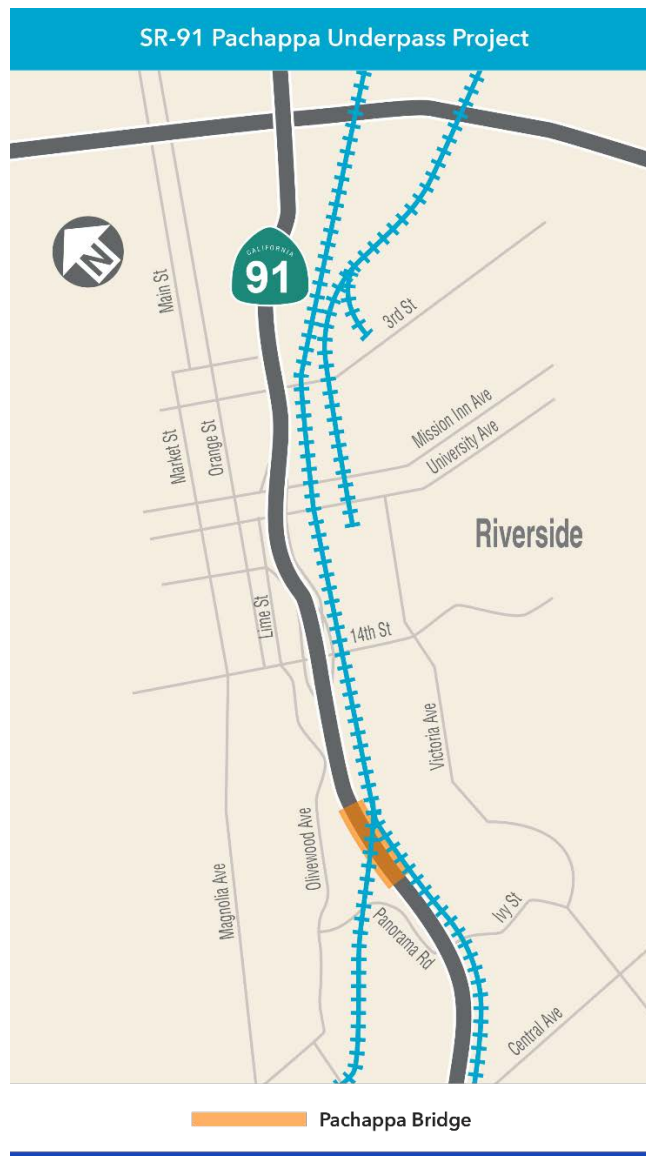


Figure 1: Pachappa Underpass Project map

The project is funded through a combination of federal earmarks, federal Surface Transportation Block Grant (STBG), and Senate Bill 1 (SB1) Local Partnership (LP) formula funds.

DISCUSSION:

Procurement Process

On September 5, 2019, the Commission advertised Invitation for Bids (IFB) No. 19-31-094-00 for construction of the Project. A public notice was advertised in the *Press Enterprise*, and the complete IFB, including all contract documents, was posted on the Commission's PlanetBids website, which is accessible through the Commission's website. Emails were sent to vendors

registered in the Commission's PlanetBids database that fit the IFB qualifications. Eighty-eight firms downloaded the IFB. Thirty-one are located in Riverside County. A pre-bid conference was held at the Commission's office on September 12, and on October 17, three bids were received and publicly opened. A summary of the bids received is shown in Table A.

Table 1
Construction of the Pachappa Underpass

SUMMARY			
PACHAPPA UNDERPASS BID OPENING RESULTS			
October 17, 2019			
<i>Rank</i>	<i>Firm</i>		<i>Amount</i>
1	Sema Construction Company	\$	8,237,418.50
2	Shimick Construction Company	\$	8,592,100.00
3	Riverside Construction Company	\$	8,615,603.00
	Engineer's Estimate	\$	9,500,000.00

The basis for award for a public works contract is the lowest responsive and responsible bidder as defined by the Commission's procurement policy and state law. The bid analysis (Attachment 2) shows the bid amounts of the three bidders, the total price per item and percent variation from the engineer's estimate for each bid item. The bid price submitted by SEMA was 13 percent lower than the engineer's estimate.

After analyzing the three bids received, staff concluded that SEMA is the lowest responsive and responsible bidder submitting a bid in the amount of \$8,237,419.

Staff identified minor inconsequential deviations in the SEMA bid during its responsiveness evaluation. Staff, in consultation with the Commission's legal counsel, has determined that the informalities and irregularities are immaterial and therefore requests these items to be waived.

Staff recommends award of Agreement No. 19-31-094-00 (Attachment 1) to SEMA in an amount of \$8,237,419, plus a contingency amount of \$862,581 for potential change orders and supplemental work during construction, for a total not to exceed contract authorization of \$9.1 million. Additionally, staff recommends authorization for the Executive Director, or designee, to approve contingency work as may be required for the Project and for the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement on behalf of the Commission.

Construction Management Amendment

In September 2016, the Commission selected Jacobs to provide CM, materials testing, and construction survey services for the Project for an amount not to exceed \$2 million.

Various amendments to Jacobs' agreement have occurred:

- Amendment 1 in November 2017 revised the format of costs with no change in authorized amount;
- Amendment 2 in May 2018 clarified payment rates for subconsultants with no change in authorized amount; and
- Amendment 3 in July 2018 further adjusted overhead rates for subconsultants and, using contingency, added hazardous materials soils investigation work required for material that will be stockpiled at the conclusion of construction on the city of Riverside's property.

Subsequent to the procurement for CM services, changes to the Project design were required in order to obtain railroad approval. These changes increased the anticipated construction duration of the Project and resulted in additional scope for the CM contract. Accordingly, Amendment 4 for an additional amount of \$1,245,509 is now sought. While the construction support cost is a large percentage of the construction bid, it is important to note that the Project also includes work to be done by UPRR in the approximate amount of \$4.8 million. Furthermore, most of the work included in this Project is complex structure work which requires full time inspection services. Accordingly, staff recommends approval of Amendment No. 4 to the Jacobs agreement for an additional amount of \$1,245,509 and a total not to exceed \$3,245,509 and authorization for the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement on behalf of the Commission.

Financial Information					
In Fiscal Year Budget:	Yes N/A	Year:	FY 2019/20 FY 2020/21	Amount:	\$3,345,509 \$7,000,000
Source of Funds:	STBG, federal earmarks, and SB1 LP formula funds			Budget Adjustment:	No
GL/Project Accounting No.:	003038 81301 00000 0000 222 31 81301 003038 81302 00000 0000 222 31 81301				
Fiscal Procedures Approved:	<i>Theresa Trevino</i>			Date:	10/22/2019

Attachments:

- 1) SEMA Draft Agreement No. 19-33-094-00
- 2) Bid Analysis
- 3) Jacobs Draft Agreement No. 16-31-051-04

RIVERSIDE COUNTY TRANSPORTATION COMMISSION

CONTRACT

**CONSTRUCTION ON STATE ROUTE 91 PACHAPPA UNDERPASS
COMPLETION PROJECT AND RELATED WORK**

RCTC Agreement No. 19-31-094-00

FEDERAL AID PROJECT NO. **FERPLN-6054(082)**

September 5, 2019

BETWEEN

**RIVERSIDE COUNTY TRANSPORTATION COMMISSION
AND**

SEMA CONSTRUCTION, INC.

CONSTRUCTION ON STATE ROUTE 91 PACHAPPA UNDERPASS COMPLETION PROJECT AND RELATED WORK

RCTC AGREEMENT NO. 19-31-094-00

1. PARTIES AND DATE.

This Contract is made and entered into this ____ day of _____, 2019 by and between the Riverside County Transportation Commission (hereinafter called the "Commission") and SEMA Construction, Inc. (hereinafter called the "Contractor"). This Contract is for that Work described in the Contract Documents entitled **CONSTRUCTION ON STATE ROUTE 91 PACHAPPA UNDERPASS COMPLETION PROJECT AND RELATED WORK**

2. RECITALS.

2.1 The Commission is a County Transportation Commission organized under the provisions of Sections 130000, et seq. of the Public Utilities Code of the State of California, with power to contract for services necessary to achieving its purpose;

2.2 Contractor, in response to a Notice Inviting Bids issued by Commission on September 5, 2019, has submitted a bid proposal for the **CONSTRUCTION ON STATE ROUTE 91 PACHAPPA UNDERPASS COMPLETION PROJECT AND RELATED WORK**

2.3 Commission has duly opened and considered the Contractor's bid proposal and duly awarded the bid to Contractor in accordance with the Notice Inviting Bids and other Bid Documents.

2.4 Contractor has obtained, and delivers concurrently herewith, Performance and Payment Bonds and evidences of insurance coverage as required by the Contract Documents.

3. TERMS.

3.1 Incorporation of Documents.

This Contract includes and hereby incorporates in full by reference this Contract and the following Contract Documents provided with the above referenced Notice Inviting Bids, including all exhibits, drawings, specifications and documents therein, and attachments thereto, all of which, including all addendum thereto, are by this reference incorporated herein and made a part of this Contract:

- a. NOTICE INVITING BIDS
- b. INSTRUCTIONS TO BIDDERS
- c. CONTRACT BID FORMS
- d. FORM OF CONTRACT
- e. PAYMENT AND PERFORMANCE BOND FORMS
- f. ESCROW AGREEMENT FOR SECURITY DEPOSITS

g. CONTRACT APPENDIX

PART "A" - Regulatory Requirements and Permits

PART "B" - Special Provisions

PART "C" – Standard Provisions

PART "D" - Contract Drawings

PART "E" - Contract Compliance Provisions/DBE Requirements

PART "F" - Federal Minimum Wage Requirements

PART "G" - Federal Requirements for Federal Aid Construction Contracts

PART "H" – Supplemental Materials

h. ADDENDUM NO.(S) 1,2,3,4

3.2 Contractor's Basic Obligation.

Contractor promises and agrees, at his own cost and expense, to furnish to the Commission all labor, materials, tools, equipment, services, and incidental and customary work for the construction on State Route (SR) 91 Pachappa Underpass Completion Project and Related Work (PM 18.39 to PM 20.69). Project scope includes construction of a new retaining wall adjacent to the Union Pacific Railroad (UPRR), demolishing existing retaining walls and removal of an existing shoofly structure. The project also includes removal of existing stockpiled material, shoulder strengthening along the westbound Mission Inn Avenue off ramp from State Route 91, and drainage improvements along the eastbound University off ramp shoulder. Coordination and cooperation with UPRR and SCRRA (Metrolink) is required. Notwithstanding anything else in the Contract Documents, the Contractor shall complete the Work for a total of Eight Million Two Hundred Thirty Seven Thousand Four Hundred Nineteen Dollars (\$8,237,419), as specified in the bid proposal and pricing schedules submitted by the Contractor in response to the above referenced Notice Inviting Bids. Such amount shall be subject to adjustment in accordance with the applicable terms of this Contract. All Work shall be subject to, and performed in accordance with the above referenced Contract Documents.

3.3 Beginning of Work, Time of Completion and Liquidate Damages

The Contractor shall begin work within 15 calendar days after the issuance of the Notice to Proceed. This Work shall be diligently prosecuted to completion before the expiration of (excluding plant establishment work) **345 working days** beginning on the fifteenth calendar day after the date shown on the Notice to Proceed. Contractor agrees that if such Work is not completed within the aforementioned periods, liquidated damages will apply as provided by the applicable provisions of the Special Provisions, found in Part "B" of the Contract Appendix. The Contractor shall pay to the Commission the sum of **Five Thousand Four Hundred Dollars (\$5,400)** per day or fraction thereof, for each and every calendar days' delay in finishing the Work in excess of the number of working days prescribed above.

3.4 Commission's Basic Obligation.

Commission agrees to engage and does hereby engage Contractor as an independent contractor to furnish all materials and to perform all Work according to the terms and conditions herein contained for the sum set forth above. Except as otherwise provided in the Contract Documents, the Commission shall pay to Contractor, as full consideration for the satisfactory performance by the Contractor of services and obligation required by this Contract, the above referenced compensation in accordance with Compensation Provisions set forth in the Contract Documents.

3.5 California Prevailing Wages; Conflicts

The State general prevailing wage rates determined by the Director of Industrial Relations are hereby made a part of this contract. It is further expressly agreed by and between the parties hereto that should there be any conflict between the terms of this instrument and the bid of said Contractor, then this instrument shall control and nothing herein shall be considered as an acceptance of the said terms of said bid conflicting herewith.

3.6 Contractor's Labor Certification.

Contractor maintains that he is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Work. A certification form for this purpose is attached to this Contract as Exhibit "A" and incorporated herein by reference, and shall be executed simultaneously with this Contract.

3.7 Successors.

The parties do for themselves, their heirs, executors, administrators, successors, and assigns agree to the full performance of all of the provisions contained in this Contract. Contractor may not either voluntarily or by action of law, assign any obligation assumed by Contractor hereunder without the prior written consent of Commission.

3.8 Notices.

All notices hereunder and communications regarding interpretation of the terms of the Contract or changes thereto shall be provided by the mailing thereof by registered or certified mail, return receipt requested, postage prepaid and addressed as follows:

Contractor:

SEMA Construction, Inc.
42690 Rio Nedo, Suite G
Temecula, CA 92590
Attn: Thomas Ames

Commission:

Riverside County Transportation Commission
P.O. Box 12008
Riverside, California 92502-2208
Attn: Executive Director

Any notice so given shall be considered received by the other party three (3) days after deposit in the U.S. Mail, first class postage prepaid, addressed to the party at the above address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

SEMA CONSTRUCTION, INC.

RIVERSIDE COUNTY
TRANSPORTATION COMMISSION

By: _____

Name

Title

Tax I.D. Number:

By: _____

Anne Mayer
Executive Director

APPROVED AS TO FORM:

By: _____

Best Best & Krieger LLP
Counsel, RCTC

EXHIBIT "A"

CERTIFICATION
LABOR CODE - SECTION 1861

I, the undersigned Contractor, am aware of the provisions of Section 3700 et seq. of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of the Code. I agree to and will comply with such provisions before commencing the Work governed by this Contract.

CONTRACTOR:

Name of Contractor: **SEMA Construction, Inc.**

By: _____
Signature

Name

Title

Date

BID COMPARRISON

ATTACHMENT 2

SR-91 Pachappa UC										ENGINEER'S ESTIMATE										BIDS										AVERAGES										VARIANCE TO AVERAGES										Delta betw/ high & low variances to the Average				
Revision No.: A (completed 10/21/2019) Bid Opening Date: 18 OCT 2019										Yellow items are > \$100kbelow ENGR EST																																												
										LOW BIDDER Sema			SECOND BIDDER Shimmick			THIRD BIDDER Riverside													LOW BIDDER Sema			SECOND BIDDER Shimmick			THIRD BIDDER Riverside																			
ITEM NUM	ITEM CODE	ITEM DESCRIPTION				UNIT OF MEASURE	BID QTY (A)	ENGINEER'S ESTIMATED PRICE (B)		AMOUNT (C=A x B)	% of Eng Est	PRICE	AMOUNT	% VAR ENGR EST	PRICE	AMOUNT	% VAR ENGR EST	PRICE	AMOUNT	% VAR ENGR EST	PRICE	AMOUNT	% of Total Avg.	% VAR ENGR EST	PRICE	AMOUNT	% Var to Avg	PRICE	AMOUNT	% Var to Avg	PRICE	AMOUNT	% Var to Avg	PRICE	AMOUNT	% of Total Avg.	ITEM NUM																	
1	070030	Lead Compliance Plan				LS	1	\$	3,000.00	\$	3,000	0%	3,600.00	\$	3,600	20%	3,000.00	\$	3,000	0%	10,000.00	\$	10,000	233%	5,533.33	\$	5,533	0%	84%	(1,933.33)	\$	(1,933)	-35%	(2,533.33)	\$	(2,533)	-46%	4,466.67	\$	4,467	81%	7,000.00	\$	7,000	0%	1								
2	080050	Progress Schedule (Critical Path Method) Time-Related Overhead				LS	1	\$	5,000.00	\$	5,000	0%	6,300.00	\$	6,300	26%	8,000.00	\$	8,000	60%	15,000.00	\$	15,000	200%	9,766.67	\$	9,767	0%	95%	(3,466.67)	\$	(3,467)	-35%	(1,766.67)	\$	(1,767)	-18%	5,233.33	\$	5,233	54%	8,700.00	\$	8,700	0%	2								
3	090100	Time-Related Overhead				LS	1	\$	690,000.00	\$	690,000	7%	1,310,000.00	\$	1,310,000	90%	861,000.00	\$	861,000	25%	650,000.00	\$	650,000	-6%	940,333.33	\$	940,333	11%	36%	369,666.67	\$	369,667	39%	(79,333.33)	\$	(79,333)	-8%	(290,333.33)	\$	(290,333)	-31%	660,000.00	\$	660,000	8%	3								
4	120090	Construction Area Signs				LS	1	\$	20,000.00	\$	20,000	0%	32,900.00	\$	32,900	65%	28,000.00	\$	28,000	40%	40,000.00	\$	40,000	100%	33,633.33	\$	33,633	0%	68%	(733.33)	\$	(733)	-2%	(5,633.33)	\$	(5,633)	-17%	6,366.67	\$	6,367	19%	12,000.00	\$	12,000	0%	4								
5	120100	Traffic Control System				LS	1	\$	150,000.00	\$	150,000	2%	75,100.00	\$	75,100	-50%	160,000.00	\$	160,000	7%	350,000.00	\$	350,000	133%	195,033.33	\$	195,033	2%	30%	(119,933.33)	\$	(119,933)	-61%	(35,033.33)	\$	(35,033)	-18%	154,966.67	\$	154,967	79%	274,900.00	\$	274,900	3%	5								
6	120110	Flashing Arrow Sign				EA	1	\$	1,500.00	\$	1,500	0%	7,500.00	\$	7,500	400%	5,000.00	\$	5,000	233%	2,500.00	\$	2,500	67%	5,000.00	\$	5,000	0%	233%	2,500.00	\$	2,500	50%	-	\$	-	0%	(2,500.00)	\$	(2,500)	-50%	5,000.00	\$	5,000	0%	6								
7	120120	Type III Barricade				EA	20	\$	200.00	\$	4,000	0%	86.00	\$	1,720	-57%	130.00	\$	2,600	-35%	150.00	\$	3,000	-25%	122.00	\$	2,440	0%	-39%	(36.00)	\$	(720)	-30%	8.00	\$	160	7%	28.00	\$	560	23%	64.00	\$	1,280	0%	7								
8	120149	Temporary Pavement Marking (Paint)				SQFT	130	\$	10.00	\$	1,300	0%	5.10	\$	663	-49%	5.00	\$	650	-50%	10.00	\$	1,300	0%	6.70	\$	871	0%	-33%	(1.60)	\$	(208)	-24%	(1.70)	\$	(221)	-25%	3.30	\$	429	49%	5.00	\$	650	0%	8								
9	120159	Temporary Traffic Stripe (Paint)				LF	34,500	\$	1.00	\$	34,500	0%	0.85	\$	29,325	-15%	1.00	\$	34,500	0%	1.00	\$	34,500	0%	0.95	\$	32,775	0%	-5%	(0.10)	\$	(3,450)	-11%	0.05	\$	1,725	5%	0.05	\$	1,725	5%	0.15	\$	5,175	0%	9								
10	120165	Channelizer (Surface Mounted)				EA	150	\$	50.00	\$	7,500	0%	30.00	\$	4,500	-40%	38.00	\$	5,700	-24%	65.00	\$	9,750	30%	44.33	\$	6,650	0%	-11%	(14.33)	\$	(2,150)	-32%	(6.33)	\$	(950)	-14%	20.67	\$	3,100	47%	35.00	\$	5,250	0%	10								
11	120300	Temporary Pavement Marker				EA	670	\$	10.00	\$	6,700	0%	4.10	\$	2,747	-59%	4.20	\$	2,814	-58%	4.00	\$	2,680	-60%	4.10	\$	2,747	0%	-59%	-	\$	-	0%	0.10	\$	67	2%	(0.10)	\$	(67)	-2%	0.20	\$	134	0%	11								
12	128651	Portable Changeable Message Sign				EA	4	\$	7,500.00	\$	30,000	0%	20,800.00	\$	83,200	177%	8,100.00	\$	32,400	8%	15,000.00	\$	60,000	100%	14,633.33	\$	58,533	1%	95%	6,166.67	\$	24,667	42%	(6,533.33)	\$	(26,133)	-45%	366.67	\$	1,467	3%	12,700.00	\$	50,800	1%	12								
13	129000	Temporary Railing (Type K)				LF	3,040	\$	27.00	\$	82,080	1%	21.00	\$	63,840	-22.2%	20.00	\$	60,800	-26%	25.00	\$	76,000	-7%	22.00	\$	66,880	1%	-19%	(1.00)	\$	(3,040)	-5%	(2.00)	\$	(6,080)	-9%	3.00	\$	9,120	14%	5.00	\$	15,200	0%	13								
14	129100	Temporary Crash Cushion Module				EA	49	\$	280.00	\$	13,720	0%	200.00	\$	9,800	-29%	180.00	\$	8,820	-36%	400.00	\$	19,600	43%	260.00	\$	12,740	0%	-7%	(60.00)	\$	(2,940)	-23%	(80.00)	\$	(3,920)	-31%	140.00	\$	6,860	54%	220.00	\$	10,780	0%	14								
15	130100	Job Site Management				LS	1	\$	50,000.00	\$	50,000	1%	61,500.00	\$	61,500	23%	155,000.00	\$	155,000	210%	35,000.00	\$	35,000	-30%	83,833.33	\$	83,833	1%	68%	(22,333.33)	\$	(22,333)	-27%	71,166.67	\$	71,167	85%	(48,833.33)	\$	(48,833)	-58%	120,000.00	\$	120,000	1%	15								
16	130300	Prepare Storm Water Pollution Prevention Plan				LS	1	\$	7,500.00	\$	7,500	0%	1,700.00	\$	1,700	-77%	1,600.00	\$	1,600	-79%	5,000.00	\$	5,000	-33%	2,766.67	\$	2,767	0%	-63%	(1,066.67)	\$	(1,067)	-39%	(1,166.67)	\$	(1,167)	-42%	2,233.33	\$	2,233	81%	3,400.00	\$	3,400	0%	16								
17	130560	Temporary Soil binder				SQYD	10,000	\$	0.55	\$	5,500	0%	0.40	\$	4,000	-27%	0.42	\$	4,200	-24%	0.50	\$	5,000	-9%	0.44	\$	4,400	0%	-20%	(0.04)	\$	(400)	-9%	(0.02)	\$	(200)	-5%	0.06	\$	600	14%	0.10	\$	1,000	0%	17								
18	130620	Temporary Drainage Inlet Protection				EA	4	\$	400.00	\$	1,600	0%	520.00	\$	2,080	30%	1,100.00	\$	4,400	175%	350.00	\$	1,400	-13%	656.67	\$	2,627	0%	64%	(136.67)	\$	(547)	-21%	443.33	\$	1,773	68%	(306.67)	\$	(1,227)	-47%	750.00	\$	3,000	0%	18								
19	130640	Temporary Fiber Roll				LF	45,000	\$	2.50	\$	112,500	1%	3.00	\$	135,000	20%	4.00	\$	180,000	60%	4.00	\$	180,000	60%	3.67	\$	165,000	2%	47%	(0.67)	\$	(30,000)	-18%	0.33	\$	15,000	9%	0.33	\$	15,000	9%	1.00	\$	45,000	1%	19								
20	130710	Temporary Construction Entrance				EA	4	\$	2,500.00	\$	10,000	0%	6,400.00	\$	25,600	156%	11,500.00	\$	46,000	360%	5,000.00	\$	20,000	100%	7,633.33	\$	30,533	0%	205%	(1,233.33)	\$	(4,933)	-16%	3,866.67	\$	15,467	51%	(2,633.33)	\$	(10,533)	-34%	6,500.00	\$	26,000	0%	20								
21	130900	Temporary Concrete Washout (Portable)				EA	6	\$	3,600.00	\$	21,600	0%	2,800.00	\$	16,800	-22%	950.00	\$	5,700	-74%	1,400.00	\$	8,400	-61%	1,716.67	\$	10,300	0%	-52%	1,083.33	\$	6,500	63%	(766.67)	\$	(4,600)	-45%	(316.67)	\$	(1,900)	-18%	1,850.00	\$	11,100	0%	21								
22	150820	Remove Inlet				EA	1	\$	958.00	\$	958	0%	1,400.00	\$	1,400	46%	1,300.00	\$	1,300	36%	2,200.00	\$	2,200	130%	1,633.33	\$	1,633	0%	70%	(233.33)	\$	(233)	-14%	(333.33)	\$	(333)	-20%	566.67	\$	567	35%	900.00	\$	900	0%	22								
23	153213	Remove Concrete (Structure) (RW339 and RW342)				CY	2,070	\$	160.00	\$	331,200	3%	200.00	\$	414,000	25																																						

SR-91 Pachappa UC

Revision No.: A (completed 10/21/2019)
Bid Opening Date: 18 OCT 2019

ENGINEER'S
ESTIMATE

Yellow items are > \$100kbelow ENGR EST

BIDS

Bid Opening Date: 18 OCT 2019										LOW BIDDER			SECOND BIDDER			THIRD BIDDER					
ITEM NUM	ITEM CODE	ITEM DESCRIPTION	UNIT OF MEASURE	BID QTY (A)	ENGINEER'S ESTIMATED PRICE (B)	AMOUNT (C=A x B)	% of Eng Est	Sema			Shimmick			Riverside							
								PRICE	AMOUNT	% VAR ENGR EST	PRICE	AMOUNT	% VAR ENGR EST	PRICE	AMOUNT	% VAR ENGR EST					
44	390100	Prime Coat	TON	6	\$	1,300.00	\$	7,800	0%	830.00	\$	4,980	-36%	825.00	\$	4,950	-37%	1,250.00	\$	7,500	-4%
45	390132	Hot Mix Asphalt (Type A)	TON	230	\$	260.00	\$	59,800	1%	170.00	\$	39,100	-35%	165.00	\$	37,950	-37%	165.00	\$	37,950	-37%
46	390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON	190	\$	170.00	\$	32,300	0%	200.00	\$	38,000	18%	215.00	\$	40,850	26%	200.00	\$	38,000	18%
47	394077	Place Hot Mix Asphalt Dike (Type F)	LF	470	\$	16.00	\$	7,520	0%	10.00	\$	4,700	-38%	10.00	\$	4,700	-38%	15.00	\$	7,050	-6%
48	397005	Tack Coat	TON	3	\$	1,630.00	\$	4,890	0%	620.00	\$	1,860	-62%	625.00	\$	1,875	-62%	650.00	\$	1,950	-60%
49	398100	Remove Asphalt Concrete Dike	LF	470	\$	8.50	\$	3,995	0%	6.00	\$	2,820	-29%	6.50	\$	3,055	-24%	5.00	\$	2,350	-41%
50	398200	Cold Plane Asphalt Concrete Pavement	SQYD	1,850	\$	7.00	\$	12,950	0%	9.00	\$	16,650	29%	10.50	\$	19,425	50%	8.00	\$	14,800	14%
51	398300A	Remove Subballast	CY	840	\$	10.00	\$	8,400	0%	26.00	\$	21,840	160%	24.00	\$	20,160	140%	30.00	\$	25,200	200%
52	398301A	Remove Ballast	CY	3,180	\$	10.00	\$	31,800	0%	26.00	\$	82,680	160%	47.00	\$	149,460	370%	25.00	\$	79,500	150%
53	401050	Jointed Plain Concrete Pavement	CY	230	\$	350.00	\$	80,500	1%	370.00	\$	85,100	6%	350.00	\$	80,500	0%	350.00	\$	80,500	0%
54	414240	Isolation Joint Seal (Asphalt Rubber)	LF	400	\$	20.00	\$	8,000	0%	10.00	\$	4,000	-50%	5.00	\$	2,000	-75%	8.00	\$	3,200	-60%
55	490326	Steel Soldier Pile (W 18 x 130)	LF	194	\$	150.00	\$	29,100	0%	140.00	\$	27,160	-7%	100.00	\$	19,400	-33%	95.00	\$	18,430	-37%
56	490327	Steel Soldier Pile (W 24 x 162)	LF	2,615	\$	180.00	\$	470,700	5%	160.00	\$	418,400	-11%	160.00	\$	418,400	-11%	150.00	\$	392,250	-17%
57	490328	Steel Soldier Pile (W 30 x 211)	LF	768	\$	250.00	\$	192,000	2%	210.00	\$	161,280	-16.0%	220.00	\$	168,960	-12%	200.00	\$	153,600	-20%
58	490406	36-inch Drilled Hole (Soldier Pile)	LF	1,900	\$	110.00	\$	209,000	2%	160.00	\$	304,000	45%	125.00	\$	237,500	14%	70.00	\$	133,000	-36%
59	490409	42-inch Drilled Hole (Soldier Pile)	LF	578	\$	135.00	\$	78,030	1%	180.00	\$	104,040	33%	135.00	\$	78,030	0%	90.00	\$	52,020	-33%
60	510052	Structural Concrete, Concrete Cap Beam	CY	170	\$	900.00	\$	153,000	2%	1,500.00	\$	255,000	67%	2,000.00	\$	340,000	122%	1,700.00	\$	289,000	89%
61	510060	Structural Concrete, Retaining Wall	CY	92	\$	1,200.00	\$	110,400	1%	680.00	\$	62,560	-43%	780.00	\$	71,760	-35%	900.00	\$	82,800	-25%
62	510089	Structural Concrete, Apron Slab	CY	18	\$	1,100.00	\$	19,800	0%	1,600.00	\$	28,800	45%	700.00	\$	12,600	-36%	850.00	\$	15,300	-23%
63	510094	Structural Concrete, Drainage Inlet	CY	5	\$	1,950.00	\$	9,750	0%	5,200.00	\$	26,000	167%	2,600.00	\$	13,000	33%	2,800.00	\$	14,000	44%
64	511064	Fractured Rib Texture	SQFT	805	\$	35.00	\$	28,175	0%	35.00	\$	28,175	0%	37.00	\$	29,785	6%	35.00	\$	28,175	0%
65	511066	Architectural Treatment (Split Slate Texture)	SQFT	530	\$	30.00	\$	15,900	0%	40.00	\$	21,200	33%	35.00	\$	18,550	17%	25.00	\$	13,250	-17%
66	514000	Precast Concrete Lagging	SQFT	7,800	\$	100.00	\$	780,000	8%	50.00	\$	390,000	-50%	45.00	\$	351,000	-55%	50.00	\$	390,000	-50%
67	520103	Bar Reinforcing Steel (Retaining Wall)	LB	15,974	\$	1.60	\$	25,558	0%	1.70	\$	27,156	6%	2.00	\$	31,948	25%	2.00	\$	31,948	25%
68	540103	Install Waterproofing and Cover	SQFT	5,751	\$	16.00	\$	92,016	1%	12.00	\$	69,012	-25%	12.00	\$	69,012	-25%	12.00	\$	69,012	-25%
69	590120	Clean and Paint Steel Soldier Piling	LS	1	\$	190,000.00	\$	190,000	2%	27,200.00	\$	27,200	-86%	40,063.80	\$	40,064	-79%	30,000.00	\$	30,000	-84%
70	600013	Repair Spalled Surface Area	SQFT	20	\$	200.00	\$	4,000	0%	170.00	\$	3,400	-15%	450.00	\$	9,000	125%	400.00	\$	8,000	100%
71	600066	Core Concrete (4-inch diameter)	LF	54	\$	400.00	\$	21,600	0%	150.00	\$	8,100	-63%	280.00	\$	15,120	-30%	225.00	\$	12,150	-44%
72	600114	Bridge Removal (Portion)	LS	1	\$	250,000.00	\$	250,000	3%	362,800.00	\$	362,800	45%	380,000.00	\$	380,000	52%	450,000.00	\$	450,000	80%
73	610108	18" Alternative Pipe Culvert	LF	6	\$	120.00	\$	720	0%	310.00	\$	1,860	158%	250.00	\$	1,500	108%	450.00	\$	2,700	275%
74	610121	36" Alternative Pipe Culvert	LF	4	\$	200.00	\$	800	0%	590.00	\$	2,360	195%	310.00	\$	1,240	55%	835.00	\$	3,340	318%
75	665015	15" Slotted Pipe (SCSP, 0.109" Thick)	LF	436	\$	200.00	\$	87,200	1%	170.00	\$	74,120	-15%	130.00	\$	56,680	-35%	115.00	\$	50,140	-43%
76	680287	3" Slotted Plastic Pipe Underdrain	LF	4	\$	50.00	\$	200	0%	130.00	\$	520	160%	200.00	\$	800	300%	170.00	\$	680	240%
77	681132	Geocomposite Drain	SQFT	960	\$	7.00	\$	6,720	0%	2.20	\$	2,112	-69%	21.00	\$	20,160	200%	32.00	\$	30,720	357%
78	703210	12" Corrugated Steel Pipe Riser (.064" Thick)	LF	11	\$	200.00	\$	2,200	0%	250.00	\$	2,750	25%	180.00	\$	1,980	-10%	110.00	\$	1,210	-45%
79	705007	12" Steel Flared End Section	EA	2	\$	400.00	\$	800	0%	1,300.00	\$	2,600	225%	600.00	\$	1,200	50%	1,250.00	\$	2,500	213%
80	710108	Abandon Drainage Facility	EA	1	\$	1,000.00	\$	1,000	0%	2,800.00	\$	2,800	180.0%	2,100.00	\$	2,100	110%	2,500.00	\$	2,500	150%
81	710238	Modify Drainage System	EA	2	\$	800.00	\$	1,600	0%	17,800.00	\$	35,600	2125.0%	7,000.00	\$	14,000	775%	17,000.00	\$	34,000	2025%
82	721420	Concrete (Ditch Lining)	CY	20	\$	800.00	\$	16,000	0%	820.00	\$	16,400	3%	950.00	\$	19,000	19%	800.00	\$	16,000	0%
83	723070	Rock Slope Protection (150 lb, Class III, Method B) (CY)	CY	506	\$	110.00	\$	55,660	1%	130.00	\$	65,780	18%	115.00	\$	58,190	5%	60.00	\$	30,360	-45%
84	723080	Rock Slope Protection (60 lb, Class II, Method B) (CY)	CY	933	\$	115.00	\$	107,295	1%	130.00	\$	121,290	13%	115.00	\$	107,295	0%	100.00	\$	93,300	-13%
85	723095	Rock Slope Protection (20 lb, Class I, Method B) (CY)	CY	756	\$	120.00	\$	90,720	1%	130.00	\$	98,280	8%	115.00	\$	86,940	-4%	120.00	\$	90,720	0%
86	729011	Rock Slope Protection Fabric (Class 8)	SQYD	6,100	\$	5.00	\$	30,500	0%	4.10	\$	25,010	-18%	4.25	\$	25,925	-15%	5.50	\$	33,550	10%
87	730040	Minor Concrete (Gutter) (LF)	LF	657	\$	40.00	\$	26,280	0%	51.00	\$	33,507	28%	70.00	\$	45,990	75%	28.00	\$	18,396	-30%
88	731502	Minor Concrete (Miscellaneous Construction)	CY	11	\$	910.00	\$	10,010	0%	2,900.00	\$	31,900	219%	1,000.00	\$	11,000	10%	1,200.00	\$	13,200	32%

AVERAGES

PRICE	AMOUNT	% of Total Avg.	% VAR ENGR EST
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968.33	\$	5,810	0%	-26%
166.67	\$	38,333	0%	-36%
205.00	\$	38,950	0%	21%
11.67	\$	5,483	0%	-27%
631.67	\$	1,895	0%	-61%
5.83	\$	2,742	0%	-31%
9.17	\$	16,958	0%	31%
26.67	\$	22,400	0%	167%
32.67	\$	103,880	1%	227%
356.67	\$	82,033	1%	2%
7.67	\$	3,067	0%	-62%
111.67	\$	21,663	0%	-26%
156.67	\$	409,683	5%	-13%
210.00	\$	161,280	2%	-16%
118.33	\$	224,833	3%	8%
135.00	\$	78,030	1%	0%
1,733.33	\$	294,667	3%	93%
786.67	\$	72,373	1%	-34%
1,050.00	\$	18,900	0%	-5%
3,533.33	\$	17,667	0%	81%
35.67	\$	28,712	0%	2%
33.33	\$	17,667	0%	11%
48.33	\$	377,000	4%	-52%
1.90	\$	30,351	0%	19%
12.00	\$	69,012	1%	-25%
32,421.27	\$	32,421	0%	-83%
340.00	\$	6,800	0%	70%
218.33	\$	11,790	0%	-45%
397,600.00	\$	397,600	5%	59%
336.67	\$	2,020	0%	181%
578.33	\$	2,313	0%	189%
138.33	\$	60,313	1%	-31%
166.67	\$	667	0%	233%
18.40	\$	17,664	0%	163%
180.00	\$	1,980	0%	-10%
1,050.00	\$	2,100	0%	163%
2,466.67	\$	2,467	0%	147%
13,933.33	\$	27,867	0%	1642%
856.67	\$	17,133	0%	7%
101.67	\$	51,443	1%	-8%
115.00	\$	107,295	1%	0%
121.67	\$	91,980	1%	1%
4.62	\$	28,162	0%	-8%
49.67	\$	32,631	0%	24%
1,700.00	\$	18,700	0%	87%

VARIANCE TO AVERAGES

LOW BIDDER Sema			SECOND BIDDER Shimmick			THIRD BIDDER Riverside		
PRICE	AMOUNT	% Var to Avg	PRICE	AMOUNT	% Var to Avg	PRICE	AMOUNT	% Var to Avg

(138.33)	\$	(830)	-14%	(143.33)	\$	(860)	-15%	281.67	\$	1,690	29%
3.33	\$	767	2%	(1.67)	\$	(383)	-1%	(1.67)	\$	(383)	-1%
(5.00)	\$	(950)	-2%	10.00	\$	1,900	5%	(5.00)	\$	(950)	-2%
(1.67)	\$	(783)	-14%	(1.67)	\$	(783)	-14%	3.33	\$	1,567	29%
(11.67)	\$	(35)	-2%	(6.67)	\$	(20)	-1%	18.33	\$	55	3%
0.17	\$	78	3%	0.67	\$	313	11%	(0.83)	\$	(392)	-14%

SR-91 Pachappa UC

Revision No.: A (completed 10/21/2019)
Bid Opening Date: 18 OCT 2019

ENGINEER'S
ESTIMATE

Yellow items are > \$100kbelow ENGR EST

BIDS

ITEM NUM	ITEM CODE	ITEM DESCRIPTION	UNIT OF MEASURE	BID QTY (A)	ENGINEER'S ESTIMATED PRICE (B)	AMOUNT (C=A x B)	% of Eng Est	LOW BIDDER Sema			SECOND BIDDER Shimmick			THIRD BIDDER Riverside		
								PRICE	AMOUNT	% VAR ENGR EST	PRICE	AMOUNT	% VAR ENGR EST	PRICE	AMOUNT	% VAR ENGR EST
89	731504	Minor Concrete (Curb and Gutter)	CY	5	\$ 500.00	\$ 2,500	0%	810.00	\$ 4,050	62%	1,000.00	\$ 5,000	100%	650.00	\$ 3,250	30%
90	750001	Miscellaneous Iron and Steel	LB	2,120	\$ 6.20	\$ 13,144	0%	3.70	\$ 7,844	-40%	7.00	\$ 14,840	13%	5.00	\$ 10,600	-19%
91	750501	Miscellaneous Metal (Bridge)	LB	87	\$ 10.00	\$ 870	0%	26.00	\$ 2,262	160%	6.00	\$ 522	-40%	15.00	\$ 1,305	50%
92	750503	Install Miscellaneous Metal (Bridge)	LB	10,954	\$ 8.00	\$ 87,632	1%	7.00	\$ 76,678	-13%	1.30	\$ 14,240	-84%	5.00	\$ 54,770	-38%
93	780435	Prepare and Paint Concrete	SQFT	10,185	\$ 8.00	\$ 81,480	1%	4.80	\$ 48,888	-40%	4.00	\$ 40,740	-50%	2.00	\$ 20,370	-75%
94	800363	Chain Link Fence (Type CL-6, Extension Arm)	LF	1,900	\$ 40.00	\$ 76,000	1%	30.00	\$ 57,000	-25%	30.00	\$ 57,000	-25%	35.00	\$ 66,500	-13%
95	802640A	18' Chain Link Gate (Type CL-6, Extension Arm)	EA	2	\$ 3,200.00	\$ 6,400	0%	2,500.00	\$ 5,000	-22%	2,500.00	\$ 5,000	-22%	2,500.00	\$ 5,000	-22%
96	803050	Remove Chain Link Fence	LF	1,200	\$ 8.00	\$ 9,600	0%	10.50	\$ 12,600	31%	10.50	\$ 12,600	31%	8.00	\$ 9,600	0%
97	810120	Remove Pavement Marker	EA	2,121	\$ 1.00	\$ 2,121	0%	1.00	\$ 2,121	0%	1.00	\$ 2,121	0%	2.00	\$ 4,242	100%
98	810230	Pavement Marker (Retroreflective)	EA	620	\$ 10.00	\$ 6,200	0%	5.00	\$ 3,100	-50%	5.25	\$ 3,255	-48%	4.00	\$ 2,480	-60%
99	820921A	Retroreflective Sheeting Type XI	SQFT	330	\$ 7.00	\$ 2,310	0%	4.10	\$ 1,353	-41%	21.00	\$ 6,930	200%	20.00	\$ 6,600	186%
100	839521	Cable Railing	LF	720	\$ 25.00	\$ 18,000	0%	46.00	\$ 33,120	84%	50.00	\$ 36,000	100%	30.00	\$ 21,600	20%
101	839695A	Barrier Marker	EA	205	\$ 20.00	\$ 4,100	0%	17.00	\$ 3,485	-15%	10.00	\$ 2,050	-50%	50.00	\$ 10,250	150%
102	839704A	Concrete Barrier (Type 60D Modified)	LF	185	\$ 85.00	\$ 15,725	0%	100.00	\$ 18,500	18%	280.00	\$ 51,800	229%	185.00	\$ 34,225	118%
103	839712A	Concrete Barrier (Type 60SC Modified)	LF	85	\$ 90.00	\$ 7,650	0%	250.00	\$ 21,250	178%	380.00	\$ 32,300	322%	700.00	\$ 59,500	678%
104	839755	Remove Cable Railing (RW 339 and RW342)	LF	660	\$ 15.00	\$ 9,900	0%	5.75	\$ 3,795	-62%	6.00	\$ 3,960	-60%	12.00	\$ 7,920	-20%
105	839775	Remove Concrete Barrier (Type K)	LF	145	\$ 20.00	\$ 2,900	0%	21.00	\$ 3,045	5%	15.00	\$ 2,175	-25%	15.00	\$ 2,175	-25%
106	839778A	Remove Tracks (Railroad)	TF	1,340	\$ 75.00	\$ 100,500	1%	15.00	\$ 20,100	-80%	42.00	\$ 56,280	-44%	15.00	\$ 20,100	-80%
107	840502	Thermoplastic Traffic Stripe (Enhanced Wet Night Visibility)	LF	36,550	\$ 1.00	\$ 36,550	0%	0.95	\$ 34,723	-5%	1.00	\$ 36,550	0%	1.50	\$ 54,825	50%
108	840516	Thermoplastic Pavement Marking (Enhanced Wet Night Visibility)	SQFT	720	\$ 8.00	\$ 5,760	0%	3.10	\$ 2,232	-61%	3.15	\$ 2,268	-61%	8.00	\$ 5,760	0%
109	840656	Paint Traffic Stripe (2-Coat)	LF	20,420	\$ 0.60	\$ 12,252	0%	0.21	\$ 4,288	-65%	0.20	\$ 4,084	-67%	0.45	\$ 9,189	-25%
110	846030	Remove Thermoplastic Traffic Stripe	LF	29,320	\$ 0.90	\$ 26,388	0%	0.55	\$ 16,126	-39%	0.60	\$ 17,592	-33%	1.00	\$ 29,320	11%
111	870009	Maintaining Existing Traffic Management System During Con	LS	1	\$ 500.00	\$ 500	0%	520.00	\$ 520	4%	1,000.00	\$ 1,000	100%	500.00	\$ 500	0%
112	872130	Modifying Existing Electrical System	LS	1	\$ 6,000.00	\$ 6,000	0%	7,200.00	\$ 7,200	20%	9,000.00	\$ 9,000	50%	7,000.00	\$ 7,000	17%
113	999990	MOBILIZATION 10%	LS	1	\$ 864,000.00	\$ 864,000	9%	823,000.00	\$ 823,000	-5%	850,000.00	\$ 850,000	-2%	725,000.00	\$ 725,000	-16%
114	129150	Temporary Traffic Screen	LF	3,040	\$ -	\$ -	0%	5.50	\$ 16,720	#DIV/0!	6.50	\$ 19,760	#DIV/0!	6.00	\$ 18,240	#DIV/0!
115	146002	Contractor Supplied Biologist	LS	1	\$ -	\$ -	0%	30,500.00	\$ 30,500	#DIV/0!	14,000.00	\$ 14,000	#DIV/0!	35,000.00	\$ 35,000	#DIV/0!
1								\$ 8,237,238.50	-13%		\$ 8,591,425	-10%		\$ 8,615,303	-9%	

Contractor's Bid Schedule Value	\$ 8,237,419	\$ 8,592,100	\$ 8,615,603
Delta betw. Contractor's Bid Sched total value & the above total calculation	\$ 180.00	\$ 675.00	\$ 300.00
Variance to Engr Estimate	\$ (1,265,511)	\$ (910,829)	\$ (887,326)
Variance to Low Bid	\$ -	\$ 354,187	\$ 378,065
	0.0%	4.3%	4.6%

AVERAGES

PRICE	AMOUNT	% of Total Avg.	% VAR ENGR EST
820.00	\$ 4,100	0%	64%
5.23	\$ 11,095	0%	-16%
15.67	\$ 1,363	0%	57%
4.43	\$ 48,563	1%	-45%
3.60	\$ 36,666	0%	-55%
31.67	\$ 60,167	1%	-21%
2,500.00	\$ 5,000	0%	-22%
9.67	\$ 11,600	0%	21%
1.33	\$ 2,828	0%	33%
4.75	\$ 2,945	0%	-53%
15.03	\$ 4,961	0%	115%
42.00	\$ 30,240	0%	68%
25.67	\$ 5,262	0%	28%
188.33	\$ 34,842	0%	122%
443.33	\$ 37,683	0%	393%
7.92	\$ 5,225	0%	-47%
17.00	\$ 2,465	0%	-15%
24.00	\$ 32,160	0%	-68%
1.15	\$ 42,033	0%	15%
4.75	\$ 3,420	0%	-41%
0.29	\$ 5,854	0%	-52%
0.72	\$ 21,013	0%	-20%
673.33	\$ 673	0%	35%
7,733.33	\$ 7,733	0%	29%
799,333.33	\$ 799,333	9%	-7%
6.00	\$ 18,240	0%	#DIV/0!
26,500.00	\$ 26,500	0%	#DIV/0!
\$ 8,481,322		-11%	

VARIANCE TO AVERAGES

LOW BIDDER Sema			SECOND BIDDER Shimmick			THIRD BIDDER Riverside		
PRICE	AMOUNT	% Var to Avg	PRICE	AMOUNT	% Var to Avg	PRICE	AMOUNT	% Var to Avg
(10.00)	\$ (50)	-1%	180.00	\$ 900	22%	(170.00)	\$ (850)	-21%
(1.53)	\$ (3,251)	-29%	1.77	\$ 3,745	34%	(0.23)	\$ (495)	-4%
10.33	\$ 899	66%	(9.67)	\$ (841)	-62%	(0.67)	\$ (58)	-4%
2.57	\$ 28,115	58%	(3.13)	\$ (34,323)	-71%	0.57	\$ 6,207	13%
1.20	\$ 12,222	33%	0.40	\$ 4,074	11%	(1.60)	\$ (16,296)	-44%
(1.67)	\$ (3,167)	-5%	(1.67)	\$ (3,167)	-5%	3.33	\$ 6,333	11%
-	\$ -	0%	-	\$ -	0%	-	\$ -	0%
0.83	\$ 1,000	9%	0.83	\$ 1,000	9%	(1.67)	\$ (2,000)	-17%
(0.33)	\$ (707)	-25%	(0.33)	\$ (707)	-25%	0.67	\$ 1,414	50%
0.25	\$ 155	5%	0.50	\$ 310	11%	(0.75)	\$ (465)	-16%
(10.93)	\$ (3,608)	-73%	5.97	\$ 1,969	40%	4.97	\$ 1,639	33%
4.00	\$ 2,880	10%	8.00	\$ 5,760	19%	(12.00)	\$ (8,640)	-29%
(8.67)	\$ (1,777)	-34%	(15.67)	\$ (3,212)	-61%	24.33	\$ 4,988	95%
(88.33)	\$ (16,342)	-47%	91.67	\$ 16,958	49%	(3.33)	\$ (617)	-2%
(193.33)	\$ (16,433)	-44%	(63.33)	\$ (5,383)	-14%	256.67	\$ 21,817	58%
(2.17)	\$ (1,430)	-27%	(1.92)	\$ (1,265)	-24%	4.08	\$ 2,695	52%
4.00	\$ 580	24%	(2.00)	\$ (290)	-12%	(2.00)	\$ (290)	-12%
(9.00)	\$ (12,060)	-38%	18.00	\$ 24,120	75%	(9.00)	\$ (12,060)	-38%
(0.20)	\$ (7,310)	-17%	(0.15)	\$ (5,483)	-13%	0.35	\$ 12,793	30%
(1.65)	\$ (1,188)	-35%	(1.60)	\$ (1,152)	-34%	3.25	\$ 2,340	68%
(0.08)	\$ (1,566)	-27%	(0.09)	\$ (1,770)	-30%	0.16	\$ 3,335	57%
(0.17)	\$ (4,887)	-23%	(0.12)	\$ (3,421)	-16%	0.28	\$ 8,307	40%
(153.33)	\$ (153)	-23%	326.67	\$ 327	49%	(173.33)	\$ (173)	-26%
(533.33)	\$ (533)	-7%	1,266.67	\$ 1,267	16%	(733.33)	\$ (733)	-9%
23,666.67	\$ 23,667	3%	50,666.67	\$ 50,667	6%	(74,333.33)	\$ (74,333)	-9%
(0.50)	\$ (1,520)	-8%	0.50	\$ 1,520	8%	-	\$ -	0%
4,000.00	\$ 4,000	15%	(12,500.00)	\$ (12,500)	-47%	8,500.00	\$ 8,500	32%
\$ (244,084)			\$ 110,103			\$ 133,981		

Delta betw/ high
& low variances
to the Average

PRICE	AMOUNT	% of Total Avg.	ITEM NUM
350.00	\$ 1,750	0%	89
3.30	\$ 6,996	0%	90
20.00	\$ 1,740	0%	91
5.70	\$ 62,438	1%	92
2.80	\$ 28,518	0%	93
5.00	\$ 9,500	0%	94
-	\$ -	0%	95
2.50	\$ 3,000	0%	96
1.00	\$ 2,121	0%	97
1.25	\$ 775	0%	98
16.90	\$ 5,577	0%	99
20.00	\$ 14,400	0%	100
40.00	\$ 8,200	0%	101
180.00	\$ 33,300	0%	102
450.00	\$ 38,250	0%	103
6.25	\$ 4,125	0%	104
6.00	\$ 870	0%	105
27.00	\$ 36,180	0%	106
0.55	\$ 20,103	0%	107
4.90	\$ 3,528	0%	108
0.25	\$ 5,105	0%	109
0.45	\$ 13,194	0%	110
500.00	\$ 500	0%	111
2,000.00	\$ 2,000	0%	112
125,000.00	\$ 125,000	1%	113
1.00	\$ 3,040	0%	114
21,000.00	\$ 21,000	0%	115

REASONABLENESS OF RANGE CHECK

Items within the -75% to +50% range as compared to the Engineer's Estimate				88	77%	84	73%	70%	81	Items within the -75% to +50% range as compared to the Average of the bids	113	111	106
Items outside of the -75% to +50% range as compared to the Engineer's Estimate				27	23%	31	27%	30%	34	Items outside of the -75% to +50% range as compared to the Average of the bids	2	4	9
Items less than -75% of the Engineer's Estimate				4	3%	4	3%	3%	4	Items less than -75% of the Average of the bids & the Engineer's Estimate	0	0	1
Items greater than +50% of the Engineer's Estimate				23	20%	27	23%	26%	30	Items greater than +50% of the Average of the bids & the Engineer's Estimate	2	4	8

Sum of items less than -75% below both the Engineer's Estimate & the average	\$ -	\$ -	\$ (51,827)
Sum of items greater than 50% higher than both the Engineer's Estimate & the average	\$ 14,099	\$ 169,807	\$ 444,734
TOTAL & % of Bid Price	\$ 14,099 0.2%	\$ 169,807 2.0%	\$ 392,908 4.6%

GROUPED ITEMS

ITEM NUM	ITEM CODE	ITEM DESCRIPTION	AMOUNT (C=A x B)	% EE	AMOUNT	% VAR EE	AMOUNT	% VAR EE	AMOUNT	% VAR EE	AMOUNT	% OF Avg.	% VAR EE	AMOUNT	% Var Avg	AMOUNT	% Var Avg	AMOUNT	% Var Avg	AMOUNT	% Var Avg	ITEM NUM
TOTAL OF BELOW			\$ 6,200,665	65%	\$ 5,130,905	-17.3%	\$ 5,018,704	-19.1%	\$ 5,259,165	-15.2%	\$ 5,136,258	60.6%	-17%	\$ (5,353)	0%	\$ (117,554)	-2%	\$ 122,907	2%	\$ 3,379,814	40%	NUM
3	090100	Time-Related Overhead	\$ 690,000	7%	\$ 1,310,000	89.9%	\$ 861,000	24.8%	\$ 650,000	-5.8%	\$ 940,333	11.1%	36%	\$ 369,667	39%	\$ (79,333)	-8%	\$ (290,333)	-31%	\$ 660,000	8%	3
23-35		Earthwork Related	\$ 2,966,810	31%	\$ 1,600,290	-46.1%	\$ 1,976,655	-33.4%	\$ 2,544,140	-14.2%	\$ 2,040,362	24.1%	-31%	\$ (440,072)	-22%	\$ (63,707)	-3%	\$ 503,778	25%	\$ 2,161,490	25%	23-35
54,65-69		Retaining Wall Related	\$ 1,513,855	16%	\$ 1,467,815	-3.0%	\$ 1,450,049	-4.2%	\$ 1,225,025	-19.1%	\$ 1,380,963	16.3%	-9%	\$ 86,852	6%	\$ 69,086	5%	\$ (155,938)	-11%	\$ 432,124	5%	65-69
66	514000	Precast Concrete Lagging	\$ 780,000	8%	\$ 390,000	-50.0%	\$ 351,000	-55.0%	\$ 390,000	-50.0%	\$ 377,000	4.4%	-52%	\$ 13,000	3%	\$ (26,000)	-7%	\$ 13,000	3%	\$ 39,000	0%	66
72	600114	Bridge Removal (Portion)	\$ 250,000	3%	\$ 362,800	45.1%	\$ 380,000	52.0%	\$ 450,000	80.0%	\$ 397,600	4.7%	59%	\$ (52,400)	-9%	\$ (17,600)	-4%	\$ 52,400	13%	\$ 87,200	1%	72

Agreement No. 16-31-051-04

**AMENDMENT NO. 4
FOR PROJECT AND CONSTRUCTION MANAGEMENT SERVICES
FOR THE PACHAPPA UNDERPASS COMPLETION PROJECT
WITH JACOBS PROJECT MANAGEMENT CO**

1 PARTIES AND DATE

This Amendment No. 4 to the Agreement for project and construction management services is made and entered into as of _____, by and between the RIVERSIDE COUNTY COMMISSION ("Commission") and JACOBS PROJECT MANAGEMENT CO. ("Consultant"), a Delaware corporation.

2 RECITALS

- 2.1 The Commission and the Consultant entered into an agreement, dated November 10, 2016, for the purpose of providing project and construction management services for the Pachappa Underpass Completion Project ("Master Agreement")
- 2.2 The Commission and the Consultant entered into an Amendment No. 1 dated November 7, 2017, for the purpose of revising the compensation rate for the Project Manager/Resident Engineer classification, the hours allocated to the Project Manager/Resident Engineer, and overhead cost rate for the continued provision of project and construction management services.
- 2.3 The Commission and the Consultant entered into an Amendment No 2 dated May 24, 2018 for the purposes of revising Exhibit "C" of the Master Agreement including the Consultant's and subconsultants' compensation rates for various classifications, the hours allocated to various classifications, and the overhead cost rate for Coast Surveying, Inc. and Leighton Consulting, Inc. for the continued provision of project and construction management services.
- 2.4 The Commission and the Consultant entered into an Amendment No 3, dated July 27, 2018 to amend the Master Agreement in order to extend the term, revise the Scope of Services, and provide additional compensation for the continued provision of construction management, materials testing and construction management services
- 2.5 The Commission and the Consultant now desire to amend the Master Agreement in order to extend the term, revise the Scope of Services, and provide additional compensation for the continued provision of construction management, materials testing and construction management services

3 TERMS

- 3.1 The Scope of Services for the Master Agreement shall be amended to include Services, as that term is defined in the Master Agreement, required to provide continued construction management services, as more fully described in Exhibit "A" attached to this Amendment and incorporated herein by reference.

- 3.2 The maximum compensation for Services performed pursuant to this amendment No. 4 shall be One million Two Hundred Forty-Five Thousand Five Hundred and Nine Dollars (\$1,245,509), as more fully described in Exhibit "B" attached to this Amendment and incorporated herein by reference.
- 3.3 The total not-to-exceed amount of the Master Agreement, as amended by this Amendment No. 4 shall be Three Million One Hundred Five Thousand Six Hundred and Eighty-Six Dollars (\$3,105,686).
- 3.4 Except as amended herein, all provisions of the Master Agreement, as previously amended, including without limitation the indemnity and insurance provisions, shall remain in full force and effect and shall govern the actions for the parties under this Amendment No. 4.
- 3.5 This Amendment No. 4 shall be governed by the laws of the State of California. Venue shall be Riverside County.
- 3.6 This Amendment No. 4 may be signed in counterparts, each of which shall constitute an original.

[Signatures on following page]

**SIGNATURE PAGE
FOR
AGREEMENT 16-31-051-04**

IN WITNESS WHEREOF, the parties have executed this agreement as of the date first herein above written

**RIVERSIDE COUNTY
TRANSPORTATION COMMISSION**

By: _____
Anne Mayer, Executive Director

JACOBS PROJECT MANAGEMENT

By: _____

Name: _____

Title: _____

APPROVED AS TO FORM:

By: _____
Best Best & Krieger LLP
General Counsel

ATTEST

By: _____

Title: _____

Exhibit "A"
Scope of Services

Furnish professional construction management services including surveying and materials testing for the construction of the Pachappa Underpass Completion Project. Scope includes contract administration, office engineering, construction inspection, claims analysis, coordination with Caltrans, City of Riverside, Union Pacific Railway (UPRR), Burlington Northern Santa Fe (BNSF) railroads and SCRRA (Metrolink) and other appropriate construction management duties..

Construction project scope includes construction of a 657-foot long soldier pile retaining wall (RW 335) adjacent to UPRR tracks, completion of construction of the Pachappa Underpass replacement structure, removal of the existing Pachappa Underpass shoofly structure, coordination with UPRR and Metrolink to relocate railroad tracks to completed alignment, removal of portions of cantilever retaining walls (RWs 339 & 342) and associated grading. Work also includes drainage improvements at the eastbound University offramp shoulder and reconstruction of the westbound Mission Inn offramp shoulder.

Exhibit "B"
Compensation Summary

DRAFT

CONSTRUCTION MANAGEMENT SERVICES - PACHAPPA UP COMPLETION PROJECT**AGREEMENT 16-31-051-05****EXHIBIT "B" -- COMPENSATION SUMMARY¹**

Jacobs Project Management Services	PROJECT TASKS/ROLE	COST
<i>Prime Consultant:</i>		
Jacobs Project Management Services	Construction Management	\$ 150,084
<i>Sub Consultants:</i>		
Sub 1	Labor Compliance - Meadows Consulting (DBE)	\$ 36,198
Sub 2	Materials Testing - Leighton Consulting	\$ 305,106
Sub 3	Construction Surveying - Coast Surveying	\$ 308,177
Sub 4	Stormwater Management - S2 Engineering	\$ 154,969
SUBTOTAL Prime & Subconsultants		\$ 954,534
OTHER DIRECT COSTS		\$ 290,975
TOTAL COSTS		\$ 1,245,509

¹ Commission authorization pertains to total contract award amount. Compensation adjustments between consultants may occur; however, the maximum total compensation authorized may not be exceeded.

SS 1913350

AGENDA ITEM 7F

<i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i>	
DATE:	November 13, 2019
TO:	Riverside County Transportation Commission
FROM:	Western Riverside County Programs and Projects Committee Michelle McCamish, Management Analyst Brian Cunanan, Commuter and Motorist Assistance Manager
THROUGH:	Anne Mayer, Executive Director
SUBJECT:	Agreements with the California Department of Transportation for State Funding and Senate Bill 1 Funding for the Operation of the Freeway Service Patrol Program in Riverside County

WESTERN RIVERSIDE COUNTY PROGRAMS AND PROJECTS COMMITTEE AND STAFF RECOMMENDATION:

This item is for the Commission to:

- 1) Approve Agreement No. 20-45-013-00 with the California Department of Transportation (Caltrans) to provide state funding for Fiscal Year 2019/20 for the operation of the Riverside County Freeway Service Patrol (FSP) program in an amount not to exceed \$1,702,145;
- 2) Approve Agreement No. 20-45-016-00 with Caltrans to provide SB 1 funding for FY 2019/20 for the operation of the Riverside County FSP program in an amount not to exceed \$1,464,524; and
- 3) Authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreements on behalf of the Commission.

BACKGROUND INFORMATION:

In 1986, the Commission established itself as the Riverside County Service Authority for Freeway Emergencies (RC SAFE) after the enactment of SB 1199 in 1985. The purpose of the formation of SAFEs in California was to provide call box services and, with excess funds, provide additional motorist aid services. Funding for RC SAFE is derived from a one dollar per vehicle registration fee on vehicles registered in Riverside County. Initially, these funds were used only for the call box program. As additional motorist aid services were developed, SAFE funds were also used to provide FSP and the Inland Empire 511 traveler information services as part of a comprehensive motorist aid system in Riverside County.

In 1990, Proposition C was passed to fund transportation improvements and to help reduce traffic congestion in California. From this, the FSP program was created by Caltrans, which developed the corresponding local funding allocation plan to distribute funds to participating

jurisdictions through a formula based on population, urban freeway lane miles, and levels of congestion.

The Commission, acting in its capacity as the RC SAFE, is the principal agency in Riverside County, in partnership with Caltrans and the California Highway Patrol, managing the FSP program. The purpose of the FSP program is to provide a continuously roving tow services patrol along designated freeway segments (referred to as beats) to relieve freeway congestion and facilitate the rapid removal of disabled vehicles and those involved in minor accidents on local freeways.

In April 2017, the California Legislature passed SB 1 which included additional funding for FSP. In March 2018, Caltrans released the SB 1 FSP funding guidelines which allocated \$25 million for FSP statewide to participating jurisdictions based on the existing formula, resulting in \$1,390,286 for Riverside County for FY 2018/19. Per the guidelines, this allocation is to be applied to:

- a) CHP costs for FSP oversight and supervision,
- b) Inflation and hour adjustments to baseline service, and
- c) New or expanded FSP service.

The Commission's FSP program is a popular service amongst motorists in Riverside County and has consistently demonstrated a very high benefit to cost score statewide. Currently, the Commission contracts with three tow truck operators to provide service during peak commute hours across 165 centerline miles on 12 beats.

DISCUSSION:

State Allocation for Baseline Service

The Caltrans funding agreement for FY 2019/20 in the amount of \$1,702,145 provides for continued state funding of the baseline FSP program, which includes nine beats (1, 2, 4, 7, 8, 18, 19, 25, and 34I) as shown in Figure 1. Caltrans funding agreements are reimbursement-based and allow for carryover of contract balances not expended in the agreement's stated fiscal year. This allows the Commission to fully expend allocated amounts.



Figure 1: Baseline Freeway Service Patrol Beats Map

SB 1 Funding for Expanded Service

The previous allocations of SB 1 FSP funds expanded and continued coverage into southern Riverside County. The projected benefit cost for this expansion scored above the minimum benefit cost threshold (3.0). In September 2018, the Commission launched three new beats (20, 34B, and 35) as shown in Figure 2—expanding FSP as far south as the I-15/SR-79 South interchange and benefitting commuters traveling from and through Lake Elsinore, Wildomar, Menifee, Murrieta, and Temecula.

The SB1 allocation for FY 2019/20 in the amount of \$1,464,524 provides funding to continue the new service in southern Riverside County as well as supplement inflation costs in the baseline service.



Figure 2: South County Beats Map

Since September 2018 through June 2019, the three new south county beats provided 7,893 assists (Figure 3). As such, the south county beats make up about 18 percent of total FSP assists in the whole county (Figure 4). Since inception, the south county beats have scored an average estimated benefit cost of twice the minimum threshold.

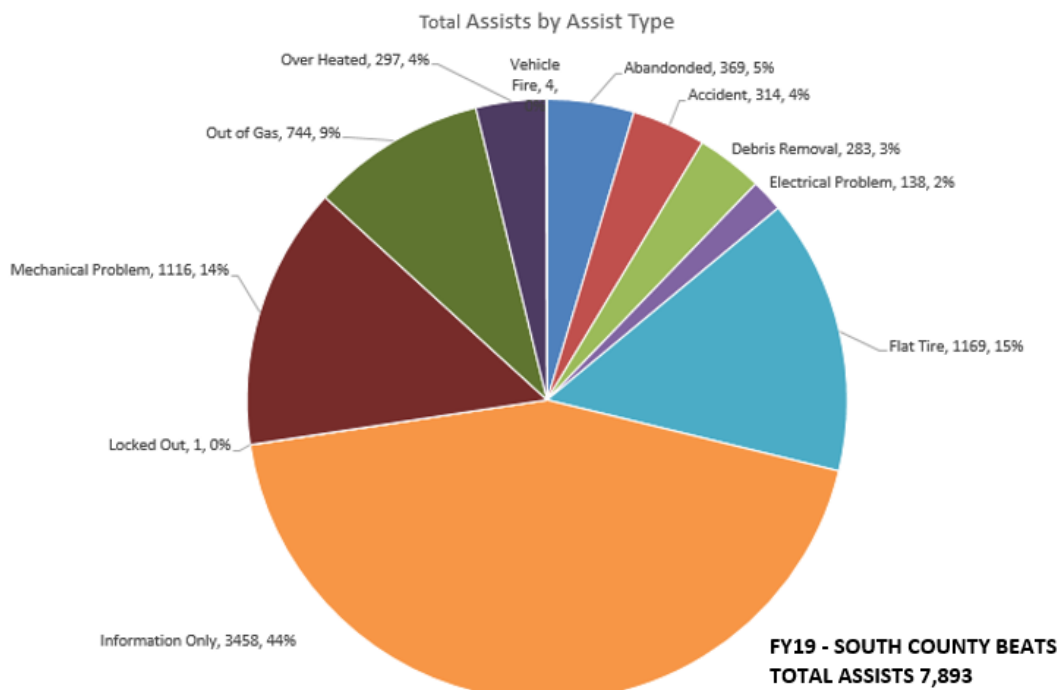


Figure 3: Total South County Assists

In FY 2018/19, total assists for all 12 beats through June 30, 2019 were 44,607 (Figure 4).

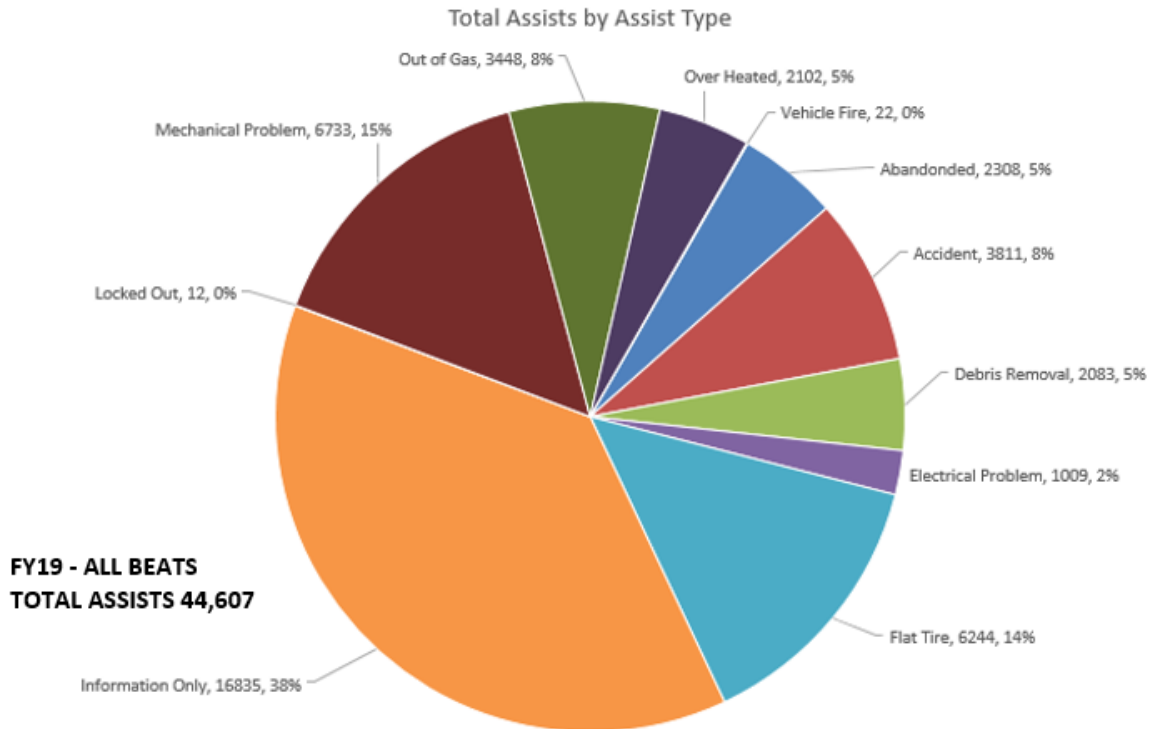


Figure 4: Total All Beats Assists

The Commission will fund the required local match for both allocations with RC SAFE revenues. As with prior funding agreements, any state or SB1 funds not claimed in the current fiscal year will be carried over and claimed in the next fiscal year.

Financial Information					
In Fiscal Year Budget:	Yes N/A	Year:	FY 2019/20 FY 2020/21	Amount:	\$ 2,900,000 \$ 266,669
Source of Funds:	State allocations and SB 1 funding			Budget Adjustment:	No N/A
GL/Project Accounting No.:	002173 415 41510 201 45 41501				
Fiscal Procedures Approved:	<i>Theresa Irujo</i>			Date:	10/16/2019

Attachments:

- 1) Caltrans FSP Fund Transfer Agreement FY 2019/20
- 2) Caltrans SB 1 FSP Fund Transfer Agreement FY 2019/20

FREEWAY SERVICE PATROL PROGRAM
FUND TRANSFER AGREEMENT (Non Federal)

Agreement No. FSP20-6054(096)
Project No. FSP20-6054(096)

Location: 08-RIV-0-RCTC
AMS Adv ID:0820000018

THIS AGREEMENT, effective on July 1, 2019, is between the State of California, acting by and through the Department of Transportation, hereinafter referred to as STATE, and the Riverside County Transportation Commission, a public agency, hereinafter referred to as "ADMINISTERING AGENCY".

WHEREAS, Streets and Highways Code (S&HC) Section 2560 et seq., authorizes STATE and administering agencies to develop and implement a Freeway Service Patrol (FSP) program on traffic-congested urban freeways throughout the state; and

WHEREAS, STATE has distributed available State Highway Account funds to administering agencies participating in the FSP Program in accordance with S&HC Section 2562; and

WHEREAS, ADMINISTERING AGENCY has applied to STATE and has been selected to receive funds from the FSP Program for the purpose of , hereinafter referred to as "PROJECT"; and

WHEREAS, proposed PROJECT funding is as follows:

Total Cost	State Funds	Local Funds	
\$2,127,681.00	\$1,702,145.00	\$425,536.00	; and

WHEREAS, STATE is required to enter into an agreement with ADMINISTERING AGENCY to delineate the respective responsibilities of the parties relative to prosecution of said PROJECT; and

WHEREAS, STATE and ADMINISTERING AGENCY mutually desire to cooperate and jointly participate in the FSP program and desire to specify herein the terms and conditions under which the FSP program is to be conducted; and

WHEREAS, ADMINISTERING AGENCY has approved entering into this Agreement under authority of Resolution No. _____ approved by ADMINISTERING AGENCY on _____, a copy of which is attached.

For Caltrans Use Only

I hereby Certify upon my own personal knowledge that budgeted funds are available for this encumbrance

Accounting Officer

| Date

| \$ 1,702,145.00

Jessamine Pelos

8/13/2019

NOW, THEREFORE, the parties agree as follows:

SECTION I

STATE AGREES:

1. To define or specify, in cooperation with ADMINISTERING AGENCY, the limits of the State Highway segments to be served by the FSP as well as the nature and amount of the FSP dedicated equipment, if any that is to be funded under the FSP program.
2. To pay ADMINISTERING AGENCY the STATE's share, an amount not to exceed \$1,702,145.00, of eligible participating PROJECT costs.
3. To make reimbursements to ADMINISTERING AGENCY, as promptly as state fiscal procedures will permit, but not more often than monthly in arrears, upon receipt of an original and two signed copies of invoices in the proper form covering actual allowable costs incurred for the prior sequential month's period of the Progress Payment Invoice.
4. When conducting an audit of the costs claimed by ADMINISTERING AGENCY under the provisions of this Agreement, STATE will rely to the maximum extent possible on any prior audit of ADMINISTERING AGENCY performed pursuant to the provisions of state and federal laws. In the absence of such an audit, work of other auditors will be relied upon to the extent that work is acceptable to STATE when planning and conducting additional audits.

SECTION II

ADMINISTERING AGENCY AGREES:

1. To commit and contribute matching funds from ADMINISTERING AGENCY resources, which shall be an amount not less than 25% of the amount provided by STATE from the State Highway Account.
2. The ADMINISTERING AGENCY's detailed PROJECT Cost Proposal is attached hereto and made an express part of this Agreement. The detailed PROJECT Cost Proposal reflects the provisions and/or regulations of Section III, Article 8, of this agreement.
3. To use all state funds paid hereunder only for those transportation-related PROJECT purposes that conform to Article XIX of the California State Constitution.

4. STATE funds provided to ADMINISTERING AGENCY or sub-recipient(s) under this Agreement shall not be used for administrative purposes by ADMINISTERING AGENCY or sub-recipient(s). Said administrative costs may be credited toward ADMINISTERING AGENCY's or sub-recipient's PROJECT matching funds provided claimed administrative costs are specified on ADMINISTERING AGENCY's invoice submittal. If said administrative costs are "indirect", as defined in 2 CFR, Part 200, Uniform Administrative Requirements, Cost Principles and Audit Requirement for Federal Awards, the costs must be allocated in accordance with an Indirect Cost Allocation Plan (ICAP), submitted, reviewed, and approved in accordance with Caltrans Audits and Investigations requirements which may be accessed at: www.dot.ca.gov/hq/audits/.

5. To develop, in cooperation with STATE, advertise, award, and administer PROJECT contract(s) in accordance with ADMINISTERING AGENCY competitive procurement procedures, in compliance with Public Contract Code (PCC) 10335-10381 (non-A&E services), and other applicable STATE and FEDERAL regulations.

6. Upon award of contract for PROJECT, to prepare and submit to STATE an original and two signed copies of progress invoicing for STATE's share of actual expenditures for allowable PROJECT costs.

7. Said invoicing shall evidence the expenditure of ADMINISTERING AGENCY's PROJECT participation in paying not less than 20% of all allowable PROJECT costs and shall contain the information described in Chapter 5 of the Local Assistance Procedures Manual (LAPM). Invoicing shall demonstrate ADMINISTERING AGENCY'S PROJECT participation by showing a matched expenditure of funds of at least 25% of the amount provided by the STATE. ADMINISTERING AGENCY invoices shall be submitted to:

State of California
Department of Transportation
Division of Traffic Operations, MS 36
Office of System Management Operations
1120 "N" Street
Sacramento, CA 95814

8. Within 60 days after completion of PROJECT work to be reimbursed under this Agreement, to prepare a final invoice reporting all actual eligible costs expended, including all costs paid by ADMINISTERING AGENCY and submit that signed invoice, along with any refund due STATE, to the address referenced above under Section II, Article 7. Backup information submitted with said final invoice shall include all FSP operational contract invoices paid by ADMINISTERING AGENCY to contracted operators included in expenditures billed to STATE under this Agreement.

9. COST PRINCIPLES

A) ADMINISTERING AGENCY agrees to comply with, and require all sub-recipients and project sponsors to comply with 2 CFR, Part 200, Uniform Administrative Requirements, Cost Principles and Audit Requirement for Federal Awards, and all applicable Federal and State laws and regulations.

B) ADMINISTERING AGENCY agrees, and will assure that its contractors and subcontractors will be obligated to agree, that Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31, et seq., and all applicable Federal and State laws and regulations, shall be used to determine the allowability of individual PROJECT cost items.

C) Any Fund expenditures for costs for which ADMINISTERING AGENCY has received payment or credit that are determined by subsequent audit to be unallowable under 2 CFR, Part 200, or 48 CFR, Chapter 1, Part 3, are subject to repayment by ADMINISTERING AGENCY to STATE. Should ADMINISTERING AGENCY fail to reimburse Fund moneys due STATE within 30 days of demand, or within such other period as may be agreed in writing between the Parties hereto, STATE is authorized to intercept and withhold future payments due ADMINISTERING AGENCY from STATE or any third-party source, including, but not limited to, the State Treasurer, the State Controller, and the California Transportation Commission.

10. THIRD PARTY CONTRACTING

A) ADMINISTERING AGENCY shall not award a non-A&E contract over \$5,000, construction contract over \$10,000, or other contracts over \$25,000 (excluding professional service contracts of the type which are required to be procured in accordance with Government Code sections 4525 (d), (e), and (f)) on the basis of a noncompetitive negotiation for work to be performed under this AGREEMENT without the prior written approval of STATE.

B) Any subcontract or agreement entered into by ADMINISTERING AGENCY as a result of disbursing Funds received pursuant to this Agreement shall contain all of the fiscal provisions (Section II, Paragraphs 4, 9, 11, 12, & 13) of this Agreement, and shall mandate that travel and per diem reimbursements and third-party contract reimbursements to subcontractors will be allowable as project costs only after those costs are incurred and paid for by the subcontractors.

C) In addition to the above, the preaward requirements of third party contractor/consultants with ADMINISTERING AGENCY should be consistent with Local Program Procedures as published by STATE.

11. ACCOUNTING SYSTEM

ADMINISTERING AGENCY, its contractors and subcontractors shall establish and maintain an accounting system and records that properly accumulate and segregate Fund expenditures by line item for the PROJECT. The accounting system of ADMINISTERING AGENCY, its contractors, and all subcontractors shall conform to Generally Accepted Accounting Principles (GAAP), enable the determination of incurred costs at interim points of completion, and provide support for reimbursement payment vouchers or invoices.

12. RIGHT TO AUDIT

For the purpose of determining compliance with this Agreement and other matters connected with the performance of ADMINISTERING AGENCY's contracts with third parties, ADMINISTERING AGENCY, ADMINISTERING AGENCY'S contractors, and subcontractors, and STATE shall each maintain and make available for inspection all books, documents, papers, accounting records, and other evidence pertaining to the performance of such contracts, including, but not limited to the costs of administering those various contracts. All of the above referenced parties shall make such materials available at their respective offices at all reasonable times for three years from the date of final payment of Funds to ADMINISTERING AGENCY. STATE, the California State Auditor, or any duly authorized representative of STATE or the United States Department of Transportation shall each have access to any books, records, and documents that are pertinent for audits, examinations, excerpts, and transactions, and ADMINISTERING AGENCY shall furnish copies thereof if requested.

13. TRAVEL AND SUBSISTENCE

Payments to ADMINISTERING AGENCY for travel and subsistence expenses of ADMINISTERING AGENCY forces and its subcontractors claimed for reimbursement or applied as local match credit shall not exceed rates authorized to be paid exempt non-represented State employees under current State Department of Personnel Administration (DPA) rules. If the rates invoiced are in excess of those authorized DPA rates, then ADMINISTERING AGENCY is responsible for the cost difference and any overpayments shall be reimbursed to STATE on demand.

SECTION III

IT IS MUTUALLY AGREED:

1. All obligations of STATE under the terms of this Agreement are subject to the appropriation of resources by the Legislature and the encumbrance of funds under this Agreement. Funding and reimbursement is available only upon the passage of the State Budget Act containing these STATE funds. The starting date of eligible reimbursable activities shall be JULY 1, 2019.
2. All obligations of ADMINISTERING AGENCY under the terms of this Agreement are subject to authorization and allocation of resources by ADMINISTERING AGENCY.
3. ADMINISTERING AGENCY and STATE shall jointly define the initial FSP program as well as the appropriate level of FSP funding recommendations and scope of service and equipment required to provide and manage the FSP program. No changes shall be made in these unless mutually agreed to in writing by the parties to this Agreement.
4. Nothing in the provisions of this Agreement is intended to create duties or obligations to or rights in third parties not parties to this Agreement or affect the legal liability of either party to this Agreement by imposing any standard of care with respect to the maintenance of State highways different from the standard of care imposed by law.
5. Neither STATE nor any officer or employee thereof is responsible for any injury, damage or liability occurring or arising by reason of anything done or omitted to be done by ADMINISTERING

AGENCY under or in connection with any work, authority, or jurisdiction delegated to ADMINISTERING AGENCY under this Agreement. It is understood and agreed that, pursuant to Government Code Section 895.4, ADMINISTERING AGENCY shall fully defend, indemnify, and save harmless the State of California, its officers, and employees from all claims, suits, or actions of every name, kind, and description brought for or on account of injury (as defined in Government Code Section 810.8) occurring by reason of anything done or omitted to be done by ADMINISTERING AGENCY under or in connection with any work, authority, or jurisdiction delegated to ADMINISTERING AGENCY under this Agreement.

6. Neither ADMINISTERING AGENCY nor any officer or employee thereof is responsible for any injury, damage, or liability occurring or arising by reason of anything done or omitted to be done by STATE under or in connection with any work, authority, or jurisdiction delegated to STATE under this Agreement. It is understood and agreed that, pursuant to Government Code Section 895.4, STATE shall fully defend, indemnify, and save harmless ADMINISTERING AGENCY, its officers, and employees from all claims, suits or actions of every name, kind, and description brought for or on account of injury (as defined in Government Code Section 810.8) occurring by reason of anything done or omitted to be done by STATE under or in connection with any work, authority, or jurisdiction delegated to STATE under this Agreement.

7. ADMINISTERING AGENCY will maintain an inventory of all non-expendable PROJECT equipment, defined as having a useful life of at least two years and an acquisition cost of \$500 or more, paid for with PROJECT funds. ADMINISTERING AGENCY shall define in PROJECT contract who shall take ownership of all equipment at the conclusion of the Project.

8. In the event that ADMINISTERING AGENCY fails to operate the PROJECT commenced and reimbursed under this Agreement in accordance with the terms of this Agreement or fails to comply with applicable Federal and State laws and regulations, STATE reserves the right to terminate funding for PROJECT, or portions thereof, upon written notice to ADMINISTERING AGENCY.

9. This Agreement shall terminate on June 30, 2022. However, the non-expendable equipment and liability clauses shall remain in effect until terminated or modified in writing by mutual agreement.

STATE OF CALIFORNIA

Department of Transportation

Riverside County Transportation Commission

By: _____

By: _____

Office of Project Implementation
Division of Local Assistance

Title: _____

DATE: _____

DATE: _____

FREEWAY SERVICE PATROL PROGRAM
FUND TRANSFER AGREEMENT (Non Federal)

Agreement No. FSP20SB1-6054(097)
Project No. FSP20SB1-6054(097)

Location: 08-RIV-0-RCTC
AMS Adv ID: 0820000039

THIS AGREEMENT, effective on July 1, 2019, is between the State of California, acting by and through the Department of Transportation, hereinafter referred to as STATE, and Riverside County Transportation Commission, a public agency, hereinafter referred to as "ADMINISTERING AGENCY".

WHEREAS, Streets and Highways Code (S&HC) Section 2560 et seq., authorizes STATE and administering agencies to develop and implement a Freeway Service Patrol (FSP) program on traffic-congested urban freeways throughout the state; and

WHEREAS, STATE has distributed available Senate Bill 1 (SB 1) funds to administering agencies participating in the SB 1 FSP Program in accordance with S&HC Section 2562 and the 2018 FSP SB1 Funding Guidelines; and

WHEREAS, ADMINISTERING AGENCY has applied to STATE and has been selected to receive funds from the FSP Program for the purpose of Freeway Service Patrol, hereinafter referred to as "PROJECT"; and

WHEREAS, proposed PROJECT funding is as follows:

Total Cost	State Funds	Local Funds
<u>\$1,830,654.87</u>	<u>\$1,464,523.90</u>	<u>\$366,130.97</u> ; and

WHEREAS, STATE is required to enter into an agreement with ADMINISTERING AGENCY to delineate the respective responsibilities of the parties relative to prosecution of said PROJECT; and

WHEREAS, STATE and ADMINISTERING AGENCY mutually desire to cooperate and jointly participate in the FSP program and desire to specify herein the terms and conditions under which the FSP program is to be conducted; and

WHEREAS, ADMINISTERING AGENCY has approved entering into this Agreement under authority of Resolution No. _____ approved by ADMINISTERING AGENCY on _____, a copy of which is attached.

For Caltrans Use Only

I hereby Certify upon my own personal knowledge that budgeted funds are available for this encumbrance

Accounting Officer	Date	\$
<i>Jessamine Pelos</i>	<i>10/3/2019</i>	<i>1,464,523.90</i>

STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION
PROGRAM SUPPLEMENT AND CERTIFICATION FORM
 PSCF (REV. 01/2010)

TO:	STATE CONTROLLER'S OFFICE Claims Audits 3301 "C" Street, Rm 404 Sacramento, CA 95816	DATE PREPARED:	PROJECT NUMBER:
		10/3/2019	0820000039
		REQUISITION NUMBER / CONTRACT NUMBER:	
		RQS 0820000002634	

FROM: **Department of Transportation**

SUBJECT:	Encumbrance Document
----------	-----------------------------

VENDOR / LOCAL AGENCY:
RIVERSIDE COUNTY TRANSPORTATION COMMISSION

\$ 1,464,523.90	
-----------------	--

PROCUREMENT TYPE:	
Local Assistance	

[illegible]

ADA Notice

For individuals with sensory disabilities, this document is available in alternate formats. For information, call (915) 654-6410 or TDD (916) -3880 or write Records and Forms Management, 1120 N. Street, MS-89, Sacramento, CA 95814.

NOW, THEREFORE, the parties agree as follows:

SECTION I

STATE AGREES:

1. To define or specify, in cooperation with ADMINISTERING AGENCY, the limits of the State Highway segments to be served by the FSP as well as the nature and amount of the FSP dedicated equipment, if any that is to be funded under the FSP program.
2. To pay ADMINISTERING AGENCY the STATE's share, an amount not to exceed \$1,464,523.90, of eligible participating PROJECT costs. This amount is comprised of \$833,443.19 for Inflation and Hour Adjustment to Baseline and \$631,080.71 for New or Expanded Service.
3. To make reimbursements to ADMINISTERING AGENCY, as promptly as state fiscal procedures will permit, but not more often than monthly in arrears, upon receipt of an original and two signed copies of invoices in the proper form covering actual allowable costs incurred for the prior sequential month's period of the Progress Payment Invoice.
4. When conducting an audit of the costs claimed by ADMINISTERING AGENCY under the provisions of this Agreement, STATE will rely to the maximum extent possible on any prior audit of ADMINISTERING AGENCY performed pursuant to the provisions of state and federal laws. In the absence of such an audit, work of other auditors will be relied upon to the extent that work is acceptable to STATE when planning and conducting additional audits.

SECTION II

ADMINISTERING AGENCY AGREES:

1. A. To commit and contribute matching funds from ADMINISTERING AGENCY resources, which shall be an amount not less than 25% of the amount provided by STATE from the State Highway Account.
1. B. To maintain existing service hours and expand new service all as defined in the 2018 FSP SB 1 Funding Guidelines for SB 1 funds.
2. The ADMINISTERING AGENCY's detailed PROJECT Cost Proposal is attached hereto and made an express part of this Agreement. The detailed PROJECT Cost Proposal reflects the provisions and/or regulations of Section III, Article 8, of this agreement.
3. To use all state funds paid hereunder only for those transportation-related PROJECT purposes that conform to Article XIX of the California State Constitution.
4. STATE funds provided to ADMINISTERING AGENCY or sub-recipient(s) under this Agreement shall not be used for administrative purposes by ADMINISTERING AGENCY or sub-recipient(s). Said administrative costs may be credited toward ADMINISTERING AGENCY's or sub-recipient's PROJECT matching funds provided claimed administrative costs are specified on ADMINISTERING AGENCY's invoice submittal. If said administrative costs are "indirect", as defined in 2 CFR, Part 200, Uniform Administrative Requirements, Cost Principles and Audit Requirement for Federal Awards, the costs must be allocated in accordance with an Indirect Cost Allocation Plan (ICAP), submitted, reviewed, and approved in accordance with the Independent Office of Audits and Investigations requirements which may be

accessed at: www.dot.ca.gov/hq/audits/.

5. To develop, in cooperation with STATE, advertise, award, and administer PROJECT contract(s) in accordance with ADMINISTERING AGENCY competitive procurement procedures, in compliance with Public Contract Code (PCC) 10335-10381 (non-A&E services), and other applicable STATE and FEDERAL regulations.

6. Upon award of contract for PROJECT, to prepare and submit to STATE an original and two signed copies of progress invoicing for STATE's share of actual expenditures for allowable PROJECT costs.

7. Said invoicing shall evidence the expenditure of ADMINISTERING AGENCY's PROJECT participation in paying not less than 20% of all allowable PROJECT costs and shall contain the information described in Chapter 5 of the Local Assistance Procedures Manual (LAPM). Invoicing shall demonstrate ADMINISTERING AGENCY'S PROJECT participation by showing a matched expenditure of funds of at least 25% of the amount provided by the STATE (excluding the funds dispersed to CHP). ADMINISTERING AGENCY invoices shall be submitted to:

State of California
Department of Transportation
Division of Traffic Operations, MS 36
Office of System Management Operations
1120 "N" Street
Sacramento, CA 95814

8. Within 60 days after completion of PROJECT work to be reimbursed under this Agreement, to prepare a final invoice reporting all actual eligible costs expended, including all costs paid by ADMINISTERING AGENCY and submit that signed invoice, along with any refund due STATE, to the address referenced above under Section II, Article 7. Backup information submitted with said final invoice shall include all FSP operational contract invoices paid by ADMINISTERING AGENCY to contracted operators included in expenditures billed to STATE under this Agreement.

9. COST PRINCIPLES

A) ADMINISTERING AGENCY agrees to comply with, and require all sub-recipients and project sponsors to comply with 2 CFR, Part 200, Uniform Administrative Requirements, Cost Principles and Audit Requirement for Federal Awards, and all applicable Federal and State laws and regulations.

B) ADMINISTERING AGENCY agrees, and will assure that its contractors and subcontractors will be obligated to agree, that Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31, et seq., and all applicable Federal and State laws and regulations, shall be used to determine the allowability of individual PROJECT cost items.

C) Any Fund expenditures for costs for which ADMINISTERING AGENCY has received payment or credit that are determined by subsequent audit to be unallowable under 2 CFR, Part 200, or 48 CFR, Chapter 1, Part 3, are subject to repayment by ADMINISTERING AGENCY to STATE. Should ADMINISTERING AGENCY fail to reimburse Fund moneys due STATE within 30 days of demand, or within such other period as may be agreed in writing between the Parties hereto, STATE is authorized to intercept and withhold future payments due ADMINISTERING AGENCY from STATE or any third-party source,

including, but not limited to, the State Treasurer, the State Controller, and the California Transportation Commission.

10. THIRD PARTY CONTRACTING

A) ADMINISTERING AGENCY shall not award a non-A&E contract over \$5,000, construction contract over \$10,000, or other contracts over \$25,000 (excluding professional service contracts of the type which are required to be procured in accordance with Government Code sections 4525 (d), (e), and (f)) on the basis of a noncompetitive negotiation for work to be performed under this AGREEMENT without the prior written approval of STATE.

B) Any subcontract or agreement entered into by ADMINISTERING AGENCY as a result of disbursing Funds received pursuant to this Agreement shall contain all of the fiscal provisions (Section II, Paragraphs 4, 9, 11, 12, & 13) of this Agreement, and shall mandate that travel and per diem reimbursements and third-party contract reimbursements to subcontractors will be allowable as project costs only after those costs are incurred and paid for by the subcontractors.

C) In addition to the above, the preaward requirements of third party contractor/consultants with ADMINISTERING AGENCY should be consistent with Local Program Procedures as published by STATE.

11. ACCOUNTING SYSTEM

ADMINISTERING AGENCY, its contractors and subcontractors shall establish and maintain an accounting system and records that properly accumulate and segregate Fund expenditures by line item for the PROJECT. The accounting system of ADMINISTERING AGENCY, its contractors, and all subcontractors shall conform to Generally Accepted Accounting Principles (GAAP), enable the determination of incurred costs at interim points of completion, and provide support for reimbursement payment vouchers or invoices.

12. RIGHT TO AUDIT

For the purpose of determining compliance with this Agreement and other matters connected with the performance of ADMINISTERING AGENCY's contracts with third parties, ADMINISTERING AGENCY, ADMINISTERING AGENCY'S contractors, and subcontractors, and STATE shall each maintain and make available for inspection all books, documents, papers, accounting records, and other evidence pertaining to the performance of such contracts, including, but not limited to the costs of administering those various contracts. All of the above referenced parties shall make such materials available at their respective offices at all reasonable times for three years from the date of final payment of Funds to ADMINISTERING AGENCY. STATE, the California State Auditor, or any duly authorized representative of STATE or the United States Department of Transportation shall each have access to any books, records, and documents that are pertinent for audits, examinations, excerpts, and transactions, and ADMINISTERING AGENCY shall furnish copies thereof if requested.

13. TRAVEL AND SUBSISTENCE

Payments to ADMINISTERING AGENCY for travel and subsistence expenses of ADMINISTERING AGENCY forces and its subcontractors claimed for reimbursement or applied as local match credit shall not

exceed rates authorized to be paid exempt non-represented State employees under current State Department of Personnel Administration (DPA) rules. If the rates invoiced are in excess of those authorized DPA rates, then ADMINISTERING AGENCY is responsible for the cost difference and any overpayments shall be reimbursed to STATE on demand.

SECTION III

IT IS MUTUALLY AGREED:

1. All obligations of STATE under the terms of this Agreement are subject to the appropriation of resources by the Legislature and the encumbrance of funds under this Agreement. Funding and reimbursement is available only upon the passage of the State Budget Act containing these STATE funds. The starting date of eligible reimbursable activities shall be JULY 1, 2019.
2. All obligations of ADMINISTERING AGENCY under the terms of this Agreement are subject to authorization and allocation of resources by ADMINISTERING AGENCY.
3. ADMINISTERING AGENCY and STATE shall jointly define the initial FSP program as well as the appropriate level of FSP funding recommendations and scope of service and equipment required to provide and manage the FSP program. No changes shall be made in these unless mutually agreed to in writing by the parties to this Agreement.
4. Nothing in the provisions of this Agreement is intended to create duties or obligations to or rights in third parties not parties to this Agreement or affect the legal liability of either party to this Agreement by imposing any standard of care with respect to the maintenance of State highways different from the standard of care imposed by law.
5. Neither STATE nor any officer or employee thereof is responsible for any injury, damage or liability occurring or arising by reason of anything done or omitted to be done by ADMINISTERING AGENCY under or in connection with any work, authority, or jurisdiction delegated to ADMINISTERING AGENCY under this Agreement. It is understood and agreed that, pursuant to Government Code Section 895.4, ADMINISTERING AGENCY shall fully defend, indemnify, and save harmless the State of California, its officers, and employees from all claims, suits, or actions of every name, kind, and description brought for or on account of injury (as defined in Government Code Section 810.8) occurring by reason of anything done or omitted to be done by ADMINISTERING AGENCY under or in connection with any work, authority, or jurisdiction delegated to ADMINISTERING AGENCY under this Agreement.
6. Neither ADMINISTERING AGENCY nor any officer or employee thereof is responsible for any injury, damage, or liability occurring or arising by reason of anything done or omitted to be done by STATE under or in connection with any work, authority, or jurisdiction delegated to STATE under this Agreement. It is understood and agreed that, pursuant to Government Code Section 895.4, STATE shall fully defend, indemnify, and save harmless ADMINISTERING AGENCY, its officers, and employees from all claims, suits or actions of every name, kind, and description brought for or on account of injury (as defined in Government Code Section 810.8) occurring by reason of anything done or omitted to be done by STATE under or in connection with any work, authority, or jurisdiction delegated to STATE under this Agreement.
7. ADMINISTERING AGENCY will maintain an inventory of all non-expendable PROJECT equipment,

defined as having a useful life of at least two years and an acquisition cost of \$500 or more, paid for with PROJECT funds. ADMINISTERING AGENCY shall define in PROJECT contract who shall take ownership of all equipment at the conclusion of the Project.

8. In the event that ADMINISTERING AGENCY fails to operate the PROJECT commenced and reimbursed under this Agreement in accordance with the terms of this Agreement or fails to comply with applicable Federal and State laws and regulations, STATE reserves the right to terminate funding for PROJECT, or portions thereof, upon written notice to ADMINISTERING AGENCY.

9. This Agreement shall terminate on June 30, 2022. However, the non-expendable equipment and liability clauses shall remain in effect until terminated or modified in writing by mutual agreement.

STATE OF CALIFORNIA

Riverside County Transportation Commission

By: _____

By: _____

Office of Project Implementation
Division of Local Assistance

Title: _____

DATE: _____

DATE: _____

AGENDA ITEM 8

<i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i>	
DATE:	November 13, 2019
TO:	Riverside County Transportation Commission
FROM:	Western Riverside County Programs and Projects Committee Anne Mayer, Executive Director
SUBJECT:	Framework for Implementation of the State Routes 241/91 Express Lanes Connector

WESTERN RIVERSIDE COUNTY PROGRAMS AND PROJECTS COMMITTEE AND STAFF RECOMMENDATION:

This item is for the Commission to:

- 1) Approve the State Routes 241/91 Express Lanes Connector term sheet as a framework for future agreements, contingent on all parties agreeing to the term sheet; and
- 2) Direct staff to work with agencies to prepare associated agreements for each respective governing board's consideration, consistent with the terms included in this report.

BACKGROUND INFORMATION:

The Transportation Corridor Agencies (TCA) and the California Department of Transportation (Caltrans) are working toward finalizing the environmental phase of a proposed project to construct a tolled connector between the State Route 241 toll road and the 91 Express Lanes (241/91 Express Lanes Connector). The proposed project would connect directly with the 91 Express Lanes, approximately two miles west of the Orange County/Riverside County line. This location overlays the transition zone between SR-91 and the 91 Express Lanes, where commuters can change facilities and lanes (mixing bowl).

The Riverside County Transportation Commission (RCTC) and the Orange County Transportation Authority (OCTA) expressed concerns with the tolled connector as part of the project development process, including the review of the draft environmental document (Attachment 1). These concerns related to the new connector impacting SR-91 general-purpose lanes (275,000 vehicles per day) and the 91 Express Lanes (50,000 vehicles per day), relative to the proposed benefits of the project (less than 10,000 vehicles per day). Because the proposed project is located just before the mixing bowl area, eastbound traffic entering the 91 Express Lanes from the proposed connector could occupy most of the capacity in the 91 Express Lanes. This means fewer vehicles from the general-purpose lanes could enter the 91 Express Lanes, eliminating an option for SR-91 commuters and an opportunity to relieve SR-91 general-purpose lanes congestion. Further, 91 Express Lanes toll changes may be necessary to address increased demand from the new connector.

Based on the above, and other concerns related to planned/adjacent SR-91 corridor projects, as well as operational issues, the OCTA Board of Directors (Board) acted in December 2017 to request TCA to defer all work on the connector given the regional mobility impacts and work with RCTC and Caltrans to evaluate opportunities to advance higher priority SR-91 corridor congestion-relief projects.

The Board action set in motion a series of efforts intended to resolve, to the fullest extent possible, all of the issues raised by OCTA and RCTC, with the goal of ensuring the connector could move forward in a coordinated fashion that considers the complexity of the corridor, planned projects, and operational issues.

Discussion

Since December 2017, the agencies have worked together to review additional traffic analysis, engineering plans, and coordination with planned/adjacent SR-91 projects. This analysis also considered the risks if the new connector delivers too much traffic to the 91 Express Lanes that cannot be realistically managed by OCTA and RCTC. For example, delivering too much eastbound afternoon traffic from the new connector into the 91 Express Lanes could cause a rise in tolls so that users divert out of the 91 Express Lanes into the mixing bowl area. This would cause impacts to the general-purpose lanes, further slowing afternoon traffic. Given these risks to RCTC, OCTA, and the SR-91 corridor users, these discussions needed to include decisions on operational and policy control of the new connector.

In mid-2019, to facilitate these on-going deliberations, Caltrans retained a professional mediator with expertise in engineering, traffic analysis, and consensus-building (Attachment 2). Throughout the negotiations, the chief executive officers of RCTC, OCTA, TCA, and Caltrans Districts 8 and 12, as well as Caltrans Headquarters directors, worked through five major issue areas that included:

- Setting priorities for SR-91 corridor projects to reduce construction-related impacts;
- Allowing completion of the environmental approval process and updating related programming documents;
- Clarifying lead agencies for final design, construction, and maintenance;
- Identifying the principal funding agency for final design, construction, and maintenance; and
- Designating lead agencies for retaining toll revenue and toll setting/operational control.

In September 2019, the negotiations reached a consensus point in the form of the 241/91 Express Lanes Connector term sheet (Attachment 3). The major points in the term sheet allow TCA and Caltrans to finalize the environmental document and move forward with final design. OCTA will update programming documents related to future right of way and construction phases. TCA will complete the final design, subject to Caltrans approval, with OCTA and RCTC reviews. RCTC, OCTA, and Caltrans will move forward with critical SR-91

construction projects that will open before the connector. Caltrans District 12 will build the connector after most of the other construction projects are open to traffic. OCTA and RCTC will establish the toll rates and manage operations of the connector paid for with connector revenues. Connector net toll revenues will be retained by TCA for specific responsibilities and approved projects, subject to change if non-TCA funds are secured for construction of the connector.

Summary and Next Steps

The RCTC, OCTA, TCA, and Caltrans have reached consensus to resolve outstanding issues related to the implementation of a future direct, tolled connector linking the SR-241 toll road to the 91 Express Lanes. Recommendations are presented to move the project forward, contingent on all parties agreeing to terms that will be incorporated into future agreements.

To ensure consensus, each board (OCTA, TCA, and RCTC) will need to formally approve the term sheet. As a partner in this arrangement, Caltrans has provided a letter of support on the terms (Attachment 4). The remaining actions are expected to be completed by the end of November 2019, which will allow development of more detailed agreements related to funding, construction, operations, maintenance, and use of toll revenue. These agreements will be subject to Commission approval, consistent with RCTC policies. Accordingly, there is no financial impact related to the recommendations contained in this report.

Attachments:

- 1) Letters from the OCTA and the RCTC Regarding the 241/91 Express Lanes Connector
- 2) Letter to Darrell Johnson, Chief Executive Officer, OCTA, Anne Mayer, Executive Director, RCTC, Michael Kraman, Chief Executive Officer, TCA, from Laurie Berman, Director, Caltrans, dated June 19, 2019
- 3) SR-241/91 Express Lanes Connector Term Sheet, September 12, 2019
- 4) Letter to Darrell Johnson, Chief Executive Officer, OCTA, Michael Kraman, Chief Executive Officer, TCA, Anne Mayer, Executive Director, RCTC, from Ryan Chamberlain, District 12 Director, Michael Beauchamp, District 8 Director, dated September 26, 2019

Letters from the
Orange County Transportation Authority and the
Riverside County Transportation Commission
Regarding the SR-241/91 Express Lanes Connector



AFFILIATED AGENCIES

Orange County
Transit District

Local Transportation
Authority

Service Authority for
Freeway Emergencies

Consolidated Transportation
Service Agency

Congestion Management
Agency

Service Authority for
Abandoned Vehicles

January 9, 2017

Ms. Smita Deshpande
Generalist Branch Chief
Caltrans-District 12, "Attn: 241-91 DSEIR/EIS Comment Period"
1750 East Fourth Street, Suite 100
Santa Ana, CA 92705

Subject: Draft Supplemental Environmental Impact Report/Environmental Impact Statement (SCH. 1989010410) for the State Route 241/State Route 91 Tolloed Express Lanes Connector Project (Project No. 1200020097)

Dear Ms. Deshpande: *Smita*

Thank you for providing the Orange County Transportation Authority (OCTA) with the Draft Supplemental Environmental Impact Report/Environmental Impact Statement (DSEIR/S) for the State Route 241/State Route 91 Tolloed Express Lanes Connector Project (Project). The following comments are provided for your consideration:

- On page 2-23, Section 2.2.1.2 'Permanent Project Features,' subsection 'TSM/TDM' the proposed Project is stated "to have dynamic traffic technology (toll pricing based on express lanes demand)." The analysis in the DSEIR/S did not address tolling and potential economic implications. OCTA recommends further analysis on tolling under applicable environmental factors analysis.
- On Page 5-3, Table 5.1 'Comments Received During Scoping,' states "Toll operations are being coordinated between F/ETCA, OCTA, and RCTC and are evaluated in a separate Concept of Operations report." OCTA recommends including this throughout the DSEIR/S, as applicable.
- The opening year analysis should be redone to reflect the actual opening year of 2020 rather than 2017. While Section 3.5.3.2 provides an explanation that the differences in traffic operations are nominal between 2017 and 2020, given the SR-91 Corridor Improvement Project (CIP) is scheduled to open in 2017, a thorough 2020 analysis would be appropriate.

- Given the complex nature of having multiple tolled facilities operated by different agencies, OCTA suggests that the analysis in the environmental document be updated to include traffic volume data anticipated to be available in Spring 2017 with the opening of the CIP. This would help refine the existing, opening year, and 2040 conditions analysis (throughput, speeds, and travel time).
- It appears that the environmental document had not analyzed weaving impacts along the SR-91 at the confluence of the SR-241 Express Connector merge/diverge, the OCTA 91 Express Lanes, and the RCTC 91 Express Lanes. Therefore, a more detailed weaving analysis would be appropriate.
- It appears that the complex nature of the multiple tolling options (including dynamic pricing) for the SR-241, the SR-241 Express Connector, the OCTA 91 Express Lanes, and the RCTC 91 Express Lanes are not adequately discussed with respect to the traffic impacts. These should be explored in detail.
- OCTA understands that there are complementary concept of operations studies (con-ops) underway. Some of the appropriate results from the con-ops studies should be integrated into this environmental document.
- It appears there needs to be a more thorough analysis of the construction impacts on the OCTA 91 Express Lanes, including traffic impacts, toll and revenue implications.

Thank you for providing OCTA the opportunity to review this item. Throughout the development of this proposed project, we encourage continued communication with OCTA on the matters discussed herein. If you have any questions or comments, please contact me by phone at (714) 560-5907 or by email at dphu@octa.net.

Sincerely,



Dan Phu
Environmental Programs Manager

c: Valarie McFall, TCA



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Ex-Officio Member

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Darrell Johnson
Chief Executive Officer

September 27, 2017

Mr. Mike Kraman
Chief Executive Officer
Transportation Corridor Agencies
P.O. Box 57011
Irvine, California 92619-7011

Dear Mr. Kraman,

As a follow-up to our meeting of September 13, 2017, regarding the Proposed State Route 241 (SR-241)/91 Express Lanes Direct Connector (Project), below is my understanding of the discussion and follow-up actions to ensure our upcoming meeting is responsive to the expectations of our respective Board representatives.

During the meeting the Transportation Corridor Agencies (TCA) provided an overview of the Project background, benefits, and status of project development activities. The Orange County Transportation Authority (OCTA) shared its assessments of regional benefits, State Route 91 (SR-91) corridor impacts, and operational implications.

TCA believes the Project would improve system connectivity, reduce weaving movements on the SR-91 general-purpose (GP) lanes that could enhance safety, address congestion on the northbound SR-241 to eastbound SR-91 connector, and deliver a federal air quality conformity Transportation Control Measure.

OCTA shared the fact that we have considerable reservations on the merits of the Project in meeting the Project's stated Purpose and Need. The Project Traffic Analysis Report indicates the Project provides very minimal regional benefits, and those benefits diminish over time. In addition, the Project exacerbates eastbound SR-91 GP lane congestion. The Project also consumes capacity that may otherwise be available to eastbound SR-91 GP lane commuters wanting to enter the 91 Express Lanes at the Orange County/Riverside County access point. The Project also will not resolve congestion on the northbound SR-241 to eastbound SR-91 and there is more than adequate distance to allow merging traffic to safely enter the 91 Express Lanes at the Orange County/Riverside County access point. The principal issue causing the congestion is insufficient capacity on the SR-91 and the Project does little to address the core problem.

While OCTA understands that TCA proposes using congestion pricing to balance the impacts to SR-91, the operation is far more complex and the parties need to understand the extent of demands associated with the various movements based on observed rather than modeled data. In addition, to address concerns over potential

Mr. Mike Kraman
September 27, 2017
Page 2

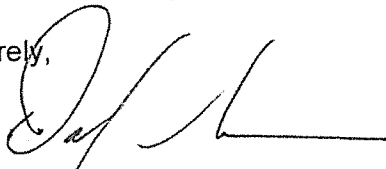
adverse impacts to the SR-91 corridor, it was agreed that a joint agency toll governance arrangement was necessary to ensure no harm to the SR-91 corridor, including the 91 Express Lanes operated by both OCTA and the Riverside County Transportation Commission.

Based on the meeting, it was agreed that the parties would work on the following assignments for the next meeting:

- TCA will update the Project's Traffic Analysis Report and Traffic Revenue Study to reflect recent socioeconomic forecasts, update timing of assumed improvements in the corridor, and use more current traffic data for operational analysis.
- TCA and OCTA will jointly evaluate observed traffic data post-opening of the 91 Express Lanes into Riverside County, and evaluate the routing of traffic that is merging in or out of the 91 Express Lanes at the Orange County/Riverside County access point.
- TCA will provide OCTA with a draft agreement that can serve as the basis for protective bond covenants to ensure the Project will not negatively impact the 91 Express Lanes toll policies.
- TCA will evaluate the use of congestion pricing as a means to ameliorate congestion on the northbound SR-241 at Windy Ridge as an alternative to the Project.

In the interest of a timely resolution of the issues identified, the group agreed to meet again in November, prior to a final meeting in February of 2018. The November meeting has since been set for Thursday, November 16. As always, my staff stands ready to work with your team on the responses and other relevant analysis.

Sincerely,



Darrell Johnson
Chief Executive Officer

c: OCTA Board of Directors
Ed Sachs, F/ETCA Chair
Melody Carruth, SJHTCA Acting Chair
Todd Spitzer, 241/91 Ad Hoc Chair



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Darrell Johnson
Chief Executive Officer

December 12, 2017

The Honorable Ed Sachs
Chairman
Transportation Corridor Agencies
125 Pacifica
Irvine, CA 92618

Dear Chairman Sachs:

At the December 11, 2017 Orange County Transportation Authority (OCTA) Board of Directors (Board) meeting, the proposed State Route 241 (SR-241)/ 91 Express Lanes Tolled Connector Project was discussed at length. The Transportation Corridor Agencies (TCA), OCTA, and the California Department of Transportation (Caltrans) have been reviewing issues and opportunities with the project for quite some time. Recent studies have identified significant traffic issues with the proposed project, and OCTA is particularly concerned about the project merits given the increased congestion it would cause for commuters on the State Route 91 (SR-91) corridor and 91 Express Lanes during the evening rush hours.

Two actions were taken by the Board on December 11, 2017:

- Direct staff to request TCA to defer all work on the State Route 241/ 91 Express Lanes connector given the regional mobility impacts.
- Direct staff to work with the Riverside County Transportation Commission and Caltrans to evaluate opportunities to advance SR-91 corridor congestion relief projects.

This letter serves as OCTA's request to TCA to defer all work, including certification of the supplement environmental impact report/statement, until such time the proposed project can become a complementary component to the SR-91 corridor. I encourage the TCA to work with OCTA staff and all parties through the annual update of the SR-91 Implementation Plan to consider these issues and identify next steps.

The Honorable Ed Sachs
December 12, 2017
Page 2

OCTA will continue to work with all stakeholders, including TCA, to develop mobility solutions along the SR-91 corridor. If you have any questions, please contact Chief Executive Officer, Darrell Johnson at (714) 560-5343.

Sincerely,

A handwritten signature in cursive script, reading "Michael J. Hennessey", with a long horizontal flourish extending to the right.

Michael Hennessey
Chairman

MH:dp
Attachment

c: Michael Kraman, TCA
Anne Mayer, RCTC
Ryan Chamberlain, Caltrans, District 12
John Bulinski, Caltrans, District 8
Board of Directors
Darrell Johnson, OCTA



January 9, 2018

Mr. Ryan Chamberlain
District Director
California Department of Transportation, District 12
1750 East 4th Street, Suite 100
Santa Ana, CA 92705

Dear Mr. Chamberlain:

As you know, the Orange County Transportation Authority (OCTA) Board of Directors (OCTA Board) made a decision at the December 11, 2017 meeting to request the Transportation Corridor Agencies (TCA) to defer all work on the State Route 241/91 Express Lanes connector project, given the regional mobility impacts. The OCTA Board has directed staff to work with the Riverside County Transportation Commission (RCTC) and the California Department of Transportation (Caltrans) to evaluate opportunities to advance the State Route 91 (SR-91) corridor congestion relief projects.

Subsequently, a letter from OCTA Board Chairman Hennessey was sent to the TCA Board Chairman Sachs regarding this decision. Accordingly, OCTA is requesting Caltrans to defer all work, including certification of the supplemental environmental impact report/statement, until such time the proposed project can be better understood and coordinated with other complementary SR-91 corridor improvements. The parties can work together through annual updates of the SR-91 Implementation Plan to consider these issues and identify next steps.

OCTA and RCTC look forward to working with Caltrans and the TCA to develop mobility solutions along the SR-91 corridor. If you have any questions, please do not hesitate to contact us.

Sincerely,

A handwritten signature in blue ink, appearing to read "Darrell Johnson".

Darrell Johnson
Chief Executive Officer
Orange County Transportation Authority

A handwritten signature in blue ink, appearing to read "Anne E. Mayer".

Anne E. Mayer
Executive Director
Riverside County Transportation Commission

DJ:dp
Attachment

c: Michael Kraman, TCA
John Bulinski, Caltrans, District 8
OCTA Board of Directors

April 2, 2019

VIA U.S. MAIL & EMAIL

Smita Deshpande, Generalist Branch Chief
Caltrans-District 12, "Attn: 241-91 DSEIR/EIS Comment"
1750 East Fourth Street, Suite 100
Santa Ana, CA 92705
D12.SR241-91ELC@dot.ca.gov
241-91expressconnector@thetollroads.com

Re: RCTC's Objection to SR-241/SR-91 Tolled Express Lanes Connector Project and the Draft SEIR/EIS for the Project

Dear Ms. Deshpande:

As the California Department of Transportation ("Caltrans") knows, the Riverside County Transportation Commission ("RCTC") is the regional planning authority for traffic and transportation infrastructure throughout Riverside County. RCTC has been pleased to partner with Caltrans over the years on numerous projects that have improved regional mobility for the benefit of the public. RCTC and Caltrans worked tirelessly to bring forward the \$1.4 billion State Route 91 Corridor Improvement Project ("91 CIP"), which provided long overdue congestion relief along the State Route 91 ("SR-91") corridor and expands carpooling and ride-sharing options for commuters between Riverside and Orange Counties. RCTC considers Caltrans' collaborative efforts on this project, and many others, to be a true success story of how state and regional agencies can work together to bring forward crucial infrastructure.

Given this past positive working relationship, it is with regret that RCTC must object to the SR-241/SR-91 Tolled Express Lanes Connector Project ("Project"), which Caltrans has proposed in cooperation with the Foothill/Eastern Transportation Corridor Agency ("TCA"). Specifically, Caltrans has not complied with the procedural and substantive requirements of the California Environmental Quality Act (Pub. Res. Code, § 21000, et seq.; hereinafter, "CEQA"). Notably, the Draft Supplemental Environmental Impact Report/Environmental Impact Statement ("DSEIR/EIS") for the Project suffers from numerous defects, including an inadequate analysis of the Project's impacts on the very same transportation resources that the Project is allegedly designed to improve.

INTRODUCTION

RCTC and the Orange County Transportation Commission ("OCTA") have repeatedly requested that Caltrans not approve or commence construction of the Project—which entails the construction of a median-to-median connector between SR-241 and the tolled lanes in the median of SR-91 ("91 Express Lanes")—until steps are taken to ensure that the Project's impacts to the SR-91 corridor are fully analyzed and mitigated to the fullest extent feasible. In particular, RCTC and OCTA have requested that Caltrans delay construction of the Project until other necessary improvements can be built to facilitate movement along the SR-91 corridor. Caltrans has improperly ignored these requests.

While Caltrans' DSEIR/EIS claims that the Project will improve traffic and transportation from SR-241 to SR-91, Caltrans fails to properly analyze the Project's potential impacts along the entirety of the SR-91 corridor, from SR-55 to I-15. The Project may benefit SR-241 Toll Road users, but it appears this will be done at the expense of (i) general commuters who do not utilize the toll roads (and may be financially unable to do so), and (ii) current and future 91 Express Lanes users. Indeed, the whole purpose of the Project is to drop one more lane of traffic onto the SR-91 in an area that is already beyond capacity, creating additional congestion and back-up. These impacts could likely be mitigated—and the full benefits of the Project could be realized—if improvements adding capacity in this area and downstream of this area were completed before implementation of the Project. It is thus premature for Caltrans to move forward with the Project at this time because, absent additional improvements, the Project would create additional congestion on the eastbound SR-91's general purpose lanes and would impact the operation of the 91 Express Lanes in Riverside County.

RCTC understands the potential merit of the Project, which seeks to solve the back-up issues faced by Toll Road users at Windy Ridge as the SR-241 merges with the SR-91. The Project, however, will result in significant (and as-yet unanalyzed and unmitigated) environmental impacts should Caltrans proceed with the Project now—before additional necessary SR-91 improvements are completed.

Ultimately, RCTC urges Caltrans not to issue any project approvals until Caltrans fully complies with CEQA and properly analyzes all of the Project's potential environmental impacts. RCTC further urges Caltrans to work more closely and collaboratively with RCTC and OCTA to ensure that RCTC's concerns about the Project's scope, sequencing, and operations are satisfactorily addressed before the Project's approval. Ultimately, RCTC will do what it must to protect drivers on the SR-91 corridor—and the taxpayers and residents of Riverside County—from the impacts of this Project. For these reasons and the reasons set forth below, RCTC objects to the Project.

THE DSEIR/EIS FAILS TO COMPLY WITH CEQA

1. Caltrans' environmental analysis is fundamentally flawed because it is based upon an improper environmental baseline and inaccurate "opening year" assumptions.

"An EIR must include a description of the physical environmental conditions in the vicinity of the project," and "[t]his environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." (State CEQA Guidelines, § 15125.) A lead agency should "generally describe physical environmental conditions as they exist at the time the notice of preparation is published." (*Ibid.*) Because analysis of environmental impacts relies on an environmental baseline, an improper baseline is a CEQA violation that permeates the entirety of an EIR.

Here, Caltrans published its Notice of Preparation ("NOP") on March 13, 2015, but Caltrans did not use this date as its environmental baseline. (DSEIR/EIS, p. 4-73.) Instead, Caltrans based its environmental baseline on data collected in 2013—two years before the NOP was published and nearly a decade before the Project will actually open. (DSEIR/EIS, p. 4-2 ["for most of the technical evaluations, the baseline conditions for comparative purposes under CEQA were the existing conditions in 2013, when the information was collected"].) Caltrans must explain why this data nonetheless constitutes a proper baseline under CEQA.

While Caltrans relies on a baseline from 2013 (two years before the NOP) as to many impacts, it relies on a "future" baseline as to other impacts. Specifically, Caltrans notes that "for the topics of transportation/traffic, air quality, noise, and energy, the evaluation compared the Build Alternative to the future No Build conditions (2017 Opening Year and/or 2040 Build Out) rather than to existing conditions in 2013." (DSEIR/EIS, p. 4-3.) Caltrans attempts to justify use of this "future" baseline because "the initial phase of the SR-91 CIP would be completed by 2017" and thus a "comparison between the 2017 Build and the 2013 Existing conditions would not be logical." (DSEIR/EIS, p. 4-4.) Even if one were to accept the need to use a future environmental baseline, Caltrans' use of 2017 as the environmental baseline is flawed for several reasons.

First, Caltrans itself recognizes that 2017 is not actually the opening year for the Project. Indeed the DSEIR/EIS provides a "revised opening year" of 2020. Second, even the use of 2020 as the baseline is flawed because Caltrans admits that it has not adjusted its analysis to reflect a revised opening year of 2020. (DSEIR/EIS, p. 1-23 ["Although the revised opening year is 2020, all of the tables and analysis still refer to 2017 as this is the year for which modeling was completed"].) Third, the DSEIR/EIS fails to support with substantial evidence its assumption that analysis of projected 2017 conditions accurately captures existing conditions in 2020.

Moreover, Caltrans' projections for the Project's "revised opening year" of 2020 is outdated. The 2020 opening year is premised on the assumption that "the Proposed Project is anticipated to take approximately 18 months to construct beginning in 2018." (DSEIR/EIS, p. 3.12-22.) Based on this assumption, and the fact that Caltrans has not yet completed the environmental review process for the Project, it is likely that the Project's opening year would not actually be until 2024 or later. Indeed, TCA indicated in a March 25, 2019 letter to OCTA

that it anticipates the Project to open on December 31, 2023—nearly seven years after Caltrans' initial projected opening date of 2017.

Finally, substantial evidence does not support Caltrans' conclusion that projected 2017 conditions based on 2013 data are comparable to conditions in 2024, when the Project is likely to open. The DSEIR/EIS justifies its use of a "future" 2017 baseline to measure the now-outdated 2020 opening year conditions by asserting that "[t]he Traffic Engineer has stated that the changes from 2017-2020 would be nominal." (DSEIR/EIS, pp. 1-23, 3.12-24.) The DSEIR/EIS, however, does not base this assertion on any substantial evidence. For example, the DSEIR/EIS asserts that the change in traffic volume between 2013 and 2017 "is projected to be 22 to 27 percent," but that the change in traffic volume between 2017 and 2020 would be negligible. (DSEIR/EIS, p. 4-3.) Moreover, the DSEIR/EIS includes no analysis of the change in traffic volume between 2017 and 2024. In other words, the DSEIR/EIS uses data from 2013 (two years before the NOP was published) to project "opening year" baseline conditions in 2017 (at least seven years before the Project will actually open), recognizes that 2017 is the wrong opening year (DSEIR/EIS, p. 3.12-24 [asserting 2020 is "revised planned opening year"]), and concedes that no analysis has been done for 2020, much less 2024 (DSEIR/EIS, p. 3.12-24 ["although the revised opening year is 2020, all of the tables and analysis still refer to 2017, as this is the year for which the modeling was completed"])).

Ultimately, Caltrans' DSEIR/EIS uses a shifting baseline without sufficiently explaining why substantial evidence supports that approach. Without an accurate baseline supported by substantial evidence, Caltrans' environmental analysis is necessarily flawed. To comply with CEQA, Caltrans must update its environmental baseline, revise its environmental analysis, and recirculate the DSEIR/EIS for another round of public review. Otherwise, certification of this SEIR/EIS would violate CEQA and constitute an abuse of discretion.

2. Caltrans failed to properly analyze the Project's traffic and transportation impacts.

- Caltrans' analysis shows that the Project will significantly impact traffic. For example, Caltrans admits that "[i]n the PM peak period in 2017, the travel time for the SR-91 eastbound general purpose lanes would slightly increase in the Build Conditions (between 1 to 2.5 minutes)." (DSEIR/EIS, pp. 1-23, 3.5-19.) Caltrans further admits that "the Build Alternative would have a slightly higher combined demand east of the SR-241/SR-91 interchange (approximately 1,800 more vehicles). This is due to an increase in demand at the SR-241 northbound-to-SR-91 eastbound movement for the Build Alternative caused by the addition of the direct-connector ramp." (DSEIR/EIS, p. 3.5-9.) Moreover, Caltrans admits that the Project will result in "increased demand on the general purpose lanes downstream of the 91 Express Lanes" and that this increased demand will result in a decrease of speeds of up to 6 miles per hour on the eastbound general purpose lanes. (DSEIR/EIS, p. 3.5-14.)
- However, rather than concede that the foregoing constitutes significant environmental impacts, Caltrans asserts without basis that "[t]he increases in travel times for the SR-91 eastbound general purpose lanes are considered nominal given the increase in

combined throughput that would be experienced in the same area.” (DSEIR/EIS, pp. 1-23, 3.5-14.) Caltrans fails to support this flat conclusion with substantial evidence and fails to explain what relevance the purported increase in combined throughput in the area would have on the undisputed fact that the Project will adversely affect traffic in the SR-91 eastbound general purpose lanes during the PM peak period. This is a violation of CEQA. (*Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 516 [“ultimate inquiry ... is whether the EIR includes enough detail ‘to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project’”]; State CEQA Guidelines, § 15151 [“An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences.”].) Further, and based on its unsupported conclusion, Caltrans offers no mitigation to reduce these significant impacts.

- The Project benefits drivers in Express Lanes at the expense of drivers in general purpose lanes, yet proper analysis of those impacts is not provided. The DSEIR/EIS minimizes the Project’s impacts on drivers in eastbound general purpose lanes, stating the Project will “slightly increase” the travel time for the SR-91 eastbound general purpose lanes by up to 2.5 minutes. (DSEIR/EIS, p. 3.5-19.) At the same time, the DSEIR/EIS extolls the virtue of the Project by noting that “the travel time for the SR-241 northbound to the SR-91 eastbound via the new Express Lane ramp would decrease by 2.5 minutes.” (*Ibid.*) In other words, the Project seeks to benefit toll-paying drivers by directly impacting a far greater number of non-toll-paying drivers in general purpose lanes. Caltrans must take measures to analyze and disclose the comparative magnitude of these benefits and impacts, and to mitigate the Project’s impacts on drivers traversing SR-91’s eastbound general purpose lanes.
- Caltrans finds that the Project would not have permanent adverse impacts on traffic if RCTC’s Ultimate SR-91 CIP Improvements are completed before construction of the Project. The DSEIR/EIS provides that “[t]he improvements associated with the Ultimate SR-91 CIP improvements were found to provide enough capacity in 2040 to accommodate the friction between the 91 Express Lanes and the general purpose lanes in the eastbound ingress/egress area.” (DSEIR/EIS, p. 3.5-15.) Given that Caltrans believes that the Project’s impacts on the general purpose lanes in the eastbound ingress/egress area would be alleviated after construction of the Ultimate SR-91 CIP improvements, Caltrans should revise or condition the Project such that construction of the Project would not commence until after the full completion of the Ultimate SR-91 CIP improvements. Moreover, Caltrans should further revise or condition the Project such that construction of the Project would not commence until after the full completion of other downstream eastbound improvements that would benefit the SR-91 corridor, including (1) the I-15/SR-91 Express Lanes Connector Project, which will (among other things) link the eastbound 91 Express Lanes to the northbound I-15 Express Lanes; and (2) the SR-71/SR-91 Interchange Project, which entails (among other things) (i) the construction of a two-lane direct flyover connector from eastbound SR-91 to northbound SR-71, (ii) improvement of the connection

between the eastbound SR-91 Green River Road on-ramp and the SR-71/SR-91 Interchange, and (iii) construction of an eastbound road south and parallel to SR-91 between Green River Road and the SR-71/SR-91 Interchange. Indeed, Caltrans cannot simply ignore the Project's impacts on the eastbound general purpose lanes on SR-91. CEQA requires Caltrans not only to analyze these impacts, but to mitigate them. (State CEQA Guidelines, § 15126.4.)

- Caltrans fails to properly analyze the impacts on traffic and transportation during Project construction. Caltrans concedes that “[t]raffic delays are expected during construction of the Build Alternative.” (DSEIR/EIS, p. 3.5-5.) Caltrans contends that implementation of Measure TR-1 would mitigate the Project's temporary transportation-related construction impacts to a level of less than significant. (*Ibid.*) Caltrans fails to explain, however, how or why Measure TR-1 would mitigate the Project's undisputed adverse impact on traffic and transportation during Project construction. Measure TR-1 provides:

Transportation Management Plan. Ensure that a Transportation Management Plan (TMP) is completed in consultation with the California Department of Transportation and included in the Plans, Specifications, and Estimates for implementation by the contractor prior to and during construction of any project improvements. The TMP will be prepared by a qualified traffic engineer and will address traffic impacts from temporary detours and weekend or nighttime closures to reduce traveler delays and enhance traveler safety during project construction. The TMP may include the following elements:

- Public awareness campaign
- Highway advisory radio
- Portable changeable message signs
- Temporary loop sensor/signals
- Bus or shuttle service
- Construction Zone Enhanced Enforcement Program

Measure TR-1 seems inadequate in specificity and efficacy given the magnitude of the Project, the volume of the SR-91 Corridor, and the paucity of alternatives. Moreover, Caltrans provides no evidence explaining why and how this Measure will actually mitigate the Project's adverse impacts on traffic during construction of the Project. The Measure provides that the TMP must “address” – but not mitigate to a level of less than significant – traffic impacts from temporary detours and weekend or nighttime closures to reduce traveler delays. The Measure further provides that the TMP “may,” but need not, include certain elements. In sum, Caltrans fails to provide substantial evidence that the Project's construction-related impacts on transportation will be mitigated to a level of less than significant.

- Caltrans fails to explain how its mitigation measures will actually mitigate any impact. In addition to Measure TR-1, discussed above, the DSEIR/EIS references two other mitigation measures: Measure T-13 and Measure C-15. (DSEIR/EIS, p. 3.5-39.) It is unclear, however, (1) to what impacts these measures purportedly relate; and (2) how these measures purportedly mitigate the unspecified impacts to a level of less than significant. Again, this is prejudicial error. (See *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 658.)
- Caltrans' failure to analyze the Project's impacts on local streets obfuscates the Project's temporary construction impacts. The DSEIR/EIS concedes that "temporary detours and weekend or night time closures would be required at the Gypsum Canyon Road on- and off-ramps and at the northbound SR-241 to the eastbound SR-91 connector." (DSEIR/EIS, p. 3.5-5.) Presumably, these detours would be through local streets. The DSEIR/EIS, however, does not analyze the temporary impacts these detours would have on such local streets.
- Caltrans fails to analyze the Project's impacts on the 91 Express Lanes. The DSEIR/EIS' three-paragraph discussion of the Project's temporary impacts does not consider impacts to the 91 Express Lanes during construction of the Project. For example, the DSEIR/EIS does not address whether construction of the Project would require temporary closure of the 91 Express Lanes or the opening of the 91 Express Lanes to the public as an "emergency relief valve." Moreover, the DSEIR/EIS does not discuss potential loss of revenue that would result if the 91 Express Lanes were either temporarily closed or opened to the public. RCTC relies on these revenues to make necessary transportation improvements, but Caltrans does not address these impacts at all in the DSEIR/EIS. The public and the 91 Express Lanes customers who rely on the 91 Express Lanes are entitled to this information.
- Caltrans fails to properly analyze whether the Project will substantially increase hazards due to a design feature or incompatible uses. The State CEQA Guidelines provides that a project could result in a potential significant environmental impact if it would "substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses." (State CEQA Guidelines, Appendix G, Section XVI [Transportation/Traffic], subd. (d).) Caltrans' analysis regarding this issue, however, consists almost entirely of conclusions without any explanation or factual support. (DSEIR/EIS, p. 4-15.) In particular, Caltrans' full analysis on this issue provides:

The Build Alternative would not increase hazards due to a design feature or incompatible uses because the Proposed Project would be designed and constructed in compliance with the Caltrans Design Standard Construction Specifications. The proposed improvements do not include any hazard design features or incompatible uses. No impacts would occur, and no mitigation is required.

(DSEIR/EIS, p. 4-15.) This discussion fails to comply with CEQA. (*Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 516 [“ultimate inquiry ... is whether the EIR includes enough detail ‘to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project’”].) For example, Caltrans does not explain how compliance with the Caltrans Design Standard Construction Specifications ensures that the Project would not increase hazards due to a design feature or incompatible use. Similarly, the discussion concludes that the Project does “not include any hazardous design features or incompatible uses,” but provides no evidence or discussion to support this conclusion. This constitutes a violation of CEQA. (*Ibid.*)

- Caltrans fails to analyze whether the Project will result in inadequate emergency access during the Project's construction. The Initial Study Checklist of the State CEQA Guidelines provides that a project could result in a potential significant environmental impact if it would “result in inadequate emergency access.” (State CEQA Guidelines, Appendix G, Section XVI [Transportation/Traffic], subd. (e).) Caltrans fails to include substantive analysis of whether the Project could result in inadequate emergency access. This failure is especially pronounced given Caltrans' admission that the Project will result in “detours and closures” that “are expected to result in some delay to the traveling public.” (DSEIR/EIS, p. 3.5-5.) Caltrans, however, fails to analyze the extent of this delay. How often will there be detours and closures? How much delay will these detours and closures cause? Will these detours and closures render some areas inaccessible from the freeway? How will these detours and closures impact emergency access? These questions are all the more pertinent given that the canyon topography of the project area and the existing 91 Express Lanes' geometry will present unique challenges regarding emergency access that must be addressed. Despite these facts, Caltrans has failed to consider—much less analyze—any of these questions. Again, this constitutes a violation of CEQA. The public has a right to this information.
- Caltrans does not analyze the Project's potential impacts along the entirety of SR-91, from SR-55 to I-15. “The Study Area for traffic includes SR-91 from west of the Weir Canyon Road interchange in Anaheim Hills to east of the Serfas Club Drive/Auto Center Drive interchange in the City of Corona. The Study Area also includes SR-241 from north of the Santiago Canyon Road interchange to SR-91 and State Route 71 (SR-71) south of the Butterfield Ranch Road interchange to SR-91.” (DSEIR/EIS, p. 3.5-1.) Caltrans fails to explain with any substantial evidence, however, why it selected this particular study area—a violation of CEQA. RCTC requests that Caltrans study the Project's potential impacts along the entirety of SR-91, from SR-55 to I-15.
- Caltrans' project description is inadequate. The DSEIR/EIS does not adequately analyze or disclose TCA's proposed restriction to limit use of the Project to only commuters using the 91 Express Lanes. The proposed restriction would prohibit eastbound egress from the Project at the County Line to SR-71 and Corona

destinations, and the proposed restriction would further require combined toll rate signing between the Project and the 91 Express Lanes. As a result, the proposed restriction could have significant impacts that are not analyzed in the DSEIR/EIS.

3. Caltrans has failed to properly analyze the Project's noise impacts.

- Caltrans fails to properly analyze the Project's construction-related noise impacts. The DSEIR/EIS concedes that "temporary detours and weekend or night time closures would be required at the Gypsum Canyon Road on- and off-ramps and at the northbound SR-241 to the eastbound SR-91 connector" during construction of the Project." (DSEIR/EIS, p. 3.5-5.) Caltrans, however, fails to consider or analyze the noise resulting from freeway traffic being directed through local streets during nighttime and weekend hours, and Caltrans further fails to explain why it believes those impacts will be less than significant. The impacts could be potentially significant, yet Caltrans failed to consider the impacts at all. This should be addressed in a recirculated DSEIR/EIS.
- Caltrans recognizes that its Project will result in a significant noise impact, but fails to explain how mitigation will reduce the impact to a level of less than significant. According to the DSEIR/EIS, "a noise impact occurs when the predicted future noise level with the project substantially exceeds the existing noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches or exceeds the NAC [Noise Abatement Criteria]." (DSEIR/EIS, p. 3.13-1.) Caltrans admits that the Project will result in a significant noise impact. In particular, the DSEIR/EIS provides that "2040 noise levels for the Build Alternative are expected to approach or exceed the NAC at 19 of the 22 modeled receptor locations at the Canyon RV Park." (DSEIR/EIS, pp. 3.13-24.) Yet, Caltrans fails to provide any mitigation for that specific impact. Rather, Caltrans seeks to mitigate noise with a completely inapplicable mitigation measure, Measure N-1. Measure N-1 provides:

Measure N-1 Control of Construction Noise Levels. The control of noise from construction activities will conform to the California Department of Transportation (Caltrans) Standard Specifications, Section 14-18.02, "Noise Control." The nighttime noise level from the contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., will not exceed 86 A-weighted decibels (dBA) one-hour A weighted equivalent continuous sound level (Leq(h)) at a distance of 50 feet. In addition, the contractor would equip all internal combustion engines with a manufacturer-recommended muffler and will not operate any internal combustion engine on the job site without the appropriate muffler.

(DSEIR/EIS, p. 3.13-25.) Caltrans fails to explain how this mitigation measure (concerning construction impacts) serves to mitigate the Project's significant operational noise impacts in any way.

Caltrans additionally asserts that “the existing barriers along SR-91 are effective at reducing traffic noise,” but Caltrans does not provide any mitigation measure other than Measure N-1 to actually mitigate the Project’s significant impact. (See Pub. Res. Code, § 21081.6 [requiring mitigation measures to be “fully enforceable through permit conditions, agreements, or other measures”].) The DSEIR/EIS is thus defective and fails to comply with CEQA. (See *Lotus*, *supra*, 223 Cal.App.4th at pp. 654-658.)

- Caltrans fails to properly analyze whether the Project would result in excessive groundborne vibration or groundborne noise levels. The Initial Study Checklist of the State CEQA Guidelines provides that a project could result in a potential significant environmental impact if it would “result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.” (State CEQA Guidelines, Appendix G, Section XII [Noise], subd. (b).) Caltrans, however, fails to analyze the issue. Rather, it fully relies on the “Caltrans Standard Specifications for Construction” and trusts that compliance with these specifications will ensure there will be no significant impact. In particular, the DSEIR/EIS’ “analysis” of the issue provides:

During construction, groundborne vibration and groundborne noise could be generated in conjunction with pile driving. If pile driving takes place, potential groundborne noise and vibration impacts would be minimized through compliance with Caltrans Standard Specifications for Construction, which is stipulated in Measure N-1 in Section 3.13.4. Therefore, with implementation of Measure N-1, impacts related to groundborne noise and vibration would be less than significant, and no mitigation is required.

(DSEIR/EIS, p. 4-42.) Caltrans does not make any attempt to actually analyze whether the Project could result in groundborne vibration or noise, before imposing this measure. It simply assumes that even if the Project did result in vibration or noise (no matter how intense), compliance with Measure N-1 and the Caltrans Standard Specifications for Construction would reduce the impact to a level of less than significant. In so doing, Caltrans does not analyze the impact or inform the public as required by CEQA.

4. Caltrans has failed to properly analyze the Project’s impacts on air quality.

- Caltrans fails to properly analyze the impact of Project-related construction activities on air quality. The DSEIR/EIS provides that “construction-related emissions do not need to be included in regional and project-level conformity analyses” under the National Environmental Policy Act (“NEPA”). (DSEIR/EIS, p. 3.12-15.) This does not, however, excuse Caltrans from its obligation to analyze construction-related emissions under CEQA. Thus, Caltrans has failed to fulfill this obligation as the DSEIR/EIS contains inadequate analysis of Project-related construction activities.

Notably, while Caltrans sets forth the "maximum build alternative construction emissions," it does not set forth the applicable threshold of significance that would allow the public to determine whether these emissions are significant. (See (DSEIR/EIS, p. 3.12-23.) The DSEIR/EIS thus fails as an informational document under CEQA.

- Caltrans fails to properly analyze the Project's long-term impacts on air quality. Caltrans' analysis of "permanent" air quality impacts suffers from the same defects as its analysis of construction-related air quality impacts. Notably, the DSEIR/EIS fails as an informational document because it simply sets forth the Project's emissions, without providing the thresholds of significance necessary for the public to determine whether these emissions constitute a significant environmental impact and without explaining what correlation (if any) there is between those emissions and potential health impacts. (DSEIR/EIS, p. 3.12-25; *Sierra Club, supra*, 6 Cal.5th at p. 516 ["ultimate inquiry ... is whether the EIR includes enough detail 'to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project;' accordingly, a lead agency must connect raw numbers measuring an environmental impact with specific adverse effects on human health or explain why such a connection is not possible]; State CEQA Guidelines, § 15151 ["An EIR should be prepared with a sufficient degree of analysis to provide decisionmakers with information which enables them to make a decision which intelligently takes account of environmental consequences."].)
- The Project would have a significant air quality impact based on the threshold set forth in the DSEIR/EIS. The DSEIR/EIS sets forth the following threshold of significance: "The project increases traffic volumes. Increases in traffic volumes in excess of 5 percent should be considered potentially significant. Increasing the traffic volume by less than 5 percent may still be potentially significant if there is also a reduction in average speeds." (DSEIR/EIS, p. 3.12-18.)

Here, Caltrans concedes that the Project will increase traffic volumes and thus reduce average speed on the SR-91. Indeed, Caltrans asserts there will be a *14.9 percent increase* in traffic on SR-241 as a result of the Project. (DSEIR/EIS, p. 3.12-19.) Despite this fact, and the correlating reduction in average speed that obviously would occur on the SR-91 as a result, Caltrans concludes that the Project will not result in air quality impacts because the Project would purportedly decrease the average delay per vehicle. (*Ibid.*) Caltrans' conclusion is baseless. Caltrans fails to actually measure (1) the increase in emissions and impacts on air quality resulting from the increase in traffic resulting from the Project; and (2) the purported decrease in emissions and air quality impacts resulting from the decrease in average delay per vehicle attributable to the Project. Without analyzing or assessing these impacts, Caltrans' conclusion about air quality impacts is speculative and improper.

- Caltrans' mitigation measures are not enforceable. This is an issue that permeates throughout the DSEIR/EIS and applies to many of Caltrans' "measures." Caltrans

does not call its measures "mitigation measures;" instead, Caltrans refers to its measures as "avoidance and minimization measures." (See, e.g., 3.12-33.) These measures, however, do not appear to be enforceable. (See *Lotus, supra*, 223 Cal.App.4th at p. 656 [Caltrans' "'avoidance, minimization and/or mitigation measures'... are not 'part of the project'"].) Indeed, if these measures are not mitigation measures implemented by a mitigation monitoring and reporting program ("MMRP"), it is unclear how Caltrans intends to implement these measures. At a minimum, Caltrans must include those avoidance/minimization measures in its MMRP to ensure that they are enforceable and actually implemented. (*Ibid.*)

In the Air Quality section of the DSEIR/EIS, this is especially problematic as Caltrans appears to rely on the measures to mitigate impacts, without disclosing the extent of certain impacts without this mitigation. (See, e.g., DSEIR/EIS, p. 4-20.) For example, Caltrans bases its analysis of the Project's PM₁₀ and PM₂₅ emissions on the assumption that there will be "50 percent control of fugitive dust as a result of watering and associated dust-control measures." (DSEIR/EIS, p. 3.12-22.) The DSEIR/EIS, however, fails to provide any evidence supporting this assumption, fails to provide the extent of these impacts without the referenced measures, and fails to explain how Caltrans intends to implement these measures. (See Pub. Res. Code, § 21081.6 [requiring mitigation measures to be "fully enforceable through permit conditions, agreements, or other measures"]; *Lotus, supra*, 223 Cal.App.4th at p. 656-658.)

Caltrans' discussion of its mitigation measures is further flawed as its discussion is paradoxical. Throughout the DSEIR/EIS, Caltrans simultaneously contends (1) the Project will have significant effects; (2) these significant effects will be mitigated to a level of less than significant with the implementation of certain measures; and (3) no mitigation is therefore required. (See, e.g., DSEIR/EIS, pp. 4-19, 4-20 ["with implementation of Measures AQ-1 through AQ-5, the Proposed Project would not result in a cumulatively considerable net increase in criteria pollutants, and no mitigation is required"].) Caltrans should not contend that mitigation is not required because the Project's significant impacts will be mitigated. This serves only to confuse the public, and further explanation of Caltrans' conclusions is needed.

- Caltrans does not properly analyze whether the Project would conflict with or obstruct implementation of the applicable air quality plan. The Initial Study Checklist of the State CEQA Guidelines provides that a project could result in a potential significant environmental impact if it would "conflict with or obstruct implementation of the applicable air quality plan." (State CEQA Guidelines, Appendix G, Section III, [Air Quality], subd. (a).) Caltrans, however, does not explicitly identify an applicable air quality plan, much less analyze whether the Project would conflict with or obstruct implementation of such a plan. Indeed, the phrase "air quality plan" does not even appear in the DSEIR/EIS' discussion of air quality, except for a bare conclusion that the "Build Alternative would not conflict with or obstruct implementation of an applicable air quality plan." (DSEIR/EIS, p. 4-

- 7.) Moreover, it is unclear what Caltrans bases this conclusion upon. (*Sierra Club, supra*, 6 Cal.5th at p. 522 [“To facilitate CEQA’s information role, the EIR must contain facts and analysis, not just the agency’s bare conclusions or opinions”].) Furthermore, the DSEIR/EIS asserts that air quality regulation in the South Coast Air Basin (where the Project is located) is administrated by the South Coast Air Quality Management District (SCAQMD), but the DSEIR/EIS does not reference any applicable air quality plan approved by SCAQMD, such as SCAQMD’s Air Quality Management Plan. (DSEIR/EIS, p. 3.12-3.) Similarly, the DSEIR/EIS fails to consider or analyze the Project’s consistency with the Climate Action Plan for Orange and Riverside Counties. For all of these reasons, the DSEIR/EIS fundamentally fails as an informational document.
- Caltrans does not properly analyze whether the Project would result in a cumulatively considerable net increase of criteria pollutants. The Initial Study Checklist of the State CEQA Guidelines provides that a project could result in a potential significant environmental impact if it would “result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard.” (State CEQA Guidelines, Appendix G, Section III [Air Quality], subd. (b).) Caltrans asserts that the Project would result in emissions of criteria pollutants for which the project region is in non-attainment, but Caltrans fails to analyze the cumulative impact of these emissions. (DSEIR/EIS, p. 4-20.) Instead, Caltrans again simultaneously asserts that these impacts will be mitigated by certain measures, and that no mitigation is required to mitigate these impacts. (*Ibid.*) The DSEIR/EIS’ unsupported assertions do not comply with CEQA.
 - Caltrans does not properly analyze whether the Project would expose sensitive receptors to substantial pollution concentrations. The Initial Study Checklist of the State CEQA Guidelines provides that a project could result in a potential significant environmental impact if it would “expose sensitive receptors to substantial pollutant concentrations.” (State CEQA Guidelines, Appendix G, Section III [Air Quality], subd. (c).) Caltrans’ discussion of whether the Project could result in such an impact violates CEQA for the same reasons discussed immediately above—i.e., Caltrans admits the Project could have an impact, asserts that the impact will be mitigated to less than significant levels, and asserts that no mitigation is required. (DSEIR/EIS, p. 4-20.)

Moreover, and this applies to every instance in which Caltrans discusses its mitigation measures, the DSEIR/EIS fails to include any discussion of the substantial evidence showing how the referenced mitigation measures (e.g., Measures AQ-1 through AQ-5) will actually mitigate the referenced impacts to a level of less than significant. This constitutes a violation of CEQA. (*Lotus, supra*, 223 Cal.App.4th at pp. 656-658.)

- Caltrans fails to rely on a Health Risk Assessment to ascertain the Project's air quality impacts on human health. An EIR's analysis of air quality impacts is inadequate where it does not connect the raw particulate numbers and their effect on air quality with specific adverse effects on human health. (*Sierra Club, supra*, 6 Cal.5th at p. 516.) Here, Caltrans does not prepare a Health Risk Assessment to ascertain the Project's air quality impacts on human health, as many EIRs do. Instead, Caltrans contends that it cannot study air quality impacts on human health due to technological limitations. (SEIR/EIS, p. 4.12-26.) Further discussion of those technological limitations would be helpful in clarifying this issue to the public.
- Caltrans does not properly analyze whether the Project would result in odors affecting people. The Initial Study Checklist of the State CEQA Guidelines provides that a project could result in a potential significant environmental impact if it would "result in other emissions (such as those leading to odors) adversely affecting a substantial number of people." (State CEQA Guidelines, Appendix G, Section III [Air Quality], subd. (c).) Here, Caltrans' discussion of whether the Project would result in odors consists entirely of conclusions. (*Sierra Club, supra*, 6 Cal.5th at p. 522 ["To facilitate CEQA's information role, the EIR must contain facts and analysis, not just the agency's bare conclusions or opinions"].) Caltrans fails to reference any facts to support its conclusion that "impacts related to odors would be less than significant." For example, Caltrans concedes that the Project could result in certain odors, but concludes that "[s]uch odors would be quickly dispersed below detectable thresholds as distance for the site(s) increases." Caltrans, however, offers no analysis or facts to support this conclusion.

5. **Caltrans has failed to properly analyze the Project's impacts on greenhouse gas emissions.**

- Caltrans makes no effort to analyze the Project's greenhouse gas emissions. CEQA requires Caltrans to analyze whether the Project would (1) generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment, and/or (2) conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (State CEQA Guidelines, Appendix G, Section VIII [Greenhouse Gas Emissions].) The DSEIR/EIS, however, fails to answer these questions. Indeed, Caltrans makes no attempt to analyze the Project's greenhouse gas emissions. Instead, the DSEIR/EIS provides that "it is Caltrans' determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the Proposed Project's direct and indirect impact with respect to climate change." (DSEIR/EIS, p. 4-67.) The DSEIR/EIS should be revised to include an analysis of the Project's GHG emissions.
- Caltrans does not explain why it believes analysis of GHG emissions is not possible. A lead agency must connect raw numbers measuring an environmental impact with

specific adverse effects or explain why such a connection is not possible. (*Sierra Club, supra*, 6 Cal.5th at p. 516.) Here, Caltrans not only abdicates its duty to provide the raw numbers measuring the Project's GHG emissions, it also fails to explain why it contends the analysis is not possible. It is surprising that Caltrans would stand behind such a statement without analysis, given several recently-enacted state laws and regulations that declare a heightened state of urgency on climate change.

- Caltrans' own guidance documents suggest the Project will have a significant environmental impact relating to GHGs. Caltrans' *Interim Guidance: Determining CEQA Significance for Greenhouse Gas Emissions for Projects on the State Highway System* ("Interim Guidance") from March 2019 provides that Caltrans must analyze a Project's impacts on GHGs. Moreover, the Interim Guidance provides that capacity-increasing projects—such as the Project here—are generally considered to have significant GHG impacts if future build emissions are greater than existing conditions. (Interim Guidance, p. 14.) Here, Caltrans contends that the Project's future build emissions are greater than existing and future no-build conditions. (DSEIR/EIS, p. 4-66.) Per Caltrans' own guidance document, the Project thus has a significant environmental impact on GHG emissions. The DSEIR/EIS' failure to disclose this significant impact on the environment constitutes a violation of CEQA.
- Caltrans' use of unenforceable quasi-mitigation measures is improper and does not excuse Caltrans' failure to analyze the Project's GHG emissions. Caltrans contends that certain measures "will also be included in the Proposed Project to reduce the GHG emissions and potential climate change impact from the Proposed Project." (DSEIR/EIS, p. 4-69.) These include measures to provide for an undefined amount of landscaping and to recommend—not require—more energy-efficient lighting. (DSEIR/EIS, p. 4-69 through 4-71.) While RCTC lauds the inclusion of these measures, it also believes that Caltrans must further explain how these vague features operate as specific and enforceable mandates under CEQA. Otherwise, the public will be deprived of knowing how much these mitigation measures will actually reduce the Project's GHG emissions, and whether the mitigation measures will reduce the emissions to a level of less than significant.

6. Caltrans has failed to properly analyze the Project's aesthetic impacts.

- Caltrans improperly concludes the Project's construction-related aesthetic impacts are not significant simply because they are temporary. A significant environmental impact resulting from Project-related construction is not less than significant simply because the impact is temporary. (See, e.g., *City of Arcadia v. State Water Resources Control Bd.* (2006) 135 Cal.App.4th 1392 [CEQA documentation inadequate where lead agency "ignore[d] the temporary impacts of the construction"].) Caltrans concedes that Project-related construction activities could have aesthetic impacts. (DSEIR/EIS, p. 3.6-8.) Nevertheless, Caltrans concludes: "Construction activities would be temporary, and the visual impacts related to views of the construction

activities would cease after completion of construction; therefore, no substantial impacts would occur.” (See SDEIR/EIS, p. 3.6-8, 3.6-9, & 4-17.) Accordingly, Caltrans must provide an explanation supported by substantial evidence as to why temporary impacts are less than significant.

- Caltrans fails to properly analyze the Project's impact on scenic resources. CEQA requires Caltrans to analyze whether the Project would substantially damage scenic resources, regardless of whether the resources are within a state scenic highway. In particular, CEQA provides that a lead agency must analyze whether a project will substantially damage scenic resources, including, but not limited to, (i) trees, (ii) rock outcroppings, and (iii) historic buildings within a state scenic highway. (State CEQA Guidelines, Appendix G, Section I [Aesthetics], subd. (b).) Caltrans, however, improperly limits its analysis to whether the Project would “degrade scenic resources along a State-designated scenic highway.” (DSEIR/EIS, p. 4-17.) In doing so, Caltrans ignores impacts to scenic resources that it acknowledges elsewhere in the DSEIR/EIS—e.g., temporary impacts to 8 coast live oak trees, 15 sycamore trees, and 3 California Black Walnut trees, and permanent impacts to 6 oak trees. (DSEIR/EIS, p. 3.6-10.)
- Caltrans fails to properly analyze whether the Project would create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Caltrans' analysis of this issue is effectively limited to pointing towards certain “measures”—not mitigation measures—that would purportedly mitigate the Project's impacts relating to this issue, but there is no explanation as to why this is the case. (DSEIR/EIS, p. 4-17 through 4.7-18.) As discussed throughout this letter, this is improper and violates CEQA. (*Lotus, supra*, 223 Cal.App.4th at pp. 656-658.)

7. **Caltrans has failed to properly analyze the Project's impacts on biological resources.**

- Caltrans fails to provide mitigation measures for the Project's potentially significant adverse impacts on candidate, special status, and sensitive plant species. CEQA requires mitigation measures to reduce a Project's *potentially* significant impacts on the environment. (See, e.g., *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 732.) Here, Caltrans determines the Project “may affect, not likely to adversely affect” various candidate, special status, or sensitive species and their critical habitats, including, among others: (1) Braunton's Milk-vetch, (2) Thread-leaved Brodiaea, (3) Santa Ana sucker, (4) coastal California gnatcatcher, (5) Least Bell's Vireo, and (6) Southwestern Willow Flycatcher. Caltrans' determination that the Project “may affect” these species constitutes a finding that the Project will have potentially significant impacts on these species; mitigation is thus required. Yet, Caltrans does not propose mitigation measures to minimize these impacts. Rather, Caltrans sets forth unenforceable “measures” to minimize the Project's impacts, but Caltrans fails to explain how these measures will be implemented and fails to explain how these measures will actually mitigate the

Project's identified potentially significant impacts. (DSEIR/EIS, pp. 3.19-10 through 3.19-21, 4-49 through 4-56; Pub. Res. Code, § 21081.6; State CEQA Guidelines, § 15126.4; *Lotus, supra*, 223 Cal.App.4th at pp. 656-658.)

- Caltrans fails to mitigate impacts to coastal sage scrub outside of the NCCP/HCP Plan Area. Caltrans recognizes that the Project will adversely impact coastal sage scrub outside the Coastal Subregion Natural Community Conservation Plan/Habitat Conservation Plan/Habitat Conservation Plan ("NCCP/HCP") Plan Areas, but concludes that "[w]ith the implementation of Measures NC-1 through NC-6..., which address construction activities in and adjacent to coastal sage scrub, the Build Alternative would not result in substantial temporary impacts to coastal sage scrub habitat during construction." (DSEIR/EIS, pp. 3.15-55, 4-51.) Measures NC-1 through NC-6, however, suffer from the same defects that plague Caltrans' other measures, discussed above. The measures are not enforceable mitigation measures, and Caltrans fails to explain how implementation of the measures would mitigate the Project's impacts on coastal sage scrub outside the NCCP/HCP Plan Areas to a level of less than significant. (Pub. Res. Code, § 21081.6; see also *Lotus, supra*, 223 Cal.App.4th at p. 656.)

Moreover, Caltrans' contention that "[i]mpacts to non-NCCP/HCP areas within Caltrans right-of-way will be covered through mitigation measures in the new Biological Opinion for the Proposed Project" fails to comply with CEQA's informational requirements. In particular, Caltrans does not disclose the contents of "the new Biological Opinion" and does not explain what actual mitigation measures will be implemented to mitigate impacts to the coastal sage scrub and the species—like the California gnatcatcher—that depend on the coastal sage scrub. This constitutes an improper deferral of mitigation.

- Caltrans fails to mitigate impacts to coast live oak woodland. The DSEIR/EIS asserts that the Project "would temporarily impact 8 coast live oak and 15 sycamores and permanently impact 6 coast live oak trees." (DSEIR/EIS, p. 4-56, 3.15-57.) Again, Caltrans seeks to mitigate these impacts with unenforceable measures; at the very least, Caltrans fails to explain how the measures will be enforced. (Pub. Res. Code, § 21081.6; see also *Lotus, supra*, 223 Cal.App.4th at pp. 656-658.)
- Caltrans fails to properly analyze whether the Project will interfere with the movement of wildlife species. CEQA requires Caltrans to determine whether the Project would "interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites." (State CEQA Guidelines, Appendix G, Section IV [Biological Resources], subd. (d).) The DSEIR/EIS provides that the Project's construction activity around the Windy Ridge Wildlife Crossing "may cause animals to avoid this wildlife corridor." Despite this, the DSEIR/EIS concludes that "no substantial temporary impacts to wildlife corridors would occur during construction in that area" with the implementation of Measures

NC-9, NC-11, NC-13, and NC-14. The discussion is insufficient because Caltrans does not explain how these mitigation measures—or any of its mitigation measures—are enforceable. (Pub. Res. Code, § 21081.6; *Lotus, supra*, 223 Cal.App.4th at pp. 656-658.)

- Caltrans does not properly mitigate impacts to jurisdictional waters. The DSEIR/EIS provides that the Project would result in temporary and permanent impacts to certain waters. (DSEIR/EIS, pp. 3.16-10 through 3.16-15, 4-21.) Caltrans contends that these impacts would be less than significant with the implementation of Measures WET-1 through WET-3, which require a nationwide permit from the US Army Corps of Engineers, a Streambed Alteration Agreement from CDFW, and Section 401 Water Quality Certification from the Regional Water Quality Control Board (“RWQCB”). Caltrans fails to explain, however, what nexus exists between obtaining these permits and mitigating the identified impacts. Indeed, it is entirely unclear, based on the DSEIR/EIS, how obtaining these permits would reduce the identified impacts to a level of less than significant.

8. **Caltrans has failed to properly mitigate the Project's impacts on paleontological resources.**

- Caltrans recognizes that the Project may have a significant environmental impact on paleontological resources, but Caltrans defers mitigation of this impact. Deferral of mitigation is not permissible under CEQA. State CEQA Guidelines section 15126.4 provides:

Formulation of mitigation measures shall not be deferred until some future time. The specific details of a mitigation measure, however, may be developed after project approval when it is impractical or infeasible to include those details during the project's environmental review provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will be considered, analyzed, and potentially incorporated in the mitigation measure.

(State CEQA Guidelines, § 15126.4.) Here, Caltrans improperly defers mitigation with Measure PAL-1, which provides that a Paleontological Mitigation Plan will be prepared in the future during “final design.” (DSEIR/EIS, p. 3.10-14.) Deferral of mitigation is impermissible. (State CEQA Guidelines, § 15126.4.) Thus, RCTC requests that Caltrans set forth the enforceable performance standards that will be included in such a plan.

9. Caltrans has failed to properly analyze the Project's impacts on cultural resources.

- Caltrans does not explain how Measures CR-1 and CR-2, if implemented, would reduce the Project's potential significant impacts on cultural resources. (See DSEIR/EIS, pp. 3.7-7 through 3.7-8, 4-24 through 4-25.) For example, Measure CR-1 provides: "If cultural materials are discovered during construction, all earthmoving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find. At that time, the Caltrans District 12 Environmental Branch Chief will be contacted to ensure that Section 106 compliance is maintained." (DSEIR/EIS, p. 3.7-8.) It is unclear how this would mitigate any impacts. What happens after the archaeologist assesses the nature and significance of the find? Does earthmoving activity commence after the archaeologist makes his or her assessment, regardless of what that assessment is? How does contacting the Environmental Branch Chief mitigate any potential impacts? How would compliance with Section 106 mitigate any potential impacts? Again, enforceable performance standards should be specified.
- Measures CR-1 and CR-2 do not address "preservation in place." (See DSEIR/EIS, pp. 3.7-7 through 3.7-8.) "Public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed for a project involving such an archaeological site: (A) Preservation in place is the preferred manner of mitigating impacts to archaeological sites. ..." (See State CEQA Guidelines, § 15126.4(b)(3).) Caltrans, however, does not explain whether this is the preferred manner of mitigating, or how feasibility of preserving in place would be assessed.

10. Caltrans has failed to properly analyze the Project's impacts on geology and soils.

- Caltrans offers incomplete analysis regarding whether the Project could have a potentially significant impact due to its location on a geologic unit or soil that is unstable. CEQA requires Caltrans to analyze whether the Project would be "located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse." (State CEQA Guidelines, Appendix G, Section VI [Geology and Soils], subd. (c).) As an initial matter, Caltrans fails to properly analyze the Project's potential to result in any of these impacts, except for liquefaction. (DSEIR/EIS, p. 4-28.) Moreover, Caltrans notes that the Project is mapped as being within a "Liquefaction Zone of Required Investigation" by the California Division of Mines and Geology, that "potentially liquefiable layers are present within Santa Ana Canyon," and that "liquefaction potential in the Project Area is considered low-to-medium." (DEIS/EIR, p. 4-28.) Caltrans, however, stops its analysis here. It does not conclude that the Project will result in a significant environmental impact as a result, and it does not reach a contrary conclusion. Such an omission must be remedied.

- Caltrans fails to support its conclusions with facts and analysis. The DSEIR/EIS' discussion of geology and soils largely consists of conclusions unsupported by facts. For example, as to expansive soils, the DSEIR/EIS provides: "The soils within the Project Area can be somewhat expansive and compressible; however, hazards associated with compressible and expansive soils are considered low." (DSEIR, p. 3.9-11, 4-28.) Caltrans fails to explain the basis for this conclusion and conclusions like it throughout its discussion of geology and soils. (*Sierra Club, supra*, 6 Cal.5th at p. 522 ["To facilitate CEQA's information role, the EIR must contain facts and analysis, not just the agency's bare conclusions or opinions"].)

11. Caltrans has failed to properly analyze the Project's hydrology and water quality impacts.

- Caltrans fails to properly analyze whether the Project will violate any water quality standards or waste discharge requirements. The DSEIR/EIS does not identify any water quality standards or waste discharge requirements and thus does not analyze whether the Project will violate any such standards or requirements. (See DSEIR/EIS, p. 4-32.)
- Caltrans fails to explain how its "measures" will mitigate potential impacts. Caltrans concludes (without analysis) that "[w]ith the implementation of Measures WQ-1 through WQ-5, impacts related to violation of water quality standards of waste discharge requirements would be less than significant, and no mitigation is required." (DSEIR/EIS, p. 4-33.) Caltrans, however, fails to explain how it will implement these measures. Moreover, these measures generally relate to compliance with various permits, but Caltrans does not explain how compliance with these permits will mitigate any of the Project's hydrology-related impacts. (DSEIR/EIS, p. 3.8-18 through 3.8-19.)
- Caltrans' reliance on unenforceable measures to mitigate impacts is improper. This comment applies to every instance throughout the DSEIR/EIS in which Caltrans relies on measures to mitigate impacts while simultaneously explaining that mitigation measures are not necessary. Caltrans routinely does this, and it is improper. (*Lotus, supra*, 223 Cal.App.4th at pp. 656-658.) The practice makes it difficult to understand whether a Project will have a significant impact or not. Moreover, Caltrans does not explain (i) how it will enforce the mitigation measures, (ii) what precise impacts a given measure seeks to mitigate, or (iii) how the mitigation measures actually address the impact at issue. More must be done.

12. Caltrans does not sufficiently analyze the Project's growth-inducing impacts.

- Caltrans does not support its conclusion that the Project would not result in growth-inducing impacts. The DSEIR/EIS concludes: "The improved travel times expected to be achieved as a result of the [Project] could have a slight influence on demand for residential and nonresidential uses in the Project Area or nearby cities; however, it

would not be expected to be sufficient to result in the need to modify adopted General Plans to allow for greater levels of development (residential and nonresidential).” There are at least four defects in this analysis. First, the DSEIR/EIS does not support its conclusion with any facts or any analysis. For example, the DSEIR/EIS does not attempt to actually determine the Project’s potential to result in an estimated increase in demand for residential and nonresidential uses in the Project Area or nearby cities; without such analysis, it is unclear on what basis Caltrans concludes that the Project would not result in growth-inducing impacts. Second, the DSEIR/EIS does not consider the Project’s potential to induce population growth in areas beyond the Project Area or nearby cities, but further along the SR-241. Third, the DSEIR/EIS uses an improper threshold of significance to determine whether the Project’s growth-inducing impacts would be significant—i.e., whether the Project’s growth-inducing impacts would result in the need to modify adopted General Plans to allow for greater levels of development. Fourth, Caltrans merely speculates that the Project would not result in such impacts. For all of these reasons, Caltrans’ speculative analysis of growth-inducing impacts fails to comply with CEQA.

13. Caltrans does not sufficiently analyze the Project’s impacts on tribal cultural resources.

- The DSEIR/EIS does not address tribal cultural resources as required by the State CEQA Guidelines. (See State CEQA Guidelines, Appendix G, Section XVII [Tribal Cultural Resources].) Caltrans omits this discussion entirely. To remedy this CEQA violation, Caltrans must analyze and discuss this issue in a revised DSEIR/EIS. After making the revision, Caltrans must recirculate the DSEIR/EIS.

14. Caltrans does not sufficiently analyze the Project’s impacts on utilities and service systems.

- Caltrans’ conclusion that there are sufficient water supplies to serve the Project is not supported by facts or analysis. The DSEIR/EIS concludes that the Project would have sufficient water supplies available to serve the project from existing entitlements or resources because “the demand for water during construction and operation of the Build Alternative would represent only a very small percentage of total demand for water in the area and would not exceed existing entitlements.” (DSEIR/EIS, 4-48.) Caltrans, however, does not specify (1) how much water the Project would require during construction; (2) how much water the Project would require during operation; (3) the amount of total water demand in the area; (4) the amount of total water available in the area; or (5) the extent of the existing entitlements. Rather, Caltrans concludes—without supporting facts and analysis—that sufficient water supplies are available to serve the project from existing entitlements. (See *Sierra Club*, *supra*, 6 Cal.5th at p. 522.)
- Caltrans’ conclusion that the Project will be served by a landfill with sufficient capacity is not supported by facts or analysis. Caltrans concludes that “[t]he amount

of waste materials generated during construction and operation of the [Project] that would be disposed of in landfills would represent only a very small percentage of the total amount of waste generated in the region and disposed of at the landfills." Again, this is a conclusion unsupported by facts or analysis. (See *Sierra Club, supra*, 6 Cal.5th at p. 522.) Notably, Caltrans fails to specify (1) the amount of waste materials that would be generated during construction and operation of the Project, and (2) the capacity of nearby landfills to handle that amount of waste. Absent this information, Caltrans' conclusion is based on speculation, not substantial evidence.

15. Caltrans fails to properly analyze the Project's cumulative impacts.

- The DSEIR/EIS improperly dismisses less than significant impacts as incapable of being cumulatively considerable. Caltrans concludes that the Project "does not have impacts that are individually limited but cumulatively considerable because the only project impacts that require mitigation are related to biological and paleontological resources." (DSEIR/EIS, p. 4-58.) Putting aside the fact that many of the Project's impacts appear to require mitigation as discussed above, Caltrans appears to fundamentally misunderstand the purpose of a cumulative impacts analysis. The purpose is not to determine whether *significant* impacts cumulatively would have a significant cumulative impact, but rather to determine whether *less than significant* impacts, when analyzed with impacts from other projects, could result in a significant impact. Caltrans apparently fails to engage in any such analysis because it dismisses all less than significant impacts from its cumulative impacts analysis. This is a patent violation of CEQA; revision and recirculation of the DSEIR/EIS are required.
- Caltrans' cumulative impacts analysis is fundamentally flawed because it does not discuss other projects. "The following elements are *necessary* to an adequate discussion of significant cumulative impacts: (1) either (A) a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, (B) a summary of projects contained in an adopted local, regional, or statewide plan, or related document, that describes or evaluates conditions contributing to the cumulative effect." Here, Caltrans' cumulative impacts discussions lacks both of these elements, and further lacks all of the other necessary elements enumerated in State CEQA Guidelines section 15130. (DSEIR/EIS, p. 4-58.)

For all of the foregoing reasons, the DSEIR/EIS must be revised and recirculated so the public can understand the Project's true impacts.

REQUEST FOR NOTICES

RCTC also requests to be added to the notification and distribution lists for all CEQA-related notices for the Project, public meeting notices, and public meeting/hearing notices issued pursuant to state and local law, including CEQA, the Ralph M. Brown Act, and the Bagley-Keene Act. The satisfaction of this written request is required by CEQA (Public Resources Code,

precluded." (State CEQA Guidelines, § 15088.5.) Accordingly, RCTC requests that the DSEIR/EIS be recirculated for public review after Caltrans revises the DSEIR/EIS consistent with CEQA.

RCTC appreciates Caltrans' thoughtful consideration of these comments and concerns.

Sincerely,



Anne Mayer, Executive Director
Riverside County Transportation Commission

cc: Mike Beauchamp, CT District 8 Director
Ryan Chamberlain, CT District 12 Director
Darrell Johnson, OCTA CEO
Mike Kraman, TCA CEO
Michele Nissen, Interim Corona City Manager
George Johnson, Riv Co CEO



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CHIEF EXECUTIVE OFFICE

Darrell E. Johnson
Chief Executive Officer

April 23, 2019

Ms. Smita Deshpande
Generalist Branch Chief
Caltrans-District 12, "Attn: 241-91 DSEIR/EIS Comment Period"
1750 East Fourth Street, Suite 100
Santa Ana, CA 92705

Subject: Follow-up to Draft Supplemental Environmental Impact Report/Environmental Impact Statement (SCH. 1989010410) Comments for the State Route 241/91 Tolled Express Lanes Connector Project (Project No. 1200020097)

Dear Ms. Deshpande:

This letter is a follow-up to the Orange County Transportation Authority (OCTA) January 2017 comments on the Draft Supplemental Environmental Impact Report/Environmental Impact Statement (DSEIR/S) for the State Route 241/91 Tolle Express Lanes Connector Project (Project). While the California Department of Transportation (Caltrans) is the lead agency in accordance to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA [through NEPA assignment]), the Transportation Corridor Agencies (TCA) is the sponsoring agency for the Project. OCTA applauds Caltrans' intent to adhere to the CEQA/NEPA processes to afford the public an opportunity to provide input on the Project. As a public agency, OCTA believes in the importance of disclosing the benefits/impacts of projects to facilitate meaningful public input.

TCA has been working extensively with OCTA to provide additional traffic information for a better understanding of the potential impacts to the 91 Express Lanes and the general-purpose lanes. TCA conducted additional analyses related to traffic operations on the Project and included information that was not previously available or known at the time of the public review of the DSEIR/S. This included multiple iterations of the traffic analysis and a traffic operations model, rather than a traffic demand model that was originally used to support the Project. In addition, the Riverside County Transportation Commission began operations on its 91 Express Lanes in spring 2017 that changed the landscape of traffic patterns on the State Route 91 (SR-91) corridor. Finally, the Project's base year has been updated to 2018, from 2013[DP1] in the DSEIR/S. The opening year and no-build year were updated to 2025,[DP2] from 2020 in the DSEIR/S. In December 2018, TCA provided OCTA with the *SR-241/SR-91 Tolle Express Lanes Connector DRAFT Traffic Analysis for Response to Comments on the SR-241/SR-91 Express Lanes Connector Draft Supplemental EIR/EIS* (dated December 20, 2018).

Ms. Smita Deshpande
April 23, 2019
Page 2

OCTA believes the updated traffic analysis could materially change the outcome of the analysis in the DSEIR/S. Therefore, for the reasons stated, we believe it is in the best interest of Caltrans to recirculate the DSEIR/S to allow the public an opportunity to review the updated information. Given the SR-91 freeway is a major east-west corridor that traverses through several counties, OCTA believes Caltrans has the responsibility to update the traffic information in the DSEIR/S accordingly, which will allow the public to fully vet the Project. Caltrans, as the lead agency, has the discretion to certify the final SEIR/S. However, that decision should not be taken lightly, or without careful consideration, to afford the public to review the new information.

In addition, Caltrans has yet to provide responses to numerous comments/concerns raised in the January 2017 comment letter on the DSEIR/S (Attachment). CEQA technically allows the lead agency to provide written responses to public agencies who had commented on a draft document no less than ten days prior to certifying an environmental impact report. However, given the magnitude of the potential impacts to the traveling public in the general-purpose lanes and 91 Express Lanes alike, we believe Caltrans needs to engage OCTA in resolving its concerns prior to recirculating the DEIR/S and ultimately certifying the final environmental impact report.

In summary, Caltrans should work closely with OCTA to address input from the January 2017 comment letter on the DSEIR/S. Caltrans must recirculate the DSEIR/S in light of significant new information that has been presented since the 2016 public circulation of the DSEIR/S. As the agency which acquired the 91 Express Lanes from the California Private Transportation Company to eliminate the non-compete clause on the SR-91 corridor, OCTA has the responsibility to protect the users of the 91 Express Lanes and general-purpose lanes from being negatively impacted by the Project. Furthermore, OCTA is considered a responsible agency under CEQA for the Project since any connection to the 91 Express Lanes would require approval from OCTA.

If you wish to discuss the concerns discussed herein, feel free to contact me at (714) 560-5907 or at dphu@octa.net.

Sincerely,



Dan Phu
Environmental Programs Manager

Attachment

c: Valarie McFall, TCA



AFFILIATED AGENCIES

Orange County
Transit DistrictLocal Transportation
AuthorityService Authority for
Freeway EmergenciesConsolidated Transportation
Service AgencyCongestion Management
AgencyService Authority for
Abandoned Vehicles

January 9, 2017

Ms. Smita Deshpande
Generalist Branch Chief
Caltrans-District 12, "Attn: 241-91 DSEIR/EIS Comment Period"
1750 East Fourth Street, Suite 100
Santa Ana, CA 92705

Subject: Draft Supplemental Environmental Impact Report/Environmental
Impact Statement (SCH. 1989010410) for the State Route
241/State Route 91 Tolloed Express Lanes Connector Project
(Project No. 1200020097)

Dear Ms. Deshpande: *Smita*

Thank you for providing the Orange County Transportation Authority (OCTA) with the Draft Supplemental Environmental Impact Report/Environmental Impact Statement (DSEIR/S) for the State Route 241/State Route 91 Tolloed Express Lanes Connector Project (Project). The following comments are provided for your consideration:

- On page 2-23, Section 2.2.1.2 'Permanent Project Features,' subsection 'TSM/TDM' the proposed Project is stated "to have dynamic traffic technology (toll pricing based on express lanes demand)." The analysis in the DSEIR/S did not address tolling and potential economic implications. OCTA recommends further analysis on tolling under applicable environmental factors analysis.
- On Page 5-3, Table 5.1 'Comments Received During Scoping,' states "Toll operations are being coordinated between F/ETCA, OCTA, and RCTC and are evaluated in a separate Concept of Operations report." OCTA recommends including this throughout the DSEIR/S, as applicable.
- The opening year analysis should be redone to reflect the actual opening year of 2020 rather than 2017. While Section 3.5.3.2 provides an explanation that the differences in traffic operations are nominal between 2017 and 2020, given the SR-91 Corridor Improvement Project (CIP) is scheduled to open in 2017, a thorough 2020 analysis would be appropriate.

OCTA has not been provided any information related to economic implications resulting from the Project.

OCTA has not received a response to this comment.

Opening year has been updated to reflect 2025 per the latest traffic analysis provide by TCA.

Orange County Transportation Authority
550 South Main Street / P.O. Box 14184 / Orange / California 92663-1584 / (714) 560-OCTA (6282)

Ms. Deshpande
January 9, 2017
Page 2

- Given the complex nature of having multiple tolled facilities operated by different agencies, OCTA suggests that the analysis in the environmental document be updated to include traffic volume data anticipated to be available in Spring 2017 with the opening of the CIP. This would help refine the existing, opening year, and 2040 conditions analysis (throughput, speeds, and travel time).
- It appears that the environmental document had not analyzed weaving impacts along the SR-91 at the confluence of the SR-241 Express Connector merge/diverge, the OCTA 91 Express Lanes, and the RCTC 91 Express Lanes. Therefore, a more detailed weaving analysis would be appropriate.
- It appears that the complex nature of the multiple tolling options (including dynamic pricing) for the SR-241, the SR-241 Express Connector, the OCTA 91 Express Lanes, and the RCTC 91 Express Lanes are not adequately discussed with respect to the traffic impacts. These should be explored in detail.
- OCTA understands that there are complementary concept of operations studies (con-ops) underway. Some of the appropriate results from the con-ops studies should be integrated into this environmental document.
- It appears there needs to be a more thorough analysis of the construction impacts on the OCTA 91 Express Lanes, including traffic impacts, toll and revenue implications.

Thank you for providing OCTA the opportunity to review this item. Throughout the development of this proposed project, we encourage continued communication with OCTA on the matters discussed herein. If you have any questions or comments, please contact me by phone at (714) 560-5907 or by email at dphu@octa.net.

Sincerely,



Dan Phu
Environmental Programs Manager

c: Valarie McFall, TCA

Requested information has been updated. However, it was done through multiple iterations and in a traffic operations model, rather than a traffic demand model. OCTA requests an updated traffic demand model.

Current and future weave movements were provided. However, a separate, standard Highway Capacity Manual weaving analysis is requested. Future weave movements should be further updated to show a more intuitive analysis.

OCTA has not received a response to this comment.

OCTA has not received a response to this comment.

OCTA has not received a response to this comment.

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
FAX (916) 653-5776
TTY 711
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June 19, 2019

Mr. Darrell Johnson
Chief Executive Officer
Orange County Transportation Authority
550 South Main Street
Orange, CA 92868

Ms. Anne Mayer
Executive Director
Riverside County Transportation Commission
P.O. Box 12008
Riverside, CA 92502

Mr. Michael Kraman
Chief Executive Officer
Transportation Corridor Agencies
125 Pacifica
Irvine, CA 92618

Dear Mr. Johnson, Ms. Mayer and Mr. Kraman:

The Orange County Transportation Authority, Riverside County Transportation Commission, Transportation Corridor Agencies, and California Department of Transportation (Caltrans) met on May 28, 2019, to discuss projects on the State Route (SR) 91 Corridor and how we can work together to resolve concerns between our respective agencies.

At the end of our meeting, we all agreed to hire a neutral outside party to facilitate further discussions and issue-resolution related to projects and their sequencing on the SR 91 Corridor. This meeting has been scheduled for June 25, 2019. Depending on how much progress we achieve on June 25th, additional facilitated meetings may be necessary over next few months.

It is our hope that consensus on project sequencing will be one of the many outcomes of our meetings. As such, Caltrans will postpone commenting on the recently released Draft SR 91 Implementation Plan.

Mr. Johnson, Ms. Mayer, and Mr. Kraman
June 19, 2019
Page 2

We look forward to engagement and resolution of concerns within the corridor that achieve the maximum benefit to the traveling public we all serve.

Sincerely,



LAURIE BERMAN
Director

c: Ryan Chamberlain, Caltrans District 12 Director
Michael Beauchamp, Caltrans District 8 Director

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
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RIVERSIDE COUNTY
TRANSPORTATION COMMISSION

June 19, 2019

Mr. Darrell Johnson
Chief Executive Officer
Orange County Transportation Authority
550 South Main Street
Orange, CA 92868

Ms. Anne Mayer
Executive Director
Riverside County Transportation Commission
P.O. Box 12008
Riverside, CA 92502

Mr. Michael Kraman
Chief Executive Officer
Transportation Corridor Agencies
125 Pacifica
Irvine, CA 92618

Dear Mr. Johnson, Ms. Mayer and Mr. Kraman:

The Orange County Transportation Authority, Riverside County Transportation Commission, Transportation Corridor Agencies, and California Department of Transportation (Caltrans) met on May 28, 2019, to discuss projects on the State Route (SR) 91 Corridor and how we can work together to resolve concerns between our respective agencies.

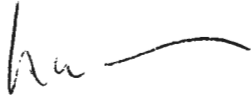
At the end of our meeting, we all agreed to hire a neutral outside party to facilitate further discussions and issue-resolution related to projects and their sequencing on the SR 91 Corridor. This meeting has been scheduled for June 25, 2019. Depending on how much progress we achieve on June 25th, additional facilitated meetings may be necessary over next few months.

It is our hope that consensus on project sequencing will be one of the many outcomes of our meetings. As such, Caltrans will postpone commenting on the recently released Draft SR 91 Implementation Plan.

Mr. Johnson, Ms. Mayer, and Mr. Kraman
June 19, 2019
Page 2

We look forward to engagement and resolution of concerns within the corridor that achieve the maximum benefit to the traveling public we all serve.

Sincerely,

A handwritten signature in black ink, appearing to read 'Laurie Berman', with a long horizontal flourish extending to the right.

LAURIE BERMAN
Director

c: Ryan Chamberlain, Caltrans District 12 Director
Michael Beauchamp, Caltrans District 8 Director

SR-241 / 91 Express Connector Term Sheet

SEPTEMBER 12, 2019

Program of Projects

- 91 Corridor program of projects and sequencing¹
 - 15/91 EB/NB Express Lanes Connector (ELC)
 - SR-91 WB Corridor Operations Project (COP)
 - SR-91/SR-71 EB/NB Connector²
 - SR-241/91 Express Connector (EC)
- All parties agree to work together to resolve geometric and operations issues between 91 COP, SR-241 / 91 EC, and future 6th Lane with the mutual goal of minimizing cost, scope, schedule and construction impacts to all projects.
 - The SR-91 COP schedule will not be delayed.

Project Approval / Environmental Documentation (PA/ED)

- TCA to deliver the SR-241/91 EC PA/ED. TCA and Caltrans will update the environmental document with consideration of the comments received.
- Caltrans shall not finalize / approve PA/ED until RCTC and OCTA have had a 30-day opportunity to review response to comments. Caltrans shall not sign the Notice of Determination or Record of Decision any sooner than January 2, 2020.
- OCTA to process the Federal Transportation Improvement Program (FTIP) amendment for SR-241/91 EC for Right-of-Way (ROW) and Construction phases immediately following RCTC and OCTA having had a 30-day opportunity to review response to comments.

Project Delivery

- TCA to complete final design of SR-241/91 EC with Caltrans oversight.
- Caltrans has final design approval of SR-241/91 EC.

¹ See Appendix A for SR-91 Projects Sequencing Priorities dated September 12, 2019.

² SR-241/91 EC is not dependent upon completion of SR-71/SR-91 Interchange Improvements.

- TCA will provide OCTA and RCTC ample opportunity to review and concur with all aspects of the final design. OCTA and RCTC shall focus on the interface of the SR-241/91 EC with the existing 91 Express Lanes facility and agreed upon projects in the attached SR-91 Projects Sequencing Priorities.
- Caltrans and TCA shall consider all reasonable comments and requests from OCTA and RCTC, and OCTA and RCTC comments and requests to Caltrans and TCA shall be fair and reasonable.
- Caltrans District 12 to Advertise, Award, Administer (AAA) construction phase.

SR-241/91 EC Capital and Support Funding

- TCA to fund 100% of Plan, Specification and Estimate (PS&E), ROW, and Construction including tolling infrastructure.
- Project will not be financed.
- OCTA, RCTC, TCA and Caltrans to seek eligible funds from external discretionary and/or competitive non-TCA funds (i.e. SB1).
 - TCA funds to be reduced by receipt of any external discretionary and/or competitive non-TCA funds.
 - Attempts to seek external discretionary and/or competitive non-TCA funds would not delay the project.

Roadway Maintenance Responsibility

- Caltrans to be responsible for performing maintenance of all improvements constructed as part of SR-241/91 EC (roadway, structures, etc.).
- Maintenance requirements to be funded from SR-241/91 EC toll revenues.

Toll Revenues

- Parties to receive toll revenue from SR-241/91 EC equal to percentage of capital and support funding provided (e.g., 100% of capital and support funding = 100% EC toll revenue, 80% of capital and support funding = 80% EC toll revenue).
- Term of tolling shall be consistent with latest sunset date for existing 91 Express Lanes, TCA agreements or any subsequent amendments in the future.
- 91 Express Lanes to be paid/reimbursed for any 91 Express Lanes operating cost or maintenance cost incurred, if any.
- Use of toll revenues shall be consistent with AB 194, modified as follows:
 - A. Repayment of funds with interest, excluding external discretionary funds, used to construct the SR-241/91 EC. Interest rate will be based upon the Surplus

Money Investment Fund rate as defined in the California Streets and Highway Code.

- B. The development, maintenance, repair, rehabilitation, improvement, reconstruction, administration, and operation of improvements constructed as part of SR-241/91 EC, including toll collection and enforcement.
- C. Reserves for the purposes specified in subparagraph (B).
- D. All remaining revenue generated by the toll facility shall be used in the corridors from which the revenue was generated pursuant to an expenditure plan developed by the sponsoring agency.
- E. The expenditure plan shall be incorporated as part of the TCA Capital Improvement Plan (CIP) and be adopted annually by the TCA Board of Directors. TCA shall submit the CIP to OCTA for consistency review with the Regional Transportation Plan and related programs.
- F. The administrative expenses related to operation of SR-241/91 EC facility shall not exceed 3 percent of the toll revenues.

241 / 91 EC Operations

- OCTA/RCTC to operate the SR-241/91 EC including calculating and posting dynamic pricing, traffic/incident monitoring via CCTV in the Traffic Operations Center, management of SR-241/91 EC closures, dispatch of CHP and tow trucks for incidents, creation and processing of toll transactions, revenue collection, violation processing, etc.
- Additional operations terms will be included in an operations term sheet and will also be memorialized in a future operating agreement between TCA, OCTA, and RCTC.

APPENDIX A

SR 91 PROJECTS SEQUENCING PRIORITIES

1. 15/91 Express Lanes Connector

- Design-Build Request for Proposals (RFP) Due – November 2019
- Design-Build Contract – March 2020
- Design-Build Notice to Proceed – Spring 2020
- Open to Traffic – End of 2022

2. SR-91 Corridor Operations Project

- PA/ED – October 2019
- Construction Advertisement – March 2020
- Open to Traffic – End of 2021

3. SR-71/SR-91 Interchange Improvements

- Environmental Document and Re-evaluation – Completed
- Ready to List Target – 2021 Design update needed due to new structures standards
- Open to Traffic – Early 2023

3. SR-241 / SR-91 Express Connector

- PA/ED – November 2019
- Construction – Notice to Proceed for construction in early 2023, or sooner if mutually agreed to based on a technical review of construction staging, traffic handling / lane closure for SR-241/91 EC and 15/91 ELC. This effort will not impact the delivery of the 15/91 ELC which is the priority.

Related Project Responsibilities

- Caltrans District 8 to be the lead Caltrans district for all RCTC-led projects.
 - District 12 coordinates through District 8 on all issues related to Geometric Approval Drawings (GAD), operations, etc.
- Caltrans District 12 to be lead Caltrans district for all OCTA-led and TCA-led projects.
 - District 8 coordinates through District 12 on all issues related to GAD, operations, etc.

Other Items

- Team will continue to work together to evaluate the Westbound Third Express Lane and if determined to be necessary, implementation will be jointly developed.
- SR-71/SR-91 Interchange Improvements and SR-241/91 EC are not contingent upon each other. Specifically, completion of the SR-71/SR-91 Interchange Improvements are not required prior to the SR-241/ 91 EC going to construction.
- 6th General Purpose Lane Addition (SR-241 to SR-71)
 - Team would work together to investigate the feasibility of the addition, including the potential of an interim option.

DEPARTMENT OF TRANSPORTATION

District 8 and 12
 PHONE (657) 328-6000
 FAX (657) 328-6522
 TTY 711



Making Conservation
 a California Way of Life.

RECEIVED
 SEP 30 2019

RIVERSIDE COUNTY
 TRANSPORTATION COMMISSION

September 26, 2019

Mr. Darrell Johnson, Chief Executive Officer
 Orange County Transportation Authority
 550 South Main Street
 Orange, CA 92863

Mr. Michael A. Kraman, Chief Executive Officer
 Transportation Corridor Agencies
 125 Pacifica, Suite 100
 Irvine, CA 92618

Ms. Anne Mayer, Executive Director
 Riverside County Transportation Commission
 P.O. Box 12008
 Riverside, CA 92502

Dear Mr. Johnson, Mr. Kraman, and Ms. Mayer:

The California Department of Transportation (Caltrans), Orange County Transportation Authority (OCTA), Riverside County Transportation Commission (RCTC) and Transportation Corridor Agencies (TCA), have collaborated on drafting a term sheet for the SR-241/91 Express Connector project and other State Route 91 project sequencing of near-term projects, with the mutual goal of minimizing cost, scope, schedule and construction impacts to all projects.

Caltrans Districts 8 and 12 agree with and support the items included in the term sheet, dated September 12, 2019.

Caltrans looks forward to continuing to partner and collaborate with OCTA, RCTC, and TCA in efficiently implementing these crucial projects on State Route 241 and 91.

If you have any questions or concerns, please contact me at (657) 328-6000, Director Beauchamp at (909)-383-6914, or Adnan Maiah, Deputy District Director, District 12 Capital Outlay Program, at (657) 328-6307 or by e-mail sent to <adnan_maiah@dot.ca.gov>

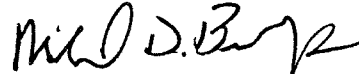
Mr. Kraman, Mr. Johnson, and Ms. Mayer
September 26, 2019
Page 2

Sincerely,



RYAN CHAMBERLAIN
District 12 Director

Sincerely,



MICHAEL BEAUCHAMP
District 8 Director

Enclosures

c: Jim Beil, OCTA
David Thomas, RCTC
Adnan Maiah, Caltrans
Syed Raza, Caltrans
Roger Yoh, Caltrans

AGENDA ITEM 9

<i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i>	
DATE:	November 13, 2019
TO:	Riverside County Transportation Commission
FROM:	Traffic Relief Strategy “Committee of the Whole”
SUBJECT:	Traffic Relief Plan Structure: Geography and Expenditure Categories

TRAFFIC RELIEF STRATEGY “COMMITTEE OF THE WHOLE” RECOMMENDATION:

This item is for the Commission to approve geographic divisions and expenditure categories for the countywide Traffic Relief Plan (Plan).

BACKGROUND INFORMATION:

The Traffic Relief Strategy “Committee of the Whole” voted unanimously in a public meeting to approve the proposal as outlined below for how the Plan should be organized by geography and expenditure category:

Geography

Maintain the three geographic subregions in the 1989 and 2009 Measure A expenditure plans:

- Western County
- Coachella Valley
- Palo Verde Valley

Expenditure Category

Organize expenditures in the Plan (projects, programs, and services) in all three subregions according to plain-language purposes the expenditures will achieve, rather than by mode (e.g., bus, rail, highway).

Proposed Category	Illustrative types of expenditures
Reducing Congestion and Connecting Communities	<ul style="list-style-type: none"> • Highway Improvements • Interchanges • Technologies • Rail/Express Bus • New Corridors • Local and regional arterials • Active Transportation Projects

	<ul style="list-style-type: none"> • Infrastructure supporting permanent local jobs and economic development to reduce commuting
Improving Safety and Keeping Infrastructure in Good Condition	<ul style="list-style-type: none"> • Safety upgrades to county arterials, bridges, local roads, and highways • Alternative routes on major corridors • Grade separations • Freeway Service Patrol • Safe Routes to School • Active Transportation Projects • Upgrades, operations, maintenance of Metrolink and intercity rail stations • Maintaining local roads and transit systems
Supporting Seniors, Veterans, Students, and Individuals with Disabilities	<ul style="list-style-type: none"> • Specialized transit services • Fare stabilization • Safe Routes to School • Active Transportation Projects

Rationale for Proposal

Geography

- Consistency with regional governance (e.g., Measure A, council of governments, transit properties).
- Sense of identity among residents, particularly in the Coachella Valley.
- Residents' desire to see revenues remain within their area and not sent to other parts of the county, as expressed in public opinion surveys.

Expenditure Categories

- **Purpose-driven:** The Traffic Relief Strategy Committee's name concisely conveys its purpose. So should elements of the Plan. While many transportation expenditure plans in California, including both of RCTC's prior expenditure plans, are organized according to mode (bus, rail, highways, etc.), this traditional mindset can lead to debates that stray from the underlying public policy challenges needing to be addressed.
- **Direct:** The Plan is an opportunity to clearly communicate to the frustrated users of the transportation system why RCTC is developing the Plan and what the Commission intends to accomplish. Unambiguous plain language rather than technical transportation-speak will spare concerned residents further time and frustration in trying to understand what the Plan does and how it will impact them.

- **Countywide:** Maintaining consistent expenditure categories across all three subregions simplifies the message to the public and speaking to residents who travel between subregions of the county. Implementation of the Plan within each subregion in terms of allocation of dollars among each category and policy provisions within each category can be tailored according to local preferences. RCTC staff has conferred with staff to the Coachella Valley Association of Governments and has received concurrence on these categories.
- **Durability:** The Plan will establish transportation priorities in Riverside County for multiple decades. Riverside County is changing rapidly and so is technology and the economy. As such, the way people move throughout Riverside County may change in the future. The Commission should consider the relevance of the Plan to future generations and the challenges they will face that cannot be anticipated today.
- **Public Support:** Public support of the Plan is essential to implementation. Recent public opinion communicated to RCTC demonstrates that the categories proposed capture the priorities of most Riverside County residents.

Feedback Requested – City and County Local Street Funding

The 1989 and 2009 Measure A expenditure plans provide a portion of sales tax funds generated in each subregion directly to cities and the county of Riverside for local street and road improvements. The 2009 Measure A expenditure plan allocates the following amounts directly to cities and the County for local streets and roads:

Subregion	Amount of subregional funds for local streets and roads	Basis for distribution among jurisdictions
Western County	29%*	75% - Proportion of population 25% - Proportion of revenue generated
Coachella Valley	35%	50% - Proportion of dwelling units 50% - Proportion of revenue generated
Palo Verde Valley	100%	75% - Proportion of population 25% - Proportion of revenue generated

* The expenditure plan says “an estimated \$970 million specifically for this purpose” which is approximately 29% of estimated total proceeds in Western County over the life of the 2009 Measure A.

As a condition to receiving local streets and roads funds from Measure A, cities and the County are required to report to annually file their five-year capital improvement program (CIP) with RCTC and maintain the same level of local funding for street maintenance. In Western County and Coachella Valley, jurisdictions must participate in each subregion’s Transportation Uniform Mitigation Fee program. In Western County, jurisdictions must also participate in the Multiple Species Habitat Conservation Plan. Jurisdictions have broad discretion to use these funds; RCTC does not set priorities for use of these funds.

RCTC engaged in dialogue with several city managers and County Transportation and Land Management Agency regarding this topic. Many city managers have expressed a desire to see the Plan focus on larger regional projects that need to get done, rather than trimming some funds for smaller city projects. Some city managers have expressed that basic maintenance is a significant need and should be provided in the Plan for cities that need it.

RCTC staff submitted the following considerations submitted for the Committee's deliberations:

- 2009 Measure A provides local street and road funding to local governments;
- Senate Bill 1 (SB 1) provides local street and road funding to local governments in addition to pre-SB 1 gas tax funding for local streets and roads;
- Providing funds to all 28 cities and the County for unincorporated areas reduces available funds for major regional projects and achieving meaningful quantities of funds for any one city will require a significant amount of the Plan to be devoted to local streets and roads;
- Voters throughout Riverside County strongly support providing more funding to "repairing potholes," "maintaining local roads," and "keeping infrastructure in good condition;"
- Voters throughout Riverside County strongly support funding returning to their local communities and having local control over those funds; and
- Any funds provided in the Plan for local streets and roads do not necessarily have to follow the same distribution policy as 2009 Measure A.

The Committee provided feedback as to whether the Traffic Relief Plan should provide a percentage of funds directly to cities and the County, and if so, for what purposes and under what conditions, if any.

In summary, the Committee expressed that maintenance of local roads is an important priority. The Committee also expressed a desire to see funds for their communities leveraged with funds from neighboring communities to do more impactful regional projects. Additionally, some Committee members acknowledged that it is difficult to gather enough dollars for meaningful local roads projects under the current funding structure of Measure A. Therefore, Committee members expressed support for a competitive call for projects concept within the Plan whereby jurisdictions could partner together to accomplish more. If the Commission is in concurrence, staff can develop a funding concept for the Plan that adheres to this direction for a call for projects and omit a guaranteed return to source program for each city and the County.

Next Steps

Following Commission adoption of the geographic delineations and expenditure categories in this item and the revenue estimate in the previous agenda item, staff will return to the Committee in November with potential projects, programs, and services to insert into the Plan. It is expected that the Commission will weigh in on the project, program, and services priorities at its December 11, 2019 meeting. The Commission should anticipate a substantive dialogue at this meeting.

The Commission's guidance on how to structure the Plan on November 13 is essential for staff being able to provide recommendations for what specific expenditures should be included in the draft Plan scheduled for release to the public on January 8, 2020.

AGENDA ITEM 10

<i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i>	
DATE:	November 13, 2019
TO:	Riverside County Transportation Commission
FROM:	Traffic Relief Strategy Committee Theresa Trevino, Chief Financial Officer
THROUGH:	Anne Mayer, Executive Director
SUBJECT:	Economic Impact Study

TRAFFIC RELIEF STRATEGY COMMITTEE AND STAFF RECOMMENDATION:

This item is for the Commission to:

- 1) Approve Agreement No. 20-19-012-00 to University of California, Riverside (UCR) School of Business, Center for Economic Forecasting & Development (UCR Center) to perform an economic impacts analysis related to the investment of an additional sales tax for transportation improvements in Riverside County in an amount not to exceed \$199,500; and
- 2) Authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement on behalf of the Commission.

BACKGROUND INFORMATION:

At its Annual Workshop in January, many RCTC Commissioners expressed a strong desire for the county's transportation system to support economic growth within Riverside County. In particular, Commissioners spoke of the need for the region to attract more employers so that Riverside County residents could work closer to home without needing a long commute. Commissioners' dialogue reflected a belief that transportation and the economy are connected.

Therefore, as the Commission develops a Countywide Transportation Improvement & Traffic Relief Plan (Plan), staff recommends the Commission analyze the economic impact of implementing such a plan. Such an analysis will provide Commissioners with data upon which to base decisions about the contents of the plan and whether it should be funded through a sales tax ordinance submitted to voters. Pursuant to the Commission's responsibility as a public agency to provide a fair presentation of facts, staff recommends the economic analysis consider not only the potential benefits of investing public funds on infrastructure but also the costs of raising a tax to provide that investment. Furthermore, staff believes that such an economic analysis should be conducted by a credible, independent third party with intimate knowledge of Riverside County and transportation infrastructure.

Toward those ends, the UCR Center provides a resource that fits the above criteria. Several years ago, UCR's School of Business created the UCR Center to be a leading economic research and

consulting center for the Inland Empire. Through a partnership with Beacon Economics (Beacon), the UCR Center's team has extensive economic analysis and forecasting experience and is led by Dr. Christopher Thornberg, a founder of Beacon. The UCR Center now provides the long-term sales tax forecasting services for the Commission. Additionally, the UCR Center has presented an annual economic conference that includes its Inland Empire analysis and forecasts in addition to the national and state forecasts. As a result of the UCR Center's experience and understanding of the Inland Empire, it is a vital community partner and resource to businesses and local governments.

Beacon has performed long-term sales tax forecasting services for the Commission since 2013. The Commission also obtained economic impacts studies from Beacon related to the State Route 91 Corridor Improvement Project and the I-15 Express Lanes Project that were included in federal Transportation Infrastructure Finance and Innovation Act loan submittals and competitive grant applications to the U.S. Department of Transportation.

Based on the UCR Center and Beacon's history of work with the Commission, understanding of the Inland Empire region, and overall credibility, staff has conducted a sole source procurement with the UCR Center to perform an economic impact study related to the investments from an additional sales tax for transportation improvements in Riverside County. Over the past few months, staff negotiated a scope of work with the UCR Center to provide a balanced analysis of economic impacts in order to present the Commission with unbiased, objective information.

DISCUSSION:

The UCR Center's economic impact analysis is comprised of four phases:

- **Phase 1:** Modeling the cumulative and project specific economic impacts (output, employment, compensation, and revenues) on the local Riverside economy from direct expenditures of eight examples of major capital transportation projects and four programmatic expenditure categories; staff intends to provide estimates of recent projects to the UCR Center to model the expenditure assessments. The examples analyzed by the UCR Center will reflect potential projects and expenditure categories evaluated by the Commission as it develops the Plan. Every project in the Plan cannot be analyzed due to time and cost constraints; however, the analysis will provide illustrative data that the Commission can use to craft the Plan;
- **Phase 2:** Analyzing the longer-term community impacts from infrastructure improvements, including development patterns, housing types, employment mix, transit accessibility, percentage of trips by non-car modes of transportation, and vehicle miles traveled per household. This is the analysis that speaks to the Commission's desire to use transportation investment as a long-term economic development tool;
- **Phase 3:** Analyzing the impact on consumers and businesses of raising the sales tax; and
- **Phase 4:** Providing public information of the results and findings through public presentations and/or facilitated discussions to the Commission, other government agencies, community organizations, and the media.

Upon approval of an agreement with the UCR Center, *Phase 1* and *Phase 2* work would begin. In Phase 1, the UCR Center will build the economic model and collect, review, and analyze the project expenditure data such that the results of this effort will be completed and presented to the Commission in early 2020. Phase 2 efforts related to the long-term community impact are similar in terms of model building and data collection, review and analysis; however, this effort will be completed in late February/early March for presentation to the Commission.

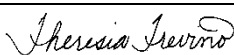
Should the Commission request additional project or program scenarios based on changes to the draft Plan in 2020, there would be an additional cost that is not included in the fee proposal.

Phase 3 and *Phase 4* work regarding the sales tax analysis and forecast and public information will commence after the Commission's annual workshop. The sales tax information will be completed and presented to the Commission in spring 2020. Phase 4 public information will continue through June and may continue through November 2020 should the Commission adopt the final Plan and implementing ordinance. Should the Commission request additional project or program scenarios based on changes in the final transportation expenditure plan, there would be an additional cost that is not included in the fee proposal.

Fiscal Impact Summary

The UCR Center is affiliated with a local university that understands the Inland Empire region as a result of its economic research and forecasting experience. A balanced economic impact report on the Plan for the county's future transportation system, founded in the academic integrity is in the public's interest, regardless of whether that plan is ultimately submitted to voters. Staff recommends approval of the agreement with the UCR Center to perform an economic impact study related to transportation improvements and investments in the amount of \$199,500.

Should new transportation scenarios be needed, staff will return to the Commission to seek an amendment to the agreement. Based on the UCR Center's proposal, staff estimates the cost of a full set of new scenarios at approximately \$106,000.

Financial Information					
In Fiscal Year Budget:	Yes	Year:	FY 2019/20	Amount:	\$199,500
Source of Funds:	Local Transportation Funds			Budget Adjustment:	No
GL/Project Accounting No.:	002325 65520 00130 0000 106 67 65520				
Fiscal Procedures Approved:				Date:	09/17/2019

Attachment: Draft Agreement No. 20-19-012-00 with UCR Center

**RIVERSIDE COUNTY TRANSPORTATION COMMISSION
AGREEMENT FOR ECONOMIC IMPACT STUDY
WITH UCR FORECAST, LLC DBA UCR'S SCHOOL OF
BUSINESS CENTER FOR ECONOMIC FORECASTING & DEVELOPMENT**

1. PARTIES AND DATE.

This Agreement is made and entered into this ___ day of _____, 2019, by and between the RIVERSIDE COUNTY TRANSPORTATION COMMISSION ("the Commission") and UCR FORECAST, LLC DBA UCR'S SCHOOL OF BUSINESS CENTER FOR ECONOMIC FORECASTING & DEVELOPMENT ("Consultant"), a limited liability company.

2. RECITALS.

2.1 Consultant desires to perform and assume responsibility for the provision of certain professional consulting services required by Commission on the terms and conditions set forth in this Agreement. Consultant represents that it is a professional consultant, experienced in providing economic impact studies to public clients, is licensed in the State of California, and is familiar with the plans of Commission.

2.2 Commission desires to engage Consultant to render certain consulting services for an economic impact study ("Project") as set forth herein.

3. TERMS.

3.1 General Scope of Services. Consultant promises and agrees to furnish to Commission all labor materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately provide professional consulting services and advice on various issues affecting the decisions of Commission regarding the Project and on other programs and matters affecting Commission, hereinafter referred to as "Services". The Services are more particularly described in Exhibit "A" attached hereto and incorporated herein by reference. All Services shall be subject to, and performed in accordance with, this Agreement, the exhibits attached hereto and incorporated herein by reference, and all applicable local, state, and federal laws, rules and regulations.

3.2 Term. The term of this Agreement shall be from the date first specified above to December 31, 2020, unless earlier terminated as provided herein.

3.3 Schedule of Services. Consultant shall perform the Services expeditiously, within the term of this Agreement, and in accordance with the Schedule of Services set forth in Exhibit "A" attached hereto and incorporated herein by reference. Consultant represents that it has the professional and technical personnel required to perform the Services in conformance with such conditions. In order to facilitate Consultant's conformance with the Schedule, the Commission shall respond to Consultant's submittals in a timely manner. Upon request of the Commission, Consultant shall provide a more detailed schedule of anticipated performance to meet the Schedule of Services.

3.4 Independent Contractor; Control and Payment of Subordinates. The Services shall be performed by Consultant under its supervision. Consultant will determine the means, method and details of performing the Services subject to the requirements of this Agreement. Commission retains Consultant on an independent contractor basis and Consultant is not an employee of Commission. Consultant retains the right to perform similar or different services for others during the term of this Agreement. Any additional personnel performing the Services under this Agreement on behalf of Consultant shall not be employees of Commission and shall at all times be under Consultant's exclusive direction and control. Consultant shall pay all wages, salaries, and other amounts due such personnel in connection with their performance of Services under this Agreement and as required by law. Consultant shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, and workers' compensation insurance.

3.5 Conformance to Applicable Requirements. All work prepared by Consultant shall be subject to the approval of Commission.

3.6 Substitution of Key Personnel. Consultant has represented to Commission that certain key personnel will perform and coordinate the Services under this Agreement. Should one or more of such personnel become unavailable, Consultant may substitute other personnel of at least equal competence and experience upon written approval of Commission. In the event that Commission and Consultant cannot agree as to the substitution of key personnel, Commission shall be entitled to terminate this Agreement for cause, pursuant to provisions of Section 3.16 of this Agreement. The key personnel for performance of this Agreement are as follows: Dr. Chris Thornberg, Senior Advisor, and Adam Fowler, Project Manager.

3.7 Commission's Representative. Commission hereby designates Executive Director, or his or her designee, to act as its representative for the performance of this Agreement ("Commission's Representative"). Commission's representative shall have the power to act on behalf of Commission for all purposes under this Agreement. Consultant shall not accept direction from any person other than Commission's Representative or his or her designee.

3.8 Consultant's Representative. Consultant hereby designates Sherif Hanna, or his or her designee, to act as its representative for the performance of this Agreement ("Consultant's Representative"). Consultant's Representative shall have full authority to represent and act on behalf of the Consultant for all purposes under this Agreement. The Consultant's Representative shall supervise and direct the Services, using his or her best skill and attention, and shall be responsible for all means, methods, techniques, sequences and procedures and for the satisfactory coordination of all portions of the Services under this Agreement.

3.9 Coordination of Services. Consultant agrees to work closely with Commission staff in the performance of Services and shall be available to Commission's staff, consultants and other staff at all reasonable times.

3.10 Standard of Care; Licenses. Consultant shall perform the Services under this Agreement in a skillful and competent manner, consistent with the standard generally recognized as being employed by professionals in the same discipline in the State of California. Consultant represents and maintains that it is skilled in the professional calling necessary to perform the Services. Consultant warrants that all employees and subcontractors shall have sufficient skill and experience to perform the Services assigned to them. Finally, Consultant represents that it, its employees and subcontractors have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Services and that such licenses and approvals shall be maintained throughout the term of this Agreement. Consultant shall perform, at its own cost and expense and without reimbursement from Commission, any Services necessary to correct errors or omissions which are caused by the Consultant's failure to comply with the standard of care provided for herein, and shall be fully responsible to the Commission for all damages and other liabilities provided for in the indemnification provisions of this Agreement arising from the Consultant's errors and omissions.

3.11 Laws and Regulations. Consultant shall keep itself fully informed of and in compliance with all local, state and federal laws, rules and regulations in any manner affecting the performance of the Project or the Services, including all Cal/OSHA requirements, and shall give all notices required by law. Consultant shall be liable for all violations of such laws and regulations in connection with Services. If the Consultant performs any work knowing it to be contrary to such laws, rules and regulations and without giving written notice to Commission, Consultant shall be solely responsible for all costs arising therefrom. Consultant shall defend, indemnify and hold Commission, its officials, directors, officers, employees and agents free and harmless, pursuant to the indemnification provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.12 Insurance.

3.12.1 Time for Compliance. Consultant shall not commence work under this Agreement until it has provided evidence satisfactory to the Commission that it has secured all insurance required under this section, in a form and with insurance companies acceptable to the Commission. In addition, Consultant shall not allow any subcontractor to commence work on any subcontract until it has secured all insurance required under this section.

3.12.2 Minimum Requirements. Consultant shall, at its expense, procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Agreement by the Consultant, its agents, representatives, employees or subcontractors. Consultant shall also require all of its subcontractors to procure and maintain the same insurance for the duration of the Agreement. Such insurance shall meet at least the following minimum levels of coverage:

(A) Minimum Scope of Insurance. Coverage shall be at least as broad as the latest version of the following: (1) *General Liability*: Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001 or exact equivalent); (2) *Automobile Liability*: Insurance Services Office Business Auto Coverage (form CA 0001, code 1 (any auto) or exact equivalent); and (3) *Workers' Compensation and Employer's Liability*: Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

(B) Minimum Limits of Insurance. Consultant shall maintain limits no less than: (1) *General Liability*: \$2,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with general aggregate limit is used, either the general aggregate limit shall apply separately to this Agreement/location or the general aggregate limit shall be twice the required occurrence limit; (2) *Automobile Liability*: \$1,000,000 per accident for bodily injury and property damage; and (3) *if Consultant has an employees, Workers' Compensation and Employer's Liability*: Workers' Compensation limits as required by the Labor Code of the State of California. Employer's Practices Liability limits of \$1,000,000 per accident.

3.12.3 Professional Liability. Consultant shall procure and maintain, and require its sub-consultants to procure and maintain, for a period of five (5) years following completion of the Project, errors and omissions liability insurance appropriate to their profession. Such insurance shall be in an amount not less than \$1,000,000 per claim. This insurance shall be endorsed to include contractual liability applicable to this Agreement and shall be written on a policy form coverage specifically designed to protect against acts, errors or omissions of the Consultant. "Covered Professional Services" as designated in the policy must specifically include work performed under this Agreement. The policy must "pay on behalf of" the insured and must include a provision establishing the insurer's duty to defend.

3.12.4 Insurance Endorsements. The insurance policies shall contain the following provisions, or Consultant shall provide endorsements on forms approved by the Commission to add the following provisions to the insurance policies:

(A) General Liability.

(i) Commercial General Liability Insurance must include coverage for (1) bodily Injury and property damage; (2) personal Injury/advertising Injury; (3) premises/operations liability; (4) products/completed operations liability; (5) aggregate limits that apply per Project; (6) explosion, collapse and underground (UCX) exclusion deleted; (7) contractual liability with respect to this Agreement; (8) broad form property damage; and (9) independent consultants coverage.

(ii) The policy shall contain no endorsements or provisions limiting coverage for (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; or (3) contain any other exclusion contrary to this Agreement.

(iii) The policy shall give the Commission, its directors, officials, officers, employees, and agents insured status using ISO endorsement forms 20 10 10 01 and 20 37 10 01, or endorsements providing the exact same coverage.

(iv) The additional insured coverage under the policy shall be "primary and non-contributory" and will not seek contribution from the Commission's insurance or self-insurance and shall be at least as broad as CG 20 01 04 13, or endorsements providing the exact same coverage.

(B) Automobile Liability. The automobile liability policy shall be endorsed to state that: (1) the Commission, its directors, officials, officers, employees and agents shall be covered as additional insureds with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by the Consultant or for which the Consultant is responsible; and (2) the insurance coverage shall be primary insurance as respects the Commission, its directors, officials, officers, employees and agents, or if excess, shall stand in an unbroken chain of coverage excess of the Consultant's scheduled underlying coverage. Any insurance or self-insurance maintained by the Commission, its directors, officials, officers, employees and agents shall be excess of the Consultant's insurance and shall not be called upon to contribute with it in any way.

(C) Workers' Compensation and Employers Liability Coverage.

(i) Consultant certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and he/she will comply with such provisions before commencing work under this Agreement.

(ii) The insurer shall agree to waive all rights of subrogation against the Commission, its directors, officials, officers, employees and agents for losses paid under the terms of the insurance policy which arise from work performed by the Consultant.

(D) All Coverages.

(i) Defense costs shall be payable in addition to the limits set forth hereunder.

(ii) Requirements of specific coverage or limits contained in this section are not intended as a limitation on coverage, limits, or other requirement, or a waiver of any coverage normally provided by any insurance. It shall be a requirement under this Agreement that any available insurance proceeds broader than or in excess of the specified minimum insurance coverage requirements and/or limits set forth herein shall be available to the Commission, its directors, officials, officers, employees and agents as additional insureds under said policies. Furthermore, the requirements for coverage and limits shall be (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named insured; whichever is greater.

(iii) The limits of insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the Commission (if agreed to in a written contract or agreement) before the Commission's own insurance or self-insurance shall be called upon to protect it as a named insured. The umbrella/excess policy shall be provided on a "following form" basis with coverage at least as broad as provided on the underlying policy(ies).

(iv) Consultant shall provide the Commission at least thirty (30) days prior written notice of cancellation of any policy required by this Agreement, except that the Consultant shall provide at least ten (10) days prior written notice of cancellation of any such policy due to non-payment of premium. If any of the required coverage is cancelled or expires during the term of this Agreement, the Consultant shall deliver renewal certificate(s) including the General Liability Additional Insured Endorsement to the Commission at least ten (10) days prior to the effective date of cancellation or expiration.

(v) The retroactive date (if any) of each policy is to be no later than the effective date of this Agreement. Consultant shall maintain such coverage continuously for a period of at least three years after the completion of the work under this Agreement. Consultant shall purchase a one (1) year extended reporting period A) if the retroactive date is advanced past the effective date of this Agreement; B) if the policy is cancelled or not renewed; or C) if the policy is replaced by another claims-made policy with a retroactive date subsequent to the effective date of this Agreement.

(vi) The foregoing requirements as to the types and limits of insurance coverage to be maintained by Consultant, and any approval of said insurance by the Commission, is not intended to and shall not in any manner limit or qualify the liabilities and obligations otherwise assumed by the Consultant pursuant to this Agreement, including but not limited to, the provisions concerning indemnification.

(vii) If at any time during the life of the Agreement, any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, Commission has the right but not the duty to obtain the insurance it deems necessary and any premium paid by Commission will be promptly reimbursed by Consultant or Commission will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, Commission may cancel this Agreement. The Commission may require the Consultant to provide complete copies of all insurance policies in effect for the duration of the Project.

(viii) Neither the Commission nor any of its directors, officials, officers, employees or agents shall be personally responsible for any liability arising under or by virtue of this Agreement.

Each insurance policy required by this Agreement shall be endorsed to state that:

3.12.5 Deductibles and Self-Insurance Retentions. Any deductibles or self-insured retentions must be declared to and approved by the Commission. If the Commission does not approve the deductibles or self-insured retentions as presented, Consultant shall guarantee that, at the option of the Commission, either: (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Commission, its directors, officials, officers, employees and agents; or, (2) the Consultant shall procure a bond guaranteeing payment of losses and related investigation costs, claims and administrative and defense expenses.

3.12.6 Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating no less than A:VIII, licensed to do business in California, and satisfactory to the Commission.

3.12.7 Verification of Coverage. Consultant shall furnish Commission with original certificates of insurance and endorsements effecting coverage required by this Agreement on forms satisfactory to the Commission. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements must be received and approved by the Commission before work commences. The Commission reserves the right to require complete, certified copies of all required insurance policies, at any time.

3.12.8 Subconsultant Insurance Requirements. Consultant shall not allow any subcontractors or subconsultants to commence work on any subcontract until they have provided evidence satisfactory to the Commission that they have secured all insurance required under this section. Policies of commercial general liability insurance provided by such subcontractors or subconsultants shall be endorsed to name the Commission as an additional insured using ISO form CG 20 38 04 13 or an endorsement providing the exact same coverage. If requested by Consultant, the Commission may approve different scopes or minimum limits of insurance for particular subcontractors or subconsultants.

3.13 Safety. Consultant shall execute and maintain its work so as to avoid injury or damage to any person or property. In carrying out its Services, the Consultant shall at all times be in compliance with all applicable local, state and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of employees appropriate to the nature of the work and the conditions under which the work is to be performed. Safety precautions as applicable shall include, but shall not be limited to: (A) adequate life protection and life saving equipment and procedures; (B) instructions in accident prevention for all employees and subcontractors, such as safe walkways, scaffolds, fall protection ladders, bridges, gang planks, confined space procedures, trenching and shoring, equipment and other safety devices, equipment and wearing apparel as are necessary or lawfully required to prevent accidents or injuries; and (C) adequate facilities for the proper inspection and maintenance of all safety measures.

3.14 Fees and Payment.

3.14.1 Compensation. Consultant shall receive compensation, including authorized reimbursements, for all Services rendered under this Agreement at the rates set forth in Exhibit "B" attached hereto. The total compensation shall not exceed One Hundred Ninety-Nine Thousand and Five Hundred Dollars (\$199,500) without written approval of Commission's Executive Director ("Total Compensation"). Extra Work may be authorized, as described below, and if authorized, will be compensated at the rates and manner set forth in this Agreement.

3.14.2 Payment of Compensation. Compensation shall be paid in accordance with the terms of Exhibit "B". Consultant shall submit invoices to Commission for the amount due Consultant, and Commission shall pay approved invoices within the timeframe set forth in Exhibit "B".

3.14.3 Reimbursement for Expenses. Consultant shall not be reimbursed for any expenses unless authorized in writing by Commission.

3.14.4 Extra Work. At any time during the term of this Agreement, Commission may request that Consultant perform Extra Work. As used herein, "Extra Work" means any work which is determined by Commission to be necessary for the proper completion of the Project, but which the parties did not reasonably anticipate would be necessary at the execution of this Agreement. Consultant shall not perform, nor be

compensated for, Extra Work without written authorization from Commission's Executive Director.

3.15 Accounting Records. Consultant shall maintain complete and accurate records with respect to all costs and expenses incurred and fees charged under this Agreement. All such records shall be clearly identifiable. Consultant shall allow a representative of Commission during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Consultant shall allow inspection of all work, data, documents, proceedings, and activities related to the Agreement for a period of three (3) years from the date of final payment under this Agreement.

3.16 Termination of Agreement.

3.16.1 Grounds for Termination. Commission may, by written notice to Consultant, terminate the whole or any part of this Agreement at any time and without cause by giving written notice to Consultant of such termination, and specifying the effective date thereof. Upon termination, Consultant shall be compensated only for those services which have been fully and adequately rendered to Commission through the effective date of the termination, and Consultant shall be entitled to no further compensation. Consultant may not terminate this Agreement except for cause.

3.16.2 Effect of Termination. If this Agreement is terminated as provided herein, Commission may require Consultant to provide all finished or unfinished Documents and Data, as defined below, and other information of any kind prepared by Consultant in connection with the performance of Services under this Agreement. Consultant shall be required to provide such document and other information within fifteen (15) days of the request.

3.16.3 Additional Services. In the event this Agreement is terminated in whole or in part as provided herein, Commission may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated.

3.17 Delivery of Notices. All notices permitted or required under this Agreement shall be given to the respective parties at the following address, or at such other address as the respective parties may provide in writing for this purpose:

CONSULTANT:

UCR School of Business, Center of
Economic Forecasting & Development
5777 W. Century Blvd Suite 895
Los Angeles, CA 90045
Attn: Sherif Hanna

COMMISSION:

Riverside County
Transportation Commission
4080 Lemon Street, 3rd Floor
Riverside, CA 92501
Attn: Executive Director

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid

and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

3.18 Ownership of Materials/Confidentiality.

3.18.1 Documents & Data. This Agreement creates an exclusive and perpetual license for Commission to copy, use, modify, reuse, or sub-license any and all copyrights and designs embodied in plans, specifications, studies, drawings, estimates, materials, data and other documents or works of authorship fixed in any tangible medium of expression, including but not limited to, physical drawings or data magnetically or otherwise recorded on computer diskettes, which are prepared or caused to be prepared by Consultant under this Agreement ("Documents & Data").

Consultant shall require all subcontractors to agree in writing that Commission is granted an exclusive and perpetual license for any Documents & Data the subcontractor prepares under this Agreement.

Consultant represents and warrants that Consultant has the legal right to grant the exclusive and perpetual license for all such Documents & Data. Consultant makes no such representation and warranty in regard to Documents & Data which were prepared by design professionals other than Consultant or provided to Consultant by the Commission.

Commission shall not be limited in any way in its use of the Documents & Data at any time, provided that any such use not within the purposes intended by this Agreement shall be at Commission's sole risk.

3.18.2 Intellectual Property. In addition, Commission shall have and retain all right, title and interest (including copyright, patent, trade secret and other proprietary rights) in all plans, specifications, studies, drawings, estimates, materials, data, computer programs or software and source code, enhancements, documents, and any and all works of authorship fixed in any tangible medium or expression, including but not limited to, physical drawings or other data magnetically or otherwise recorded on computer media ("Intellectual Property") prepared or developed by or on behalf of Consultant under this Agreement as well as any other such Intellectual Property prepared or developed by or on behalf of Consultant under this Agreement.

The Commission shall have and retain all right, title and interest in Intellectual Property developed or modified under this Agreement whether or not paid for wholly or in part by Commission, whether or not developed in conjunction with Consultant, and whether or not developed by Consultant. Consultant will execute separate written assignments of any and all rights to the above referenced Intellectual Property upon request of Commission.

Consultant shall also be responsible to obtain in writing separate written assignments from any subcontractors or agents of Consultant of any and all right

to the above referenced Intellectual Property. Should Consultant, either during or following termination of this Agreement, desire to use any of the above-referenced Intellectual Property, it shall first obtain the written approval of the Commission.

All materials and documents which were developed or prepared by the Consultant for general use prior to the execution of this Agreement and which are not the copyright of any other party or publicly available and any other computer applications, shall continue to be the property of the Consultant. However, unless otherwise identified and stated prior to execution of this Agreement, Consultant represents and warrants that it has the right to grant the exclusive and perpetual license for all such Intellectual Property as provided herein.

Commission further is granted by Consultant a non-exclusive and perpetual license to copy, use, modify or sub-license any and all Intellectual Property otherwise owned by Consultant which is the basis or foundation for any derivative, collective, insurrectional, or supplemental work created under this Agreement.

3.18.3 Confidentiality. All ideas, memoranda, specifications, plans, procedures, drawings, descriptions, computer program data, input record data, written information, and other Documents and Data either created by or provided to Consultant in connection with the performance of this Agreement shall be held confidential by Consultant. Such materials shall not, without the prior written consent of Commission, be used by Consultant for any purposes other than the performance of the Services. Nor shall such materials be disclosed to any person or entity not connected with the performance of the Services or the Project. Nothing furnished to Consultant which is otherwise known to Consultant or is generally known, or has become known, to the related industry shall be deemed confidential. Consultant shall not use Commission's name or insignia, photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production or other similar medium without the prior written consent of Commission.

3.18.4 Infringement Indemnification. Consultant shall defend, indemnify and hold the Commission, its directors, officials, officers, employees, volunteers and agents free and harmless, pursuant to the indemnification provisions of this Agreement, for any alleged infringement of any patent, copyright, trade secret, trade name, trademark, or any other proprietary right of any person or entity in consequence of the use on the Project by Commission of the Documents & Data, including any method, process, product, or concept specified or depicted.

3.19 Cooperation; Further Acts. The Parties shall fully cooperate with one another, and shall take any additional acts or sign any additional documents as may be necessary, appropriate or convenient to attain the purposes of this Agreement.

3.20 Attorney's Fees. If either party commences an action against the other party, either legal, administrative or otherwise, arising out of or in connection with

this Agreement, the prevailing party in such litigation shall be entitled to have and recover from the losing party reasonable attorney's fees and costs of such actions.

3.21 Indemnification. Consultant shall defend, indemnify and hold the Commission, its directors, officials, officers, agents, consultants, employees and volunteers free and harmless from any and all claims, demands, causes of action, costs, expenses, liabilities, losses, damages or injuries, in law or in equity, to property or persons, including wrongful death, in any manner arising out of or incident to any alleged negligent acts, omissions or willful misconduct of the Consultant, its officials, officers, employees, agents, consultants, and contractors arising out of or in connection with the performance of the Services, the Project or this Agreement, including without limitation, the payment of all consequential damages, attorneys fees and other related costs and expenses. Consultant shall defend, at Consultant's own cost, expense and risk, any and all such aforesaid suits, actions or other legal proceedings of every kind that may be brought or instituted against the Commission, its directors, officials, officers, agents, consultants, employees and volunteers. Consultant shall pay and satisfy any judgment, award or decree that may be rendered against the Commission or its directors, officials, officers, agents, consultants, employees and volunteers, in any such suit, action or other legal proceeding. Consultant shall reimburse the Commission and its directors, officials, officers, agents, consultants, employees and volunteers, for any and all legal expenses and costs, including reasonable attorney's fees, incurred by each of them in connection therewith or in enforcing the indemnity herein provided. Consultant's obligation to indemnity shall not be restricted to insurance proceeds, if any, received by the Commission or its directors, officials, officers, agents, consultants, employees and volunteers. Notwithstanding the foregoing, to the extent Consultant's Services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant. This Section 3.21 shall survive any expiration or termination of this Agreement.

3.22 Entire Agreement. This Agreement contains the entire Agreement of the parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings or agreements. This Agreement may only be supplemented, amended, or modified by a writing signed by both parties.

3.23 Governing Law. This Agreement shall be governed by the laws of the State of California. Venue shall be in Riverside County.

3.24 Time of Essence. Time is of the essence for each and every provision of this Agreement.

3.25 Commission's Right to Employ Other Consultants. The Commission reserves the right to employ other consultants in connection with this Project.

3.26 Successors and Assigns. This Agreement shall be binding on the successors and assigns of the parties, and shall not be assigned by Consultant without the prior written consent of Commission.

3.27 Prohibited Interests and Conflicts.

3.27.1 Solicitation. Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, Commission shall have the right to rescind this Agreement without liability.

3.27.2 Conflict of Interest. For the term of this Agreement, no member, officer or employee of Commission, during the term of his or her service with Commission, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

3.27.3 Conflict of Employment. Employment by the Consultant of personnel currently on the payroll of the Commission shall not be permitted in the performance of this Agreement, even though such employment may occur outside of the employee's regular working hours or on weekends, holidays or vacation time. Further, the employment by the Consultant of personnel who have been on the Commission payroll within one year prior to the date of execution of this Agreement, where this employment is caused by and or dependent upon the Consultant securing this or related Agreements with the Commission, is prohibited.

3.27.4 Employment Adverse to the Commission. Consultant shall notify the Commission, and shall obtain the Commission's written consent, prior to accepting work to assist with or participate in a third-party lawsuit or other legal or administrative proceeding against the Commission during the term of this Agreement.

3.28 Equal Opportunity Employment. Consultant represents that it is an equal opportunity employer and it shall not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, sex or age. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Consultant shall also comply with all relevant provisions of Commission's Disadvantaged Business Enterprise program, Affirmative Action Plan or other related Commission programs or guidelines currently in effect or hereinafter enacted.

3.29 Subcontracting. Consultant shall not subcontract any portion of the work or Services required by this Agreement, except as expressly stated herein, without prior written approval of the Commission. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement. Beacon Economics, LLC is an approved subconsultant of Consultant.

3.30 Prevailing Wages. By its execution of this Agreement, Consultant certified that it is aware of the requirements of California Labor Code Sections 1720 et seq. and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000 et seq. ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. If the Services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is \$1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. The Commission shall provide Consultant with a copy of the prevailing rate of per diem wages in effect at the commencement of this Agreement. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Consultant's principal place of business and at the project site. Consultant shall defend, indemnify and hold the Commission, its elected officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Prevailing Wage Laws.

3.30.1 DIR Registration. Effective March 1, 2015, if the Services are being performed as part of an applicable "public works" or "maintenance" project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Consultant and all subconsultants must be registered with the Department of Industrial Relations. If applicable, Consultant shall maintain registration for the duration of the Project and require the same of any subconsultants. This Project may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant's sole responsibility to comply with all applicable registration and labor compliance requirements.

3.31 Employment of Apprentices. This Agreement shall not prevent the employment of properly indentured apprentices in accordance with the California Labor Code, and no employer or labor union shall refuse to accept otherwise qualified employees as indentured apprentices on the work performed hereunder solely on the ground of race, creed, national origin, ancestry, color or sex. Every qualified apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade in which he or she is employed and shall be employed only in the craft or trade to which he or she is registered.

If California Labor Code Section 1777.5 applies to the Services, Consultant and any subcontractor hereunder who employs workers in any apprenticeable craft or trade shall apply to the joint apprenticeship council administering applicable standards for a certificate approving Consultant or any sub-consultant for the employment and training of apprentices. Upon issuance of this certificate, Consultant and any sub-consultant shall employ the number of apprentices provided for therein, as well as contribute to the fund to administer the apprenticeship program in each craft or trade in the area of the work hereunder.

The parties expressly understand that the responsibility for compliance with provisions of this Section and with Sections 1777.5, 1777.6 and 1777.7 of the California Labor Code in regard to all apprenticeable occupations lies with Consultant.

3.32 No Waiver. Failure of Commission to insist on any one occasion upon strict compliance with any of the terms, covenants or conditions hereof shall not be deemed a waiver of such term, covenant or condition, nor shall any waiver or relinquishment of any rights or powers hereunder at any one time or more times be deemed a waiver or relinquishment of such other right or power at any other time or times.

3.33 Eight-Hour Law. Pursuant to the provisions of the California Labor Code, eight hours of labor shall constitute a legal day's work, and the time of service of any worker employed on the work shall be limited and restricted to eight hours during any one calendar day, and forty hours in any one calendar week, except when payment for overtime is made at not less than one and one-half the basic rate for all hours worked in excess of eight hours per day ("Eight-Hour Law"), unless Consultant or the Services are not subject to the Eight-Hour Law. Consultant shall forfeit to Commission as a penalty, \$50.00 for each worker employed in the execution of this Agreement by him, or by any sub-consultant under him, for each calendar day during which such workman is required or permitted to work more than eight hours in any calendar day and forty hours in any one calendar week without such compensation for overtime violation of the provisions of the California Labor Code, unless Consultant or the Services are not subject to the Eight-Hour Law.

3.34 Subpoenas or Court Orders. Should Consultant receive a subpoena or court order related to this Agreement, the Services or the Project, Consultant shall immediately provide written notice of the subpoena or court order to the Commission. Consultant shall not respond to any such subpoena or court order until notice to the Commission is provided as required herein, and shall cooperate with the Commission in responding to the subpoena or court order.

3.35 Survival. All rights and obligations hereunder that by their nature are to continue after any expiration or termination of this Agreement, including, but not limited to, the indemnification and confidentiality obligations, and the obligations related to receipt of subpoenas or court orders, shall survive any such expiration or termination.

3.36 No Third Party Beneficiaries. There are no intended third party beneficiaries of any right or obligation assumed by the Parties.

3.37 Labor Certification. By its signature hereunder, Consultant certifies that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Services.

3.38 Counterparts. This Agreement may be signed in counterparts, each of which shall constitute an original.

3.39 Incorporation of Recitals. The recitals set forth above are true and correct and are incorporated into this Agreement as though fully set forth herein.

3.40 Invalidity; Severability. If any portion of this Agreement is declared invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions shall continue in full force and effect.

3.41 Conflicting Provisions. In the event that provisions of any attached exhibits conflict in any way with the provisions set forth in this Agreement, the language, terms and conditions contained in this Agreement shall control the actions and obligations of the Parties and the interpretation of the Parties' understanding concerning the performance of the Services.

3.42 Headings. Article and Section Headings, paragraph captions or marginal headings contained in this Agreement are for convenience only and shall have no effect in the construction or interpretation of any provision herein.

3.43 Assignment or Transfer. Consultant shall not assign, hypothecate, or transfer, either directly or by operation of law, this Agreement or any interest herein, without the prior written consent of the Commission. Any attempt to do so shall be null and void, and any assignees, hypothecates or transferees shall acquire no right or interest by reason of such attempted assignment, hypothecation or transfer.

3.44 Authority to Enter Agreement. Consultant has all requisite power and authority to conduct its business and to execute, deliver, and perform the Agreement. Each Party warrants that the individuals who have signed this Agreement have the legal power, right, and authority to make this Agreement and bind each respective Party.

[SIGNATURES ON FOLLOWING PAGE]

**SIGNATURE PAGE
TO
RIVERSIDE COUNTY TRANSPORTATION COMMISSION
AGREEMENT FOR ECONOMIC IMPACT STUDY
WITH UCR FORECAST, LLC DBA UCR'S SCHOOL OF
BUSINESS CENTER FOR ECONOMIC FORECASTING & DEVELOPMENT**

IN WITNESS WHEREOF, this Agreement was executed on the date first written above.

**RIVERSIDE COUNTY
TRANSPORTATION COMMISSION**

**CONSULTANT
UCR FORECAST, LLC DBA UCR'S
SCHOOL OF BUSINESS CENTER
FOR ECONOMIC FORECASTING &
DEVELOPMENT**

By: _____
Anne Mayer
Executive Director

By: _____
Signature

Name

Title

Approved as to Form:

Attest:

By: _____
Best Best & Krieger LLP
General Counsel

By: _____

Its: _____

* A corporation requires the signatures of two corporate officers.

One signature shall be that of the chairman of board, the president or any vice president and the second signature (on the attest line) shall be that of the secretary, any assistant secretary, the chief financial officer or any assistant treasurer of such corporation.

If the above persons are not the intended signators, evidence of signature authority shall be provided to RCTC.

Exhibit “A”

**SCOPE OF SERVICES
AND
SCHEDULE**

[Attached behind this page]

PROJECT PROPOSAL

Economic Impact Analysis: Public Transport and Highway Expansion Projects in Riverside County

Introduction

It is essential that a region as large as Riverside County has a robust transportation system for people and goods movement. Crippling traffic can be a hindrance to the economic vitality, impinging on the productivity of the county's population and business activity. The Riverside County Transportation Commission (RCTC) is reviewing plans for major public transport and highway infrastructure projects in Riverside County. These sorts of public transport upgrade projects generate strong local and regional economic development benefits as well as facilitate improved inter and intra-County travel for commuters and visitors alike.

Residents and County stakeholders understand that the status quo is not a long-term solution to the region's transportation woes. In the proposed analysis that follows, the University of California, Riverside's, Center for Economic Forecasting and Development ("the Center") will estimate the economic benefits that could be reasonably expected to follow from the proposed public transport infrastructure improvements in Riverside County, resulting from raising transportation funding through an increase in the County sales tax of 0.5%.

Scope of Work

Based on the Center's understanding of the needs of the RCTC reflected in multiple conference calls, the Center has put forward a summary table of Objectives, Phases, and Deliverables. The Deliverables column indicates how the Center has determined it can best meet the needs of the RCTC and in what format the Center's findings will be optimally delivered.

Phase 1: Modeling the Economic Impact
 Phase 2: Analyzing the Community Impact
 Phase 3: Analyzing a sales tax increase proposal
 Phase 4: Public Information

OBJECTIVE	DESCRIPTION	PHASE	DELIVERABLE(S)
1	To quantify the <u>cumulative economic impact</u> effects from direct expenditures of eight (8) major capital transportation projects and four (4) programmatic expenditure categories on the local economy of Riverside County	1st	Kick off Call Client Check-In Call End-of-Phase Workshop Presentation
2	To quantify the <u>project specific economic impact</u> effects from direct expenditures of each of the eight (8) major capital transportation projects and four (4) programmatic expenditure categories on the local economy of Riverside County (<i>i.e. an aggregate economic impact of all projects and expenditure categories</i>).	1st	Preliminary Results Deck Client Check-In Call End-of-Phase Workshop Presentation

3	To analyze and understand the <u>project specific community impacts</u> from direct expenditures of each of the eight (8) major capital transportation projects and four (4) programmatic expenditure categories on the local economy of Riverside County (<i>i.e. an aggregate community impact of all projects and expenditure categories</i>).	2nd	Draft Report Client Check-In Call Final Report End-of-Phase Presentation
4	To analyze and understand positive and negative implications of a sales tax increase proposal in Riverside County.	3rd	Briefing Book Client Check-in Call
5	To communicate and present materials for various audiences in Riverside County, highlighting the relevant economic and community impact implications for each respective stakeholder group.	4th	Presentation to the RCTC Board (January 2020) Presentation to the RCTC Board (June 2020) Presentation to the Coachella Valley Association of Governments Chamber of Commerce Presentation (x2) 10 Press Calls Editorial Board Meeting

Phase 1 | Modeling the Economic and Fiscal Impact

Eight (8) Major Capital Transportation Projects; Four (4) Programmatic Spending Categories¹

To assess the stimulative effects of potential projects, as part of an overall transportation improvement (expenditure) plan, on the local economy, the Center will model the economic impact for eight major capital transportation projects and perform an economic impact analysis. To complete this analysis the Center will require guidance from the RCTC as to the potential projects that would be undertaken in the County as part of an overall transportation improvement plan, and the estimated expenditures surrounding each of these projects.

Task 1.1 Major Capital Transportation Project Specific Economic and Fiscal Impacts

Project 1 Prototype: Daily rail service

Project 2/3 Prototype: Lane addition(s) to major freeways

Project 4 Prototype: New highways

¹ Any amendments to the scope of work by the Client (including additions of Transportation Projects or Programmatic Spending Categories to be included above the pre-agreed number) after signature will require a formal Amendment to the Work Agreement and cannot be guaranteed by the Center.

Project 5 Prototype: Rapid commuter service

Project 6 Prototype: Interchange reconstruction

Project 7 Prototype: Freeway bypass

Project 8 Prototype: Widening of a major highway

The total economic impacts will consist of the one-time increases in total output, employment and labor income in Riverside County associated with construction activities, resulting from project prototype expenditures. All of the projects and most of the employment and economic activity will be in Riverside County.

Task 1.1 will analyze the short-term effects these projects will have on the County, as funds invested in infrastructure construction stimulate the local economy through labor demand. Workers employed in these projects will spend some of their wages locally, generating demand for local services. Such projects also stimulate demand for the goods and services produced by local firms.

Task 1.2 Programmatic Spending Category Specific Economic and Fiscal Impact

Programmatic Category 1 Prototype: Interchanges and grade separations

Programmatic Category 2 Prototype: Public Transit – Operations, maintenance, expansion, etc.

Programmatic Category 3 Prototype: Active Transportation – Sidewalks, bike lanes, etc.

Programmatic Category 4 Prototype: Technology – Traffic signal synchronization, ramp metering, etc.

As in Task 1.1 the total economic impacts will consist of the one-time increases in total output, employment and labor income in Riverside County associated with construction activities, resulting from project prototype expenditures.

Task 1.3 Cumulative Economic Impact: Transportation Projects and Programmatic Spending

Task 1.3 will analyze and report out on the aggregate economic impact across the selected transportation projects and programmatic spending categories. Total output, employment and compensation impacts may be disaggregated by industry sector in order to allow an estimation and industry identification of the “follow-on” jobs and business revenues. This analysis will be illustrative of the industry effects and allow the cumulative impact to be communicated out across twenty two digit NAICS industries.

While much of the impact resulting from the analysis in Task 1.3 will occur in the construction industry, it will be important to communicate to stakeholders the other industries that will also be significantly impacted, including: retail trade, healthcare and social assistance, professional and scientific services and accommodations and food services. Each of these industries will see an increase in business revenues and in the number of jobs as the effects of the increase in construction activity due to the transportation projects ripple through the County’s economy.

Task 1.4 Cumulative Fiscal Impact: Transportation Projects and Programmatic Spending

The economic activity in Riverside County generated by the transportation projects over the duration of the project construction and programmatic investment period will generate significant state, local and federal tax revenues. Income taxes will be collected on the earnings of workers, both direct and indirect, as are unemployment insurance and disability insurance taxes. Sales taxes will be generated on the purchases of materials by the construction contractors and of goods and services by all the workers whose earnings are sustained by the transportation projects.

Phase 2 | Analyzing the Community Impact

Phase 2 of the engagement will consider the longer term benefits to the community from infrastructure improvements. Economists have long considered the economic benefits of infrastructure improvements. Such projects can have short-term effects, as funds invested in infrastructure construction stimulate the local economy as will be captured in Phase 1 of this engagement. The long-term effects of infrastructure improvements are often considered more impactful, if they alleviate bottlenecks and improve local transportation conditions, such as improving local accessibility. Transportation improvements can stimulate land development, increase local business formation and activity, and generate fiscal benefits.

Task 2.1 Implications for Transportation Projects and Programmatic Spending

The Center will introduce a range of variables to develop several scenarios (including an existing conditions baseline) to estimate the community impacts of the specific set of prototypes modeled and analyzed in Phase 1. The Center will develop and execute a tailored forecasting model to build scenarios, each reflecting varying degrees of community impact on the region. These scenarios will be accompanied by narratives that present implications for residents and businesses over a medium- to long-term time horizon.

The Center will report out on existing and future community impacts across a variety of metrics that may include but are not limited to:

- developments patterns
- housing types
- employment mix
- transit accessibility
- percentage of trips by non-car modes of transportation, and;
- vehicle miles traveled per household.

Phase 3 | Analyzing a sales tax increase proposal

The third phase of the engagement will evaluate the likely impact of an add-on sales tax for consumers and businesses in Riverside County with a particular emphasis on the distributional effects of such a tax on the region's residents.

Task 3.1 Examine historical trends in sales and use tax revenues for Riverside County.

Task 3.2 Analyze the share of sale and use taxes are paid by households, businesses, and visitors to the Riverside County.

Task 3.3 Analyze how the burden of sales and use taxes are currently distributed across income groups in Riverside County.

Task 3.4 Model and forecast the revenue stream from a proposed sales tax increase.

Phase 4 | Public Information

Task 4.1 Public Presentations

The Center has strong competencies in public speaking and public presentation. The Center's staff experts conducted over 250 paid public speaking engagements in 2018. The Center's staff economists and policy experts have presented before a variety of audiences, from public sector gatherings and academic conferences to industry specific convenings, chambers of commerce events, and various association conventions. The Center is capable of preparing and presenting topical materials for different audiences, highlighting the relevant implications for each respective stakeholder group. The Center has robust experience navigating local policymaking environments, tailoring its work and especially its presentations to not only the audience's perspective, but also the audience's general interests or agenda in the context of the broader policy landscape. The Center's public presentation services in the context of this engagement would serve most directly to achieve Goal 5, general education and awareness building.

Task 4.2 Facilitated Discussion and/or Press Interviews

In addition to public presentation, The Center has experience facilitating public workshops and discussions pertinent to its topical expertise, whereby the Center offers guidance not only in the way of reporting out on findings but also by structuring and framing informed debate. The Center has facilitated interactive workshops in conjunction with formal presentations and has done so on a range of issues including economic development intervention design, chamber of commerce strategic planning, and local housing policymaking.

The Center produces and places content on a wide range of topics annually in major local, regional, and national media outlets. The Center will work with the RCTC to identify the most salient topics for press engagement. In partnership with the RCTC's staff, the Center's Director of Communications, Victoria Pike Bond, would lead the Center's activities around press strategy and sourcing feasible, timely, and relevant press opportunities.

PROPOSED PROJECT SCHEDULE

The tables below summarize the project schedule for Phases 1 through 4 including key activities and deliverables by work stream. Highlighted in yellow are those milestones that reflect events or opportunities for RCTC to provide feedback. This is a sample high-level deliverable schedule. The Center will confirm an official project timeline with RCTC upon commencement of work.

PHASES 1-4: October 2019 – April 2020									
TASK / MILESTONE	09/19	10/19	11/19	12/19	01/20	02/20	03/20	04/20	
Phase 1									
Kick-Off Call									
Client Check in Call									
Economic Modeling									
Data Analysis									
Preliminary Findings Call									
End-of-Phase Workshop									
Presentation									
Phase 2									
Draft Report Production									
Client Check in Call									
Final Report Production									
Presentation Production									
End-of-Phase Workshop									
Presentation									
Phase 3									
Draft Briefing Book									
Production									
Client Check in Call									
Final Report Production									
End-of-Phase Presentation									
Phase 4									
Formal Presentation to RCTC									
Board									

PHASE 4: April – August 2020																											
TASK / MILESTONE	04/20				05/20				06/20				07/20				08/20										
Phase 4																											
Formal Presentation to RCTC Board*																											
Presentation to the Coachella Valley of Governments*																											
Chamber of Commerce Presentation*																											
Chamber of Commerce Presentation*																											
Press Calls*																											
Editorial Board Meetings*																											

**Final timings of these presentations and meetings are TBD*

Professional Fees

The table below puts forward the Center's proposed budget and associated estimated hours for each component of scope laid out in the Project Scope section above.

Terms: Services requested by the Client to be provided by Beacon that are beyond the scope of this Agreement would be billed separately to Client. Beacon will work with Client on such requests to define the additional services and will prepare a budget accordingly for Client to approve before such additional services commence.

PHASE 1-2 WORKSTREAMS	EFFORT	PHASE 3-4 WORKSTREAMS	EFFORT
Project Inception / Kick-off	5 Hours		
Economic Impact Modeling – Project and Programmatic <ul style="list-style-type: none"> • Data Collection • Data Collection Review • Model Building • Data Analysis 	140 Hours	Sales Tax Proposal Analysis Forecast <ul style="list-style-type: none"> • Data Collection • Data Collection Review • Model Building • Data Analysis 	100 Hours
Fiscal Impact Modeling - Project and Programmatic <ul style="list-style-type: none"> • Data Collection • Data Collection Review • Model Building • Data Analysis 	100 Hours	Briefing Book Production <ul style="list-style-type: none"> • Section Narratives • Visualizations • Executive Summary 	80 Hours
Community Impact Analysis <ul style="list-style-type: none"> • Data Collection • Data Collection Review • Placed-based Scenario Model Building • Data Analysis 	166 Hours	Press Engagements <ul style="list-style-type: none"> • Preparation • Logistics • Facilitation 	20 Hours
Report Production <ul style="list-style-type: none"> • Section Narratives x12 • Visualizations x12 • Mapping x12 • Executive Summary 	132 Hours	Public Presentations <ul style="list-style-type: none"> • Presentation Preparation • Travel • Logistics • Facilitation 	30 Hours
Presentation Development	10 Hours	Meetings / Presentations	5 Hours
Meetings / Calls	10 Hours		
SUBTOTAL HOURS	563	SUBTOTAL HOURS	235

TOTAL PROJECT HOURS	798
HOURLY RATE	\$250
TOTAL PROJECT CAP	\$199,500

Any amendments to the scope of work by the Client (including additions of Transportation Projects or Programmatic Spending Categories to be included above the pre-agreed number) after signature will require a formal Amendment to the Work Agreement and cannot be guaranteed by the Center.

For presentations, in addition to the base fee for the Presentation, the Client will reimburse Beacon for travel-related expenses.

Project Changes After Adoption of Transportation Improvement Plan

At the request of the client, The Center can provide a cost breakout to the project should there be any new scenarios added after adoption of Transportation Improvement Plan. If these scenarios fall in line with the prototypes outlined above in the scope, UCR can complete the analysis at 75 per cent of the cost of the economic, fiscal and community impact analysis. If the new scenarios fall outside of the current prototypes, the Center would have to reassess the costs in negotiation with the Client.

Project Team

CHRIS THORNBERG, PHD

Founding Partner
Role: Senior Advisor

Education: Ph.D., Business Economics, UCLA; B.S., Business Administration, State University of New York, Buffalo

Experience: Former State Treasurer John Chiang, Council of Economic Advisors, Member; UCLA Anderson Forecast, Senior Economist

ADAM FOWLER

Director of Research
Role: Project Manager

Education: ABD, Political Psychology, UCLA; M.A. Political Science, University of Arkansas; B.A., Political Science, Arkansas Tech University

Experience: Economic Impact analyses for the L.A. Pride, Los Angeles 2024 Olympic Committee, Delta Air Lines, the Ontario International Airport, and California State University, Long Beach (CSU Long Beach)

UDAY RAM

Sustainable Growth & Development Manager
Role: Research Advisor

Education: Master of Urban and Regional Planning, UCLA; M.A., Georgetown University; B.A., Economics, Cornell University.

Experience: Resilience Fellow in the Office of Los Angeles Mayor Eric Garcetti, Advisor to the Lower Los Angeles River Working Group, Advisor to the Abu Dhabi Urban Planning Council.

BRIAN VANDERPLAS

Senior Research Associate

Education: M.A. & B.A., Economics, California State University Long Beach

Experience: Economic Impact analyses for the Los Angeles 2024 Olympic Committee, Delta Air Lines, the Electric Daisy Carnival, and Otis College of Art and Design.

MAZEN BOU ZEINNEDINE

Research Associate

:

Education: M.A., Economics, University of Southern California; B.A., Economics, State University of New York at Oswego

Experience: Authored chapters for the Central Coast Economic Forecast and conducted regional industry and housing market analyses for the East Bay Economic Development Alliance.

About The Center

The UCR School of Business Center for Economic Forecasting and Development is the first world-class university forecasting center in the Inland Empire **serving one of the most dynamic regions in the United States.**

Together, Riverside and San Bernardino Counties make up an economic area that is larger than Seattle, San Diego, or Orange County and **twice the size of Silicon Valley.**

The Center for Economic Forecasting and Development brings the full resources of the University to bear in creating **modern, first-rate economic forecasts and economic development products** that expand understanding and amplify interest in this vital region, one of the nation's fastest growing. The Center draws from **the business expertise, public policy experience, and deep academic training** of its seasoned economists to conduct path breaking research on the regional, state, and national economies—producing economic forecasts, public policy analysis, and economic impact studies for institutions, events, and public and private investments.

As a hub of collaboration, **innovative economic development ideas** and strategies emerge from both researchers and business and government leaders.

The Center not only delivers products and services that provide genuine insight into the economy, it also serves as an energetic community partner and resource to business and government leaders as well as the people of the Inland Empire. It is a **fertile meeting ground for new product development**, original research, and collaboration between industry, government, and the broader community.

Economic Impact Analysis Expertise

The Center for Economic Forecasting and Development is a leading provider of economic impact studies and analysis. Our researchers specialize in illustrating the economic, fiscal, and social impacts that major sporting and entertainment events, public and private investments, public policies and programs, and institutions have on neighborhoods, cities, or any geographic area.

Using proprietary models that are based on careful, realistic methodology, we accurately quantify direct, indirect, and induced economic impacts related to job creation (direct and indirect), tax revenue (local, state, and federal), and household and individual income.

Demonstrating a project's benefits and value through independent quantitative analysis can help garner support from a range of powerful constituencies including government decision makers, investors, the media, and the community at large.

Our Approach:

- We develop deeply comprehensive studies that identify economic, fiscal, and social impacts.
- We include social impacts as part of a holistic and unique approach that captures and quantifies broader less obvious effects, such as the charity work performed by employees of a business or startups and spin offs that result from an industry's innovation and activities.
- We employ proprietary models, apply quantifiable data, and use advanced scientific methodology to reveal economic value.
- We identify the direct, indirect, and induced economic impacts related to:
 - o Job creation
 - o Federal, state, and local tax revenue
 - o Household and individual income

- We implement customized surveys and work hand in hand with our clients to fully understand the unique aspects of each project, business, or organization.
- We deliver true results and tell the story of your project's or business's impact using polished, easy to digest, visual graphics and clear, compelling narrative.

References

The references listed below may be contacted to gain greater insight into the nature and caliber of our economic impact research and work:

California State University Northridge

Contact: Dianne F. Harrison PhD, President
818-677-2121
dianne.harrison@csun.edu
18111 Nordhoff Street Northridge, CA 91330

County of Riverside

Contact: Ed Corser, County Finance Director
951-955-1110
ecorser@rceo.org
4080 Lemon Street, 4th Floor Riverside, CA 92501

Metropolitan Water District of Southern California

Contact: Margie Wheeler, Executive Strategist
213-217-6121
MWheeler@mwdh2o.com
700 North Alameda Street Los Angeles, CA 90012

Exhibit “B”
COMPENSATION

[Attached behind this page]

EXHIBIT "B"

COMPENSATION SUMMARY¹

FIRM	PROJECT TASKS/ROLE	COST
<i>Prime Consultant:</i>		
UCR School of Business, Center for Economic Forecasting & Development	Services	\$ 199,500.00
TOTAL COSTS		\$ 199,500.00

TASK NUMBER	TASK DESCRIPTION	COST
Phase 1 and Phase 2	Project and Programmatic Economic Impact and Fiscal Impact Modeling; Community Impact Analysis	\$ 140,750.00
Phase 3 and Phase 4	Sales Tax Proposal Analysis Forecast; Public Education	58,750.00
TOTAL COSTS		\$ 199,500.00

¹ Commission authorization pertains to total contract award amount. Compensation adjustments between tasks may occur; however, the maximum total compensation authorized may not be exceeded.

DRAFT

AGENDA ITEM 11

<i>RIVERSIDE COUNTY TRANSPORTATION COMMISSION</i>	
DATE:	November 13, 2019
TO:	Riverside County Transportation Commission
FROM:	Western Riverside County Programs and Projects Committee Jennifer Crosson, Toll Operations Manager
THROUGH:	Anne Mayer, Executive Director
SUBJECT:	Agreement for Back Office System and Customer Service Center Operations for the 91 Express Lanes in Orange and Riverside Counties

WESTERN RIVERSIDE COUNTY PROGRAMS AND PROJECTS COMMITTEE AND STAFF RECOMMENDATION:

This item is for the Commission to:

- 1) Award Agreement No. 19-31-059-00 among the Orange County Transportation Authority (OCTA), Riverside County Transportation Commission (RCTC), and Cofiroute USA, LLC (Cofiroute) to provide back-office system (BOS) and customer service center (CSC) operations services for the 91 Express Lanes (91EL) in Orange and Riverside Counties in an amount of \$88,591,344, plus a contingency amount of \$1,850,000, for a total amount not to exceed \$90,441,344;
- 2) Authorize the Chair or Executive Director, pursuant to legal counsel review, to execute the agreement, including options years, on behalf of the Commission;
- 3) Authorize the Executive Director or designee to approve the use of the contingency amount as may be required by the project; and
- 4) Authorize the payment of pass-through items in an amount not to exceed \$10.5 million.

BACKGROUND INFORMATION:

DISCUSSION

RCTC opened the extension of the 91EL into Riverside County in March 2017 and began jointly operating the 91EL with OCTA.

The following map of the 91EL shows the Orange and Riverside County segments of the 91EL and the location of two facility buildings used to operate the express lanes.



As a requirement of Senate Bill 1316 (Correa), RCTC and OCTA, collectively referred to as the Agencies, entered into a cooperative agreement that establishes a framework for cooperation and sets forth various responsibilities between the two agencies. The cooperative agreement provides details of the joint operation with the objective of providing customers with a seamless experience when travelling between the Orange and Riverside County segments. The joint operation not only provides benefits to the customers of the 91EL, but also creates economies of scale and cost benefits to both agencies through joint contracting and joint provisions of the 91 EL operations and maintenance.

Prior to the establishment of the cooperative agreement, OCTA utilized the services of Cofiroute to provide the BOS, CSC operations and maintenance, in-lane toll systems and traffic operations services. The first step to carrying out the joint operation was the execution of a three-party operating agreement between OCTA, RCTC, and Cofiroute (ORCOA) to add the services required to operate the Riverside County segment. The agreement was executed in May 2013. Since the execution of the agreement, the in-lane services have been removed from the ORCOA for both RCTC and OCTA and contracted to another firm. The May 2013 agreement had an expiration date of July 2021 as determined by OCTA's contract authority. Both RCTC and OCTA have obtained authority for up to six months of additional service to allow for the transition to a new firm should it be needed.

The Agencies agreed to release a request for proposals (RFP), with OCTA as the lead agency, to retain services to provide BOS and CSC operations services (Project) for the 91EL for both Orange and Riverside Counties. The Project includes the design, development, implementation of the BOS (Implementation) and the ongoing operations and maintenance activities, including the CSC (O & M). The firm will be responsible for the day-to-day operations of the 91EL, including the following services:

- Back-office software system
- Hardware and software maintenance
- Customer service

- Violations processing and collections
- Customer account management
- Payments and mail processing
- Revenue collection and transaction processing
- Traffic operation and incident management
- Emergency services coordination
- Transponder inventory management
- Telephone system and other customer contact systems

It is estimated that it will take the firm 18 months to design, develop, and test the new BOS. In addition, the firm will require time to migrate the existing data from the existing system, hire and train operations and customer service staff, enter into required service agreements, and otherwise prepare to assume the existing operation. The Project schedule indicates that the firm will be able to complete all necessary work prior to the end date of the existing three-party agreement.

Procurement Approach

This procurement was handled in accordance with RCTC's Procurement Policy Manual and OCTA's Board-approved procedures for professional services. The Agencies determined the competitively negotiated procurement method was most advantageous for this procurement as it allows the Agencies to obtain the best value by using any one or a combination of selection approaches wherein the relative importance of price may vary with non-price factors. The competitively negotiated procurement method considers and evaluates the proposed price and its qualitative technical merits, such as qualifications and experience of the firm, staffing, and Project approach. A contract award is recommended to the firm offering the most comprehensive organization, approach to delivery of the BOS, approach to performing the O & M work, and price.

In advance of issuing the joint RFP, an industry forum was held from April 17 through 19, 2018 with the following objectives:

- Gauge industry interest in the upcoming procurement;
- Gather industry input to potentially incorporate into the procurement; and
- Provide potential proposers with information regarding the Agencies' needs and the anticipated procurement process.

The forum was well-attended, allowing the Agencies the opportunity to meet one-on-one with sixteen interested firms. The firms and Agencies were able to exchange valuable ideas regarding scope of work, Project schedule, and contract terms and conditions, some of which were incorporated in the RFP process.

On April 22, 2019, RFP 9-1177/19-31-059-00 was released electronically on CAMM NET, OCTA's bid management system. The project was also advertised on April 22 and 29, 2019, in a

newspaper of general circulation, and trade magazines. Twenty-five attendees representing 20 firms attended a pre-proposal conference and toured the 91EL facilities on May 7, 2019.

On July 12, 2019, four proposals were received. A responsiveness evaluation was conducted on all proposals, which included a review of any exceptions or deviations proposed by the four firms. One firm refused to retract all the exceptions that were unacceptable to the Agencies, which resulted in the removal of its proposal from further consideration, in accordance with the instructions detailed in the RFP.

On August 19, 2019, the evaluation committee comprised of staff from RCTC and OCTA, as well as external representatives from the San Diego Association of Governments and Los Angeles County Metropolitan Transportation Authority, met to review the remaining three proposals: Cofiroute, Conduent Transportation (Conduent), and ETAN Industries. The proposals were evaluated and scored with points assigned based on the following evaluation criteria and weights:

Qualifications, Related Experience and References of the Firm	15 percent
Staffing and Project Organization	15 percent
Implementation Work Plan and Technical Approach to BOS	30 percent
CSC Operations Work Plan, Transition and Approach	20 percent
Price	20 percent

The evaluation criteria and associated weighted values were included in the RFP evaluation and award section. The work described in the RFP is heavily weighted toward technical design and delivery of services. A weighted value was assigned to each criterion based on the importance of the criterion's value to the success of the Project.

- Qualifications of the firm, related experience, and references as well as staff and project organization were assigned a weight of 15 percent each to emphasize the equal importance of the experience of the firm in providing a similar system to the proposed BOS and the services required for O & M, as well as, the quality of the provided references.
- Implementation work plan and technical approach to the BOS were assigned a weight of 30 percent due to the highly technical requirements of the BOS software, the BOS architecture and the relatively short time allowed to implement the system.
- CSC operations work plan, transition and approach were assigned a weight of 20 percent due to the importance of successfully transitioning and carrying out the day-to-day operations of the toll facility and managing customer services.
- Price was assigned a weight of 20 percent to ensure delivery of a cost-effective BOS and CSC operations over the term of the agreement.

After the evaluation committee's review of the three responsive proposals, it determined Cofiroute (Irvine, CA) and Conduent (Germantown, MD) to be most qualified to perform the required services. Subsequently, the two firms were short-listed.

On August 27, 2019, the evaluation committee conducted interviews with the two short-listed firms. Each firm had the opportunity to present its approach for accomplishing the requested services and demonstrate the detailed capabilities and various aspects of its BOS solution and approach to CSC operations in supporting the Project's requirements. Each firm presented its key team members and their qualifications and roles on this Project. During the interview, each firm described its understanding of the requirements of the Project in the areas of design, implementation, operation and maintenance of its proposed BOS, data migration and transition, and CSC operations.

Based on the technical proposal and interview evaluations and the best and final offer (BAFO) submitted by the short-listed firms, the evaluation committee recommends Cofiroute be selected to provide BOS and CSC operations for the 91EL. The final scores for the short-listed firms are provided in Table 1:

Table 1 – Proposer scores

Proposer	Price Score (20 points max)	Technical Score (80 points max)	Total Proposal Score (100 points max)
Cofiroute	15.56	66.83	82.39
Conduent	20.00	54.50	74.50

Cofiroute's proposal included Cofiroute as the prime contractor and Toll Plus as a major subcontractor. Cofiroute is part of the VINCI Group, one of the largest concessions and construction groups in the world, which employs more than 200,000 people in more than 100 countries. Cofiroute is a tolling and express lanes operator specializing in the management, operation, and maintenance of express lanes systems. Cofiroute currently has 202 employees in California and Texas. Toll Plus, founded in 2009, specializes in BOS deployment and customization for electronic toll collection.

Cofiroute's proposal demonstrated its thorough understanding of the work and ability to implement the BOS and deliver quality O & M services. Below, in Table 2, is a summary of the key elements from Cofiroute's proposal which support its technical score.

Table 2 – Summary of key elements

Evaluation Criteria	Cofiroute Key Elements
Qualifications, Related Experiences and References of the Firm	<ul style="list-style-type: none"> • 24 years of experience providing BOS and CSC operations • Operator of the 91EL since 1995 • Positive project references
Staffing and Project Organization	<ul style="list-style-type: none"> • Cofiroute and Toll Plus delivered similar services together for over a decade • Key staff experienced • O & M staff to participate in BOS design to facilitate operational efficiencies • Organization chart demonstrates clear understanding of work • Existing 91 EL staff retained • Customer-focused training plan
Implementation Work Plan and Technical Approach to BOS	<ul style="list-style-type: none"> • New BOS with updated architecture • Hybrid cloud approach utilizing efficiencies of cloud and existing data center • Complete schedule indicating ability to deliver BOS on-time • Clear understanding of technical requirements • Proposed system requires only 10 percent new development to meet the technical requirements • Detailed quality assurance program Familiar with data in existing system reducing risk of transition to new system
CSC Operations Work Plan, Transition and Approach	<ul style="list-style-type: none"> • Committed to customer service and accuracy of revenue processing • Committed to O & M quality assurance • Thorough understanding of the work • Well-versed in 91EL operating policies, security requirements, and California laws and regulations • Established relationships with local Caltrans, CHP, FSP and emergency responders • Provided favorable options to requested service agreements • Proposed a local mail house

Price

Price proposals were evaluated and scored separately from the firm's technical proposal. Proposers submitted detailed pricing for four phases of the work on which they were evaluated:

- 1) Implementation of the BOS
- 2) Initial O & M Term (years 1-5)
- 3) 1st Option O & M Term (years 6-8)
- 4) 2nd Option O & M Term (years 9-11)

The BOS implementation price is a fixed price to be shared equally by the Agencies. Pricing for the three O & M terms are primarily based on a per item and per volume cost. These costs will be invoiced according to the actual number of transactions and violations processed in a given month, as well as the number of initial collection attempts, pieces of outgoing mail, registered owner lookups and active accounts being managed. To allow for a price comparison for each of the O&M terms, the Agencies assigned an estimated number of volumes to each O & M term to arrive at the total contract price as shown in Table 3.

The Agencies prepared an independent cost estimate (ICE) for the scope of work provided in the RFP. The ICE estimate is included in Table 3 and 4 for comparison to the proposed prices. The total price of the ICE fell between the two short-listed proposer's prices.

Table 3 - Original Price

	Agencies' Independent Cost Estimate	Cofiroute	Conduent
BOS Implementation	\$17,000,000	\$16,744,757	\$9,219,819
Initial O & M Term (years 1 -5)	56,050,000	61,657,024	50,835,303
1 st Option (years 6 – 8)	38,650,000	43,247,660	34,124,945
2 nd Option (years 9 -11)	45,830,000	48,606,403	38,048,891
Total Price	\$157,530,000	\$170,255,844	\$132,228,958

Following the interviews, the Agencies provided the opportunity for the firms to respond with a BAFO. Both short listed firms responded with a reduced price as detailed in Table 4 below.

Table 4 – BAFO Price

	Agencies' Independent Cost Estimate	Cofiroute	Conduent
BOS Implementation	\$17,000,000	\$14,249,091	\$8,943,370
Initial O & M Term (years 1 -5)	56,050,000	58,733,713	49,311,014
1 st Option (years 6 – 8)	38,650,000	43,233,264	33,101,721
2 nd Option (years 9 -11)	45,830,000	48,590,674	36,908,009
Total Price	\$157,530,000	\$164,806,742	\$128,264,114

Pricing scores were based on a formula, which assigns the maximum score to the firm with the lowest total price and scores the other proposers total price based on their relation to the lowest total price (Lowest Proposal Price / Proposal Price of the Proposal being evaluated x 20 = Price Score).

Conduent was awarded the maximum available points, 20, for being the lowest bidder with a final price of \$128,264,114. Cofiroute received 15.56 of the possible 20 points according to the formula above with its final price of \$164,806,742.

RCTC's share of the agreement is provided in Table 5 below.

Table 5 – RCTC Price Share of Agreement

	RCTC Share
BOS Implementation	\$7,124,546
Initial O & M Term (years 1 - 5)	30,437,693
1 st Option O & M Term (years 6 -8)	23,662,037
2 nd Option O & M Term (years 9-11)	27,367,068
Total Price	\$88,591,344

The BOS Implementation price is being shared equally by OCTA and RCTC. The O & M cost is based on each agency's estimated transaction volumes.

Pass-Through Costs

Staff identified various costs that will be incurred during the O & M periods for which there is no competitive pricing advantage and best suited as pass-through costs to the Agencies. Such costs include postage, address location services, welcome kits, transponder shipping supplies, website domains, and other costs. The firm will administer the work related to these pass-through items and request reimbursement from the Commission. The amount of pass-through costs will vary with the number of customers and revenue processed. Staff estimated the cost for pass-through items at \$10.5 million for the 11-year duration of the operation and maintenance period including base and option years. Staff is seeking authorization to reimburse Cofiroute for such costs. Pass-

through items will be paid through the Commission's issuance of a purchase order to Cofiroute. Payment will only be used for the aforementioned items on an as-needed basis.

Contingency

A contingency of \$1,850,000 is being requested. The contingency is based on RCTC's use of contingency funds during the design and implementation of the current 91 Express Lanes system and RCTC and OCTA's historical use of contingency for the 91 Express Lanes operation. The contingency amount includes \$350,000, or 5 percent of RCTC's share for the back office system implementation and \$300,000 for each of the base operation and maintenance years (\$1.5 million).

The agreement included 2,474 technical requirements; during the implementation of the system and over the course of the agreement, it is anticipated that changes to those requirements will be needed to address changes in Agency policies. Additionally, the O & M price for this agreement is based on projected estimates of the variable components mentioned in the price section above. The contingency will provide for an allowance in the variable pricing component should the volume estimate be lower than actual volumes.

Recommendation

Based on the established criteria, staff recommends Commission award of Agreement No. 19-31-059-00 among RCTC, OCTA and Cofiroute to provide a BOS and CSC operations services for the 91EL in Orange and Riverside Counties in an amount of \$88,591,344, plus a contingency amount of \$1,850,000, for a total amount not to exceed \$90,441,344.

Additionally, staff requests authorization for the Chair or Executive Director to execute the agreement on behalf of the Commission; authorization for the Executive Director, or her designee, to approve contingency work up to the total not to exceed amount; and authorization for payment of pass-through costs up to a total amount of \$10.5 million.

Financial Information					
In Fiscal Year Budget:	Yes N/A	Year:	FY 2019/20 FY 2020/21+	Amount:	\$ 750,000 \$100,191,344
Source of Funds:	Toll Revenue			Budget Adjustment:	No N/A
GL/Project Accounting No.:	009199 81041 00000 0000 591 31 81002				
Fiscal Procedures Approved:	<i>Theresa Trevino</i>			Date:	10/16/2019

Attachments:

- 1) Agreement No. 19-31-059-00
- 2) Scope of Work (Posted on Commission Website)
- 3) Schedule
- 4) Cost Summary

PROPOSED AGREEMENT**OCTA NO. C-9-1177****RCTC NO. 19-31-059-00****AMONGST****ORANGE COUNTY TRANSPORTATION AUTHORITY****AND****RIVERSIDE COUNTY TRANSPORTATION COMMISSION****AND**

THIS AGREEMENT is effective as of this _____ day of _____, 20

("Effective Date"), amongst the Orange County Transportation Authority, 550 South Main Street, P.O. Box 14184, Orange, CA 92863-1584, a public entity of the State of California (hereinafter referred to as "AUTHORITY") and the Riverside County Transportation Commission, 4080 Lemon Street, Riverside, CA, a public entity of the State of California (hereinafter referred to as "COMMISSION"), together collectively referred to as the "AGENCIES", and _____, _____, _____ (hereinafter referred to as "CONTRACTOR") each individually known as "Party" and collectively known as the "Parties".

WITNESSETH:

WHEREAS, AGENCIES require assistance from CONTRACTOR to design, implement, install, operate and maintain a Back Office System (BOS) and to operate a Customer Service Center (CSC) for the 91 Express Lanes, with the mutual intent of AGENCIES of jointly operating said CSC and BOS as a single, seamless Toll Facility from the customer's perspective, as further detailed herein; and

WHEREAS, the Work necessary to implement the Project cannot be performed by the regular employees of AGENCIES; and

WHEREAS, CONTRACTOR has represented that it has the requisite personnel and experience, and is capable of performing the Work; and

1 **WHEREAS**, CONTRACTOR wishes to perform the Work; and

2 **WHEREAS**, AUTHORITY and COMMISSON have entered into a Cooperative Agreement for
3 among other things, joint implementation, operation and maintenance of 91 Express Lanes BOS and
4 operation of the 91 Express Lanes CSC; and

5 **WHEREAS**, in 2003 AUTHORITY purchased from the California Private Transportation Company
6 its interest in a Franchise Agreement with Caltrans to operate and maintain a toll collection system on
7 State Route 91 between State Route 55 and the Orange County/Riverside County line ("OCTA 91
8 Express Lanes") and has been doing so since that time; and

9 **WHEREAS**, the COMMISSON constructed and, pursuant to a Toll Facility Agreement with
10 Caltrans, as of 2017 operates and maintains a toll collection system on State Route 91 between Interstate
11 15 and County/Orange County line, and an Express Lane Connector between eastbound 91 and
12 southbound I-15 and between northbound I-15 and westbound 91("RCTC 91 Express Lanes"); and

13 **WHEREAS**, the OCTA 91 Express and the RCTC 91 Express Lanes are referred to, collectively,
14 in this AGREEMENT as the 91 Express Lanes; and

15 **WHEREAS**, Procurement of the Work is authorized under Sections 130238 and 130240 et seq.
16 of the Public Utilities Code and AGENCIES' Procurement Policy and Procedures; and

17 **WHEREAS**, The Parties intend for this AGREEMENT to be a comprehensive agreement
18 obligating CONTRACTOR to perform all Work, as more particularly described in this AGREEMENT,
19 including all attached documents; and

20 **WHEREAS**, the AUTHORITY's Board of Directors authorized this AGREEMENT on the
21 _____ day of _____ 2019; and

22 **WHEREAS**, the COMMISSION's Board of Directors authorized this AGREEMENT on the
23 _____ day of _____ 2019.

24 **NOW, THEREFORE**, it is mutually understood and agreed by AGENCIES and CONTRACTOR
25 as follows:

26 /

ARTICLE 1. COMPONENTS OF AGREEMENT/INTERPRETATION

A. AGREEMENT: This AGREEMENT, as defined in Exhibit A, Definitions and Acronyms, constitutes the complete and exclusive statement of the terms and conditions of the agreement between AGENCIES and CONTRACTOR for the Work and supersedes all prior representations, understandings and communications. The invalidity in whole or in part of any term or condition of this AGREEMENT shall not affect the validity of other terms or conditions. Terms capitalized herein shall, unless otherwise defined herein, have the same meaning as set forth in Exhibit A. Where this Agreement uses the term "including" it shall mean including but not limited to, unless otherwise specifically indicated.

B. AGREEMENT Interpretation: This AGREEMENT and each of the attached documents are all an essential part of the Parties agreement and should be interpreted in a manner which harmonizes their provisions. However, if an actual conflict exists, the following descending order of precedence shall apply:

1. AGREEMENT Amendments adopted in accordance with this AGREEMENT;
2. This AGREEMENT;
3. All Exhibits attached hereto,
4. RFP 9-1177, which is incorporated herein by reference
5. The Proposal dated July 12, 2019 which is incorporated herein by reference.

C. In the case of conflict, and notwithstanding the order of precedence, the most stringent requirement as determined by AGENCIES shall govern, unless otherwise agreed to in writing by AGENCIES.

D. A Party's failure to insist in any one or more instances upon any other Party's performance of any terms or conditions of this AGREEMENT shall not be construed as a waiver or relinquishment of that Party's right to such performance by the defaulting Party or to future performance of such terms or conditions and the defaulting Party's obligation in respect thereto shall continue in full force and effect. This AGREEMENT may be amended or modified only by mutual written agreement of the Parties.

/

1 E. CONTRACTOR shall only commence Work covered by an Amendment after the Amendment
2 is fully executed and notification to proceed has been provided by AGENCIES.

3 F. Where the AGREEMENT uses the term "AGENCIES", it refers to the AUTHORITY and
4 COMMISSION, collectively, unless the context clearly indicates that it is referring to either the
5 AUTHORITY or COMMISSION, individually. Where the AGREEMENT uses the term "AGENCY", it refers
6 to either the AUTHORITY or COMMISSION, unless the context clearly indicates that it refers to both
7 AGENCIES.

8 **ARTICLE 2. OPERATION AND ADMINISTRATION**

9 A. The Parties acknowledge that it is the intent and objective of AGENCIES to operate the 91
10 Express Lanes in both Orange County and Riverside County so that customers will experience a
11 seamless transition between the two facilities and will view the 91 Express Lanes as a single facility. The
12 CONTRACTOR agrees to cooperate in order to facilitate this intent and objective.

13 B. Notwithstanding the joint operation described in paragraph A of this Article 2, this
14 AGREEMENT will be separately administered by the AUTHORITY and COMMISSION as further set forth
15 and enumerated in this AGREEMENT.

16 **ARTICLE 3. AUTHORIZED DESIGNEES**

17 A. The Chief Executive Officer of AUTHORITY, or designee, shall have the authority to act for
18 and exercise any of the rights of AUTHORITY under this AGREEMENT.

19 B. The Executive Director of the COMMISSION, or his or her designee, shall have the authority
20 to act for and exercise any of the rights of the COMMISSION under this AGREEMENT.

21 C. In its letter of transmittal accompanying CONTRACTOR's Proposal, CONTRACTOR
22 designated *[name and title]* _____ as an officer of CONTRACTOR,
23 who shall be authorized to sign this AGREEMENT and any Amendments to this AGREEMENT and to
24 act for and make commitments on behalf of CONTRACTOR.

25 /

26 /

ARTICLE 4. SCOPE OF WORK AND REQUIREMENTS

A. CONTRACTOR shall perform the Work in accordance with the attached Exhibits B through D, entitled "Scope of Work and Requirements", in a manner satisfactory to AGENCIES.

B. In performing this AGREEMENT, CONTRACTOR will be responsible for developing, operating, and maintaining a BOS that handles the funds of others, documents and processes financial transactions, and maintains the integrity of customer personal information and financial records. With respect to its obligations under this paragraph B, the CONTRACTOR shall have a fiduciary duty to AGENCIES, its customers and to the users of the BOS. The CONTRACTOR shall exercise its responsibilities prudently and shall institute all appropriate mechanisms for the custody and administration of funds and records.

C. CONTRACTOR shall provide all resources, personnel, Equipment, Software and supplies necessary to perform the Work. CONTRACTOR shall provide the Work in a competent and professional manner, in conformance with the highest industry standards, to the satisfaction of AGENCIES. AGENCIES shall be entitled to full and prompt cooperation by CONTRACTOR in all aspects of the Work. AGENCIES shall have the right to inspect the performance of the Work at any time, and CONTRACTOR shall fully and promptly cooperate with AGENCIES in the execution of such inspections.

D. Exhibit B, Joint Scope of Work and Requirements, sets forth that joint Work to be provided to both AGENCIES ("Joint Scope of Work and Requirements"), whether jointly or separately funded.

E. Exhibit C, AUTHORITY Only Scope of Work and Requirements, further sets forth that special or additional Work of CONTRACTOR to be provided to the AUTHORITY only ("AUTHORITY Only Scope of Work and Requirements"), and funded solely by the AUTHORITY. No Work shall be included under the AUTHORITY Only Scope of Work and Requirements if such Work will negatively impact CONTRACTOR's performance of the Joint Scope of Work and Requirements.

F. Exhibit D, COMMISSION Only Scope of Work and Requirements, further sets forth that special or additional Work of CONTRACTOR to be provided to the COMMISSION only ("COMMISSION Only Scope of Work and Requirements") and to be funded solely by COMMISSION. No Work shall be

1 included under the COMMISSION Only Scope of Work and Requirements if such Work will negatively
2 impact CONTRACTOR's performance of the Joint Scope of Work and Requirements.

3 **ARTICLE 5. CONTRACTOR'S PERSONNEL**

4 A. Non-Key Team Personnel:

5 1. The CONTRACTOR agrees that it will at all times employ, maintain and assign a
6 sufficient number of competent and qualified personnel and Subcontractors to perform the Work in a
7 timely manner.

8 2. CONTRACTOR warrants and represents that its staff personnel and Subcontractors
9 have the proper skill, training, background, knowledge, experience, rights, authorizations, integrity,
10 character and licenses necessary to perform the Work in a competent and professional manner.

11 3. At the request of AGENCIES, in their sole discretion, CONTRACTOR shall promptly
12 remove from assignment to the performance of Work any employee, Subcontractor, or any other person
13 performing Work hereunder. AGENCIES' request to remove an employee or Subcontractor from this
14 Project is specific only to Work under this AGREEMENT and shall have no bearing on CONTRACTOR's
15 decision to retain the employee or Subcontractor for work outside of this AGREEMENT. AGENCIES shall
16 bear no responsibility for any such decision by CONTRACTOR.

17 B. Key Team Personnel:

18 1. CONTRACTOR's Project Manager identified in the Proposal is a "Key Team
19 Personnel" and shall act as the primary point of contact in all matters on behalf of CONTRACTOR. The
20 Project Manager shall assign other individuals as contacts with regard to specific functional area of the
21 Work, subject to the Approval of AGENCIES.

22 2. Contractor shall provide the personnel listed below, which are hereby designated as
23 Key Personnel under this Agreement:

24

Name	Function

25
26

1 3. The Joint Scope of Work and Requirements identify job categories as Key Team
2 Personnel for the AGREEMENT as shown in the Table above. CONTRACTOR identified Key Team
3 Personnel assigned to this Project in its Proposal shall be Approved as part of the Project Management
4 Plan. CONTRACTOR acknowledges that the award of this AGREEMENT to CONTRACTOR was based
5 in significant part on the qualifications of such Key Team Personnel and on CONTRACTOR's
6 representation that they will be made available to perform the Work to completion, which availability is a
7 material term of this AGREEMENT. Key Team Personnel shall be required to work in the position
8 indicated in the Proposal and in the Approved Project Management Plan.

9 4. No Key Team Personnel shall be removed or replaced by CONTRACTOR or have
10 any change in function or any significant reduction in the level of commitment, without the prior written
11 Approval of AGENCIES. Should AGENCIES determine that the list of Key Team Personnel does not
12 include personnel essential to the successful performance of the Work, AGENCIES may require
13 CONTRACTOR to add any existing job category to such list.

14 5. If AGENCIES become dissatisfied with the performance of any person designated as
15 Key Team Personnel, AGENCIES shall notify CONTRACTOR in writing. Within fourteen (14) Business
16 Days of receipt of such Notice, CONTRACTOR shall either propose a replacement person for evaluation
17 and Approval by AGENCIES or present to AGENCIES a thirty (30) Calendar Day plan for correcting the
18 incumbent's performance deficiencies. If AGENCIES reject the replacement person for evaluation, then
19 CONTRACTOR shall propose another replacement person within fourteen (14) Business Days of such
20 rejection, which process shall be followed until CONTRACTOR proposes a replacement person
21 acceptable to AGENCIES. If AGENCIES reject the plan of correction, or Approve the plan of correction,
22 but the incumbent's performance deficiencies are not corrected to AGENCIES' satisfaction within thirty
23 (30) Calendar Days of AGENCIES' Approval of the correction plan, then CONTRACTOR shall, propose
24 to AGENCIES a replacement person for evaluation and Approval by AGENCIES within the time and
25 manner set forth above. If CONTRACTOR is unable to provide a suitable replacement for a total period
26 of more than three (3) months from the date of AGENCIES' initial Notice to CONTRACTOR, whatever

1 the reason, the position shall be considered "Unavailable" and this shall trigger the liquidated damages
2 set forth in Article 18 C.2 or Article 18 C.3, depending upon the position.

3 6. Should the services of any Key Team Personnel become no longer available to
4 CONTRACTOR, CONTRACTOR shall, within one (1) Business Day from the day CONTRACTOR
5 becomes aware that the Key Team Personnel is or will no longer be available, provide Notice to
6 AGENCIES. The resume and qualifications of the proposed replacement shall be submitted to
7 AGENCIES for Approval as soon as possible, but in no event later than fourteen (14) Business Days after
8 CONTRACTOR becomes aware that the Key Team Personnel is or will not be available. AGENCIES
9 will respond to CONTRACTOR within seven (7) Business Days following receipt of these qualifications
10 concerning acceptance of the replacement. As used in this paragraph, "no longer available to
11 CONTRACTOR" means that the Key Team Personnel is no longer employed by CONTRACTOR or is
12 otherwise physically unable to perform as required by this AGREEMENT for reasons such as health, for
13 a period of more than thirty (30) Calendar Days. In the event a Key Team Personnel member was
14 rendered physically unable to perform, but later is physically able to perform, CONTRACTOR shall notify
15 AGENCIES and may return such Key Team Personnel to his or her position, subject to the AGENCIES'
16 reasonable Approval. CONTRACTOR inability to provide a suitable replacement for a period of more
17 than thirty (30) days whatever the reason, shall trigger the liquidated damages for Unavailability set forth
18 in Article 18.C.2 or 18.C.3, depending upon the position.

19 7. Reassignment by CONTRACTOR of a Key Team Personnel member without the
20 express Approval of AGENCIES will automatically trigger liquidated damages for Unavailability set forth
21 in Article 18.C. 2 or 18.C.3, depending upon the position.

22 **ARTICLE 6. TERM OF AGREEMENT**

23 A. Initial Term: This AGREEMENT shall commence upon the Effective Date, and shall continue
24 in full force and effect for a period of up to seven (7) years through _____ ("Initial
25 Term"), unless earlier terminated or extended as provided in this AGREEMENT. The Initial Term is
26 composed of an Implementation Phase, and an Operations and Maintenance Phase, beginning at Go-

1 Live, of five (5) years.

2 B. Extensions: AGENCIES, at their sole discretion, may elect to extend the Initial Term of this
3 AGREEMENT up to an additional thirty-six (36) months ("Option Term 1"), and thereupon require
4 CONTRACTOR to provide the Work and otherwise perform in accordance with the Scope of Work and
5 Requirements at the rates set forth in Exhibit E, entitled "Contractor Price Proposal." AGENCIES, at their
6 sole discretion, may elect to extend the Initial Term, as extended by Option Term 1, up to an additional
7 thirty-six (36) months ("Option Term 2"), and thereupon require CONTRACTOR to continue to provide
8 Work and otherwise perform in accordance with the Scope of Work and Requirements at the rates set
9 forth in the Contractor Price Proposal. The Initial Term and any extensions thereof shall be referred to
10 as "Term" in this AGREEMENT.

11 C. Extensions Not Constituting Waiver: AGENCIES' election to extend the Initial Term under
12 Option Term 1 and/or Option Term 2, shall not diminish their right to terminate the AGREEMENT for
13 AGENCIES' convenience or CONTRACTOR's default as provided elsewhere in this AGREEMENT. The
14 maximum Term of this AGREEMENT shall be thirteen (13) years from the Effective Date.

15 **ARTICLE 7. TIME AND SCHEDULE/COMPLETION DATES**

16 A. Schedule and Submittals

17 1. CONTRACTOR's Submittal requirements and Submittal schedule shall be as set out
18 in CONTRACTOR's Approved Project Management Plan and CONTRACTOR's Approved Baseline
19 Implementation Schedule, in accordance with the Scope of Work and Requirements.

20 2. AGENCIES' written Approval will be required for Submittals.

21 3. Within fifteen (15) Calendar Days of the Effective Date CONTRACTOR shall submit
22 a Baseline Implementation Schedule in a format acceptable to AGENCIES for AGENCIES' review and
23 Approval. The Preliminary Implementation Schedule, (Exhibit F), shall be the basis for the development
24 of CONTRACTOR's submitted Baseline Implementation Schedule. The Baseline Implementation
25 Schedule shall propose dates by which CONTRACTOR will (a) submit required permits, documents,
26 applications, and design; and (b) develop; deliver; install; test, and implement the required BOS, including

1 all necessary documents, Submittals, and Deliverables in support thereof. Sufficient information shall be
2 shown on the Baseline Implementation Schedule to enable proper control and monitoring of the tasks
3 and subtasks in accordance with the requirements set forth in the Joint Scope of Work and Requirements.

4 4. Upon completion of the Baseline Implementation Schedule by CONTRACTOR to the
5 satisfaction of AGENCIES, AGENCIES will Approve such schedule, and it will thereafter be deemed the
6 Approved Baseline Implementation Schedule and constitute the schedule for the Submittals set forth in
7 this Article 7, paragraph A.1 and measured in accordance with paragraph 5 of this Article 7.

8 5. Progress of Work shall be measured against the Approved Baseline Implementation
9 Schedule and submitted to AGENCIES monthly in accordance with the Joint Scope of Work and
10 Requirements, until the Implementation Phase has been completed. Submission of monthly progress
11 updates to such schedule shall not release or relieve CONTRACTOR from full responsibility for
12 completing the Work within the time set forth in the Approved Baseline Implementation Schedule.

13 6. CONTRACTOR shall furnish sufficient resources to ensure the performance of the
14 Work in accordance with the Approved Baseline Implementation Schedule. If CONTRACTOR falls
15 behind in the performance of the Work as indicated in the Approved Baseline Implementation Schedule,
16 CONTRACTOR shall take such steps as may be necessary to ensure its performance in accordance with
17 the Approved Baseline Implementation Schedule. CONTRACTOR shall manage the risks to the
18 Approved Baseline Implementation Schedule to avoid any potential delays or make every effort to work
19 around any potential delays and mitigate the impact of delay.

20 7. CONTRACTOR shall be responsible for all delays in the Approved Baseline
21 Implementation Schedule, except delays in Approvals caused by Force Majeure events. However,
22 nothing in this paragraph relieves CONTRACTOR of its responsibility to provide complete and accurate
23 Submittals and Deliverables that meet the requirements of the Scope of Work and Requirements.
24 Submittals rejected by AGENCIES due to CONTRACTOR's failure to meet the requirements of the
25 Submittal or Deliverable or to address the previous written comments provided by AGENCIES are not
26 Force Majeure events and CONTRACTOR shall be held responsible for all associated delays.

8. If comments forms are established in the Project Management Plan to be used for the resolution of questions and issues on a Submittal, the Submittal shall not be considered Approved until all written comments are addressed to the satisfaction of AGENCIES. Such lack of Approval shall be considered a rejection until the comments are fully resolved.

B. Guaranteed Completion Dates:

In executing this AGREEMENT CONTRACTOR is guaranteeing that the BOS will be fully operational by the Guaranteed Completion Date, subject to any extensions thereof Approved by AGENCIES in accordance with this AGREEMENT.

1. The 91 Express Lanes shall be fully operational and shall have achieved Go-Live, as determined by AGENCIES, within five-hundred fifty (550) Calendar Days from Effective Date.

2. In addition to all other rights and remedies available to AGENCIES, if CONTRACTOR fails to meet the Guaranteed Completion Date, as such Guaranteed Completion Date may be extended pursuant to this AGREEMENT, CONTRACTOR shall be subject to liquidated damages as specified in Article 18, Liquidated Damages.

C. Delays:

1. If at any time CONTRACTOR fails to complete any activity by the completion date in the Approved Baseline Implementation Schedule, unless previously excused by AGENCIES in writing, CONTRACTOR will be required, within seven (7) Calendar Days of AGENCIES' request, to submit to AGENCIES a statement as to how it plans to return to compliance, including a recovery schedule if directed by AGENCIES.

2. If CONTRACTOR fails or refuses to implement measures sufficient to bring its Work back into conformity with the Approved Baseline Implementation Schedule, it shall be considered an Event of Default and AGENCIES may exercise all rights provided herein, including permitting CONTRACTOR to proceed under specified conditions required by AGENCIES.

3. No AGENCIES' review or Approval of a schedule submitted by CONTRACTOR shall release or relieve CONTRACTOR from full responsibility for the accurate, complete and timely

1 performance of the Work, including the accuracy and completeness of the schedule, or any other duty,
2 obligation or liability imposed on CONTRACTOR by this AGREEMENT. AGENCIES' Approval of a
3 schedule shall not constitute a representation by AGENCIES that CONTRACTOR will be able to proceed
4 or complete the Work in accordance with the dates contained in said schedule.

5 **ARTICLE 8. START AND PHASES OF WORK**

6 A. Implementation Phase: The Implementation Phase shall commence upon Effective Date and
7 shall continue until Final Acceptance. CONTRACTOR shall not begin performing Work until the Effective
8 Date and shall not be entitled to any compensation for any Work performed or costs incurred prior to the
9 Effective Date.

10 B. Conditions precedent to AGENCIES executing the AGREEMENT are CONTRACTOR
11 furnishing the Form G, Performance Bond, Form H, Payment Bond, and applicable certificates of
12 insurance and endorsements thereof as required by this AGREEMENT. CONTRACTOR shall furnish
13 said documents within ten (10) Business Days after notification of award of this AGREEMENT from
14 AGENCIES.

15 C. Operations and Maintenance Phase: The Operations and Maintenance Phase shall
16 commence upon Go-Live of the 91 Express Lanes System and shall continue through the end of the
17 Term.

18 **ARTICLE 9. MAXIMUM OBLIGATION**

19 A. Notwithstanding any provisions of this AGREEMENT to the contrary, AUTHORITY and
20 CONTRACTOR mutually agree that AUTHORITY's maximum cumulative payment obligation (including
21 obligation for CONTRACTOR's profit) for all Work during the Initial Term shall be _____ Dollars
22 (\$____.00) (the "AUTHORITY Maximum Obligation"). This is based on the AUTHORITY's portion of fixed
23 and variable price components and includes, but is not limited to, all amounts payable by AUTHORITY
24 to CONTRACTOR and its subcontracts, leases, pass throughs, materials, and other costs , arising from,
25 or due to termination of, this AGREEMENT and as further set forth in Article 10, Payment, unless agreed
26 to and amended in writing by the AUTHORITY and CONTRACTOR.

1 B. Notwithstanding any provisions of this AGREEMENT to the contrary, COMMISSION and
2 CONTRACTOR mutually agree that COMMISSION's maximum cumulative payment obligation (including
3 obligation for CONTRACTOR's profit) for all Work during the Initial Term shall be _____ Dollars
4 (\$____.00) (the " COMMISSION Maximum Obligation"). This is based on the COMMISSION's portion of
5 fixed and variable price components and includes, but is not limited to, all amounts payable by
6 COMMISSION to CONTRACTOR and its subcontracts, leases, pass throughs, materials, and other costs
7 arising from, or due to termination of, this AGREEMENT and as further set forth in Article 10, Payment,
8 unless agreed to and amended in writing by COMMISSION and CONTRACTOR.

9 **ARTICLE 10. PAYMENT**

10 A. Payments made for Implementation Phase Work by each AGENCY shall be in the amounts
11 and percentages provided in Exhibit G, Milestone Payment Schedule. Variable payments made in the
12 Operations and Maintenance Phase by each AGENCY shall be for Work performed for their own
13 respective AGENCY only or where applicable, on a percentage basis for each AGENCY as identified in
14 the Price Proposal sheets. In no event shall either the AUTHORITY or COMMISSION have any joint
15 liability for payment to CONTRACTOR.

16 B. Payment of AUTHORITY Maximum Obligation: AUTHORITY shall pay to CONTRACTOR
17 up to its Maximum Obligation amount, for CONTRACTOR's full and complete performance of its
18 obligations under this AGREEMENT on a fixed and variable unit price basis in accordance with the
19 following provisions set forth in paragraphs D through I of this Article 10.

20 C. Payment of COMMISSION Maximum Obligation: COMMISSION shall pay to CONTRACTOR
21 up to its Maximum Obligation amount, for CONTRACTOR's full and complete performance of its
22 obligations under this AGREEMENT on a firm fixed and variable unit price basis in accordance with the
23 following provisions set forth in paragraphs D through I of this Article 10.

24 D. Payments for Implementation Phase: Payments to CONTRACTOR for the Implementation
25 Phase will be as indicated in the CONTRACTOR Price Proposal, and Exhibit G, Payment Schedule.
26 Payments for BOS design, development, integration and testing, installation and other Deliverables will

1 be made using fixed prices for completed and Approved Deliverables as provided in the Payment
2 Schedule and the CONTRACTOR Price Proposal.

3 E. Payments for Maintenance: Payments for Maintenance will be made on a monthly basis, and
4 where applicable, based on fixed monthly prices and variable unit prices in accordance with the
5 CONTRACTOR Price Proposal. Adjustments to these payments may be made for CONTRACTOR
6 performance which falls below required Performance Measures as further set forth in the Scope of Work
7 and Requirements.

8 F. Payments for Operations: Payments for Operations will be made on a monthly basis, and
9 where applicable, based on fixed monthly prices, variable unit prices and pass-through costs, in
10 accordance with the CONTRACTOR Price Proposal. Adjustments to these payments may be made for
11 CONTRACTOR performance which falls below required Performance Measures as further set forth in
12 the Scope of Work and Requirements.

13 G. Full and Complete Compensation: All Work performed by CONTRACTOR in meeting the
14 requirements of the AGREEMENT shall be paid under one of the above payment methods, which shall
15 constitute full compensation for the Work, including but not limited to: (a) the cost of all insurance and
16 bond premiums, home office, job site and other overhead, and profit relating to CONTRACTOR's
17 performance of the Work; (b) the cost of performance of each and every portion of the Work (including all
18 costs of all Work provided by Subcontractor(s) and third party licenses and Software); (c) the cost of
19 obtaining all governmental approvals; (d) all costs of compliance with and maintenance of such
20 governmental approvals; (e) all risk of inflation, unless otherwise noted, currency risk, interest, and other
21 costs of funds associated with the payment schedule for the Work as provided herein; and (f) payment of
22 any taxes, duties, permits and other fees and/or royalties imposed with respect to the Work and any
23 Equipment, materials, or labor included therein.

24 H. Schedule of Fixed Payment: The following schedule shall establish the fixed payment to
25 CONTRACTOR by AGENCIES for the Implementation Phase set forth in the Scope of Work and
26 Requirements.

IMPLEMENTATION PHASE PAYMENTS		
TYPE OF PAYMENT	AUTHORITY AMOUNT (\$)	COMMISSION AMOUNT (\$)
Fixed Price	\$0.00	\$0.00
Total Implementation Phase	\$0.00	\$0.00

I. Schedule of Fixed Payment and variable payment for Operations and Maintenance Phase:
The following schedule shall establish the basis for payment to CONTRACTOR by AGENCIES for the Operations and Maintenance (O&M) phase set forth in the Scope of Work and Requirements. The schedule also shows the maximum obligation for each AGENCY for the combined Implementation and Operations and Maintenance Phases, established in paragraphs A and B of Article 9, Maximum Obligation.

OPERATIONS AND MAINTENANCE PHASE PAYMENTS		
TYPE OF PAYMENT	AUTHORITY AMOUNT (\$)	COMMISSION AMOUNT (\$)
Fixed Price	\$0.00	\$0.00
Variable Costs Based on Unit Prices	\$0.00	\$0.00
Pass through Costs	\$0.00	\$0.00
Total Operations and Maintenance Phase	\$0.00	\$0.00
MAXIMUM OBLIGATION ALL PHASES		
MAXIMUM OBLIGATION FOR IMPLEMENTATION AND O&M PHASES	\$0.00	\$0.00

J. Invoice Requirements: During the Implementation Phase CONTRACTOR shall separately invoice AGENCIES on a monthly basis for payments corresponding to the Work actually completed by CONTRACTOR and Approved by each of AGENCIES in accordance with the payment methods as set forth in paragraph D of this Article 10, Payment, and in the proportion for each AGENCY established in Exhibit G, Payment Schedule.

1 K. Following Go-Live (During the Operations and Maintenance Phase) CONTRACTOR shall
2 separately invoice AGENCIES in accordance with the payment methods as set forth in paragraphs E and
3 F of this Article 10. Such payments shall be monthly in arrears, beginning one month after Go-Live. Such
4 monthly Operations and Maintenance invoices shall be subject to the Approval of AGENCY invoiced.

5 L. Deliverables and Work completed and Approved by AGENCY shall be documented in a
6 monthly progress report prepared by CONTRACTOR, which shall accompany each invoice submitted by
7 CONTRACTOR. At its sole discretion, AGENCY may decline to make full payment for any Deliverable
8 until such time as CONTRACTOR has documented to AGENCY's satisfaction, that CONTRACTOR has
9 fully completed all Work required under the invoice. AGENCY's payment in full for any task or Deliverable
10 completed shall not constitute AGENCY's Final Acceptance of CONTRACTOR's Work under such
11 invoice.

12 M. Retention: As partial security against CONTRACTOR's failure to satisfactorily fulfill all of its
13 obligations under this AGREEMENT, AGENCIES shall retain ten percent (10%) of the amount of each
14 Implementation Phase invoice submitted for payment by CONTRACTOR. CONTRACTOR shall invoice
15 AGENCIES for the release of the retention in its final invoices following Implementation Phase Final
16 Acceptance in accordance with this Article 23. All retained funds shall be released by AGENCIES and
17 shall be paid to CONTRACTOR within sixty (60) Calendar Days of payment of final Implementation Phase
18 invoice, unless AGENCIES elect to audit CONTRACTOR's records in accordance with Article 44, Audit
19 and Inspection of Records. If AGENCIES elect to audit, retained funds shall be paid to CONTRACTOR
20 within thirty (30) Calendar Days of completion of such audit in an amount reflecting any adjustment
21 recommended by such audit.

22 N. Submission of Invoices: Invoices shall be submitted by CONTRACTOR to AGENCIES'
23 Accounts Payable offices. CONTRACTOR shall submit invoices electronically to AUTHORITY's
24 Accounts Payable at vendorinvoices@octa.net, and to COMMISSION's Accounts Payable office at
25 AP@RCTC.org. AGENCY shall remit payment within thirty (30) Calendar Days of the receipt and
26 Approval of a properly prepared invoice. Each invoice shall include the following information:

1. AGREEMENT No. (AUTHORITY:C-9-1911; COMMISSION: 19-31-059-00)
2. The specific phase for which payment is being requested;
3. BOS generated reports to validate quantities for the unit priced items, where applicable,
4. AGENCIES' Project Manager's Approval of the payment request.
5. Identification of the relevant line item price in the Price Proposal, and if milestone payment, identification of the milestone name, number, and amount in the Payment Schedule.
6. The time period covered by the invoice;
7. Total monthly invoice (including Project-to-date cumulative invoice amount) and retention for the time period covered by the invoice and cumulative retention held;
8. Monthly Progress Report and current Approved Baseline Implementation schedule during Implementation Phase or, Monthly Operations Report during the Operations and Maintenance Phase;
9. Weekly certified payroll for personnel subject to prevailing wage requirements, if applicable;
10. Certification signed by CONTRACTOR that a) The invoice is a true, complete and correct statement of reimbursable costs and progress; b) The backup information included with the invoice is true, complete and correct in all material respects; c) All payments due and owing to Subcontractors and suppliers have been made; d) Timely payments will be made to Subcontractors and Suppliers from the proceeds of the payments covered by the certification and; e) The invoice does not include any amount which CONTRACTOR intends to withhold or retain from a Subcontractor or Supplier unless so identified on the invoice; and
11. Any other information as agreed or requested by AUTHORITY and/or COMMISSION to substantiate the validity of an invoice.

O. CONTRACTOR agrees to pay each Subcontractor for the satisfactory Work performed under this Agreement, no later than thirty (30) days from the receipt of each payment CONTRACTOR

1 receives from AGENCIES for such Subcontractor Work. AGENCIES reserve the right to request the
2 appropriate documentation from CONTRACTOR showing payment has been made to the
3 Subcontractors and CONTRACTOR agrees to provide said documentation upon request. Any delay or
4 postponement of payment from the above referenced time frames may occur only for good cause
5 following written Approval by AGENCIES.

6 P. The AGENCIES may impose administrative sanctions for CONTRACTOR's failure to comply
7 with the payment provisions in this Article 10 without the prior written Approval of AGENCIES or to comply
8 with any lawful or proper direction from AGENCIES concerning the Work. Prior to imposing administrative
9 sanctions, the AGENCIES shall provide a written Notice to CONTRACTOR specifying the non-
10 compliance and that AGENCIES will exercise their administrative sanctions within five (5) Business Days
11 of the date of such Notice, unless and until such time as compliance is achieved. The administrative
12 sanctions shall be specified in the Notice and may include, but are not limited to, a penalty of two percent
13 (2%) of the invoice amount due per month for every month that payment is not made and/or suspending
14 the processing of invoices or payment made for Work performed until compliance is achieved.

15 Q. These payment provisions in paragraphs O and P must be incorporated in all subcontract
16 agreements issued by CONTRACTOR under this Agreement.

17 **ARTICLE 11. NOTICES**

18 All Notices hereunder and communications regarding the interpretation of the terms of this
19 AGREEMENT, or changes thereto, shall be effected by delivery of said Notices (a) in person or by courier;
20 (b) by depositing said Notices in the U.S. mail, registered or certified mail, returned receipt requested,
21 postage prepaid; or (c) sent by electronic e-mail; provided that the recipient of the electronic Notice
22 acknowledges receipt of such transmission by email. Personal or courier delivery shall be deemed given
23 upon actual delivery to the intended recipient at the designated address. Mailed Notices shall be deemed
24 given upon the date of the actual receipt as evidenced by the return receipt. Electronic e-mail Notice
25 shall be deemed given upon the date the email is acknowledged as received by the recipient; provided
26 that if acknowledgement is received after 5 p.m., delivery shall be deemed received as of 8 a.m. the

following Business Day. Any Notice shall be sent, transmitted or delivered, as applicable, to the applicable Party or Parties at the following addresses:

To: Orange County Transportation Authority	To: Riverside County Transportation Commission	To: CONTRACTOR
550 South Main Street P.O. Box 14184 Orange, CA 92863-1584	4080 Lemon Street, 3rd Floor P.O. Box 12008 Riverside, CA 92502-2208	
ATTENTION: Ms. Reem Hashem Section Manager III	ATTENTION: Ms. Anne Mayer Executive Director	
Phone: (714) 560 - 5446	Phone: (951) 787-7141	
Email: rhashem@octa.net	Email: amayer@rctc.org	

ARTICLE 12. INDEPENDENT CONTRACTOR

A. CONTRACTOR's relationship to AGENCIES in the performance of this AGREEMENT is, and shall at all times remain as to AGENCIES, a wholly independent contractor.

B. CONTRACTOR's personnel performing services under this AGREEMENT shall at all times be under CONTRACTOR's exclusive direction and control and shall be employees of CONTRACTOR and not employees of AUTHORITY. CONTRACTOR shall pay all wages, salaries, and other amounts due its employees in connection with this AGREEMENT and shall be responsible for all reports and obligations respecting them, such as social security, income tax withholding, unemployment compensation, workers' compensation and similar matters.

C. Except as expressly provided in this AGREEMENT, CONTRACTOR shall have no power to incur any debt, obligation, or liability on behalf of AGENCIES or otherwise act on behalf of AGENCIES as an agent. Neither AGENCIES nor any of their agents shall have control over the conduct of CONTRACTOR or any of CONTRACTOR's employees. CONTRACTOR shall not, at any time, or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of AGENCIES.

1 D. CONTRACTOR shall defend, indemnify, and hold harmless AGENCIES with respect to any
2 claims, causes of action, suits, judgements, liabilities, or legal or administration proceeding (collectively,
3 "Claims") which arise out of (i) any assertion, whether by CONTRACTOR, any of its employees or
4 Subcontractors, any public employee retirement system, or any local, state or federal agency, that
5 CONTRACTOR or any of its Subcontractors or employees are in an employer-employee relationship with
6 AGENCIES and thus, entitled to any compensation or benefits provided by AGENCIES to their own
7 employees, including, but not limited to, benefits provided by AGENCIES under applicable Workers'
8 Compensation laws, public employee retirement laws, Family Medical Leave Act, vacation, sick leave,
9 etc.; (ii) any employment claims related to wages, hours, or employment terms and conditions raised or
10 brought by any personnel CONTRACTOR has engaged to perform Work under this AGREEMENT; or
11 (iii) failure of CONTRACTOR, or any of its employees or Subcontractors, to abide by applicable state and
12 federal employment laws including, but not limited to, anti-harassment and anti-discrimination
13 obligations. In addition to any other remedies it may have, AGENCIES shall have the right to offset
14 against the amount of any payments due to CONTRACTOR under this AGREEMENT any costs or
15 liabilities AGENCIES have incurred or will be reasonably expected to incur, due to CONTRACTOR's
16 failure to defend, indemnify and hold harmless AGENCIES as required in this paragraph.

17 E. CONTRACTOR agrees to pay all required taxes on amounts paid to CONTRACTOR under
18 this AGREEMENT, and to indemnify and hold AGENCIES harmless from any and all taxes, assessments,
19 penalties, and interest asserted against AGENCIES by reason of the independent contractor relationship
20 created by this AGREEMENT. In the event that AGENCIES are audited by any Federal or State agency
21 regarding the independent contractor status of CONTRACTOR and the audit in any way fails to sustain
22 the validity of a wholly independent contractor relationship between AGENCIES and CONTRACTOR,
23 then CONTRACTOR agrees to reimburse AGENCIES for all costs, including accounting and attorney's
24 fees, arising out of such audit and any appeals relating thereto.

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26 /

ARTICLE 13. BONDS

A. All bonds required by this AGREEMENT shall be issued by sureties authorized to do business in the State of California with an A.M Best Rating of A-, Class VIII, or better, or as otherwise Approved by AGENCIES in their sole discretion, referred to hereinafter as "Eligible Surety". Notwithstanding any other provision set forth in this AGREEMENT, performance by a surety of any obligations of CONTRACTOR shall not relieve CONTRACTOR of any of its obligations under this AGREEMENT.

B. As partial security against CONTRACTOR's failure to satisfactorily fulfill all Work and obligations under this AGREEMENT, CONTRACTOR shall submit and keep in place until Go-Live and CONTRACTOR provision of applicable Operations and Maintenance Bond as described in paragraphs C and D of this Article below, a Performance Bond and Payment Bond referred to hereinafter as "Bonds" in the form, respectively, set forth in Forms G and H, and attached to this AGREEMENT. The Bonds shall each be in the sum of one-hundred (100%) percent of the Total Fixed Price for the Implementation Phase (not including pass-through costs), as shown in Sheet 1 of the CONTRACTOR Price Proposal entitled Project Cost Summary (cell C5-BOS Implementation Cost). If the Total Fixed Price for the Implementation Phase is increased in connection with an Amendment, AGENCIES may, in their sole discretion, require a corresponding increase in the amount of the Bonds or new Bonds covering the Amendment.

C. An Operations and Maintenance Bond referred to hereinafter as "O&M Bond" shall be required in the form of Form I, attached to this AGREEMENT, as a condition of Go-Live. The Implementation Phase Bond shall not be released until the O&M Bond for the O&M phase is in place. The initial bonding level for the O&M Phase shall be provided at one-hundred (100%) percent of Years 1 to 3 of total O&M costs (not including pass-through costs), as shown on CONTRACTOR Price Proposal Sheet 4, Projected Bond Amounts Table (cell C25).

D. O&M Bond (not including pass through costs) may be renewed each year at the anniversary date of Go-Live through the end of the Term. For subsequent years after the first year of Operations and Maintenance, the renewed O&M Bond shall be submitted to AGENCIES at least fifteen (15) Business

1 Days prior to the anniversary date of Go-Live. Upon Approval thereof, AGENCIES will release the prior
2 year's Bonds.

3 E. The value of the O&M bond for years 2 through 5 and shall be determined as follows:

- 4 1. Year 2 O&M bond = Estimated total combined cost of O&M for years 2 and 3 (not
5 including pass through costs) as shown on Sheet 4, Projected Bond Amounts table
6 (cell C26).
- 7 2. Each of Years 3 through 5 O&M bond = Estimated cost of total combined cost of O&M
8 for upcoming year only as provided on Sheet 4, Project Bond Amounts Table for the
9 respective upcoming year (cells C27, C28, or C29 as applicable).

10 F. The estimated value of the O&M costs for any given year with regard to bonded amount shall
11 be based on the value presented in the CONTRACTOR Price Proposal for total O&M costs for the
12 referenced year(s) as provided in paragraph E of this article (not including pass-through costs), as
13 adjusted for any Approved changes orders that have affected these Price Proposal cells and any updates
14 in the estimated O&M volumes for the year(s) provided by AGENCIES at their sole determination.

15 G. If any Bond previously provided becomes ineffective, or if the Eligible Surety that provided the
16 Bond no longer meets the AGREEMENT requirements, CONTRACTOR shall provide a replacement
17 Bond in the same form issued by an Eligible Surety within five (5) Business Days of CONTRACTOR's
18 knowledge of same. CONTRACTOR shall provide Notice to AGENCIES promptly following such Bond
19 being rendered ineffective or when such Bond's surety is no longer an Eligible Surety, in no case later
20 than three (3) Business Days thereafter.

21 H. Additionally, the Performance Bond shall meet the following requirements:

- 22 1. Identify AGENCIES and AGREEMENT Nos. C9-1177 (AUTHORITY) and 19-31-059-
23 00 (COMMISSION) for which the Performance Bond is provided;
- 24 2. Upon written Notice by AGENCIES that CONTRACTOR has defaulted under this
25 AGREEMENT, the Eligible Surety will have ten (10) Business Days to make a determination on the
26 claim and to notify AGENCIES accordingly.

ARTICLE 14. INDEMNIFICATION

A. CONTRACTOR shall indemnify, defend and hold harmless AUTHORITY, COMMISSION, Caltrans, and their officers, directors, employees and agents, (hereafter, the "Indemnitees") from and against any and all claims (including attorneys' fees and reasonable expenses for litigation or settlement) for any loss or damages, bodily injuries, including death, damage to or loss of use of property caused by the negligent acts, omissions or willful misconduct by CONTRACTOR, its officers, directors, employees, agents, Subcontractors or Suppliers in connection with or arising out of the performance of this AGREEMENT. In addition to any other defense and indemnity obligations that CONTRACTOR has assumed under this AGREEMENT, CONTRACTOR shall defend, indemnify and hold harmless the Indemnitees from and against any and all liabilities, actions, suits, claims, and legal expenses, including attorneys' fees, which arise out of any claim asserting a cause of action for trespass, inverse condemnation or any other unlawful entry onto property by CONTRACTOR, its Subcontractors, agents or employees. Any monies owed may be deducted from any monies due or to become due to CONTRACTOR hereunder or under any other agreement between CONTRACTOR and AGENCIES.

B. Intellectual Property

1. CONTRACTOR shall indemnify, defend, and hold harmless Indemnitees from and against any and all claims, causes of action, suits, legal or administrative proceedings, including any judgments, interest, settlement amounts, losses, damages (statutory or actual), reasonable attorneys' fees, costs, and expenses incidental thereto, which may be suffered by, incurred by, accrued against, charged to, or recoverable from Indemnitees ("Claim(s)"), by reason of any such Claim arising out of or relating to any actual or alleged infringement of any intellectual property rights by any Intellectual Property, including without limitation Project Intellectual Property, alone or as incorporated into the Project, or any Deliverable, Work, Service(s) and/or Software, including Upgrades or Updates, or use thereof.

2. Without limiting any other rights or remedies available to AGENCIES under the Agreement, in law and/or equity, in the event that any Intellectual Property, Equipment or Software employed to provide Work pursuant to this AGREEMENT, or portion thereof, is held to constitute an

1 infringement and its use is or may be enjoined, the CONTRACTOR shall have the obligation, at its sole
2 expense, at AGENCIES' option to do one or more of the following:

3 a. Require CONTRACTOR to, at its own expense, supply, temporarily or
4 permanently, replacement the Intellectual Property, Equipment or Software of similar quality and function
5 which is not subject to such an infringement or injunction;

6 b. Require CONTRACTOR to, at its own expense, remove all such Intellectual
7 Property, Equipment and Software and refund to AGENCIES the cost thereof or equitably adjust
8 compensation;

9 c. Take such steps as is necessary to ensure compliance by AGENCIES with
10 such injunction;

11 d. Modify, or require that the applicable Subcontractor or Supplier modify, the
12 alleged infringing Intellectual Property at its own expense, without impairing in any respect the
13 functionality or performance thereof that is non-infringing; and/or

14 e. Procure for AGENCIES, at CONTRACTOR's expense, the rights provided
15 under this AGREEMENT to use the infringing Intellectual Property, Equipment or Software.

16 3. CONTRACTOR shall be solely responsible for determining and informing AGENCIES
17 whether a prospective Supplier or Subcontractor is a party to any litigation involving Intellectual Property
18 infringement or misappropriation or any injunction related to thereto, or arising out of any Intellectual
19 Property, Equipment and/or Software provided hereunder. The CONTRACTOR shall enter into
20 agreements with all Suppliers and Subcontractors at its own risk. AGENCIES may reject any Intellectual
21 Property, Equipment or Software, which it believes to be the subject of any such litigation or injunction,
22 or if, in AGENCIES' judgment, use thereof does not meet the objectives of Work, restricts or impairs
23 AGENCIES' rights in any Intellectual Property, or be unlawful.

24 **ARTICLE 15. INSURANCE**

25 A. CONTRACTOR shall procure at its own expense and maintain during the Term of this
26 Agreement or longer as provided herein, insurance coverage as specified in this Article 15 or as otherwise

1 agreed to by the AGENCIES. CONTRACTOR shall provide the following insurance coverage:

2 1. Commercial General Liability at least as broad as Insurance Services Office
3 Commercial General Liability Coverage (occurrence form CG 0001 or equivalent) with a minimum limit of
4 \$5,000,000.00 per occurrence and \$10,000,000.00 general aggregate, and is acceptable to AGENCIES;

5 2. Automobile Liability at least as broad as Insurance Services Office Business Auto
6 Coverage (form CA 0001, code 1, any auto, or equivalent), t with a minimum combined single limit of
7 \$5,000,000.00 per occurrence and is acceptable to AGENCIES;

8 3. Workers' Compensation insurance as required by the State of California and
9 Employer's Liability Insurance. Employer's liability limits shall be no less than
10 \$1,000,000 each accident, each employee for bodily injury, and policy limit for bodily injury. The policy
11 shall be endorsed to waive the insurer's right of subrogation against the AUTHORITY and COMMISSION,
12 and their respective officers, directors, employees and agents;

13 5. Commercial Crime with limits no less than \$5,000,000 per claim and in the
14 aggregate to include: Employee dishonesty, Forgery & Alteration, Monies & Securities, Computer
15 Crime; and

16 6. Technology Errors & Omissions Including Privacy and Network Security- covering
17 liability for errors or omissions in rendering computer or information technology services including 1)
18 systems analysis 2) systems programming 3) data processing 4) systems integration 5) outsourcing
19 development and design 6) systems design, consulting, development and modification 7) training
20 services relating to computer Software or Hardware 8) management, repair and maintenance of computer
21 products, networks and systems 9) marketing, selling, servicing, distributing, installing and maintaining
22 computer Hardware or Software 10) data entry, modification, verification, maintenance, storage, retrieval
23 or preparation of data output, and 11) Privacy and Network Security (Cyber Liability) insurance covering
24 liability arising from a) hostile action, or a threat of hostile action ("ransomware"), b) "malware" including
25 computer viruses, Trojan horses, worms and any other type of malicious or damaging code c) dishonest,
26 fraudulent, malicious, or criminal use of a computer system by a person, whether identified or not, and

whether acting alone or in collusion with other persons, d) denial of service for which the insured is responsible that results in the degradation of or loss of access to internet or network activities or normal use of a computer system e) loss of service that results in the inability of a third-party, who is authorized to do so, to access a computer system and conduct normal activities. The policy limit shall be not less than fifteen million dollars (\$15,000,000) per claim and annual aggregate.

B. Proof of required coverage, in the form of a certificate of insurance, a copy of the insurance policy and/or an insurance company issued policy endorsement shall be provided to AGENCIES. Proof of insurance coverage and endorsements evidencing the requirements for additional insureds must be received within ten (10) Business Days after notification of award of this AGREEMENT from AGENCIES. Such insurance shall be primary and non-contributory to any insurance or self-insurance maintained by AGENCIES. AGENCIES reserve the right to request certified copies of all related insurance policies.

C. CONTRACTOR shall include on the face of the Certificate of Insurance the AGREEMENT Number and OCTA's Contract Administrator's Name, Reem Hashem, Section Manager III.

D. AUTHORITY, COMMISSION and the California Department of Transportation, their officers, directors, employees and agents (the "Indemnitees") must be named as additional insured on Commercial General Liability and Automobile Liability Certificates and on the insurance policy endorsement with respect to performance hereunder.

E. CONTRACTOR shall also include in each subcontract the requirement that Subcontractors shall maintain appropriate insurance coverage in the amounts as required by CONTRACTOR and include the Indemnitees as additional insureds on general and automobile liability policies. Such coverage shall be in effect at all times that a Subcontractor is performing Work under the Contract. CONTRACTOR shall have responsibility to enforce Subcontractor compliance with these or similar insurance requirements provided that CONTRACTOR shall upon AGENCIES' request provide acceptable evidence of insurance for any Subcontractor. The CONTRACTOR shall assume all responsibility for risks or casualties of every description, for any and all damage, loss or injury, to persons or property arising out of the nature of the Services, including but not limited to the negligence or failure of its Subcontractors (as well as

CONTRACTOR's employees) to comply with this AGREEMENT.

F. CONTRACTOR shall be required to immediately notify AGENCIES of any modifications or cancellation of any required insurance policies.

G. CONTRACTOR shall, at all times during the Term of this AGREEMENT, maintain insurance in such form as is satisfactory to AUTHORITY and shall furnish AGENCIES with continuing evidence of insurance as provided below. All insurance policies shall be issued by companies licensed to do business in the State of California, with an A.M. Best Rating of A-, Class VII, or better, or as otherwise Approved by AGENCIES. CONTRACTOR shall, at all times, comply with the terms of such insurance policies, and all requirements of the insurer under any such insurance policies, except as they may conflict with existing California laws or this AGREEMENT.

H. CONTRACTOR shall provide AGENCIES with certificates showing the required coverage to be in effect and a copy of the insurance policy or endorsements evidencing the requirements for the additional insureds. Such policies shall provide that the insurance shall not be materially modified or cancelled except upon thirty (30) Calendar Days prior written Notice to AGENCIES. Copies of all insurance policies and endorsements shall be provided to AGENCIES upon request.

I. AUTHORITY reserve the right to review all insurance coverage and amounts of insurance coverage on an annual basis and to require CONTRACTOR to adjust the insurance coverage and amounts of insurance coverage based on industry standards for contracts of this size and type. CONTRACTOR shall timely pay all premiums and deductibles when due for all insurance coverage required herein. The above insurance shall not contain a self-insurance retention (SIRs) unless Approved by AGENCIES.

J. Pertaining to the above paragraphs regarding professional liability, technology errors and omissions, and cyber liability insurance, if coverage is written on a claims made basis, such insurance shall be maintained in force at all times during the Term and for a period of three (3) years thereafter for Work completed during the Term. Additionally, if a sub-limit applies to any elements of coverage, the policy endorsement evidencing the coverage above must specify the coverage section and the amount

1 of the sub-limit.

2 K. Providing and maintaining adequate insurance coverage described herein is a material
3 obligation of CONTRACTOR and is of the essence for this AGREEMENT. The limits of coverage under
4 each insurance policy maintained by CONTRACTOR shall not be interpreted as limiting
5 CONTRACTOR's liability and obligations under the AGREEMENT.

6 L. Subcontractors' Insurance. CONTRACTOR shall either require each Subcontractor to obtain
7 and maintain Workers' Compensation Insurance, Commercial General Liability, Business Automobile
8 Liability and Professional Liability coverage similar to those required above in this section for
9 CONTRACTOR, or any other coverage deemed necessary to the successful performance of the
10 AGREEMENT or cover Subcontractors under CONTRACTOR's policies. Such coverage shall be in effect
11 at all times that a Subcontractor is performing Work under the Contract. The CONTRACTOR shall have
12 responsibility to enforce Subcontractor compliance with these or similar insurance requirements; provided
13 CONTRACTOR shall upon AGENCIES' request provide acceptable evidence of insurance for any
14 Subcontractor. CONTRACTOR shall assume all responsibility for risks or casualties of every description,
15 for any and all damage, loss or injury, to persons or property arising out of the nature of the Work,
16 including but not limited to the negligence or failure of its Subcontractors (as well as CONTRACTOR's
17 employees) to comply with this AGREEMENT.

18 M. Waivers: The AGENCIES and CONTRACTOR waive all rights against each other, against
19 each of their agents and employees and their respective members, directors, officers, employees, agents
20 and consultants for any claims to the extent covered by insurance obtained pursuant to this Article 15,
21 except such rights as they may have to the proceeds of such insurance. CONTRACTOR shall require all
22 sub-contractors to provide similar waivers in writing in favor of AGENCIES and their respective officers,
23 officials, employees and volunteers except as otherwise agreed to by AGENCIES.

24 **ARTICLE 16. CHANGES**

25 A. AGENCIES may, from time to time, amend this AGREEMENT, mutually order Work
26 suspension, add or deduct Work and/or make changes to Joint Scope of Work and Requirements of this

1 AGREEMENT hereinafter collectively referred to as "Joint Changes". In addition, AUTHORITY or
2 COMMISSION may, unilaterally, order additional Work solely required by the requesting AGENCY, or
3 amend or order Work suspension to, respectively, the AUTHORITY Only Scope of Work and
4 Requirements or the COMMISSION Only Scope of Work and Requirements (hereafter "Unilateral
5 Change").

6 B. Any such Joint Changes shall result in the issuance of an Amendment signed by the
7 AGENCIES and CONTRACTOR. Any Unilateral Change shall result in the issuance of a written Change
8 Order, order, or a written Amendment to the relevant separate Scope of Work and Requirements signed
9 by CONTRACTOR and the AGENCY ordering the Unilateral Change. No Joint Changes or Unilateral
10 Changes shall be compensated, or time extensions therefore permitted, except pursuant to an Approval.
11 Work suspension issued by AGENCIES for the Joint Scope of Work and Requirements or by an
12 AGENCY for a Unilateral Change, via a stop Notice, which results in an increase or decrease to the
13 maximum obligation due CONTRACTOR, will require an Amendment or Change Order.

14 C. If any such Joint Changes or Unilateral Changes ("Changes") cause an increase or decrease
15 in the price of this AGREEMENT or in the time required for its performance, CONTRACTOR shall
16 promptly notify AUTHORITY and/or COMMISSION (and if Change is a Unilateral Change, with a copy to
17 the AGENCY which did not order the Unilateral Change) thereof of any possible adjustment to price
18 and/or schedule, within ten (10) Calendar Days after the Change is ordered. However, nothing in this
19 clause shall excuse CONTRACTOR from proceeding immediately with the requested Change. No
20 Change shall be compensated, or time extension provided therefore, except pursuant to an Amendment
21 or Change Order.

22 D. In determining additional compensation to be paid for Change, the Parties shall use the labor,
23 Equipment, unit, and material costs and rates included in the Price Proposal for in preparing the
24 Amendment, including the Price Proposal's fully loaded labor rates for additional Work. CONTRACTOR
25 is required to use the overhead and profit rate identified in the Price Proposal Sheet 7. For Equipment,
26 and materials costs not covered or anticipated in the Price Proposal, a catalog or market price of a

1 commercial product sold in substantial quantities shall be used as the basis for propose costs.

2 E. If the cost of Change cannot be established on this basis or on the basis of prices set by
3 the AGREEMENT, law or regulation, CONTRACTOR shall submit detailed cost breakdowns, including
4 information on, Equipment, and materials costs and any other direct costs.

5 F. CONTRACTOR agrees that it will accept as full compensation for Change, a price mutually
6 agreed upon in writing, via an Amendment or Change Order.

7 G. If CONTRACTOR disagrees with the amount of compensation or time extension proposed by
8 the AGENCY in the Amendment or Change Order the AGENCY may issue a Work Directive.
9 CONTRACTOR shall submit a written dispute to AGENCY, (with a copy to AGENCY to which the dispute
10 does not apply) within fifteen (15) Calendar Days after the receipt of the Work Directive. Notwithstanding
11 CONTRACTOR's disagreement, CONTRACTOR shall proceed diligently with performance if directed by
12 AGENCY. The dispute shall state the points of disagreement and, if possible, the AGREEMENT
13 specification references, quantities and costs involved. If a written dispute is not submitted within the
14 above period, payment will be made as set forth in the Work Directive and such payment shall constitute
15 full compensation for all Work included therein or required thereby. An undisputed Work Directive will be
16 considered as executed Amendment or Change Order.

17 H. CONTRACTOR shall promptly notify AGENCIES in writing when it receives direction,
18 instruction, interpretation or determination from any source other than AGENCIES that may lead to or
19 cause change in the Work. AGENCY, to which the notification applies, shall Approve before
20 CONTRACTOR acts on said direction, instruction, interpretation or determination.

21 I. CONTRACTOR may initiate Change requests for Work it believes to be out of scope in
22 accordance with paragraph A of this Article 16. CONTRACTOR must follow the process identified in
23 this Article 16 for any CONTRACTOR initiated Change requests.

24 J. For avoidance of doubt, any Notices regarding a Change that is believed by
25 CONTRACTOR to be applicable to AGENCIES shall be sent to both AUTHORITY and COMMISSION
26 and any Notices regarding a Change that is believed by CONTRACTOR to be AUTHORITY only or

COMMISSION only, shall also be sent as a copy to AGENCY to which CONTRACTOR believes the Change does not apply. Any changes to Joint Scope of Work and Requirements, must be Approved by both AUTHORITY and COMMISSION.

ARTICLE 17. DISPUTES

A. All claims and other disputes between CONTRACTOR and AGENCIES or, if applicable, only one of AGENCIES, arising under this AGREEMENT, shall be resolved in accordance with this Article 17, Disputes, except those matters referenced in this Article 17, paragraph F below. All disputes shall be decided in accordance with this AGREEMENT and general principles of State law. Questions of fact and law may be considered in this dispute process; providing that nothing in this AGREEMENT shall be construed as making the final decision of any AUTHORITY or COMMISSION official on a question of law. The Parties shall diligently cooperate with one another and with the person(s) appointed to resolve the dispute, and shall perform such acts as may be necessary to obtain a prompt and expeditious resolution of the dispute.

B. Upon commencement of the dispute resolution process, the Parties shall first attempt to resolve the dispute between AGENCY Project Manager(s) and CONTRACTOR's Project Manager. The Parties shall meet in good faith within five (5) Business Days after the date that the written request for dispute resolution is submitted and attempt to resolve it. There shall be at least one meeting to attempt Project level resolution. The Project level negotiation may be continued upon the agreement of all Parties. If the AGENCY's Project Manager and CONTRACTOR's Project Manager are able to resolve the dispute, the resolution shall be set forth in writing. If such resolution results in a Change, an Amendment shall be executed pursuant to Article 16, Changes. If the dispute cannot be resolved at the meeting or any continuance thereof, the following shall apply:

1. For a dispute involving AGENCIES the dispute shall be submitted to each AGENCY, using the respective processes identified for AUTHORITY only and COMMISSION only disputes identified in items 2 and 3 of this paragraph B. AGENCIES will provide a joint written decision to CONTRACTOR following completion of this process. A resolution of a dispute involving both AGENCIES

1 must be Approved by both AGENCIES.

2 2. For an AUTHORITY only dispute, the dispute shall be submitted to AUTHORITY's
3 Director of Contracts Administration and Materials Management (CAMM) within ten (10) Business Days,
4 of such meeting identified in paragraph B of this Article or continuance thereof. The Parties shall each
5 submit the following written information to the Director of CAMM: (a) an explanation of the nature of the
6 dispute; (b) the Party's position; (c) the dollar amount and/or schedule impact of the dispute; and (d) any
7 supporting documents the Party believes will aid the Director of CAMM in arriving at a decision. The
8 Director of CAMM will issue a written decision within ten (10) Business Days; provided that if no written
9 decision is submitted within that time, or any agreed upon extension thereof, the AUTHORITY will have
10 been deemed to have denied CONTRACTOR's position. The decision of the Director of CAMM shall be
11 the final and conclusive administrative decision of the AUTHORITY.

12 3. For a COMMISSION only dispute, the dispute shall be submitted to COMMISSION's
13 Executive Director within ten (10) Business Days, of such meeting identified in paragraph B of this Article
14 or continuance thereof, the Parties shall each submit the following written information to the Executive
15 Director (a) an explanation of the nature of the dispute; (b) the Party's position; (c) the dollar amount
16 and/or schedule impact of the dispute; and (d) any supporting documents the Party believes will aid the
17 Executive Director in arriving at a decision. The Executive Director will issue a written decision within ten
18 (10) Business Days; provided that if no written decision is submitted within that time, or any agreed upon
19 extension thereof, the COMMISSION will have been deemed to have denied CONTRACTOR's position.
20 The decision of the Executive Director shall be the final and conclusive administrative decision of the
21 COMMISSION.

22 C. If a dispute arises which must be resolved expeditiously in order to prevent serious damage
23 to revenues, person or property, or serious interference with Approved Baseline Implementation
24 Schedule, the disputing Parties shall make every effort to resolve such dispute immediately. If such
25 dispute cannot be resolved immediately, AUTHORITY and/or COMMISSION will issue a Work Directive,
26 in accordance with Article 16, Changes, and CONTRACTOR shall expeditiously proceed with the Work

1 Directive. Once the urgent aspects of the dispute have been resolved, the Parties may continue with the
2 remaining procedures for dispute resolution, in accordance with this Article 17, if necessary and to the
3 extent applicable.

4 D. Nothing in this AGREEMENT, however, shall be construed as making final the decision of
5 any AUTHORITY or COMMISSION official or representative on a question of law, which questions shall
6 be settled in accordance with the laws of the State of California.

7 E. If all other means of dispute resolution set forth above are not successful, any of the Parties
8 may commence an action using the following jurisdictions: The action will take place in Orange County
9 Superior Court for AUTHORITY-only disputes, Riverside County for COMMISSION-only disputes, and in
10 the sole determination of AGENCIES, either Orange County or Riverside County Superior Court for an
11 AGENCIES' dispute. In lieu of litigation the Parties may upon terms agreed to by the Parties, elect
12 mediation or arbitration, binding or otherwise. CONTRACTOR shall as a condition precedent to
13 commencing an action in Orange County Superior Court or Riverside County Superior Court for money
14 or damages file a claim pursuant to the Government Claims Act, Government Code sections 900 et seq.
15 For purposes of the claims filing requirement, the running of the time period in which a claim must be filed
16 shall be suspended until the AUTHORITY's final administrative decision by the Director of CAMM and/or
17 or the COMMISSION Executive Director, as applicable.

18 F. The dispute resolution procedures set forth in this Article shall not apply to the following:

- 19 1. Any matters that the AGREEMENT Documents expressly state are final, binding or
20 not subject to dispute resolution;
- 21 2. Any claim or dispute that does not arise under the AGREEMENT;
- 22 3. Disputes regarding compliance with Governmental Rules, liability or indemnification;
- 23 4. Any claim for injunctive relief;
- 24 5. Any claim against an insurance company, including any Subcontractor dispute that is
25 covered by insurance;
- 26 6. Disputes regarding matters under the jurisdiction of Cal-OSHA;

1 7. Any claim or dispute that is the subject of litigation in a lawsuit filed in court to which
2 the procedures established in this Article do not apply, including any effort to interplead a party into such
3 a lawsuit in order to make the procedures established in this Article applicable;

4 8. Any claim for, or dispute based on, remedies expressly created by statute;

5 9. Any dispute that is actionable only against a Surety; and

6 10. Any claim arising from this AGREEMENT to which a third party is a necessary party
7 and has not agreed to participate in the process; provided that the Parties shall nevertheless proceed
8 with resolution of disputes in accordance with this Article to the maximum extent possible.

9 **ARTICLE 18. LIQUIDATED DAMAGES**

10 A. If CONTRACTOR fails to: (1) complete the Work required for Go-Live by the Guaranteed
11 Completion Date or any Approved extension thereof, or (2) provide Key Team Personnel in accordance
12 with the AGREEMENT, or (3) meet the Operations and Maintenance Performance Measures of the
13 AGREEMENT established in the Scope of Work and Requirements, the actual damage to AGENCIES
14 will be difficult or impossible to determine. Therefore, the Parties have agreed to stipulate to the amount
15 payable to AGENCIES as liquidated damages in order to fix and limit CONTRACTOR's costs and to
16 avoid later disputes over what amount of damages are proper. The Parties agree that the amount of
17 liquidated damages are reasonable in light of the anticipated or actual damage to AGENCIES and do not
18 constitute a penalty. Liquidated damages may be assessed at AGENCIES' sole discretion as follows:

19 **B. Go-Live Delays**

20 In the event that CONTRACTOR has not completed the Work required for Implementation of the
21 91 Express Lanes BOS and achieved Go-Live by the Guaranteed Completion Date: \$7,500 per Calendar
22 Day, commencing the day following the Guaranteed Completion Date.

23 **C. Key Team Personnel**

24 1. CONTRACTOR acknowledges that the award of this AGREEMENT by AGENCIES
25 was based in significant part on the qualifications and experience of the Key Team Personnel listed in
26 CONTRACTOR's Proposal and representation that they would be available to perform the Work.

2. In the event that CONTRACTOR Project Manager or other Personnel identified in Table below becomes Unavailable to perform the Work, subject to the conditions set forth in Article 5, CONTRACTOR's Personnel, AGENCIES may assess CONTRACTOR liquidated damages for each occasion of such Unavailability as follows:

Key Team Personnel Liquidated Damages

POSITION	LIQUIDATED AMOUNT
Project Manager – Implementation Phase	\$ 150,000
Project Manager - O&M Phase	\$150,000
Operations Manager	\$ 50,000
Installation Manager	\$ 25,000

3. In addition to the amounts payable for positions identified in the above table, CONTRACTOR shall pay AGENCIES a further liquidated amount of \$20,000, if any other Key Team Personnel is Unavailable.

4. The amounts payable under this Article 18 for Unavailability apply for each occasion of Unavailability for each of the Key Team Personnel.

D. Failure to Meet Performance Measures

Performance Measures establish a minimum level of service for Operations and Maintenance Phase Work. These Performance Measures include compliance with Security Standards identified in the Scope of Work and Requirements, including but not limited to data security, payment card industry (PCI), and Personally Identifiable Information (PII) standards.

E. Failure to meet such Performance Measures shall result in the assessment of liquidated damages in the form of Adjustments as set forth in the Scope of Work and Requirements. These adjustments shall result in a reduction of the amount of the monthly fee AUTHORITY and COMMISSION would otherwise pay to CONTRACTOR for the Work. Standard reports shall be developed by CONTRACTOR to measure whether the performance standards have been met. The' format and content of such reports shall be Approved during the design and generated by the BOS and shall be run on a

1 scheduled basis by CONTRACTOR and provided to AUTHORITY and COMMISSION on a monthly
2 basis, unless another frequency is otherwise specified in the Scope of Work and Requirements or
3 otherwise directed by AGENCIES.

4 F. AGENCIES may deduct liquidated damages from any monies due or that may become due
5 to CONTRACTOR under the AGREEMENT. AGENCIES are not obligated, however, to make such a
6 deduction or to provide notice thereof. If such deducted monies are insufficient to recover the liquidated
7 damages owing, CONTRACTOR or CONTRACTOR's surety shall pay to AGENCIES any deficiency prior
8 to Final Acceptance of Implementation Phase or closeout of Operations and Maintenance Phase, as
9 applicable, or upon termination of this AGREEMENT.

10 G. The failure of AGENCIES to assess any liquidated damages authorized under this Article 18
11 shall not constitute a waiver of AGENCIES' right to assess such adjustments or liquidated damages at a
12 future date. Further, failure to impose liquidated damages does not constitute a waiver of
13 CONTRACTOR's obligations to perform in accordance with the AGREEMENT and Scope of Work and
14 Requirements.

15 H. Liquidated damages are separate and cumulative and are not in lieu of Actual Damages
16 covered under Article 19, Actual Damages.

17 **ARTICLE 19. ACTUAL DAMAGES**

18 A. During the Operations and Maintenance Phase, CONTRACTOR shall reimburse AGENCIES
19 for lost revenue which AGENCIES identify as having been lost due to the fault of CONTRACTOR. Lost
20 revenue includes, but is not limited to, such events as processing errors, lost transactions, lost images,
21 unprocessed transactions, lost data, revenue lost due to data security breach, and transactions that are
22 not able to be collected due to failures or delays in transaction processing. If actual data is available for
23 the affected time period, such data will be considered in the calculation of actual damages as applicable.
24 If AGENCIES do not have actual transactional, financial, or other relevant operational data from the
25 affected period, such actual damages shall be calculated based on a determination of a comparable
26 period made by AGENCIES, and shall consider the day, month, time of day, location, season, whether

the day is a weekday, weekend or Holiday, and such other factors as are reasonable. AGENCIES may choose, in their sole discretion, to recover such lost revenue from CONTRACTOR by deducting such amounts from payments otherwise due and owing from AGENCIES to CONTRACTOR.

B. In addition to other actual damages, CONTRACTOR shall be responsible for all additional costs associated with any PII, PCI, data or security breach associated with CONTRACTOR's provision of Work, including but not limited to, special mailings notifying customers of a mistake in their monthly statements due to inaccurate reporting of information by CONTRACTOR and providing credit monitoring services to customers.

ARTICLE 20. RISK OF LOSS

A. CONTRACTOR shall bear all risk of damage or loss to the BOS, Facilities, and/or Sites except for damage and loss caused by the sole negligence or willful misconduct of AGENCIES or Force Majeure. CONTRACTOR shall promptly replace the damaged or lost portions of the BOS at CONTRACTOR's cost for which it bears all risk or when risk of damage or loss.

B. In the case of damage or loss that AGENCIES agree was caused by the sole negligence or willful misconduct of AGENCIES, or Force Majeure, CONTRACTOR shall promptly replace the damaged or lost portions of the BOS at CONTRACTOR's cost after such cost is pre-Approved by AGENCIES, and submit the amount(s) thus expended to AUTHORITY and/or COMMISSION for reimbursement as a clearly identified, separate item on its next invoice to AUTHORITY and/or COMMISSION. If risk of loss is in dispute, CONTRACTOR shall nevertheless promptly replace the damaged or lost portions of the BOS at CONTRACTOR's initial cost; provided that in doing so, CONTRACTOR does not waive any remedies it may have under this AGREEMENT to later recover such costs.

ARTICLE 21. DEFAULT

A. Default of CONTRACTOR:

1. A default shall mean a material breach of this AGREEMENT by CONTRACTOR. Without limiting the generality of the foregoing and in addition to those instances referred to elsewhere in this AGREEMENT as a breach, a default shall include the following:

1 a. CONTRACTOR fails to timely remit or credit revenues due either of
2 AGENCIES pursuant to this AGREEMENT;

3 b. CONTRACTOR fails to timely deliver and/or maintain Deliverables to either of
4 AGENCIES, which Deliverables include, but are not limited to, all insurance, bonds or other performance
5 security required by this AGREEMENT or to maintain in force and effect any such insurance, bonds or
6 performance security;

7 c. CONTRACTOR fails to promptly perform the Work following the Effective
8 Date; to diligently perform the Work in accordance with the Approved Baseline Implementation Schedule;
9 suspends or otherwise ceases to perform the Work (excepting therefrom excused suspensions directed
10 by AGENCIES, or due to Force Majeure); or promptly resume performance of any Work which has been
11 suspended as directed by AGENCIES;

12 d. CONTRACTOR fails to perform the Work in accordance with this
13 AGREEMENT, including, but not limited to, the Scope of Work and Requirements;

14 e. CONTRACTOR fails to supply enough properly skilled workers or proper
15 materials to perform the Work required under this AGREEMENT;

16 f. CONTRACTOR fails to make prompt payment to Subcontractors or Suppliers
17 in accordance with this AGREEMENT within 30 Calendar Days from receipt of payment from AGENCIES,
18 absent a valid dispute between CONTRACTOR and its Subcontractors or Suppliers;

19 g. CONTRACTOR fails to make any payment due AGENCIES under this
20 AGREEMENT, including but not limited to, liquidated damages;

21 h. CONTRACTOR commences any suit or any suit is commenced against
22 CONTRACTOR, under any bankruptcy, insolvency or similar law to liquidate, reorganize or dissolve
23 CONTRACTOR, or which seeks the appointment of a receiver, trustee, custodian or other similar official
24 to attach, execute or such similar process for any substantial part of CONTRACTOR's assets; or
25 CONTRACTOR assigns the proceeds received from this AGREEMENT for the benefit of its creditors, or
26 it has taken advantage of any insolvency statute or debtor/creditor law or if CONTRACTOR's property or

1 affairs have been put in the hands of a receiver; or any of the foregoing events occurs with respect to any
2 Surety, which Surety is not promptly replaced by CONTRACTOR;

3 i. CONTRACTOR fails to obtain the Approval of AUTHORITY and/or
4 COMMISSION, as applicable, where required by this AGREEMENT;

5 j. CONTRACTOR fails to provide adequate assurances as required under
6 paragraph 2. below;

7 k. CONTRACTOR has failed in the representation of any warranties stated
8 herein;

9 l. Any person authorized to act on CONTRACTOR's behalf makes a statement
10 to any person authorized to act on the AUTHORITY's and/or COMMISSION's behalf, indicating that
11 CONTRACTOR cannot or will not perform any one or more of its obligations under this AGREEMENT;

12 m. CONTRACTOR has a pattern of repeated failures to provide the Work and
13 meet the Scope of Work and Requirements.

14 n. CONTRACTOR fails to remedy Pervasive Defects; or

15 o. The suspension or revocation of any license, permit, or registration
16 necessary for the performance of the CONTRACTOR's obligations under this AGREEMENT;

17 2. When, in the opinion of AGENCIES, reasonable grounds for uncertainty exist with
18 respect to CONTRACTOR's ability to perform the Work or any portion thereof, AGENCIES may request
19 that CONTRACTOR, within the time frame set forth in AGENCIES' request, provide adequate assurances
20 to AGENCIES, in writing, of CONTRACTOR's ability to perform in accordance with the terms of this
21 AGREEMENT. Until AGENCIES receive such assurances, AGENCIES may suspend all payments or
22 portions thereof to CONTRACTOR. In the event that CONTRACTOR fails to provide to AGENCIES the
23 requested assurances within the prescribed time frame, AGENCIES may:

24 a. Treat such failure as an Event of Default;

25 b. Resort to any remedy for breach provided herein or at law or equity, including,
26 but not limited to, taking over the performance of the Work or any part thereof either by itself or through

others;

c. Remove all technical documentation deposited with the Escrow Agent pursuant to the Escrow Agreement executed in accordance with Article 25, Intellectual Property, and Article 26, Intellectual Property Escrow with the purpose of competitively procuring any Equipment or Software or providing any Work based on such documentation; and

d. Terminate CONTRACTOR's performance hereunder.

3. The enumeration in this Article or elsewhere in this AGREEMENT of specific rights or remedies of AGENCIES shall not be deemed to limit any rights or remedies which AGENCIES would have in the absence of such enumeration and no exercise by AGENCIES or failure to exercise of any right or remedy shall operate as a waiver of any other of AGENCIES' rights or remedies not inconsistent therewith or to stop AGENCIES from exercising such other rights or remedies.

B. Notice of Default - Chance to Cure:

If, in the determination of AGENCIES, a default has occurred, AGENCIES will notify CONTRACTOR and, as applicable, surety by delivery of a Notice hereinafter referred to as "Default Notice" specifying the default claimed, and advising CONTRACTOR that such default must be cured as set forth therein or this AGREEMENT may be terminated. Prior to declaring an Event of Default, AGENCIES shall allow CONTRACTOR to cure the default to AGENCIES' reasonable satisfaction within fifteen (15) Calendar Days, or such shorter time if the default requires it; provided that AGENCIES are not required to issue a Default Notice if there is a default which by nature cannot be cured. Failure to provide a Default Notice shall not preclude AGENCIES from exercising other available remedies short of termination. AGENCIES may extend the opportunity to cure beyond the 15-Calendar Day period if the default is one AGENCIES agree requires additional time to cure, so long as CONTRACTOR has commenced curing such default and is effectuating a cure with diligence and continuity during such 15-Calendar Day period, or extension thereof which AGENCIES prescribe.

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1 C. Remedies in the Event of Default ; Notice of Termination for Cause.

2 1. If CONTRACTOR does not cure the default within the time prescribed or the default
3 is not subject to cure, AGENCIES may declare an Event of Default, which shall be in writing and
4 provided to CONTRACTOR, and, as appropriate the Surety. In addition to all other rights and
5 remedies under this AGREEMENT and/or the bonds, AGENCIES shall, upon declaration of an Event
6 of Default, have the right to terminate this AGREEMENT, in whole or in part, pursuant to issuance of
7 a Notice of Termination for Cause, specifying the effective date thereof and/or perform or cause to be
8 performed the Work or any portion thereof, which are required of CONTRACTOR. The Notice of
9 Termination for Cause may be provided concurrently with any written declaration of an Event of
10 Default. In exercising such rights, AGENCIES may immediately take possession of, and
11 CONTRACTOR shall deliver, all applicable Equipment, Software and data, and facilities that house
12 such items as AGENCIES may direct. AGENCIES shall also have the right to complete the Work with
13 CONTRACTOR's Subcontractors and CONTRACTOR shall assign such subcontracts as AGENCIES
14 direct. AGENCIES, as part of their right to complete the Work, may take possession of and use, and
15 CONTRACTOR shall be required to deliver to AGENCIES, any or all of the materials, plants, tools,
16 Equipment, Hardware, supplies and property of every kind, provided, purchased, maintained, leased,
17 owned, or rented by CONTRACTOR in performing the Work, including but not limited to all technical
18 specifications, drawings, source code, and object code placed into Escrow. AGENCIES may make
19 available such escrowed materials to third parties, along with third party licenses and Software, and/or
20 procure other materials, plant, tools, Equipment, and supplies for purposes of performing the Work.
21 AGENCIES may charge CONTRACTOR and CONTRACTOR shall be liable to AGENCIES for the
22 expense of said labor, materials, plant, tools, Equipment, supplies and property reasonably necessary
23 in performing or completing the Work.

24 2. If AGENCIES declare an Event of Default, CONTRACTOR shall be liable for those
25 damages provided herein resulting from the default, including but not limited to:

- 26 a. Losses as defined in Article 20, Risk of Loss;

b. The difference between the actual costs incurred by AGENCIES in completing the Work and the compensation AGENCIES would otherwise have paid CONTRACTOR under this AGREEMENT for completing such Work;

c. Liquidated damages,

d. Actual damages.

The CONTRACTOR shall remain liable for any other liabilities and claims related to CONTRACTOR's default. All damages and costs may be deducted and paid out of any monies due from AGENCIES to CONTRACTOR.

D. If an Event of Default occurs, CONTRACTOR and any Surety shall be jointly and severally liable to AGENCIES for all losses and damages incurred by AGENCIES. Upon the occurrence of an Event of Default and for so long as it occurs, AGENCIES may withhold all or any portion of further payments to CONTRACTOR until the date that AGENCIES accept the Project as complete at which time AGENCIES will determine if CONTRACTOR is entitled to any further payments. AGENCIES will deduct, from any moneys due or which become due CONTRACTOR or its surety, all costs and charges incurred by AGENCIES, including attorneys, accountants and expert witness fees and costs. If AGENCIES' losses or damages exceed payments owing CONTRACTOR, then CONTRACTOR and its Surety shall be liable and pay such amount to AGENCIES within ten (10) Calendar Days of AGENCIES' written demand. If CONTRACTOR or its Surety fail to pay such demand within such timeframe, AGENCIES may collect interest thereon at the lessor of 10% per annum or the maximum rate allowed under State law from the date of the written demand.

E. In the event that it is later determined that the AGREEMENT was terminated upon grounds which did not justify a termination for Event of Default, such termination shall be deemed a termination for convenience pursuant to Article 22, Termination for Convenience.

F. Performance by Surety: Upon receipt of a demand from AGENCIES requiring Surety to complete the Work, Surety shall diligently and promptly take charge of the Work and complete this AGREEMENT pursuant to its terms at its own expense, receiving the balance of the funds due

CONTRACTOR, minus any permissible deductions under this AGREEMENT. In the event AGENCIES undertake to complete the Work with its own forces or by way of contract, all costs incurred by AGENCIES shall be deducted from the amounts due or may become due to CONTRACTOR. If such expense exceeds the sum payable under this AGREEMENT, then CONTRACTOR and Surety shall be jointly and severally liable for the amount of the excess expense up to the amount of the Performance Bond in existence at the time this AGREEMENT is terminated.

ARTICLE 22. TERMINATION FOR CONVENIENCE

AGENCIES may terminate this AGREEMENT for their convenience at any time in whole or in part, by giving CONTRACTOR written Notice thereof. AGENCIES shall terminate by delivering to CONTRACTOR a written Notice of Termination for Convenience specifying the extent of termination and its effective date. Upon termination, CONTRACTOR shall discontinue performance of all or that portion of Work, as set forth in such Notice and AGENCIES shall pay CONTRACTOR its allowable costs incurred through the effective date of termination, and those allowable costs determined by AGENCIES to be reasonably necessary to effect such termination. Thereafter, CONTRACTOR shall have no further claims against AGENCIES under this Agreement.

ARTICLE 23. ACCEPTANCE

A. BOS Acceptance of Implementation Phase

1. The phases of the Project are set forth in Article 8, Start and Phases of Work.
2. AGENCIES, in their sole discretion, may grant BOS Acceptance of the Implementation Phase if they deem that the Work in the Implementation Phase is substantially complete, and the following conditions have been met:
 - a. CONTRACTOR has passed Commissioning and On-Site Integration Test, and Go-Live has been Approved in accordance with the Scope of Work and Requirements;
 - b. CONTRACTOR has substantially passed and has been given conditional Approval of the BOS Acceptance test; and
 - c. CONTRACTOR has committed to completing remaining punch list items

and provided proof to AGENCIES' satisfaction thereof.

3. AGENCIES shall issue a written Notice of BOS Acceptance for the Implementation Phase upon satisfaction of the conditions listed above in items 2a through 2c. The occurrence of BOS Acceptance shall not relieve CONTRACTOR of any of its continuing obligations hereunder.

B. Final Acceptance of Implementation Phase

Final Acceptance of an Implementation Phase shall be deemed to have occurred when all of the following conditions have been met:

1. CONTRACTOR has provided a Final Acceptance letter certification to close out the Implementation Phase. The certification shall include but not be limited to: total costs associated with the Implementation Phase, date of Work completion for the phase and any additional required information contained in items 2 through 8 below:

2. Any and all punch list items have been satisfactorily completed and Approved by AGENCIES and final Approval of the Acceptance Test, has been granted by AGENCIES;

3. Escrowed Software has been delivered to AGENCIES in accordance with the Escrow Agreement;

4. CONTRACTOR has delivered and AGENCIES have Approved all Deliverables, including As-Built Documentation/Drawings, as defined in the Scope of Work and Requirements;

5. An affidavit has been delivered to AGENCIES signed by CONTRACTOR, stating all debts and claims of Suppliers and Subcontractors have been paid and/or settled;

6. All CONTRACTOR claims for the Implementation Phase are deemed to be resolved by AGENCIES, and CONTRACTOR has submitted a statement that no such requests or disputes will be applied for; any and all claims under this AGREEMENT are resolved, and that no such claims will be made;

7. All of CONTRACTOR's other obligations, including payment of liquidated damages, under the Implementation Phase shall have been satisfied in full or waived in writing by AGENCIES;

8. AGENCIES shall have delivered to CONTRACTOR a Notice of Final Acceptance

for the phase.

C. Closeout of Operations and Maintenance Phase and Contract

Closeout of the Operations and Maintenance Phase and AGREEMENT shall be deemed to have occurred when all of the following conditions have been met:

1. The CONTRACTOR shall provide a letter certification to close out the Operations and Maintenance Phase and the AGREEMENT. The certification shall include but not be limited to total costs associated with the phase, date of phase completion and any additional required information contained in items 2 through 10 below;

2. Delivery by CONTRACTOR and Approval by AGENCIES of all Deliverables, including As-Built Documentation/Drawings, as defined in the Scope of Work and Requirements;

3. CONTRACTOR has met all transition and succession requirements pursuant to this AGREEMENT and the Scope of Work and Requirements;

4. All licenses and leases subject to transfer or assignment to AGENCIES have been transferred or assigned;

5. Any and all CONTRACTOR action items associated with the phase have been satisfactorily completed and Approved by AGENCIES;

6. An affidavit has been delivered to AGENCIES signed by CONTRACTOR, stating all debts and claims of Suppliers and Subcontractors have been paid and/or settled;

7. All CONTRACTOR claims for the phase are deemed to be resolved by AGENCIES, and CONTRACTOR has submitted a statement that no such requests or disputes will be applied for; any and all claims under this AGREEMENT are resolved, and that no such claims will be made;

8. The CONTRACTOR shall provide AGENCIES with all required materials, fixtures, furnishings, Equipment and Software; documentation and manuals, either owned by or licensed to AGENCIES, pursuant to this AGREEMENT. All such materials have been verified by AGENCIES to be in good working order;

9. All of CONTRACTOR's other obligations under the Operations and Maintenance

1 Phase, including liquidated damages, shall have been satisfied in full or waived in writing by
2 AGENCIES; and

3 10. AGENCIES shall have delivered to CONTRACTOR a Notice of Closeout for the
4 phase and the Contract.

5 D. AGENCIES' beneficial use of the Deliverables during any phase prior to AGREEMENT
6 closeout shall not constitute Acceptance of any Deliverable, nor shall such use give rise to a claim for
7 equitable adjustment.

8 **ARTICLE 24. INSPECTION**

9 A. All Work, Sites, and Facilities shall be subject to inspection, monitoring, and testing by
10 AGENCIES at all reasonable times. Any inspection, test or Approval is for the sole benefit of AGENCIES
11 and shall not relieve CONTRACTOR of the responsibility of providing quality control measures to assure
12 that the Work strictly complies with requirements of this AGREEMENT. No inspection, test or Approval
13 by AGENCIES shall be construed as constituting or implying Acceptance unless all criteria for
14 Acceptance have been met in accordance with Article 23, Acceptance. Inspection, test or Approval shall
15 not relieve CONTRACTOR of responsibility for damage to or loss in accordance with Article 20, Risk of
16 Loss, nor in any way affect the continuing rights of AGENCIES after Acceptance of the completed Work.

17 B. CONTRACTOR shall furnish promptly, without additional charge, all facilities, labor,
18 Equipment and material reasonably needed for performing inspection and testing in a safe and
19 convenient manner as may be required by AGENCIES and as further set forth in the Scope of Work and
20 Requirements. All inspections and tests by AGENCIES shall be performed in such manner as to not
21 unnecessarily delay the Work. AGENCIES reserve the right to charge to CONTRACTOR any additional
22 cost of inspection or test when material or workmanship is not ready at the time specified by
23 CONTRACTOR for inspection or test or when re-inspection or retest is necessitated by prior rejection.

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ARTICLE 25. INTELLECTUAL PROPERTY

A. Project Intellectual Property.

1. CONTRACTOR acknowledges and agrees that all Intellectual Property authored, created, invented under this AGREEMENT and/or for the purposes of the Project, in any medium, is either owned by AGENCIES or specially ordered or commissioned by AGENCIES, including works made for hire in accordance with Section 101 of the Copyright Act of the United States ("Project Intellectual Property"). CONTRACTOR hereby irrevocably and exclusively assigns to AGENCIES, immediately upon creation, authorship, development or invention of the Project Intellectual Property and without any restriction or condition precedent, (i) all rights, title and interest in and to such Intellectual Property and (ii) physical possession and all rights, title and interest in any executable code and all Source Code, programmer notes, and other documentation and other relevant Software (collectively, the "IP Materials") To perfect or register AGENCIES' Intellectual Property rights under this Section, CONTRACTOR agrees to execute such further documents and to do such further acts as may be necessary to perfect, register, or enforce AGENCIES's ownership of such rights, in whole or in part. If CONTRACTOR fails or refuses to execute any such documents, CONTRACTOR hereby appoints AGENCIES as CONTRACTOR's attorney-in-fact (this appointment to be irrevocable and a power coupled with an interest) to act on CONTRACTOR's behalf and to execute such documents. AGENCIES hereby grant to CONTRACTOR a limited, non-exclusive license to use, exploit, manufacture, distribute, reproduce, adapt and display AGENCIES Intellectual Property developed and owned by AGENCIES independently of this AGREEMENT ("AGENCIES Intellectual Property") and Project Intellectual Property, solely in connection with and limited to: (a) incorporation of relevant Intellectual Property into the Project or Work; (b) performance, provision, furnishing and discharge of the Work; and (c) licensing to other entities (to the extent required for interoperability). Except as provided in this Article 25, no Intellectual Property rights of AGENCIES, including the AGENCIES' name and other trademarks, are granted to CONTRACTOR and all other rights are reserved to AGENCIES. All rights granted in this Article shall terminate at the expiration of the Term.

2. CONTRACTOR shall deliver to AGENCIES all AGENCIES Materials, documents, results and related materials created in the development of Project Intellectual Property as soon as (i) incorporated into Project, or any Deliverable, Work, service(s), and/or Software, including any Upgrades or Updates, (ii) required by the Agreement or Scope of Work and Requirements, or (iii) reasonably practicable, provided that all such IP Materials, shall be delivered to AGENCIES not later than the effective termination date of this AGREEMENT, including expiration date of the Term.

B. Contractor Intellectual Property.

1. CONTRACTOR hereby grants to AGENCIES an irrevocable, perpetual, non-exclusive, transferable (solely to an AGENCIES assignee or successor in interest), fully paid-up right and license to use, execute, perform, sublicense, distribute, reproduce, adapt, display, and prepare derivative works of the Contractor Intellectual Property in connection with the Project, or any Deliverable, Work, service(s), and/or Software, including any Upgrades or Updates. CONTRACTOR Intellectual Property shall mean Intellectual Property authored, created or invented by CONTRACTOR either (a) prior to the Effective Date or (b) independently of this AGREEMENT. The rights granted herein shall survive the termination, expiration or cancellation of this AGREEMENT or any rights related thereto.

2. CONTRACTOR shall identify and disclose all CONTRACTOR Intellectual Property required by, incorporated in or integrated into the Project, or any Deliverable, Work, service(s), and/or Software, including any Upgrades or Updates, including (when reasonably available): full and specific information detailing Intellectual Property claimed, date of authorship, creation and/or invention, date of application(s), application number(s) and registering entity(ies), date of registration(s), registration number(s) and registering entity(ies), if any, and owner including person or entity name and address. Subject to the Intellectual Property deposit requirements of Article 27, Contractor shall not be required to identify or disclose Contractor Intellectual Property only to the extent that doing so would eliminate or substantially limit the legal protections for such Intellectual Property.

C. Third Party Intellectual Property.

1 1. CONTRACTOR shall secure license(s) in the name of AGENCIES to use, execute,
2 perform, sublicense, distribute, reproduce, adapt, display, and prepare derivative works of the Third-
3 Party Intellectual Property in connection with the Project, or any Deliverable, Work, Service(s), and/or
4 Software, including any Upgrades or Updates, including a representation and warranty that the Third
5 Party Intellectual Property does not infringe the rights, including Intellectual Property rights, of any
6 other person or entity. Third Party Intellectual Property shall mean Intellectual Property owned by any
7 person or entity unrelated to CONTRACTOR which is incorporated into the Project, Work or service(s).
8 AGENCIES shall review and Approve, in their sole discretion, any license(s) pursuant to this Article
9 and in no event shall CONTRACTOR incorporate Third-Party Intellectual Property into the Project, or
10 any Deliverable, Work, service(s), and/or Software, including any Upgrades or Updates without first
11 securing such licenses and subject to AGENCIES' prior review and Approval.

12 2. CONTRACTOR shall identify and disclose to AGENCIES all Third-Party Intellectual
13 Property contained, or included, (i) in the Project Intellectual Property or (ii) in the Project, or any
14 Deliverable, Work, service(s), and/or Software, including any Upgrades or Updates, including (when
15 reasonably available): full and specific information detailing Intellectual Property claimed; date of
16 authorship, creation and/or invention; date of application(s); application number(s) and registering
17 entity(ies); date of registration(s), registration number(s) and registering entity(ies), if any, and owner,
18 including person or entity name and address.

19 3. Contractor shall obtain from each owner of the Third-Party Intellectual Property
20 prior consent to have the relevant Third-Party Intellectual Property deposited into an Escrow in
21 accordance with Article 26, Intellectual Property Escrows, or, to the extent the owner of the relevant
22 Third-Party Intellectual Property has not provided such consent, obtain AGENCIES' prior written
23 Approval for a waiver of this requirement.

24 4. CONTRACTOR shall not incorporate Third-Party Intellectual Property into the
25 Project without first obtaining (a) the licenses described in Article 25.C.1 and (b) consent for the
26 delivery or deposit of IP Materials from each owner of the Third-Party Intellectual Property or such

1 requirement is waived by AGENCIES in accordance with Article 25.C.3. The rights granted in Article
2 25.C.1 shall survive the termination, expiration or cancellation of this AGREEMENT or any rights
3 related thereto.

4 D. Delivery of IP Materials. Contractor shall deliver Contractor and Third-Party IP Materials into
5 Escrow in accordance with Article 26, Intellectual Property Escrow and Article 27, Escrow Agreement
6 Dates.

7 E. Payments Inclusive. CONTRACTOR acknowledges and agrees that the payments provided
8 for in Article 10 include all royalties, fees, costs and expenses arising from or related to the Project
9 Intellectual Property, including without limitation any fees pursuant to Articles 25, 26, and 27.

10 CONTRACTOR acknowledges that AGENCIES are public agencies subject to state laws, including the
11 California Public Records Act (California Government Code §6250, et seq.) (the "Public Records Act").
12 Notwithstanding any designation or communication by CONTRACTOR that any CONTRACTOR
13 information or materials provided under this Agreement may be confidential or proprietary,
14 CONTRACTOR consents in advance to AGENCIES' disclosure of the same if AGENCIES determine that
15 they, or either of the AGENCIES, are required by law to disclose. Such disclosure shall not constitute a
16 breach of this Agreement. AGENCIES will provide reasonable notice to CONTRACTOR of any request
17 for disclosure of information or materials identified by CONTRACTOR as "confidential", "trade secret" or
18 "proprietary" or otherwise considered confidential under this Agreement. If CONTRACTOR wishes to
19 oppose any such disclosure, CONTRACTOR shall assume the opposition to such disclosure(s) or shall
20 indemnify AGENCIES for all costs incurred (including attorneys' fees and court costs) in connection with
21 any opposition to such disclosure.

22 **ARTICLE 26. INTELLECTUAL PROPERTY ESCROW**

23 A. CONTRACTOR acknowledges that AGENCIES must be ensured access to Contractor and
24 Third- Party IP Materials at any time, and must be assured that such IP Materials are delivered to Escrow
25 pursuant to this Article 26 and Article 27.

26 B. CONTRACTOR or an owner of Third-Party Intellectual Property shall deposit the IP Materials

1 with an Escrow Agent. AGENCIES and CONTRACTOR shall: (a) mutually select an escrow company
2 (Escrow Agent") engaged in the business of receiving and maintaining escrows of software source code
3 and/or other intellectual property; (b) establish an Escrow (with the Escrow Agent on terms and conditions
4 substantially similar terms and conditions to the Form of Intellectual Property Escrow AGREEMENT,
5 Form F, for the deposit, retention, upkeep, authentication, confirmation and release of IP Materials to
6 AGENCIES pursuant to this AGREEMENT; (c) adhere to the deposit dates set forth in Article 27 and (c)
7 determine a process for releasing from Escrow the IP Materials to be delivered to AGENCIES pursuant
8 to this AGREEMENT. Intellectual Property Escrows also may include Affiliates as parties and may
9 include deposit of their Intellectual Property.

10 C. CONTRACTOR shall be responsible for the fees and costs of establishing and maintaining
11 the Escrow Agent for the Term. AGENCIES shall be responsible for all costs arising in connection with
12 the maintenance of the Escrow referred to in this Article beyond the Term.

13 D. The Escrow shall survive expiration or earlier termination of this AGREEMENT regardless of
14 the reason.

15 E. The IP Materials shall be released and delivered to AGENCIES in any of the following
16 circumstances:

- 17 1. This AGREEMENT is terminated for any reason including expiration of the Term;
- 18 2. A voluntary or involuntary bankruptcy or insolvency of CONTRACTOR occurs;
- 19 3. CONTRACTOR is dissolved or liquidated;
- 20 4. CONTRACTOR or any third party, (a) fails or ceases to provide services as necessary
21 to permit continued use of any such Intellectual Property or (b) otherwise ceases to engage in the ordinary
22 course of the business of manufacturing, supplying, maintaining and servicing the IP Materials pursuant
23 to a license or any sublicense thereof.

24 F. Any Contractor Intellectual Property released and delivered to AGENCIES under the terms of
25 this AGREEMENT shall be deemed confidential and not disclosed or distributed to any third party without
26 a non-disclosure agreement to ensure such confidentiality. Without limiting the license grants provided

1 in this Article and subject to the confidentiality obligations of this Agreement, any and all rights to
2 Contractor Intellectual Property granted to AGENCIES shall include a right to sublicense and disclose
3 such Contractor Intellectual Property to any AGENCIES employee, agent, representative, vendor,
4 assignee or affiliate in its sole discretion.

5 **ARTICLE 27. ESCROW AGREEMENT**

6 A. Within forty-five (45) Calendar Days from the AGREEMENT Effective Date, AGENCIES, an
7 Escrow Agent, and CONTRACTOR shall enter into an Escrow AGREEMENT as set forth in Article 26.

8 B. AGENCIES may at their sole discretion require an initial deposit of the complete Contractor
9 IP Materials within sixty (60) Calendar Days of AGREEMENT Effective Date.

10 C. Additional deposits shall be made to the Escrow within ten (10) Calendar Days of Go-Live
11 and within ten (10) Calendar Days of BOS Acceptance.

12 D. In the event CONTRACTOR updates, revises or supplements any of the IP Materials
13 deposited or revises, supplements or creates additional information, CONTRACTOR shall deposit a
14 complete set of such revised, supplemented, or additional information with the above-named Escrow
15 Agent as soon as reasonably practicable, but in no event more than thirty (30) Calendar Days of such
16 revision, supplement or addition and shall indicate with each deposit what information and which
17 documents and pages have been revised, supplemented or added since the last deposit.

18 E. CONTRACTOR shall make deposits of the complete set of IP Materials current at the time of
19 deposit, at a minimum of semi-annually if no deposits provided for in paragraph D have occurred within
20 the relevant preceding six-month period.

21 **ARTICLE 28. WARRANTIES**

22 A. CONTRACTOR warrants the following:

23 1. All guarantees and warranties made herein are fully enforceable by AGENCIES acting
24 in their own names.

25 2. The Equipment and Software CONTRACTOR installs and places into operation will
26 not result in any damage to existing facilities, walls or other parts of adjacent, abutting or overhead

buildings, railroads, bridges, roadway, structures, surfaces, or cause any physical or mental injury to any person.

3. All provided Equipment is new unless otherwise specifically Approved by AGENCIES.

B. BOS Warranty

CONTRACTOR shall provide a full BOS warranty on all System Equipment, Hardware and Software beginning from the date of Go-Live through the end of the Operations and Maintenance Phase hereinafter referred to as "BOS Warranty Period", warranting that the full BOS shall be and perform as set forth in the Scope of Work and Requirements. During the BOS Warranty Period, AGENCIES shall not be charged for any Maintenance or Software Support Services Work performed on the BOS, other than Maintenance payments identified in the Price Proposal, or Work identified as excluded in the Scope of Work and Requirements. Such excluded Work shall include Work related to Force Majeure events or Changes requested by AGENCIES, pursuant to Article 16, Changes. Notwithstanding the foregoing, in the period after installation and prior to the commencement of the Operations and Maintenance Phase, all Maintenance and Software Support Services Work shall also be at CONTRACTOR's sole expense. Further, at all times during the Term, CONTRACTOR shall promptly repair or replace, at its own cost or expense, including, the cost of removal, installation and transportation, any unit of Equipment, Hardware, or Software, or part or component thereof, which proves defective or otherwise fails to comply with the Scope of Work and Requirements. All fees associated with restocking cancelled or returned orders shall be the responsibility of CONTRACTOR.

C. Software Warranties

CONTRACTOR warrants that the Software needed to operate the BOS shall be as set forth in the Scope of Work and Requirements, and that commencing upon Go-Live, and for the Term, the Software and each module or component and function thereof shall:

1. Be free from defects in materials and workmanship under normal use;
2. Remain in good working order, be free from viruses; trap doors; disabling devices; Trojan horses; disabling codes; back doors; time bombs; drop-dead devices; worms, and any other type

1 of malicious or damaging code or other technology or means which has the ability to interfere with the
2 use of the BOS by AGENCIES or its designees, or permit access to AGENCIES' computing systems
3 without its knowledge or contrary to its system connectivity policies or procedures;

4 3. Not interfere with toll collection;

5 4. Operate and function fully, properly and in conformity with the warranties in this
6 AGREEMENT, and

7 5. Operate fully and correctly in the operating environment identified in the Scope of
8 Work and Requirements, including by means of the full and correct performance of the Software, and all
9 Updates, Enhancements, or new releases of the Software, on or in connection with the Equipment, any
10 Updates, Enhancements, or new releases to such Equipment, and any other Software used by or in
11 connection with any such Equipment;

12 6. Be fully compatible and interface completely and effectively with the Equipment,
13 including other Software programs provided to AGENCIES hereunder, such that the Software and other
14 Equipment combined will perform and continuously attain the standards identified in the Scope of Work
15 and Requirements, and

16 7. Accurately direct the Operation of the BOS, as required by the Scope of Work and
17 Requirements, and the descriptions, specifications and documentation set forth therein and herein.

18 D. Software Maintenance Work

19 During the Term, CONTRACTOR shall, at its own cost and expense, provide Maintenance and
20 Software Support Services Work to keep the Software in good working order and free from defects such
21 that the BOS shall perform in accordance with this AGREEMENT, including Scope of Work and
22 Requirements.

23 1. CONTRACTOR shall provide technical support and shall, at its own cost and
24 expense, timely remedy any failure, malfunction, defect or non-conformity in Software, in accordance with
25 the Scope of Work and Requirements.

26 2. CONTRACTOR shall provide AGENCIES the most current release of all Software

1 available on the date of delivery of the BOS Software to maintain optimum performance pursuant to this
2 AGREEMENT.

3 3. CONTRACTOR shall promptly provide Notice to AGENCIES in writing of any defects
4 or malfunctions in the Software, regardless of the source of information. CONTRACTOR shall promptly
5 correct all defects or malfunctions in the Software or documentation discovered and shall promptly
6 provide AGENCIES with corrected copies of same, without additional charge. If Software can only be
7 corrected in conjunction with additional or revised Hardware, CONTRACTOR shall provide such
8 Hardware to AGENCIES, and the cost of such Hardware shall be borne by CONTRACTOR, and not be
9 reimbursable by AGENCIES.

10 a. No Updates, Upgrades, or Enhancements shall adversely affect the
11 performance of the BOS, in whole or in part, or result in any failure to meet any Requirements of the
12 Scope of Work and Requirements.

13 b. CONTRACTOR shall ensure continued satisfactory performance by the
14 current operating system of the Software in accordance with all provisions of this Article.

15 c. In the event that the Software does not satisfy the conditions of performance
16 set forth in the Scope of Work and Requirements, CONTRACTOR is obligated to promptly repair or
17 replace such Software at CONTRACTOR's sole cost and expense or, if expressly agreed to in writing
18 by AGENCIES, provide different Equipment or Software, and perform Work required to attain the
19 Performance Measures and conditions of performance set forth in the Scope of Work and
20 Requirements.

21 d. In the event of any defect in the media upon which any tangible portions of
22 the Software are provided, CONTRACTOR shall provide AGENCIES with a new copy of the Software.

23 e. Without releasing CONTRACTOR from its obligations for warranty (during
24 an applicable warranty period), support or Maintenance of the Software, AGENCIES shall have the
25 right to use and maintain versions of the Software provided by CONTRACTOR which are one or more
26 levels behind the most current version of such Software and to refuse to install any Updates,

Upgrades, or Enhancements if, in AGENCIES' discretion, installation of such Updates, Upgrades, or Enhancements would interfere with its Operations. CONTRACTOR shall not, however, be responsible or liable for the effect of any error or defect in the version of the Software then in use by AGENCIES that occurs after CONTRACTOR has both (i) offered, by written Notice to AGENCIES, a suitable correction (by way of Update, Upgrade, Enhancement or otherwise) of such error or defect and (ii) provided AGENCIES a reasonable opportunity to implement such existing correction, provided that CONTRACTOR establishes that neither the implementation nor the use of such correction would limit, interfere with, adversely affect, or materially alter the interoperability, functionality or quality of the BOS.

E. Third-Party Warranties

CONTRACTOR shall assign to AGENCIES, and AGENCIES shall have the benefit of, any and all Subcontractors' and Suppliers' warranties and representations with respect to the BOS and Work provided hereunder. The CONTRACTOR's agreements with Subcontractors, Suppliers and any other third parties shall require that such parties (a) consent to the assignment of such warranties and representations to AGENCIES, (b) agree to the enforcement of such warranties and representations by AGENCIES in their own names, and (c) furnish to AGENCIES, the warranties set forth herein. The CONTRACTOR shall obtain maintenance agreements for third-party Software. CONTRACTOR shall secure such maintenance agreements for the same duration and upon the same terms and conditions as the Maintenance provisions between CONTRACTOR and AGENCIES. At AGENCIES' request, CONTRACTOR shall provide supporting documentation which confirms that these warranties are enforceable in AGENCIES' names.

F. Data Accuracy

CONTRACTOR acknowledges and understands that the data and/or information it collects, processes and/or provides to AGENCIES will be relied upon by AGENCIES and other persons or entities that are now or will in the future be under agreement with AGENCIES in accordance with the Scope of Work and Requirements. Should information derived and provided by CONTRACTOR be inaccurate and

1 cause AGENCIES to incur damages or additional expenses, AGENCIES shall notify CONTRACTOR and
2 CONTRACTOR shall immediately place any applicable insurance carrier on notice of a potential claim.
3 This provision shall survive termination of this AGREEMENT, and CONTRACTOR agrees to waive any
4 applicable limitation periods consistent with enforcement of this provision.

5 G. Neither Acceptance of the Implementation Phase of the BOS and Work or payment therefor,
6 nor any provision in this AGREEMENT, nor partial or entire use of the BOS and Work by AGENCIES
7 shall constitute Approval of Work not performed in accordance with this AGREEMENT or relieve
8 CONTRACTOR of liability for any express or implied warranties or responsibility for faulty materials or
9 workmanship.

10 H. The obligations set forth in this Article shall be in addition to any other warranty obligations
11 set forth in this AGREEMENT. All provisions of this Article, referring or relating to obligations to be
12 performed pursuant to an applicable warranty period that extends beyond the Term, shall survive the
13 expiration, cancellation or earlier termination of this AGREEMENT.

14 **ARTICLE 29. ADDITIONAL CONTRACTOR WARRANTIES**

15 A. CONTRACTOR warrants that it is fully experienced and properly qualified, licensed,
16 equipped, organized and financed to perform all the Work.

17 B. CONTRACTOR warrants that all Work will be provided in accordance with this AGREEMENT.

18 C. CONTRACTOR warrants that (1) all Work performed and all Equipment, Software, Hardware
19 and other material provided under this AGREEMENT by CONTRACTOR or any of its Subcontractors or
20 Suppliers conforms to the requirements herein and is free of any defects; and (2) Equipment and
21 Hardware furnished by CONTRACTOR or any of its Subcontractors or Suppliers at any tier, shall be of
22 modern design, in good working condition and fit for use of its intended purpose. For any Equipment or
23 Hardware purchased within twelve (12) months of the end of the Term, such warranty shall continue for
24 a minimum period of one (1) year from the end of the Term, or the manufacturer's standard warranty,
25 whichever is longer.

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ARTICLE 30. DEFECTS/FAILURE

A. Upon discovery of any defect or failure in the Software, Equipment or Hardware, CONTRACTOR shall promptly provide AGENCIES Notice thereof and repair or replace same at its sole cost and expense. If expressly agreed to in writing by AGENCIES, CONTRACTOR may provide different Software, Equipment or Hardware. In the event of any defect in the media upon which any tangible portions of the Software are provided, CONTRACTOR shall provide AGENCIES with a new copy of the Software. In addition, CONTRACTOR shall remedy at its own expense any damage to AGENCIES owned or controlled real or personal property, when that damage arises out of such defects.

B. In the event AGENCIES determine there is a defect or failure in the Software, Equipment or Hardware or damage to AGENCIES' property, AGENCIES shall notify CONTRACTOR in writing within a reasonable time after the discovery of same. CONTRACTOR has seven (7) Calendar Days from receipt of Notice from AGENCIES to respond and specify how CONTRACTOR will remedy the failure, defect, or damage. If AGENCIES are not satisfied with CONTRACTOR'S proposed remedy, CONTRACTOR and AGENCIES shall, within three (3) Business Days, meet and mutually agree when and how CONTRACTOR shall remedy such violation. In the case of an emergency requiring immediate corrective action, CONTRACTOR shall implement such action necessary to remedy the defect, failure or damage as required by AGENCIES.

C. Should CONTRACTOR fail to remedy any failure, defect or damage within a reasonable time to the reasonable satisfaction of AGENCIES, AGENCIES shall have the right with their own forces or other contractors, to replace, repair or otherwise remedy such failure, defect or damage at CONTRACTOR's expense. In addition, CONTRACTOR shall be liable for all damages arising out its failure to promptly remedy the defect, failure or damage.

D. CONTRACTOR agrees to promptly remedy, at no cost to AGENCIES, any defects determined by AGENCIES to be Pervasive, such that if AGENCIES determine that any Equipment, component, sub-component or Software is experiencing continued or repetitive failure that requires constant replacement or repair, CONTRACTOR agrees that a "Pervasive Defect" shall be deemed to be

1 present in such affected types of Equipment or Software. CONTRACTOR shall perform an investigation
2 of the issues and prepare a report that includes a reason for the failure and its plan for resolution. This
3 report and a resolution plan shall be produced by CONTRACTOR and submitted to AGENCIES within
4 seven (7) Calendar Days of notification by AGENCIES of the Pervasive Defect. The report and plan shall
5 include the investigation results, remediation steps performed to-date, and a plan and schedule to
6 complete the Pervasive Defect resolution. Such resolution shall be in a manner satisfactory to AGENCIES
7 and that permanently addresses the problem and corrects the defect so that such defect does not
8 continue to occur. The status shall be updated and briefed in weekly meetings until resolution is complete.
9 Notwithstanding the foregoing, AGENCIES do not waive any of their other rights enumerated in
10 paragraphs A through C of this article.

11 E. The obligations set forth in this Article shall be in addition to any warranty obligations set forth
12 in this Agreement. The provisions of this Article shall survive the expiration or earlier termination of this
13 Agreement.

14 F. All Subcontractors, manufacturers, and Suppliers' warranties, expressed or implied,
15 respecting any Work, Equipment, Software or Hardware furnished hereunder, shall, at the direction of
16 AGENCIES, be enforced by CONTRACTOR for the benefit of AGENCIES.

17 G. If directed by AGENCIES, CONTRACTOR shall require any such warranties to be executed
18 in writing to AGENCIES.

19 H. Any equipment, hardware or software furnished by AGENCIES and accepted by
20 CONTRACTOR, shall be considered Equipment, Hardware or Software, as defined in Exhibit A,
21 Definitions and Acronyms, and subject to all of CONTRACTOR's obligations as set forth in this
22 AGREEMENT.

23 I. The obligations and remedies specified in this Article shall not limit AGENCIES' rights and
24 remedies provided elsewhere in this AGREEMENT.

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ARTICLE 31. COORDINATION WITH OTHER CONTRACTORS

A. During the course of this AGREEMENT, AGENCIES, or either of them, may undertake or award other agreements for additional work, including but not limited to separate agreements with different contractors. It is critical that close coordination with interfacing contractors occurs throughout the Term. CONTRACTOR shall fully cooperate with AGENCIES and their contractors and carefully integrate and schedule its own Work with said contractors.

B. CONTRACTOR shall be required to perform Work in the AUTHORITY's Anaheim CSC Facility, which is leased by the AUTHORITY. CONTRACTOR shall be subject to and shall comply with the terms of such lease and shall coordinate with the landlord in all aspects of its occupancy and operations at the Facility. The terms of the lease for the Anaheim CSC Facility are incorporated by reference to this Agreement.

C. CONTRACTOR shall also be required to perform Work at the COMMISSION's Corona CSC Facility and shall execute a license agreement with the COMMISSION for its use of the Facility and shall be subject to and comply with the terms of the license agreement. CONTRACTOR shall be expected to cooperate with the I-15 Express Lanes operator who also occupies this Facility. The terms of the license for the Corona CSC Facility are incorporated by reference to this Agreement.

D. Should problems in coordination with other contractor(s) occur CONTRACTOR shall make AGENCIES aware of these problems immediately and shall take steps to address the problems and mitigate any delays or additional costs.

E. CONTRACTOR shall cooperate with other contractors or forces performing construction or work of any other nature within or adjacent to Sites specified in order to avoid any delay or hindrance to such other contractors or forces. AGENCIES reserve the right to perform other or additional work at or near the Site (including material sources) at any time, by the use of other forces.

F. CONTRACTOR shall be responsible to other contractor(s) for all damage to work, to persons or property caused by CONTRACTOR, its Subcontractor(s), or its Suppliers, and losses caused by unnecessary delays or failure to finish the Work within the time specified for completion. Any damage to

1 Work, persons or property of CONTRACTOR by other contractors shall be the responsibility of other
2 contractor(s) and CONTRACTOR shall have no claim against AGENCIES or Caltrans.

3 G. CONTRACTOR's Responsibility for design. Upon Approval of the design, including any
4 related infrastructure, construction or installation design, CONTRACTOR shall assume responsibility for
5 the design to the extent that if the Work is installed as designed and the BOS or CSC does not meet the
6 Performance Measures of this AGREEMENT, CONTRACTOR shall be responsible for the costs of
7 redesign, rework and additional Equipment costs and any other costs associated with the sub-standard
8 performance.

9 **ARTICLE 32. CONTRACTOR INSPECTION OF FACILITIES**

10 CONTRACTOR acknowledges that it has investigated and satisfied itself as to the conditions of
11 the Sites including, but not restricted to, building locations, Facilities, conditions, size, layout, parking,
12 transportation, disposal, availability of labor, roads, and other similar physical conditions at the Sites, and
13 the character of Equipment and Facilities needed preliminary to and during prosecution of the Work. Any
14 failure by CONTRACTOR to acquaint itself with the available information will not relieve it from
15 responsibility for the difficulty or cost of successfully performing the Work. AGENCIES assume no
16 responsibility for any conclusions or interpretations made by CONTRACTOR on the basis of the
17 information made available by AGENCIES.

18 **ARTICLE 33. REQUIREMENTS FOR REGISTRATION OF DESIGNERS**

19 All design and engineering work furnished by CONTRACTOR shall be performed by or under the
20 supervision of persons licensed to practice architecture, engineering or surveying (as applicable) in the
21 State of California, by personnel who are careful, skilled, experienced and competent in their respective
22 trades or professions, who are professionally qualified to perform the Work in accordance with the
23 AGREEMENT and who shall assume professional responsibility for the accuracy and completeness of
24 the design documents and construction documents prepared or checked by them.

25 **ARTICLE 34. SEISMIC SAFETY REQUIREMENTS**

26 CONTRACTOR agrees to ensure that all Work performed under this AGREEMENT including

work performed by a Subcontractor is in compliance with the standards required by applicable seismic safety regulations.

ARTICLE 35. ASSIGNMENTS AND SUBCONTRACTS

A. Neither this AGREEMENT nor any interest herein nor claim hereunder may be assigned by CONTRACTOR either voluntarily or by operation of law, nor may all or any part of this AGREEMENT be subcontracted by CONTRACTOR, without the prior written consent of AGENCIES. Consent by AGENCIES shall not be deemed to relieve CONTRACTOR of its obligations to comply fully with all terms and conditions of this AGREEMENT.

B. AGENCIES hereby consent to CONTRACTOR's subcontracting portions of the Scope of Work and Requirements to the parties identified below with their subcontract amounts described below. CONTRACTOR shall include in the subcontract agreement the stipulation that CONTRACTOR, not AGENCIES, is solely responsible for payment to the Subcontractor for the amounts owing, and that the Subcontractor shall have no claim, and shall take no action, against AGENCIES, its officers, directors, employees or sureties for nonpayment by CONTRACTOR.

Subcontractor Name/Addresses	Subcontractor Function	Subcontractor Amount
		\$.00
		\$.00
		\$.00

C. CONTRACTOR shall engage the Collection Agency(ies) and Merchant Services Provider identified in paragraph B as Subcontractors. The subcontracts between CONTRACTOR and such Collection Agency(ies) and Merchant Service Provider shall name the AGENCIES as intended third-party beneficiaries or alternatively as parties to the subcontract, as determined by AGENCIES, and shall incorporate requirements for Collection Agency and Merchant Services Provider set forth in the Scope of Work and Requirements. Notwithstanding paragraph B of this Article, payment to the Collections Agency and Merchant Services Provider shall be as set forth in the subcontracts for this Work.

1 D. AGENCIES shall have the right to Approve all of the terms and conditions of the Collection
2 Agency and the Merchant Service Provider agreements prior to execution.

3 **ARTICLE 36. TRANSITION AND SUCCESSION**

4 A. CONTRACTOR acknowledges that the Work and Scope of Work and Requirements are vital
5 to AGENCIES and must be continued without interruption. Upon termination of the AGREEMENT, a
6 successor(s) (AGENCIES or a new contractor(s)) may be responsible for providing this Work. The
7 CONTRACTOR agrees to exercise its best efforts and cooperation to affect an orderly and efficient
8 transition to a successor(s).

9 B. Upon expiration of the Term or termination of the AGREEMENT, whether for cause or
10 convenience, CONTRACTOR shall accomplish a complete transition of the Work being terminated from
11 CONTRACTOR and any Subcontractors to the successor(s) without any interruption of or adverse impact
12 on the Work or any other services provided by third parties (the "Disentanglement"). CONTRACTOR
13 shall cooperate with AGENCIES and any successor(s) and otherwise promptly take all steps required to
14 assist AGENCIES in effecting a complete Disentanglement. CONTRACTOR shall provide all information
15 regarding the Work or as otherwise needed for Disentanglement, including data conversion, files,
16 interface specifications, training staff assuming responsibility, and related professional services, to the
17 successor(s), all included as a part of its Price Proposal. CONTRACTOR shall provide for the prompt
18 and orderly conclusion of all Work, as AGENCIES may direct, including completion or partial completion
19 of projects, documentation of Work in process, and other measures to assure an orderly transition to the
20 successor(s). All Work related to Disentanglement as may reasonably be requested by AGENCIES shall
21 be deemed a part of the base Work and shall be performed by CONTRACTOR at no additional cost to
22 AGENCIES. CONTRACTOR's obligation to provide the Work shall not cease until Disentanglement is
23 satisfactory to AGENCIES, including the performance by CONTRACTOR of all asset-transfers and other
24 obligations of CONTRACTOR provided in this section, has been completed.

25 C. The Disentanglement process shall begin on any of the following dates: (i) the date prior to
26 end of AGREEMENT, which AGENCIES have provided in their Notice that CONTRACTOR should

1 commence Disentanglement (ii) the date, prior to the end of any initial or extended term when AGENCIES
2 provide Notice to CONTRACTOR that AGENCIES elected not to extend pursuant to the AGREEMENT,
3 or (ii) the date at which any Termination Notice is delivered, if AGENCIES elect to terminate any or all of
4 the Work pursuant to this AGREEMENT.

5 D. CONTRACTOR and AGENCIES shall discuss in good faith a plan for executing
6 CONTRACTOR's Disentanglement obligations and for the transfer of Work in accordance with the Scope
7 of Work and Requirements, however, CONTRACTOR's obligation under this AGREEMENT to provide
8 all Work necessary for Disentanglement shall not be lessened in any respect. CONTRACTOR shall
9 develop with the new provider or AGENCIES' staff, an End of Agreement Transition Plan as set forth in
10 the Scope of Work and Requirements describing the nature and extent of transition Work required. This
11 End of Agreement Transition Plan and dates for transferring responsibilities for each division of Work
12 shall be submitted within thirty (30) Calendar Days of Notice provided under Paragraph B of this Article.
13 Upon completion of AGENCIES review, all parties will meet and resolve any additional
14 requirements/differences. CONTRACTOR shall be required to perform its Disentanglement obligations
15 on an expedited basis, as determined by AGENCIES, if AGENCIES terminate the AGREEMENT for
16 cause.

17 E. Specific Obligations

18 The Disentanglement shall include the performance of the following specific obligations:

19 1. Third-Party Authorizations:

20 Without limiting the obligations of CONTRACTOR pursuant to any other clause herein,
21 CONTRACTOR shall, subject to the terms of any third-party contracts and licenses provided by
22 CONTRACTOR, procure at no charge to AGENCIES any third-party authorizations necessary to grant
23 AGENCIES the use and benefit of any third-party contracts and licenses between CONTRACTOR and
24 third-party contractors used to provide the Work, pending their assignment to AGENCIES.

25 2. Transfer of Assets

26 CONTRACTOR shall convey to AGENCIES all AGENCIES' assets in

1 CONTRACTOR's possession and other CONTRACTOR Project assets as AGENCIES may select, or
2 dispose of such assets in accordance with the Article 42, Disposition of Equipment.

3 3. Transfer of Leases, Licenses, and Contracts

4 CONTRACTOR, at its expense, shall convey or assign to AGENCIES such leases,
5 licenses, and other contracts used by CONTRACTOR, AGENCIES, or any other person in connection
6 with the Work, as AGENCIES may select. CONTRACTOR's obligation described herein, shall include
7 CONTRACTOR's performance of all obligations under such leases, licenses, and other contracts to be
8 performed by it with respect to periods prior to the date of conveyance or assignment and CONTRACTOR
9 shall reimburse AGENCIES for any losses resulting from any claim that CONTRACTOR did not perform
10 any such obligations. CONTRACTOR shall also obtain for AGENCIES the right, upon Disentanglement,
11 to obtain maintenance (including all Enhancements and Upgrades) and support with respect to the assets
12 that are the subject of such leases and licenses at the price at which, and for so long as, such
13 maintenance and support is made commercially available to other customers of such third parties whose
14 consent is being procured hereunder. CONTRACTOR shall transfer intellectual property in accordance
15 with Articles 25, 26, and 27.

16 4. Delivery of Documentation

17 CONTRACTOR shall deliver to AGENCIES all documentation and data related to
18 AGENCIES, including AGENCIES' data held by CONTRACTOR. CONTRACTOR shall retain all data
19 necessary to comply with the requirements for record retention and audit established in this
20 AGREEMENT.

21 5. Hiring of CONTRACTOR Employees

22 CONTRACTOR shall cooperate with and assist (and shall cause its Subcontractors
23 to cooperate with and assist) AGENCIES in offering employment, at the sole discretion of AGENCIES, to
24 any or all skilled or specially trained CONTRACTOR employees (and to any or all employees of
25 CONTRACTOR's Subcontractors) that are substantially involved in the provision of Work whether such
26 offers are made at the time of, after, or in anticipation of expiration or termination of the AGREEMENT

term.

6. Maintenance of Assets

CONTRACTOR shall maintain all Hardware, Software, Systems, networks, technologies, and other assets utilized in providing Work to AGENCIES (including leased and licensed assets) in good condition and in such locations and configurations as to be readily identifiable and transferable to AGENCIES or its designees in accordance with the provisions of this AGREEMENT; additionally, CONTRACTOR shall insure such assets in accordance with this AGREEMENT.

7. Continued Provision of Staffing

CONTRACTOR shall provide sufficient experienced personnel in each division of Work during the entire transition period to ensure that the Work is maintained at the level of proficiency required by the AGREEMENT.

F. CONTRACTOR shall remain obligated to provide Work at AGENCIES' request for up to twelve (12) months after completion and Approval of the Disentanglement Work enumerated above, and AGENCIES shall pay for this Work at the rates set forth in the AGREEMENT for additional services. This paragraph G expressly survives the Term.

ARTICLE 37. CONFLICT OF INTEREST

A. CONTRACTOR agrees to avoid organizational conflicts of interest. An organizational conflict of interest means that due to other activities, relationships or contracts, CONTRACTOR is unable, or potentially unable to render impartial assistance or advice to AGENCIES; CONTRACTOR's objectivity in performing the Work identified in the Scope of Work and Requirements is or might be otherwise impaired; CONTRACTOR has an unfair competitive advantage, or is engaging in activities that AGENCIES consider adverse to the 91 Express Lanes. CONTRACTOR is obligated to fully disclose to AGENCIES in writing Conflict of Interest issues with AUTHORITY and/or COMMISSION as soon as they are known to CONTRACTOR. All disclosures must be submitted in writing to AGENCIES pursuant to the Notice provision herein. This disclosure requirement is for the entire Term.

B. CONTRACTOR shall disclose any financial interests it may have in the 91 Express Lanes,

1 and any other financial, business, or other relationship with AUTHORITY or COMMISSION that may have
2 an impact upon this AGREEMENT, or any ensuing AUTHORITY or COMMISSION planned or current
3 project. CONTRACTOR shall also list current clients who may have a financial interest in the outcome of
4 this AGREEMENT, or any ensuing AUTHORITY or COMMISSION project, which will follow.

5 C. CONTRACTOR hereby certifies that it and its Subcontractors do not now have, nor shall
6 acquire any financial or business interest that would conflict with the performance of Work under this
7 AGREEMENT.

8 **ARTICLE 38. PROHIBITION**

9 A. The following prohibitions apply to this AGREEMENT:

10 1. The firm, including all subcontractors (at any tier), regardless of the level of service
11 provided by said subcontractor(s), awarded the program management services contract for the
12 Authority's Highway Delivery Department, may not participate in this Agreement as CONTRACTOR or a
13 Subcontractor.

14 2. The firm, including all Subcontractors (at any tier), regardless of the level of service
15 provided by said subcontractor(s), awarded the program management consultant contract for the
16 Authority's I-405 Improvement Project, may not participate in this AGREEMENT as CONTRACTOR or a
17 Subcontractor.

18 B. The evaluation of team composition with regards to conflicts of interest will be done on a case-
19 by-case basis.

20 **ARTICLE 39. CODE OF CONDUCT**

21 CONTRACTOR agrees to comply with AUTHORITY Code of Conduct as it relates to third-
22 party contracts, which is hereby referenced and by this reference is incorporated herein.
23 CONTRACTOR agrees to include these requirements in all of its subcontracts.

24 **ARTICLE 40. HEALTH AND SAFETY REQUIREMENTS**

25 CONTRACTOR shall comply with all the requirements set forth in Exhibit I, titled "Level 1
26 HEALTH, SAFETY and ENVIRONMENTAL SPECIFICATIONS." As used therein, "Consultant" shall

mean "CONTRACTOR," and "Sub-consultant" shall mean "Subcontractor."

ARTICLE 41. CONTRACTOR PURCHASED EQUIPMENT

A. Prior authorization, in writing, by AGENCIES' Project Managers shall be required before CONTRACTOR enters into any unbudgeted purchase order, or subcontract exceeding \$5,000.00 for supplies and/or Equipment. CONTRACTOR shall provide an evaluation of the necessity or desirability of incurring such costs.

B. For purchase of any item, service or consulting work not covered in CONTRACTOR's Price Proposal and exceeding \$5,000.00, three (3) competitive quotations must be submitted with the request, or the absence of bidding (sole source) must be adequately justified.

C. Any Equipment purchased as a result of this AGREEMENT is subject to the following: CONTRACTOR shall maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having useful life of at least two years and an acquisition cost of \$5,000.00 or more. Upon the expiration or termination of this AGREEMENT, AGENCIES may elect to retain the Equipment, require CONTRACTOR to decommission and dispose of the Equipment at no cost to AGENCIES, or require CONTRACTOR to sell such Equipment at the best price obtainable at a public or private sale, and credit AGENCIES in an amount equal to the sale price. AGENCIES may also elect to allow CONTRACTOR to keep the Equipment, in which case AGENCIES and CONTRACTOR shall come to agreement on a mutually acceptable fair market value price. AGENCIES may elect to require CONTRACTOR to hire an appraiser at CONTRACTOR's cost, in order to determine a basis for a fair market value price. If CONTRACTOR sells the Equipment, the terms and conditions of such sale must be Approved in advance by AGENCY.

D. All Subcontracts entered into as a result of this AGREEMENT shall contain all of the provisions of this Article.

ARTICLE 42. DISPOSITION OF EQUIPMENT-BOS AS A SERVICE

A. AGENCIES shall have the right to assume all required licenses, leases and service agreements to allow uninterrupted use, operation and maintenance of the Equipment and services the

1 same terms as those provided to CONTRACTOR for such services.

2 B. CONTRACTOR will effect the transfer of title, or assignment of leases, service agreements
3 and licenses, as applicable, as a part of the Disentanglement Work and AGREEMENT closeout.

4 **ARTICLE 43. OWNERSHIP AND HANDLING OF REPORTS, DOCUMENTS, AND DATA**

5 A. The originals of all letters, documents, reports and other products and data produced under
6 this AGREEMENT shall upon request be delivered to, and shall be the sole property of AGENCIES.
7 Deliverables shall be deemed works made for hire and all rights in copyright therein shall be retained by
8 AGENCIES. Except as otherwise provided herein, copies of the foregoing may be made for
9 CONTRACTOR's records but shall not be furnished to others without written authorization from
10 AGENCIES.

11 B. All ideas, memoranda, specifications, plans, manufacturing, procedures, drawings,
12 descriptions, and all other written information submitted to CONTRACTOR in connection with the
13 performance of this AGREEMENT shall not, without prior written Approval of AGENCIES, be used for
14 any purposes other than the performance under this AGREEMENT, nor be disclosed to an entity not
15 connected with such performance.

16 C. CONTRACTOR acknowledges and agrees that privacy of 91 Express Lanes customers is of
17 paramount importance to AGENCIES and its customers. CONTRACTOR shall comply with AGENCIES'
18 privacy policies and all applicable Governmental Rules, and Business Rules pertaining to confidentiality,
19 privacy, handling, retention, reporting and disclosure, and limiting or restricting collection, use or
20 dissemination of PII and shall not sell, transfer, disclose or otherwise use such information for any purpose
21 other than in performance of its duties under this AGREEMENT. CONTRACTOR shall indemnify
22 AGENCIES with regard to any failure to comply with this Article 43 in accordance with Article 14,
23 Indemnification.

24 D. CONTRACTOR may only use AGENCIES Data to perform functions as defined by this
25 Agreement, including the Scope of Work and Requirements. Access to AGENCIES Data shall be
26 restricted only to CONTRACTOR's and its Subcontractor's personnel who need the AGENCIES Data to

1 perform their duties in the performance of this Agreement, and shall not, at any time, be disclosed or
2 divulged except as expressly provided herein.

3 E. CONTRACTOR shall inform all of its officers, employees, agents, and Subcontractors
4 providing Work of the confidentiality provisions of this Agreement. CONTRACTOR will require that any
5 CONTRACTOR personnel, Subcontractor(s) or other third party with whom CONTRACTOR will disclose
6 or disseminate AGENCIES Data, in whole or in part, execute and adhere to an agreement incorporating
7 the provisions of this Section. Nothing in this Article shall allow CONTRACTOR to disclose or disseminate
8 AGENCIES Data without prior written consent and CONTRACTOR shall deliver to AGENCIES all
9 executed agreements with Subcontractors prior to any authorized disclosure and dissemination.

10 F. Subject to Paragraph C in the case of PII, CONTRACTOR may use such information for
11 Violation processing and collection and shall release the PII to:

- 12 1. AGENCIES, upon request, for the purposes of carrying out this AGREEMENT or
13 functions with respect to the 91 Express Lanes Project; and
- 14 2. California DMV, other state DMVs, or other third parties Approved in advance by
15 AGENCIES to receive PII as necessary to assist in collection of debt or payments owing.

16 G. CONTRACTOR shall implement physical, electronic and managerial safeguards to prevent
17 unauthorized access to PII and to implement destruction of records containing PII in accordance with the
18 records retention provisions of this AGREEMENT.

19 H. CONTRACTOR shall not use AGENCIES' names, logos, branding, photographs of the
20 Project, or any other publicity pertaining to the Project in any professional publication, magazine, trade
21 paper, newspaper, seminar or other medium without the express written consent of AGENCIES.

22 I. No copies, sketches, computer graphics or graphs, including graphic artwork, are to be
23 released by CONTRACTOR to any other person or agency except after prior written Approval by
24 AGENCIES, except as necessary for the performance of Work under this AGREEMENT. All press
25 releases, including graphic display information to be published in newspapers, magazines, etc., are to be
26 handled only by AGENCIES unless otherwise agreed to by CONTRACTOR and AGENCIES.

ARTICLE 44. AUDIT AND INSPECTION OF RECORDS

A. CONTRACTOR shall provide AGENCIES, or other agents of AGENCIES access to CONTRACTOR's accounting books, records, payroll documents and facilities, as AGENCIES deem necessary. CONTRACTOR shall maintain such books, records, data and documents in accordance with generally accepted accounting principles and shall clearly identify and make such items readily accessible to such parties during CONTRACTOR's performance hereunder and for a period of four (4) years from the date of final payment by AGENCIES. CONTRACTOR shall permit any of the foregoing parties to reproduce documents by any means whatsoever or to copy excerpts and transcriptions as reasonably necessary. The State of California, State Auditor, AUTHORITY, COMMISSION, their duly authorized representatives or other agents of AUTHORITY and COMMISSION shall have access to any books, records, payroll documents, facilities and documents of CONTRACTOR and its certified public accountants (CPA) work papers that are pertinent to the AGREEMENT and indirect cost rate (ICR) for audit, examinations, excerpts, and transactions, and copies thereof shall be furnished if requested.

B. AGENCIES' right to audit books and records directly related to this AGREEMENT shall also extend to all Subcontractors performing Work identified in this AGREEMENT, and such language must be included in CONTRACTOR's agreements with its Subcontractors, resulting from this AGREEMENT.

ARTICLE 45. PROHIBITION ON PROVIDING ADVOCACY SERVICES

CONTRACTOR and all Subcontractors performing Work under this AGREEMENT, shall be prohibited from concurrently representing or lobbying for any other party competing for a contract with AGENCIES, either as a prime contractor or subcontractor. Failure to refrain from such representation may result in termination of this AGREEMENT.

ARTICLE 46. FEDERAL, STATE AND LOCAL LAWS

A. CONTRACTOR warrants that in the performance of this AGREEMENT, it shall comply with all applicable federal, state and local laws, statutes and ordinances and all lawful orders, rules and regulations promulgated thereunder.

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ARTICLE 47. PREVAILING WAGE RATES

A. California Labor Code Requirements. CONTRACTOR is aware of the requirements of California Labor Code Sections 1720 et seq. and 1770 et seq., as well as California Code of Regulations Title 8, Section 16000, et seq. ("Prevailing Wage Laws), which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. If the Work, or any portion thereof, is being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is \$1,000 or more, CONTRACTOR agrees to fully comply with such Prevailing Wage Laws, if applicable. CONTRACTOR shall defend, indemnify and hold AGENCIES, their elected officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. It is the intent of the parties to effectuate the requirements of sections 1771, 1774, 1775, 1776, 1777.5, 1813, and 1815 of the Labor Code within this Agreement, and CONTRACTOR shall therefore comply with such Labor Code sections to the fullest extent required by law. It shall be mandatory upon the CONTRACTOR and all Subcontractors to comply with all California Labor Code provisions, which include but are not limited to prevailing wages, employment of apprentices, hours of labor and debarment of contractors and subcontractors.

B. If the Work, or any part thereof, is being performed as part of an applicable "public works" or "maintenance" project, then pursuant to Labor Code Sections 1725.5 and 1771.1, CONTRACTOR and all Subcontractors performing such services must be registered with the Department of Industrial Relations. CONTRACTOR shall maintain registration during the Term and require the same of any subcontractors, as applicable.

C. The Project may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be CONTRACTOR's sole responsibility to comply with all applicable registration and labor compliance requirements. Any stop orders issued by the Department of Industrial Relations against CONTRACTOR or any Subcontractor that affect CONTRACTOR's

performance of the Work, including any delay, shall be CONTRACTOR's sole responsibility. Any delay arising out of or resulting from such stop orders shall be considered CONTRACTOR caused delay and shall not be compensable by AGENCIES. CONTRACTOR shall defend, indemnify and hold AGENCIES, their officials, officers, employees and agents free and harmless from any claim or liability arising out of stop orders issued by the Department of Industrial Relations against CONTRACTOR or any subcontractor.

D. CONTRACTOR agrees to insert or cause to be inserted the preceding clause in all subcontracts, which provide for workers to perform work hereunder regardless of the subcontractor tier.

ARTICLE 48. EQUAL EMPLOYMENT OPPORTUNITY

In connection with its performance under this AGREEMENT, CONTRACTOR shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age or national origin. CONTRACTOR shall take affirmative action to ensure that applicants are employed, and that employees are treated during their employment, without regard to their race, religion, color, sex, age or national origin. Such actions shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

ARTICLE 49. NOTICE OF LABOR DISPUTE

Whenever CONTRACTOR has acknowledged that any actual or potential labor dispute may delay its performance under this AGREEMENT, CONTRACTOR shall immediately notify and submit all relevant information to AGENCIES. CONTRACTOR shall insert the substance of this entire clause in any subcontract hereunder as to which a labor dispute may delay performance under this AGREEMENT. However, any Subcontractor need give notice and information only to its next higher-tier Subcontractor.

ARTICLE 50. CLEANING UP

A. CONTRACTOR shall at all times keep the Facilities and Sites, including storage areas used by it, clean and free from accumulations of waste material or rubbish. Upon completion of the Work, CONTRACTOR shall leave the Facilities and Sites in a clean, neat and workmanlike condition satisfactory

1 to AGENCIES.

2 B. After completion of all Work on the Project, and before making application for Final
3 Acceptance of the Work in the Implementation Phase and Project closeout in the Operations and
4 Maintenance Phase, Project closeout by AGENCIES will be withheld until CONTRACTOR has
5 satisfactorily complied with the foregoing requirements for final cleanup of the Project.

6 C. Full compensation for conforming to the provisions in this Article, not otherwise provided for,
7 shall be considered as included in price of this AGREEMENT and no additional compensation will be
8 allowed therefore.

9 **ARTICLE 51. PROHIBITED INTERESTS**

10 CONTRACTOR covenants that, for the Term, no director, member, officer or employee of
11 AGENCIES or COMMISSION during his/her tenure in office or for one (1) year thereafter, shall have any
12 interest, direct or indirect, in this Agreement or the proceeds thereof.

13 **ARTICLE 52. COVENANT AGAINST CONTINGENT FEES**

14 CONTRACTOR warrants that he/she has not employed or retained any company or person, other
15 than a bona fide employee working for CONTRACTOR; to solicit or secure this AGREEMENT; and that
16 he/she has not paid or agreed to pay any company or person other than a bona fide employee, any fee,
17 commission, percentage, brokerage fee, gift or any other consideration, contingent upon or resulting from
18 the award, or formation of this AGREEMENT. For breach or violation of this warranty, AGENCIES shall
19 have the right to annul this AGREEMENT without liability, or at its discretion; to deduct from the
20 AGREEMENT price or consideration, or otherwise recover the full amount of such fee, commission,
21 percentage, brokerage fee, gift, or contingent fee.

22 **ARTICLE 53. FORCE MAJEURE**

23 Any Party shall be excused from performing its obligations under this AGREEMENT during the
24 time and to the extent that it is prevented from performing by an unforeseeable cause that is beyond its
25 control, including but not limited to: any incidence of fire, flood, or other acts of God; labor strikes,
26 commandeering of material, products, plants or facilities by the federal, state or local government; national

1 fuel shortage; or a material act or omission by another Party; when satisfactory evidence of such cause
2 is presented to the other Party; and provided further that such nonperformance is unforeseeable, beyond
3 the control and is not due in part or whole, to the fault or negligence of the Party not performing and could
4 not have been avoided or limited in the exercise of due diligence by such Party.

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This AGREEMENT shall be made effective upon execution by all parties.

IN WITNESS WHEREOF, the parties hereto have caused this OCTA AGREEMENT No. C-9-1177 (RCTC AGREEMENT No. 19-31-059-00) to be executed as of the date of the last signature below.

ORANGE COUNTY TRANSPORTATION

RIVERSIDE COUNTY TRANSPORTATION

AGENCIES

COMMISSION

By: _____
Darrell E. Johnson
Chief Executive Officer

By: _____
Anne Mayer
Executive Officer

Date: _____

Date: _____

APPROVED AS TO FORM:

APPROVED AS TO FORM:

By: _____
James M. Donich
General Counsel

By: _____
Best Best & Krieger LLP
General Counsel

Date: _____

Date: _____

APPROVED:

By: _____
Kirk Avila
General Manager Express Lanes
Programs

Date: _____

CONTRACTOR

By: _____

Its: _____

Date: _____

Attest: _____

By: _____

Its: _____

Date: _____

Exhibit B

Scope of Work

DRAFT

CONTENTS

1. INTRODUCTION..... 1

1.1. PROJECT TIMING..... 1

1.2. 91 EXPRESS LANES 2

1.3. BACK OFFICE SYSTEMS AND CSC OPERATIONS STATEMENT OF WORK..... 2

1.3.1. Contractor Implementation Phase Responsibilities..... 4

1.3.2. Contractor Operations and Maintenance Phase Services 4

1.4. PHASE II SERVICES 6

1.5. FUTURE FUNCTIONALITY..... 6

1.6. SERVICES NOT INCLUDED..... 6

1.7. PASS THROUGH COSTS 7

FIGURES

FIGURE 1-1. 91 EXPRESS LANES TOLLING LAYOUT..... 2

1. INTRODUCTION

The Orange County Transportation Authority ("OCTA") and the Riverside County Transportation Commission ("RCTC"), together "the Agencies," operate Express Lanes on SR 91 which run through both counties. The Express Lanes Back Office System (BOS) and Customer Service Center (CSC) Operations Project (Project) is for the implementation, operations and maintenance of a new BOS and CSC Operations for the 91 Express Lanes. This Scope of Work includes the Project's technical requirements to be performed by the toll systems integrator (Contractor).

An existing Back Office System (BOS) and Customer Service Center (CSC) Operations Agreement, which ends June 2021, supports the 91 Express Lanes via a single system and operations approach for both OCTA and RCTC, and is managed by the Existing BOS and CSC Provider. This procurement will replace the existing system, maintenance and operations. To minimize disruption to the current toll operations, close coordination and transition planning will be required to limit disruption.

Likewise, Kapsch TrafficCom USA is separately contracted, but serves as the Electronic Toll and Traffic Management (ETTM) Systems contractor for both OCTA and RCTC on the 91 Express Lanes. The ETTM System will provide fully formed Transponder and Image-Based Trips to the BOS. Substantial testing and both technical and operational coordination will be required throughout the Term of the Agreement.

The Corona CSC building will serve as the main facility for the Contractor's direct customer service staff and CSC Operations, as well as the location of one of the 91 Express Lane's customer walk-in centers (WICs). The Anaheim Processing Center provides space for the Contractor's administrative staff, data center and traffic operations center. A second WIC is located at the existing OCTA Store, which is adjacent to OCTA offices in the City of Orange and will be staffed by OCTA employees, but operationally serviced by the Contractor.

All definitions and acronyms for this Scope of Work and Requirements are included as Exhibit XX.

The Requirements are numbered to track Contractual obligations and any changes which may occur during the Project. Many of the Requirements contain underlying lists of specific items and required database fields. The intent of these "including but not limited to" lists is to indicate the intent and scope of the requirement. During design the naming and number of items and fields will vary; however, all items and fields shall be addressed by the BOS unless the Contractor is formally relieved of the requirement by the Agencies.

1.1. Project Timing

Related tolling projects and timing include:

- The existing OCTA and RCTC BOS and CSC Operations Agreement ends in June 2021 and the new BOS the CSC Operations shall be fully implemented prior to that date.
- RCTC has selected Kapsch TrafficCom USA to provide the replacement RCTC 91 ETTM System. That replacement is anticipated to be completed prior to the release of this RFP.
- OCTA has selected Kapsch TrafficCom USA to provide the replacement OCTA 91 ETTM System. That replacement is anticipated to be completed prior to Go-Live of the Contractor's BOS and CSC Operations.

1.2. 91 Express Lanes

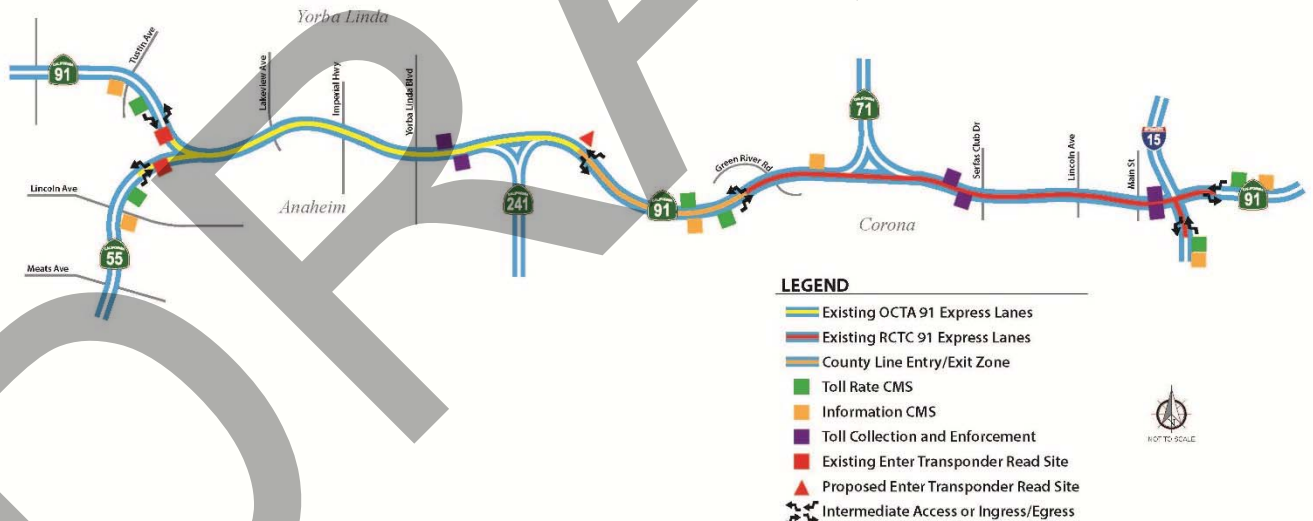
The 91 Express Lanes facility is a four-lane, 18-mile tolled facility built in the median of California's Riverside Freeway (SR-91) between the Costa Mesa Freeway (SR-55) in Anaheim and Interstate 15 (I-15) interchange in Riverside to serve the booming population traveling between Inland Empire and Orange County, see Figure 1. The OCTA 91 Express Lanes were built in 1995 and the RCTC 91 Express Lanes recently opened in 2017.

The 91 Express Lanes use congestion management pricing to adjust tolls quarterly based on the number of vehicles. Motorists pay tolls through the use of a convenient FasTrak® transponder that automatically deducts the toll amount from a prepaid account. Motorists can use a FasTrak® transponder issued by any of the California toll operators or obtain one by opening an account through the 91 Express Lanes CSC.

Account holders in a vehicle with three or more people and other special customer classifications travel toll free except during peak times when, carpools of three or more receive a 50% discount on the posted toll. Eligible carpools (3+) with a transponder-equipped vehicle must drive in the dedicated HOV 3+ lane when approaching the toll gantries in each section of the Express Lanes (Orange County and Riverside County) to receive the discount.

Figure 1-1: 91 Express Lanes Conceptual Tolling Layout identifies the entry/exit and Toll Zone locations for the 91 Express Lanes.

Figure 1-1. 91 Express Lanes Tolling Layout



1.3. Back Office Systems and CSC Operations Statement of Work

In this Request for Proposals (RFP), the Agencies are requesting written technical and Price Proposals from qualified Proposing Contractors ("Offerors") interested in providing BOS and CSC Operations. The Project includes the design, development, testing, installation, operations and

maintenance of a complete and integrated BOS and CSC Operations that meets the needs of OCTA and RCTC Express Lanes as specified in the Statement of Work and Requirements.

The BOS functionality which shall be provided, implemented, operated and maintained by the Contractor include but are not limited to the following:

- Account management;
- Self-Service Website;
- Self-Service Mobile Application;
- Customer communications and Notifications;
- Case management;
- Payment processing;
- Transponder inventory management;
- Financial management, reconciliation and settlement;
- Initial CSC-based collections;
- Collections Placements;
- Printing and mailing;
- Violation processing;
- Vehicle Registration Hold processing;
- Post-contact customer satisfaction surveys;
- Searches and reporting;
- Data warehouse;
- BOS and CSC performance monitoring and reporting;
- Interfaces to all Third-Party Service Providers and Business Partners; and
- Interface monitoring and reconciliation;

BOS Hardware, systems and services which shall be provided, implemented, operated and maintained by the Contractor include but are not limited to the following:

- BOS production environment;
- Multiple supporting computing environments;
- Desktop Environments;
- CSC equipment;
- Customer contact systems;
- Automatic Call Distribution (ACD), Interactive Voice Response (IVR) and telephony systems;
- Network equipment;
- Network and systems monitoring systems;
- Data center and other identified equipment;
- Disaster Recovery (DR) and Business Continuity systems; and
- Training systems.

Third-Party Services which shall be provided and managed by the Contractor include but are not limited to the following:

- Collections Agencies (two (2));
- Registered Owner Identification (ROV) Lookup Service Provider;
- Print/Mail House Provider (optional at Contractor's discretion);
- Lockbox Service Provider (optional at Contractor's discretion);
- Customer Satisfaction Survey Provider Subcontractor;
- Payment Card Industry (PCI) Qualified Security Assessor Services (or qualified Internal Security Assessor (ISA));

- Merchant Service Providers (two (2));
- Certified Disposal Service Provider;
- Armored Car Service Provider and
- Off-Site Data Storage Provider.

1.3.1. Contractor Implementation Phase Responsibilities

During the BOS and CSC Operations Implementation Phase (from Notice to Proceed until Go-Live of the BOS and CSC Operations) the Contractor shall be responsible for the following, including but not limited to:

- Staffing of all BOS support, CSC Operations and TOC personnel;
- Operational planning and transition of the existing operations;
- BOS implementation and testing;
- Facilitation and participation in meetings and coordination with the Agencies, the ETMM Systems Contractors and the Existing BOS and CSC Operations Contractor and existing and new Third-Party Service Providers and Business Partners;
- Existing and New Third-Party Service Providers and Business Partners Transition Services;
- Contractor required additional build-out/fit-out of the Agency-provided facilities;
- Provision of all additional Contractor required furniture and furnishing required for the CSCs;
- Provision of all required CSC office equipment;
- Development of all plans and documentation described herein;
- Development of all CSC standard operational procedures (SOPs);
- Compliance with all Security Standards;
- Compliance with all Approved plans;
- Development of all training material;
- Conducting training of all Contractor and Agencies' staff;
- Learning and adhering to the Agencies' processes, procedures, Business Rules and policies relative to Express Lanes operations and financial administration;
- Establishing direct processor agreements with California and Arizona DMVs;
- Demonstration of operational readiness; and
- Numerous other coordination, planning and preparation activities.

1.3.2. Contractor Operations and Maintenance Phase Services

After commencement of the Agencies' CSC Operations (the "Operations and Maintenance Phase"), the Contractor's Operational responsibilities include but are not limited to:

- Operational activities related to the functional use of the BOS:
 - Account establishment, maintenance and closures;
 - TOC management, monitoring and communication;
 - Customer service, including violation-related activities, via phone, mail, email, fax, text messaging, chat and in-person;
 - Provision of customer support for problems with customer interfaces;
 - Payment and refund processing;
 - Credit Card processing, including authorizations, refunds and reconciliation;
 - Production of all customer Notifications;
 - Inbound and outbound mail processing;
 - Return mail processing;
 - Violation payment processing;
 - Case creations and management;

- Document imaging of incoming work (such as, customer communications) and outgoing work (such as, scanning checks before deposit);
 - Use of skip tracing services to acquire updated mailing addresses;
 - Transponder inventory management, including customer order Fulfillment support, transponder recall and recycling;
 - Customer dispute processing;
 - Coordination and support with resolution of disputed tolls and other issues with Interoperable Agencies;
 - Initial CSC-based collections;
 - Coordination with Collection Agency pursuing payment of debts owed by individuals or businesses, including payment processing and reporting;
 - Coordination with the DMV(s) for registration suspensions and/or holds, as well as releases once tolls, fees, and other charges are paid;
 - California Franchise Tax Board Tax Intercept support;
 - Bankruptcy support and associated account updates;
 - Investigative Review and Hearing support;
 - Financial management and reporting separately for the Agencies;
 - Reporting for CTOC and the Western Regional Hub;
 - All transaction and financial reconciliation activities separately for the Agencies;
 - All interface reconciliation activities;
 - Compliance with all Security Standards;
 - BOS performance management and reporting;
 - CSC staff and process performance monitoring and reporting;
 - Adding/removing/modifying users in the BOS and modifying the user-configurable elements of the telephony system such as call queue routing and message on-hold selections and
 - Toll adjustment implementation.
- Operational activities not directly related to functional use of the BOS:
 - Complete BOS Operations and Maintenance and monitoring off all processes and interfaces;
 - Complete network and systems security monitoring and resolution of issues;
 - Compliance with all Security Standards;
 - Complete PCI compliance, monitoring and resolution of issues;
 - Disaster Recovery (DR) and Business Continuity management;
 - Complete BOS Software Maintenance and Support;
 - Enhancement and upgrades to the BOS per the Requirements;
 - Enhancements to the BOS at Agencies' direction;
 - Onsite technical support for Contractor's staff and Agencies' staff;
 - Monitoring and optimization of Registered Owner of Vehicle (ROV) identification processes;
 - Monitoring of incoming and outgoing mail services, including address correction and update;
 - CSC and WIC customer service staffing and operational management;
 - CSC Work processing and management;
 - CSC and WIC facility maintenance not covered by the Agencies (e.g. plant care, plumbing);
 - On-going recruitment and management of the personnel required to operate the CSC and meet the Requirements of this Agreement;
 - On-going training of all Contractor staff and Agencies' staff;

- Administration of Agency-provided building security and access systems;
- Physical security of the operations facilities, funds, personnel, and equipment;
- Payment Card Industry Data Security Standards (PCI DSS) compliance
- Provision of audit(s) performed by an independent Qualified Security Assessor (or qualified Internal Security Assessor (ISA);
- Compliance with all National Automated Clearing House Association (NACHA) requirements;
- Support for the Agencies' audits of BOS and CSC Operations;
- Management of Customer Satisfaction Survey information;
- Production and distribution of customer materials;
- Distribution of transponders, Velcro;
- Distribution of non-BOS generated customer notifications by mail;
- Annual SSAE 18 Type II performed by independent auditor;
- Paper document storage and destruction and records management;
- Quality Control (QC) and Quality Assurance (QA) activities for the CSC;
- Quality review of BOS-generated notifications;
- Quality review of occupancy processing using the ETTM System-provided tool;
- Quality review of image processing using the ETTM System-provided tool;
- Assist with internal/external audits;
- Assist with data collections/analysis stemming from litigation and
- Assist with insurance/risk management activities.

1.4. Phase II Services

The following services shall be included in Phase II of the Work which will commence after the BOS Acceptance. Optional items are at Agencies discretion to implement.

- Self-Service Mobile Application (optional);
- data warehouse (optional);
- data analytics/business intelligence (optional) and
- Collection Agencies direct access to BOS.

1.5. Future Functionality

The following functionality shall not be assumed for the base Agreement, but should be considered as potential future functionality:

- Occupancy Detection System (ODS) Integration;
- Integration with Money Service Provider;
- Customer invoicing prior to the violation process and
- Adherence to national Interoperability.

1.6. Services Not Included

The services procured under this Agreement **does not** include:

- ETTM Systems;
- Trip building;
- Image review services for the purpose of trip building (QA/QC reviews are required) and

- Provision of Retail Transponder Distribution Provider.

1.7. Pass Through Costs

The following items and Services shall be provided by the Contractor, with costs directly passed through to the Agencies:

- Postage;
- Skip-Tracing;
- Welcome Kits;
- Transponder Shipping Supplies;
- Domain Names and Uniform Resource Locators (URLs) and
- Facilities related incidental and permitting costs as directed by the Agencies.

Exhibit B

**Volume I: Project Management and
Controls**

CONTENTS

1. PROJECT MANAGEMENT	1
1.1. PROJECT MANAGEMENT AND CONTROL	1
1.2. PROJECT MANAGEMENT PLAN (PMP).....	1
1.3. COORDINATION	3
1.3.1. Coordination with ETTM System Contractors.....	3
1.3.2. Cooperation with Other Contractors and Providers	4
1.4. PROJECT MEETINGS.....	4
1.4.1. Project Reporting and Progress Meetings During Implementation Phase	5
1.5. QUALITY ASSURANCE PROGRAM	6
1.5.1. Control of Purchase.....	7
1.5.2. Visits to Contractor's Facilities.....	7
1.6. BASELINE IMPLEMENTATION SCHEDULE AND CONTRACT DELIVERABLES REQUIREMENTS LIST (CDRL)	8
2. STAFFING AND KEY TEAM PERSONNEL.....	10
2.1. GENERAL STAFFING REQUIREMENTS	10
2.2. KEY PERSONNEL.....	10
2.3. OTHER REQUIRED PERSONNEL	17
2.4. STAFF SELECTION REQUIREMENTS	17
3. SYSTEM DEVELOPMENT AND DESIGN REQUIREMENTS	20
3.1. SYSTEM DEVELOPMENT MEETINGS AND WORKSHOPS	20
3.2. BUSINESS RULES WORKSHOPS.....	20
3.3. SOFTWARE WALKTHROUGHS.....	21
3.4. REPORTS DESIGN WORKSHOPS.....	21
3.5. PERFORMANCE REPORTING WORKSHOPS.....	22
3.6. SYSTEM DETAILED DESIGN REVIEW MEETINGS AND WORKSHOPS.....	22
3.7. USE CASES WORKSHOPS.....	23
4. DOCUMENTATION	24
4.1. CONTRACTOR-DEVELOPED DOCUMENTATION REQUIREMENTS.....	24
4.2. DOCUMENTS.....	25
4.2.1. Quality Plan	25
4.2.2. Software Development Plan	27
4.2.3. Requirements Traceability Matrix.....	28
4.2.4. System Detailed Design Document (SDDD).....	28
4.2.5. Master Test Plan (MTP)	30
4.2.6. Individual Test Plan and Test Procedures.....	31
4.2.7. Implementation Plan and Related Documentation.....	33
4.2.8. Disaster Recovery Plan.....	33
4.2.9. Business Continuity Plan	34
4.2.10. Transition Plan.....	35
4.2.11. End of Agreement Transition Plan.....	39

4.2.12. Operations Plan	40
4.2.13. Standard Operations Procedures (SOPs).....	41
4.2.14. Staffing and Human Resource Management Plan.....	42
4.2.15. Reporting and Reconciliation Plan	43
4.2.16. Records.....	44
4.2.17. Management Reporting.....	45
4.2.18. Training Plan.....	47
4.2.19. Maintenance Plans.....	48
4.2.20. Third-Party Documentation	50
4.2.21. Manual Requirements.....	50
4.2.22. As-Built Documentation.....	53
4.3. OPERATIONS MOBILIZATION	54
5. TRAINING.....	56
5.1. TRAINING COURSES.....	57
5.1.1. System Operation Overview Course	57
5.1.2. Customer Service Representative Course.....	57
5.1.3. BOS Finance and Financial Controls Course.....	58
5.1.4. Operations Management Course	58
5.1.5. BOS Users Course.....	58
5.2. TRAINING MATERIALS.....	59
5.2.1. Instructor Guides	59
5.2.2. Training Aids.....	59
5.2.3. Student Workbook	60
5.3. SCHEDULING AND PREPARATION FOR TRAINING	60
6. TRANSITION REQUIREMENTS	61
6.1. SCHEDULE AND TRANSITION	61
6.2. TRANSITION FROM EXISTING BOS AND CSC OPERATIONS CONTRACTOR.....	61
6.3. ACCEPTANCE OF OPERATIONAL READINESS	61
6.4. END OF AGREEMENT TRANSITION	62
7. TESTING REQUIREMENTS.....	64
7.1. GENERAL	64
7.1.1. Testing Sequence and Logistics	65
7.2. REQUIRED TESTS.....	66
7.2.1. Unit Testing.....	66
7.2.2. System Integration Testing (SIT).....	67
7.2.3. User Acceptance Testing.....	68
7.2.4. Regression Testing	69
7.2.5. On-site Installation and Commissioning Testing, Data Migration, Transition and Go-Live.....	69
7.2.6. Operational and Acceptance Testing	70
7.3. BOS ACCEPTANCE.....	71
8. INSTALLATION REQUIREMENTS.....	72
8.1. INSTALLATION PROGRAM.....	72
8.2. COMPLIANCE TO STANDARDS.....	72
8.3. EQUIPMENT INSTALLATION REQUIREMENTS	73

8.4. IMPLEMENTATION CHECKLIST REVIEW AND CHECK-OFF..... 73

9. GENERAL MAINTENANCE AND SOFTWARE SUPPORT SERVICES REQUIREMENTS..... 74

9.1. OPERATIONS AND MAINTENANCE MEETINGS 74

9.1.1. Monthly Performance Review Meetings and Reporting..... 74

9.1.2. Monthly BOS and Operations Coordination Meetings 74

9.1.3. Weekly Coordination and Status Meeting with the ETTM System Contractors 75

9.1.4. Change Control Board Meetings 75

9.2. SAFETY 76

10. CONTRACT DELIVERABLES REQUIREMENTS LIST 77

TABLES

TABLE 2-1: KEY PERSONNEL..... 11

1. PROJECT MANAGEMENT

1.1. Project Management and Control

The Project is divided into two overlapping phases: The Implementation Phase (from Notice to Proceed until BOS Acceptance) and the Operations and Maintenance Phase (after commencement of CSC Operations through the end of the Agreement).

1	The Contractor shall provide all management, supervisory, financial and operations staff, including qualified management, professional, technical and clerical personnel, to professionally design and implement the BOS and operate and administer the Agencies' operations in a manner that meets all required performance criteria. The Contractor shall put in place the organizational structure and staffing required to meet these Requirements.
2	The Contractor shall perform and provide all services in accordance with all applicable laws, rules, regulations, ordinances and in compliance with all applicable Agency policies. All Plans and procedures prepared by the Contractor shall be Approved by the Agencies, as set forth in these Requirements.

1.2. Project Management Plan (PMP)

The Contractor shall develop and employ a Project Management Plan (PMP) in accordance with Project Management Institute (PMI) Project Management Body of Knowledge (PMBOK) latest edition that is sufficiently detailed to enable the Agencies to review and confirm that the Contractor has the necessary management, staff and controls in place to meet the Agreement Requirements

The PMP describes how the Contractor shall deliver, implement and manage the Project, including staffing, scheduling and communication procedures for controlling all correspondence, Submittals and other communications between the Contractor and the Agencies, as well as communications with other third-party entities. The PMP shall be in accordance with system engineering methodology wherever applicable.

3	The PMP shall include, but is not limited to:
	<ul style="list-style-type: none"> • Project scope and key Deliverables, tracked using a numbered Contract Deliverables Requirements List (CDRL); • a description of the staff management and organization of the Project; an organization chart; identification of Key Team Personnel and their associated responsibilities, and identification of the resources to be used in fulfilling the Requirements; • a description of Project planning, documenting and reporting methods to be utilized, both for use within the Contractor's staff and externally with the Agencies; • approach to issue management, including communication, escalation and resolution of Project issues with the Agencies; • approach to communication management, including meeting schedules and team meetings;

	<ul style="list-style-type: none"> the format of the Implementation Phase monthly progress report;
	<ul style="list-style-type: none"> inclusion of the Approved Baseline Implementation Schedule;
	<ul style="list-style-type: none"> a description of the process for reporting and tracking the Approved Baseline Implementation Schedule and Project performance;
	<ul style="list-style-type: none"> approach to change control management, consistent with Agreement Requirements, including a description of the process for documenting and submitting change requests, the Approval process and how the change control management approach will be integrated into day-to-day Project management;
	<ul style="list-style-type: none"> process for resolution if a change request scope and cost proposal is rejected by the Agencies;
	<ul style="list-style-type: none"> approach to document control, including utilizing the Contractor-provided Electronic Document Management System (EDMS) that is accessible to the Project team by username and password (the Agencies shall have the capability to download documents using this Software);
	<ul style="list-style-type: none"> approach to risk management, including communication, escalation and resolution of Project risks with the Agencies;
	<ul style="list-style-type: none"> approach to Quality Assurance and Quality Control;
	<ul style="list-style-type: none"> approach to Subcontractor management, including how issues with Subcontractors will be resolved in a timely manner;
	<ul style="list-style-type: none"> approach to procurement management which adheres to the Agencies' policies;
	<ul style="list-style-type: none"> approach to operational readiness including a Go-Live check list;
	<ul style="list-style-type: none"> documenting the invoice submission; invoice backup information; verification, and Approval process;
	<ul style="list-style-type: none"> a section with all Approved Project forms;
	<ul style="list-style-type: none"> approach to Project closeout and
	<ul style="list-style-type: none"> an emergency contact list.
4	The Contractor shall provide as a part of the PMP and then maintain both a Contractor and Agencies contact list. The contact list shall include all Implementation Phase Key Team Personnel and backups, personnel title and areas of Project participation. The list will be superseded by Operations and Maintenance Phase documentation and processes.
5	The Contractor shall develop and submit the PMP to the Agencies within 10 Business Days of the Agreement's Effective Date for review and Approval.
6	The Contractor shall identify the tools and products used to manage the Project and the internal controls instituted by the Contractor to guarantee successful delivery of the Project.

7	<p>The Contractor shall develop and submit communications procedures to the Agencies for review and Approval that address the following, including but not limited to:</p> <ul style="list-style-type: none"> • Correspondence – all correspondence shall be identified as to originator and designated receiver and contain the Agreement name and number; • Document control – tracking of document versions and changes; • Invoices – all invoices shall be submitted with accompanying backup information as required by the Agreement and consistent with the Agencies processes and invoicing and auditing policies. The Contractor shall work with the Agencies to develop the appropriate invoice and back-up materials as a part of the PMP development. The Contractor shall submit multiple invoices, with costs and any applicable Liquidated Damages divided by Agency based on the Price Proposal and Agencies direction. Contractor shall address costs that are netted out from the Contractors toll revenue payment to the Agencies, for example credit card fees and collections fees. • Submittals – all Submittals shall be delivered as an enclosure to the Contractor's submittal letter. Each Submittal letter shall be limited to a single subject or item. The Contractor's letter shall identify the Agreement number, Agreement name and subject of the Submittal, CDRL name if applicable, and the version number.
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1.3. Coordination

1.3.1. Coordination with ETTM System Contractors

The Contractor shall work with the ETTM System Contractors in the design, implementation and operations of the BOS as well as the management and operation of the CSC. The ETTM System Contractors are responsible for around-the-clock monitoring of the ETTM System and support of operations and operational staff with respect to the ETTM System. The Contractor shall nonetheless be responsible for the timely reporting of any issues or failures it has identified related to the ETTM System to both the ETTM System Contractors and the Agencies, and for cooperating with the ETTM System Contractors to resolve the issues as expeditiously as possible.

8	The Contractor shall report any observed ETTM System anomalies and errors to the ETTM System Contractors via Cases; the Contractor shall track these issues through to timely resolution in coordination with the ETTM System Contractors.
9	The Contractor shall select the appropriate priority level or level of urgency when reporting ETTM System errors to the ETTM System Contractors based on the levels identified in the Operations Plan. The Contractor shall make best efforts to ensure that critical and high-priority items are quickly and effectively communicated to the ETTM System Contractors within a time period agreed-to in the Operations Plan.
10	The Contractor shall notify the Agencies of all issues and errors identified in the Operations Plan as requiring simultaneous notification to the Agencies.
11	The Contractor shall participate in Coordination and Status meetings with the Agencies and the ETTM System Contractors as further described in Section 1.3.2.

12	The Contractor shall participate in other meetings with the Agencies and the ETTM System Contractors as further described in Section 1.3.2.
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1.3.2. Cooperation with Other Contractors and Providers

13	The Contractor shall cooperate to the fullest extent with other contractors, the Agencies, and Third-Party Service Providers and Business Partners to ensure the BOS Implementation and Operations and Maintenance Phase activities do not conflict with or cause any interruption in capability or service or safety issues to the traveling public, customers, the Agencies, or existing operations.
14	<p>The Contractor shall cooperate to the fullest extent with external parties in accordance with the terms and conditions of the Agreement, including but not limited to:</p> <ul style="list-style-type: none"> • employees of the Agencies; • designated representatives of the Agencies; • Agency legal counsel; • other Interoperable agencies, states and parties, as directed by the Agencies; • all entities that directly access the BOS; • all entities that use or require output from the BOS; • law enforcement; • auditors and • All Third-Party Service Providers and Business Partners.
15	The Contractor shall cooperate with and immediately notify the Agencies (via Agency - provided distribution list) regarding any issues with or customer complaints related to the BOS or ETTM System in the Agencies' Express Lanes that come to Contractor's attention during the course of Implementation, testing or during the Maintenance and Operations Phase.
16	Within 30 days of the Agreement's Effective Date, the Contractor shall invite and facilitate the Existing BOS and CSC Operations Contractor's participation in the coordination meeting(s) for the discussion and resolution of all operational transition items.

1.4. Project Meetings

The Contractor is required to facilitate (plan, lead, coordinate, and report on) or participate in both regularly scheduled and ad-hoc meetings during the course of the Project.

17	<p>The Contractor shall set up, facilitate and participate in meetings during the Implementation Phase, including but not limited to:</p> <ul style="list-style-type: none"> • Project reporting and progress meeting (monthly);
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	<ul style="list-style-type: none"> Change Control Board meetings (as required, but no less than every two weeks or per the Project Management Plan);
	<ul style="list-style-type: none"> installation coordination meetings (weekly during specific Implementation Phase timeframe); and
	<ul style="list-style-type: none"> Various workshops, comment review and BOS Design meetings as required.
18	The Contractor shall set up, facilitate and participate in meetings during the Maintenance and Operations Phase, including but not limited to:
	<ul style="list-style-type: none"> Weekly project status meetings;
	<ul style="list-style-type: none"> Ad-hoc meetings (as needed);
	<ul style="list-style-type: none"> Change Control Board meetings (as needed);
	<ul style="list-style-type: none"> CSC Operations performance review and operational status meetings (to include review of performance relative to the Performance Measures, Customer Satisfaction Surveys, training schedule, identified BOS issues and other relevant findings);
	<ul style="list-style-type: none"> BOS performance review and operational status meetings (to include review of Performance relative to the Performance Measures, training schedule, Upgrades and Enhancements list, bug list and general status updates); and
	<ul style="list-style-type: none"> Maintenance and Operations Phase meetings shall be structured and scheduled per the Approved Maintenance Plan.
19	The Contractor shall provide and maintain a schedule for all meetings which it leads.
20	All meeting locations shall be designated by the Agencies.
21	No less than three (3) Business Days prior to meetings which it leads, the Contractor shall provide a meeting agenda that the Agencies can comment on and the Contractor shall then update.
22	No more than three (3) Business Days after meetings it leads, the Contractor shall submit draft meeting minutes for the Agencies' review, which capture the summary of the discussions. No more than two (2) Business Days after receiving the Agencies' comments to the meeting minutes, the Contractor shall submit updated meeting minutes for the Agencies' review. This process shall continue until the meeting minutes are Approved.

1.4.1. Project Reporting and Progress Meetings During Implementation Phase

Bi-weekly Project reports and progress meetings shall enable the Agencies and the Contractor to monitor the status, progress and quality of the Work performed on the Project and to take proactive steps to ensure successful delivery of the Project.

23	The calendar for meeting days shall be scheduled by the Contractor following the Agreement's Effective Date.
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24	With the meeting agenda submission, the Contractor shall submit a progress report to the Agencies. The Agencies may review and comment on the progress report prior to the meeting and the Contractor shall update accordingly.
25	The format of the progress report shall be agreed upon as one of the initial Project tasks upon the Agreement's Effective Date and shall be incorporated by the Contractor into the PMP.
26	The Contractor shall manage, facilitate and conduct the meetings in accordance with the agreed to format.
27	<p>The progress report includes but is not limited to:</p> <ul style="list-style-type: none"> • a summary, outlining progress, status and percentage of Work performed for each task, as compared to planned activities in the Approved Baseline Implementation Schedule. Comments shall be included where appropriate. The summary should be a dashboard-style report and shall identify status of key milestones; • an analysis of all critical path tasks, potential risks associated with the tasks and proposed contingency/work around plans to circumvent or mitigate delays to the Project; • identification of any Approved changes to Approved milestone dates and Approved Baseline Implementation Schedule, clearly noting the details and identifying the Agreement Modification; • a discussion of Schedule compliance and an updated Baseline Implementation Schedule showing current status against the baseline Approved Baseline Implementation Schedule; • a risk log that tracks the status of all outstanding risks that need decision/resolution; • an updated action items list that tracks the status of all outstanding Deliverables, activities and issues that need decision/resolution; • open invoices, if applicable; • a list of Approved and pending change requests (Contractor and Agency-initiated) and their status; • the previous meeting final minutes and • a six (6) week look-ahead schedule.

1.5. Quality Assurance Program

The Contractor shall establish an effective Quality Assurance (QA) program to ensure compliance with the Agreement. This QA program shall detail the process and procedures instituted by the Contractor to ensure the QA program is in place.

28	The Contractor shall establish an effective QA program that ensures adequate quality throughout all areas of Agreement performance.
29	All systems and services under this Agreement, whether performed within the Contractor's facilities or at any other source, shall be managed by the Contractor at all points necessary to ensure conformance to the Requirements of the Agreement.
30	The QA program shall provide for the prevention and early detection of discrepancies and for timely and positive corrective action.
31	The QA program shall include effective Quality Control of purchased services and materials and subcontracted Work.
32	The Contractor shall make evidence of quality conformance readily available to the Agencies, and the Agencies shall have the right to review and verify the Contractor's compliance to the process. For the Implementation Phase, evidence includes documentation of adherence to testing procedures and achieving expected test results and for the Operations and Maintenance Phase, evidence includes the Monthly Operations Report, results of quality audits and system reports.
33	The Contractor's Quality Assurance Manager shall lead the team of Contractor's staff to meet all the Requirements related to quality and to assure the Agencies that the Work of the Contractor is in accordance with the Quality Plan as defined in section 4.2.1.

1.5.1. Control of Purchase

34	The Contractor shall be responsible for ensuring all systems, supplies, components, developmental tools, assemblies, subassemblies and services procured from Subcontractors, Third-Party Service Providers and Business Partners conform to the Requirements and the Agreement.
35	The Contractor shall establish procedures for the selection of Third-Party Service Providers and Business Partners in accordance with the Agreement. The Contractor shall ensure the Subcontractors, Third-Party Service Providers and Business Partners control the quality of the supplies and services provided.
36	The Contractor shall provide all procurement documents to the Agencies upon request.

1.5.2. Visits to Contractor's Facilities

37	The Agencies reserve the right to both unannounced and scheduled visits to all Contractor's facilities and all areas of those facilities where Software development/support and services related to the BOS and CSC Operations are performed.
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1.6. Baseline Implementation Schedule and Contract Deliverables Requirements List (CDRL)

The Approved Baseline Implementation Schedule is a comprehensive list of Project milestones, activities and Deliverables, with planned start and finish dates, including a detailed Work Breakdown Structure (WBS) that identifies Project tasks down to the Work package level and the activities required to complete the Work package Deliverables. The Contract Deliverables Requirement List (CDRL) (Section 10) is used with the schedule to track the Project Deliverables.

38	The Contractor shall provide and maintain a detailed Implementation Phase Project Schedule in Microsoft Project format (Project 2016 or above and include backward compatibility with earlier versions as required by the Agencies) that lists all Project activities, tasks and sub-tasks, and sub-phases including but not limited to:
	• staffing;
	• key intersection points/dependencies with the Existing BOS and CSC Operations Contractor;
	• key intersection points/dependencies with the ETTM System Contractors;
	• document development;
	• any required improvements to data center, CSC and WIC Sites;
	• fit-out/installation (including communications infrastructure installation) of data center, CSC and WIC facilities (including CSCs);
	• training;
	• migration and transition;
	• BOS and operations Go-Live and
	• all ongoing Project activities throughout the Implementation Phase, such as scheduled meetings and their frequency/periodicity.
39	The Project Schedule shall adhere to the milestone dates shown in Exhibit X.
40	The Project Schedule shall also include coordination activities with the Agencies and all third parties including but not limited to the Existing BOS and CSC Operations Contractor, and Third-Party Service Providers and Business Partners, and shall in addition clearly document all coordination tasks.
41	Upon Approval of the Project Schedule by the Agencies the schedule shall become the Approved Baseline Project Schedule.
42	The Project Schedule shall identify all milestones and tasks, starting with the Agreement's Effective Date through the BOS Acceptance.
43	The Project Schedule shall be resource loaded, shall include all draft submissions and review cycles and shall include all tasks required of the Agencies. All Agencies tasks and durations shall be clearly highlighted and differentiated from Contractor tasks.

44	The Project Schedule shall identify all critical path tasks and shall be used to manage the Project.
45	Once the Baseline Project Schedule is Approved, the Contractor shall update progress against the Approved Baseline Schedule on a monthly basis, showing percent complete for all Project tasks and identifying actual start and finish dates against the Approved Baseline Schedule.
46	The Contractor shall use the Approved Baseline Project Schedule throughout the duration of the Project and shall notify the Agencies of any anticipated schedule changes along with a plan for mitigating them, if applicable.
47	The Contractor shall obtain Approval from the Agencies for all changes to the Approved Baseline Project Schedule. No revisions shall be considered Approved or accepted without this Approval in writing.
48	In parallel and concurrent with the Project Schedule, the Contractor shall report and track the status of all Contractor Deliverables via a separate CDRL that lists delivery dates (planned and actual), review cycles, workshops (if applicable), comment review meetings and Approval dates.

2. STAFFING AND KEY TEAM PERSONNEL

The Contractor is responsible for maintaining and assigning a sufficient number of competent and qualified professionals to meet the Requirements of the Agreement in accordance with the Approved Baseline Implementation Schedule.

2.1. General Staffing Requirements

49	The Contractor shall provide staff at all times sufficient to meet the Project Requirements.
50	The Contractor shall provide all staff and services to professionally operate the CSC and provide professional customer service in accordance with the procedures and policies documented in the Operations Plan, SOPs, and the Requirements. Staff shall include all management, supervisory, financial, technical, and operations personnel.
51	The Contractor shall ensure Key Team Personnel are readily accessible to the Agencies during the Implementation and Operations and Maintenance Phases.
52	The Contractor shall submit replacement requests for Key Team Personnel to the Agencies for review and Approval prior to replacement of an individual. Key Team Personnel shall not be replaced without the prior Approval of the Agencies as to the replacement.
53	The Agencies shall have the right to request replacement of any Contractor personnel in accordance with the terms and conditions of the Agreement.
54	The Contractor shall replace Key Team Personnel immediately with an acting replacement after the position is empty. Failure to promptly replace open Key Team Personnel positions with a full-time replacement shall result in penalties as described within the Agreement and/or Performance Measures.
55	The Contractor shall provide a staffing plan for the Operations and Maintenance Phase 90 days before Go-Live.
56	The Contractor shall ensure all personnel are trained and conduct themselves in a professional manner that is based upon the best practices of customer service. The Contractor's employee code of conduct shall be included in the Operations Plan.
57	The Contractor shall provide, update and maintain a complete organizational chart during both the Implementation Phase and Operations and Maintenance Phases and provide to the Agencies upon request.

2.2. Key Personnel

58	The Contractor shall provide the following key personnel for this Project, shown Table 2-1: Key Personnel, subject to the Approval of the Agencies. The list in Table 2-1 is not an exhaustive list of key personnel, but the minimum required Key Team Personnel to be included in the Contractor's organizational structure.
59	The Contractor shall attempt to fill Key Team Personnel positions with the minimum experience provided in Table 2-1: Key Team Personnel. The Agencies will use the experience levels provided in assessing and Approving Key Team Personnel.

Table 2-1: Key Personnel

KEY TEAM PERSONNEL	Responsibilities		Dedication	
	Implementation Phase	Operations and Maintenance Phase	Time On-site	Dedication %
<p>Project Principal – responsible for the oversight of the Project Manager and a point of contact for any escalated Project issues that cannot be resolved by the Project Manager.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> • Full-time employee of the Proposer or its parent company for at least two (2) years at the time of Proposal submission • Ten (10) years’ experience in the toll industry • Five (5) years of senior management responsibility for major toll projects • Senior management responsibility for at least one (1) project of \$25 million or more in value 	X	X	As requested by the Agencies	As Needed from the Agreement’s Effective Date
<p>Project Manager (Implementation Phase) – shall be Contractor’s Day-to-Day contact person for all Project matters and shall be responsible for the overall management and delivery of the Work.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> • Five (5) years’ experience as a Project Manager in the toll industry or other related customer service operations environment • Project Manager for at least one (1) Tolling Back Office System Deployment • Project Manager for at least one (1) project of \$10 million or more in value • Project management certification such as PMP is desired 	X		<p>For all status meetings, workshops and reviews</p> <p>100% on-site from the beginning of On-site Installation and Commissioning Testing through BOS Acceptance</p>	100% from Agreement’s Effective Date

KEY TEAM PERSONNEL	Responsibilities		Dedication	
	Implementation Phase	Operations and Maintenance Phase	Time On-site	Dedication %
<p>Project Manager (Operations and Maintenance Phase) – shall be Contractor’s Day-to-Day contact person for all CSC Operations matters and shall be responsible for the overall management and delivery of the CSC-related Work.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> • Five (5) years’ experience in the toll industry or other related customer service operations environment • Project Manager for at least one (1) tolling CSC Operation • Project Manager for at least one (1) project of \$10 million or more annually 		X	<p>For all status meetings, workshops and reviews relative to transition</p> <p>100% on-site from six months prior to Go-Live to End of Agreement</p>	100%
<p>Deputy Project Manager – supports the Project Manager in delivery of the services and stands-in for the Project Manager as needed.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> • Three (3) years’ experience in the toll industry or other related customer service operations environment • Three (3) years’ experience in project management 	X		<p>For all status meetings, workshops and reviews</p> <p>100% on-site from the beginning of On-site Installation and Commissioning Testing through BOS Acceptance</p>	100% from the Agreement’s Effective Date
<p>Quality Assurance Manager – assures consistent quality throughout the design, development, testing and installation of the BOS and the planning and implementation of the CSC Operations per the Quality Assurance plan. Ensures consistent quality during the Operations and Maintenance Phase per the Quality Assurance plan. Oversees development, implementation</p>	X		<p>For all QA related meetings and workshops and activities.</p> <p>For all formal testing and from Go-Live through BOS Acceptance.</p>	50%

KEY TEAM PERSONNEL	Responsibilities		Dedication	
	Implementation Phase	Operations and Maintenance Phase	Time On-site	Dedication %
<p>and ongoing management of the Quality Assurance Plan and all other quality related documentation.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> • Five (5) years as Quality Assurance Manager on projects of a similar scope to the services on this Project • Three (3) years of experience in toll BOS and CSC operations • Two (2) years of experience in Quality Assurance • Specialized training and/or certification in quality management 		X	100%	100%
<p>Software Development Manager – responsible for the Software and database design, integration and implementation, on-going resolution of Software bugs and development of new functionality.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> • Experience with technical management of a Software development project of a similar scope to this Project • Three (3) years' experience as Software development lead • Eight (8) years' experience in Software development • Served as the Software Development Manager for at least one (1) project of similar scope to the BOS provided on this Project. 	X		<p>For all Software and functionally related meetings and workshops.</p> <p>All formal testing through BOS Acceptance.</p>	100%
		X	<p>For all Software-related functionality, upgrades and enhancements meetings and workshops.</p> <p>For all Software performance and bug related meetings.</p>	As required

KEY TEAM PERSONNEL	Responsibilities		Dedication	
	Implementation Phase	Operations and Maintenance Phase	Time On-site	Dedication %
Technology Manager – responsible for management of overall BOS design, security (including PCI and PII), network and BOS Implementation. <ul style="list-style-type: none"> Ten (10) years' experience with system design and implementation Ten (10) years' experience with systems security for systems which include credit card processing Direct project experience using the proposed solution Experience with BOS design and implementation of a similar scope to the systems provided on this Project 	X		For all BOS design related meetings and workshops and comment resolution meetings. From Go-Live through BOS Acceptance.	50%
		X	For all BOS-related functionality, Upgrades and enhancements meetings and workshops. For all BOS performance related meetings.	As required
Data Migration Manager – responsible for the overall planning, implementation and monitoring of the data migration and transition from the existing BOS to the new BOS. Should meet or exceed the following: <ul style="list-style-type: none"> Five (5) years' experience with database administration and/or design Has performed similar role in at least two (2) data migrations from an existing BOS to the proposed BOS 	X		For all data migration related meetings and workshops and comment resolution meetings	100% during data migration testing and through complete data migration and Go-Live until BOS is stable

KEY TEAM PERSONNEL	Responsibilities		Dedication	
	Implementation Phase	Operations and Maintenance Phase	Time On-site	Dedication %
On-site Installation Manager – responsible for the physical installation and all required testing of the on-site BOS, including all systems installed in Agencies’ facilities. Should meet or exceed the following: <ul style="list-style-type: none"> Five (5) years’ experience with technology implementations and installations Experience with the installation and configuration of systems and networks of a similar scope to the systems provided on this Project 	X		For all BOS installation meetings and workshops	100% during installation and through Go-Live until BOS is stable
On-site Technology and Support Manager – responsible for onsite technical and desktop support of CSC, Agencies and Third-Party Service Providers staff. Responsible for Should meet or exceed the following: <ul style="list-style-type: none"> Five (5) years’ experience with systems, networks and end-user support Experience with proposed BOS solution 	X		For all BOS support and administration meetings and workshops. 100% from beginning of on-site BOS installation through Go-Live	As required
		X	100%	100%
CSC Operations Manager – responsible for participating in all operations planning and the on-going CSC Operations throughout the Operations and Maintenance Phase. Should meet or exceed the following:	X		For all CSC Operations related meetings and workshops. 100% from a minimum of three (3) months prior to Go-Live	As required

KEY TEAM PERSONNEL	Responsibilities		Dedication	
	Implementation Phase	Operations and Maintenance Phase	Time On-site	Dedication %
<ul style="list-style-type: none"> Five (5) years' experience with CSC management of a similar scope to this Project Three (3) years' experience in toll industry customer service Three (3) years experience in collections Experience with multi-channel customer contact center and systems 		X	100%	100%
<p>Finance Manager - ensures the BOS and CSC Operations operates in accordance with Generally Accepted Accounting Principles (GAAP) – shall be a Certified Public Accountant (CPA)</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> Bachelor's degree in accounting or related field Five (5) years of financial and accounting experience, including management or leadership position (e.g. Accounting Manager, Sr. Accountant, Accounting Lead) overseeing accounting operations in a GAAP compliant, high-volume, transaction/trip processing environment performing revenue management, process audits and similar functions Experience with proposed BOS solution preferred Ability to package and present quantitative data effectively 	X		<p>For all finance and reconciliation related meetings and workshops.</p> <p>For all formal testing of transitional and financial reconciliation and reporting.</p> <p>100% from Go-Live through BOS Acceptance.</p>	As required
		X	100%	100%

2.3. Other Required Personnel

In addition to the Key Personnel list in Section 2.2, the Contractor must provide adequate staff to perform the Requirements. This includes, but is not limited to, the following dedicated staff:

- Human Resources Manager;
- Training Manager;
- Transition Manager;
- Desktop Support Personnel;
- Data Analyst and
- Traffic Operations Center (TOC) staffing.

60	The Contractor shall provide a Human Resources Manager, with at least five (5) years experience as a Human Resource Manager on projects of a similar scope to this Project, responsible for all Project personnel and the transition of any existing staff. Responsible for human resources management during the Operations and Maintenance Phase.
61	The Contractor shall provide a Training Manager, with at least five (5) years experience in customer service, responsible for providing assessments, planning, developing, delivering and evaluating employee training.
62	The Contractor shall provide a Transition Manager who shall lead the Contractor's staff in planning and implementing the activities required for the transition.
63	The Contractor shall provide on-site Desktop Environment and BOS application technical support to all Contractor personnel and Agency Authorized Users at all locations from 7 a.m. to 7 p.m. Monday – Friday, Pacific Time and be on-call and available to come on-site 24x7x365.
64	The Contractor shall provide a data analytics specialist for the duration of the Agreement to assist the Agencies in formatting queries and running analytics reports on their behalf.
65	The Contractor shall provide TOC labor consisting of two (2) TOC operators located onsite at the Anaheim Processing Center/CSC - 24 hours per day and 365 days per year.

2.4. Staff Selection Requirements

The Contractor shall screen all candidates for potential employment at the CSC. Screening and the subsequent decision to hire shall be based upon fair, equitable and job-related criteria. Additional screening may be required for the Contractor's Operation's staff prior to promotion or transfer to job roles with increased access to sensitive or critical information.

If the Existing BOS and CSC Operations Contractor is not selected, the Agencies encourage the new Contractor to consider the Existing BOS and CSC Operations Contractor's staff for employment with the new Contractor. The Contractor is encouraged to coordinate with the Existing BOS and CSC Operations Contractor to ensure that there is not adverse impact on the current operations and that a mutually agreed to plan is put in place for the screening and transition process.

The level of background investigation required shall be dependent upon job function (for example, a receptionist who has limited access to customer and financial information shall require a lower level

of investigation than a clerk in the finance department who may have access to customer and financial information).

66	All Contractor employees shall undergo screening, including but is not limited to:
	• business/personal references;
	• illegal substance screening;
	• past employment history;
	• education verification;
	• financial credit history;
	• professional license and certification verification;
	• military service verification;
	• criminal records including misdemeanor and felony convictions and
	• I-9 immigration status.
67	The Contractor shall comply with all applicable laws and regulations related to Operating and staffing the CSC, including but not limited to:
	• Americans with Disabilities Act (ADA);
	• Occupational Safety and Health Act (OSHA);
	• Equal Employment Opportunity Commission (EEOC);
	• Federal Fair Credit Reporting Act (FCRA);
	• Drivers Privacy Protection Act - 18 US Code, Section 2721 (DPPA);
	• California State statute regarding protection of Personal Identifying Information (PII) and
	• Security Standards.
68	The Contractor, when conducting background investigations, shall consider and take into account the following:
	• name search - married name, previous names, aliases and
	• investigations must be completed and reviewed by the Contractor prior to the employee beginning work for the CSC.
69	The Contractor shall maintain hardcopy and electronic, as applicable, backup documentation on-site for all background checks.
70	The Contractor shall maintain records of adjudication and hiring decisions on each candidate interviewed or considered for a position.

71	All staff shall understand, read, write and speak English fluently and shall be U.S. citizens or otherwise legally permitted to work in the U.S.
72	The Contractor shall provide for bilingual (Spanish) customer service staff to support Spanish-speaking customers who call or visit during all business hours.

3. SYSTEM DEVELOPMENT AND DESIGN REQUIREMENTS

3.1. System Development Meetings and Workshops

To ensure the design Requirements for the BOS are fully understood by the Agencies and the Contractor, a series of Requirements and design review steps are specified following a sequential design process. The Conformed Statement of Work and Requirements Document (CSWRD) is developed in coordination with the Agencies and the Contractor, upon selection of the Contractor. The CSWRD shall be the basis for the Contractor to develop a Requirements Traceability Matrix (RTM). The RTM details the Requirements in tabular format with columns that allow for verification that each of the Requirements in the CSWRD have been addressed in the design and documented in the System Detailed Design Document (SDDD) and the Master Test Plan (MTP) and its test procedures. The RTM shall be the basis for all design, development and testing efforts and documentation to be developed by the Contractor.

The ETTM System Contractors shall attend meetings and workshops as required and at the Agencies' discretion based on the meeting content.

73	The Contractor shall establish and maintain a Software design and development program to ensure compliance with the BOS Requirements.
74	The Contractor shall employ appropriate techniques and methodologies to develop the BOS Requirements and ensure compliance with the Business Rules for the Project.
75	The Contractor shall, for all Phase II and Optional (if applicable) functionality, follow the design, development and test process that mimics the Approved Implementation Phase Software design, development and testing process.
76	Prior to conducting any workshops, Requirements reviews, focus group meetings or design reviews, the Contractor shall develop all necessary documentation for the Agencies to review and shall submit the documentation for review no less than 10 Business Days prior to such meetings.

3.2. Business Rules Workshops

The Contractor shall conduct a series of Business Rules workshops with the Agencies to address the Business Rules document with any information required by the Contractor to design, develop and configure the BOS or operations related documentation and processes.

77	The Contractor shall manage, facilitate and conduct Business Rules review workshops with the Agencies to discuss, update and modify the Business Rules to accommodate the Implementation of the BOS and CSC Operations.
78	The Business Rules review workshops shall include Contractor and Agencies staff with expertise on the current and future business operations.
79	The Contractor shall facilitate and conduct a minimum of three Business Rules workshops.
80	The workshops shall continue until the Business Rules are updated to the satisfaction of both the Contractor and the Agencies.

3.3. Software Walkthroughs

The intent of the Software walkthrough is to provide transparency into the planning process for the Contractor's Software development to ensure the Contractor is on track to deliver the Project on schedule and to obtain the Agencies' feedback on the direction of the development prior to the full rollout of the Software. Lastly it allows the Agencies to observe the BOS in operation. Unlike Software detailed design reviews, these walkthroughs shall demonstrate actual transactions/trips in a test environment. As part of the walkthrough process, the Contractor shall validate all Requirements and ensure Contractor's understanding of the Requirements.

81	The Contractor shall manage, facilitate and conduct the walkthroughs.
82	The Contractor shall conduct a series of Software walkthroughs including product demonstrations and/or planned functionality to solicit input from the Agencies during the development of the BOS Software. The Contractor will segment each meeting by functional area and schedule each walkthrough meeting to align with the participants' availability.
83	Prior to the Software walkthrough the Contractor shall provide a listing of the functionality that will be covered, high-level use cases to be demonstrated and identify all Requirements that need clarification and discussion.
84	During the Software walkthroughs, the Contractor shall outline and demonstrate how the BOS Requirements will be met. The outcome of these meetings shall be documented in a revised RTM document.
85	Prior to the Software walkthrough, the Contractor shall develop and submit high-level use cases that shall be demonstrated to the Agencies for review and Approval.
86	To the extent possible, the product shall be demonstrated in an environment that allows data to flow as it will in the final integrated BOS.
87	The Software walkthrough shall demonstrate to the Agencies that the Software design meets the technical and functional Requirements.
88	Comments and feedback provided during the Software walkthrough shall be documented and resolved by the Contractor and the resolution shall be Approved by the Agencies.
89	The Contractor shall be responsible for identifying and correcting any Software issues or defects in its design or product that impact the Contractor's ability to deliver a BOS that meets the Requirements. This shall apply to issues or defects found during or after Software walkthrough or in the subsequent testing and implementation. Any such changes to address these issues shall be Approved by the Agencies in writing.

3.4. Reports Design Workshops

The Contractor shall conduct a series of workshops with the Agencies to facilitate the design of the BOS reports required by the Agencies.

90	The Contractor shall manage, facilitate and conduct a minimum of three reports design workshops.
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91	The reports design process shall be iterative, and the Contractor shall conduct multiple workshops with the Agencies' stakeholders sufficient to obtain the Agencies' informed input. The Contractor shall bring its subject matter experts (SMEs) to the workshops, including as example, BOS, operations, maintenance and finance/accounting staff, as appropriate for the report type(s) being reviewed during the meeting.
92	SMEs must provide a means for fully explaining each report, its intended purpose, columns, fields and components and its connection with other reconciling and validating reports.
93	The Contractor shall trace the reports to the Requirements and demonstrate that all Requirements are satisfied.
94	Upon receiving feedback from the Agencies, the Contractor shall develop/modify the reports and submit the updated reports for review.
95	The iterative series of workshops and demonstrations shall continue until the purpose, layout and content of all reports are Approved by the Agencies.

3.5. Performance Reporting Workshops

The Contractor shall conduct a series of workshops with the Agencies to facilitate the design of the Performance Measures reports.

96	Within the first three (3) months after the Agreement's Effective Date or at another date Approved by the Agencies, subject to reasonable advance notice, the Contractor shall conduct a series of Performance Measures reporting workshops with the Agencies. This will allow the Contractor and the Agencies to understand how the Performance Measures-related data will be captured and reported once the Operations and Maintenance Phase has commenced. During these workshops, the Contractors and the Agencies shall discuss the Performance Measures and the associated reporting. These workshops shall allow the Contractor to specify and gain initial Approval (subject to formal testing) on how the Performance Measures-related data will be captured and to accurately reported during the Operations and Maintenance Phase.
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3.6. System Detailed Design Review Meetings and Workshops

Based on the RTM, Operations Plan, SOPs and Business Rules documents, the Contractor shall design the BOS and submit a preliminary design document for the Agencies to review and provide comments. The Contractor shall then conduct a series of design meetings, walk-throughs and workshops with the Agencies to address the comments and to create the SDDD, defining how the design shall meet the BOS Requirements. Upon the submittal of an updated SDDD another review cycle shall take place.

97	The Business Rules document, Operations Plan, SOPs, and the RTM shall be used to develop the System design and the SDDD.
98	The Contractor shall schedule design meetings with the Agencies to review and fully understand the design Requirements.
99	The Contractor shall manage, facilitate and conduct the workshops and meetings.

100	The Contractor shall demonstrate pre-production working products (such as beta versions) during the design review process, and stakeholders shall be walked through the workflow, utilizing screens and data flow diagrams.
101	The Contractor shall explain how the BOS design meets the RTM, the Business Rules and the Agreement Requirements.
102	The Contractor shall conduct as many meetings, workshops, and submission review cycles as deemed necessary by the Agencies to address all design issues to the Agencies' satisfaction.

3.7. Use Cases Workshops

The Contractor shall conduct a series of use-case workshops with the Agencies to develop use cases. The outcome of these meetings shall be a series of use-case documents that shall be used in conjunction with the Business Rules and test procedures to validate the Requirements.

103	The Contractor shall manage, facilitate and conduct a minimum of three use-case workshops with the Agencies to develop the use cases that shall be used in conjunction with test procedures to validate that all BOS Requirements have been met.
104	The use-cases (and associated test-cases) shall be traced against the Requirements within the RTM.
105	The iterative series of workshops and demonstrations shall continue until the above use-case Requirements are satisfied and the use cases are Approved by the Agencies.

4. DOCUMENTATION

The Contractor is required to provide various documents to support the BOS development and ongoing operations and Maintenance. All documentation provided under this Agreement shall meet the Requirements described below.

An online Contractor-provided Electronic Document Management System (EDMS) will be provided for the Agencies' use. The EDMS will control the saving, versioning and storage of all Project-related documents, including the Contractor's Deliverables and other operations support documentation provided by the Contractor that must be available to the Project team. The Contractor shall save all Contractor Deliverables and other support documentation to the EDMS.

4.1. Contractor-Developed Documentation Requirements

106	The Contractor shall utilize a Contractor-provided EDMS that is accessible to the Project team by username and password, to control all Project-related documents from first submission to Approval.
107	All Project documents submitted under this Agreement shall be available to all authorized Project team members using the EDMS during both the Implementation and Operations and Maintenance Phases.
108	Each document shall be properly titled, date updated, numbered by revision, revision history, and version and shall incorporate signature blocks for authorship and Approvals. The Contractor shall provide a logical indexing system for ease of access for the Agencies' Approval to be used to locate documents in the EDMS.
109	The Contractor shall utilize acceptable standards agreed upon by the Contractor and the Agencies when updating documents and submitting revisions.
110	All documentation submitted by the Contractor under this Agreement shall be accurate and comply with Agreement Requirements.
111	A table of contents, for all documentation that includes multiple pages and/or multiple sections, shall be submitted by the Contractor to the Agencies for review and comment prior to the submission of the preliminary draft as part of the Deliverables Expectation Document. The Agencies will review and provide comment on table of contents Submittals within five (5) Business Days.
112	The Deliverables Expectation Document shall include all subsections and a summary narrative for each section describing the assumptions and approach.
113	The Contractor shall submit preliminary draft and final draft documents to the Agencies for review and comment, followed by 100 percent complete documents that incorporate all the Agencies' review comments.
114	The Agencies shall have the right to require additional interim drafts from the Contractor at no additional cost should the documentation submitted not be of adequate quality, have missing or incorrect information or if it does not satisfactorily address the Agencies' review comments.

115	The Agencies shall review and Approve all documents submitted. For documents containing less than 100 pages, the Agencies will review and provide comment on preliminary draft documents within 15 Business Days. For documents containing at least 100 pages, the Agencies will review and provide comment on preliminary draft documents within 25 Business Days. The Agencies shall review and provide comment on all final draft and final documents within 10 Business Days. When multiple documents are submitted to the Agencies simultaneously, or within one week of each other, the number of Business Days required for review shall be doubled.
116	The Contractor shall provide a Customer Review Form (CRF) with each submitted document. The Agencies shall populate the CRF and provide the Contractor with written comments on all submitted documents. The Contractor shall respond in writing to all comments through the CRF. The Contractor may schedule and conduct meetings to clarify and resolve any remaining questions and issues concerning the comments and responses provided. The Contractor shall then prepare a revised version of the document for Approval by the Agencies.
117	The Contractor shall submit two (2) hard copies and the electronic version of all Contractor developed documentation for Agency review and Approval unless otherwise directed by the Agencies. Acceptable electronic formats are Microsoft Word 2016 (or higher), unsecured and indexed Portable Document Format (PDF), Excel (as appropriate) and professional CAD applications for Contractor-prepared documentation.
118	The Contractor shall update documentation as changes occur through the Implementation Phase and the Operations and Maintenance Phase. All changes shall be submitted to the Agencies for Approval. The Contractor shall maintain a document Submittals list on the EDMS identifying all versions of documents, the date submitted, the nature of changes and identify what the changes are within the documentation.
119	All documentation submitted by the Contractor under this Agreement shall be the property of the Agencies and shall not be marked with "Proprietary" unless agreed to by the Agencies.

4.2. Documents

4.2.1. Quality Plan

The Quality Plan will include details about how the Contractor will plan and implement the QA program, how to address errors (quality-related events) and how to make improvements before an error occurs (continuous quality improvement). The Quality Plan will address all phases and Work.

120	The Contractor shall develop a CSC Operations Quality Plan that details the Contractor's QA program in a concise manner customized to this Project.
121	The Quality Plan shall include the Contractor's QA approach related to overall project management and controls, including but not limited to: <ul style="list-style-type: none"> • quality management and organizational structure; • project management;

	<ul style="list-style-type: none"> • project controls;
	<ul style="list-style-type: none"> • project documentation and updates and
	<ul style="list-style-type: none"> • project scheduling.
122	<p>The Quality Plan shall include the Contractor's QA approach related to BOS design and development, operation, Software maintenance and BOS administration, including but not limited to:</p> <ul style="list-style-type: none"> • overall design; • Software development, initial and on-going; • Software development standards and documentation; • testing; • adherence to Security Standards; • data migration; • installation; • quality management of all BOS created customer communications and Notifications; • adherence to Performance Measures; • configuration management; • change management; • monitoring and administration and • operational transition.
123	<p>The Quality Plan shall include the Contractor's QA approach related to CSC Operations, including but not limited to:</p> <ul style="list-style-type: none"> • quality management of every CSC Operations function; • quality management of customer service during the operational transition; • ongoing Customer Satisfaction Surveying and how the tool and information will be used; • customer service quality improvements; • adherence to Security Standards; • quality management and organizational structure; • quality management of customer service during the operational transition; • quality management documentation;

	<ul style="list-style-type: none"> • Contractor's quarterly audit;
	<ul style="list-style-type: none"> • quality review and verification;
	<ul style="list-style-type: none"> • adherence to Performance Measures and
	<ul style="list-style-type: none"> • CSC initial and on-going staffing.

4.2.2. Software Development Plan

124	<p>The Contractor shall develop and submit a Software Development Plan (SDP) that includes but is not limited to:</p> <ul style="list-style-type: none"> • documentation of the Software development approach to the application structure, behavior, architecture, business processes and data structures; • Software development organizational chart, including resources and responsibilities, such as Software developers (by area of development), system engineers, test engineers, Quality Assurance and Quality Control personnel, configuration management administrator, documentation specialists and management staff; • Software development languages, development platforms and standards; • Software development methodology, such as use cases, modeling and other development tools; • management and control of Software versioning and major releases; • description of the Software development life-cycle and maintenance; • location and approach to segregation of development and testing environments; • development problem reporting and defect tracking; • code reviews; • internal testing methodology; • regression testing; • Software development language strategy related to both development and Software maintenance; • development and integration approach for the major functional Modules; • detailed Software Quality Control processes; • Software documentation, standardization, review and usability; • samples of detailed Software documentation for both external and in-line documentation; • Software configuration and change management approach and standards and
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	<ul style="list-style-type: none"> • Software deployment approach, release notes and validation.
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4.2.3. Requirements Traceability Matrix

The RTM provides traceability between Requirements and BOS functionality in a matrix format. The RTM shall be the basis for all design, development and testing efforts and documentation to be developed by the Contractor.

125	Upon completion of the BOS Requirements review process the Contractor shall deliver a RTM that details all the technical and functional Requirements for the BOS.
126	<p>The Contractor shall develop and submit an RTM that identifies each Requirement and where it is addressed in the design documents, use cases and test cases, including but not limited to:</p> <ul style="list-style-type: none"> • listing and multiple levels of categorization (e.g., functional, Interfaces, Modules, etc.) of all Requirements; • identification of the source of all Requirements; • identification of the design section of the SDDD that addresses the Requirement; • identification of the test procedures that address the Requirement; • Identification of the test method to validate the Requirement (e.g., via inspection, demonstration, analysis, test) and • identification of the Business Rules associated with each Requirement.
127	The RTM shall build on the specifications documented in the CSWRD and shall capture all user needs identified during the Requirements review process.
128	During the design and development of the BOS, the Contractor shall update the RTM to reflect any changes to the Requirements and Requirements tracing that have been Approved by the Agencies through the Project's change control management process.
129	During design and testing, the RTM shall be used to verify the compliance to the Requirements, use cases and test cases.
130	Upon Approval of the RTM, it shall be the basis for functional verification of design, development and testing.

4.2.4. System Detailed Design Document (SDDD)

131	The Contractor shall develop and submit an SDDD that describes the design specifications of all Hardware and Software provided as part of the BOS to meet the Approved Agreement Requirements. The SDDD shall demonstrate that the Contractor understands the functional, technical and Performance Measures of the BOS and has the processes, system and Software design in place to provide a high-quality and reliable product that meets the Requirements.
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132	The SDDD shall be written in accordance with the QP.
133	The SDDD shall comply with data retention Requirements set forth in the Security Standards and Section 4.2.18 Records.
134	The SDDD shall include the use of diagrams, figures and tables, and it shall apply to all required environments, Contractor-provided systems, existing systems and Software to be used by the Contractor, all Interfaces and all Third-Party Service Providers and Business Partners.
135	The Contractor shall work with the Agencies' marketing department in developing the Self-Service website navigation and look and feel.
136	<p>The SDDD shall include but not be limited to:</p> <ul style="list-style-type: none"> • logical BOS diagrams for all environments that identify all subsystems, components, connections and Interfaces; • physical BOS architecture diagrams for all environments that identify all sites, equipment and network layout diagrams; • telephony, IVR and ACD system flow diagrams, including call routing options; • high system availability design for all BOS components, including servers, storage, network, database and application; • detailed data center(s) power and environmental specifications and the impact of the BOS on the Agencies' provided data center (if applicable); • detailed data center(s) rack layouts and usage; • detailed desktop computer Hardware, Software and peripheral configurations; • access/identity security methodology; • network sizing and design details including IP scheme; • complete bill of materials, including Hardware, Software and support/maintenance agreements; • specification sheets for all equipment including space and power requirements; • Disaster Recovery and Business Continuity design, including network impacts; • detailed database design, schema and entity relationship modeling, including transaction and file sizing and processing calculations; • detailed database data dictionary; • detailed data management design and processes, including summarizations, archiving and purging;

	<ul style="list-style-type: none"> • all documentation required under PCI and PII and to document conformance with the Security Standards;
	<ul style="list-style-type: none"> • Interface Control Documents (ICDs) for all external Interfaces and file upload functionality documenting both sides of the Interface;
	<ul style="list-style-type: none"> • detailed Software architecture, internal software component interfaces, logic and process flows;
	<ul style="list-style-type: none"> • detailed transactional and Violation processing logic and flow;
	<ul style="list-style-type: none"> • detailed financial processing logic and flow, including interface and mapping to the Agencies' financial applications;
	<ul style="list-style-type: none"> • Self-Service Mobile Application flow diagram (if applicable);
	<ul style="list-style-type: none"> • Self-Service Website site map;
	<ul style="list-style-type: none"> • application performance monitoring design;
	<ul style="list-style-type: none"> • all GUIs (including reports and screen formats);
	<ul style="list-style-type: none"> • format of all correspondence for all channels;
	<ul style="list-style-type: none"> • account management design and account types;

4.2.5. Master Test Plan (MTP)

The Contractor shall develop and submit a comprehensive testing plan that describes the different test phases, the Contractor's testing concepts and approach and the administration of each test. The Master Test Plan (MTP) outlines the scope and testing concepts to be used to validate the BOS compliance to the Requirements, including integration to the ETTM System, external entities and Interoperable Agencies, compliance to all standards and migration and transition of the BOS.

137	The Contractor shall provide an MTP for the Agencies' Approval that details the testing methodology utilized by the Contractor to demonstrate the BOS satisfies all Requirements.
138	<p>The MTP shall cover all aspects of the BOS testing and shall describe all test phases, scope and procedures to validate the BOS compliance to the Requirements, including but not limited to:</p> <ul style="list-style-type: none"> • overall approach to testing, including tools and automation; • approach to using use cases and test cases to validate all Requirements; • approach to entry and exit criteria; • approach/methodology to pass/fail criteria; • approach to the severity and priority descriptions and levels for each test; • approach to defect tracking; reported; resolution, and regression testing, including tools used to document defects;

	<ul style="list-style-type: none"> • approach for each test phase including purpose, scope, system environment, duration location, and resources;
	<ul style="list-style-type: none"> • methodology for testing the Requirements and sample size for each phase of testing;
	<ul style="list-style-type: none"> • approach for how data sets for each test are created including data needed to simulate logical days and cycles;
	<ul style="list-style-type: none"> • approach to validating BOS Requirements through the testing methodology;
	<ul style="list-style-type: none"> • approach to validating Performance Measures;
	<ul style="list-style-type: none"> • approach to validating all reporting Requirements;
	<ul style="list-style-type: none"> • approach to end-to-end testing, validation and reconciliation;
	<ul style="list-style-type: none"> • approach to validating BOS monitoring, logging, access, Performance Management and Monitoring System (PMMS) Requirements;
	<ul style="list-style-type: none"> • approach to data migration testing, compliance to standards, correction of defects and Software release;
	<ul style="list-style-type: none"> • end-to-end testing to ensure processes, transactions/trips and their interaction are tested through their final stages or disposition;
	<ul style="list-style-type: none"> • Interface testing to ETMM System, Interoperable Agencies and Third-Party Service Providers and Business Partners;
	<ul style="list-style-type: none"> • Security Standards;
	<ul style="list-style-type: none"> • financial activity and reconciliation;
	<ul style="list-style-type: none"> • redundancy/failover aspects;
	<ul style="list-style-type: none"> • DR aspects;
	<ul style="list-style-type: none"> • cross-channel testing to ensure testing is not only performed for each Interface (such as, Self-Service Website, Self-Service Mobile Application, if applicable, and IVR) individually, but also that testing is performed across each Interface to ensure consistent presentation and processing;

4.2.6. Individual Test Plan and Test Procedures

The Contractor shall develop and submit individual test plans that describe the required test phases, the Contractor's testing concepts and approach for the administration of each test defined later in these Requirements. The individual test plans will provide detailed documentation of the individual testing plan and procedures.

139	<p>The Contractor shall provide a separate detailed test plan for the Agencies' Approval for each testing phase outlined in the Requirements and MTP, including:</p> <ul style="list-style-type: none"> • Unit Testing Plan;
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	<ul style="list-style-type: none"> • System Integration Test Plan;
	<ul style="list-style-type: none"> • User Acceptance Test Plan ;
	<ul style="list-style-type: none"> • On-site Installation and Commissioning Test Plan and
	<ul style="list-style-type: none"> • Operational and Acceptance Test Plan .
140	All test plans shall take into consideration the separate ETTM Systems Interfaces for the OCTA and RCTC 91 Express Lanes and expect some variations in data transmissions, trips/transactions and images, processing, and some potential variations in Business Rules.
141	<p>The Contractor shall provide a detailed test plan, including but not limited to:</p> <ul style="list-style-type: none"> • test agenda including location, dates, meetings, testers, observers and attendees; • test scripts for manual and automated tests; • detailed use cases and test cases mapped to the RTM for all testing; • test entry and exit criteria; • test preparation; • data to be migrated to support testing; • description of process for ensuring quality of testing and documentation; • test data creation process and • description of the environment used and Software versioning.
142	<p>The Contractor shall provide use cases and test cases for the Agencies' Approval for each testing phase outlined in the RTM, including but not limited to:</p> <ul style="list-style-type: none"> • use case/test case ID; • use case/test case description; • mapped Requirements and Business Rules; • assumptions: • test data (variables and their values); • steps to be executed; • expected results; • pass/fail criteria; • space to document actual results and • space for comments.

4.2.7. Implementation Plan and Related Documentation

The Contractor shall develop and submit an Implementation Plan and related documentation that identifies its approach that covers the major elements of the implementation, including coordination with the Agencies' ETTM System Contractors, Third-Party Service Providers and Business Partners and others.

143	The Contractor shall develop and submit the Implementation Plan that documents all implementation related activities for the Project for Agencies' review in accordance with the Approved Baseline Project Schedule.
144	<p>The Implementation Plan shall define all elements of implementation, including but not limited to:</p> <ul style="list-style-type: none"> the detailed implementation schedule, detailing all activities for the implementation of the BOS, including coordination with ETTM System Contractors, Third-Party Service Providers and Business Partners and others as required. Once the implementation schedule is Approved by the Agencies, the Contractor shall submit to the Agencies updates during the implementation period(s) identifying any proposed implementation schedule changes and Work progress in the form of percentage completions; resource allocation Requirements for all implementation period(s); procurement and installation of the communications network; Quality Control, Quality Assurance, inspection and testing processes; special or unique implementation Requirements and an organization chart with contact information, roles and responsibilities and includes ETTM System Contractors, Third-Party Service Providers and Business Partners and others as required and
	<ul style="list-style-type: none"> Go-Live checklist
145	The Contractor shall develop and submit to the Agencies a full size (24" by 36") set of drawings with installation notes, providing sufficient and accurate detail of all systems and network layouts at all facilities that have BOS equipment.

4.2.8. Disaster Recovery Plan

The Disaster Recovery Plan (DRP) is a comprehensive, documented statement of actions to be taken before, during and after a disaster to protect and recover the information technology data, assets and facilities of the BOS.

146	The Contractor shall develop, test, and submit a Disaster Recovery Plan (DRP) and subsequent Disaster Recovery procedures that describe the approach, as well as procedures to take place in the event of a disaster for the BOS.
147	The DRP shall document the Contractor's approach to and planning for recovering from a disaster, including but not limited to:

	<ul style="list-style-type: none"> • define what constitutes disaster, associated risks and severity levels and timeframes to address (e.g., earthquake, flood, electrical outage, general loss of access to building, etc.) • mitigation of disaster risks; • preparations in the event of a disaster; • organization chart illustrating Disaster Recovery team members, roles and responsibilities; • notification contact list, including contact information; • notification protocol; • sites and equipment for Disaster Recovery, presented in a diagram format; • Disaster Recovery process initiation and completion checklist; • coordination with the ETTMS System Contractors and all Third-Party Service Providers and Business Partners; • Software, system and data replication processes; • detailed logistical processes for activation of Disaster Recovery site and systems; • detailed technical processes for activation of Disaster Recovery site and systems; • detailed operational functions for activation of Disaster Recovery site and • detailed technical processes for reactivation of primary site (or moving to a new primary site if the original primary site is destroyed) for systems and coordination with Agencies' operations.
148	<p>The DR shall include the following BOS information, including but not be limited to:</p> <ul style="list-style-type: none"> • Recovery Point Objective (RPO): maximum acceptable amount of data loss for all critical BOS services after an unplanned data-loss incident; • Recovery Time Objective (RTO): maximum acceptable amount of time for restoring a critical BOS services and regaining access to data after an unplanned disruption; • Level of Service (LOS): the combination of throughput and functionality required to sustain BOS business operations and • detailed description of how site and BOS security shall be maintained to ensure continued compliance with the Security Standards.
149	<p>The DRP shall be tested and updated by the Contractor annually.</p>

4.2.9. Business Continuity Plan

The Business Continuity Plan (BCP) is a comprehensive, documented statement of strategy, as well as the planning, actions and processes that allows the Agencies to continue BOS and CSC Operations

after experiencing a disruptive event. For BCP Plan development purposes, the Corona CSC and the Anaheim Processing Center/CSC will serve as backup facilities to each other.

150	The Contractor shall develop, test, and submit a Business Continuity Plan (BCP) that details the Contractor's approach to accommodating the staffing capabilities, furnishings, equipment, systems, network, applications and data components required to ensure the continuity and resumption and continuity of critical BOS processes.
151	The Contractor shall be responsible for providing a plan for using the Corona CSC and the Anaheim Processing Center/CSC as backup facilities to each other in order to continue CSC Operations in the event of a disaster at either facility.
152	The Contractor shall be responsible for providing a high-level plan for restoring CSC Operations in the event that both facilities become unavailable; however, the plan shall not result in any costs to the Agencies for pre-staging of equipment and personnel.
153	Changes to the operations BCP shall be reflected in the BCP within 30 Calendar Days of Approval. The Contractor shall distribute, train and educate the operations staff on the BCP.

4.2.10. Transition Plan

The BOS Transition and Data Migration Plan and the Operations Transition Plan together form the Transition Plan that the Contractor will develop and use to successfully transition from the Existing BOS and CSC Operations Contractor's systems and operations to the new.

4.2.10.1. BOS Transition and Data Migration Plan

The Agencies require data migration and the transition from the existing BOS to the new BOS. The Contractor shall provide a comprehensive Transition Plan that fully describes the process. The Transition Plan shall include all aspects related to data migration including details of all data migration tools, schedule and all activities required for transition of transaction/trip information and other data to the BOS for Go-Live.

Shutdown and decommissioning is to be performed by the Existing BOS and CSC Operations Contractor or the Agencies. The Agencies may decide to have the existing BOS remain in limited production to provide for reporting and processing of some existing Violations.

154	The Contractor shall coordinate with the Agencies, Existing BOS and CSC Operations Contractor, the existing collection agency, and ETTM System Contractors to develop and provide a detailed BOS Transition Plan and data migration strategy, subject to Approval by the Agencies that identifies all aspects of migrating data and transition of all activities and systems associated with the implementation of the BOS in accordance with the Security Standards.
155	<p>The BOS Transition Plan shall incorporate all aspects of the BOS transition, including but not limited to:</p> <ul style="list-style-type: none"> • data migration approach; • CSC Operations transition aspects;

	<ul style="list-style-type: none"> • approach to data cleansing; • approach to the iterative and repetitive testing regiment and • approach to BOS Go-Live and roll-back process.
156	<p>The BOS Transition Plan shall provide technical and operational details, including but not limited to:</p> <ul style="list-style-type: none"> • schedule including all anticipated downtime; • communication procedures; • mapping of all activities to be transitioned; • transactional and financial reconciliation and reporting during transition; • approach for migration of debt from existing collection agency to the new Collection Agencies; • reconciliation of the prepaid account balance in total and the individual customer account level from existing BOS to new BOS; • management of any payments, credits, refunds, pending transponder orders or other financial transactions in process at the time of transition; • management of all time sensitive processes including but not limited to Violation escalations, account statements, account balance notifications; • management of CTOC files in process; • coordination and Interface cutover activities required with Existing BOS and CSC Operations Contractor, ETTM System Contractors and Third-Party Service Providers and Business Partners; • transition of domain names and URLs; • data migration and transition team organizational structure, roles and responsibilities; • data migration test scripts and • other activities required for the Go-Live from an operations standpoint.
157	<p>The BOS Transition Plan shall include detailed steps and relative timing in a phased cutover of the existing BOS to the new BOS.</p>
158	<p>The data migration process shall follow the standards and timeframes in accordance with the Security Standards and include, but not be limited to the following:</p> <ul style="list-style-type: none"> • all current and historical account information, including notes, contact history, statements, correspondence, scanned documents and past addresses;

	<ul style="list-style-type: none"> historical Violation trip data, all violations in collections, and all violations in progress;
	<ul style="list-style-type: none"> all current and historical vehicle information;
	<ul style="list-style-type: none"> all current and historical transponder information including status;
	<ul style="list-style-type: none"> all Financial Transactions that affect the balance of account including trips/transactions, all fees paid, all credits and all others;
	<ul style="list-style-type: none"> all transponder inventory information;
	<ul style="list-style-type: none"> all Collections Placement information;
	<ul style="list-style-type: none"> tolls file – detailed information regarding the toll transaction/trip including transaction/trip date, time, plaza, lane, speed, entry transaction/trip date, time, plaza, lane, entry speed posted or rejected status, class and axles of vehicle, full fare amount, collected amount, discount amount, violation Flag and a Flag to indicate if the transaction/trip is reconciled back to host and
	<ul style="list-style-type: none"> archived data – data extraction for data that is in archived system including customer correspondence, transaction/trip images, batch server files including CTOC, DMV, etc.
159	The data migration plan shall include an assessment of what will be migrated from the existing BOS data archive.
160	The data migration plan shall include details for the protection and encryption of sensitive data, such as PCI and PII, during the migration of data.
161	The Contractor shall provide risk and contingency planning that is broken into manageable options such that the progress can be evaluated at critical phases.
162	<p>The data migration procedures shall include but not be limited to:</p> <ul style="list-style-type: none"> comprehensive analysis and mapping of existing toll system data between the existing BOS and new BOS; identification of functionality and data to be migrated and any functionality and data that will not be migrated; identification of any existing data deficiencies, including proposed solutions; identification of any cleansing, transformation and pre-processing that needs to be performed on the data prior to its migration; identification of any cleansing, transformation and post-processing that needs to be performed on the data after its migration; data validation and verification processes for the migrated data at critical phases of the migration and

	<ul style="list-style-type: none"> detailed data migration and transition checklists, responsible person and decision process for Go-Live.
163	The data migration strategy also shall include all of the trial migrations to be conducted where the migration and validation process is exercised. A minimum of two (2) successful migrations shall be conducted.
164	The Contractor shall verify and demonstrate the ability of the BOS (once all the Agencies' data is successfully migrated) to meet the Security Standards.

4.2.10.2. Operations Transition Plan

The Operations Transition Plan shall be developed by the Contractor and shall include an explanation of how the Contractor will manage the transition of the existing BOS and CSC Operations to the new CSC Operations managed by the Contractor.

165	The Contractor shall coordinate with the Agencies and the Existing BOS and CSC Operations Contractor to develop and develop a detailed Operations Transition Plan that identifies the implementation and transition of all activities, data and Agency-owned materials associated with the implementation of the CSC from the Existing BOS and CSC Operations Contractor to the Contractor.
166	The Operations Transition Plan shall include how the Contractor will stage new operations for Go-Live while the existing Contractor performs their work.
167	The Operations and Transition Plan shall address how and where the Contractor will train the new and existing staff without disrupting current operations.
168	The Operations and Transition Plan shall address what equipment owned by the Agencies the Contractor intends to reuse, what existing contractor equipment the Contractor intends to purchase or assume a lease for, changes to the current offices the Contractor intends to make and service agreements the Contractor intends to assume from the existing contractor.
169	<p>The Operations Transition Plan shall incorporate all aspects of the CSC Transition, including but not limited to:</p> <ul style="list-style-type: none"> customer service work in progress; transponder inventory; Violation work in progress; all printed customer collateral; hardcopy documentation; softcopy information owned by the Agencies; transition of CSC facilities from Existing BOS and CSC Operations Contractor to the Contractor;

	<ul style="list-style-type: none"> • post office boxes;
	<ul style="list-style-type: none"> • Postage meters;
	<ul style="list-style-type: none"> • Web domains and URLs;
	<ul style="list-style-type: none"> • Website static content (from existing to new website);
	<ul style="list-style-type: none"> • phone numbers;
	<ul style="list-style-type: none"> • Licenses;
	<ul style="list-style-type: none"> • staffing;
	<ul style="list-style-type: none"> • Service contracts;
	<ul style="list-style-type: none"> • training and
	<ul style="list-style-type: none"> • Go-Live.
170	The Operations Transition Plan also shall include coordination with the Agencies and Existing BOS and CSC Operations Contractor regarding the orderly shutdown and decommissioning of the legacy operations by the Agencies and the Existing BOS and CSC Operations Contractor after BOS Go-Live.
171	The Operations Transition Plan shall include a transition schedule, detailing any operations' down time required and the expected duration of the outages.
172	The Operations Transition Plan shall be submitted for Approval by the Agencies as a part of the Operations Plan in accordance with the Approved Baseline Project Schedule.

4.2.11. End of Agreement Transition Plan

The End of Agreement Transition Plan shall address how the Contractor will support the Agencies and the Contractor's successor to facilitate a seamless transition upon termination or expiration of the Agreement.

173	The Contractor shall develop a detailed End of Agreement Transition Plan that identifies the transition of all activities and Agencies-owned materials and data associated with the Operation of the CSC at the end of the Agreement.
174	<p>The End of Agreement Transition Plan shall incorporate all aspects of the transition, including but not limited to:</p> <ul style="list-style-type: none"> • customer service work in progress; • transponder inventory; • all printed customer collateral; • all supplies and consumables on hand;

	<ul style="list-style-type: none"> • hardcopy documentation; • softcopy information owned by the Agencies; • CSCs; • staffing; • training and • Contractor orderly shutdown of non-transitioned items, facilities and services.
175	The End of Agreement Transition Plan shall be submitted for Approval by the Agencies as a part of the Operations Plan in accordance with the Approved Baseline Project Schedule.
176	The End of Agreement Transition Plan shall be updated and submitted for Approval by the Agencies every two (2) years over the term of the Agreement.

4.2.12. Operations Plan

The Operations Plan is a comprehensive source of information about how the CSC will be managed and operated.

177	<p>The Contractor shall develop and maintain a comprehensive Operations Plan that details all aspects of the Operation of the CSC, including but not limited to:</p> <ul style="list-style-type: none"> • A description of each department/functional area and providing sufficient detail for the Agencies to understand the functions and responsibilities of each department and how it will be staffed, managed and operated. • all the Agencies' Business Rules and policies related to the CSC Operations; • account Terms and Conditions; • detailed SOPs required to operate the CSC; • customer data privacy policy; • data and physical security including periodic access audit and reporting; • human resources and staffing policies and procedures; • background check processes; • employee code of conduct; • Agencies' Holidays and hours of operation, including the CSC and other CSC facilities, if applicable; • detailed scripts for common customer interactions;
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	<ul style="list-style-type: none"> • copies of each form, spreadsheet, manual tracking sheet, report, letter, email copy, and text copy (BOS and non-BOS generated) which the Contractor will utilize in the operation of the CSC;
	<ul style="list-style-type: none"> • Quality Control and verification procedures to ensure operations meet the Performance Measures;
	<ul style="list-style-type: none"> • operations monitoring to ensure compliance with Requirements;
	<ul style="list-style-type: none"> • a description of how the Contractor will communicate with the Agencies pertaining to day-to-day operations and general issues and problems, including but not limited to: Case management, correspondence management, escalation procedures, Document control, and Submittals procedures;
	<ul style="list-style-type: none"> • a description of how the Contractor will communicate with the Agencies and Interoperable Agencies in handling customer disputes, dismissals, payments and reconciliation;
	<ul style="list-style-type: none"> • detailed structure and schedule for monthly maintenance and operations meetings with the ETTM System contractor and the Agencies (separate meetings or combined at Agencies' discretion);
	<ul style="list-style-type: none"> • emergency response management procedures, including a detailed description of how the Contractor will communicate and respond to emergency conditions and
	<ul style="list-style-type: none"> • processes and procedures instituted to ensure high customer satisfaction including the details of the Customer Satisfaction Survey Provider and program that will be used to monitor customer satisfaction with the CSC.
178	The Contractor shall provide updates and changes to the Agencies no less than annually for Approval and incorporation into the Plan. The Operations Plan shall be a living Document and as such, shall be updated and reviewed/Approved by the Agencies whenever changes are made to any element of the operations covered in the Plan.
179	The Contractor shall publish a full revision of the Operations Plan no less than annually.
180	The Operations Plan shall be submitted for Approval by the Agencies in accordance with the Approved Baseline Project Schedule.

4.2.13. Standard Operations Procedures (SOPs)

181	The Contractor shall develop and maintain the SOPs. The SOPs shall use detailed narratives and process flow diagrams in providing step-by-step procedures for every task the Contractor performs. The SOPs shall detail both manual and BOS-aided steps and procedures.
182	Approved, new policies, procedures and changes to existing policies and procedures shall be updated in the SOPs quarterly. The Contractor shall distribute, train and educate the operations staff and the Agencies in accordance with the SOPs.
183	The SOPs shall be submitted for Approval by the Agencies as a part of the Operations Plan.

4.2.14. Staffing and Human Resource Management Plan

The Staffing and Human Resources Plan defines the required human resources needed to meet all of the Requirements for the CSC. It details the selection and assignment of an operations team. It describes how the staff will be recruited, vetted, trained, compensated, evaluated, disciplined, and terminated. The Staffing and Human Resources Management Plan shall identify the appropriate skill sets and labor to manage the Work and to perform the tasks that produce the specified Deliverables, customer service and performance. It also shall provide for any additional non-labor resources such as tools, equipment, or processes used by the operations team.

184	The Contractor shall develop a Staffing and Human Resource Management Plan that includes details of the Contractor's staffing program.
185	The Staffing and Human Resources Management Plan shall include a hiring/assignment schedule for anticipated resource Requirements for the duration of the Project.
186	The Staffing and Human Resources Management Plan shall include a detailed description of the approach for retaining existing staff including early coordination with staff, focused recruiting and incentive programs.
187	<p>The Contractor shall develop and provide an organizational approach for staffing in the Staffing and Human Resources Management Plan designed to meet the Requirements. This includes but is not limited to:</p> <ul style="list-style-type: none"> • organizational chart with all staff positions (including Subcontractors), head count and reporting relationships; • job descriptions for all staff positions by position type; • identification of functions which have been subcontracted, the name and responsibilities of the Subcontractor, and name(s) and contact information for Subcontractor's key personnel; • description of the process used for determining the appropriate staffing levels for each position; • a schedule describing the daily and weekly staff shifts and a description of how the Contractor will adjust staffing to accommodate seasonal and dynamic changes in work volume; • recruitment process; • background investigation approach; • pre-employment testing; • training, testing and re-training policies and procedures including refresher and remedial training for both remote and local staff; • employee retention and career development program; • employee monitoring, performance evaluation and coaching;

	<ul style="list-style-type: none"> • employee disciplinary process and;
	<ul style="list-style-type: none"> • employee termination process.
188	The Staffing and Human Resources Management Plan shall also include the location of all personnel required to meet Project Requirements (on-site or remote), as well as the Contractor's approach to providing on-site training and support for remote staff.
189	This Staffing Plan shall be submitted for Approval by the Agencies as a part of the Operations Plan in accordance with the Approved Baseline Project Schedule.

4.2.15. Reporting and Reconciliation Plan

The Reporting and Reconciliation Plan shall include a comprehensive, detailed description of actions to be taken and information to be provided to the Agencies related to all aspects of the CSC Operations related to reporting and reconciliation for OCTA and RCTC. This document will identify each report and its associated delivery schedule and provide an explanation of the report and its underlying data and how it is used.

190	The Contractor shall develop and submit to the Agencies for Approval, a Reporting and Reconciliation Plan that details the Contractor's reporting and reconciliation process.
191	The Reporting and Reconciliation Plan identifies the procedures that the Contractor will use to perform, manage and reconcile all aspects of the CSC. This includes both transactional and financial reconciliation, including allocation of all Contractor's cost and Third-Party Service Provider and Business Partner associated revenue and/or costs, including separate reporting for the 91 Express Lanes.
192	Each reconciliation shall have a separate section which identifies the reports used for the reconciliation, whether or not the report is generated from the BOS, received from a Third-Party Service Provider or Business Partner (e.g., banks, Collection Agency, Lockbox Service Provider, etc.) or developed manually by the Contractor.
193	<p>The Plan shall describe each provided report or report set and the schedule for providing it along with a sample of each report set. This includes but is not limited to:</p> <ul style="list-style-type: none"> • daily reconciliation report; • monthly reconciliation report; • Quarterly reconciliation report; • annual reconciliation report; • description of financial and cash/check handling controls for the CSCs; and, • other operations and financial reports as needed to fully reconcile and meet the operations Requirements.

4.2.16. Records

194	The Contractor shall meet all data retention Requirements, including durations for retention, as set forth in the Security Standards. The Contractor shall make every effort, within practical business and cost constraints, to purge the personal account information of an account that is closed or terminated. In no case shall the Contractor maintain personal information more than four years and six months after the date an account is closed or terminated. The Contractor shall periodically audit the BOS to verify that it is in conformance with the retention policy.
195	<p>If specific documents or data retention Requirements are not covered in the Security Standards, or the retention Requirement is greater in other applicable Requirements, the Contractor shall maintain records, for the duration of the Agreement period, in compliance with the longer retention period Requirement. Other applicable Requirements include but are not limited to:</p> <ul style="list-style-type: none"> • GAAP; • record retention policies for the Agencies; • IRS Requirements; • The California State Archives Data Retention Schedule; • all applicable federal, state, local and other laws and regulatory matters and • Security Standards.
196	Standards for records management and retention may change during the Operations and Maintenance Phase. The Agencies will provide any updates to their internal policies and procedures that may impact the CSC as appropriate; however, it is the Contractor's responsibility to ensure it is aware of any changes to all non-Agency standards, as described in these Requirements, and to incorporate those changes, as appropriate, subject where applicable, to the Agreement Modification provisions of the Agreement.
197	The Contractor shall be responsible for data retention and purging of all paper records, in accordance with the Agencies' retention policy and all of the Requirements related to records retention. In the event of a conflict between Requirements, the Contractor shall immediately notify the Agencies.
198	The Contractor shall maintain records and data essential to providing objective evidence of quality, and these records shall be made available to the Agencies upon request.
199	<p>Quality-related records and data shall include but not be limited to:</p> <ul style="list-style-type: none"> • inspection and test results; • records of Subcontractor Quality programs; • change request documentation; • Customer Satisfaction Survey results;

	<ul style="list-style-type: none"> • operational reviews and walk-throughs and • results of internal and Contractor audits.
200	The Contractor shall maintain records in a manner that allows easy access and analysis.

4.2.17. Management Reporting

201	<p>The Contractor shall prepare and submit to the Agencies a single Monthly Operations Report in an Approved format, on an agreed-upon day each month. This report shall provide the information required for the Agencies to verify the Contractor performance as reported by the Contractor, including but not limited to:</p> <ul style="list-style-type: none"> • Project Oversight Report; • Contractor Performance Report (including performance against the Performance Measures); • monthly operations invoices for the corresponding period; • three-month and one-year look forward for budgeted staffing based on estimated volumes; • other agreed-to CSC Operations reports; • updates to documents and plans which have occurred in the previous month and • updated action item list and Approved meeting minutes from the previous month.
202	The Monthly Operations Report package shall detail the Contractor's performance against the Performance Measures (Contractor Performance Report) in tabular and graphical formats. The Contractor shall use reports and other data from operations as Approved, to conduct an analysis of the data and summarize the results. The basis for the data must be the BOS reports and all data must be reconciled against the appropriate BOS report(s).
203	The data shall be presented in a graphical and tabular format showing the Contractor's comparative monthly performance over time.
204	The presentation of the information shall be clear, concise, and professionally organized and formatted.
205	Any failures to meet the Performance Measures shall be identified and details submitted, including the Contractor's plan to correct such occurrences. The associated non-compliance performance adjustment for such failures shall be summarized and tabulated with the total non-compliance performance adjustment provided.
206	At a minimum, the Contractor's Monthly Operations Report shall include the reports listed below; however, the final list of documents to be included shall be developed and Approved as a part of the Operations Plan.

	<ul style="list-style-type: none"> • Project Oversight Report: This report summarizes the Contractor's Project activities for the reporting period, including major accomplishments, issues and summary reporting. The Project Oversight Report also shall include an updated action items list that tracks all open items to be resolved by the Contractor. The list shall include task description, date created, owner, status, priority, impact/justification, completion due date and notes pertaining to the completion of each task. A status of operational changes shall be included in the Report. The Contractor shall provide status on all existing and new BOS issues that affect operations. The Contractor also shall make recommendations for innovations, processes and BOS improvements and other suggested changes, which will improve customer service or increase operational efficiency.
	<ul style="list-style-type: none"> • Operations Reports: This suite of reports shall provide the details required to support the Project Oversight Report, including but not limited to: customer contacts, mail handling and Notification response; Case handling; transponder Fulfillment; payments processed; customer disbursements processed; the Agencies' and Interoperable Agency settlements processed; returned payments processed; chargebacks processed; inventory item Fulfillment and balancing, and reconciliation. Reports related to ongoing Customer Satisfaction Surveys and QA activities and translation services shall also be provided.
	<ul style="list-style-type: none"> • Refund Account reconciliation and request for replenishment: The Agencies have different Business Rules related to the processing of refunds. Some refunds may be issued by the Contractor; others will be issued by the Agency; however, the Contractor shall enter these refund checks into the Agencies' financial accounting systems for issuance by the Agencies. The Contractor shall provide account reconciliation reporting to the Agencies at least monthly and in accordance with the Operations Plan.
	<ul style="list-style-type: none"> • Contractor Performance Report: The Contractor shall be fully responsible for the CSC Operations meeting or exceeding required performance. Failure to do so may result in the assessment of non-compliance performance adjustments as set forth in Volume IV Performance Measures. The Contractor shall use the Approved tracking and reporting methods to prove its monthly performance against the Performance Measures.
	<ul style="list-style-type: none"> • Monthly Operations Invoices: The Agencies shall receive a Contractor's invoice for the period corresponding to the Monthly Operations Report. The invoice shall detail the specific amounts due from the Agencies. Contractor shall address costs that are netted out from the Contractors toll revenue payment to the Agencies, for example credit card fees and collections fees. Any associated Liquidated Damages shall be allocated to the Agencies separately. The Agencies will not pay operation invoices that are not accompanied by the complete and accurate Approved Monthly Operations Report package.
207	<p>Any performance deficiency the Contractor proposes to have excluded from the non-compliance performance adjustment calculation shall be documented on the Approved Waiver Form and explained in detail, with supporting documentation sufficient for the Agencies to make a determination as to the acceptability of the exclusion. If the Agencies need additional information to make a determination the Contractor shall provide such information expeditiously. Adjustments will not be considered until full required documentation is provided by the Contractor.</p>

208	The Waiver Form must be submitted within 30 calendar days of the affected invoice in order to be considered by the Agencies.
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4.2.18. Training Plan

The Contractor shall provide a training program to educate Contractor staff, the Agencies and others on the BOS and operations, as described in Section 5. The Contractor is responsible for providing a Training Plan that describes the approach to training activities.

209	The Contractor shall develop and maintain a Training Plan, subject to Approval by the Agencies, in accordance with the Approved Baseline Schedule.
210	The Training Plan shall describe the plan for training CSC Operations staff and Agency-designated individuals and shall outline the required operational/maintenance and BOS knowledge for each position to be gained from the training. For each BOS position/user type, the plan shall include a training instructor guide, training manual and other materials to be used in training.
211	The Training Plan shall include a schedule for regular staff training, follow-up training and continuing education for staff.
212	<p>The Training Plan shall describe the approach to training administrators, end users at different levels, maintenance and support personnel, including but not limited to:</p> <ul style="list-style-type: none"> • overall description of the training program; • training techniques; • training delivery schedule; • how training will occur with staff working on live operation; • recurring training through life of the Agreement; • names and descriptions of each training class; • purpose of each training class; • who should attend the class; • qualification Requirements for trainer; • minimum qualifications for personnel attending the class; • duration of the class; • training materials, including syllabus, schedule, training goals, manuals, guides, other support materials and techniques to be used; • data preparation, such as test accounts and test transactions/trips; • required equipment and

	<ul style="list-style-type: none"> • facility Requirements.
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4.2.19. Maintenance Plans

The Contractor shall develop and submit the Maintenance Plans listed below that describe how the Contractor plans to perform the Maintenance of the BOS and all Hardware, Software and systems at the BOS facilities and CSC throughout the Operations and Maintenance Phase. The Contractor shall have appropriate BOS documentation available to all maintenance and Software support personnel, as required to perform their respective duties.

4.2.19.1. System Maintenance Plan

213	The Contractor shall develop and submit the System Maintenance Plan that defines the approach to services, staffing and resources to fulfill the BOS System Maintenance Requirements. The Contractor shall identify the Contractor's maintenance responsibilities and shall include but not be limited to:
	<ul style="list-style-type: none"> • organizational structure, organizational chart and job descriptions and responsibilities;
	<ul style="list-style-type: none"> • staffing plan;
	<ul style="list-style-type: none"> • approach to training;
	<ul style="list-style-type: none"> • detailed BOS monitoring Requirements;
	<ul style="list-style-type: none"> • staff schedule and locations;
	<ul style="list-style-type: none"> • third-party system support agreements overview;
	<ul style="list-style-type: none"> • location of offsite data storage;
	<ul style="list-style-type: none"> • schedule of all System Maintenance activities, including anticipated Upgrades/Enhancement releases;
	<ul style="list-style-type: none"> • description of all System Maintenance related communication methods;
	<ul style="list-style-type: none"> • maintenance procedures, communication protocols and Approval processes for BOS Upgrades, Software deployments, scheduled maintenance activities, change management and scheduled downtime;
	<ul style="list-style-type: none"> • maintenance procedures and communications protocols for unscheduled downtime;
	<ul style="list-style-type: none"> • communication Protocol for coordination with Interoperable Agencies and Third-Party Service Providers and Business Partners and WICs;
	<ul style="list-style-type: none"> • communication protocol for coordination with the Agencies' other toll system vendors;
	<ul style="list-style-type: none"> • trouble reporting processes, notification protocols for issues and failures, and maintenance reporting processes;

	<ul style="list-style-type: none"> • prioritization, response, escalation, and repair processes;
	<ul style="list-style-type: none"> • spares levels, equipment and third-party Software warranty tracking and return material processes;
	<ul style="list-style-type: none"> • monitoring maintenance performance for compliance with Performance Measures;
	<ul style="list-style-type: none"> • sample maintenance reports and reporting processes;
	<ul style="list-style-type: none"> • processes for supporting internal and external audits;
	<ul style="list-style-type: none"> • Security Standards compliance monitoring, Upgrades and safeguards;
	<ul style="list-style-type: none"> • system intrusion monitoring and safeguards;
	<ul style="list-style-type: none"> • equipment replacement/refresh schedule;
	<ul style="list-style-type: none"> • Upgrades to third-party Software and tools and
	<ul style="list-style-type: none"> • processes in place to meet Performance Measures.

4.2.19.2. Software Maintenance Plan

214	<p>The Contractor shall develop and submit a Software Maintenance Plan that defines the approach to services, staffing and resources to fulfill the Software Maintenance Requirements and warranty provisions as set forth in the Agreement, including but not be limited to the following elements:</p>
	<ul style="list-style-type: none"> • organizational structure, organizational chart with job descriptions and responsibilities;
	<ul style="list-style-type: none"> • staffing plan;
	<ul style="list-style-type: none"> • approach to staffing and training;
	<ul style="list-style-type: none"> • approach to receiving and prioritizing Software defects (bugs);
	<ul style="list-style-type: none"> • reporting, categorization, prioritization and disposition of Software defects;
	<ul style="list-style-type: none"> • coverage and personnel locations;
	<ul style="list-style-type: none"> • all Software maintenance related communication methods;
	<ul style="list-style-type: none"> • Maintenance procedures, communication protocols and Approval processes for Software Upgrades, scheduled maintenance activities, change management and scheduled downtime;
	<ul style="list-style-type: none"> • documented change control procedures;
	<ul style="list-style-type: none"> • maintenance procedures and communications protocols for unscheduled downtime;

	<ul style="list-style-type: none"> • trouble reporting processes;
	<ul style="list-style-type: none"> • escalation processes;
	<ul style="list-style-type: none"> • sample maintenance reports;
	<ul style="list-style-type: none"> • Software updates to comply with Interoperable Agencies' specification changes and Third-Party Service Providers and Business Partners Interface changes;
	<ul style="list-style-type: none"> • Software updates to be compliant with Security Standards and
	<ul style="list-style-type: none"> • processes in place to meet Performance Measures.

4.2.20. Third-Party Documentation

Third-Party documentation includes standard commercial documentation for third-party provided Hardware, Software, services and materials.

215	The Contractor shall provide and maintain standard, commercially available, updated documentation for third-party provided Hardware, Software, services and materials provided under this Agreement. This set of third-party documentation shall be available upon request.
216	An electronic copy of all third-party Commercial Off-the-Shelf (COTS) Hardware and Software installation and user manuals, with updates, shall be provided to the Agencies.

4.2.21. Manual Requirements

Various manuals shall be provided to educate and guide BOS administration staff and allow the Agencies to understand the operations of the BOS.

217	Whenever possible, all data shall be printed on 8-1/2" x 11" sheets; foldouts shall be 11" x 17".
218	Each manual shall include, but not be limited to: <ul style="list-style-type: none"> • a title sheet; • revision history; • Table of Contents; • list of illustrations (if applicable); • list of reference drawings and exhibits (if applicable) and • a parts list (if applicable).
219	All manuals shall have a consistent look and feel and shall be professionally written and presented in clear and organized fashion.

220	All manuals prepared for the Agencies under this Agreement shall be produced, or editable, using Microsoft Office 2010 Suite (or higher). In addition, electronic copies of manuals shall be provided in unsecured Portable Document Format (PDF), if requested by the Agencies.
221	Any special Software required to produce scalable typefaces or other graphs shall be provided by the Contractor as part of the documentation for the manuals.
222	All manuals shall be submitted and Approved as a condition of Go-Live.

4.2.21.1. Manual Submissions and Quantities

223	The Contractor shall submit two (2) hard copies of each of the manuals listed below.
224	The Contractor shall submit electronic copies of all manuals listed below.
225	All manuals shall be maintained in electronic format in the Contractor-provided EDMS.
226	The Contractor shall be responsible for producing an additional quantity of the manuals for the Contractor's use, sufficient to fulfill the Contractor's Requirements.
227	The Contractor shall submit the draft and final manuals described below for the Agencies' review and comment, in accordance with the Approved Baseline Implementation Schedule. All final versions of manuals shall be provided and Approved before system Go-Live.

4.2.21.2. Manuals to be Submitted

4.2.21.2.1. BOS User Manuals

228	The Contractor shall develop and submit BOS User Manuals to be used by CSC Operations staff to operate the BOS and for training purposes.
229	The Contractor shall develop manuals logically to cover job categories and functions. The manuals shall detail all of the processes, procedures and policies developed by the Contractor that are required to fulfill the Requirements for each of these categories and functions. An example of a functional area is finance, which should include all basic financial responsibilities and functions, including the entire reconciliation process.
230	Each BOS User Manual shall include but not be limited to: <ul style="list-style-type: none"> • screen images detailing the step-by-step activities needed to fulfill a specific functionality; • flowcharts to provide the CSC Operations staff a clear understanding of the workflow; • all screens, reports and data fields, clearly explained using sample formats applicable to the BOS and • samples of all reports, included in the manual or as an attachment to the manual, with any specific instructions that may apply to a given report.

4.2.21.2.2. BOS Finance and Financial Controls Manual

231	The Contractor shall develop and submit the BOS Finance and Financial Controls Manual, which shall include but not be limited to:
	<ul style="list-style-type: none"> • detailed descriptions of all procedures to balance and reconcile the BOS;
	<ul style="list-style-type: none"> • detailed descriptions of Financial Account Posting, reporting and reconciliation to each of the Agencies' Bank Accounts;
	<ul style="list-style-type: none"> • detailed descriptions of reconciliation of transactions/trips and revenue within the BOS with each of the Interoperable Agencies and for payments made to the Agencies and Interoperable Agencies;
	<ul style="list-style-type: none"> • processes and reports used to reconcile third-party payments processed and money deposited in the Agencies' banks;
	<ul style="list-style-type: none"> • detailed descriptions of reconciliation of all collections activity and all exceptions processing;
	<ul style="list-style-type: none"> • detailed descriptions of the screens, reports and functions that allow Contractor or the Agencies' finance personnel or independent auditors to access, understand and work with all financial aspects of the BOS;
	<ul style="list-style-type: none"> • complete descriptions of all reconciliation procedures and a non-technical description of the screens, reports and functions;
	<ul style="list-style-type: none"> • illustrations and pictorial diagrams to demonstrate the step-by-step operations required for performing the balance and reconciliation functions and
	<ul style="list-style-type: none"> • included as an attachment to the manual, samples of all relevant reports, with any specific instructions that may be applicable to a given report.
232	Reports included in the BOS Finance and Financial Controls Manual shall have correct and accurate data.
233	The BOS Finance and Financial Controls Manual shall be used to train the CSC finance personnel and the Agencies' finance personnel.

4.2.21.2.3. BOS Administrator Manual

234	The Contractor shall provide a BOS Administrator Manual that serves as a guide to the overall management and administration of the BOS, and it shall include but not be limited to:
	<ul style="list-style-type: none"> • detailed Hardware maintenance activities and schedule;
	<ul style="list-style-type: none"> • detailed database maintenance activities and schedule;
	<ul style="list-style-type: none"> • detailed Software monitoring activities and schedule;
	<ul style="list-style-type: none"> • detailed monitoring procedures for file transfers and exception handling;

	<ul style="list-style-type: none"> • detailed procedures and processes for all maintenance activities;
	<ul style="list-style-type: none"> • detailed procedures for backup, archiving and purging data;
	<ul style="list-style-type: none"> • detailed procedures for testing and executing Disaster Recovery and Business Continuity;
	<ul style="list-style-type: none"> • detailed schedule for all preventative maintenance activities;
	<ul style="list-style-type: none"> • scheduled time and maximum run time for all BOS jobs and/or processes;
	<ul style="list-style-type: none"> • technical contact lists for all third-party technical contacts;
	<ul style="list-style-type: none"> • technical contact lists for Hardware, Software providers and third-party support agreements;
	<ul style="list-style-type: none"> • details and copies of all third-party system support agreements;
	<ul style="list-style-type: none"> • general information, such as maintenance shifts, code of conduct and other human resource aspects and
	<ul style="list-style-type: none"> • details of the security access system configuration, user access privileges and controls and user tracking processes utilized to ensure system security and to maintain data integrity.

4.2.22. As-Built Documentation

Prior to the Agencies' Final BOS Acceptance of the Implementation Phase, as-built documentation shall be provided that documents the final BOS design and Implementation.

4.2.22.1. As-Built System Detailed Design Document

235	After the Approval of the operational test, and prior to the Agencies' Final BOS Acceptance of the Implementation Phase, the Contractor shall submit the As-Built SDDD that includes all Software and Hardware changes made during the system development, implementation and testing phases.
236	The Contractor shall submit two (2) hard copies in addition to an electronic version of the As-Built SDDD. Acceptable electronic formats are unsecured Portable Document Format (PDF), Microsoft Office 2010 Suite or higher and professional CAD applications.

4.2.22.2. As-Built Drawings

237	The Contractor shall provide the Agencies with a complete set of As-Built Drawings, which shall be delivered as two (2) hard copies of the complete sets of drawings. The same shall be delivered in electronic format for all equipment, network and Hardware installed and furnished as part of the BOS. As material changes are made to the system by the Contractor shall update the As-Built Drawings to reflect the current status.
	The As-Built Drawing sets shall include but not be limited to:

238	• all schematics;
	• logic diagrams;
	• Hardware layouts;
	• wiring diagrams;
	• interconnection diagrams;
	• installation diagrams;
	• cable schedule;
	• Interface details;
	• facility build-out details and
	• network diagrams.
239	The Contractor shall update the latest drawings with red lines as changes are incorporated during the installation process. At the completion of the installation, the Contractor shall gather all red line drawings.
240	The red line drawings shall be verified and incorporated into a final As-Built Drawing package. This final as-built package shall include all updated installation drawings, shop drawings and sketches, plans and other drawing types that were used to install the BOS.

4.3. Operations Mobilization

The operations mobilization includes all activities necessary to establish and operate the CSC in accordance with the Agreement. These activities include any required modifications to the Agencies-provided CSC Walk-in Center space in Corona and the Anaheim Processing Center, staff recruitment and training, ordering of supplies, establishment of all necessary services and developing all SOPs for the entire operation. The Contractor shall coordinate with the Existing BOS and CSC Operations Contractor on applicable portions of the Approved Baseline Schedule.

241	The CSC Operations Manager and the Transition Manager shall lead the Contractor's staff in planning and implementing the activities required for operation of the CSC. These tasks include but are not limited to:
	• obtain a thorough understanding of the functions and capabilities of the BOS;
	• produce all required plans and documentation;
	• recruit CSC staff;
	• coordinate with Third Party Service Providers and Business Partners;

	<ul style="list-style-type: none">• make any required Approved modifications to the facilities (see Attachment A: OCTA/RCTC Building Layout for design layout of existing facilities and Anaheim Processing Center;• plan and conduct training;• Assist with the selection and implementation of survey solution, IVR, system recordings, Self-Service Website, and Self-Service Mobile Application (Phase II) and• meet regularly and coordinate with the Agencies, the Existing BOS and CSC Operations Contractor to perform the Work.
242	The Contractor shall develop and conduct an Operational Readiness Demonstration and conduct walk-throughs for each facility with the Agencies.
243	As an outcome of the Operational Readiness Demonstration and walk-throughs, a punch list shall be developed and resolution of each item Approved by the Agencies.
244	The Contractor shall track, status and resolve all pre-transition punch list items (as designated and Approved by the Agencies) prior to transition and track, status and resolve all post-transition punch list items (as designated and Approved by the Agencies) during the Operations and Maintenance Phase. Until resolved, the status of post-transition punch list items shall be provided in all Contractor performance reports and meetings.

5. TRAINING

The Contractor shall provide comprehensive training for all aspects of the BOS and CSC Operations including training, operational procedures, policies and guidelines, and rules of conduct, including customer Interface. Training shall be delivered to the Agencies' personnel and Contractor's personnel. Training shall be ongoing throughout the Implementation and Operations and Maintenance Phases.

245	The Contractor shall be solely responsible for supplying the BOS and all materials necessary to complete the delivery of the training program.
246	The Contractor's program shall include but not be limited to computer instruction, training aids and manuals as required.
247	Contractor's training shall be hands on and use actual BOS Software in the training environment.
248	The Contractor shall produce all training materials, documents and manuals in hard copies.
249	When changes or new functionality is provided in the BOS, the Contractor shall update the training materials and train staff on such changes/new functionality.
250	All Agencies training shall include a review and description of each of the appropriate Agencies' processes and procedures with actual BOS Software.
251	The Agencies shall have the right to attend any training sessions.
252	The Contractor shall provide comprehensive training related to all aspects of the BOS administration, BOS functionally and CSC Operations.
253	The Contractor shall employ a training manager to lead all training courses and subsequent ongoing training activities.
254	The Contractor shall train Agencies' staff to view all real-time aspects of BOS processes/queues and CSC Operations statistics/queues, as well as research and report on all aspects of the BOS.
255	The Contractor shall cross-train staff from other areas of operations or management for peak period, emergency or temporary assignments to provide for staff redundancy.
256	The Contractor's training manager shall identify the training needs, plan, design, and develop all the training curriculum and materials for the implementation and management of the CSC's on-going training program. The types of training include, but are not limited to:
	<ul style="list-style-type: none"> customer service and integrity skills ("soft skills") training; Agencies' FasTrak, Violation and payment processing Business Rules and facility specific information ("content training"); different operational and facility characteristics of each facility;

	<ul style="list-style-type: none"> • use of the BOS, including all customer contact systems and any other applicable systems;
	<ul style="list-style-type: none"> • CSC Operations SOPs and
	<ul style="list-style-type: none"> • PII, PCI, data and physical security.
257	<p>The Contractor's training program shall include training at different times and for different reasons during the course of the Operations and Maintenance Phase, including but not limited to:</p> <ul style="list-style-type: none"> • new hire – this training provides the new employee a thorough, in-depth training covering all of the skills and information required to fully understand and perform their job; • refresher – this training provides additional training focused on topics on which the attendees have been previously trained but which the training manager or other Agency management staff identify as requiring additional training for a group of employees; • remedial – this training is individually focused on the needs of a particular employee(s) based on customer satisfaction feedback, management observation or employee request; • new job/promotion – this training is required when an employee changes jobs or gains additional responsibilities and • new content/program – this training is required when the Agencies introduce a new program or makes a significant change to the SOPs or the BOS.
258	<p>Contractor training shall cover all functional areas depending on the specifics of each individual user role and job functions.</p>

5.1. Training Courses

5.1.1. System Operation Overview Course

259	The Contractor shall provide a system operation overview training course for the Agencies personnel who require a general understanding of all aspects of the BOS and CSC Operations.
260	The Contractor shall ensure class sizes and the number of training hours provided are sufficient to provide a general understanding of all aspects of the operation.

5.1.2. Customer Service Representative Course

This course is for customer service personnel who need to understand all aspects of the direct customer service.

261	The Contractor shall provide a customer service course for staff that need to understand all aspects of the direct customer service functionality, with focus on contact management, account management, Violations processes, payments, Business Rules, Express Lanes facilities characteristics, external facing website, etc.
262	The Contractor shall provide an appropriate number of training sessions for the customer service course, ensuring class sizes and the number of training hours provided are sufficient to provide an understanding of all aspects of the operation related to customer service.

5.1.3. BOS Finance and Financial Controls Course

This course is for financial management and auditing personnel who need to understand all aspects of the Operation, particularly those related to financial accounting, reconciliation, audit, and management.

263	The Contractor shall provide a BOS finance and audit training course for financial management and auditing staff that need to understand all aspects of the operation, with focus on financial accounting, reconciliation, audit and management.
264	The Contractor shall provide an appropriate number of training sessions for the BOS finance and financial controls course, ensuring class sizes and the number of training hours provided are sufficient to provide an understanding of all aspects of the operation related to financial accounting, reconciliation, audit and management.

5.1.4. Operations Management Course

This course is for CSC Operations personnel providing hands-on training on the BOS including performance reporting, including all operational performance monitoring (for example, call queues, call statistics, image review queues, etc.); all BOS monitoring (for example, mail queues, status and quantity of all Notifications pending and sent, transponder Fulfillments, status of Interfaces and file exchanges), and call center and IVR configuration.

265	The Contractor shall provide an Operations Management Course for all personnel who require a detailed understanding of the BOS reporting and monitoring. This course also covers configuration of the telephony system.
266	The Contractor shall provide an appropriate number of training sessions for the Operations Management Course, ensuring class sizes and the number of training hours provided are sufficient to provide a detailed understanding of the operations of the BOS and how to access information and reports from the BOS.

5.1.5. BOS Users Course

267	The Contractor shall provide a BOS Authorized Users training course for all personnel who require a detailed understanding of the operations of the System and how to access information and reports from the BOS on items such as status, alarms, performance, transactions and revenue.
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268	The Contractor shall provide an appropriate number of training sessions for the BOS Authorized Users course, ensuring class sizes and the number of training hours provided are sufficient to provide a detailed understanding of the operations of the BOS and how to access information and reports from the System.
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5.2. Training Materials

269	All training materials should comply with applicable PCI and PII standards.
270	Draft copies of all training materials shall be submitted by the Contractor to the Agencies for review, comment and Approval prior to final printing of quantities required for training.
271	The Agencies shall have the right to require the Contractor to provide additional interim drafts at no additional cost should draft training materials submitted not be of adequate quality or have missing or incorrect information.
272	Contractor shall provide regular updates to training materials to incorporate any changes to the BOS or operational processes.
273	For each training course, the Contractor shall provide the materials listed in the following sections.

5.2.1. Instructor Guides

274	The Contractor shall provide an instructor guide for each training course, including but not limited to:
	<ul style="list-style-type: none"> • course agenda; • course objective; • procedures for managing a training session; • resources and facilities required, including Desktop Environments, power and communications Requirements; • detailed lesson plans; • a description of training aids and items to aid in on-the-job performance (such as where applicable, pocket guides or reference sheets); • tests to be administered to assure satisfactory completion and • instructions for using any audio-visual support equipment or materials.

5.2.2. Training Aids

275	The Contractor shall provide all training aids necessary to successfully complete the course agenda and meet the course objective.
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276	The Contractor shall provide a way for all trained personnel to access training documents, aids and tips in an online, electronic format for ongoing reference.
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5.2.3. Student Workbook

277	For each course, the Contractor shall provide a student workbook, including but not limited to: <ul style="list-style-type: none">• course agenda;• course objectives;• schedule of sessions;• copies of all overheads and visuals and• lesson outlines and summaries.
278	The Contractor shall supplement the material provided in the student workbook with additional material (as necessary), such as operations and user manuals. If such material is used, appropriate cross-references shall be included in the student workbook to identify the complete set of training materials provided to the student.

5.3. Scheduling and Preparation for Training

279	The Contractor shall provide a minimum two (2) weeks notice to the Agencies and work with the Agencies on the timing for each training session. The Agencies will identify a list of participants the Contractor shall notify to schedule their participation in the training.
280	The Contractor shall perform all scheduling.

6. TRANSITION REQUIREMENTS

The transition of the BOS and CSC Operations is a major undertaking that will require careful preparation, planning and coordination in multiple functional areas and on many levels to ensure a smooth transition. The Contractor is responsible for the execution of transition from the existing BOS to the new BOS and the existing operations to the new CSC Operations in accordance with the Transition Plan. Close coordination will be required between the ETTM System Contractors, the Existing BOS and CSC Operations Contractor, the Agencies and the Contractor.

6.1. Schedule and Transition

281	The Contractor shall transition existing systems and operations to the BOS in accordance with the BOS Transition Plan and Data Migration Strategy and the Approved Baseline Project Schedule.
282	The Contractor's schedule shall be sufficiently flexible to accommodate modifications or changes, such as early completions or delays in start or completion of phases that would normally be expected in a multi-phase schedule.

6.2. Transition from Existing BOS and CSC Operations Contractor

CSC Operations transition includes all activities necessary to assume responsibility for the ongoing CSC Operations from the Existing BOS and CSC Operations Contractor. There are aspects of the existing operation which will need to be transitioned to the Contractor in order to minimize the impact on the Agencies and their customers. The Contractor's Transition Manager shall lead the transition in accordance with the Transition Plan and must coordinate with the Existing BOS and CSC Operations Contractor to ensure that transition meets the Approved Baseline Project Schedule.

283	The Contractor shall manage and conduct the transition in conformance with Transition Plan and Approved Baseline Project Schedule.
284	The transition activities shall be coordinated with the Agencies, the Existing BOS and CSC Operations Contractor, the ETTM System Contractors and all Third-Party Service Providers and Business Partners and Approved by the Agencies.
285	The Contractor shall provide the capability to transition open Collections Placements from the existing collection agency as well as new Collections Placements after Go-Live.
286	The Contractor shall prepare internal and external communication procedures, as part of the Transition Plan, to effectively and professionally manage communications of potential impacts during the BOS transition.

6.3. Acceptance of Operational Readiness

Prior to Go-Live the Contractor shall demonstrate to the Agencies that the successful transition is complete, and that the Contractor is ready to commence complete operation of the CSC and performance of all of the Work.

287	The Contractor shall demonstrate that the CSC Operation has achieved Operational Readiness in accordance with the Approved Baseline Project Schedule.
288	Procedures for demonstrating for the Operational Readiness Demonstration shall be provided by the Contractor to the Agencies for review and Approval at least three (3) months prior to the scheduled demonstration date.
289	<p>The Contractor shall have completed all of the predecessor tasks and milestones in the schedule in order to achieve Acceptance of Operational Readiness, including but not limited to:</p> <ul style="list-style-type: none"> • selection, build-out and equipping of all Contractor operated facilities; • development and Approval of all required documentation; • recruitment, hiring and training of all staff in accordance with the Operations Plan and sub-plans; • Implementation of all applicable aspects of the Transition Plan and all operations mobilization activities and • Completion of Operational Readiness Demonstration using the BOS, facilities and Contractor staff.

6.4. End of Agreement Transition

The Contractor acknowledges the services it provides under the terms of the Agreement are vital to the successful operation of the BOS and said services shall be continued without interruption. Upon expiration or termination of the Agreement by any of the parties, a successor may be responsible for providing these services. The Contractor agrees to exercise its best efforts and cooperation to affect an orderly and efficient transition to a successor.

As part of the End of Agreement transition, the Agencies may wish to operate and maintain BOS, requiring the transfer of equipment, leases and license from the Contractor to the Agencies.

290	The Contractor shall cooperate with any future transition of the BOS to a future BOS Contractor, as required by the Agencies.
291	The Contractor shall develop with the successor, an End of Agreement Transition Plan describing the nature and extent of transition services required as well as the operational Requirements necessary for the migration of operation from the Contractor to the new contractor.
292	The Contractor shall update the End of Agreement Transition Plan no more than six (6) months prior to the transition date.
293	The Contractor shall provide sufficient experienced personnel in each division/element of Work during the entire transition period to ensure the quality of services is maintained at the levels required.

294	The Contractor shall provide sufficient staff to help the successor maintain the continuity and consistency of the services required.
295	The Contractor shall provide the necessary Software and BOS support services to assist the successor in setting up the systems, transferring of appropriate licenses and third-party Software and transitioning all BOS data required to sustain uninterrupted service in areas in which the Contractor is responsible for the Work.
296	The Contractor shall support the Agencies during the procurement process by updating all system documentation and providing new documentation as required that details the current system.
297	Within the End of Agreement Transition Plan, the Contractor shall provide descriptions of the equipment, leases and licenses that are available for purchase and transfer to the Agencies as part of the End of Agreement Transition.
298	The Contractor shall not prevent the successor from conducting interviews with Contractor employees outside of normal business hours in a manner that will not disrupt current operations.
299	The Contractor shall not prevent employees from changing their employment to the successor if the employees wish to do so.
300	The Contractor shall provide for the orderly transition of the facilities, equipment, materials, documents, inventory and work in progress to the successor.

7. TESTING REQUIREMENTS

7.1. General

The Contractor shall provide the full range of test planning, testing design and services required to ensure the BOS adheres to the Requirements. The BOS testing regimen shall take place during the implementation period identified in the Approved Baseline Project Schedule and shall follow the Master Test Plan and Individual Test Plan.

The Agencies require that configuration changes be treated as equivalent to Software development changes within the testing process. Wherever possible, the Agencies require that the Contractor implement testing processes which are automated and efficient.

The Requirements described in this section detail the labor, materials, facility and support services necessary to test the BOS for functionality and performance, its integration to all Third-Party Service Provider and Business Partners.

301	The Contractor shall prepare and conduct the various tests in conformance with the Master Test Plan and applicable individual test plans.
302	<p>The Contractor shall prepare and conduct the various tests (outlined for reference immediately below and with detailed Requirements in subsequent sections), including but not limited to:</p> <ul style="list-style-type: none"> • Unit Testing; • System Integration Testing; • User Acceptance Testing; • On-site Installation and Commissioning Testing and • Operational and Acceptance Testing.
303	<p>The Contractor shall develop test scripts for Agencies approval and use specialized automated testing Software, wherever possible, to, including but not limited to:</p> <ul style="list-style-type: none"> • create test scripts; • create use cases with pre-defined input and output; • control the automated testing; • exercise all conditions, configurations and scenarios; • conduct performance testing; • conduct security and PCI testing; • conduct regression testing; • compare actual test outcomes to expected outcomes; • test reporting;

	<ul style="list-style-type: none"> • conduct load testing;
	<ul style="list-style-type: none"> • conduct user Interface testing;
	<ul style="list-style-type: none"> • conduct sustained operational testing and
	<ul style="list-style-type: none"> • conduct data migration testing.
304	The Contractor shall make the BOS available for use by the Agencies in testing the readiness of the CSC Operations staff during operating hours and as necessary during the testing period.
305	The Contractor shall provide all necessary resources and facilities to conduct all tests.
306	During the Implementation Phase, the Contractor shall provide an "online commercial Software" defect tracking system, accessible by the Agencies via browser-based Internet, to document and track all defects identified as part of BOS testing and any subsequent actions taken to correct those defects.
307	The Agencies' Approval of any aspect of testing shall not relieve the Contractor of its responsibility to meet all Requirements.
308	The defect tracking system shall be capable of the following, including but not limited to:
	<ul style="list-style-type: none"> • rating (severity) defects;
	<ul style="list-style-type: none"> • categorizing defects;
	<ul style="list-style-type: none"> • prioritizing defects;
	<ul style="list-style-type: none"> • logging the date/time the defect was reported;
	<ul style="list-style-type: none"> • the user who reported the defect;
	<ul style="list-style-type: none"> • the erroneous behavior;
	<ul style="list-style-type: none"> • the details on how to reproduce the defect;
	<ul style="list-style-type: none"> • the developers who worked on the defect;
	<ul style="list-style-type: none"> • life-cycle tracking and
	<ul style="list-style-type: none"> • reporting.

7.1.1. Testing Sequence and Logistics

309	The Contractor shall obtain Approval from the Agencies and shall have met the entry conditions prior to start of each test, including but not limited to:
	<ul style="list-style-type: none"> • Approval of all predecessor tests;
	<ul style="list-style-type: none"> • Approved test procedures for each individual test;

	<ul style="list-style-type: none"> • Approved test schedule;
	<ul style="list-style-type: none"> • Approved inventory of test cases and scripts;
	<ul style="list-style-type: none"> • successful closeout of all outstanding pre-test issues;
	<ul style="list-style-type: none"> • successful dry run testing with results provided to the Agencies;
	<ul style="list-style-type: none"> • test data set is created and loaded into test environment;
	<ul style="list-style-type: none"> • submittal of the latest Approved version of the RTM showing test validation against the Requirements and
	<ul style="list-style-type: none"> • site and BOS is ready to test.
310	After the completion of each test, the Contractor shall submit for the Agencies' review and Approval a test report that documents the results of the test.
311	The test report shall include the results of the test; any anomalies and issues identified; comments provided by the Agencies; the test data and the corrective action/resolution of each item, and the results of any re-tests necessary to successfully complete each testing phase.
312	The Contractor shall facilitate and support the Agencies' participation in the testing and witness each test. The Contractor shall provide the Agencies with full access to the test data and results of the test.
313	Testing shall not be considered complete by the Agencies until all anomalies and "punch-list" items are closed-out, and the final test report is Approved by the Agencies.

7.2. Required Tests

7.2.1. Unit Testing

Unit Testing is defined as a Software testing method by which individual units of source code, sets of one or more computer program Modules together with associated control data, usage procedures, and operating procedures, are tested to determine whether they are fit for use. A unit could be an entire Module, but it is more commonly an individual function or procedure. Unit Testing is the first level of testing and is performed prior to System Integration Testing.

314	The Contractor shall conduct Unit Testing, including but not limited to:
	<ul style="list-style-type: none"> • testing for all functional elements of the BOS for conformance with the Requirements, Approved design and Business Rules;
	<ul style="list-style-type: none"> • testing of 100% of all BOS components and negative testing for controlled systems features
	<ul style="list-style-type: none"> • testing using actual data generated by the existing ETTM System and simulated data as needed;

	<ul style="list-style-type: none"> • testing with Third Party Service Provider and Business Partners and Interoperable Agencies test environment;
	<ul style="list-style-type: none"> • testing each Module of the BOS application Software for compliance to coding standards related to screen validations, Web navigation, configuration changes, PMMS including all errors, exceptions and failures, backend programs and processes (using simulated data);
	<ul style="list-style-type: none"> • testing the desktop computer Interfaces and all peripherals;
	<ul style="list-style-type: none"> • testing of user roles and security elements
	<ul style="list-style-type: none"> • all necessary Hardware and Software for the test;
	<ul style="list-style-type: none"> • all necessary personnel for the test and
	<ul style="list-style-type: none"> • updated RTM, SDDD, Operations Plan and Business Rules so functionality can be reconciled to the documentation.

7.2.2. System Integration Testing (SIT)

System Integration Testing (SIT), or end-to-end testing, is defined as a type of Software testing that seeks to validate the Interfaces between individual components and the completely integrated BOS meets its Requirements. The Contractor shall conduct SIT, compressing logical days to accommodate process escalation and transaction/trip and Violation aging. Multiple testing cycles may be executed depending on defects found and their severity. The Contractor shall also conduct load/performance testing as part of the SIT

315	The Contractor shall be responsible for data migrated from the Agencies' existing systems as an entry criteria for the SIT. It is anticipated that significant data will be migrated and the actual data to be migrated will be defined in the test plan.
316	The Contractor shall conduct SIT which shall include end-to-end Integration Testing, Interface testing, security testing, performance/load testing.
317	In the event Third-Party Service Providers and Business Partners and Interoperable Agency test environment systems are not available, the Contractor shall test using simulated Interfaces and data to validate the data exchange.
318	The Contractor shall use the most newly provided, developed or updated ICDs for all Interfaces and portals.
319	<p>The Contractor shall conduct SIT, including but not limited to:</p> <ul style="list-style-type: none"> • testing all functional elements of the BOS using the procedures for Software integration testing, including the end-to-end testing from receipt of transactions/trips through Posting to the accounts and Violation processing; • validation of migrated data, reports testing using migrated, simulated and keyed-in data;

	<ul style="list-style-type: none"> • verification and validation that the various BOS environments are operating per the Requirements;
	<ul style="list-style-type: none"> • load/performance testing of the entire BOS in terms of user access, including internal and external users on all channels (for example, Self-Service Website, Self-Service Mobile Application, IVR);
	<ul style="list-style-type: none"> • load/performance testing of the entire BOS in terms of transaction/trip processing;
	<ul style="list-style-type: none"> • full Disaster Recovery failover testing;
	<ul style="list-style-type: none"> • full Disaster Recovery failover recovery (back to primary BOS) testing;
	<ul style="list-style-type: none"> • validation of all Performance Measures;
	<ul style="list-style-type: none"> • adherence to the Security Standards;
	<ul style="list-style-type: none"> • archiving and purging process testing;
	<ul style="list-style-type: none"> • comprehensive PMMS testing;
	<ul style="list-style-type: none"> • testing using actual data, generated real-time (as if in a real, live production environment) by the existing ETTM System;
	<ul style="list-style-type: none"> • all Interface test scripts and documentation required to confirm that the Interfaces are operating properly;
	<ul style="list-style-type: none"> • testing, as directed by the Agencies, connecting to test environment systems provided by the Agencies, Third-Party Service Providers and Business Partners and Interoperable Agencies (if available);
	<ul style="list-style-type: none"> • exception testing;
	<ul style="list-style-type: none"> • testing the desktop computer Interfaces and all peripherals and
	<ul style="list-style-type: none"> • sustained operations test.

7.2.3. User Acceptance Testing

User Acceptance Testing (UAT) is defined as the testing phase where actual BOS users test the system to validate the operation of the BOS in, according to Requirement, designs, and specifications.

320	The Contractor shall provide all needed support for UAT to include providing environments, provisioning/aging system, running batch jobs, and developing test scripts using use cases.
321	The Contractor shall provide a UAT environment that is production like and separate from other test environments.
322	Ten (10) Business Days prior to the commencement of UAT, the Contractor shall train staff from the Agencies and the CSC Operations test team selected to perform UAT.
323	The Contractor shall provide all UAT testers with access to BOS test scripts.

324	The Contractor shall provide test data for UAT that is an extraction and sub-set of production data.
325	During UAT, the Contractor shall develop and retest necessary revisions identified by users during the testing process.
326	The Contractor shall provide technical personnel to support UAT.

7.2.4. Regression Testing

Regression Testing is defined as is a type of Software testing that verifies that Software previously developed and tested still performs correctly even after it was changed or Interfaced with other Software. The purpose of Regression Testing is to ensure that changes have not introduced new faults and to determine whether a change in one part of the Software affects other parts of the Software.

327	The Contractor shall develop a plan for utilizing automated or manual regression test procedures that shall execute specified test scripts or cases at specific intervals and report any regressions to the Agencies.
328	The Contractor shall conduct regression testing in a Contractor-provided test environment prior to each Software release.

7.2.5. On-site Installation and Commissioning Testing, Data Migration, Transition and Go-Live

Onsite Installation and Commissioning Testing is defined as a series of checks and tests to verify equipment installation and function; BOS operation; and inter-systems operation.

329	The Contractor shall conduct Onsite Installation and Commissioning Testing using the BOS production environment including but not limited to:
	• testing that demonstrates the BOS is completely installed and operational in the production environment and the Disaster Recovery location;
	• Software and test data is loaded;
	• PCI application vulnerability testing, certification of elements not available/tested during previous testing;
	• all necessary Hardware and Software for the test;
	• testing PMMS configuration and setup;
	• testing all user roles;
	• testing of internet connectivity and speed;
	• testing the speed of the BOS while performing various functions;
	• testing of cutover to generator in the event of power failure;

	<ul style="list-style-type: none"> • testing of phone system including IVR; • testing of Self-Service Website and Self-Service Mobile Application; • all necessary personnel for the test and • updated RTM, SDDD and Business Rules so functionality can be reconciled to the documentation.
330	<p>The Contractor shall provide evidence of readiness to conduct data migration, transition and Go-Live at the BOS production environment, including but not limited to:</p> <ul style="list-style-type: none"> • evidence to confirm that the technical performance of the data migration processes for the existing BOS is adequate; • testing of the exact procedures and tools that shall be used for the migration of data from the existing BOS to the new BOS; • evidence that data from the Agencies has been cleansed and transformed for BOS compatibility in accordance with the BOS Requirements; • The Contractor shall utilize the PCI Security Standards Council's Prioritized Approach method to indicate how each PCI Requirement is being addressed. This approach shall be submitted to the Agencies along with substantiating evidence for review and Approval • the transfer of certain historical data to the BOS that may remain in the BOS and • a data migration and transition checklist to verify the data migration and transition processes are completed in accordance with the Transition Plan;
331	Upon Approval of the Onsite Installation and Commissioning Testing including evidence of readiness the Contractor shall begin Data Migration and Transition.
332	Upon verification and Approval of final data migration the Contractor shall Go-Live.

7.2.6. Operational and Acceptance Testing

Operational and Acceptance Testing is defined as a test focused on the readiness of the BOS to be supported, and/or to become part of the production environment.

333	<p>Following Go-Live, the Contractor shall conduct Operational and Acceptance Testing on the BOS production environment in live operations that provides the following, including but not limited to:</p> <ul style="list-style-type: none"> • verification that the BOS is in conformance with the Requirements for a period of 60 consecutive days, onsite in the BOS production environment; • successful access of images from the ETM System and receipt of the trip/transactions;
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	<ul style="list-style-type: none"> • reconciliation of all BOS data, transactional and Financial Transactions for a period of 60 consecutive days to verify all data and accounts are being properly processed, reported on and reconciled;
	<ul style="list-style-type: none"> • reconciliation of all transaction/trip and image workflows and filters to verify all transactions/trips and images are being properly processed through the BOS;
	<ul style="list-style-type: none"> • reconciliation of all electronic Interfaces and portals, including Third-Party Service Providers and Business Partners and Interoperable Agencies;
	<ul style="list-style-type: none"> • reconciliation of all account Postings, Financial Transactions, events, etc., to account history entries;
	<ul style="list-style-type: none"> • reconciliation of all Financial Accounts in the BOS for two (2) monthly financial periods;
	<ul style="list-style-type: none"> • archiving and purging process testing;
	<ul style="list-style-type: none"> • disaster recovery testing;
	<ul style="list-style-type: none"> • verification of PMMS operations;
	<ul style="list-style-type: none"> • adherence to required financial audit and reconciliation Requirements and
	<ul style="list-style-type: none"> • adherence to required BOS Performance Measures and reporting.
334	The Contractor shall identify all anomalies and categorize by severity and priority, and all anomalies shall be addressed to the satisfaction of the Agencies.
335	If anomalies are identified that are a high severity and high priority during the testing period, the Operational and Acceptance Testing for those functions and any other impacted functions or test areas shall be restarted and shall continue for 60 consecutive days from the day the test was restarted.
336	The Operational and Acceptance Testing shall continue until all the Requirements have been verified and validated in accordance with the MTP and detailed test procedures are completed and Approved by the Agencies.

7.3. BOS Acceptance

337	Upon the successful completion and Approval of the Operational and Acceptance Testing, the closure of all punch-list items and completion and submission and Approval of all items required for phase closeout, as set forth in in the Agreement, the Contractor shall be given the Acceptance for the BOS Implementation Phase.
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8. INSTALLATION REQUIREMENTS

This section details the Requirements for the installation or enablement of the BOS at the primary and Disaster Recovery/Business Continuity sites as Approved by the Agencies.

8.1. Installation Program

The Contractor shall develop and provide an installation program or provide service documentation that addresses all aspects of the installation or use of the BOS, including all installation design, submissions and coordination for a COTs based solution or service agreements for cloud-based approaches.

338	The Contractor shall be responsible for the design, procurement; installation; cabling; configuration; checklist walk-through, and testing of all Hardware, Software, equipment, Interfaces and communications provided as part of the BOS, if required.
339	The Contractor shall install or enable the BOS at the primary site and CSC locations which meets the specifications outlined in the Requirements.
340	The Contractor shall install or provide the Disaster Recovery BOS and Business Continuity at a location which meets the specifications outlined in the Requirements.
341	The Contractor shall provide, install or enable and secure all communication lines required for the primary BOS facility, the Disaster Recovery and Business Continuity facilities and Agencies' CSC locations.
342	The Contractor shall provide, install or enable and secure connection points to the BOS as required to accommodate access and communication with Interoperable Agencies and Third-Party Service Providers and Business Partners.

8.2. Compliance to Standards

343	The Contractor shall adhere to all implementation standards, applicable laws, ordinances and codes as required, including but not limited to:
	<ul style="list-style-type: none"> the Security Standards; those from the original equipment manufacturer; the National Electric Code (NEC); the Institute of Electrical and Electronics Engineers (IEEE); the Occupational Safety and Health Administration (OSHA); county and city codes, as applicable and the State of California, for areas including but not limited to electrical codes, seismic considerations, calibration, configuration and environmental.

8.3. Equipment Installation Requirements

The Contractor shall be responsible for installation of the BOS, including at the CSC and WICs, as described in these Requirements.

344	The equipment installation design and Implementation for the BOS and CSC Operations shall include but not be limited to:
	<ul style="list-style-type: none"> • provision of uninterruptible power supply (UPS) at the CSC and WICs to support Contractor provided systems;
	<ul style="list-style-type: none"> • Interface with and electronically monitor via the PMMS any Agency or Contractor provided emergency power generation at the CSC and WICs;
	<ul style="list-style-type: none"> • furnishing, installing and testing the Interfaces and connectivity to the ETTM System;
	<ul style="list-style-type: none"> • validating the connectivity to all Interoperable Agencies as described in these Requirements and
	<ul style="list-style-type: none"> • validating the connectivity to all external Interfaces to Third-Party Service Providers and Business Partners as described in these Requirements.

8.4. Implementation Checklist Review and Check-off

The Contractor shall complete all implementation activities and Approved Contract Deliverables Requirements prior to the Go-Live date established by the Agencies.

345	The Contractor shall develop a checklist that tracks the progress and completion of all implementation activities for the BOS, CSC Operations and Disaster Recovery.
346	The checklist shall detail those items required to complete the implementation process for all Hardware, Software, equipment, Interfaces and communications provided as part of the BOS, including terminations and connections.
347	The checklist shall be used to identify all discrepancies and exceptions, and the Contractor shall be responsible for all corrections.
348	The checklist shall be used to document all changes identified, and all such changes shall be Approved by the Agencies.
349	A representative(s) from the Agencies shall have the right to observe and Approve the implementation.
350	The Agencies shall have the right to perform independent inspections, and the Contractor shall be responsible for the correction of all discrepancies and deficiencies identified during the inspection.
351	A copy of the checklist, signed and Approved by the Contractor, attesting to the completeness of the implementation, shall be provided to the Agencies upon the completion of the implementation activities.

9. GENERAL MAINTENANCE AND SOFTWARE SUPPORT SERVICES REQUIREMENTS

9.1. Operations and Maintenance Meetings

9.1.1. Monthly Performance Review Meetings and Reporting

The Contractor shall conduct Monthly BOS Performance Review Meetings with the Agencies. These meetings shall provide the Agencies with a detailed understanding and review of the Contractor's and the BOS's performance for purposes of receiving guidance from the Agencies, Agency oversight, work planning and invoicing.

352	The Contractor shall manage, facilitate and conduct Monthly BOS Performance Review Meetings with the Agencies throughout the Operations and Maintenance Phase. At a minimum, the Project Manager (Implementation Phase), Project Manager (Operations and Maintenance Phase), Software Development Manager and a Contractor's CSC Operations Manager (in-person) shall attend these meetings.
353	The Contractor shall schedule and conduct the Monthly BOS Performance Review Meeting with the Agencies to occur no more than one (1) week after the submission of a Monthly BOS Report package by the Contractor.
354	Performance reviews, including the provision of all required performance reporting, shall be provided by the Contractor to the Agencies beginning one (1) month after Go-Live for the previous month. Any Monthly Maintenance Fee adjustments associated with non-performance shall not be assessed until the fourth month following Go-Live, for the previous (third) month's performance; however, this does not relieve the Contractor of required performance prior to the third month and shall not constitute a waiver of any Agency rights or remedies under the Agreement in this regard.
355	The Contractor shall ensure all issues are addressed and resolved or are placed on the action item list and scheduled for resolution.
356	In addition to other invoicing and payment Requirements, the Contractor shall provide the required monthly performance reports to the Agencies, including all required information demonstrating actual performance relative to the Requirements, before an invoice shall be considered for payment. The monthly performance reports structure shall be identified in the Maintenance Plan.

9.1.2. Monthly BOS and Operations Coordination Meetings

During the Operations and Maintenance Phase, the Contractor shall conduct bi-weekly meetings to coordinate the ongoing operation of the CSC. The Contractor shall be responsible for scheduling these meetings and topics for the meeting shall come from the Contractor; the Agencies may provide additional topics. The Agencies may attend these meetings at their discretion.

357	The Contractor shall manage, facilitate and conduct the Monthly BOS and Operations Coordination Meetings with the Agencies during the Operations and Maintenance Phase in order to understand and prepare for supporting the resolution of BOS-related and Toll Facility related issues and other activities which will affect the CSC Operations.
358	During the Monthly BOS and Operations Coordination Meetings, the Contractor shall address BOS and operational topics for which input is needed from the Agencies, including but not limited to reviewing the Contractor's defect tracking report and prioritizing fixes; coordinating Upgrades and Enhancements Approved by the Change Control Board (CCB); reviewing Security Standards and compliance; coordination of scheduled BOS downtime; resolving issues related to personnel and reviewing the Contractor's CSC and WIC support.
359	The Contractor shall identify all known BOS and operational issues and required discussion topics and provide them to the Agencies in advance of the meeting and update the agenda again just prior to the meeting.

9.1.3. Weekly Coordination and Status Meeting with the ETTM System Contractors

During the Operations and Maintenance Phase, there will be a series of working meetings between the Contractor and the ETTM System Contractors to provide details on new and open issues and work through possible solutions. The Contractor shall be responsible for coordinating and scheduling these meetings and topics for the meeting shall come from the Contractor, the ETTM System Contractors and the Agencies.

360	The Contractor shall manage, facilitate and conduct the Weekly Coordination and Status Meeting with the ETTM System Contractors. These meetings shall be for the purpose of coordination on all new and ongoing issues. The Agencies shall be invited to attend these meetings.
361	During the Weekly Coordination and Status Meetings, the Contractors shall review the accuracy and sufficiency of reports, review any discrepancies, and to coordinate any changes to the BOS or ETTM System (such as, bug fixes, Upgrades and Enhancement).
362	The Contractor shall identify all known BOS, ETTM System and operational issues and required discussion topics and provide them to all attendees and the Agencies in advance of the meeting and update the agenda again just prior to the meeting.

9.1.4. Change Control Board Meetings

During the Operations and Maintenance Phase, the Contractor shall conduct the CCB Meetings. The Contractor shall be responsible for conducting and scheduling these meetings in accordance with the Agencies developed change control process.

363	The Contractor shall manage, facilitate and conduct CCB Meetings with the Agencies (meeting may be combined with the ETTM System Contractors CCB meeting at the Agencies' discretion) on an as-needed basis. These meetings shall be for the purpose of providing status, reviewing, Approving and prioritizing BOS changes (such as, Software enhancements, Software Upgrades, Hardware Upgrades, major bug fixes) and operations changes (such as, policies, Business Rules, operational procedures, phone scripts, and staffing).
364	The Contractor shall solicit and identify all known statuses and input from the Agencies regarding the CCB and provide them to all attendees and the Agencies in advance of the meeting and in accordance with the Agencies' change control process.

9.2. Safety

365	The Contractor shall adhere to all applicable safety standards and guidelines for working on or around energized equipment, including but not limited to the following:
	<ul style="list-style-type: none">• The Agencies' safety procedures and guidelines;• local code;• State of California, code, standards, safety procedures and guidelines;• Occupational Safety and Health Administration (OSHA);• National Electrical Manufacturers Association (NEMA) and• National Electrical Code (NEC).

10. CONTRACT DELIVERABLES REQUIREMENTS LIST

The following table identifies the Deliverables/Submittals which shall be required for this Project. This table is provided for convenience only; it is the Contractor's responsibility to meet all Requirements.

CDRL ID	CDRL Name
1.	Baseline Project Management Plan (including Baseline Project Schedule)
2.	Quality Plan
3.	Software Development Plan
4.	Requirements Traceability Matrix
5.	System Detailed Design Documents
6.	Implementation Plan and Related Documentation
7.	Disaster Recovery Plan
8.	Business Continuity Plan
9.	Transition Plan (including BOS Transition Plan and Data Migration Strategy and Operations Transition Plan)
10.	End of Agreement Transition Plan
11.	Operations Plan
12.	Standard Operating Procedures (including BOS, CSC Operations and TOC procedures)
13.	Staffing and Human Resources Management Plan
14.	Reporting and Reconciliation Plan
15.	Training Plan
16.	Maintenance Plans (including System Maintenance Plan and Software Maintenance Plan)
17.	Third-Party Documentation
18.	Manuals
19.	As-Built Documentation
20.	Master Test Plan and Test Procedures
21.	Unit Testing Documentation
22.	System Integration Testing Documentation
23.	User Acceptance Testing Documentation
24.	Regression Testing Documentation
25.	Full Software Integration Testing Documentation (includes Approval of all associated updated documents: SDDD, Requirements Traceability Matrix and Business Rules documents)

CDRL ID	CDRL Name
26.	Onsite Installation and Commissioning Testing Documentation
27.	Operational and Acceptance Testing Documentation
28.	Training Materials and Manuals
29.	Training Report

DRAFT

Exhibit B

**Volume II: BOS Technology and
Functionality**

CONTENTS

1. STATEMENT OF WORK AND REQUIREMENTS	1
1.1. GLOBAL SYSTEM REQUIREMENTS	1
1.1.1. Environments	1
1.1.2. BOS Functionality	11
1.1.3. Interfaces	22
1.1.4. Performance Management and Monitoring System	31
1.2. BOS MAINTENANCE AND SUPPORT REQUIREMENTS	35
1.2.1. BOS Hardware Maintenance	38
1.2.2. BOS Network System Maintenance	38
1.2.3. BOS Administration and Software Support Services	39
1.2.4. Payment Card Industry (PCI) Security Standards and Compliance	41
1.2.5. Interoperability Requirements	42
1.2.6. Preventive and Corrective Maintenance Requirements	43
1.2.7. Certification of PCI DSS Compliance	46
1.2.8. Emergency Response Management	46
1.2.9. Disaster Recovery and Business Continuity	47
1.2.10. Incident and Revenue Loss Reporting	47
1.3. FUTURE FUNCTIONALITY	48
1.4. ACCOUNT MANAGEMENT	49
1.4.1. General Account Management	50
1.4.2. Vehicles, License Plates and Transponders	56
1.4.3. Account Plans	59
1.4.4. Fees, Penalties and Transactions	63
1.4.5. Registered Account Replenishment	65
1.4.6. Adjustments and Reversals	66
1.4.7. Account Statuses	68
1.4.8. Account Flags	70
1.4.9. Transponders	72
1.4.10. Incoming Customer Communication	73
1.5. IMAGE TRANSFER AND TRANSACTION/TRIP PROCESSING	75
1.5.1. Transaction/Trip Transfer	75
1.5.2. Transmission Error Identification	77
1.5.3. Interoperability	78
1.5.4. Monitoring – Operations and System Performance	80
1.5.5. Transaction/Trip Processing Lists	81
1.5.6. Customer Validation and Transaction/Trip Posting	82
1.6. REGISTERED AND UNREGISTERED ACCOUNT NOTIFICATIONS	89
1.6.1. Outgoing Notifications	89
1.6.2. Registered Account Statements, Postpaid Invoices and Violation Notices – General	99
1.6.3. Customer Statements – Registered Accounts	101
1.6.4. Customer Invoices – Postpaid Accounts	102
1.6.5. Violations Notification	103
1.7. PAYMENT PROCESSING	111
1.7.1. Payment Processing – General Requirements	111

1.7.2.	Payment Methods and Handling	117
1.7.3.	Merchant Service Provider (MSP)	120
1.7.4.	Payment Processing and Lockbox (optional)	121
1.7.5.	Credit Card Processing	122
1.7.6.	ACH Processing.....	123
1.7.7.	Check/Money Order Processing.....	124
1.7.8.	Cash Processing.....	125
1.7.9.	Online Wallet Payment Processing	126
1.7.10.	BOS Bank Interface Requirements	126
1.7.11.	Refunds and Disbursements.....	127
1.7.12.	Bankruptcy	129
1.7.13.	Shift Management.....	130
1.8.	CASE MANAGEMENT	131
1.8.1.	Case Creation	131
1.8.2.	Case Assignment and Tracking	136
1.8.3.	Case Escalation	139
1.9.	COLLECTIONS AND REGISTRATION HOLD	139
1.9.1.	Collection Agencies.....	140
1.9.2.	Collection Placement and Management.....	141
1.9.3.	Collection Agency System Access (Phase II)	144
1.9.4.	License Plate Registration Hold and Hold Release	145
1.9.5.	Customer-Initiated Reviews	148
1.9.6.	System-Generated Evidence Package	150
1.10.	CUSTOMER SATISFACTION SURVEY	150
1.11.	TRANSPONDER INVENTORY	152
1.11.1.	Inventory Definition and Tracking.....	152
1.11.2.	Transponder Ordering.....	156
1.11.3.	Inventory Fulfillment	157
1.11.4.	Transponder Inventory Recycling.....	160
1.11.5.	Transponder Testing.....	160
1.11.6.	Transponder Warranty Replacement for the Customer	160
1.11.7.	Inventory Warranty and Returns to Manufacturer	161
1.11.8.	Inventory Disposal.....	162
1.12.	CUSTOMER PORTALS	162
1.12.1.	Self-Service Website.....	162
1.12.2.	Self-Service Mobile Application (Phase II and Optional)	172
1.13.	CUSTOMER CONTACT SYSTEMS.....	173
1.13.1.	Telephony Systems Requirements.....	173
1.13.2.	IVR System	178
1.13.3.	Email	181
1.13.4.	Fax	181
1.13.5.	Chat.....	182
1.13.6.	Text.....	182
1.14.	FINANCIAL REQUIREMENTS.....	183
1.14.1.	General Financial Requirements	184
1.14.2.	Transaction Recording	184
1.14.3.	Customer Transaction Settlement.....	186
1.14.4.	Reconciliation and Settlement – General Requirements	191

1.15. SEARCHES.....	194
1.15.1. Search General	195
1.15.2. Transaction/Trip Search	197
1.15.3. Account Search	198
1.15.4. Case Search	198
1.15.5. Comment Search	200
1.15.6. Transponder Search.....	200
1.15.7. License Plate Search.....	200
1.15.8. Notification Search	200
1.15.9. Operating and Computing Environments – Data Warehouse.....	202
1.16. REPORTING REQUIREMENTS.....	202
1.16.1. General Reporting Requirements	203
1.16.2. Informational Reports	209
1.16.3. Financial Management Reports	225
1.16.4. Operations Reports	232
1.16.5. Interface Reconciliation Reports.....	237
1.16.6. Data Analytics (Business Intelligence) (Phase II and Optional)	248

FIGURES

FIGURE 1-3 CUSTOMER TRANSACTION SETTLEMENT.....	187
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TABLES

TABLE 1-1: REGISTERED TRANSPONDER-BASED (FASTRAK) ACCOUNT TYPES.....	49
TABLE 1-2: REGISTERED LICENSE PLATE ACCOUNT TYPES.....	49
TABLE 1-3: UNREGISTERED LICENSE PLATE-BASED ACCOUNT TYPES.....	50

1. STATEMENT OF WORK AND REQUIREMENTS

The following subsections describe the Statement of Work and the Requirements for the Back Office System (BOS). These Requirements are numbered to track obligations per the Agreement and any changes which may occur during the Project. Many of the Requirements contain underlying lists of specific items and required database fields. The intent of these “including but not limited to” lists is to indicate to the proposer the intent and scope of the Requirement. During design, the naming and number of items and fields will vary; however, all items and fields shall be addresses by the BOS unless the Contractor is formally relieved of the Requirement by the Agencies.

1.1. Global System Requirements

The global System Requirements define the overarching Requirements for the Hardware, Software and system comprising the production and non-production environments of the BOS.

The Contractor is encouraged to provide innovative solutions that simplify maintenance, security and the implementation of Upgrades and Enhancements. The Contractor is permitted to use cloud-based and/or premise-based solutions. The entire technical solution, all persons with access to the system and all Third-Party Service Providers and Business Partners must reside and perform the services within the continental United States.

The Agencies process more than one million Credit Card transactions per year, classifying it as a Level 2 Merchant by the Payment Card Industry (PCI) Standards Security Council. The global System Requirements also include Requirements for securing PII in accordance with California statutes, the Agencies’ privacy policy and National Institute of Standards and Technology (NIST) best practices for general information security.

Connecting the BOS to both the Agencies’ Electronic Toll and Traffic Management (ETTM) Systems, Interoperable Agencies inside and outside California and to Third-Party Service Providers and Business Partners requires a wide variety of external Interfaces. Providing for these Interfaces will require the Contractor to use existing Interface Control Documents (ICD) when applicable and develop new/more modern Interfaces at the Agencies’ direction.

A BOS-provided Performance Management and Monitoring System (PMMS) shall monitor the performance of the BOS and provide incident and work order management capabilities and data points for measuring the Contractor’s Operations and Maintenance Phase performance as further detailed in the Maintenance and Software Support Services section of these Requirements.

1.1.1. Environments

The BOS shall include multiple environments as required to complete the design, development, integration, testing, delivery and Acceptance of the BOS and properly operate during the Operations and Maintenance Phase. It is the Contractor’s responsibility to provide additional Agencies-Approved environments should the ones listed herein be insufficient for the Contractor to deliver the appropriate solution. The layouts of Corona CSC, WIC and Anaheim Processing Center/data center are provided in Attachment A: OCTA/RCTC Building Layouts and Attachment B: BOS Network and Server Room Layouts.

1	The operating environment of the BOS shall include, but not be limited to:
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	<ul style="list-style-type: none"> the primary BOS;
	<ul style="list-style-type: none"> a secondary instance of the BOS to be used for Disaster Recovery (DR) and to support Business Continuity;
	<ul style="list-style-type: none"> telephony system;
	<ul style="list-style-type: none"> the Interactive Voice Response (IVR);
	<ul style="list-style-type: none"> Automatic Call Distribution (ACD);
	<ul style="list-style-type: none"> systems for all servicing all channels of customer communication;
	<ul style="list-style-type: none"> Desktop Environments installed at the CSC and WIC facilities;
	<ul style="list-style-type: none"> network and communications elements as detailed in Attachment B: BOS Network and Server Room Layout;
	<ul style="list-style-type: none"> network and communications elements as detailed in Attachment C: Equipment Lists (for any Equipment that the Contractor chooses to reuse);
	<ul style="list-style-type: none"> all required Interfaces and
	<ul style="list-style-type: none"> a data warehouse (optional).
2	<p>The primary BOS server environment shall be located at one or a combination of the following locations:</p> <ul style="list-style-type: none"> the data center at 180 North Riverview Drive, Suite 200 Anaheim CA 92808; hosted at a Tier 3 data center facility; hosted on a well-established cloud service provider.
3	<p>The primary BOS server environment shall have a dedicated infrastructure such that:</p> <ul style="list-style-type: none"> if installed on-premise at an Agencies facility the entire Contractor-provided BOS and infrastructure shall be dedicated to the Agencies BOS implementation. if hosted at a Tier 3 data center facility or by a well-established cloud service provider, the Agencies dedicated BOS application shall run on dedicated virtual machines and/or containers such that only upgrades to the data center/cloud infrastructure and the Agencies BOS application would potentially affect the uptime of the BOS and there is no possibility of functional or infrastructure upgrades required to service other toll customer's applications would cause any downtime or affect the BOS in any way.
4	<p>The Contractor shall be responsible for all modifications to the data center, CSC and WIC facilities to accommodate the BOS and the Contractor's preferred operational approach, including but not limited to: (Note: The Existing BOS and CSC Provider's BOS will remain collocated in the data center for a period of time beyond Go-Live and the transition to the new BOS and CSC Operations.)</p>

	<ul style="list-style-type: none"> • data center (see data enter section below for additional detail; • Network equipment (see network section below for more detail); • CSC offices, cubicles and space layouts; • CSC power and wiring; • security system modifications and • CSC Surveillance CCTV system modifications.
5	<p>The operating environment of the BOS shall include systems provided, supplied and maintained on-site including Desktop Environments, associated telephony elements and all required office equipment (for example, copiers and postage machines) and installed at the following locations (refer to Attachment A: OCTA/RCTC Building Layouts for detail about the CSC and WIC layouts and Attachment B: BOS Network and Server Room Layout):</p> <ul style="list-style-type: none"> • Corona CSC/WIC (primary CSC)- 301 Corporate Terrace Circle, Corona, CA 92879; • Anaheim Processing Center/CSC- 180 North Riverview Drive, Suite 200 Anaheim CA 92808; • OCTA Store (WIC at OCTA building) – 600 S. Main Street, Orange CA 92868; and • Data Center - 180 North Riverview Drive, Suite 200 Anaheim CA 92808.
6	<p>The Contractor shall ensure the BOS is fully operational in accordance with the Performance Measures described in these Requirements, for the Implementation and Operations and Maintenance Phases.</p>
7	<p>The Contractor shall provide all computing environments required to sustain the day-to-day operations of the BOS by the Go-Live date, including but not limited to:</p> <ul style="list-style-type: none"> • a production environment located within the continental United States; • a DR environment at a secondary location within the continental United States in a different time zone, or cloud-based equivalent; • a training environment located at the Corona CSC location; • a test environment and • a development environment.
8	<p>The Contractor shall not allow access to PII to any individuals or entities outside of the U.S. Individuals and entities outside of the U.S. shall only have access to the development environment with no PII.</p>
9	<p>The Agencies shall have logon access to all BOS environments.</p>

10	The Contractor shall keep all BOS environments current with all major releases of operating systems, databases, Software and firmware. Releases shall not be more than one release behind the manufacturer's latest major release unless Approved by the Agencies. The Contractor shall also make the necessary Software changes required to ensure compatibility with the evolving IT environment.
11	With the exception of the development and test environment, which may change as part of testing and development cycles, the Contractor shall keep operating systems, databases, Software and firmware consistent across all environments, including, but not limited to configuration and patch level.
12	The test environment shall be sufficiently sized to successfully test Software changes and their effect on the production environment, including load and stress testing.

1.1.1.1. Operating and Computing Environments – Production

The Contractor is expected to provide a BOS solution that is a dedicated, hosted and/or cloud-based system and as such should provide for the following operating and computing environment Requirements for production.

13	The BOS production environment shall use new Hardware and Equipment for any equipment installed on-premise at Agencies facilities or at a hosting facility. Any Equipment listed in Attachment C: Equipment List that is reused by the Contractor is exempt from this requirement.
14	The BOS production environment shall be a high availability fault-tolerant design configuration of servers, storage, databases and backup systems and connected using high-speed inter-system storage and networking fabric, including any ancillary equipment necessary to provide a complete production system which meets the Requirements.
15	In the event of a complete failure of one or more of the components or sub-systems in the BOS production environment, affected components or sub-systems shall fail over to the secondary BOS at the DR site. Performance and availability Requirements for the individual components and sub-systems of the BOS shall not be affected.
16	The design and Implementation of the BOS production environment shall ensure no single-point-of-failure exists within the configuration and the BOS shall continue to operate without data loss in the event any single component of the configuration fails.
17	The operating system used for all servers shall be a multi-user and multi-tasking operating system from a manufacturer that is widely recognized and used in the United States for complex, high-volume database operations.
18	The operating system shall be compatible with all Hardware, Software and other BOS components for the duration of the Operations and Maintenance Phase, including but not limited to: <ul style="list-style-type: none"> the Relational Database Management System (RDBMS); the Contractor's application Software;

	<ul style="list-style-type: none"> the Contractor's proposed network and communications topology and all Desktop Environments and peripherals defined in these Requirements.
19	The operating system shall fully utilize the high availability BOS server architecture.
20	The operating system shall be the latest stable version at the time of implementation (unless otherwise Approved by the Agencies), field-proven and have a clearly documented Upgrade path and be supported by the manufacturer.
21	The Contractor shall provide a highly reliable and secure RDBMS for the storage of images, user accounts, transaction/trip data, Violation data and all other data.
22	The RDBMS shall be the latest version at the time of Implementation (unless otherwise Approved by the Agencies) and field-proven to operate in a complex, high-volume transaction environment.
23	The RDBMS shall be certified with the operating system, appropriate application Software and shall fully utilize the high availability BOS server architecture.
24	The RDBMS shall support Upgrades to the operating system, applications, memory, processors and other components.
25	The RDBMS shall have a clearly documented Upgrade path and be supported by the manufacturer.

1.1.1.2. Operating and Computing Environments – Disaster Recovery (DR)

26	For DR purposes the Contractor shall provide a DR computing environment of equivalent size and capabilities to the primary BOS, at a secondary location within the continental United States and in a different time zone from the primary BOS.
27	The DR environment configuration shall continuously mimic the BOS production environment in terms of configuration and data and shall be capable of performing all functions of the production environment, at the same performance and availability levels described in these Requirements for the primary BOS.
28	When put into production, the bandwidth provided to the DR site shall provide for the same performance and reduction of latency as the production BOS for both customers and CSC Operations staff.
29	The DR environment at the DR site shall be capable of being brought on-line and made fully operational in accordance with the Performance Measures.
30	In the event of a catastrophic failure of the primary BOS, the secondary BOS at the DR site shall be capable of sustaining BOS operations indefinitely, or until such time as the primary BOS can be brought back on-line or a new primary site is identified and made fully operational.
31	The Contractor shall provide validation that the DR procedures and environment is capable of providing Business Continuity in the event of a catastrophic failure of the primary BOS.

32	The DR server environment shall be located at one or a combination of the following locations:
	<ul style="list-style-type: none"> • a Tier 2 data center facility and
	<ul style="list-style-type: none"> • a well-established cloud service provider.

1.1.1.3. Operating and Computing Environments – Data Warehouse (Phase II and Optional)

The data warehouse provides for the running of data analytics (Business Intelligence) reporting. It also allows the Authorities to either directly or upon request to the Contractor, query data and run reports without having to compete for production reporting resources. The data warehouse environment stores all required data (to be defined during the Implementation Phase) from the new production BOS, as well as historical and summary data imported from the existing BOS directly.

33	The Contractor shall provide, as part of the production environment, a separate data warehouse environment for business intelligence and analytics reporting.
34	The data warehouse shall be dedicated, and the required general reporting shall not depend on the data warehouse in any way.
35	The Contractor shall be responsible for the design and execution of the extract, transform and load (ETL) process from the existing BOS during data migration during the Implementation Phase and from the new production BOS after Go-Live.
36	The Contractor shall provide validation that all data transferred to the data warehouse is complete and accurate.
37	The data warehouse environment shall be updated from production in near-real time.
38	The data warehouse environment shall be capable of being updated via an ETL process from the production System via a one-way replication.
39	Because the data warehouse is Phase II functionality, if the option is executed, the Contractor shall extract all historical data from the existing BOS, that is not being imported into the new production BOS, as part of the data migration process. However, the design of the data warehouse database schema, ETL process and the data analytics application shall be part of a post Go-Live, Phase II task.

1.1.1.4. Operating and Computing Environments – Training

40	The Contractor shall provide a non-production training environment, independent from the production and DR environments, to support the initial and ongoing training of the CSC Operations and Agencies personnel.
41	The training workstation environments shall be located at the Corona CSC site unless the Contractor can submit and gain Agencies' Approval of an alternative location.
42	The training desktop environment shall replicate the production Desktop Environments, including all peripherals as dictated by the position being trained.

43	The number of training stations shall be determined by the Contractor to meet the training needs in accordance with the Transition Plan and on-going remedial and new training of personnel.
44	The Contractor shall provide the capability to restore training environment databases and to periodically refresh the training environment data from the production BOS, using data cleansing procedures Approved by the Agencies.

1.1.1.5. *Operating and Computing Environments – Test*

45	The Contractor shall maintain a BOS test environment that matches the BOS production environment configuration for the purpose of testing and verifying software Enhancements and Upgrades prior to being put into production.
46	At the Agencies request, the Contractor shall provide access to the test environment for independent testing and verification to software Enhancements and Upgrades prior to being put into production.
47	To the extent possible, the test environment shall interface directly to Third-Party Service Providers and Business Partners and Interoperable Agency test and/or production systems.

1.1.1.6. *Email, Chat, Fax and Text Messaging*

48	The Contractor shall provide the capability for manual, scheduled and system triggered outbound/inbound email (including email attachments) and texting that meets the outbound/inbound correspondence Requirements.
49	The Contractor shall provide the capability for outbound/inbound fax that meets the outbound/inbound correspondence Requirements.
50	The Contractor shall provide the capability for chat sessions that meets the Requirements.
51	The Contractor shall provide the capability for multiple outbound domain name emails to avoid spam blocks or may provide an alternative solution.
52	The Contractor shall provide the capability for Authorized Users to view system-generated status information for electronic messages (such as, email, texting or fax) that are sent from within the BOS application. For example, an Authorized User (e.g., customer service representative) verifies that email messages have been successfully sent from the BOS.

1.1.1.7. *Hardware, Software and Other Equipment*

53	The Contractor shall assume maintenance, administration and Upgrade of the CSC Surveillance CCTV and security access systems as detailed Attachment C: Equipment List. The Contractor shall be responsible for replacing and Upgrading these systems as required over the term of the Agreement to meet the Contractor's operational and security approach, the Requirements and the Security Standards. These replacement or Upgrade of these systems shall be accounted for in the Contractor's proposal pricing and will not be separately paid for by the Agencies over the term of the Agreement.
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54	The Contractor shall provide completely new Desktop Environments for all CSC Operations personnel.
55	Immediately after Go-Live and upon Agencies' Approval, the Contractor shall decommission and securely box, package, label and provide to the Agencies for disposition the existing Desktop Environments and other CSC equipment not reused by the Contractor.
56	The Contractor shall integrate with the BOS all Agencies' provided or procured 6c and T21 transponder readers/programmers for use in the CSC.
57	The Contractor, with the Approval and assistance of the Agencies, shall procure any additional 6c and T21 readers/programmers required for the CSC on a cost pass-through basis.
58	<p>All Hardware and Software shall be new, commercially available products currently in production, of the latest design/version at the time of purchase (unless otherwise Approved by the Agencies) and field-proven in high-volume revenue operations, including but not limited to:</p> <ul style="list-style-type: none"> • Hardware; • Software; • firmware and • other supplies, equipment or components.
59	All Hardware and Software shall be obtainable from multiple sources readily available to the Agencies, unless otherwise Approved by the Agencies. An exception to this may be the Contractor's custom-developed Software.
60	The Contractor shall provide a dated invoice for all materials procured under this Agreement. Shipping bills shall be retained and copies furnished to the Agencies along with the invoice on which they appear.
61	All commercial Software provided as part of the BOS shall be enterprise class. Enterprise class applications are designed to be robust and scalable across a large organization and are customizable to meet the specific needs of the BOS. Note: Do not construe this to require enterprise level software licenses. It is the Contractor's responsibility to provide the proper level of software licensing.
62	The solution furnished and installed shall be appropriately sized for capacity, as required to support growth in traffic volumes at the Agencies' Toll Facilities. It also shall be scalable, allowing for additional transactions/trips, images and Toll Facilities to be added for all BOS functions while continuing to meet the Performance Measures.
63	The Contractor shall use field-proven Hardware, Software and equipment configurations that support future Upgrades to processors, memory, storage, operating system, database and other system components.
64	Licenses and Software media (or online access for downloading media) shall be provided to the Agencies for all Hardware, third-party Software and firmware procured, furnished and installed as part of the BOS.

65	The Contractor shall retain authorized copies (backups) for all Software media as required for use in periodic BOS maintenance, Upgrades or system restores for a minimum of one year.
66	All Hardware and equipment provided to support BOS and CSC Operations shall be networked and fully integrated with the functional BOS (including PMMS) and the Desktop Environments.
67	The standard Point of Sale devices shall support Europay, MasterCard and Visa (EMV) chip integrated circuit card and contactless Near Field Communication (NFC) devices. The Contractor shall ensure compliance with EMV chip guidelines for chip card transactions and International Standards Organization (ISO)/International Electrotechnical Commission (IEC) 18092 specifications for contactless NFC transactions.
68	Check scanners (for remote deposit capture) shall include, but not be limited to:
	<ul style="list-style-type: none"> • high accuracy Magnetic Ink Character Recognition (MICR) rate;
	<ul style="list-style-type: none"> • compliance with "The Check Clearing Act for the 21st Century" (Check 21);
	<ul style="list-style-type: none"> • check defacement features and • alphanumeric Optical Character Recognition (OCR) A & B font recognition.

1.1.1.8. Agencies Provided Data Center

The Contractor shall propose the best solution for the delivery of the BOS application. If the Contractor's BOS solution includes the installation of equipment in the Agencies' provided data center, the following requirements apply.

69	The Contractor shall be responsible for determining and paying for any and all required data center furnishings and upgrades, including but not limited to:
	<ul style="list-style-type: none"> • computer racks;
	<ul style="list-style-type: none"> • wiring and wiring management/distribution;
	<ul style="list-style-type: none"> • utilities;
	<ul style="list-style-type: none"> • power and power distribution;
	<ul style="list-style-type: none"> • uninterruptible power supply (UPS);
	<ul style="list-style-type: none"> • generator;
	<ul style="list-style-type: none"> • security;
	<ul style="list-style-type: none"> • communications and • network.

70	The Contractor shall procure, design, furnish and install an electronic Interface to monitor the performance of all data center power management, fire suppression, UPS, generator and environmental controls components. When redundant/standby systems are activated, or when conditions exceed/are outside of the range of the operating Requirements, Notifications and Alerts shall be generated and reported to the PMMS. There shall be no loss of data in such conditions and the integrity of the BOS shall be maintained.
71	The Contractor shall provide or take over the maintenance of data center equipment as detailed in Attachment C: Equipment List.

1.1.1.9. Network, Communications and Telephony

72	The Contractor shall provide all required network equipment and communications lines to connect the CSC and BOS to all required systems, facilities, Contractor personnel, Agency Authorized Users and customers, including:
73	<ul style="list-style-type: none"> ETTM Systems network communications as described in Attachment B: BOS Network and Server Room Layout; Agencies' staff locations; CSC and WIC sites as described in Attachment B: BOS Network and Server Room Layout; all agencies designated Third-Party Service Providers and Business Partners; all Contractor designated Third-Party Service Providers and Business Partners; all Contractor provided BOS environments; customers accessing the BOS or CSC via telephony, IVR and all other channels and customers accessing the BOS via the internet.
74	The Contractor shall provide the telephony systems for all CSC Operations personnel at the Corona CSC/WIC and the Anaheim Processing Center/CSC. Note: The telephony system at the OCTA Store (WIC at OCTA building) will continue to be provided by OCTA.
75	The Contractor shall provide new or assume maintenance of all network equipment as detailed in Attachment C: Equipment List.
76	As part of the Implementation Phase, the Contractor shall replace any network equipment and communications to increase throughput as required to meet the Requirements.
77	The Contractor may assume maintenance, administration and Upgrade of the designated BOS network and equipment throughout the Operations and Maintenance Phase, as detailed in Attachment C: Equipment List.
78	The network connection to the ETTM Systems shall be of sufficient bandwidth to support the transfer of images, transactions/trips, Transponder Status Lists and other required files.

79	The Contractor shall increase throughput and bandwidth as needed to eliminate system latency and meet the Requirements.
80	The Contractor shall provide network monitoring Software to track the BOS network and all communications lines. All network notifications and alarms shall be reported to the PMMS.
81	The Contractor shall provide the capability for time synchronization to one or more certified time server(s). The Contractor shall provide for redundant certified time sources should the primary source be unavailable.
82	The Contractor shall ensure proper synchronization with the ETTM System's time sources.
83	The Contractor shall provide secure remote access to the full capabilities of the BOS for Agency Authorized Users working remotely.
84	The Contractor shall be responsible for ensuring that all BOS networks and communications are compliant with the Security Standards.

1.1.2. BOS Functionality

The BOS functionality Requirements begin with the design of a GUI to the BOS. Through the GUI, Authorized Users (from within the CSC) and customers (coming through a website or mobile application) will access a user account and other information within the BOS. This section of the global Requirements also includes Requirements for establishing and controlling user access to the BOS, logging and security controls and maintaining efficient databases through regular purging and archiving of stale records in accordance with the Security Standards.

1.1.2.1. Graphical User Interface (GUI)

The GUI design must include accepted computer industry design standards for ease of readability, understanding and appropriate use of menu-driven operations, user customization and intuitive operation. The GUI should allow for efficient action by CSR or customer minimizing screens and clicks to modify.

85	The Contractor shall provide a secure, browser-based GUI for the BOS application, Self-Service Website, and all external Interfaces.
86	The Contractor shall provide for secure communications with the BOS application, all customer portals and all external Interfaces, such as Hypertext Transfer Protocol Secure (HTTPS) or similar.
87	The GUI shall adhere to accepted development standards and specifications, including but not limited to World Wide Web Consortium (W3C) and HyperText Markup Language (HTML) Version 5 or current standard.
88	The Contractor shall follow Payment Card Industry Data Security Standard (PCI DSS) and standard security practices in the design of the GUI for the BOS application, all customer portals and all external Interfaces.
89	The GUI design and development shall incorporate human factors and usability engineering and be optimized for speed, as well as provide the following controls, including but not limited to:

	<ul style="list-style-type: none"> • menus (such as pull down, popup, cascading, leveling, etc.);
	<ul style="list-style-type: none"> • allowing for multiple windows within the application, such as to navigate back without having to re-enter a user account;
	<ul style="list-style-type: none"> • informational messages;
	<ul style="list-style-type: none"> • positive feedback;
	<ul style="list-style-type: none"> • exception handling and error dialogs, including logging the error (in the PMMS);
	<ul style="list-style-type: none"> • control icons, links and action buttons;
	<ul style="list-style-type: none"> • data entry fields, combo boxes, check boxes;
	<ul style="list-style-type: none"> • display (read-only) fields and
	<ul style="list-style-type: none"> • general and context-specific help menus.
90	Data entry screens shall have Configurable mandatory fields that require data entry prior to continuing through the process.
91	The Contractor shall provide field-level validation and format verification upon existing data fields applicable to pre-defined formats or standards, including but not limited to:
	<ul style="list-style-type: none"> • alpha-numeric;
	<ul style="list-style-type: none"> • date;
	<ul style="list-style-type: none"> • time;
	<ul style="list-style-type: none"> • special characters;
	<ul style="list-style-type: none"> • length;
	<ul style="list-style-type: none"> • license plate number (based on individual issuing Jurisdiction rules) fields;
	<ul style="list-style-type: none"> • transponder numbers;
	<ul style="list-style-type: none"> • telephone number;
	<ul style="list-style-type: none"> • email address;
	<ul style="list-style-type: none"> • ZIP or postal codes and
	<ul style="list-style-type: none"> • check-digit, checksum, Modulus-10 or other verification algorithms for fields such as Credit Card number.
92	The Contractor shall provide field-level “tooltips” or other interactive help, Configurable by the system administrator, that provide specific guidance on any field presented, including but not limited to:
	<ul style="list-style-type: none"> • alpha-numeric fields;

	<ul style="list-style-type: none"> • date fields;
	<ul style="list-style-type: none"> • time fields;
	<ul style="list-style-type: none"> • special characters;
	<ul style="list-style-type: none"> • username and password;
	<ul style="list-style-type: none"> • length restrictions;
	<ul style="list-style-type: none"> • license plate number (based on individual issuing Jurisdiction rules) fields;
	<ul style="list-style-type: none"> • transponder fields;
	<ul style="list-style-type: none"> • telephone number fields;
	<ul style="list-style-type: none"> • email address fields;
	<ul style="list-style-type: none"> • ZIP or postal code fields and
	<ul style="list-style-type: none"> • Credit Card number fields.
93	<p>The Contractor shall provide the capability for Authorized Users to maintain drop-down lists, including but not limited to:</p> <ul style="list-style-type: none"> • add items; • deactivate items; • set effective activate and deactivate times; • modify items; • toggle item visibility on/off; • set the display order; • change the display order; • set the default value and • change the default value.

1.1.2.2. BOS Application Requirements

94	The Contractor shall provide navigation optimized for speed and with identical screen presentation and user experience, regardless of the browser used. The BOS application shall detect and advise if the browser being used is out-of-date or not supported, as well as instruct where updates can be obtained.
95	Help menu/dialogue box shall be provided for each screen, each editable field and each selectable option within each screen.

96	The Contractor shall provide workflow and application help menus that integrate seamlessly into the user interface.
97	The Contractor shall provide help menus that provide clear descriptions and walk-through procedures for all standard tasks.

1.1.2.3. User Accounts, User-Roles, User-Role Management and Controls

User account management and role management is an important component to the overall security of the solution. Authorized Users are Approved users that have role-based credentials to access the BOS as an employee of the Contractor, employee of the Agencies, Third Party Service Provider, or contractor of the Agencies.

98	Authorized Users shall access the BOS using an authenticated, role-based login and be uniquely identified and authenticated using a strong password policy.
99	The Contractor shall provide the capability for only privileged accounts to use tools with administrative capabilities conforming to the concept of least privilege.
100	Allow for full integration with Microsoft Active Directory (AD) or similar access system Approved by the Agencies so users are not required to enter separate passwords for system access (the BOS shall prompt users for their credentials and not allow pass-through authentication), and that all rules for password security (for example, characters or rotations) are enforced and passed between the network and the application.
101	The Contractor shall provide the capability to create (Configurable) BOS user accounts.
102	The Contractor shall provide the capability to create a new user account having the same role/rights as an existing user account.
103	The Contractor shall provide the capability to allow first name, middle name and/or last name to be changed without having to create a new user account, such as to correct an error or make a change because of marriage or divorce.
104	The Contractor shall provide the capability to search for Authorized Users using Configurable criteria.
105	The Contractor shall provide the capability to track user accounts created dates and disabled dates information, since user accounts may be enabled and disabled repeatedly over a period of time (because of leaves of absence, etc.).
106	The Contractor shall provide the capability to search and view all information about a user account on a particular date and time.
107	The Contractor shall provide the capability to control all access rights within the BOS through the assignment of user-roles.
108	The BOS shall prevent the direct assignment of rights to an Authorized User, and all rights must flow from a user-role.
109	The Contractor shall provide the following user-role capabilities, including but not be limited to:

	<ul style="list-style-type: none"> • allow Authorized Users to belong to multiple user-roles;
	<ul style="list-style-type: none"> • allow the deactivation of a user-role, provided no active Authorized Users are assigned to that role;
	<ul style="list-style-type: none"> • ensure modifications to roles are immediately propagated through the BOS and to all Authorized Users currently assigned to the role;
	<ul style="list-style-type: none"> • prevent BOS access to users who are not assigned to a user-role and
	<ul style="list-style-type: none"> • provide a built-in “read-only” capability that can be added to any user-role, allowing user accounts assigned to that role to view information on the screen and print reports (but not make changes).
110	The Contractor shall provide the capability for an Authorized User to view the summary of permissions of a user created with multiple user-roles.
111	The Contractor shall provide the capability for Authorized Users to manage user-roles, including but not limited to:
	<ul style="list-style-type: none"> • create new user-roles;
	<ul style="list-style-type: none"> • change access rights;
	<ul style="list-style-type: none"> • assign and un-assign user-roles to user accounts;
	<ul style="list-style-type: none"> • assign and un-assign user accounts to user-roles;
	<ul style="list-style-type: none"> • adjust user-roles and
	<ul style="list-style-type: none"> • deactivate user-roles.
112	The Contractor shall provide the capability for Authorized Users to manage multiple levels of access control based on user-roles, including but not limited to:
	<ul style="list-style-type: none"> • broad functional level, for example, user-role X is denied access to the user account management functionality;
	<ul style="list-style-type: none"> • detailed functional level, for example, user-role Y is allowed access to the user account management functionality but denied access to close user accounts function and
	<ul style="list-style-type: none"> • field level, for example, user-role Z is allowed access to the user account management functionality but denied access to the tax-exempt checkbox.
113	The Contractor shall provide the capability for Authorized Users to deny/allow access or allow read-only access, based on user-roles, including but not be limited to:
	<ul style="list-style-type: none"> • specific menus;
	<ul style="list-style-type: none"> • specific items on a drop-down list;
	<ul style="list-style-type: none"> • specific individual screens;

	<ul style="list-style-type: none"> • specific functions on a screen;
	<ul style="list-style-type: none"> • specific fields within a specific screen;
	<ul style="list-style-type: none"> • specific types of transactions/trips;
	<ul style="list-style-type: none"> • specific processes;
	<ul style="list-style-type: none"> • specific reports;
	<ul style="list-style-type: none"> • specific activities based on account status;
	<ul style="list-style-type: none"> • specific search capabilities;
	<ul style="list-style-type: none"> • specific transaction/trip approval privileges;
	<ul style="list-style-type: none"> • specific workstation location access;
	<ul style="list-style-type: none"> • specific workstation time restrictions and
	<ul style="list-style-type: none"> • specific time restrictions.
114	The Contractor shall provide the capability to configure Flags as part of a user role definition, so they can be viewed based on user-roles.
115	The Contractor shall provide the capability to send Alerts to the PMMS for logging and notification based on the assignment/removal of a specific user-role (Configurable as new user-roles are created).
116	The Contractor shall provide the capability to search for all Authorized Users with a specific role and all user accounts with a specific access right.
117	The Contractor shall provide the capability to search and report on user-roles for a particular date, distinguishing between an active user account (able to access information according to its roles) an inactive user account (temporarily unable to access information because of a locked password or expired from lack of use) and a disabled user account (a user account no longer able to access information because of the intervention of an Authorized User).
118	The BOS shall keep a full history of all user-role details with effective dates so the exact rights for a particular user-role can be viewed by Authorized Users at any point in time.

1.1.2.4. Logging Mechanisms

These mechanisms provide chronological recording of system events and user account activities. They also document the sequence of activities that have been affected at any time during a specific operation, procedure or event.

119	The Contractor shall provide comprehensive, system-wide logging capabilities ensuring every change to a BOS record of any type is logged with a date/time stamp, including the Authorized User (and IP address) that made the change.
120	The Contractor shall ensure that system clocks are synchronized.

121	The Contractor shall provide the capability to log all changes to user accounts.
122	The Contractor shall provide the capability to log all changes to the Processing Exception List.
123	The Contractor shall provide BOS reports, including but not limited to: <ul style="list-style-type: none"> • reports of logged activity by activity type and • reports of logged activity by user accounts.
124	The Contractor shall create a log when a user-role is assigned, changed or removed from a user account.
125	The Contractor shall provide screens so Authorized Users can view all log files.
126	The Contractor shall provide the capability to log and track all user activities and user accounts viewed by specific user account with date, time stamp, and workstation location.
127	The Contractor shall provide Configurable Alerts to the PMMS for all functions of the BOS which are logged.
128	The Contractor shall provide logging that includes actions taken within a user account with date and time stamp.
129	The Contractor shall provide logging of all changes (view, add, delete, modify) to Credit Card information.
130	The Contractor shall provide logging of all user login attempts, including but not limited to: <ul style="list-style-type: none"> • username; • originating Internet Protocol (IP) address; • date; • time and • success/failure.
131	The Contractor shall provide logging of all customer login attempts, including but not limited to: <ul style="list-style-type: none"> • Uniform Resource Locator (URL); • user account; • browser/platform including version number; • originating IP address; • date; • time and

	<ul style="list-style-type: none"> • success/failure.
132	The Contractor shall provide audit logging capabilities that provides the ability for view access by CSR and/or by account to have the review of users that have accessed the account or Case even if no changes have been logged.
133	The Contractor shall create a log of all changes to system configurations or settings and record the user name, date, time and IP address from which the change was made.
134	The Contractor shall be in compliance with all PCI DSS logging requirements while preventing any logging of Credit Card numbers or card verification value data, including debugging and error logs.
135	The Contractor shall be in compliance with all PII logging requirements while preventing any logging of PII data, including in debugging and error logs.
136	The Contractor shall provide the capability to generate an Alert to the PMMS when debugging logs are turned on within the production environment.
137	The Contractor shall prevent tampering with log file data.
138	The Contractor shall provide the capability to log and track changes to applications, databases and operating systems.

1.1.2.5. BOS Security Standards, PII and Best Practices

The Contractor shall provide security and access controls in accordance with the Security Standards. These Security Standards will evolve as standards, best practices and California statutes evolve over the term of the contract.

139	The Contractor's approach to BOS and user security shall continually provide adherence to the latest specifications, publications, policies and standards, including but not be limited to:
	<ul style="list-style-type: none"> • compliance with PCI DSS;
	<ul style="list-style-type: none"> • protecting the confidentiality of PII in accordance with the Agencies' privacy policy;
	<ul style="list-style-type: none"> • protecting the confidentiality of PII in accordance with Section 31490 of the Streets and Highways Code and other applicable California statutes;
	<ul style="list-style-type: none"> • protecting the confidentiality of PII in accordance with the recommendations in publication 800-122 from the National Institute of Standards and Technology (NIST) or subsequent versions;
	<ul style="list-style-type: none"> • encryption of data in accordance with NIST SP 800-111 Guide to Storage Encryption Technologies for End User Devices;
	<ul style="list-style-type: none"> • protecting the confidentiality of PII in accordance with the California Civil Code Section 1747.08.;

	<ul style="list-style-type: none"> account for information security management risk as described by NIST Cybersecurity Framework special publication 800-39;
	<ul style="list-style-type: none"> conformance to applicable best practices for information security management as described by the ISO/IEC 27000 standards;
	<ul style="list-style-type: none"> the security Requirements and
	<ul style="list-style-type: none"> all California and out-of-state DMV security requirements and standards.
140	The Contractor shall establish and maintain a formal, documented, mandated, BOS and CSC Operations information security policy that shall be communicated to all Contractor and Subcontractors personnel in a relevant, accessible, and understandable form and will be regularly reviewed and evaluated to ensure its operational effectiveness, compliance with all Security Standards, applicable laws and regulations, and to address new threats and risks.
141	The information security policy shall address all removable media except in the context of Contractor's routine back-ups or as otherwise specifically Approved by the Agencies, Contractor shall institute strict physical and logical security controls to prevent transfer of BOS data via removable media.
142	The Contractor shall provide strong end-to-end encryption for all sensitive information, including PCI and PII) stored within databases (at rest) or being transmitted (in-motion).
143	The Contractor shall use strong encryption methods such as AES FIPS-179 (128 bits and higher) or RSA (2048 bits and higher), or an equivalent if Approved by the Agencies.
144	The Contractor shall provide encryption keys that are considered sensitive information and stored on appropriately secured servers.
145	The Contractor shall prevent any unauthorized user, system or database administrator from viewing encrypted information in unencrypted form, while providing the capability for Authorized Users to view encrypted information in unencrypted form to perform tasks based on a defined role.
146	The Contractor shall ensure that no cardholder data, such as Credit Card numbers or card verification value data, is in any BOS environments.
147	The Contractor shall ensure that no PII data is in the BOS environments other than production, DR and test.
148	<p>The Contractor shall provide comprehensive user credential controls that are compliant with PCI standards, including but not limited to:</p> <ul style="list-style-type: none"> prevent the creation of 'generic' user accounts – all user accounts shall be associated to a specific person. For example, use the unique employee ID as a required field for each user account. Duplicate IDs would be rejected and prevent a user (role-based) from logging in at two different machines at the same time, while allowing a single user on a single machine to have multiple sessions open at the same time.

149	The Contractor shall provide the capability to configure different user credential controls for different types of users, including but not limited to:
	<ul style="list-style-type: none"> Authorized Users who will access the BOS;
	<ul style="list-style-type: none"> Third-Party Service Providers and Business Partners that access the BOS via external Interfaces and
	<ul style="list-style-type: none"> customers who will access the BOS via the Self-Service Website, Self-Service Mobile Application and the IVR.
150	All Hardware shall be integrated with the PMMS and configured to provide PMMS alerts in relations to out-of-date security software and patch versions.
151	All Hardware shall be integrated with the PMMS and configured to provide PMMS alerts in relations to all attempted intrusions, virus attacks, ransomware attacks, spamming, denial of service and attempted/successful unauthorized access.
152	For any Hardware removed from the BOS, the Contractor shall provide a notarized statement, detailing the removal or destruction method used, the data sets involved, the date of destruction, and the company or individual who performed the destruction. The statement shall be sent to the Agencies within fifteen (15) Calendar Days of removal of the Hardware. The destruction or erasure of data or information pursuant to this Section shall be in compliance with industry Best Practices (e.g., NIST SP 800-88, Guidelines for Media Sanitization)
153	The Contractor shall provide a report of all security incidents. The agencies or its third-party designee may, but is not obligated to, perform audits, security tests and intrusion tests of BOS environments that may also include, but are not limited to, interviews of relevant personnel, review of documentation, and/or technical inspection of systems.
154	The Contractor shall provide for Agencies' review any original security reports related to security assessments that the Contractor has undertaken to assess BOS and shall notify the Agencies of all security assessments.

1.1.2.6. Archival and Purge Control Mechanisms

The Agencies are public and, therefore, are subject to the law governing the retention and disposition of information considered as public record. The Requirements for archiving and purging include Requirements for automating these activities in a way that maintains compliance with the Contractor retention schedule that is provided as part of the Contractor's Maintenance documentation, while providing the Agencies a method to Approve the disposition of records before they are deleted.

155	The Contractors archival and purge processes shall be in compliance with the data retention Requirements set forth in the Security Standards and Volume I, Section 4.2.18 Records.
156	The Contractor shall provide the capability for fully automated and Configurable storage of historical data (archival) and the permanent deletion of inactive or obsolete data (purging).

157	The Contractor shall provide the capability to store 100 percent of the BOS electronic information in accordance with the data retention Requirements set forth in the Security Standards and Volume I, Section 4.2.18 Records.
158	The Contractor shall provide the capability to store 100 percent of the BOS electronic historical information indefinitely if they have enduring significance to the Agencies activity (i.e., permanent, evidentiary, and/or historical value) in accordance with the retention schedule.
159	Archival and purge routines shall be Configurable for each impacted data element, including but not limited to: <ul style="list-style-type: none"> • transactional data; • all formats of customer PII data; • Images (Violations-related and I-Toll-related); • documents; • Notifications; • BOS logs and • third-party provided files.
160	The Contractor shall provide the capability to archive data on a monthly interval.
161	The Contractor shall provide the capability to purge archived data on a periodic basis.
162	Authorized Users shall have the capability to request retrieval of archived data through the Contractor's ticketing system included in the PMMS.
163	All archived data shall be stored on permanent, long-term storage media and shall be maintained at a secure Agencies Approved third-party commercial data storage facility.
164	Servers shall retain transaction/trip and summarized data, all images and BOS logs online for a specified period of time and then archive that data.
165	Data shall be purged in accordance with the data retention schedule.
166	The Contractor shall provide the capability to notify the BOS maintenance personnel via the PMMS a Configurable number of days in advance and require Authorized User approval for when archival and purging jobs are to be executed, including but not limited to data elements impacted, date range applied and data size impact.
167	After successful archival of data and confirmation via the PMMS, the deletion of online data shall be automatic, without user intervention and shall generate a message to be transmitted according to the PMMS rules. Absolutely no transactions/trips shall be deleted unless confirmed to be successfully archived.
168	The BOS servers shall be sized to accommodate for the restoration of selected archived data (one -year minimum).

169	Authorized Users shall be able to generate queries from the restored data.
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1.1.3. Interfaces

The Contractor is responsible for working with the Agencies, Interoperable Agencies/California Toll Operators Committee (CTOC) and Third-party Service Providers and Business Partners in designing, developing, documenting, testing and implementing all required Interfaces and portals.

1.1.3.1. General Requirements for External Interfaces

Electronic Interfaces are required to provide BOS connectivity. The technical specifications for these Interfaces are documented in ICDs that have either already been developed by the Agencies or shall be developed by the Contractor. The ICDs include Requirements for data format and transmission, criteria for acknowledgement and validation of transmitted data and procedures for recording and reconciliation as appropriate for each Interface.

170	The Contractor shall develop new or comply with existing electronic Interfaces.
171	The Contractor shall provide for guaranteed transmission of data for all Interfaces and portals.
172	The Contractor shall provide for 100 percent reconciliation of the transmitted and received data and files.
173	The Contractor shall provide the capability for Authorized Users to access and view the contents of files, including compressed or encrypted files, which are received by the BOS and transmitted by the BOS in a readable format. Authorized Users shall have the capability to save the contents of such files.
174	<p>The Contractor shall provide the capability for sending real-time Alerts to the PMMS for Interface and data transmission failures, including but not limited to:</p> <ul style="list-style-type: none"> • real-time dashboard for managing and monitoring Interfaces; • workflow user Interface for managing and monitoring steps within each Interface; • status and history of executions; • comprehensive scheduling of file transmissions; • tools for viewing data and/or contents of files received via Interfaces and portals (compressed or encrypted); • comprehensive reporting for transmitted and received t data and files; • tight integration with the PMMS and notification of failed transmissions and • capability to manually execute a failed transmission.
175	When using File Transmission Protocol (FTP), the Contractor shall utilize Secure File Transmission Protocols (SFTP) for the transfer of data and/or files via Interfaces and portals.

176	The Contractor shall provide the capability to transmit and receive multiple files during each scheduled batch.
177	The Contractor shall provide the capability to transmit and receive multiple full and incremental files in a day.
178	The Contractor shall utilize file naming conventions that prevent the over-write of data and/or files. For example, include the date and time of transmission.
179	The Contractor shall provide file handling and processing methods that provide for a complete log of the data and/or file transfer process.
180	<p>The Contractor shall provide validate records and identify errors in the received data and/or files, including but not limited to:</p> <ul style="list-style-type: none"> • mandatory fields; • data formats; • data validity (for example, user account number not found in the BOS); • duplicate records; • unexpected response; • checksum/record count verification and • incorrect status.
181	The Contractor shall provide the capability to correct and re-transmit data and/or files.
182	The Contractor shall provide the capability to process re-transmitted data and/or files.
183	The Contractor shall provide the capability to transmit the error details to the transmitting entity, as well as record it in the PMMS.
184	The Contractor shall provide the ability to identify missing records/transactions/images and request the transmission of such missing records/transactions/images.
185	The Contractor shall reconcile the transmitted records to the records received and accepted by the receiving entity.
186	<p>The Contractor shall provide the means to identify Interface issues by validating the file transmission process, including but not limited to:</p> <ul style="list-style-type: none"> • creation and transmission of data and/or a file at the scheduled time, even if there are no records to transmit; • determination if the data and/or a file was transmitted or received at the scheduled time; • creation of Alerts to the PMMS if data and/or a file was not created or received at the scheduled time;

	<ul style="list-style-type: none"> • creation of Alerts to the PMMS if received data and/or a file was not acknowledged;
	<ul style="list-style-type: none"> • creation of Alerts to the PMMS if records in the received data and/or file had errors when processed;
	<ul style="list-style-type: none"> • provide details in real-time to the PMMS of each failed record and
	<ul style="list-style-type: none"> • creation of Alerts to the PMMS when a response has not been received for individual records within the expected duration.
187	The Contractor shall provide data and/or file transmission and reconciliation reports as described in these Requirements.
188	<p>All responses received from third-party Interfaces and all actions required of the third-party to a file transmitted by the BOS shall be associated with the original transaction, including but not limited to:</p> <ul style="list-style-type: none"> • Violation data and images; • images of check copies for a payment; • Notifications to customers transmitted by the Collection Agency; • comments and dispositions transmitted in the response file and • emails received from the customer related to a specific transaction/trip or Violation.
189	The Contractor shall provide the capability for Authorized Users to obtain the history of updates to a transaction/trip.
190	<p>The Contractor shall provide a dashboard that tracks the progress of data and/or file transmissions through each stage and their acknowledgements by the receiving entity, including but not limited to:</p> <ul style="list-style-type: none"> • transactions/trips eligible for transmission; • file and/or data created with file name; • file and/or data transmitted; • file and/or data received; • file and/or data accepted; • file and /or data rejected; • file and/or data re-transmitted; • number of records in the file and/or data set; • number of unique user accounts and • number of failed records.

191	The Contractor shall provide the capability for Authorized Users to configure the relevant parameters related to file and/or data transmission for each Interface. For example, scheduling the time-of-day that a specific file is transmitted.
192	The Contractor shall monitor the disk capacity where files and/or data are deposited and send an Alert to the PMMS and third-party entities (if applicable) if folders are near capacity (Configurable) or full.
193	The Contractor shall provide the capability to automatically archive successfully processed data and/or files after a number of days (Configurable).
194	The Contractor shall provide the data to reconcile file transmissions.
195	The Contractor shall conform to any existing ICDs, including any updates required at the time of design and develop all new ICDs that are required to be developed. It is the Contractor's responsibility to ensure all ICDs (including existing) are accurate, updated and meet the Requirements of the BOS before developing the Interfaces. Standards-based Interfaces shall be used when available and all Interfaces shall be Approved by the Agencies.
196	The Contractor shall implement required updates to Interfaces at the direction of the Agencies at no additional cost to the Agencies.

1.1.3.2. Interface to the Agencies' ETTM Systems

This Interface connects the BOS with both OCTA's and RCTC's ETTM Systems for transmitting transactions/trips, images, toll rate information, transponder files, license plate files and other data to the BOS for processing and for transmitting various data back to the ETTM Systems.

197	The Contractor shall comply with the existing ETTM Systems ICDs.
198	If the BOS Implementation requires an update to either or both ETTM Systems ICDs, the Contractor shall develop the new ICD and coordinate all design, development and testing with the ETTM System Contractors.
199	The ETTM System ICDs may include many data fields, including but not limited to: <ul style="list-style-type: none"> • trip transaction ID; • trip ID; • timestamp for when the trip started; • amount of time that was being allotted for travel from the pricing sign to the toll zone; • occupancy setting applied for the overall trip; • Clean Air Vehicle identifier for overall trip; • motorcycle identifier for overall trip; • image-based or a tag-based trip identifier;

	<ul style="list-style-type: none"> total fare assigned for the trip;
	<ul style="list-style-type: none"> total fare that was in effect at the time of the trip;
	<ul style="list-style-type: none"> primary transponder ID for the overall trip;
	<ul style="list-style-type: none"> license plate number for the overall trip;
	<ul style="list-style-type: none"> Jurisdiction of the license plate for the overall trip;
	<ul style="list-style-type: none"> license plate type for the overall trip;
	<ul style="list-style-type: none"> segment identifier;
	<ul style="list-style-type: none"> lane identifier;
	<ul style="list-style-type: none"> lane mode identifier;
	<ul style="list-style-type: none"> Straddle – This is a yes/no type identifier for whether the vehicle was straddling the lane line when it went through the toll zone;
	<ul style="list-style-type: none"> timestamp for when the transaction occurred;
	<ul style="list-style-type: none"> transponder items below shall be enumerated for each transponder read at the toll zone, with all of the subsections being listed for each transponder;
	<ul style="list-style-type: none"> transponder ID;
	<ul style="list-style-type: none"> timestamp when the transponder was read;
	<ul style="list-style-type: none"> transponder status;
	<ul style="list-style-type: none"> transponder type;
	<ul style="list-style-type: none"> transponder occupancy setting;
	<ul style="list-style-type: none"> primary transponder identifier;
	<ul style="list-style-type: none"> buffered transponder read identifier;
	<ul style="list-style-type: none"> spurious transponder read identifier;
	<ul style="list-style-type: none"> license plate number selected for the transaction based on confidence values;
	<ul style="list-style-type: none"> jurisdiction of the license plate selected for the transaction based on confidence values;
	<ul style="list-style-type: none"> license plate type selected for the transaction based on confidence values;
	<ul style="list-style-type: none"> OCR confidence;
	<ul style="list-style-type: none"> occupancy detection system occupancy assigned (if applicable);
	<ul style="list-style-type: none"> occupancy assigned;

	<ul style="list-style-type: none"> • Clean Air Vehicle identifier;
	<ul style="list-style-type: none"> • motorcycle identifier;
	<ul style="list-style-type: none"> • Image items below shall be enumerated for each image captured at the toll zone, with all of the subsections being listed for each image;
	<ul style="list-style-type: none"> • file name for the image;
	<ul style="list-style-type: none"> • camera that took the image;
	<ul style="list-style-type: none"> • timestamp for when the image was captured;
	<ul style="list-style-type: none"> • license plate number reported by the OCR/image review system for the individual image;
	<ul style="list-style-type: none"> • jurisdiction of the license plate reported by the OCR/image review system for the individual image;
	<ul style="list-style-type: none"> • license plate type reported by the OCR/image review system for the individual image;
	<ul style="list-style-type: none"> • OCR confidence value for the license plate assigned by the OCR/image review system for the individual image and
	<ul style="list-style-type: none"> • payment type identifies whether the individual transaction registered as an Image-Based or a Transponder-Based Transaction.
200	The Contractor shall Interface to OCTA's 91 Express Lanes ETTM System to obtain and acknowledge 100 percent of all transactions/trips, associated transaction and Violation images in accordance with the ICDs to be developed during Project design.
201	The Contractor shall Interface to RCTC's 91 Express Lanes ETTM System to obtain and acknowledge 100 percent of all transactions/trips, associated transaction and Violation images in accordance with the ICDs to be developed during Project design.
202	<p>The ETTM System Interface shall be capable of the following Configurable functionality, including but not limited to:</p> <ul style="list-style-type: none"> • sending the comprehensive and incremental Agencies Tag Status Files and License Plate Status Files (for both the CTOC Agencies' and Interoperable Agencies') in real-time and at scheduled intervals (e.g., every 10 minutes). The BOS shall support sending the Tag Status File and Plate Status File as single file or as separate files; • sending Interoperable Agency transponder statuses periodically (incremental and comprehensive) multiple times per day (e.g., every 10 minutes); • sending rental car files (incremental and comprehensive) multiple times per day (e.g., every 10 minutes); • sending Plate Correction List from customer disputes and audit checks no less than every hour;

	<ul style="list-style-type: none"> • sending Processing Exception List maintained at the BOS no less than every hour;
	<ul style="list-style-type: none"> • receiving Transponder-Based Transactions/Trips;
	<ul style="list-style-type: none"> • receiving Image-Based Transactions/Trips (including license plate number, Jurisdiction, and type, if required), and
	<ul style="list-style-type: none"> • receiving other files (such as toll rate schedules and variable pricing information).
203	The Contractor shall provide the capability to positively acknowledge (ACK) message receipt, negatively acknowledge or reject a message (NACK) and reconcile data transmissions from each individual ETTM System.
204	The Contractor shall receive and store color and black and white images for each transaction that comprises the trip, separately from both the OCTA and RCTC ETTM Systems including:
	<ul style="list-style-type: none"> • ROI image(s);
	<ul style="list-style-type: none"> • full rear image(s);
	<ul style="list-style-type: none"> • full rear straddle image(s) and
	<ul style="list-style-type: none"> • overview image(s).

1.1.3.3. Interface to the Interoperable Agencies

This Interface connects the BOS with the Interoperable Agencies for data exchange.

205	The Contractor shall provide the Interface to WRT0/CTOC Interoperable Agencies and Regional and National Hubs, for the functionality described within these Requirements and in accordance with latest and future WRT0/CTOC ICDs.
206	The Contractor shall provide the capability to obtain and acknowledge 100 percent of all transactions/trips and images from Interoperable Agencies.
207	The Contractor shall provide the capability to transmit 100 percent of all Interoperable Agency customer transactions/trips and images to their respective Interoperable Agencies.
208	The Contractor shall provide the capability (Configurable) to transmit the Agencies' plaza update (including addition of new plaza facilities) information to Interoperable Agencies.
209	The Contractor shall provide the capability (Configurable) to receive Interoperable Agencies' plaza update (including addition of new plaza facilities) information.
210	The Contractor shall provide the capability (Configurable) to transmit the Agencies' Transponder Status Lists (TSLs) to Interoperable Agencies.
211	The Contractor shall provide the capability (Configurable) to receive Interoperable Agency TSLs from Interoperable Agencies.

212	The Contractor shall provide the capability (Configurable) to transmit BOS customer license plate numbers to Interoperable Agencies.
213	The Contractor shall provide the capability (Configurable) to receive license plate numbers from Interoperable Agencies.

1.1.3.4. Interface to California and Arizona DMV

This Interface connects to the California and Arizona DMV to obtain information (such as name, address, vehicle make/model, CAV designation, VIN) about vehicles which fail to properly pay the toll amount.

214	The Contractor shall provide and administer a direct DMV Interfaces for the purpose of obtaining registered owner information for vehicles travelling in the Express Lanes Facility and the placement and release of vehicle Registration Holds, including.
	<ul style="list-style-type: none"> • California DMV;
	<ul style="list-style-type: none"> • California Temporary License Plate DMV database and
	<ul style="list-style-type: none"> • Arizona DMV.
215	Whenever available, the Contractor shall use the on-line DMV interface allowing for real time look ups and updates. If multiple DMV interfaces are available to provide the same information, during the Implementation Phase the Agencies shall direct the Contractor as to which Interface to implement.
216	The Contractor shall obtain approval from the California and Arizona DMV to be a processor for both RCTC and OCTA.
217	The Contractor shall maintain all security requirements required by both California and Arizona DMV.

1.1.3.5. Interface to Rental Car Service Providers

This Interface connects to Rental Car Service Providers to exchange transactions/trips, vehicle, renter information, rental agreements and payment information with the BOS, for rental cars that incur tolls on the Agencies' Toll Facilities.

218	The Contractor shall provide the capability to transmit and receive vehicle information from all rental car companies using a Rental Car Service Providers.
219	The Contractor shall provide the Interfaces to Rental Car Service Providers for the functionality described within these Requirements and in accordance with ICDs to be developed during Project design.
220	The Contractor shall provide the capability to schedule and automatically send periodic (Configurable) detailed rental car account toll transaction/trip files to Rental Car Service Providers.

1.1.3.6. Interface to Transportation Corridor Agencies (TCA) for the Disposition of Rental Car Trips

The Transportation Corridor Agencies (TCA) intends to host rental car plates and transponders and collect tolls on behalf of other CTOC agencies.

221	The Contractor shall provide the capability to transmit and receive vehicle information from TCA in a separate TSL and License Plate Status File IOP file .
222	The Contractor shall provide the capability to provide TCA with toll amounts due for the plates and transponders in the rental file and process payments from TCA.

1.1.3.7. Interface to the Agencies' BOS Bank

This Interface is to the Agency-provided bank to retrieve all required banking information.

223	The Contractor shall provide an Interface to the Agency Bank to retrieve, process and store all information required to support the all-electronic BOS bank reconciliation process.
224	The interface shall support the use of Positive Pay to deter check fraud.

1.1.3.8. Interface to California Franchise Tax Board (FTB) Tax Intercept Program

This Interface is to the California FTB Tax Intercept Program to provide and receive all required tax intercept information.

225	The Contractor shall provide an Interface to the California FTB to retrieve, process and store all information required to support the tax intercept process.
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1.1.3.9. Interfaces to Agencies' Financial Accounting Systems

226	The Contractor shall provide an Interface to OCTA's financial accounting system for the purpose of issuing refund checks and other accounts payable checks.
227	The Contractor shall provide an Interface to RCTC's financial accounting system for the purpose of processing Agency issued payments.
228	The Contractor shall provide an Interface to OCTA's financial accounting system for the purpose of recording financial activity to the general ledger.
229	The Contractor shall provide an Interface to RCTC's financial accounting system for the purpose of recording financial activity to the general ledger.

1.1.3.10. Interface/Connectivity to Contractor-Provided Services

The Contractor shall provide connectivity to service providers for which the Contractor is responsible. The Requirements are not prescriptive as to the Interface type or method.

230	The Contractor shall provide connectivity to Contractor selected Third-party Service Providers and Business Partners as required to meet the Requirements, including but not limited to:
	• Collection Agency 1 (Direct Access to BOS is Phase II Functionality);
	• Collection Agency 2 (Direct Access to BOS is Phase II Functionality);
	• Customer Satisfaction Survey Provider Subcontractor;
	• Lockbox Service Provider (optional);
	• Merchant Service Provider 1;
	• Merchant Service Provider 2;
	• 3rd Party ROV Lookup for all 50 states (excluding California and Arizona), District of Columbia, U.S. Government, and
	• Print/Mail House Provider (optional).

1.1.4. Performance Management and Monitoring System

The Performance Management and Monitoring System (PMMS) supports BOS maintenance Requirements for all Hardware, Software and other BOS components by monitoring BOS processes, equipment, jobs and Interfaces in real-time to identify degradations in performance or availability before they impact end users. The PMMS generates Alerts and creates actionable trouble tickets that can be tracked to resolution.

231	The Contractor shall provide a PMMS that supports BOS maintenance Requirements for all Hardware, Software and other BOS components, in accordance with these Requirements.
232	The Contractor shall provide a PMMS that monitors, Alerts and generates trouble tickets in real-time for all BOS processes, equipment, jobs and Interfaces, including but not limited to:
	• communications issues;
	• electrical power issues;
	• temperature issues;
	• Hardware issues;
	• Software issues or failures;
	• database issues;
	• anomalies to the system design;
	• issues with customer portals (Self-Service Website and Self-Service Mobile Application);
	• file systems and file system issues;
	• issues with jobs, processes or data flows;

	<ul style="list-style-type: none"> • BOS health – overall and by component;
	<ul style="list-style-type: none"> • BOS and application performance;
	<ul style="list-style-type: none"> • BOS utilization – disk space, disk IOs, CPU, memory, throughput (Configurable thresholds);
	<ul style="list-style-type: none"> • security events;
	<ul style="list-style-type: none"> • logs and
	<ul style="list-style-type: none"> • access controls.
233	<p>The PMMS shall provide comprehensive recording capabilities, including but not limited to:</p> <ul style="list-style-type: none"> • log aggregation (from disparate systems or Modules); • event correlation (cause and effect association); • log shipping and • log management functions.
234	<p>The PMMS shall have the ability to receive success or failure information regarding data management activities, including but not limited to:</p> <ul style="list-style-type: none"> • backup; • DR data transfer and synchronization status; • data archival and • data restores.
235	<p>The Contractor shall provide a PMMS that monitors, alerts and tracks, in real-time, unusual or potentially fraudulent activity triggered by users and systems, including but not limited to:</p> <ul style="list-style-type: none"> • multiple one-time replenishments coupled with closing of customer accounts; • repeated opening and closing of customer accounts; • refunds over a dollar amount (Configurable) and • multiple deposits and refunds on the same customer account.
236	<p>The PMMS shall monitor that all BOS components have current and up-to-date virus, firewall and spam protection and other security Software that prevent single point of vulnerability from external threats, virus attacks, ransomware, spam protection and unauthorized access.</p>
237	<p>The Contractor shall provide a PMMS that monitors, alerts and tracks, in real-time, unusual or potentially fraudulent activity, including but not limited to:</p>

	<ul style="list-style-type: none"> • attempted network or system intrusions;
	<ul style="list-style-type: none"> • attempted malicious attacks and
	<ul style="list-style-type: none"> • Unexpected changes to security settings on firewalls and other security systems.
238	The PMMS shall include, but not be limited to the following capabilities:
	<ul style="list-style-type: none"> • receiving and monitoring status messages for all BOS Hardware and Software;
	<ul style="list-style-type: none"> • grouping, sorting and filtering by message type, time, equipment, subsystem, etc.;
	<ul style="list-style-type: none"> • local trouble ticket manual entry or email entry by users;
	<ul style="list-style-type: none"> • automatic work order generation;
	<ul style="list-style-type: none"> • storing data in a relational database to allow for data recovery and flexibility in reporting the raw data (including dashboards and ad-hoc reporting);
	<ul style="list-style-type: none"> • generating (automatically) monthly performance reports;
	<ul style="list-style-type: none"> • tracking service requests;
	<ul style="list-style-type: none"> • assigning priorities and actions to events;
	<ul style="list-style-type: none"> • notifying (automatically) maintenance personnel via reports, text and email;
	<ul style="list-style-type: none"> • assigning trouble tickets to maintenance personnel;
	<ul style="list-style-type: none"> • reassigning (manually) trouble tickets to other maintenance personnel;
	<ul style="list-style-type: none"> • escalating (automatically) trouble tickets to other maintenance personnel;
	<ul style="list-style-type: none"> • recording time of acknowledgement by maintenance personnel;
	<ul style="list-style-type: none"> • recording time of acknowledgement by all subsequently assigned maintenance personnel;
	<ul style="list-style-type: none"> • recording time of repair;
	<ul style="list-style-type: none"> • recording time of equipment recovery;
	<ul style="list-style-type: none"> • recording completion of service calls;
	<ul style="list-style-type: none"> • attachment of common document type, such as Microsoft Word, Portable Document Format (PDF), email and screen capture images;
	<ul style="list-style-type: none"> • providing automatic Alerts for trouble tickets not closed in a specified time;
	<ul style="list-style-type: none"> • maintaining and tracking repair maintenance activity;
	<ul style="list-style-type: none"> • calculating response times, repair times and down time from the data entered by the maintenance staff and automatically generated by the BOS;

	<ul style="list-style-type: none"> • accepting and updating trouble tickets from mobile hand-held devices and smart phone entries;
	<ul style="list-style-type: none"> • role-based security;
	<ul style="list-style-type: none"> • automatic system exception reporting for all processes that are not running;
	<ul style="list-style-type: none"> • automatic system workflow exception reporting for all items that are not processing correctly or are hung up in the BOS and
	<ul style="list-style-type: none"> • providing hard copy reports on issues, failures and trouble resolution status.
239	The PMMS shall record all configuration data in a configuration management database, which shall be updated after each system component change, including application of BOS patches.
240	The PMMS shall provide system maintenance personnel with screens, dashboards and reports within the PMMS that allows for the verification and monitoring of all processes, programs and scheduled tasks. Failures shall be visible in a PMMS screen accessible to maintenance personnel. Event and error logs shall be provided to assist maintenance personnel with investigating problems.
241	All PMMS screens, dashboards and reports shall be available to Authorized Users from the Agencies.
242	The PMMS shall provide Authorized Users with operational, management and performance reports from the PMMS that include but are not limited to:
	<ul style="list-style-type: none"> • summarized and detailed alarm history;
	<ul style="list-style-type: none"> • maintenance paging and response history;
	<ul style="list-style-type: none"> • work order status and tracking;
	<ul style="list-style-type: none"> • equipment inventory and life cycle tracking;
	<ul style="list-style-type: none"> • equipment availability;
	<ul style="list-style-type: none"> • preventive and predictive maintenance;
	<ul style="list-style-type: none"> • corrective maintenance;
	<ul style="list-style-type: none"> • response and repair times for each of the priorities;
	<ul style="list-style-type: none"> • equipment use history;
	<ul style="list-style-type: none"> • equipment repair history;
	<ul style="list-style-type: none"> • total System availability;
	<ul style="list-style-type: none"> • sub-System availability for components of the BOS, IVR System, Self-Service Website and Self-Service Mobile Application;

	<ul style="list-style-type: none"> equipment versions, Software versions, firmware versions and serial numbers for all equipment installed under these Requirements;
	<ul style="list-style-type: none"> incident logs and lost revenue estimates;
	<ul style="list-style-type: none"> performance reports detailing compliance to the Performance Measures;
	<ul style="list-style-type: none"> a detailed list of parts replaced as a result of maintenance actions;
	<ul style="list-style-type: none"> status of removed parts and equipment with an aging status for parts under repair or replacement (serial numbers, being repaired in maintenance shop, purchase replacement part);
	<ul style="list-style-type: none"> performance reports;
	<ul style="list-style-type: none"> an exceptions report summarizing all unusual or significant occurrences during the period and
	<ul style="list-style-type: none"> trend analysis for repetitive failure.
243	The PMMS shall support the management of preventive/predictive maintenance schedules.
244	The PMMS shall provide the capability to automatically generate work orders for preventive/predictive maintenance tasks.
245	<p>The Contractor shall provide a PMMS that supports asset management, including but not limited to:</p> <ul style="list-style-type: none"> tracking all System Hardware and Software items; tracking all System Hardware and Software locations; tracking all System Hardware and Software versions; tracking all maintenance and service agreements; maintaining a list of vendors from which products were procured; associating the original purchase order number to the individual item; associating the original vendor to the individual item; associating all warranty information to the individual item and providing an Alert prior to warranty, license, and certification expiration.

1.2. BOS Maintenance and Support Requirements

The Requirements described in this section detail the Contractor's responsibility for providing Maintenance and Software Support Services for the BOS, and associated communications and support to operations, including but not limited to:

- Hardware maintenance (servers, storage, network switches, firewalls, routers, etc.) if required;

- network administration;
- system administration;
- administration of Agencies-provided CSC facilities access systems;
- administration of CSC Surveillance CCTV systems at CSC facilities;
- database administration;
- Maintenance and Software Support Services;
- monitoring services;
- on-site desktop and application support services within the CSC and WICs;
- application support for the Agencies staff and
- BOS security.

In delivering the Maintenance and Software Support Services, the Contractor is expected to provide the following services, including but not limited to:

- well documented maintenance schedules and processes;
- change and configuration management;
- on-site support of the BOS;
- complete around-the-clock maintenance of the BOS;
- significant participation with the Agencies' staff, meetings and processes and
- ample spare parts inventory and support agreements.

246	The Contractor shall be responsible for performing all maintenance activities and fully supporting and maintaining the BOS from Go-Live throughout the Operations and Maintenance Phase.
247	The Contractor shall provide maintenance, including but not limited to all equipment, Hardware, Software, cloud-based systems, and systems provided under this Agreement, including maintenance associated with the compliance with the terms of the Software warranty.
248	The Contractor shall provide Maintenance and Software Support Services, including but not limited to: monitoring; preventive; predictive; corrective, and emergency Maintenance and Software Support Services, as well as any required and planned Upgrades and Enhancements to be performed on any and all BOS elements.
249	To ensure BOS performance is optimized, all system administrative functions, if not otherwise automated, shall be performed at regular, scheduled intervals as part of the preventive Maintenance and Software Support Services in accordance with the Maintenance Plan.

250	The Contractor shall provide on-site Desktop Environment and BOS application technical support to all Contractor personnel and Agency Authorized Users at all locations from 7 a.m. to 7 p.m. Monday – Friday, Pacific Time and be on-call and available to come on-site 24x7x365.
251	<p>Continuous monitoring of BOS operations shall be performed to verify it is functional, processes are being executed as scheduled and that the BOS is operating per Performance Measures. Continuous monitoring shall include but not be limited to:</p> <ul style="list-style-type: none"> • verifying system alarms and Alerts; • verifying processes/programs/job have successfully completed as scheduled; • evaluating sample transactions data and aggregate data trends for exceptions; • confirming trip/transaction and image transmission to and from Express Lanes' ETTM Systems; • performing routine diagnostics; • reviewing comparative reports to identify potential system degradation; • confirming successful data transfer, such as the TSL; • confirming data transmission to and from external Interfaces; • correcting identified performance issues; • confirming primary and DR systems are synchronized; • monitoring backups; • database administration and monitoring; • general System health; • evaluating storage Requirements and • reviewing error logs and Alerts.
252	The Contractor shall validate that all BOS components obtain virus protection and security updates as soon as they are available.
253	The Contractor shall provide advance notice and obtain Approval when purge jobs that permanently delete data from the system are to be executed, including but not limited to: data elements impacted, date range applied and data size impact.
254	The Contractor shall re-establish or re-install system files, programs and parameters, as required, following a failure or damage to the system and return the BOS to a fully-operational condition.
255	The Contractor shall maintain and test up-to-date Software backups (all system Software and data) in accordance with the Maintenance Plan that is secure and protects the integrity of the data.

256	The Contractor shall provide backups performed on physically separate Hardware and Software from the data being backed up.
257	The Contractor shall maintain accurate equipment inventory status and update status.

1.2.1. BOS Hardware Maintenance

258	During the Operations and Maintenance Phase, the Contractor shall plan to regularly Upgrade all BOS environments to maintain a high-level of performance, reliability and provide for the implementation of the manufacturer's current system and security firmware/software. These Upgrades shall be accounted for in the Contractor's proposal pricing and will not be separately paid for by the Agencies over the term of the Agreement.
259	During the Operations and Maintenance Phase, the Contractor shall Upgrade the Desktop Environments and office equipment no less than every three (3) years to maintain a high-level of performance and reliability. These Upgrades shall be accounted for in the Contractor's proposal pricing and will not be separately paid for by the Agencies over the term of the Agreement.
260	<p>BOS Hardware maintenance shall include but are not limited to:</p> <ul style="list-style-type: none"> • BOS servers, storage devices, backup devices and network equipment at the primary BOS site, including all production and non-production BOS environments as required; • BOS servers, storage devices, backup devices and network equipment at the BOS DR site; • all Contractor-provided desktop Hardware and peripherals; • all Hardware and peripherals that interact with the BOS to the extent that the Contractor-installed Software or applications are negatively affecting the operation of the peripheral; • all CSC office equipment. For example, copiers; • IVR, ACD and telephony systems and • security access and CSC Surveillance CCTV systems.

1.2.2. BOS Network System Maintenance

261	The Contractor shall be responsible for assuming full administration and maintenance responsibilities for the networks and network equipment identified in Attachment B: BOS Network and Server Room Layout and Attachment C: Equipment List. The Contractor shall determine if any of the network equipment requires replacement for the BOS to meet the security and Performance Measures. Any replacement costs shall be included in the Contractor's proposal pricing and will not be separately paid for by the Agencies over the term of the Agreement.
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262	During the Operations and Maintenance Phase, the Contractor shall plan to regularly Upgrade the network hardware to maintain a high-level of BOS reliability and provide for the implementation of the manufacturer's current system and security firmware/software. These Upgrades shall be included in the Contractor's proposal pricing and will not be separately paid for by the Agencies over the term of the Agreement.
263	The Contractor shall maintain and monitor the BOS network, including connection of the primary and DR BOS locations.
264	The Contractor shall proactively monitor the WAN network, its connections and its components to respond to any fault or problem.
265	The Contractor shall monitor all communications with interfacing systems and Third-Party Service Providers and Business Partners.
266	The Contractor shall monitor all network Alerts and alarms, as well as detect intrusion attempts and prevent intrusions.
267	The Contractor shall perform the necessary support services required of the Interoperable Agencies in order to keep day to day operations and transfers current, such as operating system Upgrades.
268	The Contractor shall Upgrade and update the network security and provide the required software and monitoring tools to ensure the BOS is always in compliance with the Security Standards.

1.2.3. BOS Administration and Software Support Services

269	Software modifications required to maintain and support the BOS as a part of the normal course of business shall not be considered Upgrades or Enhancements paid for by the Agencies. These modifications include but are not limited to:
270	Updates the System to keep up with and support new mobile devices, mobile browsers, desktop browsers and operating systems, mobile and desktop customer experience trends, mobile payments, trends in mobile device and desktop navigation techniques, as well as updated look and feel for the Self-Service Website and Self-Service Mobile Application;
	<ul style="list-style-type: none"> • version changes;
	<ul style="list-style-type: none"> • configuration or parameter changes;
	<ul style="list-style-type: none"> • all changes to CTOC ICDs and related reports;
	<ul style="list-style-type: none"> • all changes to ICDs and Interfaces to Contractor-selected Third-Party Service Providers and Business Partners;
	<ul style="list-style-type: none"> • minor changes to reports,, software or code;
	<ul style="list-style-type: none"> • Software modifications required to ensure BOS is compliant to existing Security Standards and

	<ul style="list-style-type: none"> • changes for the Contractor's benefit that improve the Contractor's ability to maintain and support the BOS and to meet the Performance Measures.
271	<p>The Contractor shall provide Maintenance and Software Support Services for all elements of the BOS, including but not limited to:</p> <ul style="list-style-type: none"> • operating systems; • databases; • BOS application Software; • third-party Software; • Software change management; • Software configuration management and • Software version control.
272	<p>The Contractor shall maintain all secure website certificates for all websites, including the website serving the Agencies' managed content, if required.</p>
273	<p>The Contractor shall provide Maintenance and Software Support Services that include monitoring, preventive, predictive and corrective action to ensure BOS performance is in accordance with Requirements. This shall include but is not limited to:</p> <ul style="list-style-type: none"> • any daily, weekly or periodic maintenance required to maintain the BOS at required performance levels (such as, indexing and tuning databases and archiving and purging); • third-party Software or firmware patches, updates and Upgrades, as required and to be compliant with Security Standards, including but not limited to: performing security Software Upgrades, database Upgrades and operating system Upgrades; • Approved adjustments and updates to the BOS data based on a criteria and conditions Approved by the Agencies to correct failures and issues; • monitoring of error logs and system logs; • maintenance of back-ups and backup Software; • maintenance of all BOS environments; • installation of new Software and confirmation of successful installation; • verify data replication to DR site is occurring as configured and replication is not drifting beyond an acceptable threshold; • verify time synchronization is occurring as configured, and system clocks are not drifting or otherwise incorrect; • modifications to IVR call flow needed to correct routing and call flow problems identified during normal operations;

	<ul style="list-style-type: none"> • creation of ad-hoc reports requested by the Agencies;
	<ul style="list-style-type: none"> • generation of queries as requested by the Agencies;
	<ul style="list-style-type: none"> • analysis of data as requested by the Agencies and
	<ul style="list-style-type: none"> • modifications to the Self-Service Website and Self-Service Mobile Application to keep up-to-date with the Agencies' policies and general information.
274	<p>Software support services shall include monitoring and corrective action to ensure BOS performance is in accordance with Requirements, to include database management and operation. This shall include but is not limited to:</p> <ul style="list-style-type: none"> • investigation and analysis of errors and exceptions and taking corrective action, including correcting the problem and reprocessing the data; • monitoring notifications and initiating corrective actions on application programs to meet Requirements; • updates to the BOS to support Upgrades to Hardware or third-party Software and • updates to the BOS to support all changes to Business Rules and BOS Configurable parameters and deploy changes in production.
275	<p>The Contractor shall monitor, Upgrade and update the BOS is always in compliance with the Security Standards.</p>
276	<p>The Contractor shall ensure maintenance does not conflict with or cause interruption in service or cause substandard service to the Agencies or their customers.</p>

1.2.4. Payment Card Industry (PCI) Security Standards and Compliance

The PCI Security Standards Council is responsible for the development, management, education and awareness of the PCI Security Standards, including the PCI DSS, Payment Application Data Security Standard (PA-DSS). The PCI Security Standards provide guidance for merchants, vendors and security consulting companies to mitigate data breaches and prevent payment cardholder data fraud.

The Contractor is responsible for ensuring that PCI compliance is fully achieved prior to the Go-Live date. The Contractor is further required to ensure that the BOS continues to be PCI compliant as outlined in the Maintenance and Operations Phase Requirements.

277	<p>The Contractor and the BOS shall be in compliance with the PCI DSS for a Level 2 merchant or the appropriate merchant level as defined by the PCI Security Standards Council in place at the time of BOS Go-Live.</p>
278	<p>The Contractor shall ensure that the BOS is in compliance with any individual additions to the PCI Security Standards since the last major version (version 3.2 published in April 2016) or the current version published by the PCI Security Standards Council and all future versions.</p>

279	The Contractor shall utilize the PCI Security Standards Council's Prioritized Approach method to indicate how each PCI Requirement is being addressed prior to Go-Live. The Prioritized Approach shall be submitted to the Agencies along with substantiating evidence for review and Approval.
280	The Contractor shall ensure the BOS is in compliance with PCI-DSS for any Commercial Off-the-Shelf (COTS) Software that will be used in payment applications.
281	<p>The Contractor shall provide, prior to the BOS Go-Live:</p> <ul style="list-style-type: none"> • PCI Attestation of compliance by either a qualified ISA or an independent QSA, or as required by PCI DSS; • vulnerability scan by an Approved scanning vendor and • internal and external penetration testing results.
282	No more than three (3) months after Go-Live the Contractor shall provide a complete ROC, including details about the BOS environment and the assessment methodology, as well as documentation regarding the BOS's compliance status for each PCI DSS Requirement. The ROC shall be provided which outlines a clear plan and schedule (in writing) to achieve full PCI compliance no more than six (6) months after Go-Live.
283	The Contractor shall be responsible for providing a ROC prior to BOS Acceptance.

1.2.5. Interoperability Requirements

The Agencies currently have Interoperability agreements with CTOC Agencies and, in the future, it is anticipated that regional and national Interoperable agreements will be established. These Requirements apply to all existing and future Interoperability.

Interoperability includes exchanging and processing transactions/trips, customer, transponder, payment, corrections, vehicle data, invoices and reconciliations between the BOS and the Interoperable Agencies. The BOS shall process transactions/trips from Interoperable Agencies for the Agencies' customers who have used Interoperable Agency roads, as well as transactions/trips for Interoperable Agencies' customers on the Agencies' roads. The Interface supports the transmission and receipt of all files identified in the respective ICDs.

At the Agencies' direction, the Contractor shall support direct connection and/or connection through a CTOC Agency intermediary to nationally (non-CTOC) Interoperable Agencies.

The BOS and Interoperable Agencies perform validation checks to confirm the transactions/trips are in compliance with the Interoperable Agency ICD and reject any transactions/trips that are not. Validated transactions/trips shall be Posted to a user account in accordance with the Interoperable Agency agreements.

The BOS must be prepared to work with other ICDs to send and receive transactions/trips and transaction data and other data files.

284	<p>The Contractor shall support all Interoperable Agency activities as required by the Agencies, including but not limited to:</p> <ul style="list-style-type: none"> • attend technical meetings;
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	<ul style="list-style-type: none"> • review and provide comments on documents;
	<ul style="list-style-type: none"> • support Interoperable Agency testing as requested;
	<ul style="list-style-type: none"> • support modifications to Interoperable specifications and
	<ul style="list-style-type: none"> • be compliant with the latest published Interoperable specifications.
285	The Contractor shall support the addition of Regional and National Interoperability either directly or through a CTOC designated intermediary.

1.2.6. Preventive and Corrective Maintenance Requirements

1.2.6.1. Preventive Maintenance

286	The Contractor shall provide preventive maintenance on the BOS Hardware, servers, communications network and Software as required.
287	The Contractor shall in accordance with the Approved preventive maintenance schedule, periodically inspect all equipment, both major components and support components (such as fans, cabinets, environmental control units, filters, storage units) that constitute the BOS and shall make repairs, cleaning, adjustments and replacements of components as necessary to maintain the equipment in normal operating condition.
288	Servers and storage devices shall be periodically checked to verify that storage space is not reaching maximum thresholds; disks are not fragmented or damaged; Software is of the latest version per the configuration management database, and data is being processed and transferred in an appropriate manner. These checks should be performed automatically whenever possible, but must be checked manually if the task cannot be automated.
289	The BOS shall be monitored to ensure performance is optimal and meets the Performance Measures, including but not limited to:
	<ul style="list-style-type: none"> • report generation times;
	<ul style="list-style-type: none"> • BOS access times;
	<ul style="list-style-type: none"> • IVR statistics;
	<ul style="list-style-type: none"> • Self-Service Website access times and
	<ul style="list-style-type: none"> • Self-Service Mobile Application access times.
290	All equipment and systems shall be included as part of preventive maintenance, in accordance with the original equipment manufacturer's guidelines. Any variations or exceptions shall be noted by the Contractor and Approved in advance by the Agencies.
291	Scheduled maintenance shall be communicated to the Agencies a minimum of seven (7) Calendar Days in advance for approval by the Agencies and shall be scheduled for times when the CSC is not operating.

292	Preventive maintenance shall be scheduled to be performed by BOS administration staff between 12 AM and 4 AM PST. Any preventive maintenance tasks that need to be performed during normal BOS operating hours that is not part of the Approved Preventive Maintenance Schedule shall be Approved in advance by the Agencies.
293	The diagnostic aids, tools and equipment required to perform preventive maintenance equipment analysis shall be provided by the Contractor to the Agencies, as necessary to meet the Agencies' maintenance responsibilities.
294	When preventive maintenance requires a BOS Service to be made unavailable to the customer, a Notice shall be Posted 24 hours in advance of the outage on the Self-Service Website, Self-Service Mobile Application and through the IVR so customers are aware of the impending outage.

1.2.6.2. Corrective Maintenance

295	All Work performed by the Contractor to correct incidents, problems and failures to meet the Requirements shall be considered corrective maintenance. Such problems include but are not limited to:
	<ul style="list-style-type: none"> • failure of BOS functions; • failure of processes and programs; • report failures and issues; • application failures; • data and revenue reconciliation failures; • failures in transmitting and receiving files from the various third-party Interfaces; • errors and exceptions when processing data received from the ETTM Systems, Interoperable Agencies and third-party entities; • network failures and issues; • BOS or component performance issues; • data loss or inaccessibility and • non-conforming availability levels.
296	When a BOS Service becomes unavailable to the customer due to an unplanned outage or emergency a Notice shall be Posted on the Self-Service Website, Self-Service Mobile Application and IVR as soon as possible so customers are aware of the outage.

1.2.6.3. 24X7 Maintenance Coverage

297	The Contractor shall provide continuous (24x7) coverage for all monitoring, system administration services and maintenance-related activities sufficient to meet the Performance Measures.
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1.2.6.4. Recording of Maintenance Activities

298	The Contractor shall be responsible for logging all reported maintenance activities. The Contractor also shall be responsible for documenting in detail all information and issues related to a failure condition, providing a corrective action report within two weeks including all actions taken to complete the correction and a root cause analysis.
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1.2.6.5. Maintenance Priorities, Response and Repair Times

299	<p>Response and repair time is defined as the time from failure to repair/correction with the BOS being returned to normal operations. The Contractor shall respond to calls and repair times noted in the Performance Measures according to the following priority levels:</p> <ul style="list-style-type: none"> • Priority 1: Any malfunction or fault that impacts the BOS and CSC Operations ability to serve customers (for example, Self-Service Website functionality unavailable or not operating properly; BOS functionality unavailable or not operating properly for CSRs servicing customers; phone system not taking calls or not taking all calls; IVR unavailable or not operating properly; notifications or customer communication not being sent immediately when eligible through all channels), results in the loss of revenue, compromises security, causes a hazard to personnel, causes the loss or potential loss of any BOS data, causes loss of redundancy within the BOS components. • Priority 2: Any malfunction or fault that degrades performance but not the BOS or CSC Operation's ability to serve customers. It includes examples such as inaccurate reporting, inability to reconcile revenue, loss of BOS functionality that does not impact customer access to data or service, and/or loss of functionality that impacts the Agencies' operational efficiency. • Priority 3: Any malfunction or fault that has the potential to result in a degrading of the BOS or CSC Operations' performance but has not yet and is not anticipated to immediately impact performance.
300	Any downtime that is a part of scheduled and approved preventive maintenance, including scheduled new Software releases not associated with a maintenance event shall not affect the Performance Measures calculation. However, in this event the Contractor does not make the BOS available and/or fully restore CSC Operations within the approved schedule window, the resulting downtime shall be included in the Performance Measure calculations.
301	Response and repair times for every BOS maintenance event shall be recorded and reported by the Contractor, and such reports shall be provided to the Agencies.
302	No incident shall be closed by a technician before the equipment or Software service has logged a recovery. For example, if a service is degraded because of a loss of a redundant component, the incident cannot be closed until the redundant component has been replaced and service has returned to normal.

1.2.7. Certification of PCI DSS Compliance

The Contractor is responsible for providing certification of PCI DSS Compliance.

303	The Contractor shall complete a PCI DSS assessment by either a qualified Internal Security Assessor (ISA) or an independent Qualified Security Assessor (QSA), or as required by PCI DSS, at the interval required for PCI DSS compliance, including a complete ROC. The Contractor shall be responsible for providing the ISA or QSA at no additional cost to the Agencies. The Contractor shall fully cooperate with the Agencies at no cost to the Agencies in responding to the assessor's requests and implement remedies if any issues are identified.
304	The Contractor shall complete a full penetration vulnerability and exploitation testing, the results of which shall be provided to the Agencies, at the interval required for PCI DSS compliance throughout the Implementation and Operations and Maintenance Phases.
305	The Contractor shall be responsible for providing a ROC on an annual basis, no later than the original date thereafter.
306	The Contractor shall provide all documentation required under PCI, including but not limited to network diagrams and detailed policies and procedures, available to the Agencies.
307	To evaluate the security risk to the BOS and identify potential vulnerabilities, the Contractor shall perform penetration and vulnerability tests in accordance with PCI requirements.
308	The Contractor shall document and immediately report to the Agencies any PCI DSS issues/vulnerabilities found during monthly penetration and vulnerability tests or upon new Software release.
309	The Contractor is responsible for correcting all deficiencies at the Contractor's cost and ensuring the BOS is PCI DSS compliant and ensuring security risks are handled appropriately.
310	The Contractor shall furnish copies of all PCI assessment, testing, scanning and compliance documentation including the ROC to the Agencies, upon completion of quarterly and annual assessment activities throughout the Implementation and Operations and Maintenance Phases.

1.2.8. Emergency Response Management

The Contractor shall be responsible for emergency response management throughout the Operations and Maintenance Phase.

311	The Contractor shall immediately respond to any emergency situation that has already impacted the BOS or could potentially damage the BOS. The Contractor shall be prepared to put forth all necessary resources to divert or correct an emergency condition.
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312	Such emergency conditions shall be handled in accordance with policies and procedures developed by the Contractor and Approved by the Agencies in the Disaster Recovery Plan. The following are a few examples of emergency conditions:
	<ul style="list-style-type: none"> • weather related;
	<ul style="list-style-type: none"> • safety related;
	<ul style="list-style-type: none"> • conditions that invoke the Disaster Recovery Plan;
	<ul style="list-style-type: none"> • BOS outages;
	<ul style="list-style-type: none"> • third-party power outage or communication failure and
	<ul style="list-style-type: none"> • security breaches.

1.2.9. Disaster Recovery and Business Continuity

The Contractor shall be responsible for Disaster Recovery Procedures and testing throughout the Implementation and Operations and Maintenance Phases.

313	The Contractor shall perform Disaster Recovery procedures in accordance with the Disaster Recovery Plan (DRP) in the event of a disaster and return the BOS to a fully operational condition.
314	The Contractor shall test the Disaster Recovery and Business Continuity procedures on a annual basis to validate that they are functioning per the design. The Agencies shall witness the test and the Contractor shall provide a report outlining the test, test results and any anomalies encountered for the Agencies' review and approval.
315	The BOS shall meet the Recovery Point Objective (RPO), Recovery Time Objective (RTO) and level of service (LOS) levels provided in the Performance Measures.
316	The Contractor shall address any issues encountered from the annual Disaster Recovery and Business Continuity testing.
317	The Contractor shall separately support the Agencies' ETTM System Contractors' Disaster Recovery and Business Continuity annual testing.

1.2.10. Incident and Revenue Loss Reporting

318	The Contractor shall work with the Agencies to develop a communications protocol for incident and revenue loss reporting (e.g., communications procedures based on incident and priority level).
319	The Contractor shall immediately notify the Agencies of any incident or event where the loss of revenue or data or security breach has occurred or potentially has occurred or could occur. The Contractor shall take immediate action to rectify the condition and return the BOS to normal operations.

320	In the event of a loss or potential loss of revenue or data or security breach, an incident report shall be provided to the Agencies within five (5) Business Days of the incident. The report shall identify the issue and provide a detailed account of the incident; its cause; duration; resolution or planned resolution, and a quantification of actual or potential lost revenue or data or security breach. Regular updates shall be provided until the issue has been fully resolved and closed. The incident and its impacts shall also be further detailed in the subsequent monthly report. The Contractor shall be held responsible for all lost revenue and data and customer impacts, including remediation, in accordance with the terms of the Agreement.
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1.3. Future Functionality

The BOS shall be designed to anticipate certain future functionality and Interfaces. The introduction of future functionality, of the type noted in this section, shall be anticipated and not require changes to the Software or System architecture or significant changes to the database structure. However, the accommodations made by the Contractor in anticipation of this potential future functionality shall not negatively impact the development of the BOS or increase the Offeror's Cost Proposal.

321	The introduction of future functionality shall not require changes to the Software or BOS architecture, or significant changes to the database structure including the capability to easily add fields and report on them without affecting the database schema.
322	The accommodations made by the Contractor in anticipation of potential future functionality shall not negatively impact the development of the BOS or increase the Offeror's Post Proposal.
323	The Contractor shall provide the capability to Interface with entities providing for national Interoperability in accordance with ICDs to be designated by the Agencies and/or developed during Project design. The Contractor shall accommodate new Interfaces (via either a national hub, regional hubs or larger peer-to-peer exchanges) without significant changes to the Software or database structure.
324	The Contractor shall provide the capability to Interface to future Agencies Toll Facilities without significant changes to the Software or database structure.
325	The Contractor shall provide the capability to Interface to new CTOC agencies and national interoperability without significant changes to the Software or database structure.
326	The Contractor shall include (but not enhance, configure or develop) all existing base BOS functionality to support the future integration with a Money Service Provider. Throughout the Operations and Maintenance Phase, the Agencies may direct the Contractor to integrate with a Money Services Provider for the purpose of providing enhanced access and services for cash paying customers including, obtaining transponders and making payment towards Violation Notices and account balances.
327	The Contractor shall include (but not enhance, configure or develop) all existing base BOS functionality to support the future integration with an Occupancy Detection System (ODS) that would be integrated into the ETTM Systems. Throughout the Operations and Maintenance Phase, the Agencies may direct the Contractor to integrate with and accept images from an ODS for the purpose of reducing occupancy-based Violations.

328	The Contractor shall include (but not enhance, configure or develop) all existing base BOS functionality to support the potential introduction of customer invoicing prior to the Violation process described herein. During the Operations and Maintenance Phase, the Agencies may direct the Contractor to implement customer invoicing.
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1.4. Account Management

There are two account types Registered and Unregistered. Registered account is established when customer opens a pre-paid account with the 91 Express Lanes. An Unregistered account is established by the BOS using the DMV, a ROV Lookup Provider or Affidavit of Non-liability for Violation transactions/trips. Establishment and management of accounts shall be performed per Business Rules.

Customers can establish new Registered accounts or convert an Unregistered account to a Registered account. To establish a Registered account, customers must provide customer contact information including name, address, telephone number and email address and vehicle information including license plate number, type and Jurisdiction and vehicle make, model and color. Most accounts will be prepaid and as such customers also must establish a replenishment method to be used to replenish prepaid tolls when the account reaches the Insufficient Balance Threshold. Credit Card replenishment is strongly encouraged, but customers can also select cash or check replenishment. The Agencies may elect to allow certain accounts to be postpaid and receive a monthly invoice for tolls due.

The types of accounts are provided in the following tables:

Table 1-1: Registered Transponder-Based (FasTrak) Account Types

Account Type	Description
Private (prepaid)	An account established in an individual name.
Business (prepaid)	An account established in a business name.
Non-revenue (n/a)	An account established at the Agencies' direction for vehicles entitled to toll-free travel.
Invoice (postpaid)	An account established to allow the customer to receive an invoice periodically (Configurable) for toll usage. The customer may elect to provide Credit Card or ACH information to be charged automatically to pay the invoice.

Table 1-2: Registered License Plate Account Types

Account Type	Description
Rental Car (prepaid or postpaid)	An account established for Rental Car Service Providers to allow their vehicles to be checked separately in the transaction/trip Posting sequence and to allow for bulk updates to these very large accounts.
Private Registered Video (prepaid)	An account for individuals who do not want or cannot use transponders.

Business Registered Video (prepaid)	An account for companies and businesses that do not want or cannot use transponders.
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Table 1-3: Unregistered License Plate-Based Account Types

Account Type	Description
Unregistered/Violator (postpaid)	An account created using the information provided by the DMV or Registered Owner Lookup Provider. May include more than one vehicle if the ROV information is an exact match. These may also be referred to as violator accounts.

Unregistered accounts are established by the BOS for Violation transactions/trips using the DMV or Registered Owner Lookup Provider. Unregistered accounts may be converted to Registered accounts based on fulfilling all of the required Business Rules for establishing these accounts.

1.4.1. General Account Management

The Agencies' customers have many options for account establishment and maintenance and to obtain transponders, in the manner they prefer.

329	The Contractor shall provide an efficient series of input fields to collect the information necessary to open a FasTrak account. The fields should require little "clicking" or advancement through multiple pages to reduce the time needed to input the account establishment data.
330	Support comprehensive account management that allows for the setup and maintenance of all Account types in accordance with Business Rules.
331	The Contractor shall provide the capability to establish accounts via methods, including but not limited to: <ul style="list-style-type: none"> • Self-Service Website; • Self-Service Mobile Application; • mail; • telephone; • fax • walk-in • automatically using information provided by rental car companies and • automatically using information provided by the ROV Lookup.
332	The Contractor shall provide the capability to maintain accounts via methods, including but not limited to: <ul style="list-style-type: none"> • Self-Service Website;

	<ul style="list-style-type: none"> • Self-Service Mobile Application;
	<ul style="list-style-type: none"> • IVR;
	<ul style="list-style-type: none"> • mail;
	<ul style="list-style-type: none"> • telephone;
	<ul style="list-style-type: none"> • email;
	<ul style="list-style-type: none"> • chat;
	<ul style="list-style-type: none"> • text;
	<ul style="list-style-type: none"> • fax and
	<ul style="list-style-type: none"> • walk-in.
333	<p>The Contractor shall provide the capability for transponders to be requested via methods including but not limited to:</p>
	<ul style="list-style-type: none"> • Self-Service Website;
	<ul style="list-style-type: none"> • Self-Service Mobile Application;
	<ul style="list-style-type: none"> • mail;
	<ul style="list-style-type: none"> • telephone;
	<ul style="list-style-type: none"> • IVR;
	<ul style="list-style-type: none"> • fax, and
	<ul style="list-style-type: none"> • walk-in.
334	<p>The Contractor shall provide the capability for the maintenance of Account types designated as, including but not limited to:</p>
	<ul style="list-style-type: none"> • Private (prepaid) – an account established in an individual name;
	<ul style="list-style-type: none"> • Business (prepaid) – an account established in a business name;
	<ul style="list-style-type: none"> • Non-revenue (no payment) - an account established at the Agencies' direction for vehicles entitled to toll-free travel;
	<ul style="list-style-type: none"> • Invoice (postpaid) – an account established to allow the customer to receive an invoice periodically (Configurable) for toll usage. The customer may elect to provide Credit Card or ACH information to be charged automatically to pay the invoice;
	<ul style="list-style-type: none"> • Rental car (prepaid) – for Rental Car Service Providers;
	<ul style="list-style-type: none"> • Private Registered Video (prepaid) – an account for individuals who do not want or cannot use transponders and

	<ul style="list-style-type: none"> • Business Registered Video (prepaid) – an account for companies and business that do not want or cannot use transponders.
	<ul style="list-style-type: none"> • Unregistered/Violator (postpaid) – an account created using the information provided by the DMV or Registered Owner Lookup Provider. May include more than one vehicle if the ROV Lookup information is an exact match. These may also be referred to as violator accounts.
335	The Contractor shall provide the capability to apply Business Rules and account Requirements for each valid account type, including but not limited to:
	<ul style="list-style-type: none"> • whether prepayment is required;
	<ul style="list-style-type: none"> • payment options;
	<ul style="list-style-type: none"> • whether a transponder is required;
	<ul style="list-style-type: none"> • transponder sale price (by transponder type);
	<ul style="list-style-type: none"> • replenishment amounts;
	<ul style="list-style-type: none"> • contact method (mail, email, text, etc.);
	<ul style="list-style-type: none"> • Insufficient Balance Thresholds (by Credit Card or cash/check payments) and
	<ul style="list-style-type: none"> • account balance.
336	The Contractor shall provide a Registered account creation process that logically leads an Authorized User through the necessary steps to create an account.
337	The Contractor shall provide the capability to convert an Unregistered account to a Registered account while maintaining the same account number and all account history.
338	The Contractor shall provide the capability to change from one account type and Account Plan to another while maintaining the same account number and all account history.
339	The Contractor shall provide on-screen guidance during the account creation process regarding missing or improperly formatted information. The Authorized User shall not be able to move to the next step until the required information is provided in the appropriate format.
340	The Contractor shall provide the capability, when opening a new account, to automatically identify other account(s) associated with that account name, address or vehicle.
341	The Contractor shall provide the capability to require the account agreement and privacy policy be acknowledged and a record of that acknowledgment saved in the BOS prior to establishing a Registered account or when converting to a Registered account.
342	The Contractor shall provide the capability for the auto-creation of an Unregistered account (should one not already exist for that license plate number) based on an Image-Based Transaction/Trip being eligible for Violation processing and information provided by ROV Lookup.

343	The Contractor shall provide the capability to merge and unmerge accounts. This process shall logically lead the Authorized User through all necessary steps to merge one account into another.
344	The Contractor shall provide the capability for customers to have multiple mail addresses, email addresses, phone numbers and authorized contact information on the account.
345	The Contractor shall provide the capability to identify the source of the information for both unregistered and registered accounts.
346	<p>The Contractor shall provide address adjustment logic to all addresses including those received from DMVs and ROV Look-up Service Providers, Skip Trace Service Providers and customers that includes but is not limited to:</p> <ul style="list-style-type: none"> the capability, when adding contact information, to assist the Authorized User by requiring zip code be entered first, then providing a pre-populated city and state; verification, to ensure the address exists; standardization, to normalize US addresses, such as "Drive" becomes "Dr." and selection from all potential address results.
347	The Contractor shall provide the capability to accept or reject the recommended changes provided during address validation or normalization.
348	<p>The Contractor shall provide for a real-time address standardization options when entering addresses, including but not limited to:</p> <ul style="list-style-type: none"> addresses entered via a customer portal (Self-Service Website and Self-Service Mobile Application) and addresses entered by an Authorized User.
349	<p>The Contractor shall provide the capability for multiple active addresses and apply them to their designated use, including all prior addresses for all account types, including but not limited to:</p> <ul style="list-style-type: none"> shipping and billing.
350	The Contractor shall provide the capability to store address history and make all addresses accessible in the account.
351	<p>The Contractor shall provide the capability to acquire and store multiple addresses, including all prior addresses for all account types, including but not limited to:</p> <ul style="list-style-type: none"> Customer provided via the Affidavit of Non-Liability ROV Lookup provided; Skip Tracing;

	<ul style="list-style-type: none"> • National Change of Address (NCOA) and
	<ul style="list-style-type: none"> • Collection Agency provided.
352	The Contractor shall provide the capability to add international addresses.
353	The Contractor shall provide the capability to automatically populate (or provide multiple options for selection) the city and state upon entry of the ZIP code (including Canada and Mexico).
354	The Contractor shall provide periodic updates, at least quarterly, to the ZIP code/city/state list, at a minimum, as additional information becomes available.
355	The Contractor shall provide the capability to prevent the account holder's name from being changed unless Approved by an Authorized User.
356	The Contractor shall provide the capability for email address confirmation by the customer by comparing a re-keyed email address. The addition of unmatched entries shall not be allowed.
357	The Contractor shall provide the capability when email addresses are added to an account (both Registered and Unregistered), to perform the email address confirmation process prior to finalizing the entry on the account. For example, an email is sent to the email address provided with a link by which the customer can confirm they have control of the email account. A message shall be displayed indicating the email address will not be added until the confirmation process is complete.
358	The Contractor shall provide the capability to enter and categorize comments on accounts.
359	The Contractor shall provide the capability to insert BOS-generated comments on actions initiated by the BOS.
360	The Contractor shall provide the capability to force Authorized Users to enter comments or have the BOS automatically enter comments on actions processed on an account, including but not limited to:
	<ul style="list-style-type: none"> • disputes;
	<ul style="list-style-type: none"> • dismissals;
	<ul style="list-style-type: none"> • transfer transactions/trips to another account;
	<ul style="list-style-type: none"> • payment of Violation Notices through the account;
	<ul style="list-style-type: none"> • reversals of payments and dismissals;
	<ul style="list-style-type: none"> • waivers;
	<ul style="list-style-type: none"> • corrections and
	<ul style="list-style-type: none"> • adjustments.
361	The Contractor shall provide the capability to set the default PIN as the last 4 digits of the primary phone number, which can be updated in the BOS and IVR.

362	The Contractor shall provide the capability to validate a PIN used for identifying an authorized contact. The PIN shall be masked (not visible to CSRs) such that the CSR will ask the customer for the PIN and the customer will provide the PIN and the CSR will enter that number into the system and the system will validate the PIN. This way the CSR cannot give the customer any hints.
363	The Contractor shall provide the capability to securely email the PIN to the valid primary email address or text message on the account and require that the PIN be subsequently changed.
364	The Contractor shall provide the capability to establish and configure security questions and validate customer response prior to the release of the PIN to the customer. The security questions related to the PIN shall be the same as those used by the customer via the Self-Service Website or CSR assisted password reset
365	The Contractor shall provide the capability for all account types to have multiple communication channels, including but not limited to:
	<ul style="list-style-type: none"> • Phone (day/night);
	<ul style="list-style-type: none"> • cell phone;
	<ul style="list-style-type: none"> • additional phone numbers;
	<ul style="list-style-type: none"> • email;
	<ul style="list-style-type: none"> • additional email addresses;
	<ul style="list-style-type: none"> • fax;
	<ul style="list-style-type: none"> • text messaging and
	<ul style="list-style-type: none"> • mail.
366	The Contractor shall provide the capability to select a preferred communication channel for specific customer communications.
367	The Contractor shall provide the capability to capture opt-in/opt-out preferences and record and store the customer's election for certain items, including but not limited to:
	<ul style="list-style-type: none"> • e-blast;
	<ul style="list-style-type: none"> • text messages;
	<ul style="list-style-type: none"> • statements and
	<ul style="list-style-type: none"> • marketing / newsletters.
368	The Contractor shall provide an account summary (an account overview including name, address, vehicles, license plates, email, phone, payment method, etc.) in a printer-friendly format to be used for, including but not limited to:
	<ul style="list-style-type: none"> • handing to walk-in customers;

	<ul style="list-style-type: none"> • inserting with mail transponder Fulfillment;
	<ul style="list-style-type: none"> • mailing to customers and
	<ul style="list-style-type: none"> • sending to customers via secure email.
369	The Contractor shall provide the capability to log all account changes and provide the capability to view details, including but not limited to:
	<ul style="list-style-type: none"> • prior value;
	<ul style="list-style-type: none"> • the new value;
	<ul style="list-style-type: none"> • user ID;
	<ul style="list-style-type: none"> • date/time and
	<ul style="list-style-type: none"> • user information, such as BOS, Authorized User or customer-originated.

1.4.2. Vehicles, License Plates and Transponders

The BOS shall support comprehensive license plate, vehicle information and transponder management functionality.

370	The Contractor shall provide the capability to manage a drop-down list of vehicle attributes, including but not limited to:
	<ul style="list-style-type: none"> • vehicle manufacturer;
	<ul style="list-style-type: none"> • vehicle make;
	<ul style="list-style-type: none"> • vehicle model;
	<ul style="list-style-type: none"> • vehicle year;
	<ul style="list-style-type: none"> • vehicle color;
	<ul style="list-style-type: none"> • Clean Air decal number (not a drop-down) and
	<ul style="list-style-type: none"> • transponder exception specifying that the make and model requires an externally mounted transponder or special mounting locations for windshield transponders.
371	The Contractor shall provide the capability to add multiple license plates and associated vehicle information to an account.
372	The Contractor shall update and maintain the BOS's list of vehicle manufacturers and models as necessary to keep the list current.
373	The Contractor shall provide the capability to track the time period that a license plate is active on an account. This includes the start date and time and the end date and time. This is called the "Active Period". In most circumstances the customer would add the vehicle to their account with no end date but if it was a rental car it would have an end date/time.

374	The Contractor shall provide the capability to add a license plate number to an account with a back dated start date and time. The allowable back date period shall be configurable.
375	The Contractor shall provide the capability when adding a new license plate number to an account to automatically identify other account(s) associated with that license plate.
376	The Contractor shall provide the capability to identify that the vehicle(s) will be only on the account temporarily based on information provided by the customer, for example, a rental car, loaner from the car dealer or an out of town guest, and to prompt the user to enter a start date and time and an end date and time.
377	The Contractor shall provide the capability for vehicles identified as temporary to be added to the account even if the license plate number is already on a rental car account.
378	The Contractor shall provide the capability to associate information with a license plate, including but not limited to:
	<ul style="list-style-type: none"> • license plate type;
	<ul style="list-style-type: none"> • license plate Jurisdiction;
	<ul style="list-style-type: none"> • vehicle is a clean air vehicle (CAV);
	<ul style="list-style-type: none"> • clean air vehicle decal number;
	<ul style="list-style-type: none"> • vehicle is a pure-zero emission vehicle;
	<ul style="list-style-type: none"> • vehicle has a Disabled Persons license plate;
	<ul style="list-style-type: none"> • vehicle has a Disable Veterans license plate'
	<ul style="list-style-type: none"> • vehicle make;
	<ul style="list-style-type: none"> • vehicle model;
	<ul style="list-style-type: none"> • vehicle year;
	<ul style="list-style-type: none"> • vehicle color;
	<ul style="list-style-type: none"> • transponder;
	<ul style="list-style-type: none"> • transponder type;
	<ul style="list-style-type: none"> • transponder friendly name (chosen by the customer);
	<ul style="list-style-type: none"> • ROV;
	<ul style="list-style-type: none"> • ROV address;
	<ul style="list-style-type: none"> • ROV Lookup date and
	<ul style="list-style-type: none"> • indication the license plate is a temporary license plate.

379	The Contractor shall provide the capability to require or not require a one-to-one relationship between sticker transponders and vehicle in accordance with Business Rules.
380	The Contractor shall provide the ability to make the one-to-one correlation between the sticker transponder and vehicle after a configurable number of transactions/trips with the same transponder and vehicle.
381	The Contractor shall provide the capability, if the one-to-one relationship is required, allow for Authorized Users to override the Requirement as necessary, for example when a transponder is replaced.
382	The Contractor shall provide the capability for a many-to-one relationship between transponder and vehicle based on transponder type, account type and in accordance with Business Rules.
383	The Contractor shall provide the capability to record the history of ROV information associated with each license plate.
384	The Contractor shall provide the capability to search for license plate history and effective date ranges across multiple accounts.
385	The Contractor shall provide the capability to transfer vehicle(s) and associated license plate(s) between accounts while maintaining the associated vehicle transaction/trip history on the original account.
386	The Contractor shall provide the capability to add license plates from all 50 states, DC, U.S. Government, Canada and Mexico.
387	The Contractor shall provide the capability to record transponder delivery method, such as in person via the WIC or by mail.
388	The Contractor shall provide the capability to record transponder issue date and time.
389	The Contractor shall provide the capability to record and associate a payment for every transponder sold.
390	The Contractor shall provide the capability to track customer transponder requests.
391	The Contractor shall provide the capability to age Fulfillment requests and automatically send an Alert when a Fulfillment request has exceeded a Configurable amount of time.
392	The Contractor shall provide the capability for the Authorized User to override the BOS selected transponder mount type, such as windshield or head lamp.
393	The Contractor shall provide the capability for the Authorized User to override the customer selected transponder mount type, such as windshield or head lamp.
394	The Contractor shall provide the capability to read a transponder number (using a barcode reader) and automatically associate it to an account instead of requiring the transponder number to be typed in.
395	The Contractor shall provide the capability for Authorized Users to enter multiple vehicles in a tabular format.

396	The Contractor shall provide the capability to upload a file with vehicle information for the entry of a large number of vehicles.
397	The Contractor shall provide the capability for transferring transponders between accounts while maintaining the associated transponder transaction/trip history on the original account.
398	The Contractor shall provide the capability to monitor for excessive image-based tolls at the account level and at the vehicle or license plate level.

1.4.3. Account Plans

The Agencies offer Account Plans which offer benefits to customers who meet the qualifying criteria. These plans may be assigned at the individual transponder, or account level and each may have only one Account Plan assigned to it. These Account Plans are Configured in the BOS and the BOS shall have the flexibility to apply the relevant Account Plan(s) based on the Business Rules.

The Agencies also allow for non-revenue passage for qualified vehicles. The Account Plan functionality shall be used to support this program by applying a Configurable percent discount to specific transactions/trips on specific facilities in accordance with the Business Rules.

The Account Plans currently offered by the Agencies are listed below. The Contractor should expect that plans may be added, deleted or modified over the course of the Operations and Maintenance Phase.

- Convenience Plan –a one-time lifetime fee (Configurable);
- Standard Plan – monthly fee and discount after a Configurable # of transactions/trips and up to a Configurable maximum per month;
- 91 Express Club (for existing customers)– provides discounted tolls after required amount (Configurable) of tolls are incurred in required timeframe;
- Special Access Plan – provides free or discounted toll rates for three or more riders per vehicle, motorcycles, Pure Zero-Emission Vehicles (PZEV), vehicles with disabled veteran or disabled person license plate, and
- Non-revenue Plan – which provides a Configurable discount (up to 100 percent) one or more of the Agencies' facilities.

399	The Contractor shall provide the capability to assign Account Plans at the account level.
400	The Contractor shall provide the capability to assign Account Plans at the transponder level.
401	The Contractor shall provide the capability to assign Account Plans at the license plate level.
402	The Contractor shall provide the capability to restrict Account Plans for new customers. For example, the 91 Express Club plan should only be available to current 91 Express Club plan holders.
403	Prevent the transfer of Account Plans when the transponder or the license plate is moved to another account in accordance with the Business Rules.

404	The Contractor shall provide the capability to enroll customers in Account Plans.
405	<p>The Contractor shall provide the capability for configuring and offering various Account Plans with a combination of features, including but not limited to:</p> <ul style="list-style-type: none"> • percentage discount; • dollar amount discount or transaction count discount with a maximum amount; • time duration, such as an Account Plan may only be available for a limited time or may require renewal every year; • specific locations and Toll Facilities, such as toll transactions/trips on only one of the Agencies' facilities are discounted; • method of calculating the discount, such as a transaction-level discount where members get a 50 percent discount on every qualifying toll transaction or a rebate credit on following month based on the frequency of trips within a period of time; • monthly maximum discount based on total dollar amount or number of transactions/trips; • use of Posting Date or Transaction Date to qualify transactions/trips for a rebate; • specific criteria for qualification; • a cost to join the Account Plan and • proof of eligibility, such as a vehicle registration as proof of registration criteria with ability for customer to upload electronically.
406	The Contractor shall provide the capability to track toll transactions/trips in frequency transponder-based discounts.
407	The Contractor shall provide the capability to apply rebates or toll credits as lump-sum account level credits.
408	The Contractor shall provide the capability to apply and reverse discounts to a range of toll transactions/trips on an account.
409	The Contractor shall provide the capability to clearly indicate which discount was applied to any given transaction/trip.
410	The Contractor shall provide the capability to configure a non-revenue plan (up to 100 percent discount) to a transponder or license plate on all or specific tolling locations for a specific Toll Facility.
411	The Contractor shall provide the capability to associate discount eligibility documentation (such as, a utility bill as proof of residence) to a transponder or vehicle.

1.4.3.1. Special Access Plans

412	The Contractor shall provide multiple Special Access Plans providing free or discounted toll rates, including but not limited to:
	<ul style="list-style-type: none"> • three or more riders per vehicle;
	<ul style="list-style-type: none"> • motorcycles;
	<ul style="list-style-type: none"> • PZEVs;
	<ul style="list-style-type: none"> • vehicles with disabled veteran license plate, and
	<ul style="list-style-type: none"> • vehicles with disabled person license plate,
413	With the exception of the three or more riders per vehicle which is validated by the ETTM System and reflected in the discounted toll rate assigned to the transaction/trip by the ETTM System, the Contractor shall provide the capability to validate all vehicles to ensure they meet the requirements for a Special Access Plan. This validation shall include:
	<ul style="list-style-type: none"> • attach documentation provided by the customer as proof of meeting the requirements for a Special Access Plan and queue for manual verification;
	<ul style="list-style-type: none"> • manually review the image of the flagged vehicle license plate noting the transponder used in the special access vehicle
	<ul style="list-style-type: none"> • assign the respective code to the transponder to indicate the respective discount (clean air vehicle, motorcycle, etc);
	<ul style="list-style-type: none"> • upon successfully matching the transponder to the license plate, charge the appropriate discount to all transactions/trips by that transponder including the first trip;
	<ul style="list-style-type: none"> • if the transaction/trip including that license plate does not have an associated transponder read, the discounted rate will be charged but the customer will be contacted to rectify the transponder situation and
	<ul style="list-style-type: none"> • for plates and transponders that are successfully matched include the appropriate code in the CTOC file.

1.4.3.2. Promotions

The BOS shall be able to manage promotions, promotion codes and credits. Balances related to promotions are tracked individually by promotion and separately from the account balance. Only eligible transactions can be deducted from promotional balances. Promotional balances are not refunded and can only be applied to tolls on the Agencies' Toll Facilities. A promotion may be offered by one Agency for use only on that Agency' Toll Facility.

414	The Contractor shall provide the capability to offer a Configurable number of weeks-worth of free travel on one or both Agencies' toll facility for new accounts.
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415	The Contractor shall provide the capability to account and track promotions balances individually (for example, by promotion code) separately from the account balance.
416	The Contractor shall provide the capability to display the promotion balances and associated expiration date of the promotion balances so that the CSRs and customers can see the various promotion balances separately from the account's cash balance.
417	The Contractor shall provide the capability (Configurable) to specify what types of transactions/trips are eligible to be deducted from promotional balances.
418	The Contractor shall provide the capability to track multiple promotions within an account and correctly determine which account or promotion balance should be depleted first (for example, by type of promotion, by the earliest issue or expiration end date or maximum discount yielded).
419	The Contractor shall provide the capability to prevent promotional balances from being refunded to customers in the event of account closure or specific customer request.
420	The Contractor shall provide the capability to credit toll payments back to the promotion balance if toll transactions/trips are reversed or adjusted.
421	The Contractor shall provide the capability to set an expiration date for promotions.
422	<p>The Contractor shall provide the capability to offer promotions by Agency or Toll Facility with a combination of features and parameters, including but not limited to:</p> <ul style="list-style-type: none"> • assignment of a promotion code to a company or event; • Configurable period of time (promotion start date and duration or end date); • Agency offering the promotion; • Toll Facility(ies) where the promotion can be used, for example the RCTC Toll Facility only; • discount percentage per transaction/trip; • discount amount per transaction/trip; • eligibility (new accounts, existing accounts or both; existing accounts opened for more than an amount of time (Configurable)); • source (Self-Service Website or with a CSR); • source advertising channel ("where did you hear about it?"); • entry into a raffle/sweepstakes and • credit to the account.
423	The Contractor shall provide the capability to setup "refer-a-friend" promotion codes where both the referred (new) customer and the customer who referred the new customer enjoy the benefits of the promotion.

424	The Contractor shall provide the capability to apply rebates to accounts sponsored by a third party (such as a shopping mall).
425	The Contractor shall provide the capability to periodically (monthly) invoice the third-party sponsor for all rebates submitted and applied to accounts.
426	The Contractor shall provide the capability to expense promotional credits as used to the Agency where the credit was applied reducing that Agency's toll revenue.

1.4.4. Fees, Penalties and Transactions

Penalties and fees are types of Financial Transactions that are assessed in addition to the toll amount or toll charge or in relation the customer's account management. Penalties and fees can be assessed at the account level, Notification level or transaction level. At the account level, a returned payment fee or a Credit Card decline fee might be assessed in the event a check was returned unpaid by the customer's bank or a Credit Card payment was declined. At the Notification level, a monthly statement fee might be assessed when a statement is mailed to the customer. At the transaction level, penalties are assessed when a transaction/trip is not paid and it becomes a Violation. Fees and penalties should be associated with the lowest possible level. Those fees related to specific transactions/trips should be associated with those transactions/trips. Fees and penalties related to Notification should be associated with that Notification, and all other fees and penalties should be associated with the account as a whole. No fees or penalties should be assessed on a cumulative basis, such as a fee or a penalty assessed and associated to another previously charged fee or penalty. Like adjustments and reversals, fees and penalties are Posted to the current Revenue Day. The BOS shall be capable of reversing fees and penalties automatically or manually, individually or in batches. Fees and penalties, even when associated with a single transaction, should not change the amount of transaction

427	The Contractor shall provide the capability to apply fees and penalties (automatically and manually) to accounts.
428	The Contractor shall provide the capability to apply fees and penalties (currently penalty is assessed to the Violation only), including but not limited to: <ul style="list-style-type: none"> • at the account level; • at the transponder level; • at the license plate level; • at the Notification level and • at the transaction level.
429	The Contractor shall provide the capability to define and charge account-related fees and penalties based on a set of Configurable parameters, including but not limited to: <ul style="list-style-type: none"> • hub processing fee (the Agencies acting as a hub for other entities); • roaming fee (the Agencies acting as a hub for other entities);

	<ul style="list-style-type: none"> • account fee;
	<ul style="list-style-type: none"> • administrative fee;
	<ul style="list-style-type: none"> • Interoperable customer transaction fee;
	<ul style="list-style-type: none"> • returned payment fee – Insufficient Funds;
	<ul style="list-style-type: none"> • Credit Card decline fee;
	<ul style="list-style-type: none"> • ACH decline fee;
	<ul style="list-style-type: none"> • transponder purchase fee;
	<ul style="list-style-type: none"> • Excessive I-Toll (Image-Based Toll) fee;
	<ul style="list-style-type: none"> • invoicing fee;
	<ul style="list-style-type: none"> • statement fee, depending on method of delivery;
	<ul style="list-style-type: none"> • late fee;
	<ul style="list-style-type: none"> • delinquent account fee;
	<ul style="list-style-type: none"> • account re-activation fee;
	<ul style="list-style-type: none"> • Violation penalty;
	<ul style="list-style-type: none"> • delinquent Violation penalty;
	<ul style="list-style-type: none"> • collection fee;
	<ul style="list-style-type: none"> • account deactivation fee;
	<ul style="list-style-type: none"> • Account Plan membership fee;
	<ul style="list-style-type: none"> • Registration Hold fee and
	<ul style="list-style-type: none"> • balance below Insufficient Balance Threshold fee.
430	The Contractor shall provide the capability to maintain the parameters (Configurable) related to fees and penalties.
431	The Contractor shall provide the capability to create new fees and penalties.
432	The Contractor shall provide the capability to manually apply custom fees and penalties to accounts.
433	The Contractor shall provide the capability for the assessment of fees based on account activities, for all accounts or specific account type(s).
434	The Contractor shall provide the capability to notify the customer via the channel(s) defined within the Business Rules, Operations Plan and SOPs when a fee or penalty is assessed.

435	The Contractor shall provide the capability to schedule a start and end date/time when a fee or penalty change will go into effect/conclude. For example, the statement fee is \$2.00 until July 31, 2018, after which it will increase to \$3.00.
436	Provide the capability to record revenue to each respective Agency based on plaza and lane identifier at the transaction level or split account level revenue 50/50.

1.4.5. Registered Account Replenishment

Registered accounts are established with a valid replenishment method for prepaid balances to be restored as toll and fee transactions deplete the prepaid balance. Account replenishment options are Credit Card, cash, check, ACH and money order. Replenishment by Credit Card can be set up to be automatic (auto-replenishment). For auto-replenishment, the BOS determines the replenishment timing and minimum amount based on parameters (Configurable). Replenishment by cash, check, ACH or money order requires the customer to replenish the account manually by mailing a check or visiting a WIC. Customers without an auto-replenishment method also may make a one-time payment by Credit Card or ACH.

437	The Contractor shall provide the capability for one or more auto-replenishment methods within an account for all electronic payment methods.
438	<p>The Contractor shall provide separate replenishment parameters (Configurable) for all account types, including but not limited to:</p> <ul style="list-style-type: none"> • fixed replenishment amount; • replenishment threshold based on a percentage of the replenishment amount; • replenishment thresholds based on the number of transponders on the account; • replenishment amount based on the number of transponders on the account; • replenishment amounts calculated based on average use for a period (Configurable) of time or a fixed amount, whichever is greater. For example, average use over the prior (3) month period as compared to \$30); • number of replenishment failures before next method is attempted and • number of declines before a replenishment method is suspended based on appropriate reject reasons.
439	The Contractor shall provide the capability for Authorized Users to identify individual accounts that are not subjected to auto-replenishment recalculation.
440	The Contractor shall provide the capability for account replenishment options based on Insufficient Balance Thresholds.
441	The Contractor shall provide the capability for automatic account replenishments via Credit Card and ACH.

442	The Contractor shall provide the capability for a hierarchical usage sequence for auto-replenishment methods for an account, such as primary method ACH and secondary method Visa Credit Card #1.
443	The Contractor shall provide for a stepped approach to failed auto-replenishments where an attempt is made to collect from the primary replenishment method a number of times (Configurable), followed by the secondary method and continuing until attempts have been made to replenish from all replenishment methods.
444	The Contractor shall provide the capability for automatically suspending an auto-replenishment method because of a number of declines (Configurable) and decline reason code. For example, if the reason for a decline is a closed account, the number of retries would be zero.
445	The Contractor shall provide the capability for automatically removing the suspension of an auto-replenishment method when there is an update to the Credit Card number, expiration date or any other related information.
446	The Contractor shall provide the ability to automatically update credit card expiration dates through the Merchant Service Provider.
447	The Contractor shall provide the capability to check if the Credit Card or ACH information is associated with another account when setting up an auto-replenishment method. The Contractor shall provide an Alert to the CSR of such condition and options to cancel or continue.
448	The Contractor shall provide the capability for an Alert to be sent to the PMMS of a failed auto-replenishment event because of BOS or Interface errors.
449	The Contractor shall provide the capability for the manual replenishing of accounts, regardless of payment method, on both a one-time and ongoing basis.
450	The Contractor shall provide the capability to check account balances each time a transaction is Posted to an account, as well as automatically submit an auto-replenishment attempt using the primary valid replenishment method when replenishment criteria is met.

1.4.6. Adjustments and Reversals

Adjustments and reversals are routinely processed in the BOS and are applied to any type of toll or Financial Transaction. Examples of such adjustments include correcting a toll rate, which would result in a change in toll, accepting a customer dispute for an incorrect charge, which would result in the reversal of the toll, or waiving or reducing a Violation penalty. Adjustments and reversals can be processed for single transactions, such as in the examples above, or in bulk. An example of a bulk adjustment is reversing all charges for a specific Toll Facility during a specific time period, as would be the case for an accident in the general-purpose lanes. Every adjustment and reversal requires the entry of a reason code identifying the reason for the adjustment or reversal. Adjustments and reversals must be associated with the original transaction, but must not change the original transaction. The original transaction must be preserved in the BOS once the transaction has been Posted to the account. Any adjustments to that transaction would be Posted to the current Revenue Day. The BOS shall have the capability to report on both the unadjusted transaction amount and the adjusted transaction amount by Agency based on transaction plaza and lane, hence the reason adjustments to transactions/trips shall be tied to but not change the original transaction.

451	The Contractor shall provide the capability to make corrections, adjustments and reversals to transactions/trips while preserving the original transaction, including the original Transaction Date and amount. Any corrections, adjustments or reversals shall be tied to, but not change, the original transaction/trip.
452	The Contractor shall provide the capability to properly disposition transactions/trips that are adjusted and/or reversed and are already in a Violation Notice stage.
453	All corrections, adjustments and reversals shall be Posted to the current Revenue Date so as not to affect prior closed Revenue Dates.
454	The Contractor shall provide the capability for full reversals of any type of transaction with a reason code (Configurable), preserving complete history.
455	The Contractor shall provide the capability for partial reversals of any type of transaction with a reason code (Configurable), preserving complete history.
456	The Contractor shall provide the capability to require that a reason code be entered for every adjustment and reversal.
457	The Contractor shall provide the capability for multiple corrections, adjustments and/or reversals to be made on a single transaction/trip while preventing the sum of such corrections, adjustments and/or reversals to exceed the amount of the original transaction/trip.
458	The Contractor shall provide the capability to establish Courtesy Credit amounts (Configurable) by Courtesy Credit type and by Agency. Courtesy Credits shall be used for toll charges only on the Agencies' Toll Facilities and are not refundable and are charged to the applicable Agency as an expense when issued to customers
459	The Contractor shall provide the capability to apply Courtesy Credits to accounts and require the entry of comments and reason assignment from allowable reason. The reason selected will determine how the expense is charged (transaction level or account level (50/50).
460	The Contractor shall provide the capability to Authorized Users to configure all relevant parameters related to establishing role-based dollar amount thresholds for transactions that affect Agencies' revenue, including but not limited to:
	<ul style="list-style-type: none"> • adjustments,
	<ul style="list-style-type: none"> • debits;
	<ul style="list-style-type: none"> • credits and
	<ul style="list-style-type: none"> • reversals.
461	The Contractor shall provide the capability for Authorized Users to Post adjustments, credits and reversals up to their role-based threshold amount (Configurable).

462	The Contractor shall provide the capability to establish a Case when Authorized Users are unable to process a transaction as a result of reaching their role-based adjustment, credit or reversal limits (Configurable) or not authorized for the particular action.
463	The Contractor shall provide the capability to establish a Case for a higher-level of approval when Authorized Users are unable to process a transaction as a result of reaching their role-based adjustment, credit or reversal limits (Configurable). The Authorized User who Approved the transaction shall be recorded and associated with the transaction.
464	The Contractor shall provide detailed tracking of individual adjustments, credits and/or reversals and categorize each separately.
465	The Contractor shall provide a trip and/or transaction search and adjustment screen(s) where Authorized Users can enter the selection criteria, retrieve the transactions/trips and make bulk adjustments or reversals. This capability shall allow the selection of groups of transactions/trips to which the correction will apply and adjustment comments entered for the affected transactions/trips. The Authorized User shall be allowed to select/deselect specific transactions/trips within the group. For example, RCTC may want all trips/transactions that include a certain toll point on an RCTC facility between 2 a.m. and 5 a.m. on a specific date to be fully reversed or all transactions at that toll point to be charged \$1.00.
466	The Contractor shall provide the capability to process adjustments and reversals that affect Interoperable Agency customers in accordance with the applicable Interoperable specifications and include these transactions/trips in the reconciliation reporting based on adjustment Posting Date (not original Transaction Date).
467	The Contractor shall provide the capability to transfer transactions/trips (financial or tolls) to another account. For example, a check Posted incorrectly to an account gets reversed and re-Posted to the appropriate account.
468	The Contractor shall provide the capability to adjust the eligibility for discounts and promotions when transactions are corrected, adjusted or reversed.
469	The Contractor shall provide the capability to adjust discounts and promotions when transactions are adjusted, corrected or reversed.

1.4.7. Account Statuses

Account statuses determine how transactions/trips are processed and associated to accounts.

470	The Contractor shall provide account statuses, including but not limited to:
	<ul style="list-style-type: none"> • active (accounts in good standing);
	<ul style="list-style-type: none"> • low balance (account below replenishment threshold – credit card has declined or cash account below threshold)
	<ul style="list-style-type: none"> • delinquent (Registered accounts only – accounts that fall below the Insufficient Balance Threshold);

	<ul style="list-style-type: none"> collection (account information has been sent to the Collection Agencies)
	<ul style="list-style-type: none"> pending close (Registered accounts only – accounts scheduled to close remain in this status for a Configurable number of days to allow for final transactions/trips to clear) and
	<ul style="list-style-type: none"> closed (closed accounts).
471	The Contractor shall provide the capability to automatically, according to Business Rules, transition between account statuses.
472	The Contractor shall provide the capability to set a different period of time (Configurable) before accounts automatically transition from pending close to closed based on the reason the account is to be closed.
473	The Contractor shall provide capability for customer Notification (Configurable) when the account status changes.
474	The Contractor shall provide the capability to use the account's status in determining whether or not to Post a transaction/trip to the account. For example, only Post transactions to an account in active or pending close statuses.
475	The Contractor shall provide the capability to automatically set an account to delinquent status once the account balance reaches below the Insufficient Balance Threshold or a Configurable number of days from the low balance notification.
476	<p>The Contractor shall provide the capability to automatically set accounts to pending close status upon a request to close the account and take automatic actions, including but not limited to:</p> <ul style="list-style-type: none"> deactivate plates and vehicles on the account; deactivate transponders on the account and prorating of prepaid discount fees.
477	<p>The Contractor shall provide the capability to automatically age an account from pending close to closed status after a period of time (Configurable) and to take automatic actions, including but not limited to:</p> <ul style="list-style-type: none"> removing payment methods on the account; assessing the appropriate fees; expiring promotion credits; processing the refund amount bringing the balance to zero and processing the refund automatically based on criteria or approval.
478	The Contractor shall provide the capability for capturing multiple levels of reason codes for an account closing at “pending close” time.

479	The Contractor shall provide the capability for the reactivation (back to an active status) of an account in the pending close and closed statuses.
480	The Contractor shall provide the capability to prevent transactions from Posting to closed accounts.
481	The Contractor shall provide the capability for Authorized Users to add comments to closed accounts.

1.4.8. Account Flags

Account Flags are used to identify meaningful conditions and information about the account, its transactions/trips, vehicles, transponders and payment methods which are used to trigger a Notification or other actions and for reporting. During design, the Contractor shall describe the ways in which these types of information shall be identified to the customers and Authorized Users.

482	The Contractor shall provide the capability to set and maintain Flags (Configurable) that can be displayed on accounts for issues related to the account, a license plate, or transponder on the account.
483	<p>The Contractor shall provide the capability to automatically set Flags on account based on conditions and events, including but not limited to:</p> <ul style="list-style-type: none"> • bad address; • bad email address/no email address; • bad phone number (for both calls and texts); • account closed in collections; • account was not completely opened; • account has debt which was written-off; • account has debt which was written-off in collections; • account has an investigative review in process; • account has an open refund request; • no active vehicles; • no active transponder (applicable only to FasTrak accounts); • transponder in certain status, for example, lost or stolen (not applicable to Unregistered accounts); • excessive toll at license plate level (not applicable to Unregistered accounts); • temporary license plate; • account is in pending to close status (not applicable to Unregistered accounts);

	<ul style="list-style-type: none"> • account has an open Case;
	<ul style="list-style-type: none"> • customer participates in a non-revenue Account Plan (not applicable to Unregistered accounts);
	<ul style="list-style-type: none"> • customer enrolled in Account Plan (s) (not applicable to Unregistered accounts);
	<ul style="list-style-type: none"> • Special Access Plan on the account or on a vehicle on the account (not applicable to Unregistered accounts);
	<ul style="list-style-type: none"> • unresolved returned check;
	<ul style="list-style-type: none"> • unresolved Credit Card decline on the account;
	<ul style="list-style-type: none"> • at least one Credit Card marked by the BOS as bad (not applicable to Unregistered accounts);
	<ul style="list-style-type: none"> • at least one Credit Card is expired or is expiring within a number (Configurable) of days (not applicable to Unregistered accounts);
	<ul style="list-style-type: none"> • account has at least one suspended auto-replenishment method (not applicable to Unregistered accounts);
	<ul style="list-style-type: none"> • account has unpaid Violation(s) not applicable to Unregistered accounts);
	<ul style="list-style-type: none"> • account has debt in collections;
	<ul style="list-style-type: none"> • one or more vehicles on the account has been placed on Registration Hold;
	<ul style="list-style-type: none"> • at least one license plate on the account has an unpaid Violation(s);
	<ul style="list-style-type: none"> • an Administrative Review has been scheduled for the account;
	<ul style="list-style-type: none"> • at least one Violation associated with the account has a Civil Judgement and
	<ul style="list-style-type: none"> • account was subject to Escheatment.
484	<p>The Contractor shall provide the capability for Authorized Users to manually set account Flags, including but not limited to:</p>
	<ul style="list-style-type: none"> • high priority comment;
	<ul style="list-style-type: none"> • bad phone number (for both calls and texts);
	<ul style="list-style-type: none"> • bad address;
	<ul style="list-style-type: none"> • do not accept checks for payment;
	<ul style="list-style-type: none"> • inactive account;
	<ul style="list-style-type: none"> • account needs to be referred to a supervisor;
	<ul style="list-style-type: none"> • account holder is deceased and

	<ul style="list-style-type: none"> • CSC has been informed of account holder bankruptcy.
485	The Contractor shall provide the capability to display all active Flags on an account upon accessing the account information.
486	The Contractor shall provide the capability to automatically clear Flags based on criteria.
487	The Contractor shall provide the capability for Authorized Users to manually clear Flags no longer applicable to an account.

1.4.9. Transponders

There are different types of transponders, with each having a distinct purpose. The Agencies issue the types of transponders described below.

- Transponders which have only one position and default to single occupant mode (discontinued 2019).
- Interior sticker transponders (non-switchable) – are permanently affixed on the inside of a vehicle’s windshield. These transponders cannot be moved between vehicles.
- Breakable interior sticker transponders (non-switchable) – are permanently affixed on the inside of a vehicle’s windshield. These transponders cannot be moved between vehicles because they are designed to break if removed after they have been applied to a surface.
- Three-position hard-case transponders (switchable) – are mounted on the inside of a vehicle’s windshield with mounting strips that allow a customer to switch between three occupancy declaration modes.
- Exterior headlight transponders (non-switchable) – are clear stickers which are permanently affixed to the motorcycle’s or vehicle’s headlight.

488	The Contractor shall provide for transponder statuses (Configurable), including but not limited to:
	<ul style="list-style-type: none"> • inactive;
	<ul style="list-style-type: none"> • valid and
	<ul style="list-style-type: none"> • invalid.
489	The Contractor shall provide the capability to manually change transponder statuses, such as when a customer calls to report a transponder has been stolen.
490	The Contractor shall provide the capability to automatically change transponder statuses. For example, when a transponder that is in inventory with an inactive status is subsequently added to an account, the status changes to active.
491	The Contractor shall provide the capability to track a transponder’s current status and status history.

492	The Contractor shall provide the capability to automatically change the transponder status from valid to invalid for all transponders on an account when the account balance is equal to or below a balance (Configurable).
493	The Contractor shall provide the capability to automatically change the transponder status from invalid to valid for all transponders on an account when the account balance is above a balance (Configurable).
494	The Contractor shall notify the customer when the transponder changes status.

1.4.10. Incoming Customer Communication

495	The Contractor shall provide the capability to track, store and electronically view all incoming customer contact- related information on all account types.
496	The Contractor shall provide the capability to associate incoming customer communication with the account for all communication channels in accordance with the Security Standards, including but not limited to: <ul style="list-style-type: none"> • phone; • email (including attachments); • Self-Service Website; • Self-Service Mobile Application; • chat; • text messaging; • fax; • mail and • in-person contact.
497	The Contractor shall provide the capability to track and account for all incoming customer communication.
498	The Contractor shall provide the capability for a CSR to upload a file and have it associated with an account, including but not limited to: <ul style="list-style-type: none"> • an audio file from a recorded conversation; • a PDF file, such as, an outbound email or mail piece and • an image file, such as, a scanned document emailed by a customer.
499	The Contractor shall provide the capability to view data files or play audio files associated with accounts.

500	The Contractor shall provide the capability to scan incoming print communications and save the resulting image in the BOS. The Contractor's solution shall be robust, enterprise-level and integrated with the BOS and with capabilities including but not limited to:
	<ul style="list-style-type: none"> • bulk scanning;
	<ul style="list-style-type: none"> • indexing, sorting, collating;
	<ul style="list-style-type: none"> • bulk demographic data entry and
	<ul style="list-style-type: none"> • automatic assignment to accounts.
501	The Contractor shall provide the capability to categorize all incoming communication via drop-down menu options (Configurable), including but not limited to:
	<ul style="list-style-type: none"> • application;
	<ul style="list-style-type: none"> • account close request;
	<ul style="list-style-type: none"> • account information change;
	<ul style="list-style-type: none"> • administrative review request;
	<ul style="list-style-type: none"> • affidavit of non-liability;
	<ul style="list-style-type: none"> • bankruptcy document;
	<ul style="list-style-type: none"> • clean air vehicle proof;
	<ul style="list-style-type: none"> • complaint;
	<ul style="list-style-type: none"> • contest notice;
	<ul style="list-style-type: none"> • death certificate;
	<ul style="list-style-type: none"> • dispute;
	<ul style="list-style-type: none"> • divorce decree;
	<ul style="list-style-type: none"> • financial hardship;
	<ul style="list-style-type: none"> • general correspondence/inquiry;
	<ul style="list-style-type: none"> • lease agreement;
	<ul style="list-style-type: none"> • marriage license;
	<ul style="list-style-type: none"> • other miscellaneous;
	<ul style="list-style-type: none"> • payment;
	<ul style="list-style-type: none"> • police report;
	<ul style="list-style-type: none"> • proof that the vehicle was rental or leased vehicle;

	<ul style="list-style-type: none"> • proof that the vehicle was sold/stolen;
	<ul style="list-style-type: none"> • rental car agreement;
	<ul style="list-style-type: none"> • returned mail – with forwarding address;
	<ul style="list-style-type: none"> • returned mail – without forwarding address;
	<ul style="list-style-type: none"> • sale documentation;
	<ul style="list-style-type: none"> • transponder request and
	<ul style="list-style-type: none"> • vehicle registration.
502	The Contractor shall provide the capability to search for all incoming communication.
503	The Contractor shall provide the capability to create a Case for each incoming communication piece scanned into the BOS. Each scanned communications piece will either initiate a new Case or be associated with an existing one, as determined by an Authorized User.
504	Create a customer contact record for all automated customer contacts. For example, if the customer provides a new address and phone number, the BOS shall automatically create a contact record that says customer contacted the BOS via Self-Service Website to update address and cell phone number.
505	The Contractor shall provide the capability to track contacts based on channel or contact reasons.
506	The Contractor shall provide the capability to set and maintain customer contact attributes, including but not limited to:
	<ul style="list-style-type: none"> • channels;
	<ul style="list-style-type: none"> • date and time;
	<ul style="list-style-type: none"> • actions;
	<ul style="list-style-type: none"> • contact reasons;
	<ul style="list-style-type: none"> • comments and
	<ul style="list-style-type: none"> • comment category.

1.5. Image Transfer and Transaction/Trip Processing

1.5.1. Transaction/Trip Transfer

The Agencies' ETTM Systems capture transactions and images for Transponder-Based Transactions/Trips and Image-Based Transactions/Trips and handles automatic and manual image review. The transaction/trip is created by the ETTM System. The ETTM System send the full formed trip, associated transactions, image(s) and license plate data (if needed) to the BOS.

507	The Contractor shall provide the capability to accept and store images related to Violations, I-Tolls from the ETTM System in accordance with ICD.
508	The Contractor shall provide the capability for customers and Authorized Users to retrieve, view and print images related to Violations and I-Tolls.
509	The Contractor shall provide the capability to associate images with the related transaction/trip in the BOS based on information provided by the ETTM Systems.
510	Ability to support more than one ETTM System Contractors at a time. Different providers for each agency
511	The Contractor shall provide the capability to transmit the status of image acquisition errors to the ETTM System Contractors and the PMMS.
512	The Contractor shall provide the capability to categorize failed images into error codes and exception codes for reporting purposes.
513	Reconcile and report transaction file discrepancies, errors and rejects by reason.
514	The Contractor shall provide the capability to send and receive all data and files between the ETTM Systems and the BOS in compliance with the ETTM System Contractors' ICDs, and any updates made to them must meet the Requirements of the Statement of Work and Requirements.
515	The Contractor shall provide the capability to support a list of ETTM Systems with which the BOS shall Interface to receive Transponder-Based and Image-Based Transactions. All received transactions/trips shall be verified against the list of ETTM Systems.
516	The Contractor shall provide the capability to receive and maintain a listing of each Toll Facility's tolling points and lanes (including designation of direction) from which the BOS shall receive transactions/trips. All transactions/trips received shall be verified against the Toll Zone and lane (including designation of direction) listing for each Toll Facility.
517	The Contractor shall provide the capability to receive and process Transponder-Based and Image-Based Transactions/Trips from each ETTM System.
518	The Contractor shall provide the capability to validate the Transponder-Based Transactions/Trips and Image-Based Transactions/Trips transmitted by the ETTM Systems meet the Requirements of the ICD.
519	The Contractor shall provide the capability to validate the transactions/trips to ensure compliance to Interface Requirements and established parameters for each Toll Facility and identify errors and exceptions.
520	The Contractor shall provide the capability to accept, but not Post to Accounts or process further Transponder-Based and Image-Based Transactions/Trips that have failed the verifications and cannot be processed further as submitted for collecting tolls at the BOS. Such rejected transactions/trips include but are not limited to:
	<ul style="list-style-type: none"> • transactions/trips are older than the established parameters;
	<ul style="list-style-type: none"> • transactions/trips do not belong to Toll Facilities on the Toll Facilities list;

	<ul style="list-style-type: none"> • transactions/trips do not belong to a Toll Zone on the Toll Facility list;
	<ul style="list-style-type: none"> • internal transponder identification number is not valid;
	<ul style="list-style-type: none"> • transaction/trip is a duplicate of a Posted Transponder-Based Transaction/Trip on the account;
	<ul style="list-style-type: none"> • transaction/trip is a duplicate of a Posted I-Toll Transaction/Trip on the account;
	<ul style="list-style-type: none"> • transaction/trip is a duplicate of a Violation transaction/trip on the account;
	<ul style="list-style-type: none"> • transaction/trip was rejected by the Interoperable/CTOC Agency and
	<ul style="list-style-type: none"> • transaction/trip is not in compliance with the ICD.
521	<p>The Contractor shall provide the capability to identify duplicate transaction/trip verification (Configurable) for each Toll Facility, based on various criteria, including but not limited to:</p> <ul style="list-style-type: none"> • Toll Facility; • Toll Zone; • direction of travel; • lane; • transaction/trip time differential; • transaction/trip type: • account type; • license plate number, and • transponder number.
522	<p>The Contractor shall provide the capability to reconcile transmitted transaction/trip counts and errors by date sent to the BOS and Transaction/Trip Date and Time.</p>
523	<p>The Contractor shall provide the capability to categorize failed transactions/trips into error codes and exception codes for reporting purposes.</p>
524	<p>The Contractor shall provide the capability to accept and process corrected transactions/trips that have been previously rejected.</p>

1.5.2. Transmission Error Identification

525	<p>The Contractor shall provide the capability to send status of transaction/trip transmission and/or verification errors to the PMMS.</p>
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526	The Contractor shall provide the capability to identify when the actual number of Transponder-Based Transactions/Trips and Image-Based Transactions/Trips received from an ETTM System is a percentage (Configurable) below the expected number for each Toll Zone and lane based on historical volumes and send an Operational Alert Notification to the PMMS.
527	The Contractor shall provide the capability to identify when percentage (Configurable) of trips sent as image-based has increased compared to historical data and send an Operational Alert Notification to the PMMS.
528	The Contractor shall provide the capability to identify when the actual number of images acquired is a percentage (Configurable) below the expected amount for each Toll Zone and lane and send an Operational Alert Notification to the PMMS.
529	The Contractor shall provide the capability to create transmission failure Alerts based on parameters, including but not limited to missing plazas and delayed transactions by Toll Facility and transaction/trip type.
530	The Contractor shall provide the capability to identify if there are missing images from a specific Toll Zone (Configurable number over a Configurable period of time) and send an Operational Alert Notification to the PMMS.
531	The Contractor shall provide the capability (Configurable) to retry the acquisition of images for transactions/trips initially identified as not having images.
532	The Contractor shall provide the capability to match the acquired image with its transaction/trip.
533	The Contractor shall provide the capability to identify transactions/trips for which images were expected but are missing and generate an Operational Alert Notification to the PMMS if images are missing for more than a number of transactions/trips (Configurable) and after an amount time for a specific Toll Facility (Configurable).
534	The Contractor shall provide the capability to transmit the status of image acquisition errors to Authorized Users.
535	The Contractor shall provide the capability to categorize failed images into error codes and exception codes for reporting purposes.

1.5.3. Interoperability

The Agencies are already Interoperable with the other toll agencies in California. During the Implementation Phase and Operations and Maintenance Phase, it is likely that Interoperability will expand to include all U.S. states and regions. The Agencies intend to participate in regional and national Interoperability.

The BOS and the Interoperable/CTOC Agencies shall exchange files in accordance with the most current ICDs.

536	Provide the capability to create/transmit and receive/process all Interoperable/CTOC files in accordance with the latest CTOC ICD. See Attachment D: CTOC Technical Specifications for Interagency Data Exchange for current ICD.
537	Provide the capability to create/transmit and receive/process all Interoperable/CTOC files in accordance with the Agencies Business Rules.

1.5.3.1. OCTA/RCTC Customers on Interoperable Agency Facilities

Customers who have Active OCTA/RCTC Registered accounts may use the Toll Facilities of Interoperable/CTOC Agencies. Transactions/trips generated on the Interoperable facilities will be transmitted to the BOS for processing and Posting to accounts. Interoperable/CTOC Agencies will receive disposition for each submitted transaction/trip in accordance with their individual Interoperable/CTOC Agency ICD. Images will not be provided by Interoperable Agencies. The BOS shall meet the following Requirements related to Transponder-Based Transactions/Trips and Image-Based Transactions/Trips submitted by Interoperable/CTOC Agencies.

538	The Contractor shall provide the capability to create, transmit and exchange all data and files between the BOS and Interoperable/CTOC Agencies in compliance with the existing ICDs and any updates made to them to meet the Requirements of the Statement of Work.
539	The Contractor shall provide the capability to receive and process Transponder-Based Transactions/Trips and Image-Based Transactions/Trips from the Interoperable/CTOC Agencies.
540	<p>The Contractor shall provide the capability to validate that the Transponder-Based Transactions and Image-Based Transactions/Trips transmitted by the Interoperable/CTOC Agencies meet the criteria for qualification, including but not limited to:</p> <ul style="list-style-type: none"> • Transponder-Based Transactions/Trips and Image-Based Transactions/Trips transmitted by the Interoperable/CTOC Agencies are Posted when the associated account and transponder were active; • Transponder-Based Transactions/Trips and Image-Based Transactions/Trips meet the Requirements of the ICD and • Image-Based Transactions/Trips have a license plate number, Jurisdiction and plate type (if applicable), and the transaction occurred when the associated account and plate were active.
541	The Contractor shall provide transaction/trip disposition to Interoperable/CTOC Agencies for each submitted Transponder-Based Transaction/Trip and Image-Based Transaction/Trip.

1.5.3.2. Interoperable/CTOC Customers on Agency Toll Facilities

Interoperable/CTOC Agency customers who have accounts at other Interoperable/CTOC Agencies may use the Agencies' Toll Facilities. These customers may create Transponder-Based Transactions/Trips and Image-Based Transactions/Trips. The BOS identifies such transactions as Interoperable/CTOC Transactions/Trips, validates such transactions/trips are in compliance with Interoperable/CTOC ICDs and transmits them to the Interoperable/CTOC Agency for processing and

Posting to the appropriate accounts. The Agencies may assess a Configurable 'roaming/hub processing fee' based on the transaction/trip type. Interoperable/CTOC Agencies will transmit the disposition for each submitted transaction/trip to the BOS in accordance with their individual Interoperable/CTOC ICD.

The BOS shall meet the following Requirements related to Interoperable/CTOC Transponder-Based Transactions/Trips and Image-Based Transactions/Trips.

542	The Contractor shall provide the capability to receive and validate Transponder-Based Transactions/Trips and Image-Based Transactions/Trips from each ETTM System.
543	The Contractor shall provide the capability to validate that the Transponder-Based Transactions/Trips and Image-Based Transactions/Trips are in compliance with the Interoperable/CTOC ICDs.
544	The Contractor shall provide the capability to, if configured, assess the appropriate 'roaming/hub processing fee' based on the transaction/trip type.
545	The Contractor shall provide the capability to identify clean air vehicles for discounts from Interoperable/CTOC Agencies.
546	The Contractor shall provide the capability to transmit Transponder-Based Transactions/Trips and Image-Based Transactions/Trips to the appropriate Interoperable/CTOC Agency.
547	The Contractor shall provide the capability to receive transaction/trip disposition from the Interoperable/CTOC Agencies for each transmitted Transponder-Based Transaction/Trip and Image-Based Transaction/Trip.
548	The Contractor shall provide the capability to invoice IOP, make payments to IOP and receive post payments from IOP, retain and aging of IOP receivables

1.5.4. Monitoring – Operations and System Performance

The Agencies require monitoring tools to effectively track and manage operations with the goals of optimizing efficiency, performance and customer service. The Agencies require clear visual and graphical representation of the workflow statuses and the provision of Alerts to identify backlogs and problems on a timely basis.

549	The BOS shall provide pictorial representations (dashboard) by Toll Facility of the BOS operations and performance, and Authorized Users performance and productivity at all stages of inbound customer contact points and operations process flow.
550	The BOS shall provide Authorized Users the ability to customize and personalize their dashboard to display data elements selected by the user.
551	The BOS shall provide user interface in real-time to review and be alerted to problems, exceptions, issues and variance from Performance Measures by means of conditional formatting.

552	The BOS shall provide users with the capability to drill to the individual details and back-up information of any transaction/trip state, status or problem.
553	The BOS shall provide user interface to establish various thresholds (Configurable) to monitor and assess BOS and operations performance in areas such as inbound calls, emails, chat, cases, transponder requests, etc.
554	The BOS shall generate automated notifications to the PMMS when specified deviations from established thresholds are detected within a user defined period of time (Configurable) and provide such notifications on the dashboard.

1.5.5. Transaction/Trip Processing Lists

1.5.5.1. Processing Exception List

The Processing Exception List is a list of license plates and transponders used to identify Transponder-Based Transactions/Trips and Image-Based Transactions/Trips that require manual review and disposition prior to final processing due to known customer service and/or processing issues.

555	The Contractor shall provide the capability to maintain a separate Processing Exception List of license plates and transponders for each Toll Facility.
556	The Contractor shall provide the capability for Authorized Users to add, delete and maintain the Processing Exception List of license plates and transponders.
557	All changes to the Processing Exception List shall require either OCTA or RCTC Approval.
558	The Contractor shall provide the capability for Authorized Users to enter effective start and end dates for each license plates and transponder.
559	The Contractor shall provide the capability for Transponder-Based Transactions/Trips and Image-Based Transactions/Trips that are active on the Processing Exception List to not be processed by the BOS until manually reviewed and dispositioned.
560	The Contractor shall provide the capability via a processing exception screen to review each transaction and image and either reintroduce the Transponder-Based Transactions/Trips and Image-Based Transactions/Trips for normal BOS processing or have them remain unprocessed.
561	The Contractor shall provide the capability via a processing exception screen to review Transponder-Based Transactions/Trips and Image-Based Transactions/Trips multiple times before reintroducing them for BOS processing.
562	The Contractor shall provide the capability for reintroduced Transponder-Based Transactions/Trips and Image-Based Transactions/Trips to follow all of the applicable processing rules. For example, if the time process time threshold has been exceeded the normal dispositioning process would occur.
563	All Transponder-Based Transactions/Trips and Image-Based Transactions/Trips subject to the processing exceptions shall be included in all applicable transactional and financial reporting.

1.5.5.2. Plate Correction List

The Plate Correction List contains license plate numbers identified by the CSC Operations as being problematic based on customer disputes or QA processes and requiring analysis and correction by the ETTM System Contractors to prevent recurring issues.

564	The Contractor shall provide the capability to provide a separate Plate Correction List for each Toll Facility.
565	The Contractor shall provide the capability for Authorized Users to add, delete and maintain the Plate Correction List of license plates with all available plate information.
566	The Contractor shall provide the capability for Authorized Users to electronically send the Plate Correction List to the ETTM System Contractors.
567	The Contractor shall provide the capability to search for, retrieve and correct plates added to the Plate Correction List to avoid the same errors from occurring for transactions that are in process.

1.5.6. Customer Validation and Transaction/Trip Posting

Upon the completion of the initial verifications and processing, the BOS shall attempt to Post the transactions/trips to accounts. The sequence in which the Posting occurs is determined during design.

1.5.6.1. Transaction/Trip Posting - General

Generally, the toll rate assigned by the lanes is the rate that the customer is charged. On Express Lane facilities, the toll rate depends on the numbers of occupants in the vehicle. Some transponders have the ability to indicate the number of occupants in the vehicle depending on where the customer has set the switch. Account Plans, plate codes and transponder codes such as the Clean air vehicle or motorcycle may also affect the toll rate.

568	The Contractor shall provide the capability to set and maintain rules (Configurable) that define the order and sequence in which transactions/trips are processed for Posting to the various account types.
569	The Contractor shall use the Agencies' Business Rules and existing hierarchy in developing the rules for Posting trips.
570	The Contractor shall provide the capability to set and maintain rules (Configurable) that define the order in which the transactions/trips shall be processed and their final outcome, including but not limited to:
	<ul style="list-style-type: none"> • type of the transaction/trip (Transponder-Based or Image-Based);
	<ul style="list-style-type: none"> • the submitting Entity (Toll Facility, Agency or Interoperable/CTOC Agency);
	<ul style="list-style-type: none"> • the presence of a transponder in the transaction/trip;
	<ul style="list-style-type: none"> • account type;

	<ul style="list-style-type: none"> • account status;
	<ul style="list-style-type: none"> • the status of the transponder at the time of the transaction/trip and
	<ul style="list-style-type: none"> • the availability of an image.
571	The Contractor shall provide the capability to store multiple transponders per transaction/trip and charge the transponder according to the rules.
572	The Contractor shall provide the capability to transmit Interoperable Transponder-Based Transactions/Trips to Interoperable/CTOC Agencies to Post to the Interoperable/CTOC Agency accounts.
573	The Contractor shall provide the capability to validate Transponder-Based Transactions/Trips and account type and support the processing order (Configurable) of transactions/trips with transponders, per Business Rules.
574	The Contractor shall process the transaction as an Image-Based Transaction if a Transponder-Based Transaction/Trip cannot be Posted to an account, but it contains the license plate data, then depending on the reject reason. For example, if a Transponder-Based Transaction/Trip was rejected by an Interoperable/CTOC Agency due to insufficient funds on the account, then the transaction/trip can be processed as an Image-Based Transaction/Trip if an image is available.
575	The Contractor shall provide the capability to reprocess transactions as Image-Based Transactions/Trips if Transponder-Based Transactions/Trips cannot be Posted to an account and are rejected by the BOS, in accordance with the processing order (Configurable) based on the reject reason.
576	The Contractor shall provide the capability to validate the transaction/trip and account type and support the processing order (Configurable) of Image-Based Transactions/Trips per Business Rules.
577	The Contractor shall provide the capability to insert pauses, of durations (Configurable), in transaction processing within the transaction/trip processing sequence to allow for other interactions (for example, a grace period to allow customer to provide payment before a transaction is Posted to a rental car account or an Unregistered account).
578	The Contractor shall provide the capability to configure whether payments are guaranteed for both Transponder-Based Transactions/Trips and Image-Based Transactions/Trips for each Interoperable/CTOC Agency.
579	The Contractor shall provide the capability to Post a Transponder-Based Transaction/Trip that is guaranteed for Interoperable/CTOC Agencies to the account, regardless of the account balance.
580	The Contractor shall provide the capability to Post an Image-Based Transaction/Trip that is guaranteed for Interoperable/CTOC Agencies to the account, regardless of the account balance.

581	The Contractor shall provide the capability to process Transponder-Based Transactions/Trips and Image-Based Transactions/Trips to an account based on date and time the transaction/trip was received by the BOS in First in First Out (FIFO) order.
582	The Contractor shall provide the capability to attempt to Post a toll transaction/trip (OCTA/RCTC or Interoperable/CTOC) that did not Post to the account initially at Configurable intervals for a Configurable amount of time.
583	The Contractor shall provide the capability to Post tolls/trips based on the particular tolling location. For example, if the transponder has a non-revenue plan for a particular Toll Facility, then transactions/trips for that transponder are charged \$0.00 for transactions/trips on that Toll Facility.

1.5.6.2. I-Toll Transaction/Trip Posting

Transponders sometimes fail to read when the customer uses the Toll Facilities. This results in the capture and processing of the customer license plate image by the ETTM System. An Image-Based Transaction/Trip along with the license plate image(s) and data is ultimately submitted to the BOS for processing. OCTA/RCTC accounts with a number of I-Tolls deemed excessive may be notified and those customers may be charged a fee.

The BOS identifies the license plate as belonging to an Agency or Interoperable/CTOC account and verifies that the Image-Based Transaction/Trip is eligible for Posting to the account as an I-Toll transaction/trip. For an OCTA/RCTC account, an I-Toll shall be Posted in accordance with Business Rules. For an Interoperable/CTOC account, an I-Toll shall be sent to the Interoperable Agency for processing only if the license plate is on the valid license plate file for the Transaction Date. Image(s) for I-Toll transactions/trips shall be retained by the BOS.

584	The Contractor shall provide the capability to identify and Post I-Tolls belonging to an Agency or Interoperable/CTOC account based on a combination of factors, including but not limited to:
	<ul style="list-style-type: none"> the account status at the time of the transaction/trip;
	<ul style="list-style-type: none"> current account status;
	<ul style="list-style-type: none"> account open date;
	<ul style="list-style-type: none"> effective date and time range for the license plate on the account;
	<ul style="list-style-type: none"> Account Plans associated with the account, transponder or license plate;
	<ul style="list-style-type: none"> license plate number;
	<ul style="list-style-type: none"> license plate Jurisdiction;
	<ul style="list-style-type: none"> license plate type;
	<ul style="list-style-type: none"> license plate status;
	<ul style="list-style-type: none"> license plate image;

	<ul style="list-style-type: none"> whether the license plate was on the account at the time of the transaction/trip and
	<ul style="list-style-type: none"> the account balance.
585	The Contractor shall store the image(s) associated with I-Toll transactions/trips.
586	The Contractor shall provide the capability to check each time a license plate is added to a Registered account and when a license plate start date/time is changed and every day after until resolved to see if any Violations match that license plate and Post all applicable Violations to the account in accordance with Business Rules.
587	The Contractor shall provide the capability to setup the parameters (Configurable) which trigger an Excessive I-Toll Notification.
588	The Contractor shall provide the capability to set up the parameters (Configurable), which trigger the application of the Excessive I-Toll fee, including a grace period after a customer is notified.
589	The Contractor shall provide the capability to apply the Excessive I-Toll fee in the future only when a percentage (Configurable) of monthly transactions are processed by plate.

1.5.6.3. Toll and Discount Posted

The transactions/trips submitted by the ETTM System and the Interoperable/CTOC Agencies will contain multiple fares based on the Toll Facility or Interoperable/CTOC Agency, the type of facility and the transaction/trip type (listed below). Based on the Business Rules, the BOS shall apply the applicable discounts and charge the account the correct fare.

590	The Contractor shall provide the capability to apply applicable discounts for Account Plans associated with the account, transponder or license plate to the Transponder-Based and Image-Based Transactions/Trips.
591	<p>The Contractor shall provide the capability to Post the appropriate toll and discounts to Transponder-Based Transactions/Trips and the Image-Based Transactions/Trips based on various conditions(Configurable), including but not limited to:</p> <ul style="list-style-type: none"> type of transaction/trip received from the Agencies' ETTM Systems, for example non-revenue; type of transaction/trip received from the Interoperable/CTOC Agencies; type of Toll Facility, for example Express Lanes; account balance; type of transaction/trip at the time of Posting (FasTrak, I-Toll or Violation); account type; Flags on the account, for example Excessive I-Toll and

	<ul style="list-style-type: none"> • transponder and plate designators (CAV).
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1.5.6.4. Owner Identification

For those Image-Based Transactions/Trips that do not Post to an existing OCTA/RCTC account or Interoperable/CTOC account, the registered owner name and address information for the vehicle (based on the license plate) needs to be obtained from Registered Owner of the Vehicle (ROV) Lookup sources.

592	The Contractor shall establish a direct interface with the California Department of Motor Vehicles (DMV) to perform an ROV look up for each transaction with California license plates.
593	The Contractor shall establish a direct interface with the Arizona Department of Motor Vehicles (DMV) to perform an ROV look up for each transaction with Arizona license plates.
594	The Contractor shall provide a ROV Lookup Service Provider to be used to perform an ROV Lookup for each transaction with license plates from all other States, the District of Columbia and the U.S. Government.
595	The Contractor shall provide the capability to identify California temporary plates based on numbering sequence and other information provided by the DMV.
596	The Contractor shall provide the capability to lookup temporary license plates issued by the California DMV utilizing a separate database for temporary plates.
597	The Contractor shall provide the capability to obtain and store Vehicle Identification Number (VIN) for a temporary license plate and using the VIN, associate the temporary license plate to permanent plate to ensure only a single Unregistered account is created for the vehicle and that California DMV hold is placed on the permanent plate, if applicable.
598	The Contractor shall provide the capability to manage addresses associated with Protected Plates agencies, which is the agency name returned from the DMV or ROV Lookup Provider for license plates of customers affiliated with federal, state or local agencies allowed to shield addresses. including but not limited to:
	<ul style="list-style-type: none"> • allow Authorized Users to input, delete and update the addresses associated with Protected Plates agencies;
	<ul style="list-style-type: none"> • electronically check against the Protected Plate data when a Protected Plate agency name is returned from the DMV or ROV Lookup Provider;
	<ul style="list-style-type: none"> • automatically produce the Violation Notice with the Protected Plate agency address;
	<ul style="list-style-type: none"> • allow the option for an Authorized User to review, edit and approve the Violation Notice prior to sending and
	<ul style="list-style-type: none"> • if there is no match for a Protected Plate agency, hold the Violation for a Configurable period of time and allow an Authorized User to manually enter an address when obtained and send.

599	The Contractor shall provide the capability to establish separate, ROV Lookup parameters (Configurable) to obtain the ROV, based on various criteria including but not limited to:
	<ul style="list-style-type: none"> whether the license plate is issue by a state which there is a direct connection (California and Arizona) or through an ROV Lookup Service Provider;
	<ul style="list-style-type: none"> whether the license plate is a temporary plate (California only);
	<ul style="list-style-type: none"> Flags on the account, for example if the account has a bad address Flag or ROV is stale, then ROV Lookup is performed at intervals (Configurable) until a new address is obtained and
	<ul style="list-style-type: none"> cost of ROV Lookup, for example if ROV Lookups are at no cost then perform lookup every time (possibly daily) when a Violation Notice is about to be issued for the license plate.
600	The Contractor shall provide the capability to identify and manage Violations which do not meet the criteria for a Violation Notice to be issued because the Violation date is greater than the Configurable number of days old.
601	The Contractor shall provide the capability to identify and manage Violations which do not meet the criteria for a Violation Notice to be issued based on Business Rules.
602	The Contractor shall provide the capability to identify and manage Violations which have no match after ROV Lookup and allow for a Configurable number of days to attempt to obtain the ROV through other methods.
603	The Contractor shall provide the capability to view the transaction/trip and its associated image(s) and select the correct license plate registration information in the event there are multiple ROV matches returned by the ROV Lookup Service Provider for a particular license plate.
604	The Contractor shall provide the capability to review the results and take appropriate action of partial ROV information matches and confirm the account that matches the ROV name and address.
605	The Contractor shall provide the capability to automatically create an Unregistered account for the license plate using the ROV results if there is no match to an existing Registered or Unregistered account.
606	The Contractor shall provide the capability to identify potential match to a Registered account based on name and address and notify the customer and add the plate and transactions.
607	The Contractor shall provide the capability to review the transactions/trips where the registration information is not available. The BOS shall retrieve all images associated with the transactions/trips and make them available to the Authorized User for review. The Authorized User can take the following action on the transactions/trips, including but not limited to:
	<ul style="list-style-type: none"> manually enter the ROV data and

	<ul style="list-style-type: none"> • correct the license plate data.
608	The Contractor shall provide the capability to re-submit license plates for ROV Lookup a number of times (Configurable) and after a period of time (Configurable) if the license plate is returned from the ROV Lookup Service Provider with no match or an error. The configuration shall be based on the type of error and the status of the communications.
609	The Contractor shall provide the capability, if there is no response for the ROV Lookup after the number of retries (Configurable), and license plate registration information cannot be obtained, to automatically set the transaction/trip to "Unknown DMV status".
610	The Contractor shall provide the capability, if the ROV information cannot be obtained, Post the transaction to a Registered account if the transaction/trip also contained an RCTC/OCTA transponder read.
611	The Contractor shall provide the capability to automatically record, set and maintain the ROV Lookup source based on license plate Jurisdiction.
612	The Contractor shall provide the capability to set the length of time (Configurable by Jurisdiction) before ROV information needs to be rechecked before the license plate registration information is considered stale and must be acquired again.
613	The Contractor shall provide the capability to set the length of time (Configurable) before ROV information for temporary license plates needs to be rechecked individually to obtain the associated permanent license plate number.
614	<p>The Contractor shall provide the capability to retain all historical ROV Lookup information, including but not limited to:</p> <ul style="list-style-type: none"> • source of license plate ROV data; • ROV data changes and • the date the data was obtained

1.5.6.5. Transfer of Responsibility

The California Vehicle Code provides for the registered owner of a vehicle to name another individual as the person responsible for toll evasion notices. In order to comply with this requirement the BOS will need to record the named responsible person and process applicable NTEV accordingly.

615	<p>The Contractor shall provide the capability to transfer the responsibility to another party, including but not limited to:</p> <ul style="list-style-type: none"> • uploading supporting documentation; • allowing for Authorized Users to enter the responsible party's name and address information for one or many Violation Notices; • dismissing the Violation Notices (including applicable tolls and fees) for the original ROV; • establishing an unregistered Account for the new ROV;
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	<ul style="list-style-type: none"> • issuing Violation Notice(s) as applicable to the new ROV, and
	<ul style="list-style-type: none"> • maintain history of the responsibility transfer activities.

1.6. Registered and Unregistered Account Notifications

1.6.1. Outgoing Notifications

The creation and sending of outgoing Notifications includes multiple distribution channels, such as electronic transmission (email, text), print and mail, and outbound phone calls. Notification management shall provide several methods of delivery and allow for configuring how each Notification item shall be delivered. All Notifications related to an account shall be associated with that account and Case, if applicable, in the BOS.

Alerts are normally Notifications that customers opt-in for so that they can be notified (usually by text or email) when their account needs attention or when activities occur on their account. Alerts can also be Notifications based on account events of which the Agencies would like customers to be informed.

Notifications are sent using distribution channels, such as email, text, phone call and United States Postal Service (USPS) mail.

There are unique Notification items, for example, a Notice of Toll Evasion Violation, an insufficient balance letter or an email Notification that the customer's account has been replenished.

Each Notification item has criteria which triggers its generation. When an account meets specified criteria, the account qualifies for a specific Notification item. For example, an account qualifies for a Credit Card Expiring Notification one month before the Credit Card expiration date and an account qualifies for a Violation Notice after the ROV information has been obtained.

616	The Contractor shall provide all outgoing Notifications with a standard look and feel and submit samples of all Notifications to the Agencies for Approval, prior to distribution to customers.
617	The Contractor shall provide a Notification management process regardless of the Notification item or the distribution channel used to send the Notification.
618	The Contractor shall develop a communication matrix for configuring the Notifications and their allowable distribution channel. This matrix shall be configurable and will change over the life of the Contract.
619	The Contractor shall provide a process to automatically issue each Notification when the criteria in the Business Rules is met.
620	The Contractor shall produce and deliver Print Notifications to the USPS Monday – Friday.
621	The Contractor or its Print/Mail House Service Provider (optional) shall produce and deliver the Notifications to the USPS within two (2) Business Days of the Notification meeting the Business Rules for generation.

622	The Contractor shall produce and deliver all electronic or phone Notifications to the customer within one (1) Business Day of the Notification meeting the Business Rules for generation.
623	The Contractor is responsible for the quality and accuracy of the all Notification and shall review Notifications produced in-house or by its Print/Mail House Service Provider (optional), as the Contractor deems necessary to ensure accuracy of the notifications for complete addresses, correct information and Notification template/version and accurate dates.
624	The Contractor shall provide the capability to automatically associate all outbound Notifications with the appropriate account and Case, if applicable.
625	The Contractor shall provide the capability for customers to opt-in for Alerts and select the conditions that will result in the creation of Alerts. Customer shall have a choice of selecting the method in which they receive the Alert; a text or email.
626	<p>The Contractor shall provide the capability to automatically initiate customer Alert Notification based on account events, including but not limited to:</p> <ul style="list-style-type: none"> • an I-Toll was Posted to the account; • Violation on license plate registered to customer's address on file; • transponder order placed; • transponder shipped; • Credit Card expiry date within days (Configurable) of expiry; • account balance an amount above Insufficient Balance Threshold (Configurable); • daily account balance; • payment Posted to account; • returned check; • account auto-replenishment (Credit Card) failure/declined Credit Card; • an ACH transaction is rejected, and • account changes (Configurable), such as the addition of a vehicle to the account or change of password.
627	<p>The Contractor shall provide the capability to automatically initiate customer communications and Notifications based on account events including but not limited to the following.</p> <ul style="list-style-type: none"> • account creation welcome letter/account profile; • Excessive I-Toll threshold is exceeded; • account auto-replenishment (Credit Card) failure/declined Credit Card;

	<ul style="list-style-type: none"> • an ACH transaction is rejected;
	<ul style="list-style-type: none"> • Credit Card update successful (from the Credit Card update service);
	<ul style="list-style-type: none"> • Credit Card update failure (from the Credit Card update service);
	<ul style="list-style-type: none"> • Credit Card is within a number of days (Configurable) from its expiration;
	<ul style="list-style-type: none"> • Credit Card has expired;
	<ul style="list-style-type: none"> • partial payment;
	<ul style="list-style-type: none"> • temporary license plate expired;
	<ul style="list-style-type: none"> • auto-replenishment suspended;
	<ul style="list-style-type: none"> • auto-replenishment recalculation;
	<ul style="list-style-type: none"> • returned check;
	<ul style="list-style-type: none"> • account suspended;
	<ul style="list-style-type: none"> • delinquent account second notice;
	<ul style="list-style-type: none"> • Warning of Registration Hold (Configurable to only send based on the amount of time since the delinquent Notification);
	<ul style="list-style-type: none"> • statement available;
	<ul style="list-style-type: none"> • postpaid invoice;
	<ul style="list-style-type: none"> • Notice of Toll Evasion Violation generated;
	<ul style="list-style-type: none"> • Notice of Delinquent Toll Evasion Violation generated;
	<ul style="list-style-type: none"> • Violation dispute accepted;
	<ul style="list-style-type: none"> • Violation dispute rejected by reason;
	<ul style="list-style-type: none"> • incomplete Affidavit of Non-Liability;
	<ul style="list-style-type: none"> • customer-initiated review-related Notification;
	<ul style="list-style-type: none"> • Administrative Hearing scheduled;
	<ul style="list-style-type: none"> • account balance level is below the Insufficient Balance Threshold;
	<ul style="list-style-type: none"> • account is flagged with a bankruptcy;
	<ul style="list-style-type: none"> • undeliverable mail;
	<ul style="list-style-type: none"> • undeliverable email;
	<ul style="list-style-type: none"> • bad phone (for both calls and text)/fax situation;

	<ul style="list-style-type: none"> • forgotten password, PIN or username;
	<ul style="list-style-type: none"> • account status changes (Configurable).
628	Distribute Notifications through distribution channels, including but not limited to:
	<ul style="list-style-type: none"> • mail;
	<ul style="list-style-type: none"> • email;
	<ul style="list-style-type: none"> • text messaging;
	<ul style="list-style-type: none"> • Self-Service Mobile Application push Notifications;
	<ul style="list-style-type: none"> • fax;
	<ul style="list-style-type: none"> • outbound CSR call by developing a list of calls to be made and
	<ul style="list-style-type: none"> • automated outbound call.
629	The Contractor shall provide the capability for electronic Notifications to be sent as the body of an email in a format (Configurable), including but not limited to text and HTML.
630	The Contractor shall provide the capability for electronic Notifications to be sent as a link to the Self-Service Website in the body of an email.
631	The Contractor shall provide the capability (Configurable) to define Notification type and size, for example, postcard or letter.
632	The Contractor shall provide settings (Configurable) for distribution channel for each Notification item, including but not limited to:
	<ul style="list-style-type: none"> • Agency required distribution channel(s);
	<ul style="list-style-type: none"> • customer preference and
	<ul style="list-style-type: none"> • preferred address type for mailing, for example, home, business or ROV Lookup provided.
633	The Contractor shall provide the capability for a Notification item to be distributed using multiple distribution channels. For example, send the Notification to the customer's preferred distribution channel, which is email and by mail, based on the Agencies' preference.
634	The Contractor shall provide the capability to identify multiple Notifications that are generated for a customer and combine their mailing.
635	The Contractor shall provide the capability to check the NCOA database before a Notification is mailed and use the NCOA address if it is the latest.
636	The Contractor shall provide the capability to validate the existing email address anytime a new email address is provided.

637	The Contractor shall provide the capability to send manually-generated, bulk email Notifications.
638	The Contractor shall provide the capability to send scheduled and ad-hoc, bulk text Notifications.
639	The Contractor shall provide the capability to send scheduled and ad-hoc, bulk mail Notifications.
640	The Contractor shall provide the capability to read, capture, and create the USPS Intelligent Mail Barcode on incoming and outbound mail.
641	The Contractor shall provide the capability for Notifications to include images, graphics, and lists (for example, lists of license plates and/or transponders) as well as text.
642	The Contractor shall provide standard templates for each Notification item.
643	The Contractor shall provide the capability to add a barcode, scan line or Quick Response Code to each outgoing Notification piece (excluding text and email body copy Notifications) so the returned Notification can be scanned and automatically associated with the proper account and, if applicable, Case. The barcode shall be visible in the top of the envelope window so as not to interfere with the USPS but to be available to scan as returned mail without having to open the envelope.
644	The Contractor shall provide the capability to add checksum digits to barcodes on Notices and other correspondence that will likely return to the BOS or Lockbox Service Provider (optional) or Collection Agency. Barcode readers shall be able to support such checksum on barcodes and the BOS shall validate it.
645	The Contractor shall provide the capability to ensure historical Notifications associated with accounts do not change (maintain original form and content) regardless of any changes that are subsequently made to the template for that Notification item.
646	The Contractor shall provide the capability to create and assign version numbers/dates to Notification templates.
647	The Contractor shall provide the capability to manage/configure Notifications and their attributes according to Business Rules, including but not limited to:
	<ul style="list-style-type: none"> • add new Notifications;
	<ul style="list-style-type: none"> • deactivate Notifications;
	<ul style="list-style-type: none"> • view and select for activation past versions of Notifications;
	<ul style="list-style-type: none"> • criteria;
	<ul style="list-style-type: none"> • frequency;
	<ul style="list-style-type: none"> • escalation path;
	<ul style="list-style-type: none"> • whether based on actual account balance or balance due (calculated);

	<ul style="list-style-type: none"> • whether to send for third-party address look up;
	<ul style="list-style-type: none"> • a variable due date based on the number of days (Configurable) until payment is due;
	<ul style="list-style-type: none"> • a fixed date due (for example, monthly customer Anniversary Day);
	<ul style="list-style-type: none"> • number of days until action must be taken;
	<ul style="list-style-type: none"> • the number of days between the due date and escalation to the next Notification level;
	<ul style="list-style-type: none"> • number of days between the creation date and issue date;
	<ul style="list-style-type: none"> • a fixed issue date (for example, monthly customer Anniversary Day);
	<ul style="list-style-type: none"> • the number of Business Days between the due date and escalation to the next Notification level;
	<ul style="list-style-type: none"> • number of Business Days between the creation date and issue date;
	<ul style="list-style-type: none"> • number of times to resend;
	<ul style="list-style-type: none"> • number of days before the Notification is resent;
	<ul style="list-style-type: none"> • whether or not to resend or reissue if a new address is received;
	<ul style="list-style-type: none"> • whether to escalate but not print if address is marked 'bad';
	<ul style="list-style-type: none"> • allowable distribution channel(s);
	<ul style="list-style-type: none"> • distribution channel escalation;
	<ul style="list-style-type: none"> • number of days from the mailing of the dispute reject letter to extend the Violation Notice payment date;
	<ul style="list-style-type: none"> • eligible address type, for example, Notice of Toll Evasion Violation must be mailed to the ROV's address as provided by the ROV Lookup source;
	<ul style="list-style-type: none"> • address source priority, for example, mail to the ROV Lookup address and if that piece is returned with a forwarding address then use forwarding address;
	<ul style="list-style-type: none"> • Notification response address, for example, some Notifications may require that payment go to the Lockbox Service Provider (optional) while others require response be sent to the BOS;
	<ul style="list-style-type: none"> • Notification return address, for example, some Notifications may use the return address of the Collection Agency while others will use the mail house address;
	<ul style="list-style-type: none"> • Notification quality review sample size and
	<ul style="list-style-type: none"> • whether Notification quality review and approval is required.

648	The Contractor shall provide the capability for Notification to have a mailing date match the actual mail date of the USPS on the Notification. For example, if quality review activities and printing take two days, then the issue date would be two (2) days later than the date that the Notification was created.
649	<p>The Contractor shall provide the capability for Authorized Users to view all versions of each Notification item (including those items that have been modified), including but not limited to:</p> <ul style="list-style-type: none"> • date modified; • version number; • Authorized User who made the modification(s) and • samples of the Notification as it looked in all previous versions.
650	<p>The Contractor shall provide the capability to select a Notification target audience, for either pre-developed or ad-hoc Notification, using criteria including but not limited to:</p> <ul style="list-style-type: none"> • use of a particular Toll Facility (overall or by direction); • use of a particular Toll Zone (overall or by direction); • use of a particular Toll Facility or Toll Zone during a specified period of time; • use of a particular payment method; • transactions/trips by time period; • transactions/trips by ZIP code; • transactions/trips by Vehicle Type; • transactions/trips by account type; • transactions/trips by Account Plan; • transactions/trips by transponder type; • recipients of Notice of Toll Evasion Violation issued for selectable Toll Facility use; • recipients of Notice of Toll Evasion Violation issued for selectable time periods and • recipients of Notice of Toll Evasion Violation issued for a combination of selectable Toll Facility use and selectable time period.
651	The Contractor shall provide the capability to view and Approve Notifications prior to distribution to the customer.

652	The Contractor shall provide the capability to email, send to the Print/Mail Service Provider (optional) for printing and mailing or reprint at a local printer any Notification directly from the account, Case or Notification search screens. For example, the customer called about a Case and requests that the CSR resend the letter by email to the customer. The CSR is in the Case and clicks to resend the letter to the provided email address.
653	The Contractor shall design the Notifications to meet all criteria for receiving the lowest postage rate.
654	The Contractor shall employ bulk mail rates and other mailing economies, including, the capacity for pre-sorting mail by zip code and USPS Intelligent Mail Barcode to ensure the most cost-effective postage rates are obtained.
655	The Contractor shall provide all postage meters and establish all post office boxes needed for customer communications.
656	Outgoing mailed Notification materials shall use the following materials: <ul style="list-style-type: none"> • all mailed Notifications - 24lb paper; • all mailed Notifications up to 3 pages - #10 window envelope; • all mailed Notifications 4- 9 pages – 6"x 9" envelope; • all mailed Notifications 10 or more pages – 9"x 12"; • the non-Agencies provided flyer - a single 8.5" x 11" piece of paper and • all return envelopes - #9 window envelopes.
657	All Notifications printed in color shall use two colors.

1.6.1.1. Print/Mail Service Provider (optional)

The use of a third-party Print/Mail House Service Provider is at the discretion of the Contractor and shall be at no additional cost to the Agencies. If provided, the following Requirements apply.

658	If the Contractor elects to use a third party Print/Mail House Service Provider (optional), the selected third-party Print/Mail House Service Provider shall be located in and mailing the Agencies' Notifications from the State of California.
659	The Contractor shall provide the capability to resend any files rejected or not received by the Print/Mail House Service Provider and update the Notifications with new mail and due dates as applicable.
660	The Contractor shall provide the capability to transmit fully created Notification items for printing and distribution to the Print/Mail House Service Provider, if utilized, for example, in Adobe PDF or XML format.
661	The Contractor shall provide the capability to transmit Notification items as a data file for printing and distribution to the Print/Mail House Service Provider, if utilized.

1.6.1.2. Notification Tracking, Distribution and Returned Mail Processing

662	The Contractor shall provide the capability to track the USPS Intelligent Mail Barcode Notification delivery response for each individual Notification.
663	The Contractor shall provide the capability to send an Operational Alert Notification to the PMMS if reconciliation from the Print/Mail House Service Provider (optional) has not been received in a specified amount of time (Configurable).
664	<p>The Contractor shall provide the capability to assign a status to each individual Notification, including but not limited to:</p> <ul style="list-style-type: none"> • qualified; • in quality review; • sent to Print/Mail House Provider (optional); • acknowledged by the Print/Mail House Provider (optional); • distributed; • undeliverable and • reissued.
665	<p>The Contractor shall provide the capability to create a Notification record for each Notification generated, including but not limited to:</p> <ul style="list-style-type: none"> • distribution channel; • date the account qualified to have that Notification generated; • date the Notification was generated; • date the Notification was sent to the Print/Mail House Provider (optional); • due date (if applicable); • date the Notification was printed; • date the Notification was mailed; • date the Notification was identified as undeliverable and • date the Notification was reissued, for example, if a Notification is returned with a forwarding address, a new Notification is sent to the new address.
666	The Contractor shall provide the capability to check the NCOA database before a Notification is mailed and use the NCOA address if it is the latest based on the address selection hierarchy (Configurable) for the Notification item.

667	The Contractor shall provide the capability to automatically associate and store a copy of the Notification with the account upon successful mailing of the Notification as verified and provided by the BOS or Print/Mail House Provider (optional).
668	The Contractor shall provide the capability to process returned mail and enter a new address, if notified by the Print/Mail House Provider (optional) or the USPS.
669	The Contractor shall provide the capability to process returned mail and mark the address as undeliverable if notified by the Print/Mail House Provider (optional) or the USPS.
670	The Contractor shall provide the capability to process returned mail in bulk and mark the address as undeliverable if notified by the Print/Mail House Provider (optional) or the USPS without having to access each account and individual Notification in BOS. For example, by scanning the Notification barcode into a BOS form for an entire batch of returned mail.
671	The Contractor shall provide the capability to Flag returned mail as undeliverable and Flag the address as bad.
672	The Contractor shall provide the capability to prevent Notifications from being escalated and sent to addresses marked as undeliverable or to continue to escalate and generate such Notifications but not print them (Configurable).
673	The Contractor shall provide the capability for an Authorized User to initiate a manual Skip Tracing process on an individual record.
674	The Contractor shall provide the capability, when a mailing address is found to be bad, to automatically perform Skip Tracing and add the acquired mailing address or other contact information to the account and identify the source of the address as Skip Tracing.
675	The Contractor shall, if a new address was provided, automatically mark the returned Notification as returned and generate a new Notification with new dates as applicable. Escalation dates, if applicable, in the BOS shall be updated based on the new Notification dates.
676	The Contractor shall provide the capability to manually select Notifications to be re-sent, for example, when a new address has been provided and manually entered.
677	The Contractor shall provide the capability to send a Notification to a customer regarding an undeliverable mail situation by using a different distribution channel(Configurable).
678	The Contractor shall provide periodic checks for bad (bounced) emails and mark them as undeliverable after a number of failed delivery attempts (Configurable).
679	The Contractor shall provide the capability to send a Notification to a customer regarding an undeliverable email situation by using a different distribution channel (Configurable).
680	The Contractor shall provide the capability to mark phone (for both calls and text) and fax numbers as bad after a number of failed contact attempts (Configurable).
681	The Contractor shall provide the capability to send a Notification to a customer regarding a bad phone (for both calls and text)/fax number situation by using a different distribution channel (Configurable).

1.6.2. Registered Account Statements, Postpaid Invoices and Violation Notices – General

Statements – statements are generated for customers with Registered accounts, which customers can choose to receive by mail or email, or they can access statements online or via a mobile device.

Postpaid Invoices – if the Agencies elect to offer postpaid accounts, those customers will receive an invoice on their Anniversary Day listing each transaction/trip for the billing cycle. If a postpaid account has no new transactions or other financial activity for a billing cycle, the customer will not receive an invoice. Non-payment of the first invoice shall result in the generation of a late invoice with additional fees. Non-payment of the late invoice shall result in the account being flagged as delinquent. The postpaid account shall continue to receive invoices for subsequent transactions/trips and delinquent debt may be placed in collections. At such time each unpaid transaction/trip identified by the users will be considered a Violation and the customer shall receive a Notice of Toll Evasion Violation with each unpaid transaction.

Violation Notices – issued in accordance with the California Vehicle Code (CVC) and agency business rules.

682	The Contractor shall provide the capability to determine the account Anniversary Day, based on account type, including but not limited to:
	<ul style="list-style-type: none"> • account type;
	<ul style="list-style-type: none"> • account creation date;
	<ul style="list-style-type: none"> • date of first transaction and • date of initial invoice.
683	The Contractor shall provide the capability to generate the statements on the Anniversary Day even if the account has no transactions/trips and other financial activity for the current statement cycle (Configurable).
684	The Contractor shall provide the capability to generate the invoices on the Anniversary Day only if there are unpaid transactions/trips or other financial activity on the account that have not appeared on an invoice (Configurable).
685	The Contractor shall provide the capability to automatically change the Anniversary Day when a new invoice is issued in place of an old invoice that is canceled. For example, if an invoice is issued on 1/5 and then returned by the USPS on 1/10, then Rreissued 1/15, reset the Anniversary Day from 1/5 to 1/15 to give the customer enough time to pay the 1/15 invoice before sending the next one.
686	The Contractor shall provide the capability to generate the appropriate type of correspondence (statement, invoice), based on the account type, and account balance on the Anniversary Day or during the billing cycle.
687	The Contractor shall provide the capability (Configurable) to set and maintain statement, invoice and Violation Notice generation parameters, including but not limited to:
	<ul style="list-style-type: none"> • type of correspondence based on account type, such as a Registered account receives a statement and Unregistered (violator) account a receives Violation Notice;

	<ul style="list-style-type: none"> • whether to include multiple Violations on a single notice by number of days since first transaction or number of transactions (Violations from each Agency are separate); • date when statement is generated, such as fixed end of the month for all accounts, any fixed date within a month or Anniversary Day; • type of statement, invoice, such as monthly, quarterly, annual; • delivery channel, such as electronic or mail; • acceptable payment methods; • acceptable payment channels; • invoice fee assessed each time an invoice is mailed and • document fee amount, such as a fee for a paper statement and electronic statements are no cost.
688	<p>The Contractor shall provide the capability to generate each type of statement, invoice and Violation Notice based on, including but not limited to:</p> <ul style="list-style-type: none"> • rolling Anniversary Day; • fixed day; • number of days from transaction (Configurable); • customer specified day of the month; • dollar amount threshold; • number of transactions/trips; • fixed time period; • Transaction Date; • combination of number of transactions/trips and fixed time period; • combination of dollar amount threshold and fixed time period and • combination of number of transactions/trips and dollar amount threshold.
689	<p>The Contractor shall provide the capability for distributing statements, suppressing the delivery of statements and assessing statement fees (if applicable) based on the following, including but not limited to:</p> <ul style="list-style-type: none"> • account type; • Flag on the account. For example, accounts with USPS Coding Accuracy Support System (CASS™) lookup failure or bad address shall not be mailed a statement; • delivery channel and • delivery status. For example, if a statement fails CASS™ for address lookup, the fee shall not be charged.
690	<p>The Contractor shall provide the capability (Configurable) to utilize various addresses on the account for mailing statements, invoices and Violation Notices.</p>

691	The Contractor shall provide the capability to generate statements, invoices and Violation Notices manually, such as when specifically requested by the customer, in any format available for BOS-generated Notifications. Applicable fee(s) shall be charged for those statements.
692	The Contractor shall provide the capability to balance the generation of statements, invoices and Violation Notices over a period of time, based on volume.
693	The Contractor shall provide a numbering methodology for invoices, Violation Notices and accounts for the purposes of proper lifecycle documentation, reporting, adjudication and customer service.

1.6.3. Customer Statements – Registered Accounts

Account statements for Registered accounts are generated monthly/quarterly as selected by the customer and as allowed by the Business Rules on the date Configured in the BOS.

694	The Contractor shall provide the capability to generate Registered account statements that detail all account activity, including but not limited to:
	<ul style="list-style-type: none"> • prior balances on the account;
	<ul style="list-style-type: none"> • toll transaction/trip activity on the account (posting date, entry/exit location, date, and time, toll amount);
	<ul style="list-style-type: none"> • payments on the account (replenishment and one-time payments);
	<ul style="list-style-type: none"> • adjustments and credits;
	<ul style="list-style-type: none"> • discounts and rebates;
	<ul style="list-style-type: none"> • other financial activity on the account;
	<ul style="list-style-type: none"> • addition of transponders and purchase of inventory items;
	<ul style="list-style-type: none"> • account status;
	<ul style="list-style-type: none"> • customer message and global message;
	<ul style="list-style-type: none"> • fees assessed on the account and
	<ul style="list-style-type: none"> • current balance on the account.
695	Registered account statements shall list individual transactions that Posted to the account, including but not limited to:
	<ul style="list-style-type: none"> • Transponder-Based Transactions/Trips that Posted to the account by transponder and • I-Toll transactions/trips that Posted to the account by license plate.
696	The Contractor shall provide the capability to include customer communication inserts along with customer statements based on user selected criteria, for example zip code and account type.

1.6.4. Customer Invoices – Postpaid Accounts

Most Agency customers are required to maintain a prepaid account balance in order to avoid Violations. In the future, the Agencies may enter into postpaid agreements with customers which will permit the use of the Agencies' Toll Facilities without a prepaid balance. Under this circumstance, the BOS shall periodically bill customers for usage in accordance with the following Requirements.

697	The Contractor shall provide the capability to support account-based invoicing on postpaid accounts, where the monthly invoice reflects the license plate and transponder transactions that Posted to the account during the billing cycle.
698	The Contractor shall provide the capability to generate a late invoice which include applicable fees if the first invoice is not paid in full by the payment due date.
699	The Contractor shall provide the capability to Flag the postpaid account as delinquent and generate an Operational Alert Notification if the late invoice is not paid in full by the payment due date.
700	The Contractor shall provide Authorized Users the capability to suspend a delinquent postpaid account at which time. all subsequent transactions/trips on the account are considered Violations.
701	The Contractor shall provide the capability to initiate the delinquency process once the account is suspended on the unpaid transactions/trips which includes generation of Notice of Delinquent Toll Evasion Violation and escalation of the delinquent balance on the account to collections.
702	The Contractor shall provide the capability to generate postpaid invoices that fully detail all activity, including but not limited to:
	<ul style="list-style-type: none"> • prior balance;
	<ul style="list-style-type: none"> • current charges;
	<ul style="list-style-type: none"> • payments;
	<ul style="list-style-type: none"> • adjustments;
	<ul style="list-style-type: none"> • detailed listing of all transponder transactions/trips on the account;
	<ul style="list-style-type: none"> • detailed listing of I-Toll transactions/trips on the account and
703	<ul style="list-style-type: none"> • detailed listing of all license plate transactions/trips on the account.
	The Contractor shall provide the capability (Configurable) to set and maintain invoice generation and transaction aging parameters, including but not limited to:
	<ul style="list-style-type: none"> • invoice generation and aging timeline, for example, generate the monthly invoice thirty-days from the Anniversary Day, and amount owed is considered past due and eligible for delinquency process if not paid within five-days of the due date;
	<ul style="list-style-type: none"> • account suspension parameters, for example, if account is not suspended by a user within number of days (Configurable) of it being delinquent then BOS shall suspend the account;
	<ul style="list-style-type: none"> • number of invoices to issue before account is considered delinquent;

	<ul style="list-style-type: none"> • grace period for aging unpaid invoices on an account, for example, a five-day grace period is applied before a late invoice is generated for an unpaid invoice;
	<ul style="list-style-type: none"> • eligibility criteria, for example, if customer has at least one (Configurable) un-invoiced toll transaction/trip or other Financial Transaction within the billing cycle then generate a monthly invoice;
	<ul style="list-style-type: none"> • aging thresholds and values, for example, if the past due amount on the account is more than \$5.00 and is more than thirty days past due then late fee is assessed;
	<ul style="list-style-type: none"> • payment thresholds based on underpayment amount for each status or workflow stage, for example, if invoice is underpaid by less than \$0.25, then the amount owed on the invoice is considered closed and
	<ul style="list-style-type: none"> • fee structure, for example, the fees to be assessed and whether the fees are to be assessed at the invoice level or transaction level.
704	The Contractor shall provide the capability at each status or workflow stage to perform the following actions, including but not limited to:
	<ul style="list-style-type: none"> • identify the transactions/trips that are eligible for invoicing;
	<ul style="list-style-type: none"> • add applicable fees;
	<ul style="list-style-type: none"> • add applicable advisory language;
	<ul style="list-style-type: none"> • generate next invoice for the time frame established and
	<ul style="list-style-type: none"> • transmit the invoice to the customer.
705	The Contractor shall provide the capability to enter a forwarding address obtained from returned mail communicated via interface from an external vendor or manually input, which will result in the re-issue of the monthly invoice and its associated transactions/trips into the transaction aging process. The re-issued invoice shall have a new issue date and a new due date.

1.6.5. Violations Notification

Violators receive a Notice of Toll Evasion Violation when their Violations are eligible for Notification. A Notice of Toll Evasion Violation referred to as Violation Notice may have multiple Violations on the notice where each unpaid transactions/trip is assessed penalties or may only have one Violation per notice. Each Notice of Toll Evasion Violation will contain transaction(s)/trip(s) from only a single Agency as well as a fee amount, a penalty and other information as required by the California Vehicle Code. The Agencies may have different Violation notices and processes.

Violation Noticing and escalation is divided into the following stages:

- Noticing – In this stage violators are notified of their Violation(s) when the unpaid transactions/trips escalate to Violations. The Notice of Toll Evasion Violation will list the Violation(s) that occurred during the time period with each Violation showing the toll amount, the fee amount and the penalty due. Failure to pay the Notice of Toll Evasion Violation within the timeline will result in the escalation of the Violation(s) and the generation of Notice of Delinquent Toll Evasion Violation. Each Violation may be assessed additional fees/penalties.

- **Registration Hold** – If the Violation(s) on the Notice of Delinquent Toll Evasion Violation remains unpaid past the payment due date, the Violation(s) are eligible for a Registration Hold. Currently Registration Holds are only placed for vehicles registered in California.
- **Tax Intercept** –Unpaid Violations may be sent to the California Franchise Board for collection through the Tax Intercept Program.
- **Collections** – Unpaid Violations may be sent to a third-party Collection Agency. The Contractor may be required to send a pre-collection letter using updated information from the Collections Agency.

1.6.5.1. Violator Notifications

706	The Contractor shall, based on the Violation Notice eligibility criteria, per the Business Rules, provide the capability to perform Violation Notice, including but not limited to:
	<ul style="list-style-type: none"> • first level Notice or the Notice of Toll Evasion Violation;
	<ul style="list-style-type: none"> • escalate to second level Notice or Notice of Delinquent Toll Evasion Violation, and
	<ul style="list-style-type: none"> • Registration Hold warning Notice, if eligible.
707	The Contractor shall provide the capability to process Image-Based Transactions/Trips through the Violation process, per the Business Rules, including but not limited to:
	<ul style="list-style-type: none"> • verify that the Configurable time frame for making a payment has passed;
	<ul style="list-style-type: none"> • convert the Image-Based transactions/trips to a Violation by assessing the applicable fees and penalties;
	<ul style="list-style-type: none"> • verify that no Internal Review, Administrative Hearing or Superior Court Appeal has been requested;
	<ul style="list-style-type: none"> • verify that there is no account hold (occurs when there is a Case that requires the CSR to investigate the violator Account and all Violation workflow events are suspended) on the Violations;
	<ul style="list-style-type: none"> • verify that there is no account hold on the Notice;
	<ul style="list-style-type: none"> • verify that there is no account hold on the Account;
	<ul style="list-style-type: none"> • verify that license plate is not on an account that has account balance above the Insufficient Balance Threshold;
	<ul style="list-style-type: none"> • verify that the required number of Violations are open;
	<ul style="list-style-type: none"> • verify that the Notice is open;
	<ul style="list-style-type: none"> • verify that the payment due date has passed;

	<ul style="list-style-type: none"> • verify that the Configurable payment mailing/processing grace period has passed;
	<ul style="list-style-type: none"> • verify that the Violations are eligible for escalation to a Notice;
	<ul style="list-style-type: none"> • verify that the Notice is eligible for the next level of noticing;
	<ul style="list-style-type: none"> • escalate the Notice to the next level;
	<ul style="list-style-type: none"> • add applicable penalties and
	<ul style="list-style-type: none"> • notify the violator of the escalated Notice.
708	<p>The Contractor shall provide the capability for a CSR to manage all Notices on the account, including but not limited to:</p> <ul style="list-style-type: none"> • list all open Notices on the account; • view all open Notices on the account; • re-print any Notice; • view all open Notices by escalation level; • view selected Notices; • view all closed Notices; • view all closed Notices by escalation level; • process Notice payments; • process Violation payments; • dismiss an open Notice; • dismiss fees and/or penalty on a Violation but never the toll amount without the approval of an Authorized User with the authority to dismiss tolls; • dismiss Violations within an open Notice; • process Violations for Posting to a customer's transponder or Registered License Plate account; • process Violations for Posting to an Interoperable/CTOC Agency account if license plate is on the Interoperable/CTOC Agency plate list and • process other Flagged Violations on the license plate for Posting to an Interoperable/CTOC Agency account if license plate is on the Interoperable/CTOC agency plate list.

709	The Contractor shall provide the capability to establish a “sinner to saint” program where part or full amount of the fee and/or penalty is credited to the account as a toll credit. The “sinner to saint” program is offered to violator that meet certain criteria including but not limited to:
	<ul style="list-style-type: none"> • first time violator and
	<ul style="list-style-type: none"> • less than a Configurable number of Violations.
710	The Contractor shall provide the capability to offer violators an “early bird special” a Configurable percent reduction in fee and penalty amounts are made if the violator makes an early payment. The “early bird special” program shall be made available to all Violation payments or the first time the violator gets a Violation Notice (Configurable).
711	The Contractor shall provide the capability to Configure the BOS to support Notice-based Violation escalation, for example if first level Notice is not resolved within the timeline established, then the first level Notice is escalated to the second level Notice that reflects only the outstanding balance on the first level Notice plus additional penalties per unpaid Violation, even though the account may have additional Violations.
712	The Contractor shall provide the capability to dismiss selected individual Violations on a Notice and prevent their escalation, while allowing the remaining Violations/Notice to escalate.
713	The Contractor shall provide the capability to place a Notice on account hold and enter the account hold reason at any escalation level. When an Account hold is placed, the Violation aging process is suspended.
714	The Contractor shall provide the capability to place selected individual Violations on hold at any escalation level, including Violations that are not on a Notice.
715	The Contractor shall provide the capability to prevent the aging and escalation of Violations and Notices that are placed on account hold.
716	The Contractor shall provide the capability to continue processing the Violations and Notices a Configurable number of Calendar Days after an account hold is released.
717	The Contractor shall provide the capability to restart the Violation aging timeline a Configurable number of Calendar Days after the issuance of the dispute rejected Notification.
718	The Contractor shall provide the Configurable capability to automatically initiate multiple escalations on a Notice at the same time based on the type of license plate, for example initiate a vehicle Registration Hold and escalate the Notice to Collections if the license plate was issued in a Jurisdiction that permits concurrent Registration Hold and Collections.
719	The Contractor shall provide the capability to process Violations for the rental car license plate transactions/trips with the same license plate number and within the same renter’s rental period, per the Configurable Business Rules.

720	The Contractor shall provide the capability to identify Unregistered Accounts that qualify as “repeat violators” on a Configurable basis based on Business Rules including but not limited to:
	<ul style="list-style-type: none"> • number of open Violations on the account;
	<ul style="list-style-type: none"> • no ROV information obtained;
	<ul style="list-style-type: none"> • outstanding balance on the account and
	<ul style="list-style-type: none"> • total number of Violations on the account for a given time period.
721	The Contractor shall provide the capability to assess additional penalties on Violations/Notices on Unregistered accounts that are Flagged as repeat violator.
722	The Contractor shall provide the capability to transmit the license plate data of repeat violator to the ETTMs at Configurable intervals to support manual enforcement of repeat violators.
723	The Contractor shall provide the capability for Authorized Users to force selected Notices from one escalation level to another and by-pass the eligibility criteria.
724	The Contractor shall provide the capability to configure and maintain Violation Notice parameters for each escalation level, including but not limited to:
	<ul style="list-style-type: none"> • the minimum number of Violations over a Configurable period of time to initiate a Violation Notice;
	<ul style="list-style-type: none"> • the aging timelines for escalation of Notices, for example the timeline for escalating from a first level Notice to a second level Notice if the Notice is not paid or dismissed;
	<ul style="list-style-type: none"> • the penalties assessed on individual Image-Based Transaction/Trip;
	<ul style="list-style-type: none"> • the individual Notice level penalties;
	<ul style="list-style-type: none"> • maximum penalty that can be assessed on individual Image-Based Transaction/Trip and account;
	<ul style="list-style-type: none"> • the Notice underpayment percentage thresholds to prevent escalation;
	<ul style="list-style-type: none"> • the Notice underpayment amount thresholds to prevent escalation;
	<ul style="list-style-type: none"> • the maximum Notice amount to be paid to by-pass an escalation level;
	<ul style="list-style-type: none"> • the maximum number of Violations on the Notice to halt escalation;
	<ul style="list-style-type: none"> • the maximum amount due on a Notice to halt escalation;
	<ul style="list-style-type: none"> • allowable “sinner to saint” offers for Violators who establish Registered accounts and

	<ul style="list-style-type: none"> allowable “early bird special” offers.
725	The Contractor shall provide the capability to automatically advance to the proper Notice processing screen when the Notice barcode is read via the barcode reader.
726	The Contractor shall provide the capability to escalate or place on hold the Notices Flagged as ‘bad address’ as defined by the Business Rules.
727	<p>The Contractor shall provide the Configurable capability to process Notices if a good address is subsequently found for a Notice or account that is Flagged as a ‘bad address’ based on the escalation level, including but not limited to:</p> <ul style="list-style-type: none"> retain the new address; reissue the Notice to the new address, for example if it is a second level Notice then the second level Notice is reissued to the new address with a new due date and reintroduce the Notice and its associated Violations into the Violation workflow at the appropriate place, per the Business Rules.
728	<p>The Contractor shall provide the capability to process Violation against a home account or Interoperable/CTOC Agency per the Business Rules, including but not limited to:</p> <ul style="list-style-type: none"> Post the Violation transactions/trips; Post the transaction/trips at the appropriate toll rate; dismiss part of the fees or the whole fee amount; dismiss part of the penalties or the whole penalty amount; pay the fees and pay the penalties.
729	<p>The Contractor shall provide the capability to identify and retrieve Violation related records into a search results grid, including but not limited to:</p> <ul style="list-style-type: none"> Violation ID number; Notice ID number; location of Violation; license plate number; license plate type; license plate Jurisdiction;

	<ul style="list-style-type: none"> customer name;
	<ul style="list-style-type: none"> customer address;
	<ul style="list-style-type: none"> transaction/trip date range;
	<ul style="list-style-type: none"> user ID;
	<ul style="list-style-type: none"> phone numbers;
	<ul style="list-style-type: none"> email addresses;
	<ul style="list-style-type: none"> Violation escalation status;
	<ul style="list-style-type: none"> account Flags (for example Notice on hold);
	<ul style="list-style-type: none"> address type;
	<ul style="list-style-type: none"> bad address;
	<ul style="list-style-type: none"> Violation disposition reason;
	<ul style="list-style-type: none"> Violation disposition statuses (for example paid);
	<ul style="list-style-type: none"> payment receipt number;
	<ul style="list-style-type: none"> comments and
	<ul style="list-style-type: none"> Alerts.
730	The Contractor shall provide the capability to drill down from the final open or closed escalated Notice to the related previous Notices.
731	The Contractor shall provide the capability to drill down from the current Notice that is open to the related Violations and images.
732	The Contractor shall provide the capability to generate an on-demand Violation Notice and activity statement based on various, Configurable selection criteria that shows the history of Violations, including but not limited to:
	<ul style="list-style-type: none"> all related Notice ID number(s);
	<ul style="list-style-type: none"> all individual Violations;
	<ul style="list-style-type: none"> payments made;
	<ul style="list-style-type: none"> adjustments made;
	<ul style="list-style-type: none"> related disputes and results;
	<ul style="list-style-type: none"> Violation dismissals;

	<ul style="list-style-type: none"> • settlements that closed Violations;
	<ul style="list-style-type: none"> • history of holds placed on Notice;
	<ul style="list-style-type: none"> • current status of Notice and
	<ul style="list-style-type: none"> • current status for each Violation.
733	<p>The Contractor shall provide the capability to generate an on-demand summary violator account statement based on various, Configurable selection criteria that shows the history of the account, including but not limited to:</p> <ul style="list-style-type: none"> • number of Notices on the account by escalation; • all related Notice ID number(s) and current status; • all individual Violations and current status; • payments made; • adjustments made; • related disputes and results; • Violation dismissals and reason; • Notice dismissals and reason; • settlements that closed Violations; • history of holds placed on Notices; • current status for each Notice and • current status for each Violation.
734	<p>The Contractor shall provide the capability to generate a detailed violator account statement based on various selection criteria that shows the history of the account, including but not limited to:</p> <ul style="list-style-type: none"> • listing of all Notices on the account and their escalation status; • listing of all disputes on the account that were accepted and rejected; • payments made against the Notices; • listing of all Violations closed due to dismissals; • listing of all Violations closed due to settlements and • listing of all account holds or Flags on the account.

735	The Contractor shall provide the capability to attach the generated Statement to the account and make it automatically available through the account history.
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1.6.5.2. Registered Account Violators

When a prepaid Registered account's balance reaches an Insufficient Balance Threshold and all replenishment attempts have failed or when a postpaid, Registered account's invoice is past due, future transactions are Violation transactions/trips and Unregistered accounts are established. Registered account holders usually resolve any account issues bringing the account balance back to good standing so an approach that easily resolves Violations in such situations must be provided along with a method to inform customer of outstanding Violations for plates on their account.

736	The Contractor shall provide the capability to associate the Unregistered account(s) and Violations created for vehicles on a Registered account while maintaining the privacy of all account holders (both Registered and Unregistered).
737	The Contractor shall provide the capability to inform Registered account holders of outstanding Violation on vehicles registered to their account while maintaining the privacy of all account holders (both Registered and Unregistered).

1.7. Payment Processing

1.7.1. Payment Processing – General Requirements

738	The Contractor shall utilize the Agencies' Bank Accounts in accordance with the flow of funds depicted in Figure 1-1 Customer Transaction Settlement, in Section 1.14.3.
739	The Contractor shall comply with the California Civil Code Section 1747.08 related to personal identification laws.
740	The BOS shall initiate Credit Card payments with the Merchant Service Provider(s) that will process the electronic payments and deposit funds in the Bank Accounts provided by the Agencies in accordance with the flow of funds depicted in Figure 1-1 Customer Transaction Settlement, in Section 1.14.3.
741	The Contractor shall comply with PCI and all applicable merchant card association agreements and other applicable regulations for the exchange of Credit Card payments.
742	The BOS shall accept payments through all commercially-available payment methods, including but not limited to: cash, check, money order, certified check, cashier's check, ACH and Credit Card.
743	Certain payment methods, such as cash, EMV chip integrated circuit card and mobile contactless NFC shall be accepted only at WICs.

744	The BOS shall accept payments through its agreements with Lockbox Service Provider (optional) and Collection Agency.
745	The Contractor shall implement appropriate controls to ensure the security of payment transactions, including controls over cash, checks and customer Credit Card information. These controls shall be PCI and GAAP compliant and meet the requirements for a Statement on Standards for Attestation Engagements (SSAE)-18 Type II Audit.
746	Credit Card and ACH information shall be tokenized and the information shall be stored by a certified 3 rd party processor. The 3 rd party processor(s) may also be the Contractor-provided Merchant Services Provider and/or another Contractor-provided certified 3 rd Party.
747	The Contractor shall process, deposit and record all customer payments the same day received from the customer, using the most efficient and cost-effective methods available in the industry (for example, by utilizing remote deposit/Check 21 as opposed to sending physical checks to the bank).
748	The BOS shall provide the capability to process all payments accepted and apply them toward, including but not limited to:
	<ul style="list-style-type: none"> • prepaid balance,
	<ul style="list-style-type: none"> • specific toll transactions,
	<ul style="list-style-type: none"> • specific account fees,
	<ul style="list-style-type: none"> • purchase of inventory items (ex. transponders),
	<ul style="list-style-type: none"> • invoice payments,
	<ul style="list-style-type: none"> • Violation Notice payments and
749	Account Plans.
	The BOS shall handle all payment exceptions including but not limited to:
	<ul style="list-style-type: none"> • partial payments,
	<ul style="list-style-type: none"> • overpayments,
	<ul style="list-style-type: none"> • return payment,
	<ul style="list-style-type: none"> • chargebacks,
	<ul style="list-style-type: none"> • errors in applying payments,
750	<ul style="list-style-type: none"> • refunds and
	<ul style="list-style-type: none"> • reversals.
750	All successful payments made via Credit Card shall have a viewable, searchable authorization code for the transaction which shall be included on applicable reports.

751	The Contractor shall provide the capability to process transactions, including but not limited to:
	• sales;
	• chargebacks, chargeback reversals and representments;
	• returned payments (for example, returned checks);
	• payment plan payments;
	• adjustments;
	• reversals;
	• voids and
	• refunds (except for cash).
752	The Contractor shall provide for the processing of all payments and account replenishments, including but not limited to:
	• account prepaid balance;
	• tolls;
	• fees;
	• penalties;
	• invoices;
	• Notices;
	• non-toll transactions;
	• transponder sales (full price, warranty sale, no sale, promos and coupons);
	• Account Plans and
	• inventory purchases, including transponders.
753	The Contractor shall provide real-time, fully automated payment clearing and processing for all electronic payment methods.
754	The Contractor shall interface with one or more Merchant Service Providers (no more than three) for the purpose of settling Credit Card transactions.
755	The Contractor shall send replenishment requests to, and capture the results returned from, the Merchant Service Provider and update accounts accordingly.

756	The Contractor shall provide the capability to process a payment for multiple, unrelated charges (bulk payments) and accommodate the reversal of such payment. For example, pay an invoice or Violation Notice (for one or multiple Violations) in one account and fund another account's prepaid balance or Post batch payments from rental processors for individual transactions/Violation Notices.
757	The Contractor shall provide a proven and reliable method of communicating with the Merchant Service Provider(s).
758	<p>The Contractor shall provide the capability to identify and process overpayments, including but not limited to:</p> <ul style="list-style-type: none"> • re-assign to an alternate account; • apply to unpaid transactions/trips; • refund overpaid amounts and • apply overpaid amounts to account balance.
759	The Contractor shall provide the capability to notify the customer about all partial and overpayments.
760	<p>The Contractor shall provide tracking of payment transactions by, including but not limited to:</p> <ul style="list-style-type: none"> • Transaction Date; • Posting Date and • payment channel.
761	The Contractor shall provide the capability to apply multiple payment methods for a single payment. For example, for a \$30.00 amount due, allow payment of \$20.00 from a Credit Card associated with the account and \$10.00 cash.
762	The reversal of any payment shall result in the items paid being marked as unpaid, having the same effect as if those items had never been paid (for example, when a Violation payment is returned, escalation resumes at the point where it left off as opposed to restarting from the beginning of the escalation process).
763	The Contractor shall provide the capability to use the available account balance as payment for all inventory items (for example, transponders) and show the detailed changes in account balance in the user Interface, to customers on the Self-Service Website and on customer statements.
764	The Contractor shall engineer the payment process to prevent double-payments, for example, prevent an Authorized User or customer from making two identical payments by clicking the payment button twice.
765	The Contractor shall engineer the payment process to prevent an Authorized User or customer from making payments in excess of a certain amount (Configurable).

766	The Contractor shall display a confirmation page that includes payment method details (Credit Card numbers obscured) and amount to be paid prior to the Authorized User or customer being allowed to submit a payment.
767	The Contractor shall provide audit trail and exception reporting that helps reconcile discrepancies between the BOS and the Merchant Service Provider.
768	The Contractor shall provide summary and detail data by payment type on the processing status of all transactions, including a description of all failures.
769	The Contractor shall provide Authorized Users the detailed reasons for Credit Card declines, including but not limited to:
	<ul style="list-style-type: none"> • invalid card number;
	<ul style="list-style-type: none"> • name mismatch;
	<ul style="list-style-type: none"> • card Security Code mismatch;
	<ul style="list-style-type: none"> • contact Credit Card company and
	<ul style="list-style-type: none"> • address mismatch.
770	The Contractor shall create an audit trail and an Operational Alert Notification via the PMMS regarding failures in the processes that Interface with the Bank.
771	The Contractor shall create an audit trail and an Operational Alert Notification via the PMMS regarding failures in the processes that interface with the Merchant Service Provider or with the communications to the Merchant Service Provider.
772	The Contractor shall provide the capability to notify customers of failures in the processes that interface with the Merchant Service Provider (for example, when there is a loss of communication between the BOS and the Merchant Service Provider).
773	The Contractor shall provide the capability to notify customers about various auto-replenishment activities. For example, replenishment was successful with secondary payment method, or replenishment failed.
774	The Contractor shall provide detailed tracking and reconciliation of payments.
775	The Contractor shall provide the capability to accept payments to a Registered account resulting in the payment of all unpaid Violation Notices and Violations on the linked Unregistered accounts plus fees and/or penalty based upon escalation stage (Configurable).
776	The Contractor shall provide the capability to set a payment hierarchy for Registered accounts (Configurable) that determines the order in which payments are applied, including but not limited to:
	<ul style="list-style-type: none"> • in FIFO order;
	<ul style="list-style-type: none"> • by Transaction Date;
	<ul style="list-style-type: none"> • by Posting Date;

	<ul style="list-style-type: none"> • by payment item type (for example, tolls then fees) and
	<ul style="list-style-type: none"> • by combination of date and transaction/trip type.
777	The Contractor shall provide the capability to set a payment hierarchy Configurable for Unregistered accounts that determines the order in which payments are applied, including but not limited to:
	<ul style="list-style-type: none"> • in FIFO order;
	<ul style="list-style-type: none"> • by Transaction Date;
	<ul style="list-style-type: none"> • by Posting Date;
	<ul style="list-style-type: none"> • by payment item type (for example, Violation Notices, penalties then fees) and
	<ul style="list-style-type: none"> • by combination of date and transaction/trip type.
778	The Contractor shall provide the capability to accept payments for specific items as requested by the customer (and allowed under the Business Rules).
779	The Contractor shall produce receipts for all payments in both real-time (on demand) and automatic (for auto replenishment).
780	The Contractor shall transmit receipts to customers on customer request via any Notification channel.
781	The Contractor shall allow for reprinting of receipts for all payments in a PCI-compliant format. Reprinted receipts shall be exact copies of the original receipt and shall include the duplicative nature of the document and include the date of the reprint (for example, the reprinted receipt shall be marked "COPY" and indicate the date of the copy with the original receipt date also reflected on the document).
782	The Contractor shall provide the capability to trace each payment to the transactions paid and each transaction paid or prepayment to a payment, including but not limited to:
	<ul style="list-style-type: none"> • invoices;
	<ul style="list-style-type: none"> • Violation Notices;
	<ul style="list-style-type: none"> • tolls;
	<ul style="list-style-type: none"> • prepaid tolls;
	<ul style="list-style-type: none"> • fees and
	<ul style="list-style-type: none"> • penalties.
783	The Contractor shall provide the capability to accept payments for transactions/trips associated with a license plate that has not yet been associated with an account.

784	All receipts shall contain a payment reference number that is traceable through the entire payment clearing process. For example, a Credit Card payment's reference number as printed on the receipt will also appear on the customer's Credit Card statement and is a searchable field in the database, enabling a CSR to identify a payment applied to an account from only the details available on a customer's Credit Card statement.
785	The Contractor shall provide the capability to convert an unregistered account to a registered account, taking one payment for the outstanding Violation amounts and the amount required to open a registered account.
786	The Contractor shall provide the capability to search for a payment by date, payment source, credit card # or bank account information.
787	The Contractor shall provide the capability for Authorized Users to conduct research on un-allocated funds, including viewing images of original payment items (checks), correspondence, and data entered into the BOS at the time the check was Posted.
788	The Contractor shall provide the capability for Authorized Users to Post payments from un-allocated funds to accounts while preserving the payment's audit trail (for example, once applied to the account, Authorized Users shall have the ability to determine when the payment was Posted to un-applied, any activity that occurred while it was in that status, and when it was Posted from un-applied to the account).
789	The Contractor shall provide the capability to age un-applied payments, to report on such payments and to generate Alerts when un-applied payments have exceeded a specified age (Configurable).

1.7.2. Payment Methods and Handling

790	The Contractor shall provide the capability to accept payments, including but not limited to:
	• in-person at WICs;
	• over the phone with a CSR;
	• over the phone via the IVR;
	• automatic payments;
	• via the Self-Service Website;
	• via the Self-Service Mobile Application;
	• via mail and
	• via the Lockbox Service Provider (optional).
791	The Contractor shall provide the capability to calculate the required payment during account creation based on, but not limited to:
	• the prepayment Requirements;
	• cost of inventory items (for example, transponders) and

	<ul style="list-style-type: none"> any Account Plan fees.
792	The Contractor shall provide the capability to store Credit Card information for one-time payments (for example, permit customers to enter Credit Card information once and then use that stored Credit Card to make one-time payments on their account without being required to rekey the Credit Card information).
793	<p>The Contractor shall provide the capability to accept payments, including but not limited to:</p> <ul style="list-style-type: none"> one-time payments; recurring fixed amount payments; recurring varying amount payments; a combination of fixed and varying amounts (payment plan monthly payment plus recurring auto replenishment); recurring maximum replenishment amount per payment method on the account (for example, if the replenishment amount is \$10,000 but maximum replenishment allowed for that Credit Card is \$1,000 there should be 10 \$1,000 replenishments); recurring payments on a fixed day of the month; recurring payments every "x" number of days (for example, every 28 days); recurring payments for Postpaid accounts as, fixed number of days after the invoice is issued (Configurable) and recurring payments triggered by account balance.
794	The Contractor shall provide the capability to accept and Post in the BOS payments and adjustments transmitted from the Collection Agency.
795	The Contractor shall provide the capability to process payments directly in the BOS for all accounts in any status with any balance.
796	<p>The Contractor shall provide the capability to accept the following types of payments made in-person or by mail at all Approved locations, including but not limited to:</p> <ul style="list-style-type: none"> cash (at in-person locations only); check; cashier's check; certified check; money order; e-check (not available by mail); Credit Card;

	<ul style="list-style-type: none"> • ACH;
	<ul style="list-style-type: none"> • EMV chip integrated circuit card (at in-person locations only) and
	<ul style="list-style-type: none"> • mobile contactless NFC (at in-person locations only).
797	The Contractor shall provide the capability to accept Credit Card payments made via the IVR, via the Self-Service Website and via the Self-Service Mobile Application.
798	The Contractor shall provide the capability to accept all major Credit Cards, including:
	<ul style="list-style-type: none"> • Visa;
	<ul style="list-style-type: none"> • MasterCard;
	<ul style="list-style-type: none"> • American Express and
	<ul style="list-style-type: none"> • Discover Card.
799	The Contractor shall provide the capability for accepting Credit Card, EMV and mobile contactless NFC payments via POS devices for payments made in-person.
800	The Contractor shall provide the capability for accepting Credit Card payments by manually entering Credit Card information for payments made in-person.
801	The Contractor shall provide the capability to Post payment transaction(s) to the account when payment related actions occur, including but not limited to:
	<ul style="list-style-type: none"> • successful payment processing, and
	<ul style="list-style-type: none"> • unsuccessful payment processing, for example recording a failed attempt.
802	The Contractor shall provide the capability to refund checks that have been Posted to the BOS but cannot be matched successfully to an account.
803	The Contractor shall provide the capability to flag that an account has had returned checks.
804	The Contractor shall provide the capability to flag that an account has had declined Credit Card charges.
805	The Contractor shall provide the capability for an Authorized User to correct or reverse payments applied in error, including but not limited to payments applied to multiple transactions or accounts, via Cases.
806	The Contractor shall provide the capability to require approvals for payment corrections via Cases.
807	The Contractor shall provide the capability to prevent corrections to or reversals of payments that have already been refunded, for example, payments that have been reversed entirely cannot be reversed again or refunded.
808	The Contractor shall ensure all adjustments to payments are shown on the account and are reconciled.

809	The Contractor shall provide the capability to process multiple chargebacks on a payment if the previous chargebacks are reversed or represented.
810	The Contractor shall provide detailed tracking of payments by payment categories, for example, payments, declines, reversals, returned payments, chargebacks, chargebacks reversals, chargeback representments, refunds, voided refunds and replenishment.
811	The Contractor shall provide detailed tracking of payments by payment methods, for example, cash; check; Credit Card; ACH and mobile contactless NFC.
812	The Contractor shall provide detailed tracking of payments by payment type, for example, Visa; MasterCard; American Express and Discover Card.
813	The Contractor shall provide detailed tracking of payments by payment items, for example, invoices; Violation Notices; fees; penalties; tolls and prepaid tolls.
814	The Contractor shall provide detailed tracking of payments by payment locations, for example, Self-Service Website, Self-Service Mobile Application, Lockbox Service Provider (optional) and Collection Agency.

1.7.3. Merchant Service Provider (MSP)

The MSPs shall process all Credit Card, Debit Card and ACH Services described in these Requirements.

815	The Contractor shall contract with two (2) separate MSPs for processing of BOS payments. The Contractor shall work with the Agencies in determining the volumes and types of processing assigned to each MSP, which may result in shared processing or all processing being assigned to one (1) of the MSPs.
816	The Contractor and MSPs shall provide Credit Card and Debit authorization for the BOS (card not present / internet and card present for the walk-in center) utilizing one or more merchant identification numbers.
817	The Contractor and MSPs shall provide ACH clearing for the BOS.
818	The Contractor and MSPs shall provide complete, flexible and timely online reporting services, including detailed transactions on chargebacks, card transactions, deposit totals and batch totals and summary information per merchant and for the Agencies overall.
819	The Contractor and MSPs shall provide all reporting online.
820	The Contractor and MSPs shall provide a monthly analysis statement showing detailed charges for all account services for each merchant ID, including a combined statement analysis.
821	The Agencies shall be assigned dedicated MSP account representatives that can be contacted through a toll-free number and email.
822	The MSPs shall provide customer support during business hours Monday through Friday 7:00 a.m. until 6:00 p.m. PST.
823	The MSPs shall provide seven (7) days per week technical support utilizing a customer service phone number.

824	The Contractor and MSPs shall cooperate with the Agencies on assignment of accounts. The Agencies will assign all bank accounts for the Agencies' settlements and merchant activity. No merchant numbers or identifications shall be assigned to the Agencies without written notice from the MSPs and Approved by the Agencies.
825	The Contractor and MSPs shall provide payment, settlement, and refunding services.
826	The Contractor and MSPs shall provide daily settlement of merchant accounts.
827	The Contractor and MSPs shall make next day deposits after settlement into the OCTA/RCTC-specified bank accounts.
828	The Contractor and MSPs shall provide immediate online access to outstanding retrieval requests and chargebacks.
829	The Contractor and MSPs shall provide a fully electronic online chargeback system that will accept electronic signatures and support files to satisfy outstanding retrieval requests and chargebacks.
830	The Contractor and MSPs shall provide the ability to generate ad hoc reports with extracted information based on user-defined parameters.

1.7.4. Payment Processing and Lockbox (optional)

The use of a Lockbox Service Provider is at the discretion of the Contractor and shall be at no additional cost to the Agencies. If provided, the following Requirements apply.

831	The Contractor shall process, Post to the appropriate accounts, and reconcile payments transmitted by the Lockbox Service Provider if the Contractor elects to utilize a Lockbox Service Provider.
832	The Contractor shall create an audit trail and an Operational Alert Notification via the PMMS regarding failures in the processes that Interface with the Lockbox Service Provider.
833	The Contractor shall provide the capability to associate images of checks and stubs received at the Lockbox Service Provider to the proper account.
834	The Contractor shall provide the capability to receive and process Lockbox Exceptions and ensure payments are appropriately accounted for, including but not limited to: <ul style="list-style-type: none"> • correspondence items and customer comments associated with payments; • payments the Lockbox Service Provider is unable to associate to an account and • payments that the BOS is unable to Post to an account.
835	The Contractor shall provide the capability for Authorized Users to research and determine the disposition of Lockbox Exceptions, including but not limited to: <ul style="list-style-type: none"> • Posting payment to the account; • refund payment to customer or • hold as un-allocated funds.

836	The Contractor shall provide the capability to automatically create Cases for Lockbox Exceptions. For example, if a check was received without a payment coupon, it cannot be associated with an account and research must occur.
837	<p>The Contractor shall provide the capability to identify criteria which trigger specific Lockbox Exceptions (Configurable) which are flagged for further review, including but not limited to:</p> <ul style="list-style-type: none"> • discrepancy above a threshold between amount on check and amount due; • payment made to accounts in particular statuses; • check dollar amount and • multiple payments for the same amount on the same account in the same batch or processing day.
838	The Contractor shall provide the capability to electronically receive and process correspondence received at the Lockbox Service Provider, for example changes of address.
839	The Contractor shall provide the capability for Authorized Users to view un-allocated funds (funds which have been Posted to the BOS but which have not been Posted to an account).
840	The Lockbox Service Provider processing services shall take place within the State of California.

1.7.5. Credit Card Processing

The most common payment method in the BOS is Credit Card. The BOS shall have a simple and intuitive Interface with the Merchant Service Provider. The most efficient and cost-effective means of accepting Credit Card payments shall be employed in the BOS by the Contractor.

The Contractor's solution shall provide Credit Card Payment Tokenization and Hosted Third Party Credit Card storage (or equivalent solution). This method is designed to eliminate the need to store Credit Card numbers within the BOS database therefore reducing risks and efforts for PCI Compliance.

841	The Contractor shall contract with an Agency approved Merchant Service Provider.
842	The Contractor shall use a Payment Gateway or a Direct Connection between the BOS and the Merchant Service Provider.
843	The Contractor shall process all Credit Card payment transactions via the Merchant Service Provider.
844	The Contractor shall provide for Payment Tokenization and Hosted Third Party Credit Card storage (or equivalent solution) such that the Credit Card information is not stored in the BOS.
845	The Contractor shall provide an automated credit card update service.
846	The Contractor shall provide the capability to issue refunds to Credit Cards.

847	The Contractor shall provide the capability to track data related to Credit Card inquiries, for example, capture date of inquiry, disposition date and disposition results when inquiries about Credit Card charges are received.
848	The Contractor shall provide the capability for Credit Card chargebacks and permit investigation of the details as Cases.
849	The Contractor shall provide the capability for Authorized Users to reverse Credit Card chargebacks and to allow for a number of chargeback representments (Configurable)
850	The Contractor shall provide the capability to credit accounts immediately upon a successful Credit Card payment authorization.
851	The Contractor shall provide an Operational Alert Notification to the PMMS if a Merchant Service Provider response for a transaction is not received within a Configurable amount of time.
852	The Contractor shall provide an Operational Alert Notification to the PMMS if a Merchant Service Provider response for an account contains codes that indicate the need for the Agencies to contact the Credit Card company, for example a "referral code".
853	The Contractor shall provide the capability to update accounts with the results from the Merchant Service Provider, for example a Credit Card transaction failed to authorize or settle due to a mismatched address error.
854	The Contractor shall provide the capability to identify potential fraudulent Credit Card transactions and send an Operational Alert Notification to the PMMS, for example, when there are multiple failed authorizations for a single card.
855	The Contractor shall provide, for validation purposes, fields to capture and store within the BOS Credit Card information, including but not limited to:
	<ul style="list-style-type: none"> • token;
	<ul style="list-style-type: none"> • Credit Card expiration date;
	<ul style="list-style-type: none"> • name on the card;
	<ul style="list-style-type: none"> • ZIP code and
	<ul style="list-style-type: none"> • billing address associated with the card.
856	The Contractor shall provide the capability to submit disputes to chargebacks.
857	The Contractor shall provide the capability to receive updates to individual customer credit card expiration dates from the MSPs.

1.7.6. ACH Processing

The cost of processing ACH transactions is generally lower than the cost of processing a Credit Card transaction, which is one of the primary reasons for including Requirements for this payment method. Many commercial customers also prefer ACH to Credit Card replenishment. ACH carries its own set of risks and challenges, which the Contractor will need to address. For example, the

Contractor will need to address the timing of crediting an account after an ACH transaction is initiated and how ACH rejections will be processed.

Like the Credit Card process, the Contractor's solution shall provide Credit Card payment tokenization and hosted third-party routing and account number storage (or equivalent solution).

858	The BOS and CSC Operations shall remain current with industry standards and advancements in technology and security related to credit card and ACH payments.
859	The Contractor shall provide an Interface to the Merchant Service Provider or bank for ACH payment.
860	The Contractor shall provide for ACH tokenization and hosted third-party ACH storage (or equivalent solution) such that ACH information is not stored in the BOS.
861	Process all ACH payment transactions via the third-party hosted services.
862	Provide capability to process both ACH debits and ACH credits with the Merchant Service Provider or bank.
863	Provide a selection for "Checking" and "Savings" account designation when ACH is selected for replenishment and ensure transmission to the bank carries such information.
864	Provide the capability to verify the customer Bank Account information and availability of funds with the Merchant Service Provider prior to initiating an ACH debit.
865	Credit customer's account immediately upon initiating an ACH debit.
866	Provide the capability to reverse an ACH payment if declined by the bank.
867	Provide an Alert to the PMMS if an ACH response for a transaction is not received from the bank within a Configurable amount of time.
868	Provide sufficient protections (and Alert to the PMMS) to prevent multiple (duplicate) ACH payments for the same bank account number within a Configurable period.

1.7.7. Check/Money Order Processing

Checks received from customers shall be processed in the most efficient and cost-effective manner available in the payment processing industry.

869	The Contractor shall provide the capability to accept checks (personal, cashier's or certified) as a form of payment.
870	The Contractor shall provide the capability to accept money orders as a form of payment.
871	The Contractor shall use Check 21 to electronically deposit checks and convert checks into ACH transactions.
872	The Contractor shall Post to customer accounts and deposit into the agency bank account within one business day of receipt.

873	The Contractor shall provide scanning capability at the initial check or money order receiving and processing point. The resulting image shall be stored in the BOS, be available to Authorized Users and electronically transmitted to the bank for deposit.
874	The Contractor shall provide the capability to mask Bank Account information, including the MICR line, for stored check images.
875	The Contractor shall provide check scanning tools such that the resulting image can be optimized via image enhancing tools, including options for saving original and enhanced images.
876	The Contractor shall provide the capability, when accepting check or money order payments, to automatically populate the check or money order number field via check scanner.
877	The Contractor shall provide the capability to credit accounts immediately upon check or money order payment.
878	The Contractor shall provide the capability to associate checks and stubs received at the BOS to the proper account.
879	The Contractor shall provide the ability to receive batch payments from rental agencies to be applied to individual transactions.
880	The Contractor shall provide the capability to batch process checks by scanning a payment coupon and check, automatically Post payments to customer accounts, automatically associate images with customer accounts and provide exception processing.
881	The Contractor shall provide the capability to reverse all forms of check or money order payment if declined or returned by the bank, including the assessment of applicable fees.
882	The Contractor shall provide all armored services required for the physical transfer of cash or payment instruments.
883	The Contractor shall provide live check verification at the WIC.
884	The Contractor shall provide all reconciliations of funds received to BOS Posting and the Agency bank account.

1.7.8. Cash Processing

885	The Contractor shall provide the capability to accept cash as a form of payment.
886	The Contractor shall provide a cash change fund and cash change fund management functionality, including but not limited to: <ul style="list-style-type: none"> beginning balance; ending balance and reconciliation.

887	The Contractor shall provide the capability to credit the account immediately upon receipt of cash payment.
888	The Contractor shall provide the capability to process cash payment reversals.
889	The Contractor shall provide the capability to set threshold amounts and role-based limits for cash payment reversals (Configurable.)
890	The Contractor shall provide the capability to require approval for cash payment reversals using Cases.

1.7.9. Online Wallet Payment Processing

The BOS shall accept payments made via Online Wallet on all its online customer portals (Self-Service Website and Self-Service Mobile Application). The specific Online Wallet services (up to five) will be defined during the Implementation Phase.

891	The Contractor shall provide the capability to accept payments by Online Wallet. The Agencies will elect to implement up to five of the most prominent Online Wallet payments available in the market at the time of the Implementation Phase.
892	Online Wallet payments shall generally mirror the Credit Card functionality in terms of payments, return payments, refunds, reversals and chargeback capabilities.
893	The Contractor shall provide detailed tracking of payments made by Online Wallet.
894	The Contractor shall provide the capability to issue refunds to an Online Wallet. If the Online Wallet provider does not support automatic refunds (many Online Wallet providers require a manual process for refunds), or the underlying Credit Card associated with Online Wallet has been closed or expired, the BOS shall be capable of allowing Authorized Users to reverse the payment in the BOS and issue refunds by check.
895	The Contractor shall provide the capability to track data related to Online Wallet inquiries, for example, capture date of inquiry, disposition date and disposition results when inquiries about Online Wallet charges are received.
896	The Contractor shall provide the capability to credit accounts immediately upon a successful Online Wallet payment authorization.
897	The Contractor shall provide an Operational Alert Notification to the PMMS if a response from an Online Wallet provider for an account is not received within a specified amount of time (Configurable).

1.7.10. BOS Bank Interface Requirements

The Contractor shall manage the Bank Account and the Interface from the BOS to the bank.

898	The Contractor shall provide the interface for Check 21.
899	The Contractor shall provide the capability to upload checks issued to customers (refunds/disbursements) to the bank for the purpose of Positive Pay. The file shall include, but not be limited to:

	<ul style="list-style-type: none"> • BOS Bank Account number;
	<ul style="list-style-type: none"> • check number;
	<ul style="list-style-type: none"> • check date;
	<ul style="list-style-type: none"> • check amount and
	<ul style="list-style-type: none"> • payee name (may be truncated based on bank's requirements).
900	The Contractor shall provide automated reconciliation with the Agencies Bank.

1.7.11. Refunds and Disbursements

Refunds and disbursements will be made for account closure, overpayment and Violation disputes. The Contractor will process and issue all refunds to customers as determined by the Agencies. The Agencies' refund processes, from those accounts that are eligible for refund, to the approval process, and finally to the refund issuance, may differ by Agency.

901	The Contractor shall provide processes for refunds based on the original transaction and ensure such refunds are shown on the account history and are reconciled.
902	The Contractor shall have the capability to restrict the method of refund to the original method of payment.
903	The Contractor shall provide an automated approval process for Agency approval for all refunds over a configurable amount
904	The Contractor shall provide the capability to configure parameters related to refunds, which may be different for each Agency, including but not limited to:
	<ul style="list-style-type: none"> • type of payments that are not eligible for refund;
	<ul style="list-style-type: none"> • the criteria for refunds by payment methods (Credit Card, ACH, check, cash, money order etc.);
	<ul style="list-style-type: none"> • the hold period for Credit Card refunds and check refunds;
	<ul style="list-style-type: none"> • maximum (role-based) allowable refund payment by Payment Type. For example, a refund of more than \$250 might require manager approval;
	<ul style="list-style-type: none"> • minimum (role-based) allowable refund payment by Payment Type. For example, the Agencies may elect not to issue a check refund for less than \$1.00 unless requested by the customer and
905	<ul style="list-style-type: none"> • manual review of eligible refunds before processing the refunds.
	The Contractor shall provide the capability to determine eligibility and issue refunds automatically to customers based on various activities on the account, which may be different for each Agency, including but not limited to:
	<ul style="list-style-type: none"> • closure of an account;

	<ul style="list-style-type: none"> • unapplied checks/money order and • overpayment of an invoice or Violation Notice where no outstanding invoices, Violation Notices or unbilled tolls exist.
906	The Contractor shall provide the capability to review and process all eligible refunds and initiate the refund process.
907	The Contractor shall provide the capability to route a refund approval through Cases, to require multiple approvals of refunds and to accommodate different refund approval processes for each Agency.
908	The Contractor shall provide the capability to issue refunds using the same method that the payment was received. For example, a check payment will be refunded by check and Credit Card to the same Credit Card.
909	The Contractor shall provide the capability to issue refunds by check after approval by an Authorized User when the Credit Card which was used for the original payment method has been deactivated or based on a customer request.
910	The Contractor shall provide the capability for the automated processing of refunds (for example, for a successful account closure) and automatically create a Case for an Authorized User to issue the refund. Each Agency may have different thresholds for automatic processing of refunds.
911	<p>The Contractor shall provide the capability to store all details regarding check refunds issued which shall be viewable by Authorized Users on the account, including but not limited to:</p> <ul style="list-style-type: none"> • check number; • check amount; • date check was issued; • check payee details; • the date the check cleared the bank; • notes; • the reference number and • reason for issuing the check.
912	The Contractor shall provide the capability to void a refund or disbursement check, which shall restore the payable balance.
913	The Contractor shall provide the capability to void and reissue a refund or disbursement check.

914	The Contractor shall provide the capability for Authorized Users to manually override the refund payee information, for example, when a refund is due to a deceased customer's estate.
915	The Contractor shall provide the capability for Authorized Users to initiate refunds from unapplied payments (for example when a payment that was made to the BOS in error is deposited but is not applied to an account and needs to be refunded).
916	The Contractor shall provide the capability to record refund checks issued by the Agencies in the BOS. For example, certain refund checks may be issued from the Agencies' financial accounting systems; these checks shall then be recorded in the BOS against the customer's account and reported in financial reports as a check issued by the Agency.
917	The Contractor shall provide for a different refund check issuance process for each agency. For example, the Contractor may interface to OCTA's financial accounting system to issue OCTA refund checks, while RCTC refund checks would be issued by the Contractor using the Contractor's software.

1.7.12. Bankruptcy

Generally, the bankruptcy process begins with an official notice of bankruptcy being issued by a court. This notice generally requires creditors to "stay" any escalation while the bankruptcy is processed through the courts. When the bankruptcy is finalized, the court sends an official notification which will indicate any reductions in amount due.

918	The Contractor shall provide the capability to manage accounts for customers who have filed for bankruptcy.
919	The Contractor shall provide the capability to record the effective date of a bankruptcy and bankruptcy type, which automatically flags the account for bankruptcy, holds all activity on outstanding debt which occurred prior to the filing date and issues a letter to the debtor or attorney on file.
920	The Contractor shall provide the capability to enter the 'as of' (stay) date of bankruptcy and apply Business Rules to transactions occurring after that date (new tolls incurred after the bankruptcy date are billable).
921	The Contractor shall provide the capability to record when a bankruptcy has been granted which will write off all outstanding penalties and generate a letter to the customer requesting payment of the tolls.
922	The Contractor shall provide the capability to cease escalation of any transactions that occurred on or before the "stay" date (typically the bankruptcy filing date).
923	The Contractor shall provide the capability to continue processing transactions subsequent to the date and time of bankruptcy notification.
924	The Contractor shall provide the ability to record a dismissed bankruptcy and restart the escalation and collection process.

925	The Contractor shall provide the ability to record and store all bankruptcy filings required by the courts.
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1.7.13. Shift Management

The Contractor shall reconcile the financial and asset activity of every person that works in the BOS at the end of each shift.

926	The Contractor shall provide the capability for the BOS to automatically open a shift for an Authorized User at the time of first applicable transaction based upon user role.
927	The Contractor shall provide the capability to prompt for beginning balance or Authorized User bank (including option to list denominations).
928	The Contractor shall provide the capability to populate opening shift balance and assign a unique Authorized User ID, including location, for all transactions processed during the shift.
929	The Contractor shall provide the capability to automatically prompt to close a shift at logout time if an open shift exists.
930	The Contractor shall provide the capability to display and reconcile all transactions and activity in a shift.
931	The Contractor shall provide the capability to separate transactions that affect the Authorized User's deposit, for example, cash, check, ACH, Credit Card or other payment, from transactions that affect the BOS balances, for example, waiving a fee for a customer.
932	The Contractor shall provide the capability for reconciliation of transponders and other inventory items issued and payments.
933	The Contractor shall provide the capability to create an Alert to the supervisor when a CSR's bank goes above a threshold (Configurable). For example, if CSR's bank goes above \$200 the supervisor may want the CSR to do a "bank drop."
934	The Contractor shall provide feedback to Authorized User if the shift does not balance.
935	The Contractor shall provide the capability for an Authorized User to attempt to balance the shift a number of times (Configurable).
936	The Contractor shall provide the capability to escalate the shift to an Authorized User for research and closing after a number of unsuccessful attempts (Configurable) has been reached.
937	The Contractor shall provide settings to either display or not display the shift variance dollar amount to the Authorized User during shift closing (Configurable).
938	The Contractor shall provide settings to either display or not display the shift inventory (transponders and other inventory items) variance amount to the Authorized User during shift closing (Configurable).

939	The Contractor shall provide the capability to configure all relevant parameters related to closing a shift, with a default value that can be overridden based on unique user ID, including but not limited to:
	<ul style="list-style-type: none"> the number of times the Authorized User can attempt to balance the shift;
	<ul style="list-style-type: none"> the amount of allowed variance by dollars and
	<ul style="list-style-type: none"> the amount of allowed variance by percentage.
940	The Contractor shall provide the capability to close a shift once it is balanced.
941	The Contractor shall provide the capability to record shift balancing discrepancies, for example overages and shortages.
942	The Contractor shall provide the capability to force close an unbalanced shift based upon user roles; the BOS shall record unbalanced variances in a separate Financial Account which shall be included on financial reports.
943	The Contractor shall provide the capability to escalate shifts that remain open at the end of the Business Day to the Authorized User based upon user roles.
944	The Contractor shall provide Authorized Users with an accounting of all shift activity with detailed and summarized financial information.
945	The Contractor shall provide Authorized Users with a status of all open shifts.

1.8. Case Management

The BOS shall provide the capability to create, assign and manage requests made by customers or Authorized Users. These requests become Cases. Case management is the creation and management of Cases where a Case represents an activity or action required to satisfy the Agencies, customer or general public need or inquiry. Once a Case has been opened it is assigned to the appropriate staff, and its progress is tracked and reported through completion by the BOS. The initial set of Case types will be defined during the Implementation Phase. Certain Case types will escalate automatically.

1.8.1. Case Creation

946	The Contractor shall provide the capability to initiate a Case any time a request cannot immediately be completed.
947	The Contractor shall provide the capability to create, manage and support certain activities as Cases. Types of Cases shall include but not be limited to:
	<ul style="list-style-type: none"> initiating, tracking and resolving Registered account disputes;
	<ul style="list-style-type: none"> initiating, tracking and resolving Violation disputes (image(s) must be associated with the Case);
	<ul style="list-style-type: none"> initiating, tracking and resolving I-Toll disputes (image(s) must be associated with the Case);

	<ul style="list-style-type: none"> • initiating, tracking and resolving toll rate disputes;
	<ul style="list-style-type: none"> • initiating, tracking and resolving requests for Administrative Hearings;
	<ul style="list-style-type: none"> • initiating, tracking and resolving requests for investigative reviews;
	<ul style="list-style-type: none"> • initiating, tracking and resolving Civil Judgements;
	<ul style="list-style-type: none"> • initiating and tracking payment plans;
	<ul style="list-style-type: none"> • initiating, tracking and resolving customer and non-customer issues and requests via phone and in person, that cannot be resolved immediately;
	<ul style="list-style-type: none"> • initiating, tracking and resolving customer issues and requests received through all communication channels;
	<ul style="list-style-type: none"> • initiating, tracking and resolving research Cases created by the Collection Agency;
	<ul style="list-style-type: none"> • initiating, tracking and researching undeliverable email/mail;
	<ul style="list-style-type: none"> • initiating, tracking and researching undeliverable addresses that have not been found using Skip Tracing Service Provider;
	<ul style="list-style-type: none"> • initiating, tracking and resolving subpoena requests for customer transactions, images, and maintenance records from law enforcement;
	<ul style="list-style-type: none"> • initiating, tracking and resolving issues and requests from the Agencies;
	<ul style="list-style-type: none"> • initiating and tracking issues that affect only one of the Toll Facilities, for example an ETTM System-related issue;
	<ul style="list-style-type: none"> • initiating, tracking and managing transponder Return Materials Authorization (RMA) shipments and
	<ul style="list-style-type: none"> • initiating, tracking and managing disposal shipments.
948	<p>The Contractor shall provide the capability to track the Case attributes by one or more attributes, including but not limited to:</p> <ul style="list-style-type: none"> • communication channel; • Case type; • date and time of Case creation; • response due date; • identity of Authorized User (or BOS, if BOS-generated) initiating the Case; • Case number; • customer name; • customer contact information;

	<ul style="list-style-type: none"> • account number, if applicable;
	<ul style="list-style-type: none"> • license plate and Jurisdiction, if applicable;
	<ul style="list-style-type: none"> • Notification number, if applicable;
	<ul style="list-style-type: none"> • priority;
	<ul style="list-style-type: none"> • notes;
	<ul style="list-style-type: none"> • Case status;
	<ul style="list-style-type: none"> • outcome of Case when completed;
	<ul style="list-style-type: none"> • if Case is Agency-specific
	<ul style="list-style-type: none"> • if Case is Toll Facility-specific;
	<ul style="list-style-type: none"> • follow-up activities that took place;
	<ul style="list-style-type: none"> • identity of Authorized User(s) who performed the follow-up activities;
	<ul style="list-style-type: none"> • description (free-form) of follow-up action and
	<ul style="list-style-type: none"> • customer satisfaction feedback.
949	The Contractor shall provide the capability for the customer to upload supporting documentation to a new or existing Case via the Self-Service Website or Self-Service Mobile Application.
950	The Contractor shall provide the capability to create Cases manually by Authorized Users.
951	The Contractor shall provide the capability to create Cases automatically via the BOS.
952	The Contractor shall provide the capability to create Cases because of a customer request, for example a customer requests a transponder or disputes a Violation Notice via the Self-Service Website or Self-Service Mobile Application.
953	The Contractor shall provide the capability to initiate a Case from within an account.
954	The Contractor shall provide the capability for Authorized Users to associate a Case with an account after the Case has been created.
955	The Contractor shall provide Case templates for each type of Case.
956	The Contractor shall provide the capability for Authorized Users to create new types of Cases and associated workflows (Configurable).
957	The Contractor shall provide the capability to set attributes by Case type related to Case management, including but not limited to:
	<ul style="list-style-type: none"> • required fields;
	<ul style="list-style-type: none"> • assignment rules;

	<ul style="list-style-type: none"> • Case flow logic;
	<ul style="list-style-type: none"> • Case queue display order, for example, by date opened or priority;
	<ul style="list-style-type: none"> • drop-down lists;
	<ul style="list-style-type: none"> • all relevant parameters related to Case escalation (Configurable), for example, number of dormant days before escalation and number of days from Case creation to escalation;
	<ul style="list-style-type: none"> • due date and
	<ul style="list-style-type: none"> • Case templates (create and modify).
958	The Contractor shall provide the capability to access a Case through Case management or through the associated account or Violation Notice.
959	The Contractor shall provide the capability to automatically document action(s) taken to resolve a Case in the Case.
960	The Contractor shall provide the capability to associate all related customer communication with a single Case (in addition to associating it with the appropriate account), including but not limited to:
	<ul style="list-style-type: none"> • call records;
	<ul style="list-style-type: none"> • recorded calls;
	<ul style="list-style-type: none"> • emails;
	<ul style="list-style-type: none"> • faxes;
	<ul style="list-style-type: none"> • Microsoft Office documents, images, and PDF files;
	<ul style="list-style-type: none"> • chat;
	<ul style="list-style-type: none"> • text messages and
	<ul style="list-style-type: none"> • scanned items.
961	The Contractor shall provide the capability, when creating Cases, to automatically insert information from the Case source into the Case creation screen to expedite Case creation, for example, importing the name, address and contact information from the account, Violation Notice, invoice or Notification with which the Case is associated.
962	The Contractor shall create a case for all incoming correspondence by scanning the correspondence. The Case management system should recognize barcodes, correspondence attributes, key words and categorize and assign cases automatically.
963	The Contractor shall provide the capability to automatically record date and time of Case creation.

964	The Contractor shall provide the capability to automatically record identity of Authorized User or BOS (if the Case is created automatically by the BOS) initiating the Case.
965	The Contractor shall provide the capability to automatically assign a unique individual identification code (Case number).
966	The Contractor shall provide drop-down lists (Configurable) containing multiple options for indicating type of Case.
967	The Contractor shall provide the capability that the Case type has the ability to be changed by Authorized Users.
968	The Contractor shall provide drop-down lists (Configurable) containing multiple options for indicating follow-up activities within the workflow.
969	The Contractor shall provide the capability to place a Case on hold pending a specific occurrence, or to enter a date when the Case shall be presented again to be worked.
970	Require Authorized Users to insert a minimum amount of data depending on the type of Case (Configurable) into a pre-defined number of fields before a Case can be closed. Each type of Case may have different minimum data requirements.
971	Require Authorized Users to insert a minimum amount of data depending on the type of Case into a pre-defined number of fields (Configurable) before a Case can be placed on hold. Each type of Case may have different minimum data requirements.
972	The Contractor shall provide the capability for notes (free text narrative) to be provided at key points in the Case creation process enabling the Authorized User to elaborate on important points.
973	Automatically initiate and send correspondence to the customer informing them of the creation of the Case, the Case number and other information depending on the type of Case (Configurable).
974	The Contractor shall provide an automated correspondence capability whereby the customer can be kept informed of Case progress/status, from opening through closure, depending on the type of Case. Such capability shall be Configurable such that certain Case progress/status changes would not generate a customer communication.
975	The Contractor shall provide the capability for multiple Authorized Users to access Cases at the same time with one Authorized User having the ability to modify the Case and others having read only access. The identity of the individual working the Case shall be presented to the Authorized Users with read-only access.
976	The Contractor shall associate the completion of the activities required to resolve the Case to the Case such that BOS can automatically close the Case once the required activities have been completed. For example, if a customer disputes a Violation Notice because the vehicle was stolen, the Case would require a document (police report) and once the document was verified and the disputed accepted by the CSR, the BOS would record the successful dispute, close the Violation Notice with the appropriate transaction disposition codes and issue a Notification to the customer all based on the CSR's determination that the dispute was accepted.

977	The Contractor shall provide the capability to automatically provide written responses (Notifications) to the customer based on the disposition code for each Case type.
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1.8.2. Case Assignment and Tracking

Depending on the Case type, the BOS shall assign the Case to the appropriate queue. The BOS shall use the default priority for the Case type and any user input that prioritizes the Case.

978	Place open Cases in the appropriate Case type queue such that Authorized Users may access their assigned queue, review and take action on each Case.
979	The Contractor shall provide the capability for the Case type queues to automatically display oldest Cases first for action.
980	The Contractor shall provide the capability for the Case type queues to automatically display highest priority Cases first for action.
981	The Contractor shall provide the capability for multiple sorting criteria for the Case type queues, for example sort first by oldest Cases and then sort by priority.
982	The Contractor shall provide the capability for closed Cases to be re-opened when required.
983	The Contractor shall provide the capability for a Case to be worked by the same Authorized User who opened the Case or by another Authorized User.
984	The Contractor shall provide the capability to automatically assign Cases to Case work queues accessed by departments or workgroups.
985	The Contractor shall provide the capability to manually re-assign open Cases.
986	The Contractor shall provide the capability to automatically re-assign open Cases if the Case was assigned to a specific Authorized User and that Authorized User is deactivated from the BOS.
987	The Contractor shall provide the capability to automatically temporarily re-assign open Cases if the Case was assigned to a specific Authorized User and that Authorized User is temporarily not performing work (for example, the Authorized User is on vacation).
988	Ensure at no time that an active Case does not remain in a queue with no Authorized User assigned to that queue.
989	The Contractor shall provide the capability for Authorized Users to see all pending Cases with prioritization.
990	The Contractor shall provide Configurable Case assignment rules, for example a Case related to financial issues would be assigned to the finance department.
991	The Contractor shall provide the capability to include a snapshot of any customer information in the primary screen so Authorized Users need not navigate to other screens to find key information. The primary screen shall contain a link to the associated account should the Authorized User want to access the account.

992	The Contractor shall provide the capability to merge Cases when two or more Cases cover the same customer need.
993	The Contractor shall provide the capability to track historical action-type data (out of a predefined range), about each action taken to work the Case, including but not limited to: <ul style="list-style-type: none"> • creation; • closure; • reopening; • hand-off (from department or individual); • placed on hold (establish a “work again date”); • awaiting action from an Agency; • awaiting customer action and • customer satisfaction.
994	The Contractor shall provide the capability to trigger customer satisfaction processes.
995	The Contractor shall provide the capability to link and track an unlimited number of Cases to a single account.
996	The Contractor shall provide the capability to link and unlink Cases to/from accounts regardless of Case status.
997	The Contractor shall provide the capability to associate a Case to one or multiple accounts.
998	The Contractor shall provide the capability to view Cases based on required follow-up action.
999	The Contractor shall provide the capability to track, record and review follow-up activity.
1000	The Contractor shall provide the capability for Authorized Users to review the workload (quantity and details of the Cases assigned) of an individual Authorized User.
1001	The Contractor shall provide the capability for an Authorized User to review the workload of an entire team or group of Authorized Users.
1002	The Contractor shall provide the capability to manually change the status of a Case based on progress made in servicing the Case.
1003	The Contractor shall provide the capability to automatically change the status of a Case based on progress made in servicing the Case.
1004	The Contractor shall provide the capability for Authorized Users to edit data within a Case, Configurable by Case type.
1005	The Contractor shall provide the capability to temporarily group Cases and perform the same action(s) on the group of Cases.

1006	Prevent the creation of duplicate Cases when created automatically by the BOS.
1007	The Contractor shall provide the capability to notify Authorized Users when the number of assigned Cases for a particular resource is reached (Configurable).
1008	The Contractor shall provide the capability to stop a transaction or group of transactions from progressing further in the status or workflow stages, for example while a dispute Case is being reviewed.
1009	The Contractor shall provide a logical Case workflow via multiple Case screens, which are presented to Authorized Users based on their skill sets and BOS roles.
1010	The Contractor shall provide Case workflow and routing (Configurable).
1011	<p>The Contractor shall provide the capability to assign Cases in multiple ways (Configurable), including but not limited to:</p> <ul style="list-style-type: none"> • manual assignment of a Case to a particular Authorized User; • automatic assignment by customer or account criteria; • automatic assignment by Case type; • automatic assignment by status; • automatic assignment by severity level; • automatic assignment based on staff availability; • automatic assignment by role and • skills database for Authorized Users.
1012	The Contractor shall provide the capability to suggest best Authorized User for a Case according to staff skills.
1013	The Contractor shall provide the capability to send an Operational Alert Notification when a Case has met the reassignment threshold (Configurable).
1014	The Contractor shall provide the capability to send an Operational Alert Notification when an Authorized User has met the specified number of open Cases (Configurable).
1015	The Contractor shall provide the ability to manually re-assign any Case to a new workflow, at any point within that workflow, as new details emerge.
1016	When changes in workflow are made, provide the ability to individually select, or select in bulk, whether current workflow transactions should follow the previous version of the workflow, or the new version of the workflow.

1.8.3. Case Escalation

1017	The Contractor shall provide the capability to send an Operational Alert Notification regarding specific Cases that meet criteria (Configurable), for example, Cases in "open" status that have not been worked on in a specified number of days (Configurable).
1018	The Contractor shall provide the capability to automatically escalate overdue Cases based on rules (Configurable).
1019	The Contractor shall provide the capability to define sets of activities or procedures for specified Case types.
1020	The Contractor shall provide the capability for thresholds to be defined based on rules that initiate events when exceeded.
1021	The Contractor shall provide the capability to automatically escalate Cases defined as representing repeated complaints.
1022	The Contractor shall provide the capability to define activities that require authorization from supervisors.
1023	The Contractor shall provide the capability to notify appropriate operations staff on Cases manually or automatically based on criteria (Configurable).

1.9. Collections and Registration Hold

Non-payment of the Notice of Delinquent Toll Evasion Violation may result in the delinquent Violations escalating to collections and/or Registration Hold. Unpaid transactions/trips and fees on Registered accounts that are delinquent may also escalate to collections. The Agencies may choose to have the CSC attempt to collect prior to the Violation escalating to collections.

1024	The Contractor shall provide the capability for the CSC to attempt collection prior to a Collections Placement and the Contractor shall support this activity by, including but not limited to:
	<ul style="list-style-type: none"> electronically provide Skip Tracing information that is automatically linked to the Violation for use by the CSR;
	<ul style="list-style-type: none"> provide initial collections letter(s) that are automatically populated with the Violation information and Skip Trace address(s);
	<ul style="list-style-type: none"> allow for the CSR to review and approve letters before sending;
	<ul style="list-style-type: none"> provide capability for the CSR to add notes about the collection process;
	<ul style="list-style-type: none"> if not collected after a Configurable period of time, automatically and electronically attach all Skip Trace and collections notes information to the subsequent Collections Placement and
	<ul style="list-style-type: none"> separately account for CSC collections (as compared to Collections Placements) within the BOS in all applicable accounting, financial and operations reports and searches.

1025	The Contractor shall provide, per the Business Rules, the capability to perform registered account or Violation escalation, including but not limited to:
	<ul style="list-style-type: none"> • warning of Registration Hold Notification;
	<ul style="list-style-type: none"> • escalate to Tax Intercept;
	<ul style="list-style-type: none"> • Pre – Collection Notification;
	<ul style="list-style-type: none"> • escalate to Registration Hold and
	<ul style="list-style-type: none"> • escalate to collections.
1026	The Contractor shall provide capability to configure and maintain escalation parameters for each escalation level, including but not limited to:
	<ul style="list-style-type: none"> • the minimum number of delinquent Violations (Configurable) over a period of time to initiate collections activities (Configurable);
	<ul style="list-style-type: none"> • prevent escalation to collections/Registration Hold when a certain (configurable) percentage of the Violation has been paid;
	<ul style="list-style-type: none"> • prevent escalation to collections/Registration Hold when a certain (configurable) amount of the Violation has been paid;
	<ul style="list-style-type: none"> • the account balance thresholds to prevent escalation;
	<ul style="list-style-type: none"> • Number of days payment on payment plan is delinquent and
	<ul style="list-style-type: none"> • Number of days from issuance of Investigative Review or Administrative Review Letter.

1.9.1. Collection Agencies

This process covers the assignment of past due amounts on delinquent accounts, and delinquent Violations to the Contractor-provided Collection Agencies. The Contractor shall provide two (2) separate, qualified Collection Agencies to perform debt collection services. These Collection Agencies shall be performing debt collection services and civil judgement processing on a non-exclusive basis. No assurance or guarantee is made to the selected Contractors regarding the number of Accounts placed, the dollar amounts of those Accounts, or the percentage of Accounts placed.

1027	The Contractor shall contract with two (2) separate Collection Agencies.
1028	The Contractor-selected Collection Agencies shall have previous experience collecting toll debt.
1029	The Contractor shall transition existing Collections Placements from the Agencies' current collections provider to the Contractor-selected Collections Agencies.
1030	The Contractor shall work with the Agencies in determining the volumes and types of Collections Placements assigned to each Collection Agency, which may result in shared placements or all placements being assigned to one (1) of the Collection Agencies.
1031	The Contractor shall select Collection Agencies whose compensation is based on a percentage of the amount collected.

1032	The Contractor-selected Collection Agencies shall not dismiss the Agencies' debt unless explicit approval has been provided by the Agencies.
1033	The Contractor-selected Collection Agencies shall allow the Agencies to recall debt at no cost to the Agencies.
1034	The Contractor-selected Collection Agencies shall not charge any fees for allowing the Agencies' debtors to pay using any payment method.
1035	For uncollected debt, the Contractor-selected Collection Agencies shall process civil judgments on behalf of the Agencies. The processing of civil judgments shall comply with all California statutes and legal processes and the Collections Agencies' attorneys shall be properly licensed. The processing of civil judgments by the Collections Agencies shall be at the discretion of each individual Agency (OCTA and RCTC) and each Agency may have different criteria and processes, or the one or both Agencies may choose not to use the Collections Agencies for processing of civil judgments.
1036	The Contractor-selected Collection Agencies shall submit their reporting for approval by the Agencies.

1.9.2. Collection Placement and Management

The process of assigning unpaid tolls, fees and penalties to the Collection Agency is called a Collections Placement.

1037	The Contractor shall provide a Collection Agency for Agency(ies) approval and place eligible transactions in collections based on Business Rules.
1038	<p>The Contractor shall provide the capability to identify Accounts and delinquent Violations that are eligible for the collection process based upon criteria (Configurable), including but not limited to:</p> <ul style="list-style-type: none"> • age of debt at account level or individual transaction level; • Flags on the account; • hold status, for example, disputed; • open Cases related debt; • grace period; • total amount owed; • number of delinquent Violation Notices or transactions/trips; • amount owed; • whether customer is in-state or out-of-state; • account type and

	<ul style="list-style-type: none"> • account status.
1039	The Contractor shall provide the capability to create a Collections Placement for accounts and delinquent Violations eligible for Collections.
1040	The Contractor shall provide the capability to place a flag on an account that has met the criteria for Collection Placement but has not been placed and an account placed with one of the Collection Agencies.
1041	The Contractor shall provide the capability to assess a collections fee (for example, add a fee to the balance due) for each Collections Placement eligible for collections.
1042	The Contractor shall provide the capability to transmit the Collections Placement to the Collection Agencies for those accounts and delinquent Violation Notice that are eligible and Approved for collection.
1043	<p>The Contractor shall provide the capability to utilize multiple Collections Agencies and to place eligible transactions in collections based on Configurable criteria, including but not limited to:</p> <ul style="list-style-type: none"> • percentages based on both volume and dollar amount, for example, 60 percent to Collection Agency 1 and 40 percent to Collection Agency 2; • past due amount on the Account eligible for collection; • participating agency; • prior placements (by customer name, Account number, License Plate number and Jurisdiction); • account type; • specified frequency; • ZIP code and • ROV Jurisdiction.
1044	Provide the capability to automatically assign new transactions that reach the collections status or workflow stage to the same Collection Agency that any previous transactions on that Account have been assigned (for example, all transactions for a given Account will always be assigned to the same Collection Agency).
1045	<p>The Contractor shall provide auditable functionality through the two-way electronic Interface for the Collection Agencies to transmit data to the BOS and for the BOS to transmit data to the Collection Agencies for accounts and Violation Notices assigned to the Collection Agencies, including but not limited to:</p> <ul style="list-style-type: none"> • updates to demographic information, such as address updates obtained through Skip Tracing; • payments received by the BOS and each Collection Agency (full and partial) and adjustments and reversals of those payments;

	<ul style="list-style-type: none"> • reversals and adjustments made on the Collections Placement;
	<ul style="list-style-type: none"> • fees on the Collections Placement such as returned payment fee;
	<ul style="list-style-type: none"> • suspension of collections activities due to dispute or Administrative Review;
	<ul style="list-style-type: none"> • various status changes due to civil judgments;
	<ul style="list-style-type: none"> • suspension of collections activities or cancellation of the Collections Placement due to bankruptcy;
	<ul style="list-style-type: none"> • resolution of the Collections Placement at the transaction level;
	<ul style="list-style-type: none"> • cancellation of the Collections Placement due to recall by the Agencies or expiry of the collection period for that Collections Placement and
	<ul style="list-style-type: none"> • Write offs and reason codes.
1046	The Contractor shall provide the capability to recall a Collections Placement/individual Violation Notices/transactions based on Business Rules and request.
1047	The Contractor shall provide the capability to automatically display a Flag on account screens with the appropriate Collection Agency ID and date the Collections Placement was sent to the Collection Agency and remove the Flag when an account is no longer in collection.
1048	The Contractor shall provide the capability to associate with the account all correspondence transmitted to the customer/violator from the Collection Agency.
1049	The Contractor shall provide the capability to update the address source on accounts and Violation Notices when new address information is received from one of the Collection Agencies.
1050	The Contractor shall provide the capability to automatically reassign delinquent Violations/transactions to collections any time a payment used to pay delinquent Violations/transactions in collections is reversed in the BOS or by one of the Collection Agencies (for example, when a customer makes a payment and that payment is returned by the bank, the receipt of the payment reversal in the BOS shall automatically reassign those delinquent Violations/transactions to the applicable Collection Agency).
1051	The Contractor shall provide the capability to obtain status of all activities and venues pursued by each of the Collection Agencies to collect on the Agencies' debt.
1052	The Contractor shall provide the capability to receive payment reconciliation files at intervals (Configurable) from the Collection Agencies for all Collections Placement payments during the period. The reconciliation file shall provide detailed data that reconciles the payments and the collections fee, if applicable.
1053	The Contractor shall provide the capability to receive Collections Placement balance files, at intervals (Configurable), in order for the BOS to compare to Account and Violation Notice balances for auditing purposes.

1054	The Contractor shall provide the capability to generate an Operational Alert Notification when a Collections Placement balance file is received and the results of the processing of the balance file (for example, the file is in balance or it is out of balance).
1055	The Contractor shall provide the capability to compare the balances from each of the Collection Agencies to the balances in the BOS and display the accounts and/or transactions that do not balance.
1056	The Contractor shall provide an aging of all files on Collection Placement.
1057	<p>The Contractor shall provide a report showing the historical records for Collection Placement including but not limited to:</p> <ul style="list-style-type: none"> • number of files sent for Collection Placement (historically); • details of accounts written off and the reason; • details of amounts collected, stage collected and amount of reductions if any; • details of accounts actively in Collection Placement and the current collection stage; • details of accounts on payment plan; • details of accounts with civil judgements; • details of amounts collected and collection fees paid or due to the Collection Agencies, and • the above historical information for each individual Collection Agency.
1058	The Contractor shall provide the capability to receive Skip Tracing from the Collection Agencies for the Contractor to mail a pre-collection notice.

1.9.3. Collection Agency System Access (Phase II)

In addition to the electronic interface between the BOS and the Collection Agencies, the Contractor shall provide the Collection Agencies with role-based, secure access to the BOS to access information about debt which has been placed in collections allowing them to research customer issues. The BOS shall allow for limited entries to be made such as managing a Case (initiating, updating or closing it) or updating with customer contact events such as phone calls and emails sent or received.

1059	The Contractor shall provide a secure role-based access for the Collection Agencies to access the BOS to research customer issues as described within these Requirements.
1060	The Contractor shall provide unique sign-on credentials for each Authorized User (Collection Agency Staff) and only allow them to access debts which have been placed with their Collection Agency.
1061	<p>The Contractor shall provide auditable functionality that allows each Authorized User (Collection Agency Staff) to view, enter and edit data in the BOS for accounts and Violations with debt placed with their Collection Agency, including but not limited to:</p> <ul style="list-style-type: none"> • viewing the account

	<ul style="list-style-type: none"> • Viewing associated images;
	<ul style="list-style-type: none"> • initiating a Case;
	<ul style="list-style-type: none"> • reviewing the status of a Case;
	<ul style="list-style-type: none"> • updating a Case;
	<ul style="list-style-type: none"> • closing a Case (based on permissions) and
	<ul style="list-style-type: none"> • updating customer contact history.

1.9.4. License Plate Registration Hold and Hold Release

When delinquent Violation Notices are past due, a Registration Hold can be placed on the license plate if it meets the conditions for Registration Hold. When the past due amount is brought to a threshold or amount (Configurable) (for example, when the balance is paid or the delinquent Violations are reversed), the Registration Hold may be released. The California DMV supports an electronic Interface for initiating Registration Holds and Registration Hold releases. In the event agreements are entered into with other Jurisdictions or responsible entities, the BOS shall support the Registration Hold/Registration Hold release process with these responsible entities.

1062	The Contractor shall provide the capability to Interface with the Jurisdictions that support license plate Registration Holds/Registration Hold releases or vehicle registration suspension.
1063	The Contractor shall provide the capability to apply and receive authorization from the DMV to act as both RCTC and OCTA's processor of record.
1064	<p>The Contractor shall provide the capability to set and maintain the eligibility parameters for the license plate Registration Hold process based upon criteria (Configurable), including but not limited to any combination of:</p> <ul style="list-style-type: none"> • plate Jurisdiction and plate type; • account type; • Flags on the account; • escalation status; • past due toll amount; • past due fee amount; • past due penalty amount; • days past due; • vehicle registration renewal date; • an open Investigative Review or Administrative Hearing;

	<ul style="list-style-type: none"> • payment plan status;
	<ul style="list-style-type: none"> • length of time since the last escalation was done (Configurable);
	<ul style="list-style-type: none"> • number of pre-existing vehicle Registration Holds on a license plate;
	<ul style="list-style-type: none"> • Plate type (temporary plate, permanent plate) and
	<ul style="list-style-type: none"> • Vehicle Identification Number.
1065	The Contractor shall provide the capability to automatically request a Registration Hold if the eligibility criteria (Configurable) are met, for example, if license plate has one delinquent Violation that is past due.
1066	The Contractor shall provide the capability to check the vehicle registration renewal date and update the existing ROV information in the BOS.
1067	The Contractor shall provide the capability to place Registration Holds a number of days (Configurable) before or after the license plate renewal date. The BOS shall place the maximum number of Registration Holds per license plate if the license plate has delinquent Violations.
1068	The Contractor shall provide the capability to round down the Violation amount owed to a whole dollar being sent to the DMV for each Violation for which a Registration Hold is being placed.
1069	The Contractor shall provide the capability to automatically create and exchange Registration Hold and release files with the responsible entities.
1070	The Contractor shall provide the capability in the event of a failure to re-try the Registration Hold and release request based on the type of error.
1071	The Contractor shall provide the capability to automatically release the Registration Hold if resolved and/or paid.
1072	The Contractor shall provide the capability to automatically re-request the Registration Hold if a payment that was received resulted in the release of Registration Hold and then the payment is subsequently reversed (for example, if a check is returned or if a chargeback is received).
1073	The Contractor shall provide the capability to accept and process payments records for Violations from the DMV and waive partial amounts remaining on the Violation Notice(s).
1074	The Contractor shall provide the capability to delay the Registration Hold release by a number of days past the payment date (Configurable) by payment type. For example, if the payment was made by check the BOS should delay the Release by seven days.
1075	The Contractor shall provide the capability for Authorized Users to manually initiate the release of a Registration Hold without resolution of past due amounts.
1076	The Contractor shall provide the capability to display Registration Hold and release status on the account including the date of request and status.

1077	The Contractor shall provide the capability for Registration Hold statuses (statuses that Registration Holds go through), including but not limited to:
	<ul style="list-style-type: none"> • Registration Hold pending;
	<ul style="list-style-type: none"> • Registration Hold sent to DMV;
	<ul style="list-style-type: none"> • Registration Hold Approved by DMV;
	<ul style="list-style-type: none"> • Registration Hold rejected by DMV;
	<ul style="list-style-type: none"> • Registration Hold not placed due to error;
	<ul style="list-style-type: none"> • Registration Hold release pending;
	<ul style="list-style-type: none"> • Registration Hold released by DMV;
	<ul style="list-style-type: none"> • Registration Hold released by BOS and
	<ul style="list-style-type: none"> • Registration Hold not released due to error.
1078	The Contractor shall provide the capability to automatically display Flags on all account screens based upon current Registration Hold status.
1079	The Contractor shall provide the capability, in the Registration Hold history, to accommodate multiple dates and reject reasons for multiple delinquent amounts and potentially multiple plate numbers.
1080	The Contractor shall provide the capability for Authorized Users to manually place and release Registration Holds and automatically update the BOS with the proper status obtained from the DMV.
1081	The Contractor shall provide the capability to add a DMV hold fee to each transaction successfully placed on hold
1082	The Contractor shall provide the capability to create a payable to DMV for the fee owed to the DMV until the fee is paid through the reduction of the DMV payment file.
1083	The Contractor shall provide the capability to establish a link between a temporary plate and the coordinating permanent plate to allow for hold to be placed on the temporary plate after the issuance of the permanent plate
1084	The Contractor shall provide the capability to perform a review of all accounts prior to sending them for DMV hold.
1085	The Contractor shall provide the capability to reconcile Violations marked as on hold in the BOS with the DMV report.
1086	The Contractor shall provide the capability to prepare a written DMV abstract of hold release for the customer.
1087	The Contractor shall provide the capability to Post the monthly DMV payment to the respective Violations-writing off any remaining cents, recording the source of payment as the DMV, and relieving the DMV Payable for the hold fee

1088	The Contractor shall provide the capability to analyze DMV hold rejects and work with the DMV to resolve any issues to maximize the hold success rate.
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1.9.5. Customer-Initiated Reviews

Customers may contest a Violation(s) by initiating an Investigative Review of the Violation(s). If customer disagrees with the decision, the customer may seek an Administrative Review Hearing and ultimately appeal to Superior Court.

1089	The Contractor shall provide the capability to receive Investigative Review requests, including documents uploaded from the self-service website.
1090	The Contractor shall provide the capability track Investigative Reviews through their completion
1091	The Contractor shall provide agreed upon Investigative Review reduction or dismissal codes that are applied to each Violation contained in the review in an efficient manner.
1092	The Contractor shall provide the capability for the selection of a reduction or dismissal code that has a corresponding financial action, if applicable, generate the appropriate letter stating the results of the review and issue any refunds that may be due (for example, if it is determined the license plate was misread and the Violation was issued to the wrong person, the CSR shall select a code "image error" which will automatically do the following: 1) dismiss the Violation assigned the person who requested the review 2) send the images back for image processing 3) generate a letter to the customer dismissing the Violation 4) refund any payments made)
1093	The Contractor shall provide the capability to provide a written response to every Investigative Review which includes the reasoning behind the resulting decision. The response letters shall be tied to the Violation dismissal codes so they automatically generate when dismissal action is taken
1094	The Contractor shall provide the capability to receive Administrative Review Hearing requests by mail, phone, in-person or online. If by phone, the account shall be marked for Administrative Review Hearing and a means for providing a written statement from the customer provided.
1095	The Contractor shall provide the capability to determine, receive and process the required amount due prior for an Administrative Review Hearing as well as, calculating eligibility for financial hardship exceptions and reduced amounts.
1096	The Contractor shall provide the capability to schedule the Administrative Review Hearings with the customer and Administrative Hearing Officer within the required timeframes and according to the Business Rules.
1097	The Contractor shall provide an Administrative Hearing Officer who meets the requirements in the California Vehicle Code and the Agencies approval or the Administrative Hearing Officer may be provided separately at the discretion of each Agency.

1098	The Contractor shall provide a second review of all Violations for which an Administrative Review Hearing is requested to ensure the Investigative Review was performed accurately and correct any errors or work with the customer to resolve any extenuating circumstances.
1099	The Contractor shall provide a summary of each Case where and Administrative Review Hearing is requested for Agency review within a week of the Administrative Review Hearing request. The Contractor will work the Agency to resolve Cases if needed.
1100	<p>The Contractor shall provide the Configurable capability to define the data set that goes into the Evidence Package, including but not limited to:</p> <ul style="list-style-type: none"> • summary sheet; • BOS and manual notes recorded on the account; • Cases created for the account; • transponder status change history; • each Violation Notice and other Notifications; • customer correspondence; • customer contacts; • DMV or ROV source records or Rental Agreements; • lane health check report from the ETSM System at the time of the transaction; • Registered account information if applicable; • history of non-payment; • images and • Recordings of phone calls or scripts of recorded phone calls.
1101	The Contractor shall provide the capability to create the Evidence Package a number of days (Configurable) before the date of the Administrative Review Hearing and print or upload the package to the location specified.
1102	The Contractor shall provide the capability to track information related to the outcomes of Investigative Reviews and Administrative Review Hearings
1103	The Contractor shall provide the capability to offer, establish and manage payment plans for customers who cannot pay the balance due in full.
1104	The Contractor shall provide the capability to provide Investigative Reviews by phone and chat for first contact resolution.
1105	The Contractor shall provide the capability to provide historical data by specified time period for Investigative Reviews and Administrative Review Hearings including but not limited to:

	<ul style="list-style-type: none"> • # requested
	<ul style="list-style-type: none"> • # closed
	<ul style="list-style-type: none"> • Resolution by type
	<ul style="list-style-type: none"> • # outstanding
	<ul style="list-style-type: none"> • Age of outstanding
	<ul style="list-style-type: none"> • Scheduled hearings by date

1.9.6. System-Generated Evidence Package

1106	The Contractor shall provide the capability to create an Evidence Package containing all information related to the applicable account, violator and Violation Notices, including but not limited to:
	<ul style="list-style-type: none"> • detailed toll transaction data associated with Violation Notices;
	<ul style="list-style-type: none"> • all Violation Notices and Notifications sent to violator;
	<ul style="list-style-type: none"> • all correspondence received from violator;
	<ul style="list-style-type: none"> • images related to Violations;
	<ul style="list-style-type: none"> • all notes related to account, violator and/or Violation Notices and
	<ul style="list-style-type: none"> • any other related Unregistered account activity.

1.10. Customer Satisfaction Survey

The Contractor shall select and provide a Customer Satisfaction Survey Provider Subcontractor to survey customers regarding their experience with the OCTA/RCTC CSC. The BOS will provide the necessary information regarding all customer contacts to the Customer Satisfaction Survey Provider Subcontractor to enable them to survey customers using automated survey tools.

The Contractor shall survey customers through the Services of the Customer Satisfaction Survey Provider Subcontractor. Customer surveys shall be performed through electronic means such as email, through a phone survey, text, via the website or a combination thereof. A survey tool shall be provided which will allow for the creation and maintenance of a variety of different survey templates. Different survey templates may be selected based on contact channel, individual CSR or account type.

1107	The Contractor shall provide the capability to perform customer surveys through the Services of the Customer Satisfaction Survey Provider Subcontractor.
1108	The Contractor shall offer the Survey opportunity to every customer each time they contact the OCTA/RCTC CSC or as requested by the Agency.
1109	The Contractor shall provide information to the Customer Satisfaction Service Provider Subcontractor, which includes but is not limited to:

	<ul style="list-style-type: none"> customer name;
	<ul style="list-style-type: none"> contact channel (such as email, phone or walk-in);
	<ul style="list-style-type: none"> customer email address and
	<ul style="list-style-type: none"> CSR name, in the case of customers calling in or chat. clarify for those interactions with CSRs (or other staff).
1110	<p>The Contractor shall provide the capability to track customer contact by contact channel, including but not limited to:</p> <ul style="list-style-type: none"> phone (IVR only, e.g., the customer resolves their issue with the IVR); phone (IVR then CSR, e.g., customer contact which started in the IVR and after attempting action, the customer asked to speak with a CSR); phone (CSR only, e.g., the customer immediately requested to speak to a CSR); chat (CSR only); email; text; Self-Service Website; Self-Service Mobile Application and walk-in.
1111	<p>The Contractor shall, on each survey, ask if the customer would like to be contacted regarding any unresolved concerns.</p>
1112	<p>The Contractor shall provide customer survey capabilities with a combination of features, including but not limited to:</p> <ul style="list-style-type: none"> real-time reporting of survey results to the Agencies; real-time Configurable Alerts to the Agencies on certain parameters, such as a low survey score (for example, send an Alert each time a customer provides a rating of two or below on any individual question or the survey as a whole) or key word (for example, each time a customer uses certain profane or threatening words); real-time dashboard-style feedback for Authorized Users (such as a Web interface for CSRs to view survey results for their own calls and scoring, in comparison with their peers) and survey scoring.
1113	<p>The Contractor shall provide reporting functionality for customer contact data to be provided to the Customer Satisfaction Survey Provider Subcontractor, including but not limited to:</p>

	<ul style="list-style-type: none"> • date;
	<ul style="list-style-type: none"> • account type;
	<ul style="list-style-type: none"> • CSR and
	<ul style="list-style-type: none"> • contact channel.

1.11. Transponder Inventory

The BOS shall have a transponder inventory and management system that tracks and maintains transponder inventory, manages the sale and return of transponders to customers, identifies and manages the transponder recall program, and tracks and manages transponder warranty. Inventory levels are required to be monitored regularly by the Contractor and communicated to the Agencies to ensure no disruption in transponder availability.

1.11.1. Inventory Definition and Tracking

The BOS shall keep track of transponders from initial order through final disposal or return to manufacturer.

1114	The Contractor shall provide the capability to validate transponder serial numbers when they are entered into inventory, against the ranges that already exist to ensure that there are no duplicates. This validation shall include the CTOC-issued Facility Code IDs or any corresponding ranges in the future such as ISO 18000-6C and or national Interoperability.
1115	The Contractor shall provide the capability to search the history of a specific transponder entered in the BOS and provide the history of the transponder including account assignment and transactions.
1116	The Contractor shall support the performance of a quarterly physical inventory and monthly reconciliation of transponders.
1117	The Contractor shall provide the capability for an Authorized User to program transponders (for example, reprogram a 2-axle vehicle transponder to a motorcycle transponder).
1118	<p>The Contractor shall provide the capability to manage any number of transponder types, including but not limited to:</p> <ul style="list-style-type: none"> • hard-case transponders; • sticker transponders; • Title 21 switchable transponders (two switches and three switches); • 6c switchable transponders; • headlight-mount transponder and • bumper-mount transponders.

1119	The Contractor shall provide the capability to enter global transponder inventory item attributes, including but not limited to:
	• transponder description;
	• transponder type;
	• model number;
	• manufacturer;
	• lot, case and tray information;
	• version of transponder chip technology;
	• transponder communication protocol (single or multi) and
	• transponder style.
1120	The Contractor shall provide the capability to enter individual transponder inventory item attributes, including but not limited to:
	• model number;
	• procurement cost;
	• sales price (Configurable);
	• purchase price (Configurable);
	• manufacture date;
	• date received;
	• manifest number;
	• inventory number;
	• expiration;
	• date assigned/purchased;
	• date first used;
	• location assigned to customer from;
	• staff/BOS assigned by;
	• recall date;
	• replacement;
	• warranty start date;

	<ul style="list-style-type: none"> warranty period;
	<ul style="list-style-type: none"> swap out date;
	<ul style="list-style-type: none"> end of life date;
	<ul style="list-style-type: none"> purchase order number/statement or invoice number;
	<ul style="list-style-type: none"> agency/facility code;
	<ul style="list-style-type: none"> state code;
	<ul style="list-style-type: none"> transponder ID number;
	<ul style="list-style-type: none"> external barcode number;
	<ul style="list-style-type: none"> transponder manufacturer's number;
	<ul style="list-style-type: none"> transponder class;
	<ul style="list-style-type: none"> ID number;
	<ul style="list-style-type: none"> activation code;
	<ul style="list-style-type: none"> status and
	<ul style="list-style-type: none"> inventory location.
1121	<p>The Contractor shall provide the capability to enter new transponders into the BOS via several methods, including but not limited to:</p> <ul style="list-style-type: none"> manually; file upload and barcode using a scanner.
1122	<p>The Contractor shall provide the capability to manually upload a file (manifest) with transponder inventory information using an intuitive and user-friendly process with support for multiple data formats. Functionality shall include but not be limited to:</p> <ul style="list-style-type: none"> a mapping tool which shall enable inventory fields to be mapped to a file; a browse button to locate the file; validation of the file prior to import (invalid files shall not be imported and an error message shall be presented); validation of file contents including the transponder ID based on valid CTOC issued facility codes and feedback of successful processing by indicating the number of records updated and unsuccessful updates with reason codes.

1123	The Contractor shall provide the capability to enter transponders in bulk by entering the starting and ending numbers in a range, for example upload inventory by scanning the first transponder's barcode and the last transponder's barcode.
1124	The Contractor shall provide the capability to track multiple manufacturer warranties based on manufacturer, transponder type or purchase date.
1125	The Contractor shall provide the capability to track customer warranties based on transponder type or purchase date.
1126	The Contractor shall provide the capability to identify transponders to be sold and their sale price.
1127	<p>The Contractor shall provide the capability to track individual transponders by location at end of day, including but not limited to:</p> <ul style="list-style-type: none"> • warehouse; • at one of two WICs; • in transit between customer service locations; • at one of multiple individual CSRs; • assigned to an account; • shipping/receiving locations; • returned to manufacturer and • disposed.
1128	Ensure individual transponders are only in a single location at any one time.
1129	The Contractor shall provide the capability to restrict transitions among various inventory item locations, for example, transponders in the "assigned to CSR" location cannot go to the "return to manufacturer" location; it can only go to "inventory" location or "account" location.
1130	<p>The Contractor shall provide the capability to assign an inventory status to each individual transponder, including but not limited to:</p> <ul style="list-style-type: none"> • on order; • received; • tested and ready for issuance; • active; • inactive; • deactivated;

	<ul style="list-style-type: none"> lost;
	<ul style="list-style-type: none"> stolen;
	<ul style="list-style-type: none"> returned;
	<ul style="list-style-type: none"> awaiting cleaning and testing for reissue;
	<ul style="list-style-type: none"> disposal;
	<ul style="list-style-type: none"> damaged;
	<ul style="list-style-type: none"> defective and
	<ul style="list-style-type: none"> end-of-life.
1131	The Contractor shall provide the capability to change the status for an individual transponder either manually or automatically.
1132	The Contractor shall provide the capability to set a restock threshold for inventory locations, including but not limited to:
	<ul style="list-style-type: none"> CSC;
	<ul style="list-style-type: none"> WIC #1
	<ul style="list-style-type: none"> WIC #2.
1133	The Contractor shall provide the capability to set and maintain the transponder reorder thresholds and ranges for all relevant parameters related to transponder quantity levels and lead-time requirements for replenishment by manufacturer.
1134	The Contractor shall provide the capability to send an Operational Alert Notifications(s) before the transponder reorder (from the manufacturer) thresholds are reached. The Alert level can be a percent (Configurable) or number (Configurable) above the re-order threshold.
1135	The Contractor shall provide the capability to audit the physical inventory at intervals (Configurable) and record the results of the audit.
1136	The Contractor shall provide the capability to test transponders to ensure they are correctly programmed and that the external barcode is correctly correlated to the internal programming.

1.11.2. Transponder Ordering

The Agencies will place transponder orders directly with the transponder manufacturer or request that the Contractor place the order directly. Regardless of the method, the creation of the order shall happen within the BOS which allows the purchase order to be recorded, and the order to be tracked, received and loaded into inventory in a manner which reduces manual entry and potential errors. A hard copy document shall be generated and shall be part of an order receiving package to verify receipt and close out the purchase order that was generated by a separate system that is not part of this procurement.

1137	The Contractor shall provide the capability to create transponder orders within the BOS, both for orders placed directly by the Contractor and orders placed directly by the Agencies.
1138	The Contractor shall provide the capability to change the status of the order and track the order once the associated purchase order has been placed.
1139	The Contractor shall provide the capability to receive the inventory into the BOS.
1140	<p>The Contractor shall provide the capability to enter information when receiving transponders, including but not limited to:</p> <ul style="list-style-type: none"> • verification of delivery of each line item; • verification of quantities for each line item; • actual quantity received if it does not match quantity ordered; • name of person receiving inventory; • location received; • date received and • comments.
1141	<p>The Contractor shall provide the capability to generate a transponder receiving document, including but not limited to:</p> <ul style="list-style-type: none"> • items ordered; • item received; • quantities ordered; • quantities received; • manufacturer or supplier information; • received by name; • location received and • date received.
1142	The Contractor shall provide the capability to make adjustments if the shipment received does not match the original order and track backorders and partial shipments.

1.11.3. Inventory Fulfillment

Transponders are assigned to customers via inventory Fulfillment. Orders can be fulfilled at the same time the order is placed in a WIC. When inventory is ordered online or by phone, the order is fulfilled in the order received.

1143	The Contractor shall provide the capability to create transponder orders either at the time of account creation or when individual requests are initiated subsequent to account creation.
1144	The Contractor shall provide the capability to fulfill transponder orders.
1145	The Contractor shall provide the capability to present transponder Fulfillment requests for Fulfillment in the order received.
1146	The Contractor shall provide the capability to create a transponder sale transaction when inventory order is fulfilled including but not limited to: <ul style="list-style-type: none"> • full price sale; • warranty sale; • sale at no cost (replacement) and • discount sale (promos and coupons).
1147	The Contractor shall provide the capability to assign multiple types of transponders to an account and associate the transponder numbers to the account.
1148	The Contractor shall provide the capability to reassign inventory items from one account to another.
1149	The Contractor shall provide the capability to replace an existing individual transponder on an account with a different transponder.
1150	The Contractor shall provide the capability to issue individual transponders to customers via mail and at WICs.
1151	The Contractor shall provide the capability to distinguish orders for first time customers separate from existing customers in case additional literature is to be included with the order for new or existing customers only (such as a welcome package).
1152	The Contractor shall provide the capability for transponders delivered by USPS to be activated 24 hours after shipment.
1153	The Contractor shall provide the capability to automatically recognize vehicles with metal oxide windshields by use of a list the Contractor maintains and automatically issue an exterior tag at time of account opening, vehicle addition or transponder request.
1154	The Contractor shall provide the capability to automatically recognize motorcycles by their license plate configuration or information provided by the customer and issue them an exterior transponder at the time of Account opening, vehicle addition or transponder request.
1155	The Contractor shall issue a sticker tag (interior or exterior) for every plate listed on the account unless the customer identifies that the vehicle will only be used on a short-term basis, such as rental cars.
1156	The Contractor shall provide the capability to track customer transponder orders as a single order regardless of the number of items requested. For example, if a customer wants one bumper-mount transponder and two switchable transponders, that order shall be a single customer transponder order.

1157	The Contractor shall provide the capability for transponder orders to be searched, for order(s) that meet specified criteria, which can then be viewed, immediately fulfilled, modified or canceled.
1158	The Contractor shall provide the capability to make modifications to the transponder orders prior to fulfilling them. For example, a CSR may need to change the transponder type because the customer's vehicle requires an externally mounted transponder (bumper mount), or add another transponder to the order based on a customer request.
1159	The Contractor shall provide a single customer Fulfillment receipt detailing the entire order. This receipt shall show the vehicle license plate number(s), type, Jurisdiction, make, model, color, transponder(s) or other inventory item(s) quantities, backordered quantities, sale or lease amounts, payment amount and any associated Account Plan(s), if applicable, for each transponder included in that order.
1160	The Contractor shall provide the capability to generate a mailing label or print directly on the mailing envelope when fulfilling inventory orders by mail.
1161	<p>The Contractor shall provide the capability to batch transponder distribution to improve the efficiency of the order Fulfillment process, including but not limited to:</p> <ul style="list-style-type: none"> • identify open transponder orders and assign transponders to the accounts automatically; • create batches by transponder type and order type (new, replacement or additional); • transmit data to the mailing services to generate mailing labels by batch; • print transponder receipts; • track the mailing of transponders to customers and • Batch by zip code for the purposes of receiving bulk mailing discounts.
1162	The Contractor shall provide the capability to perform a quality check of the transponder mailing packages before they are mailed to the customers.
1163	The Contractor shall provide the capability for transponder receipts to be provided to the customer when the Fulfillment takes place in person.
1164	The Contractor shall provide the capability to notify the customer that a transponder(s) has been placed in the mail.
1165	The Contractor shall provide the capability to activate transponders when they are assigned to the account or with a configurable delay in days when mailed.
1166	The Contractor shall provide the capability to return transponders to stock and update the order, if applicable while preserving full traceability. For example, if a transponder comes back in returned mail, the BOS shall retain the history of the account that the transponder was added to and that the transponder came back undeliverable.
1167	The Contractor shall provide the capability to issue more than one transponder type per vehicle.
1168	The Contractor shall provide the capability to ask the customer if they will need a switchable transponder for carpooling.

1169	The Contractor shall provide the capability to provide the amount due for transponders and allow the customer to override the transponder order.
1170	The Contractor shall provide the capability to guide the customer through the transponder type and quantity: sticker for every car, external for problem vehicles and motorcycles, switchable for carpoolers.
1171	The Contractor shall provide the capability to flag a sticker transponder in a PZEV after configurable # of reads in the vehicle with the authorized PZEV plate.
1172	The Contractor shall provide the capability to flag a sticker transponder in a disabled plate vehicle after a number of Configurable reads in the vehicle with the authorized plate.
1173	The Contractor shall provide the capability to provide replacement transponders and calculate the amount due, if any, and restart the vehicle to tag association for PZEV and disabled plate vehicles according to the Business Rules.

1.11.4. Transponder Inventory Recycling

The Contractor will test returned transponders and return to usable inventory those that meet the Business Rules.

1174	The Contractor shall provide the capability to process returned transponders back into the BOS for reissue when the transponders appears to be in good condition and has not reached the end of its useful life.
1175	The Contractor shall receive and return to inventory and issue the customer a credit according to the Business Rules.
1176	The Contractor shall provide the capability to assign returned transponders identified as being re-issuable to a box for tracking and reissue purposes.

1.11.5. Transponder Testing

Transponders shall be tested at multiple times in the lifecycle because transponders that are defective or not functioning reliably cause problems for the customers and the Agencies and increase costs. The equipment required for testing of transponder will be provided by the Agencies.

1177	The Contractor shall provide the capability to test transponders using the transponder reader/tester.
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1.11.6. Transponder Warranty Replacement for the Customer

Functionality will be required to support customer warranty returns and replacements.

1178	The Contractor shall develop transponder replacement Business Rules based on the transponder type, account type and age of the transponder.
1179	The Contractor shall provide the capability for a customer to request a replacement transponder by all communication channels and at the WIC.
1180	The Contractor shall provide the capability to create a Case for each replacement request initiated by the customer.

1181	The Contractor shall provide the capability for customers to return their old transponder to a WIC and receive a replacement transponder or credit to their account immediately according to Business Rules.
1182	The Contractor shall provide the capability for customers to return transponders to the Agencies and receive a refund of the purchase price if the transponder is defective or unused within a Configurable time period.
1183	The Contractor shall provide the capability to send the customer a self-addressed return envelope to send the old transponder(s) back if the customer contacts the BOS via all communications channels to return a transponder(s).
1184	The Contractor shall provide the capability to send a replacement transponder to the customer upon the receipt of a replacement request.
1185	The Contractor shall provide the capability to track the return of the old transponder and update the account upon the successful receipt of the old transponder.
1186	The Contractor shall provide the capability to generate Alerts if an account has more than a number (Configurable) of replacement claims.

1.11.7. Inventory Warranty and Returns to Manufacturer

1187	The Contractor shall provide the capability to enter, modify and delete transponder manufacturer information, including but not limited to:
	<ul style="list-style-type: none"> • name;
	<ul style="list-style-type: none"> • contact person;
	<ul style="list-style-type: none"> • full address;
	<ul style="list-style-type: none"> • phone numbers;
	<ul style="list-style-type: none"> • rules for returns and
	<ul style="list-style-type: none"> • minimum number of transponders per return shipment.
1188	The Contractor shall provide the capability to create a Return to Manufacturer (RMA) number and associated packing list by manufacturer for each RMA shipment.
1189	The Contractor shall provide the capability for the opening, tracking and closing of RMA shipments by RMA number.
1190	The Contractor shall provide the capability to add or remove specific items from an RMA shipment.
1191	The Contractor shall provide the capability to track warranty payment or replacement transponders due from the manufacturer for returns under warranty.
1192	The Contractor shall provide the capability to pro-rate the warranty period of the returned transponder based on the warranty left on the transponder identified for warranty return.
1193	The Contractor shall provide the capability to accept a spreadsheet that maps old transponders to the new transponders in order to identify the remaining warranty.

1.11.8. Inventory Disposal

The Contractor shall contract with a destruction company that is authorized to dispose of batteries and provides destruction of secure materials. The Title 21 transponders contain lithium batteries and the Contractor will be responsible for returning any remaining transponders in circulation.

1194	The Contractor shall provide the capability to create a disposed transponder shipment and assign a disposal number and associated packing lists for each disposal shipment.
1195	The Contractor shall provide the capability to view individual transponders identified for disposal.
1196	The Contractor shall provide the capability for the opening, tracking and closing of disposal shipments.
1197	The Contractor shall provide the capability to add or remove specific transponders from a disposal shipment.
1198	The Contractor shall provide an authorized lithium battery contractor.

1.12. Customer Portals

Agencies will be responsible for the Self-Service Website with exception of the “my account” section, which is the responsibility of the Contractor.

Customers can obtain access to their accounts via customer portals which include the Self-Service Website and the Self-Service Mobile Application. These customer portals provide access to real-time account data. The Self-Service Website allows customers to establish accounts, manage their accounts and manage Violations.

1.12.1. Self-Service Website

1199	The Contractor shall have experienced internal resources and/or partners with significant, demonstrable Self-Service Website development expertise in using the latest frameworks, tools, navigation and look and feel to optimize the customer experience.
1200	The Self-Service Website shall have a sophisticated, standards-driven, front-end framework that is device and browser agnostic, and is completely responsive to all mobile devices.
1201	The Contractor’s solution shall facilitate the use of single code bases that can be delivered across platforms and devices and streamline the primary and Regression Testing required when deploying Software updates and Enhancements.
1202	The Contractor shall be responsible for the “my account” portion of the Self-Service Website only. The Contractor shall be responsible for hosting the entire Self-Service Website including Agencies controlled content.
1203	The Contractor shall provide the capability for the Agencies’ designated users to access and update Agency provided content to static pages in accordance with Approved change management procedures.
1204	The Contractor shall use the header/footer provided by the Agencies and the Contractor shall be responsible for formatting header/footer in accordance to the Agencies portion of the website, including all further updates, Upgrades and Enhancements to the application.

1205	The Contractor shall provide a secure Self-Service Website in English and Spanish and all external Interface portals, that shall be compatible with the versions most utilized by the public and future version releases of the following browsers, including but not limited to:
	<ul style="list-style-type: none"> • Microsoft Internet Explorer;
	<ul style="list-style-type: none"> • Microsoft Edge Browser;
	<ul style="list-style-type: none"> • Mozilla Firefox;
	<ul style="list-style-type: none"> • Google Chrome;
	<ul style="list-style-type: none"> • Apple Safari;
	<ul style="list-style-type: none"> • any other browser reaching five percent market penetration, as Approved by the Agencies and
	<ul style="list-style-type: none"> • smartphone/tablet/mobile browsers.
1206	The Contractor shall provide the capability for customers to perform all actions or get information they might ask of a CSR on the Self-Service Website, with certain exceptions based on following a process requiring a specific user role, interaction with a CSR or due to security concerns.
1207	The Contractor shall provide the capability for customers to view, export and print all statements
1208	The Contractor shall provide capability for a customer to search the website for key words or key phrases.
1209	The Contractor shall provide quick links to most frequently used pages
1210	The Contractor shall provide Web navigation optimized for speed regardless of the Web browser used on the secure Self-Service Website.
1211	The Contractor shall provide the capability to support the expiration of cookies.
1212	Detect and advise users of the Self-Service Website if the browser used is old or not supported.
1213	The Contractor shall provide a Self-Service Website accessible on a range of mobile devices, irrespective of differences in presentation capabilities and access mechanisms, including but not limited to smartphones and tablet computers.
1214	The Contractor shall provide a Self-Service Website that paginates content in various ways corresponding to differences in viewing device characteristics. The navigation structure of the site, and its technical realization shall vary according to the device class being served.
1215	The Contractor shall provide a Self-Service Website that supports the latest versions of mobile operating systems, including but not limited to:
	<ul style="list-style-type: none"> • Apple iOS;
	<ul style="list-style-type: none"> • Android Web operating system;
	<ul style="list-style-type: none"> • Windows Phone operating system and
	<ul style="list-style-type: none"> • any other browser reaching five percent market penetration, as Approved by the Agencies.

1216	The Contractor shall provide a Self-Service Website that supports the latest versions of mobile browsers, including but not limited to:
	<ul style="list-style-type: none"> • Safari;
	<ul style="list-style-type: none"> • Google Chrome and
	<ul style="list-style-type: none"> • any other browser reaching five percent market penetration, as Approved by the Agencies.
1217	The Contractor shall provide Self-Service Website and Self-Service Mobile Application analytics tools that supports all required browsers for the measurement, collection, analysis and reporting of internet data for purposes of understanding and monitoring performance, optimizing website usage, business and market research and to assess and improve the effectiveness of the Self-Service Website. The Web analytics tools shall track all usage on the Self-Service Website including but not limited to:
	<ul style="list-style-type: none"> • number of individual hits by screen;
	<ul style="list-style-type: none"> • number of specific activities performed;
	<ul style="list-style-type: none"> • number of page views;
	<ul style="list-style-type: none"> • number of repeat visitors versus new visitors;
	<ul style="list-style-type: none"> • bounce rate;
	<ul style="list-style-type: none"> • abandonment rate;
	<ul style="list-style-type: none"> • usage reports, for example click-through and navigation reports that monitor efficiency in navigation;
	<ul style="list-style-type: none"> • continual monitoring of total time to load the website;
	<ul style="list-style-type: none"> • continual monitoring of website page load times;
	<ul style="list-style-type: none"> • continual monitoring of individual element load times;
	<ul style="list-style-type: none"> • continual monitoring of login availability and
	<ul style="list-style-type: none"> • continual monitoring of overall application availability.
1218	The Self-Service Website and Self-Service Mobile Application analytics tools shall be integrated with the PMMS for notification of performance issues.
1219	The Self-Service Website and Self-Service Mobile Application shall provide Configurable real-time reporting for all services monitored and data collected.
1220	The Contractor shall provide a Self-Service Website that supports the addition of sponsored advertisements Approved by the Agencies.

1.12.1.1. Account Access and Security

1221	The Contractor shall provide the capability to control the features and capabilities available to customers based on the account type.
1222	The Contractor shall provide the capability for a customer to select a PIN upon account establishment.

1223	The Contractor shall provide the capability for a customer to create a username and password upon account establishment.
	<ul style="list-style-type: none"> The web server shall support username and password strength requirements as determined during the Implementation Phase and documented in the Business Rules and
	<ul style="list-style-type: none"> the web server shall support two-factor authentication and provide user configurability to enable or disable.
1224	The Contractor shall provide the capability for a user account session time out after a period of inactivity (Configurable).
1225	The Contractor shall provide the capability for an Authorized User to set, based on user-role, the length of inactivity time before a session time out.
1226	Prevent customers from accessing the BOS after a number of failed login attempts (Configurable) within an amount of time (Configurable) and send an Alert message to the PMMS.
1227	The Contractor shall provide the capability for the BOS to automatically reset the customers' access to the BOS after a Configurable amount of time has elapsed since the last unsuccessful login attempt.
1228	The Contractor shall provide the capability for Authorized Users to reset the customer's access to the BOS after the customer's access has been locked due to unsuccessful log on attempts.
1229	The Contractor shall provide the secure capability, without Authorized User interaction, for customers to gain online access to their existing account(s) when they have forgotten their username and/or password. Data necessary to gain online access shall differ depending on account type.
1230	The Contractor shall provide the capability to upon the first logon require the user to complete up to five (5) security challenge questions and answers for use in future account access.
1231	The Contractor shall provide the capability to reset the PIN.
1232	The Contractor shall provide the capability to reset the password with requirements for password strength and reuse of previous password restrictions.
1233	The Contractor shall provide the capability to change username.
1234	The Contractor shall provide the capability to manage (add/delete/modify) security questions.

1.12.1.2. Account Establishment and Maintenance

1235	The Contractor shall provide an account creation process that logically leads a customer via the Self-Service Website through all of the necessary steps to create an account including, but not limited to:
	<ul style="list-style-type: none"> Account type;
	<ul style="list-style-type: none"> Account plan;

	<ul style="list-style-type: none"> • Name (primary and secondary); • Contact information (billing and shipping); • Email address; • Vehicle information; • Transponder requests; • Payment information; • Statement and correspondence method of delivery; • Opt-in for various communications (texts, e-blasts, statements, marketing) and • Opt-in for customer survey.
1236	The Contractor shall provide the capability for a customer with an unregistered account to open a registered account without having to enter the name, address or vehicle information including the vehicle effective date equal to the first Violation transactions. The customer shall be able to make a single payment for the Violation amount due and the account establishment amount.
1237	The Contractor shall provide on-screen guidance to the customer via the Self-Service Website during the account creation process regarding missing or improperly formatted information. The customer shall not be able to move to the next step until the required information is provided in the appropriate format and the proper action shall be clearly identified.
1238	The Contractor shall provide the capability when opening a new account to automatically identify other account(s) associated with that account name or address and create a Case to allow a CSR to determine whether or not the account is a duplicate.
1239	The Contractor shall provide the capability for the selection of account type and account preferences during the establishment of an account based on anticipated usage and other requirements.
1240	The Contractor shall provide the capability, when adding contact information, to assist the customer by requiring zip code be entered first, then providing a pre-populated city and stat. Upon entry of a street address, the BOS should populate options for selection in the USPS standardized address format.
1241	Require that the Agencies' terms and conditions and privacy policy are acknowledged and a record of that acknowledgment saved in the BOS prior to establishing an account.
1242	The Contractor shall provide the capability for customers to set and modify preferred communication channels.
1243	The Contractor shall provide the capability for the customer to update all information on their account.
1244	The Contractor shall provide the capability to require a customer to accept revised account terms and conditions and privacy policy upon log in if a change is made to the account terms and conditions or privacy policy.
1245	The Contractor shall provide the capability for electronic email address confirmation during the account creation process. For example, an email is sent to the email address

	provided with a link by which the customer can confirm they have control of the account. Upon validation, the BOS shall allow for the account creation process to be completed.
1246	The Contractor shall provide the capability for any subsequent additional email addresses added, to perform the email address validation process prior to finalizing the entry on the account. A message shall be displayed indicating the email address shall not be added until the validation process is complete.
1247	The Contractor shall provide the capability for sending an account summary/profile to the customer upon a successful account creation process. The account summary/profile shall also be provided in a printer-friendly format.
1248	The Contractor shall provide the capability for customers to specify "how did you hear about us?" during the account creation process.
1249	The Contractor shall provide the capability for customers to be asked a series of marketing questions (Configurable).
1250	The Contractor shall provide customers with a running amount due (details and summary) as they proceed through the account set-up process including but not limited to: <ul style="list-style-type: none"> • account fee at time of account establishment; • prepaid balance amount; • transponder cost amount and • Violation amounts.
1251	The Contractor shall provide the capability for a customer to close his/her Registered account.

1.12.1.3. Payment Processing

To provide a customer experience that is intuitive, efficient and meets the needs of a self-service oriented customer, the BOS must provide a well-designed and logical customer self-service payment setup and management process

1252	The Contractor shall provide the capability to determine the payment methods available (Configurable) based on account type.
1253	The Contractor shall provide the capability for the manual replenishment (via existing payment methods on the account) of Registered accounts.
1254	The Contractor shall provide the capability for the customer to set up an automated recurring replenishment via: credit card and ACH. <ul style="list-style-type: none"> • credit card and • ACH.
1255	The Contractor shall provide the capability for violators to view the images (in compliance with PII requirements) associated with the Notice of Toll Evasion Violation and Notice of Delinquent Toll Evasion Violation and make payments or initiate a dispute by entering the pertinent dispute information.

1256	The Contractor shall provide the capability to automatically create a Case and populate it with all pertinent information when a violator disputes a Notice of Toll Evasion Violation and Notice of Delinquent Toll Evasion Violation.
1257	The Contractor shall provide the capability for the violator to upload file(s) supporting the dispute and automatically associate those files to the Case.
1258	The Contractor shall provide the capability for violators to make a payment and have it applied towards a specific item on the account or the entire balance due, for example Violation Notices, penalties and fees.
1259	The Contractor shall provide the capability to Configure whether or not to allow partial payments for Violation-related activity.
1260	The Contractor shall provide the capability to allow for the payment of Violations and an account replenishment with one payment.
1261	The Contractor shall provide the capability for a customer to intuitively and efficiently add the violating license plate/vehicle to an account, for which they have login access, and have the BOS verify to the customer that the license plate has been added and the transactions/trips have Posted. Provide the capability to notify the customer of any fees and assess those fees to the account in accordance with the Business Rules. If the transactions/trips cannot post to the account or the license plate cannot be added, in real time the BOS shall notify the customer of the issue and ask the customer to contact the CSC.
1262	The Contractor shall provide the capability, in accordance with the Business Rules, for a customer to intuitively and efficiently establish an account via a “sinner to saint” process offered to violators that meet certain criteria. The BOS shall verify that the account has been created, the license plate/vehicle has been added and transactions/trips have Posted. Provide the capability to notify the customer of any fees and assess those fees to the account in accordance with the Business Rules. If the transactions/trips cannot Post to the account or the license plate/vehicle cannot be added, in real time the BOS shall notify the customer of the issue and ask the customer to contact the CSC.
1263	The Contractor shall provide the capability that once a Violation transaction/trip is transferred to an account, all other eligible Violations automatically transfer to the account in Accordance with the Business Rules.
1264	The Contractor shall provide the capability during the Violation payment process to notify Interoperable/CTOC Agency customers of the process and time constraints for updating their account to allow for the Posting of the transactions/trips to their account through the Interoperable/CTOC Agency.
1265	The Contractor shall provide the capability to allow for a primary and secondary credit card and provide a processing sequence for when to process each or let the customer select via the website for a one-time payment.
1266	The Contractor shall provide the capability for Violation transaction/trip payments using the license plate number, type and Jurisdiction and another piece of information (Configurable) for authentication.
1267	The Contractor shall provide the capability to prevent customers from making payments in excess of a Configurable amount based on account type.

1268	The Contractor shall provide the capability to configure whether or not customers are allowed to make payments to their accounts for amounts in collections.
1269	The Contractor shall provide the capability to display a confirmation page that includes payment method details (Credit Card numbers obscured) and amount to be paid prior to customer being allowed to submit a payment.
1270	The Contractor shall provide a clear summary of charges to be processed and require customer confirmation prior to processing payment.

1.12.1.4. Vehicles, License Plates and Transponders

1271	The Contractor shall provide the capability for customers to request and pay (sale) for new transponders.
1272	The Contractor shall provide the capability for the customer to request a replacement transponder indicating which transponder is being replaced and the BOS should automatically determine the age of the transponder to determine if there is a charge for the replacement according to the business rules.
1273	The Contractor shall provide the recommended number of transponders: one sticker for each vehicle not requiring a head lamp version, head lamp stickers or switchable.
1274	The Contractor shall provide the capability to identify vehicles which require and external transponder and flag them for an external headlamp transponder.
1275	The Contractor shall provide the capability for customers to deactivate a transponder.
1276	The Contractor shall provide the capability to allow for the deactivation of a transponder and reactivation of a transponder.
1277	The Contractor shall provide the capability for customers to add, delete and update a beginning and end date/time for a specific vehicle and license plate at the account level. For example, a customer may wish to add a vehicle on the account for a limited amount of time.
1278	The Contractor shall provide the capability to identify temporary dealer plates and include the expiration date for use in reminding the customer to provide the permanent plate.
1279	The Contractor shall provide the capability for customers to add a license plate number to an account with a back dated start date and time. The allowable back date period shall be configurable. Upon back dating provide the customer with the amount due allowing for a one-time payment for the amount due or payment from the prepaid balance.
1280	The Contractor shall provide the capability for customers to add, delete and manage vehicles.
1281	The Contractor shall provide drop down lists of vehicle makes and models.
1282	The Contractor shall provide the capability to inform the customer at the time of addition if a vehicle plate is active on another account and have them confirm that they want to continue with the addition.
1283	The Contractor shall provide the capability to identify motorcycle vehicle plates using the DMV plate configuration and flag them for an external headlamp transponder.

1284	The Contractor shall provide the capability to allow the customer to indicate a disabled plate or disabled veteran plate and upload the required supporting documentation and flagging the account for approval by a CSR.
1285	The Contractor shall provide the capability to identify qualified clean air vehicles through the DMV file or customer provided documentation through a document upload and flag for clean air vehicle validation.
1286	<p>The Contractor shall provide the capability (Configurable) for customers to upload a file with vehicles and associated information, using an intuitive and user-friendly process that supports multiple data formats, for example delimiter-separated data or Excel. Functionality shall include but not be limited to:</p> <ul style="list-style-type: none"> • a browse button to locate the file; • validation of the file prior to import (invalid files shall not be imported and an error message shall be presented); • on-screen feedback of successful processing by indicating the number of vehicles imported and • send email Notification of successful import.
1287	The Contractor shall provide a downloadable sample vehicle file and data definition document with instructions for each supported format.
1288	The Contractor shall provide detailed instructions regarding the process to upload vehicle information.
1289	<p>The Contractor shall provide the capability to automatically identify account(s) associated with a license plate being added to an account, including but not limited to:</p> <ul style="list-style-type: none"> • violator account with unresolved Violations; • accounts in bad standing; • accounts closed in bad standing; • accounts with debt in collections; • accounts in bankruptcy and • accounts where the license plate is active on another account.
1290	The Contractor shall provide the capability to either (determined during design) automatically initiate a Case and direct the customer to call the CSC or get a warning and allow the customer to proceed when the license plate they are attempting to add to their account is active on another account, other than a rental car account.

1.12.1.5. Notifications

1291	The Contractor shall provide the capability for customers to log in, view and print the Notifications associated with their account.
1292	The Contractor shall provide the capability for customers to view and print past account statements or invoices, or to generate an on-demand account statement or invoice (in both PDF or CSV formats), based on selection criteria for all account types.

1293	The Contractor shall provide the capability for violators to view and print Violation Notices including all associated Violation images.
1294	The Contractor shall provide the capability to access Violation Notices, citations and/or collection letters associated with Unregistered accounts and make payments. These documents can be accessed by the violator using the vehicle license plate number and Jurisdiction and the violator account number (or other information to be defined during the Implementation Phase).
1295	The Contractor shall provide the capability upon logging into the account, provide the customer with customized special messages regarding their account such as credit card expired, payment declined, temp plate expired, pay by plates occurring on a specific vehicle.
1296	The Contractor shall provide the capability to display Notifications (Configurable), including but not limited to: <ul style="list-style-type: none"> allowable Flags related to the account; transponder in certain status, for example, lost or stolen; dispute status; payments and other information which the Agencies want presented to the customers and other website visitors.

1.12.1.6. Website – Other Functionality

1297	The Contractor shall provide the capability to view transactions history and associated vehicle images for each Image-Based Transaction/Trip. The Contractor shall properly address PII compliance during design.
1298	The Contractor shall provide the capability to initiate disputes.
1299	The Contractor shall provide the capability for a customer to upload a file, including pdf, all Microsoft Excel and Word files, text files, all types of image files and csv files, and have it associated to the account and Case, if applicable. Such uploads shall be structured within a specific process where a category can be assigned and a Case opened for an Authorized User to verify, for example additional evidence for a dispute, or police report for a stolen vehicle.
1300	The Contractor shall provide the capability to limit the types of transactions, screens and activities customers can access via the Self-Service Website based on account type, including but not limited to: <ul style="list-style-type: none"> account Flags; account balance; account status; based on Security Standards and PII and based on Business Rules.
1301	The Contractor shall provide the capability to automatically create a contact record in the account history for contacts made via the Self-Service Website.

1302	The Contractor shall provide the capability for customers to enroll in various Account Plans.
1303	The Contractor shall provide the capability for customers to enter promotion codes on their accounts.
1304	The Contractor shall provide the capability for customers to set “opt in” and “opt out” options for certain Notification types, including but not limited to: <ul style="list-style-type: none"> • statements; • account -related Notifications; • texts; • marketing/newsletters and • customer surveys.
1305	The Contractor shall provide the capability for customers to enter requests or customer feedback and add a feedback category via drop-down menu options.
1306	The Contractor shall provide the capability to open a Case.
1307	The Contractor shall provide the capability to create Cases for customer requests including but not limited to: <ul style="list-style-type: none"> • requests for new accounts; • toll charges to their account; • general customer requests via “contact us”; • inventory requests; • disputes and • request for call back.
1308	The Contractor shall provide the capability to view Case(s) associated with the account.
1309	The Contractor shall provide secure chat capabilities where account holders can exchange messages with an Authorized User.
1310	The Contractor shall provide page(s) for information on hours of operation and locations for WICs.
1311	The Contractor shall provide page(s) for information on hours of operation and phone numbers for the CSC.
1312	The Contractor shall provide page(s) for general information about tolls and toll collection.

1.12.2. Self-Service Mobile Application (Phase II and Optional)

The Contractor shall provide a Self-Service Mobile Application.

1313	The Contractor shall provide a Self-Service Mobile Application specifically designed to operate with smartphones and tablets.
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1314	The Contractor shall provide the capability to access the native functionality of the mobile device to provide enhanced account management and payment functionality. For example, access to the camera or to mobile payment options.
1315	The Self-Service Mobile Application shall provide the same functionality and informational pages as the Self-Service Website, including but not limited to: <ul style="list-style-type: none"> • all account update functions; • all account transaction, payment and other history; • all payment functionality; • all notification functionality; • all transponder management functionality; • informational pages and • other functionality determined during the Implementation Phase.
1316	The Contractor shall provide native mobile application capabilities on the Self-Service Mobile Application, including but not limited to: <ul style="list-style-type: none"> • push Notifications and • location-based Services.
1317	The Self-Service Mobile Application shall provide access to the top five (5) United States mobile payment applications, as Approved by the Agencies, that require access to device specific functions.
1318	The Contractor shall provide the capability for processing of all potential payments as well as account replenishment via the implemented mobile payment applications.
1319	The Contractor shall provide a Self-Service Mobile Application that supports the addition of sponsored ads Approved by the Agencies.

1.13. Customer Contact Systems

1.13.1. Telephony Systems Requirements

The Contractor is required to provide, operate and maintain the telephony system at all CSC and WIC locations (with the exception of the OCTA Store WIC).

1320	The Contractor shall provide a telephony system including an automated call distributor (ACD) that is fully integrated with the BOS for capable of simultaneously handling inbound/outbound customer calls, all CSC Operations calls and on-site BOS personnel internal calls. The telephony system shall be capable of meeting all current and future capacity Requirements.
1321	The telephony system shall meet all current and future capacity requirements.

1322	The Contractor shall provide a telephony system meeting the following, including but not limited to:
	<ul style="list-style-type: none"> • fully integrated with the functional BOS;
	<ul style="list-style-type: none"> • fully integrated into the Desktop Environment;
	<ul style="list-style-type: none"> • fully integrated into all CSC Operations facilities and
	<ul style="list-style-type: none"> • supports all related functional Requirements contained herein.
1323	The Contractor shall provide a telephony system which is designed to meet the Performance Measures and availability Requirements.
1324	The Contractor shall transition and use the existing phones number through which customers can contact the CSC.
1325	The Contractor shall provide sufficient Session Initiation Protocol (SIP), or equivalent, to support 200 percent of the current peak call volumes Attachment E: Estimated Volumes.
1326	The Contractor shall provide a real-time telephony dashboard that allows the Agencies and CSC management to monitor the call handling performance.
1327	The Contractor shall provide full integration between the telephony system and the BOS, including but not limited to:
	<ul style="list-style-type: none"> • association of all customer inbound/outbound calls with the account;
	<ul style="list-style-type: none"> • association of detail regarding the customer contact with the account, for example, wrap codes and ad-hoc Authorized User entered information and
	<ul style="list-style-type: none"> • the availability, via the BOS application account screens, of all customer contact records.
1328	The Contractor shall provide the capability for the telephony system to be trained to identify key words/phrases and notify an Authorized Users in real-time or upon request.
1329	The Contractor shall provide an integrated CSR quality review functionality such that the reviewer can listen to the call, watch the recorded screen movements and score the call against the configured criteria.
1330	The Contractor shall provide the capability for CSRs to select and enter the reason(s) for the call.
1331	The Contractor shall provide the capability for Authorized Users to add/delete/modify survey questions for an after-call survey.
1332	The Contractor shall provide the capability for the telephony system to provide a survey for the customers after the call.
1333	The Contractor shall provide the capability for Authorized Users to obtain the results of the after-call survey.
1334	The Contractor shall provide the capability to allow a supervisor to monitor or participate in real time the phone conversations between the CSR and the customer and view CSR screen navigations, including but not limited to:
	<ul style="list-style-type: none"> • just listen;

	<ul style="list-style-type: none"> • listen and talk only to CSR (coach) and • participate in a three-way call with the customer.
1335	The Contractor shall provide the capability for the Agencies to remotely and non-intrusively monitor live calls.
1336	<p>The Contractor shall provide the capability for the Agencies to remotely review all recorded calls randomly or specifically categorized by, including but not limited to:</p> <ul style="list-style-type: none"> • CSR; • call subject; • specific customer account; • call date/time; • escalation and • customer behavior.
1337	The Contractor shall provide the capability for English and Spanish language options.
1338	The Contractor shall provide automated call routing based on customer selections. For example, if the customer selects the Spanish language option and then wishes to pay a Violation Notice, the call is sent to a Spanish-speaking CSR with the ability to accept payments.
1339	The Contractor shall provide automated call distribution, including conditional routing to qualified Authorized Users.
1340	<p>The Contractor shall provide for call routing based on conditions, including but not limited to:</p> <ul style="list-style-type: none"> • time of day; • day of week; • Holiday schedule; • planned outage; • wait times (Configurable) and • call volumes (Configurable).
1341	<p>The Contractor shall provide the capability for Authorized Users to configure the relevant parameters related to call handling, including but not limited to:</p> <ul style="list-style-type: none"> • service levels; • skill levels; • language selection; • phone number and hours of operation for contact center; • locations of WICs; • remote/other call handling locations;

	<ul style="list-style-type: none"> • conditional escalations;
	<ul style="list-style-type: none"> • prioritization of queues;
	<ul style="list-style-type: none"> • call routing rules;
	<ul style="list-style-type: none"> • call recording rules;
	<ul style="list-style-type: none"> • call wait-time rules;
	<ul style="list-style-type: none"> • music on hold selections and
	<ul style="list-style-type: none"> • message on hold selections.
1342	The Contractor shall provide the capability to specify and manage service levels.
1343	The Contractor shall provide the capability to notify Authorized Users regarding service level performance.
1344	The Contractor shall provide the capability to automatically move contacts between service groups to meet service levels and key performance indicators.
1345	The Contractor shall provide the capability to prioritize contacts.
1346	The Contractor shall provide the capability to reprioritize contacts in queue.
1347	The Contractor shall provide the capability to restrict outbound calling to only specific users.
1348	The Contractor shall provide the capability to make outbound pre-recorded calls.
1349	The Contractor shall provide the capability to manage outbound call campaigns.
1350	The Contractor shall provide the capability to manually initiate automated outbound calls to accounts that meet specified criteria (for example, initial collections activities based on information provided by the Collections Agencies).
1351	The Contractor shall provide the capability for Authorized Users to be designated for both outbound and inbound calling.
1352	The Contractor shall provide the capability to record and activate new initial messages to be heard by all callers, for example maintenance messages that the IVR is down or that the CSC is closing early.
1353	The Contractor shall provide the capability for virtual queuing, which allows customers to hang up while still keeping their place in the queue and receive a call a back when it is their turn rather than waiting on hold.
1354	The Contractor shall provide the capability to notify callers of the estimated wait time either on hold or for a call back.
1355	The Contractor shall provide expected wait time messages during the time the customer is on hold.
1356	The Contractor shall provide recorded audio while customers are on hold.
1357	The Contractor shall provide the capability to record messages to be played to on-hold customers.

1358	The Contractor shall provide for the interspersing of music for pre-recorded on-hold messages.
1359	<p>The Contractor shall provide computer telephony integration to the BOS to display the user account, including but not limited to:</p> <ul style="list-style-type: none"> • screen pop based on inbound caller ID; • screen pop based on caller-entered information and • screen pop notifying CSR that customer has successfully authenticated.
1360	The Contractor shall provide the capability for all inbound and outbound calls to be recorded.
1361	The Contractor shall provide the capability to prevent recording of Credit Card information, for example, for the purpose of tokenization, transfer the warm call to the Merchant Service Provider for payment and once payment is completed transfer back to CSR.
1362	<p>The Contractor shall provide workforce management tools, including but not limited to:</p> <ul style="list-style-type: none"> • forecasting contact volume based upon historical trends; • managing key performance indicators; • dashboard monitoring of key performance indicators; • real-time reports for monitoring key performance indicators and • call recording on demand or automatically.
1363	<p>The Contractor shall provide supervisory management tools, including but not limited to:</p> <ul style="list-style-type: none"> • manage call recording profile by Authorized User; • chat electronically with Authorized Users; • silently monitor calls; • initiate a three-way call; • remove the Authorized User from the call; • access real-time agent performance statistics and • access real-time group performance statistics.
1364	<p>The Contractor shall provide the capability for Authorized Users (for example Agency staff) to remotely access real-time and historical performance information, including but not limited to:</p> <ul style="list-style-type: none"> • overall customer call queue information; • all wait time and call handling times; • specific call queue information, for example, information about only the Spanish queue or the dispute queue; • chat queue information; • key performance indicators and

	<ul style="list-style-type: none"> • active Authorized Users.
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1.13.2. IVR System

The IVR System allows allow customers to perform all actions that they might ask of a CSR with the exception of certain functions that are specific to the role of an Authorized User, for example adding certain Account Plans or changing the name on an account. The IVR must provide all required functions in both English and Spanish.

1365	The Contractor shall provide sufficient IVR processing capacity to support 200 percent of the current call volumes provided in Attachment E: Estimated Volumes.
1366	<p>The Contractor shall provide the capability to configure the IVR System, including but not limited to:</p> <ul style="list-style-type: none"> • allowable number of failed authorization attempts; • allowable number of invalid responses and • allowable idle time.
1367	The Contractor shall provide the capability to view and configure the phone tree in graphical manner.
1368	The Contractor shall allow for custom IVR messages to be immediately recorded and inserted as needed and requested.
1369	The Contractor shall provide the capability for standard messages to be rotated in the IVR as needed or requested.
1370	The Contractor shall provide the capability for an Authorized User to have role-based access to the system to make all types of common IVR changes.
1371	The Contractor shall provide directed dialog natural language speech recognition for all IVR services, recognizing the customers voice for identity verification, option selections, navigation and customer-provided information such as account information, Violation number, plate number, etc., and for customer accessing of account and all other information provided by the IVR.
1372	Support bi-lingual (English and Spanish) interaction, and the Contractor shall provide the Interface that supports bi-lingual options for customer interaction.
1373	<p>Support various modes of operation, including but not limited to:</p> <ul style="list-style-type: none"> • CSC open hours when the IVR and CSR options are available to service the customer; • CSC off-hours when only the IVR is available to service the customer and • conditions where the BOS is not functional, CSC is not open for operations, but the IVR System is operational.
1374	The Contractor shall provide the capability to verify customer identity and authorization prior to transferring the customer to a CSR. The verification authorization process shall be automated to minimize any delays for the customer.

1375	The Contractor shall provide the capability to pop-up the customer account or Violation information on the BOS screen so the CSR has all the pertinent information available prior to the call being received by the CSR.
1376	The Contractor shall provide for the retention of account number, Violation Notice number or other entered information (excluding any Credit Card information) to be made available to the CSR who takes the call should the customer exit the IVR and wish to speak to a CSR.
1377	The Contractor shall provide the capability for the caller to execute multiple options within the same call, for example return to previous menu and repeat prompt options.
1378	The Contractor shall provide English and Spanish speaking customers the ability to respond to the IVR by pressing designated keypad buttons on their phone or saying a response.
1379	The Contractor shall provide a single IVR recording voice talent per supported language and have consistency in voice volume and intonation throughout the Operations and Maintenance Phases.
1380	The Contractor shall provide the capability to fully integrate with the Merchant Services Provider Credit Card information while maintaining compliance with tokenization and PCI DSS Requirements.
1381	The Contractor shall provide the capability for customers to manage their account.
1382	<p>The Contractor shall provide the capability for customers to access the account using the PIN and one other piece of information, including but not limited to:</p> <ul style="list-style-type: none"> • caller ID (ANI); • account number; • license plate number; • transponder number and • Violation Notice number.
1383	<p>The Contractor shall provide the capability to limit the types of transactions and activities customers can access via the IVR based on account types, including but not limited to:</p> <ul style="list-style-type: none"> • account Flags; • account balance; • account status; • Account Plan; • account type and • Business Rules.
1384	The Contractor shall provide the capability for customers to add, edit and remove Credit Cards associated with the account.
1385	The Contractor shall provide the capability for customers to make a one-time payment to the account.
1386	The Contractor shall provide the capability for customers to enroll in auto replenishment and configure replenishment information.

1387	The Contractor shall provide the capability for customers to make a payment using an existing payment method on the account without having to re-enter the payment method information.
1388	The Contractor shall provide the capability to accept Credit Card payments via tokenized method.
1389	The Contractor shall provide the capability to prevent customers from making payments in excess of an amount based on account type (Configurable).
1390	The IVR shall not store any of the Credit Card information that is input, including in recordings and logs.
1391	The Contractor shall provide detailed tracking of payments processed via the IVR.
1392	The Contractor shall provide an audio summary for the customer, including payment method details (last specific number of digits on the Credit Card) and amount, and request confirmation prior to allowing the customer to submit a payment.
1393	The Contractor shall provide the capability for customers to make a payment and have it applied toward the account balance or a specific item on the account.
1394	The Contractor shall provide the capability for violators to make a payment and have it applied toward a specific item on the account.
1395	The Contractor shall provide the capability for customers to obtain the last "x" number of toll transactions (Configurable).
1396	The Contractor shall provide the capability for customers to obtain the last "x" number of Financial Transactions (Configurable).
1397	The Contractor shall provide the capability for customers to obtain the balance on the account.
1398	The Contractor shall provide the capability for customers to request statements with the option to select the delivery method.
1399	The Contractor shall provide the capability for customers to add, edit and remove vehicles and license plates from the account.
1400	The Contractor shall provide the capability for customers to order transponders and mounting strips.
1401	The Contractor shall provide the capability for customers to report lost/stolen transponders.
1402	The Contractor shall provide the capability for customers to update the PIN.
1403	The Contractor shall provide the capability for customers to hear Notifications that have been sent.
1404	The Contractor shall provide the capability for customers to receive an confirmation by preferred channel when account updates or payments are made via the IVR.
1405	The Contractor shall provide the capability to automatically create a contact record in the account history for contacts made via the IVR.
1406	The Contractor shall provide IVR System reports that help determine how the IVR is functioning and its effectiveness, including but not limited to:

	<ul style="list-style-type: none"> the number of calls routed to the IVR;
	<ul style="list-style-type: none"> abandon rate;
	<ul style="list-style-type: none"> account maintenance activities performed;
	<ul style="list-style-type: none"> payments processed;
	<ul style="list-style-type: none"> transaction history accessed;
	<ul style="list-style-type: none"> customer support requests;
	<ul style="list-style-type: none"> general information obtained and
	<ul style="list-style-type: none"> the number of calls transferred to a CSR from the IVR.

1.13.3. Email

1407	The Contractor shall provide the capability to service and manage inbound/outbound customer emails.
1408	The Contractor shall assume all current email domains for use by the new BOS;
1409	The Contractor shall provide the capability for CSRs to select and enter the reason(s) for the email.
1410	The Contractor shall provide the capability to respond to customer inquiries with pre-completed (canned) responses that provide variable inputs.
1411	The Contractor shall provide the capability to estimate and/or program the response time to a customer's email.
1412	The Contractor shall provide the capability to send e-blast emails to all customers with an email address.
1413	The Contractor shall provide the capability for English and Spanish language options.
1414	The Contractor shall provide automated email distribution, including conditional routing to qualified Authorized Users.
1415	The Contractor shall provide the capability to prevent recording or accepting of Credit Card information in email communication.
1416	The Contractor shall provide full integration between the email system and the BOS in association with the account such that emails are able to be viewed from the customer account in BOS.
1417	The Contractor shall provide automated reporting of all email correspondence by subjects (wrap codes) and response times.

1.13.4. Fax

1418	The Contractor shall provide the capability to service and manage inbound/outbound customer faxes.
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1419	The Contractor shall provide the capability for CSRs to select and enter the reason(s) for the fax.
1420	The Contractor shall provide full integration between the fax system and the BOS in association with the account such that faxes are able to be viewed from the customer account in BOS.
1421	The Contractor shall provide automated reporting of all fax correspondence by subjects (wrap codes) and response times.

1.13.5. Chat

1422	The Contractor shall provide the capability to service and manage inbound customer chat sessions.
1423	The Contractor shall provide the capability for CSRs to select and enter the reason(s) for the chat.
1424	The Contractor shall provide the capability to respond to customer inquiries with pre-completed (canned) responses that provide variable inputs.
1425	The Contractor shall provide the capability to estimate and/or program the response time to a customer's chat request.
1426	The Contractor shall provide the capability to configure the ability to respond to multiple chat sessions concurrently.
1427	The Contractor shall provide the capability to provide a survey for the customers after the chat.
1428	The Contractor shall provide the capability for English and Spanish language options.
1429	The Contractor shall provide the capability for the customer to have a full record of the entire chat session emailed to them.
1430	The Contractor shall provide the capability to record the full chat session.
1431	The Contractor shall provide automated chat request distribution, including conditional routing to qualified Authorized Users.
1432	The Contractor shall provide the capability to prevent recording or accepting of Credit Card information in chat sessions.
1433	The Contractor shall provide full integration between the chat system and the BOS in association with the account such that chats are able to be viewed from the customer account in BOS.

1.13.6. Text

1434	The Contractor shall provide the capability to service and manage inbound customer text sessions.
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1435	The Contractor shall provide the capability for CSRs to select and enter the reason(s) for the text.
1436	The Contractor shall provide the capability to respond to customer inquiries with pre-completed (canned) responses that provide variable inputs.
1437	The Contractor shall provide the capability to estimate and/or program the response time to a customer's text request.
1438	The Contractor shall provide the capability to provide a survey for the customers after the text.
1439	The Contractor shall provide the capability for English and Spanish language options.
1440	The Contractor shall provide the capability to record the text responses.
1441	The Contractor shall provide automated text distribution, including conditional routing to qualified Authorized Users.
1442	The Contractor shall provide the capability to prevent recording or accepting of Credit Card information in text communication.
1443	The Contractor shall provide full integration between the text system and the BOS in association with the account such that text message are able to be viewed from the customer account in BOS.

1.14. Financial Requirements

These financial Requirements describe the functionality that must be present in the BOS for the Agencies to service customers and to record financial activity related to the BOS in its general ledger system.

The Agencies use a modified accrual method of accounting and prepare financial statements in accordance with GAAP and GASB using a June 30 Fiscal Year end.

It is important that revenues associated with tolls are presented separately from other revenues (for example, fees and fines) and separated by Agency and Toll Facility. The Agencies utilize reports detailing historical collections to analyze and estimate future revenues from Violations. For this reason, it is important that the reporting enable the Agencies to analyze the period in which Violations occurred versus the period in which those Violations were paid.

Prepaid tolls shall be deposited to a Bank Account held by the Agencies until such time as an action on the account causes such funds to be depleted. Such actions include but are not limited to: customer incurring tolls on an OCTA/RCTC Toll Facility; customer incurring tolls on an Interoperable Agency Toll Facility; account incurring a fee; returned check being processed on the user account; customer requesting a refund and customer requesting account closure.

The BOS is the conduit between the Agencies and customers; Interoperable Agencies, and Third-Party Service Providers and Business Partners. The Contractor shall reconcile all transactional and financial interactions between the BOS and customers; Interoperable Agencies and Third-Party Service Providers, and Business Partners. The Contractor also shall also reconcile all transactional and financial interactions between the BOS and the Agencies.

1.14.1. General Financial Requirements

Financial reports shall not change once the Revenue Day is closed. The Revenue Day is typically closed by a semi-automated process once a series of reconciliations is performed to ensure all transactions have been appropriately received and processed. While immaterial variances and discrepancies (for example, if a handful of transactions were not processed) may be corrected after the Revenue Day has been closed, material discrepancies (for example, an entire unprocessed payment or transaction file) must be corrected before the Revenue Day is closed. Once the Revenue Day is closed, any adjustments or corrections to transactions that occurred in that Revenue Day must be made in the current Revenue Day.

The Agencies do not intend to use the BOS as its general ledger system, nor do the Agencies intend to feed data from the BOS automatically to its general ledger. The Agencies intend to use exports and reports from the BOS to record the financial entries into the Agencies' financial system. The BOS must utilize GAAP-compliant methods to record financial activity between the Toll Facilities and the BOS and between the BOS and customers; Interoperable Agencies and Third-Party Service Providers and Business Partners.

1444	The Contractor shall provide an integrated, Configurable, GAAP-compliant accounting Module for all transactions.
1445	The Contractor shall provide for double entry recording of all Financial Transactions.
1446	Separate financial data shall be maintained for each Agency, Toll Facility, each CTOC Agency, each Interoperable Agency, each Collection Agency and each Third Party Business Partner and Service Provider.
1447	The Contractor shall create automatic journal entries for recording and tracking all transactions and payment events.
1448	The Contractor shall develop a journal entry template for every BOS transaction that impacts revenue, liability balances (for example, Registered or Unregistered accounts) or asset balances (for example, accounts receivable) to be Approved by the Agencies.
1449	The Contractor shall provide an audit trail for each transaction, which shall reflect the source of each transaction, all adjustments to the transaction and the current status of the transaction and/or the final disposition of the transaction.
1450	Every payment that resulted in a receivable being marked paid shall be traceable to the receivable(s) it paid.
1451	Every paid receivable shall be traceable to one or more payments that were allocated to its payment.
1452	The BOS shall allow for different Business Rules for each Agency to be applied to Financial Transactions; for example, the BOS shall allow for different write-off Business Rules by Agency which may allow one Agency to automatically write-off certain of its balances while another Agency may require manual approval for all write-offs of its balances. Other examples include DMV Hold, Violation escalation, penalties and dismissal policies.

1.14.2. Transaction Recording

Toll transactions are initiated by an originating OCTA/RCTC Toll Facility through transmission of a transaction/trip from the ETTM System to the BOS and Posted to user accounts. The Agencies are

currently Interoperable with all California toll agencies through their participation in CTOC. The Agencies intend to become Interoperable with other Interoperable Agencies outside of CTOC during the term of this Agreement. These transactions also are Posted against the Financial Accounts. These include transactions such as a toll or a fee and the transaction activities that affect them, such as billing a transaction or sending it to collections. All transactions and transaction activities are recorded against Financial Accounts.

1453	Record all BOS activities, including but not limited to:
	• when a new transaction/trip is received from the ETTM System;
	• when an amendment is made to a transaction/trip by the BOS;
	• when an amendment is made to a transaction/trip by a Collection Agency;
	• when a new or amended transaction is received from a CTOC Agency;
	• when a new or amended transaction is received from an Interoperable Agency;
	• when a fee, penalty or any transaction is assessed by the BOS;
	• when a fee, penalty or any transaction is collected;
	• when a fee, penalty or any transaction is waived, voided or otherwise reversed;
	• when a fee, penalty or any transaction is adjusted and
	• when there is a change in the status or workflow stage of a fee or penalty or another transaction.
1454	All entries to the BOS shall consider payable and receivable balances between, including but not limited to:
	• the customer and the BOS;
	• the BOS and the Agencies;
	• the BOS and Collection Agency;
	• the BOS and CTOC Agencies;
	• the BOS and Interoperable Agencies and
1455	• the BOS and Third-Party Service Providers and Business Partners.
1455	The BOS shall provide the capability of recording a payable to or receivable from the Agencies, a Collection Agency, a CTOC Agency, an Interoperable Agency, a Third-Party Service Provider or Business Partner simultaneously with the recording of a customer payment against a transaction.
1456	Create all financial entries as individual records, which may be used in combination with other financial entries to make a net effect, but do not allow the original entry to be modified.
1457	Ensure each debit entry to a Financial Account has a corresponding and equal credit amount and each credit entry to a Financial Account has a corresponding and equal debit amount so the Financial Accounts balance at all times.

1458	The Contractor shall provide reports in summary and in detail on the Financial Accounts. BOS reports shall be provided that reconcile to the Financial Accounts.
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1.14.2.1. Fee and Penalty Transaction Recording

Fees and penalties are charged to customers at a variety of different escalations in status or workflow stage, including but not limited to:

- when a Notice of Toll Evasion Violation is generated;
- when a Notice of Delinquent Toll Evasion Violation is generated;
- when transactions/trips are accepted for Registration Hold;
- when transactions/trips are sent to collections and
- when a FasTrak account is sent to collections.

Fees may also be charged when certain transactions/trips are Posted to an account, including but not limited to returned checks, chargebacks, failed FasTrak account replenishment, Excessive I-Tolls and for accounts below the Insufficient Balance Threshold.

Fees and penalties can be incurred at the trip level or at the account level. In the case of fees and penalties for shared facilities, the Toll Facilities will share in the fee and penalty revenue in accordance with the Approved design.

1.14.3. Customer Transaction Settlement

Customer transaction settlement is the payment of tolls, fees and penalties by the customer. Customer transaction settlement also includes any payment reversals, chargebacks and refunds.

Funds collected from customers and Interoperable facilities are deposited into Bank Account(s) established by the Agencies. Payments are issued from these accounts(s) including:

1. Customer Refunds issued by check to customers.
2. Payments are made to Interoperable facilities.
3. Funds are deposited and held in a Master Custodial Account until refunded to customers, paid to Interoperable Agencies or distributed to the Agencies.

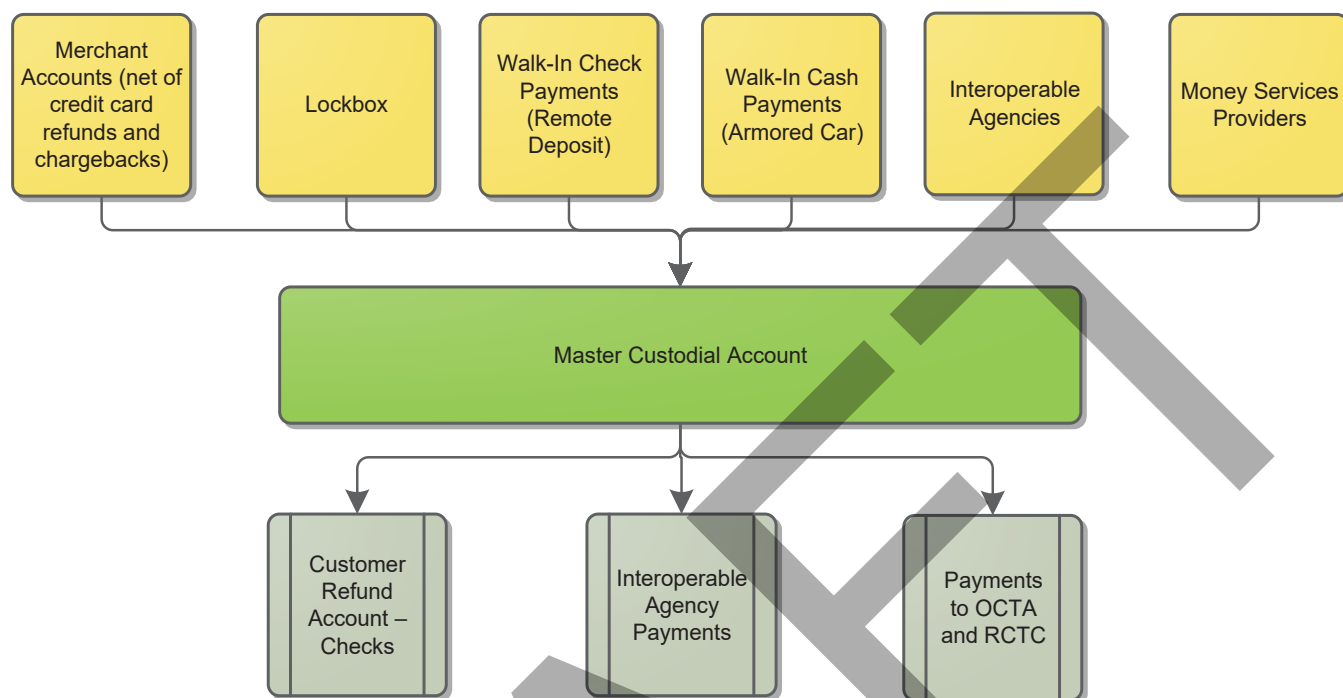


Figure 1-1 Customer Transaction Settlement

1.14.3.1. Customer Payments

Payments and other receipts shall be processed by the BOS in accordance with the following Requirements:

1459	Payments are collected from the following payment sources. The number and names of payment sources shall be Configurable and include but are not limited to:
	<ul style="list-style-type: none"> • merchant accounts;
	<ul style="list-style-type: none"> • DMV;
	<ul style="list-style-type: none"> • collections;
	<ul style="list-style-type: none"> • Lockbox (optional);
	<ul style="list-style-type: none"> • check payments;
	<ul style="list-style-type: none"> • cash payments (processed at WICs);
	<ul style="list-style-type: none"> • Interoperable Agencies and
	<ul style="list-style-type: none"> • Franchise Tax Board.
1460	The Contractor shall provide the capability to establish deposit accounts within the BOS and map those deposit accounts to BOS Modules, including but not limited to Financial Account, deposit reports and bank reconciliation. For example, deposits to the Lockbox Bank Account

	(if the Contractor elects to use one) are recorded in the Financial Account associated with the Lockbox Bank Account.
1461	The Contractor shall provide the capability to map deposits by payment source to default Bank Accounts. For example, deposits received from the Merchant Service Provider are mapped in the BOS as received from the Merchant Service Provider and being deposited to the Bank Account to which the Merchant Service Provider makes its deposits.
1462	The Contractor shall provide the capability to capture the bank deposit date and associate it with the payment transaction.
1463	Funds shall be disbursed from the following payment sources. The number of names of payment sources shall be Configurable and include but are not limited to: <ul style="list-style-type: none"> • customer Refund Account; • Interoperable Agency and • Agency remittance account.
1464	The Contractor shall provide the capability to establish disbursement accounts within the BOS and map those disbursement accounts to BOS Modules, including but not limited to Financial Account, disbursement reports and bank reconciliation.
1465	The Contractor shall provide the capability to map disbursements by disbursement type to default disbursement accounts.
1466	Payments shall be applied to account balances on a Configurable basis (default order is automatically assigned by the BOS).
1467	The default Posting order can be manually overridden by Authorized Users.

1.14.3.2. Disbursements

Disbursements will be made to customers for overpayments and refunds and also made to the Agencies, CTOC Agencies, Interoperable Agencies, and Third-Party Service Providers and Business Partners.

1468	The BOS shall support the processing of disbursements, including but not limited to: <ul style="list-style-type: none"> • customer refunds; • settlement with the Agencies; • settlement with CTOC Agencies; • settlement with Interoperable Agencies, and • settlement with Third-Party Service Providers and Business Partners.
1469	The Contractor shall provide the Configurable capability to automatically identify accounts that are eligible for refund processing and present those refunds for review and approval based on various activities on the account (require review before a refund would be processed), including but not limited to: <ul style="list-style-type: none"> • closing of an account;

	<ul style="list-style-type: none"> unapplied payments (for example, a payment that has been received and deposited but cannot be Posted to an account and needs to be refunded);
	<ul style="list-style-type: none"> overpayment on an account and there are no outstanding Violations or unbilled tolls that need to be paid and
	<ul style="list-style-type: none"> overpayment of a Violation and there are no other outstanding Violations or toll transactions/trips that need to be paid.
1470	The Contractor shall provide the capability for an optimized and streamlined (minimized number of steps) process for refunds based on the original transaction and confirm such refunds are reflected on the user account history. For example, upon receipt of a customer request to close an account and after the appropriate waiting period has elapsed, an Authorized User shall have the capability to Approve a refund without the need to research and indicate refund method and, in the case of Credit Card refunds, select or input the card number; the BOS shall have the capability to automatically allocate Approved refunds to the correct refund type and card number.
1471	The Contractor shall provide the capability to issue refunds to the payment method that was used to create the credit balance.
1472	The Contractor shall provide the capability to issue electronic refunds (for example, by Credit Card) to the Credit Card used to make the payment, including but not limited to those Credit Card that are not stored on the user account. For example, the BOS can utilize a payment reference number to trace back to a payment method without the need for the BOS to retain the card information.
1473	The Contractor shall provide the capability to issue refunds by check if the account does not provide for an electronic method or if the electronic method is invalid (for example, if the Credit Card is expired).
1474	If required in order to comply with the merchant agreement or any other agreements or regulations, the Contractor shall provide the capability to issue a single refund using more than one payment method. For example, a single refund amount may be issued to multiple Credit Cards and/or by check.
1475	<p>The Contractor shall provide the capability to issue refunds by check for overpayments on, including but not limited to:</p> <ul style="list-style-type: none"> prepaid tolls; Violations; fees and penalties.
1476	The Contractor shall provide the capability to prevent refunds of greater than the amount of the original transaction amount or the prepaid balance, adjusted for overpayments and any prior refunds.
1477	The Contractor shall provide the capability for automated processing of Approved refunds after a Configurable hold period.
1478	The Contractor shall provide the capability to send an Operational Alert Notification to the PMMS when eligible refunds are due.

1479	The Contractor shall provide the capability to expedite a refund if the customer requests to have a refund issued before the Configurable hold period has elapsed, for example when a customer is due a refund because a check was cashed for the wrong amount due to CSR error.
1480	The Contractor shall provide the capability to require authorized approvals for refunds. For example, refunds in excess of a Configurable amount or refunds for goodwill credits for which there is no associated payment are routed for approval through Cases.
1481	The Contractor shall provide the capability to track and associate all refunds to the original payment on the account.
1482	The Contractor shall provide the capability to display detailed Credit Card settlement activity for refunds by payment method.
1483	The Contractor shall provide the capability to prevent the automatic issuance of refunds if the account has an outstanding balance due; such refunds require the approval of an Authorized User through Cases.
1484	The Contractor shall provide the capability to send a refund Notification electronically and/or by mail to all customers who are issued a refund.

1.14.3.3. Escheatment (unclaimed property)

The BOS shall allow for comments to be entered in accounts that are eligible for Escheatment and a Flag shall be available to indicate when an account was subjected to Escheatment procedures.

1485	The Contractor shall provide the capability to enter comments and update statuses and Flags to indicate that an account was subjected to Escheatment procedures.
1486	The Contractor shall provide the capability to identify any unclaimed funds as candidates for the Escheatment process by Agency.
1487	The Contractor shall provide the capability to identify any unclaimed funds as subjected to the Escheatment process by Agency.

1.14.3.4. Write-Off of Unpaid Balances

The BOS shall have the capability of processing Write-Offs at the Agencies' discretion. The BOS must accommodate both automatic and manual Write-Off of unpaid balances and Toll Transactions. These write-offs will include bulk Write-Offs of a group of transactions which meet Configurable criteria and individual transactions/debts. This process shall be conducted in an efficient and streamlined manner. The BOS shall provide reporting detailing balances subject to Write-Off and the details of the transactions/debts written-off.

1488	The Contractor shall provide the functionality to accept payment on transactions/trips that have been written-off, for example reverse the Write-Off in the amount of the payment and apply the payment.
1489	The Contractor shall provide for Write-Off codes which shall provide the selection of a Write-Off reason for each transaction.

1490	The Contractor shall provide for the Write-Off of individual transactions by Authorized Users.
1491	The Contractor shall provide for the bulk Write-Off of transactions by Authorized Users.
1492	The Contractor shall provide the capability for the BOS to automatically Write-Off transactions/debts based on Business Rules, for example, write-off balances after X Configurable days if no action.
1493	The Contractor shall provide for the cessation of status or workflow stage and collection effort following Write-Off.
1494	The Contractor shall provide the capability to require a reason for each Write-Off, for example, debt reduction negotiation or debt older than "x".
1495	The Contractor shall provide the capability for the BOS or the applicable Authorized User to select the appropriate Write-Off reason.
1496	The Contractor shall provide the capability to search for types of debt and Write-Off the selected group of debts. Types of debts include but at not limited to:
	<ul style="list-style-type: none"> • fees;
	<ul style="list-style-type: none"> • penalties and
	<ul style="list-style-type: none"> • tolls.

1.14.4. Reconciliation and Settlement – General Requirements

Balancing and reconciliations are integral to the BOS operation. Therefore, these processes shall be integrated within the BOS.

The Contractor shall provide a BOS capable of handling reconciliations within the BOS, as opposed to on spreadsheets or through other mechanisms outside the BOS. For example, the BOS shall be capable of accepting data from the bank(s) and Merchant Service Provider(s) to reconcile Credit Card deposits within the BOS. Exceptions shall be tracked as Cases within the BOS and reconciliation reports are generated by the BOS. The BOS shall not require that data be exported from the BOS, from the bank(s) and from the Merchant Service Provider(s) to be combined, compared and reconciled in a spreadsheet.

1497	The BOS shall track and reconcile 100 percent of the transactions it receives from each individual ETTM System.
1498	All BOS transaction reconciliation shall be based on Revenue Day which, for transactions/trips, is the Revenue Date transmitted in the transactions/trips; for operations and payments activities, it is the day the event occurred.
1499	The Contractor shall provide the capability to close a Revenue Day upon the final reconciliation of the transactions and revenue. The completion of the Revenue Day closure process finalizes the counts and revenue for the Revenue Day. Upon the closure of the Revenue Day the data on Revenue Day reports shall not change.
1500	The Contractor shall provide the capability to close a Revenue Month similar to the Revenue Day closure process.

1501	The last Revenue Day of a Revenue Month shall remain open for adjustments until both the Revenue Day and the Revenue Month have been closed.
1502	The Contractor shall provide the capability to close a Revenue Year similar to the Revenue Month closure process.
1503	The last Revenue Day of a Revenue Year shall remain open for adjustments until the Revenue Day, Revenue Month and Revenue Year have been closed.
1504	The Contractor shall provide the capability to investigate and correct all exceptions and discrepancies identified during the process. For example, if the total of the bank deposits does not equal the total of bank deposits per the BOS, then detailed reports relating to the deposits in question must be available. Corrections shall be made and Approved by Authorized Users.
1505	All reports shall indicate the status of the reconciliation. For example, when a user runs a report containing data for a Revenue Day which has not yet been closed, the report shall contain some indication the data in the report is preliminary or subject to change.
1506	The Contractor shall provide the capability to record fees in the BOS, for example merchant fees and bank fees.

1.14.4.1. Banking Reconciliation and Settlement

1507	The Contractor shall provide the capability to reconcile all financial activity, including but not limited to:
	<ul style="list-style-type: none"> • deposits; • credits; • disbursements; • returned items and • chargebacks.
1508	The Contractor shall provide for the daily Balancing of activity at the transaction level by Payment Type.
1509	The Contractor shall provide for the identification of exceptions by transaction.
1510	The Contractor shall provide the capability to allow Authorized Users to make adjustments to exceptions and reprocess the automated reconciliation.
1511	The Contractor shall provide the capability to open a Case for reconciliation exceptions.

1.14.4.2. Bank Deposit Reconciliation and Settlement

The BOS deposits funds collected by mail and in the WICs. These funds are deposited by the BOS directly into BOS Bank Accounts in accordance with the flow of funds depicted in Figure 1-1 Customer Transaction Settlement. These deposits must be balanced and reconciled on a daily basis and monthly basis.

1512	The Contractor shall provide an automated Interface to reconcile bank deposits.
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1.14.4.3. Reconciliation and Settlement with Merchant Service Provider

The BOS initiates Credit Card transactions with one or more Merchant Service Providers. Funds collected through the merchant accounts by the Merchant Service Provider are deposited directly into BOS Bank Accounts in accordance with the flow of funds depicted in Figure 1-1 Customer Transaction Settlement.

1513	The Contractor shall provide an automated Interface to reconcile transactions initiated with the Merchant Service Provider(s).
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1.14.4.4. Reconciliation and Settlement with Lockbox (optional)

The BOS utilizes a Lockbox Service Provider to process customer check payments. Payments sent to the Lockbox will be processed by the Lockbox Service Provider and deposited directly into BOS Bank Accounts in accordance with the flow of funds depicted in Figure 1-1 Customer Transaction Settlement.

1514	The Contractor shall provide an automated Interface to reconcile Lockbox Service Provider deposits.
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1.14.4.5. Reconciliation and Settlement with the Agencies

The daily reconciliations between the ETTM System and the BOS shall address transactions and payments.

The transactional reconciliations shall be handled by the BOS. The ETTM System will transmit a transaction/trip to the BOS, which the BOS shall acknowledge and thereafter begin the Posting/billing process.

The reconciliations related to payments shall address payments being made by the BOS to the Agencies. These payments are a result of payments being collected from customers, processed and remitted to the Agencies in settlement of balances due.

1515	The Contractor shall provide the capability to track payables and receivables between the BOS and the Agencies based on customer payments, payment reversals and Posting of payments to transactions/trips.
1516	The Contractor shall provide the capability to track payables to and receivables from the Agencies based on BOS remittances to these entities. For example, when a settlement payment is made to the Agencies, the Agencies' payable Financial Account is debited and the Financial Account corresponding to the Bank Account from which the payment is made is credited.
1517	The Contractor shall provide electronic Notification of daily reconciliation and monthly settlement to the Agencies. For example, Authorized Users at the Agencies receive an Alert (which could be an email including the completed reconciliation as an attachment or link) when the daily reconciliation is completed and Revenue Day closed.
1518	The Contractor shall provide for reconciliation of daily activity and transactions with the Toll Facilities.

1.14.4.6. Reconciliation and Settlement with CTOC Agencies and Interoperable Agencies

The BOS shall remit funds collected from customers to the CTOC Agencies and Interoperable Agencies in accordance with the following Requirements:

1519	The Contractor shall provide the capability to track payables and receivables between the BOS and the CTOC Agencies and Interoperable Agencies based on customer payments, payment reversals and Posting of payments to transactions/trips.
1520	The Contractor shall provide the capability for the credit memo process to handle disputes and credits initiated by customers of CTOC Agencies.
1521	The Contractor shall provide the capability to track payables to and receivables from the CTOC Agencies and Interoperable Agencies based on BOS remittances to the CTOC Agencies and Interoperable Agencies. For example, when a settlement payment is made to an Interoperable Agency, the Interoperable Agency payable Financial Account is debited and the Financial Account corresponding to the Bank Account from which the payment is made is credited.
1522	The Contractor shall provide electronic Notification of daily reconciliation and settlement of CTOC Agencies and Interoperable Agencies to the Agencies. For example, Authorized Users at the Agencies receive an Alert (which could be an email including the completed reconciliation as an attachment or link) when the daily reconciliation is completed and Revenue Day closed.
1523	The Contractor shall provide for reconciliation of daily activity and transactions/trips with the CTOC Agencies and Interoperable Agencies in accordance with the applicable Interoperability agreement(s).
1524	The Contractor shall provide capability to generate periodic invoice for CTOC and Interoperable Agency toll charges. The invoice shall be based on reconciled files for each month even if the reconciliation files were received in the following month. Any manual adjustments during the invoice period shall be included in the invoice with the necessary Credit/Debit Memo as identified in the CTOC User Fee Agreement. Payments from Interoperable/CTOC Agencies shall be Posted against the invoice.
1525	The Contractor shall provide capability to enter invoices from CTOC Agencies and Interoperable Agencies to match that with the files in the BOS including any Credit/Debits that were authorized by the Interoperable/CTOC Agency. Payments to the CTOC Agency or Interoperable Agency shall be made after the reconciliation of the invoice with the BOS.

1.14.4.7. Reconciliation and Settlement with Third-Party Service Providers and Business Partners

1526	The Contractor shall provide for reconciliation of daily activity and transactions with Third-Party Service Providers and Business Partners.
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1.15. Searches

Customers routinely contact the CSC by phone, through the IVR and through the Self-Service Website without knowing their account number, PIN or vehicle license plate numbers. The BOS is expected to

provide quick, yet secure access to an account when a customer can positively identify him/herself as the account holder.

1.15.1. Search General

1527	The Contractor shall provide comprehensive on-screen, drill-down capabilities from summary levels down through the most detailed transaction level, including images if available.
1528	The Contractor shall provide the capability to initiate a search from any screen in the BOS and return to the original location after completing the search.
1529	The Contractor shall provide the capability to select a record in the results grid and view the details and then return to the previous results grid to view additional items without having to re-enter the search criteria or re-run the search.
1530	The Contractor shall provide the capability to select record(s) to use in actions, for example obtaining detailed record information from the search results grid.
1531	The Contractor shall provide the capability to manipulate the field in grid results for all searches, including but not limited to:
	<ul style="list-style-type: none"> • drag and drop fields and columns to shift the order they appear;
	<ul style="list-style-type: none"> • sort by any fields shown on the grid;
	<ul style="list-style-type: none"> • sort alphanumerically by any fields shown on the grid;
	<ul style="list-style-type: none"> • sort by multiple fields (for example, sort by last name and then first name and then address so that all results with the last name "Smith" shall be sorted by first name and all the results with the name "John Smith" shall be sorted by address);
	<ul style="list-style-type: none"> • add a field to the grid and • remove a field from the grid.
1532	The Contractor shall provide advanced search capabilities where fields can be picked from a drop-down list and added to the effective criteria to be applied toward the search or report. Drop-down lists shall dynamically narrow down the available selection list as the Authorized User is typing.
1533	The Contractor shall provide the capability to use single and multiple character "wildcards" along with other commonly used search methods in all applicable fields of the search screens. A wildcard is a character used as part of the search criteria to represent one or more unspecified characters. The BOS shall not require the use of wildcards in lieu of leaving the field blank.
1534	Searches shall have an optimized data fetching algorithm so BOS performance is not impacted by large result sets.
1535	The Contractor shall provide the capability to specify a date range for any date in the search.
1536	The Contractor shall provide the capability to specify a number range for any number in the search, for example, account numbers 1055 – 2000.
1537	The Contractor shall provide the capability to search by any field, combination of fields and field ranges.

1538	The Contractor shall provide comprehensive multi-field search criteria on all reports and screen searches. Search criteria shall include all fields and related attributes found in the search results grid.
1539	<p>The Contractor shall provide the capability to search, by full or partial value using wildcards and view all stored information regarding transactions, images, statements, Violation Notices, account activity and Notifications for user selected criteria, including but not limited to the following fields. Some search criteria may be available only in conjunction with other search criteria (for example, paid transactions enabled only if an account number is specified):</p> <ul style="list-style-type: none"> • transaction ID; • transaction type; • location of transaction (Toll Facility, plaza, zone/lane); • transaction number; • transaction Date; • transaction Date range; • transaction Posting Date; • transponder type; • transponder number; • license plate number; • license plate type; • license plate Jurisdiction; • account number; • customer name (last, first, middle, suffix); • customer address (street, city, state, ZIP) and type of address; • Authorized User ID; • statement, Violation Notice or invoice number; • account Flags; • address type; • bad address; • Violation number; • transaction disposition status (for example, paid); • payment type; • payment receipt number; • payment method;

	<ul style="list-style-type: none"> • check, money order or cashier's check number;
	<ul style="list-style-type: none"> • Payment Token and Credit Card expiration date;
	<ul style="list-style-type: none"> • transaction amount and
	<ul style="list-style-type: none"> • comments.

1.15.2. Transaction/Trip Search

1540	The Contractor shall provide the capability to search for and deliver all transactions/trips which meet the search criteria regardless of in the status of the transaction/trip or the status of the account to which the transaction/trip is assigned.
1541	<p>The Contractor shall provide the capability to search for transactions/trips which meet the search criteria with the result delivering multiple transactions, if applicable.</p> <ul style="list-style-type: none"> • transaction/trip ID; • transaction/trip type; • location of transaction/trip (Toll Facility, Toll Zone/lane); • transaction/trip number; • transaction/trip Date; • transaction/trip Date range; • transaction/trip Posting Date; • transaction/trip reason code; • transponder type; • transponder number; • license plate number; • license plate type; • license plate Jurisdiction; • account number; • Authorized User ID; • statement, Violation Notice or invoice number; • Violation number; • transaction disposition status (for example, paid, unknown at DMV or written-off); • Payment Type; • payment receipt number; • payment method and • transaction/trip amount.

1.15.3. Account Search

1542	The Contractor shall provide the capability to search for accounts which meet the search criteria with the result delivering multiple accounts.
1543	The Contractor shall provide the capability to search by key fields and identify potential duplicate accounts.
1544	<p>The Contractor shall provide the capability for Authorized Users to search and view all information related to a specific account. This shall include the complete detailed account history since account inception and capability of filtering and sorting by type of information, including but not limited to:</p> <ul style="list-style-type: none"> • toll transaction/trip; • Financial Transaction; • Notifications (includes letters and Violation Notices); • Registration Holds placed and released; • Collections Placements; • Evidence Packages; • Cases opened and closed; • all payment related events, including replenishment failures; • account statuses changes; • complete address history; • complete email address history; • complete vehicle history (what plates were active on the account and when); • complete change tracking (what data was changed, when and by whom); • last account access by the customer and via channel; • date and time of last toll transaction; • date and time of last Financial Transaction; • transponder activities and statuses and • account maintenance activities.
1545	The Contractor shall provide the capability to display the account running balance in Posting Date chronological order.

1.15.4. Case Search

1546	<p>The Contractor shall provide the capability to search and view all stored information regarding Cases, including but not limited to:</p> <ul style="list-style-type: none"> • summary information; • Toll Facility, if applicable;
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	<ul style="list-style-type: none"> • Case number (uniquely identifies the Case record);
	<ul style="list-style-type: none"> • priority (out of a predefined range);
	<ul style="list-style-type: none"> • source of Case;
	<ul style="list-style-type: none"> • status;
	<ul style="list-style-type: none"> • number of days since creation;
	<ul style="list-style-type: none"> • number of days since last Authorized User access/action;
	<ul style="list-style-type: none"> • due date and time;
	<ul style="list-style-type: none"> • total time spent working on the Case;
	<ul style="list-style-type: none"> • total time spent by a specific Authorized User or specific department;
	<ul style="list-style-type: none"> • related accounts and/or records;
	<ul style="list-style-type: none"> • description/free-form notes on the account;
	<ul style="list-style-type: none"> • date of action;
	<ul style="list-style-type: none"> • time of action;
	<ul style="list-style-type: none"> • Authorized User who took action;
	<ul style="list-style-type: none"> • time required for action and
	<ul style="list-style-type: none"> • action description (free-form data or notes section).
1547	<p>The Contractor shall provide the capability to search and view Case management, including but not limited to:</p> <ul style="list-style-type: none"> • total number of open Cases; • total number of open Cases, per department; • total number of open Cases, per Authorized User; • total number of open Cases by type; • total number of overdue Cases; • total number of processed Cases; • total number of Cases processed per unit of time; • total number of Cases processed per department; • total number of Cases processed per Authorized User; • response time statistics – overall; • response time statistics, per department and • response time statistics, per Authorized User.

1.15.5. Comment Search

1548	The Contractor shall provide the capability to identify and retrieve comment records into a search results grid, including but not limited to:
	<ul style="list-style-type: none"> • individually by category;
	<ul style="list-style-type: none"> • summarized by category;
	<ul style="list-style-type: none"> • individually by time period and • summarized by time period.

1.15.6. Transponder Search

1549	The Contractor shall provide the capability when searching by transponder number to display all accounts the transponder has ever been associated with including account number, account type, the date and time the transponder was added to and removed from the account and the current status of the transponder on each account. For example, this search might yield two accounts with the transponder identified as being Active on one account and lost on the other.
1550	The Contractor shall provide the capability when searching by transponder number to display all Notifications issued related to that particular transponder. For example, this search might yield an "Excessive I-Toll" Notification and a "transponder recall Notification" for a particular transponder.
1551	The Contractor shall provide the capability when searching by transponder number to display all statuses the transponder has been in along with the date and time the transponder entered that status.
1552	The Contractor shall provide the capability when searching by transponder number to display all inventory locations which the transponder has been in along with the date and time the transponder was placed in each location.

1.15.7. License Plate Search

1553	The Contractor shall provide the capability when searching by license plate and Jurisdiction to display all accounts the license plate has ever been associated with and all Notifications issued related to that license plate. For example, this search might yield two accounts and five Violation Notices for a particular license plate.
1554	The Contractor shall provide the capability when searching by license plate and Jurisdiction combination to display all transactions that license plate and Jurisdiction combination has ever been associated with regardless of the transaction status. For example, this search might yield two transactions in Paid status, one in collections, three Posted to an account as I-Tolls and one awaiting inclusion on a Violation Notice for a particular license plate and Jurisdiction combination.

1.15.8. Notification Search

1555	The Contractor shall provide the capability to search by and view all stored information regarding Notifications, including but not limited to:
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	<ul style="list-style-type: none"> • first name;
	<ul style="list-style-type: none"> • last name;
	<ul style="list-style-type: none"> • mailing address;
	<ul style="list-style-type: none"> • Notification Type, for example, statement, Credit Card expiration, Violation Notice or account establishment Notification;
	<ul style="list-style-type: none"> • distribution channel;
	<ul style="list-style-type: none"> • creation date;
	<ul style="list-style-type: none"> • quality review date;
	<ul style="list-style-type: none"> • print date;
	<ul style="list-style-type: none"> • mail date;
	<ul style="list-style-type: none"> • date that action on the Notification is due;
	<ul style="list-style-type: none"> • date(s) of any change in Notification piece status;
	<ul style="list-style-type: none"> • name of the Authorized User(s) who performed the quality review and Approved the Notification for mailing;
	<ul style="list-style-type: none"> • return mail (if applicable);
	<ul style="list-style-type: none"> • account number;
	<ul style="list-style-type: none"> • transponder number;
	<ul style="list-style-type: none"> • license plate number and Jurisdiction;
	<ul style="list-style-type: none"> • dollar range associated with the Notification and
	<ul style="list-style-type: none"> • dollar amount associated with the Notification.
1556	<p>The Contractor shall provide the capability for Authorized Users to scan the barcode, scan line or Quick Response Code on BOS-issued returned Notifications and automatically be taken to the appropriate processing screen, including but not limited to:</p> <ul style="list-style-type: none"> • the account that the Notification belongs to; • the appropriate Violation Notice processing screen and • the Case the Notification belongs to.
1557	<p>The Contractor shall provide the capability for Authorized Users to scan and process BOS-issued returned Notifications in bulk where possible (for example, provide the capability to scan multiple pieces of return mail where no forwarding address was provided into the BOS for processing without the need to access each account one-by-one).</p>
1558	<p>The Contractor shall provide the capability to allow Authorized Users to select and print Notification pieces directly from the Notification search screen.</p>
1559	<p>The Contractor shall provide the capability to allow Authorized Users to select and print Notification pieces directly from the account.</p>
1560	<p>The Contractor shall provide the capability to allow Authorized Users to email a PDF version of the Notification piece directly from the account.</p>

1561	The Contractor shall provide the capability to allow Authorized Users to download a PDF version of the Notification piece directly from the Notification search screen.
1562	The Contractor shall provide the capability to allow Authorized Users to download a PDF version of the Notification piece directly from the account.

1.15.9. Operating and Computing Environments – Data Warehouse

The data warehouse allows the Authorities to query data and run reports without having to compete for production resources. The data warehouse environment stores all required data (to be defined during the Implementation Phase) from the production database. The data warehouse database is developed for reporting rather than for transaction processing. The data warehouse is dedicated for use by the Authorities only.

1563	The Contractor shall provide, as part of the production environment, a separate data warehouse environment for Authority personnel to query the data and run ad-hoc and scheduled reporting.
1564	The data warehouse shall be dedicated for use by the Authorities only and the production System and the required reporting shall not depend on the data warehouse in any way.
1565	The data warehouse shall be Designed; Configured; documented, and continuously monitored and optimized to support the Authorities' data query and reporting needs.
1566	The Contractor shall provide validation that any and all data transferred between the production database(s) and the data warehouse is complete and accurate.
1567	The data warehouse environment shall be updated from production in near-real time.
1568	The data warehouse environment shall be capable of being updated with all data from the production System via a one-way replication and then transforming that data into the data warehouse optimized database.

1.16. Reporting Requirements

Because reporting is integral to the BOS, reporting functionality must be streamlined, quick, intuitive and user-friendly.

The BOS is expected to deliver accurate reports in a usable format. The format of reports is different across various user groups that use the reports for different purposes. For example, the finance departments may desire some reports in an Excel format so the data can be manipulated and analyzed. Other reports may be more desirable in a PDF format to better guarantee the integrity of the report data for audit purposes. The BOS is expected to deliver all reports in a variety of selectable formats.

It also is expected that reports are flexible enough to allow users to make changes to reports “on the fly”. For example, a report may include all the data elements required by a user for analyzing past due receivables with the exception of a single data field. The Authorized User must have the ability to add that data field to the report without the need for custom report generation or programming by the Contractor.

Some reports are best displayed as of a point in time (for example, receivable balances) while other reports are best displayed for activity over a range of time (for example, cash collected for a specific period of time). Users often have a need to generate reports that include historical balances as of the

end of a particular Revenue Day. It is expected that the BOS track, calculate and maintain such Revenue Day-end balances such that retrieval of historical information is easily accomplished. Users also often have the need to generate reports that include information regarding historical transaction activity over a range of time both in summary and in detail. It is expected that the BOS provide the functionality to quickly and accurately deliver such reports to the user in a usable format.

Standardized reporting shall be achieved via canned and ad-hoc reporting interfaces using both the production database for real-time reporting and reports server/database for more complex, non-real-time and/or data intensive reports.

Reporting is a critical element of any business organization and is required by the Agencies to:

- provide for transaction and revenue reconciliation and investigate discrepancies;
- monitor BOS and operational performance;
- monitor human performance and business process efficiency;
- ensure compliance to Performance Measures;
- reconcile toll transactions/trips to individual Toll Facilities and Agencies;
- reconcile third-party financial and transactional interactions;
- assess the impact of policies and Business Rules;
- identify ways to improve the quality of service provided to customers;
- comply with reciprocity reporting Requirements and
- evaluate the success of the toll collections.

Reports are broken into four broad categories:

- Informational Reports – provide information about transactions moving through the revenue cycle.
- Financial Management Reports – provide information which enables each Agency to record in its general ledger system the financial activity related to the CSC. These reports also enable each Agency to perform analyses on transactions submitted to the BOS for processing, including but not limited to analyzing billing, collection trends and Account Plan utilization.
- Operations Reports – provide the data necessary for the Contractor and the Agencies evaluate the Contractor's performance against the Performance Measures and provide the reporting necessary to prepare and support the Contractor's monthly bill to the Agencies. These operational reports also provide the Agencies with the data necessary to monitor operational activities and the operations staff.
- Interface Reconciliation Reports – provide the reports necessary to reconcile all Interfaces and also to demonstrate successful completion of the reconciliations by the Contractor.

1.16.1. General Reporting Requirements

1569	The Contractor shall provide a BOS data fetching algorithm that is optimized for performance including bringing data into BOS screens and reports.
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1570	The Contractor shall provide BOS reports optimized for performance. Data shall be organized and summarized in a manner to allow for report generation within no more than five seconds of a report generation request for daily summary reports and no more than twenty seconds of a report generation request for monthly summary and annual summary reports. Reports batched or pre-generated shall be presented to the user within two seconds.
1571	After the deployment and Implementation of the BOS, if there is a need to create additional reports and modify implemented reports, the Contractor shall support such additions and/or modifications.
1572	<p>The Contractor shall provide ad-hoc reporting tool capabilities to Authorized Users to allow the creation and execution of custom reports from the reports server/database, including but not limited to:</p> <ul style="list-style-type: none"> • drag-and-drop field functionality; • drill down functionality; • filtering; • parameter prompting; • formula support; • grouping; • sorting and • stored procedure and function support.
1573	The ad-hoc reporting tool shall be COTS Software and be the latest version at the time of Acceptance Testing and field-proven to operate in a transaction intensive environment.
1574	<p>The Contractor shall provide reporting output in various formats (both compressed and uncompressed), including but not limited to:</p> <ul style="list-style-type: none"> • Portable Document Format (PDF); • plain text format (TXT); • rich text format (RTF); • Microsoft Excel (2010 version and latest); • delimiter-separated values; • HTML and • extensible markup language (XML).
1575	The Contractor shall provide the capability for Authorized Users to retrieve full table exports from the reports server/database.
1576	<p>The Contractor shall provide the capability for Authorized Users to schedule the automatic execution and delivery of reports using various delivery methods, including but not be limited to:</p> <ul style="list-style-type: none"> • email addresses;

	<ul style="list-style-type: none"> • direct to printer; • uniform naming convention (UNC) paths; • shared drives and • SFTP sites.
1577	<p>The Contractor shall provide the capability for Authorized Users to schedule the automatic execution and delivery of reports for a variety of time periods, including but not limited to:</p> <ul style="list-style-type: none"> • as of a specific time each day; • as of a specific day and time each week; • as of a specific day and time each month; • as of a specific date and time each month; • for a Revenue Day; • for a Business Day; • for a Calendar Day and • for a specific period of time spanning more than one day (for example 2:00:00am to 1:59:59am the following day).
1578	<p>The Contractor shall provide a dashboard application, including but not limited to:</p> <ul style="list-style-type: none"> • fully Configurable, role-driven, browser-based solution that allows users to customize their own dashboards; • real-time display of data and processes and • drill-down capabilities from high level graphical display to the lowest level of supporting data.
1579	<p>The Contractor shall provide a comprehensive data dictionary that defines the structure of BOS databases in the production environment and the reports server/database. The data dictionary shall include but not be limited to:</p> <ul style="list-style-type: none"> • what data is stored; • name, description and characteristics of each data element; • types of relationships between data elements and • access rights.
1580	<p>The Contractor shall provide a consistent user interface for all reports.</p>
1581	<p>The Contractor shall provide for summary and detailed reports for all account activity on all user accounts, including but not limited to:</p> <ul style="list-style-type: none"> • as of the current moment in time; • as of an historical moment in time; • for a range of Revenue Days (for example from 1/1/2016 to 1/3/2016, which shall deliver results for the Revenue Days 1/1/2016, 1/2/2016 and 1/3/2016) and

	<ul style="list-style-type: none"> for a range of time (for example from 3:00am 1/1/2016 to 3:00am 1/3/2016).
1582	The Contractor shall provide for reports of balances as of the end of any current or historical Revenue Day, in summary and in detail, for any or all user accounts.
1583	<p>The Contractor shall provide for summary and detailed reports for all account activity on all Financial Accounts, including but not limited to:</p> <ul style="list-style-type: none"> as of the current moment in time; as of an historical moment in time; for a range of Revenue Days (for example from 1/1/2016 to 1/3/2016, which shall deliver results for the Revenue Days 1/1/2016, 1/2/2016 and 1/3/2016) and for a range of time (for example from 3:00am 1/1/2016 to 3:00am 1/3/2016).
1584	The Contractor shall provide for reports of balances as of the end of any current or historical Revenue Day, in summary and in detail, for any or all Financial Accounts.
1585	<p>The reports shall meet the general objectives, including but not limited to:</p> <ul style="list-style-type: none"> data elements shall be consistent through all the reports of a similar nature; numbers and amounts shall reconcile with other reports that report on the same activity; numbers and amounts shall reconcile with other reports that report on the same time period; report generation shall allow for flexible selection and sort criteria that allows Authorized Users to obtain related information through a single report; all report criteria shall be available for selection using Boolean logic strings and all reports shall allow for the input of any identified criteria to be selected by range (for example, date from and to, account number from and to, Transaction Dates from and to, etc.) and by multi-list selection.
1586	Reports shall display header information which shall indicate parameters selected in the report generation (for example, time periods selected, as-of date selected, account number selected and/or license plate number and Jurisdiction selected).
1587	<p>The Contractor shall provide the capability for the automatic generation and delivery of reports based on Configurable conditions, including but not limited to:</p> <ul style="list-style-type: none"> report selection criteria (for example, date range); date and time for report generation (for example, daily at 7:00 a.m.); report delivery method (for example, by email); report format (for example, PDF) and report generation frequency (for example, weekly).
1588	The Contractor shall provide the capability for reports generated automatically to have BOS-generated unique, intuitive naming and report numbering reflecting the name, number and date of the report.

1589	The Contractor shall provide the capability for the user to manipulate the report data easily to perform comparative analysis and statistical calculations.
1590	The Contractor shall provide the capability to deliver scheduled reports to the configured destination.
1591	The Contractor shall provide the capability for the user to specify the format of the report. For example, PDF, Excel and comma separated.
1592	The Contractor shall provide the capability to manually select reports for generation in real time.
1593	The Contractor shall provide a Web-based ad-hoc reporting solution that allows Authorized Users to design and generate professional and accurate multi-format reports. Ad-hoc report templates created by Authorized Users shall be made available to all Authorized Users, in addition to the reports menu.
1594	<p>All reports shall display last activity date, transaction Posting status and other relevant data dependencies on the specific report related to that activity that indicate completion of activity and items, including but not limited to:</p> <ul style="list-style-type: none"> • all transactions/trips have been obtained from the ETM System; • all images have been obtained from the ETM System; • the transactions/trips that have been transmitted to Interoperable Agencies and reconciliation files that have been received and acknowledged; • all correction files that have been reconciled and acknowledged; • all shifts that have been closed; • all third-party reconciliation and payment data that has been imported or has been entered into the BOS and • that all activities have been completed and are ready to be reconciled.
1595	The Contractor shall provide drill-down capability on all fields on all high-level reports to the lowest level of details, including the tools to view the available images associated to a transaction or account and account details.
1596	The Contractor shall provide drill-down capability on all fields on all high-level reports to the lowest level of details, including the tools to view the available images associated to a transaction or Violation Notice and details.
1597	<p>The Contractor shall provide the user interface to choose the following selection criteria, including but not limited to:</p> <ul style="list-style-type: none"> • Agency/Agencies; • Interoperable Agencies; • Toll Facility; • plaza; • lane; • direction of travel;

	<ul style="list-style-type: none"> • identification type (transponder or license plate);
	<ul style="list-style-type: none"> • Account Plan type;
	<ul style="list-style-type: none"> • Payment Type;
	<ul style="list-style-type: none"> • customer service location;
	<ul style="list-style-type: none"> • BOS user;
	<ul style="list-style-type: none"> • customer service staff;
	<ul style="list-style-type: none"> • BOS processes;
	<ul style="list-style-type: none"> • third-party interfaces and
	<ul style="list-style-type: none"> • Third-Party Service Providers and Business Partners.
1598	<p>The Contractor shall provide the user interface enabling the following selection criteria to generate the same report, including but not limited to:</p> <ul style="list-style-type: none"> • by day; • day(s) within a specified range; • date range; • weekly; • monthly; • yearly; • comparative based on selection and • year-to-date.
1599	<p>The Contractor shall provide for the generation of a single report by various date types, including but not limited to:</p> <ul style="list-style-type: none"> • Transaction Date; • various transmit dates; • transfer date; • Posting Date; • Violation Notice date; • due date; • payment date; • Hearing date; • process date; • Posted date; • business date; • review date;

	<ul style="list-style-type: none"> statement date;
	<ul style="list-style-type: none"> mail date;
	<ul style="list-style-type: none"> print date;
	<ul style="list-style-type: none"> acknowledgement date and
	<ul style="list-style-type: none"> reconciled date.
1600	The Contractor shall provide the capability to:
	<ul style="list-style-type: none"> include sub-totals, totals and grand totals as selected by the user;
	<ul style="list-style-type: none"> sort the data elements in the report within each grouping of data and
	<ul style="list-style-type: none"> present data in graphs and chart types based on presentation form selected by the user from a variety of graphic styles.

1.16.2. Informational Reports

1.16.2.1. Transaction Processing Reports

The Contractor is expected to provide Transaction Processing Reports which reflect the status or workflow stage for transactions/trips submitted by the Toll Facilities to the BOS over a period of time. For example, a report shall exist that details the number of transactions/trips submitted by a Toll Facility in January and shall detail the status or workflow stage of those transactions/trips as of June 30, the current date.

1601	The Contractor shall provide transaction reconciliation reports that reconcile to operations and financial reports and display Image-Based Transaction/Trip and Transponder-Based Transaction/Trip statistics, including but not limited to:
	<ul style="list-style-type: none"> tracking the different stages of the transactions/trips;
	<ul style="list-style-type: none"> showing the status or workflow stage; Violation Notice number; date issued; amount owed; amount Posted to an account; amount paid; amount I-Tolled; amount adjusted, past due amount and amount due on all Violation Notices issued;
	<ul style="list-style-type: none"> total payments received by status or workflow stage;
	<ul style="list-style-type: none"> total I-Tolls by status or workflow stage;
	<ul style="list-style-type: none"> total Account Plan transactions/trips by individual Account Plan;
	<ul style="list-style-type: none"> transactions/trips aged to collections by the Toll Facility; amount collected, recalled, dismissed;
	<ul style="list-style-type: none"> license plates placed on hold, released, amounts on hold per plate;
	<ul style="list-style-type: none"> Violations issued, paid, dismissed, transmitted to court;
	<ul style="list-style-type: none"> Violations scheduled for adjudication, disposition, payments;
	<ul style="list-style-type: none"> Transaction trends;

	<ul style="list-style-type: none"> • Transaction receivables detailing all outstanding accounts receivable for all accounts with unpaid transactions/trips by account number and total balance due as of the selected date;
	<ul style="list-style-type: none"> • Transaction collections trends;
	<ul style="list-style-type: none"> • Transaction I-Toll trends;
	<ul style="list-style-type: none"> • Account Plan trends;
	<ul style="list-style-type: none"> • Transaction dismissals and disputes;
	<ul style="list-style-type: none"> • Transaction by Jurisdiction and
	<ul style="list-style-type: none"> • Transaction aging.
1602	<p>The Contractor shall provide transaction/trips reports that reconcile the transactions/trips to ETTM System reports as they move through various processing stages, including but not limited to:</p> <ul style="list-style-type: none"> • transactions/trips in various queues and filters; • Violation Notice timeouts; • potential transactions/trips; • rental car license plates; • ROV Lookup “no matches”; • disputes; • dismissals; • payments; • transaction status or workflow stages; • I-Tolls and • other transaction statuses.
1603	<p>The Contractor shall provide invoicing summary reports by transaction status or workflow stage that track Violation Notice generation to final termination of Violation Notices, including but not limited to counts and amounts for:</p> <ul style="list-style-type: none"> • Violation Notices generated; • payments; • dismissals; • status or workflow stage and • re-issued.
1604	<p>The Contractor shall provide transaction activity reports that track activity on transactions/trips for each status or workflow stage, including but not limited to:</p> <ul style="list-style-type: none"> • number of invoices and Violation Notices issued;

	<ul style="list-style-type: none"> • tolls, fees and penalties assessed;
	<ul style="list-style-type: none"> • amounts dismissed;
	<ul style="list-style-type: none"> • amounts voided;
	<ul style="list-style-type: none"> • amount collected;
	<ul style="list-style-type: none"> • amount collected in I-Tolls and
	<ul style="list-style-type: none"> • unbilled tolls collected, if prepayment is allowed.
1605	The Contractor shall provide reports that list the account number and overpayment amount on all transaction accounts that are overpaid as of a date.
1606	The Contractor shall design and implement reports that duplicate the format and content of the current reports for both OCTA and RCTC and combined in Attachment F: Sample OCTA/RCTC Reports.
1607	The Contractor shall provide monthly and quarterly status reports that mimic the format provided in Attachment F: Sample OCTA/RCTC Reports and includes additional information requested by the Agencies during the Implementation Phase.

1.16.2.2. Customer and Account Management Reports

Account management reports detail the overall status of accounts. The Contractor shall provide reports that detail account openings and closures, transitions from one account type to another (for example, an Unregistered account becoming a Registered account). Reports also shall be provided that give the Agencies information about accounts that fall below the Insufficient Balance Threshold. These reports shall provide an indication of the overall success of the current Business Rules and may provide some insight into where potential changes could be made to enhance the customer experience or operational performance of the BOS.

1608	<p>The Contractor shall provide a comprehensive report that displays current account statistics for transaction totals and charges by the following criteria, including but not limited to:</p> <ul style="list-style-type: none"> • transaction totals and charges by Agency; • transaction totals and charges by Toll Facility; • transaction totals and charges by account types; • transaction totals and charges by Account Plan; • transaction totals and charges by status or workflow stage; • transaction totals and charges by payment option; • transaction totals and charges by account identification method and • transaction totals and charges by account statuses.
1609	The Contractor shall provide a comprehensive report that displays all account creation and account closing information for a selected period by contact method (for example, detailing accounts open and closed via the Self-Service Website, by phone, by walk-in and by mail).

1610	The Contractor shall provide reports that detail all prepaid tolls and outstanding balances due for every account. This report should allow Authorized Users to specify only certain accounts based on criteria which includes, but is not limited to:
	<ul style="list-style-type: none"> • account status;
	<ul style="list-style-type: none"> • account type;
	<ul style="list-style-type: none"> • account number and • dollar amount.
1611	The Contractor shall provide a comprehensive report that displays all accounts and/or transponders that have Account Plans.
1612	The Contractor shall provide reports that display all balances, activity and statistics on accounts by account type, broken down by Agency and Toll Facility when applicable (for example in the case of Write-Offs and disputes) including but not limited to:
	<ul style="list-style-type: none"> • accounts created;
	<ul style="list-style-type: none"> • transponders fulfilled;
	<ul style="list-style-type: none"> • accounts closed;
	<ul style="list-style-type: none"> • Account Plan utilization;
	<ul style="list-style-type: none"> • invoices and Violation Notices on account;
	<ul style="list-style-type: none"> • past due by status or workflow stage;
	<ul style="list-style-type: none"> • Violation Notices on hold;
	<ul style="list-style-type: none"> • Write-Offs;
	<ul style="list-style-type: none"> • accounts with debt in collections;
	<ul style="list-style-type: none"> • accounts with Registration Holds placed;
	<ul style="list-style-type: none"> • accounts with active Violation(s);
	<ul style="list-style-type: none"> • payments and refunds processed and requested and
	<ul style="list-style-type: none"> • toll transaction disputes processed and in progress.
1613	The Contractor shall provide a single report that provides the complete detailed account history for a single account. This report shall include a chronological listing of all activities for each activity type for a specified range of time between account inception and the current date, including but not limited to:
	<ul style="list-style-type: none"> • toll transactions/trips – transaction time (entry and exit), location, Posting date/time, Tolling Location, expected toll, Posted toll and discounts (for example, Account Plans); • Financial Transactions – payment date, payment item, Payment Type, payment method, payment number (for example, check number), payment detail (for example, breakdown of tolls and fees paid) receipt number, amount due, paid amount;

	<ul style="list-style-type: none"> reversal activity on Posted transactions (toll, non-toll, penalties, fees, financial) – reversal date, original transaction, reason;
	<ul style="list-style-type: none"> Notifications – date, type, communications channel, Notification number, if applicable (invoice number, Violation Notice number), amount due in each status or workflow stage, due date;
	<ul style="list-style-type: none"> account comments;
	<ul style="list-style-type: none"> account statuses – date of change, from status, to status, user ID and trigger;
	<ul style="list-style-type: none"> Account Plan(s) and activity;
	<ul style="list-style-type: none"> Cases – date Case was established, Case status, Case disposition;
	<ul style="list-style-type: none"> transponder activities and statuses - date of change, from status, to status, user ID, trigger;
	<ul style="list-style-type: none"> dispute activity – date, transaction; invoice/Violation Notice/statement number, amount owed, reason, results; dismissal code, dismissed amount;
	<ul style="list-style-type: none"> Violation activity – date, amount, payment, dismissal, aged to court or collections;
	<ul style="list-style-type: none"> court activity (obtained from the Collection Agency) – date, transaction, amount owed, disposition;
	<ul style="list-style-type: none"> collection activity – date, Toll Facilities, Notification, amount placed, amount paid, dated recalled/canceled;
	<ul style="list-style-type: none"> Registration Hold and release activity – date, license plate number, Notification, amount owed, results of motor vehicle department, date of hold/release and
	<ul style="list-style-type: none"> account maintenance activities.
1614	<p>The Contractor shall provide reports that list all customers’ financial activity on the account, including but not limited to:</p>
	<ul style="list-style-type: none"> account number;
	<ul style="list-style-type: none"> name and address records;
	<ul style="list-style-type: none"> all notes and/or Cases related to the account or transactions;
	<ul style="list-style-type: none"> beginning balance;
	<ul style="list-style-type: none"> credits and debits by transaction type;
	<ul style="list-style-type: none"> refunds;
	<ul style="list-style-type: none"> reversals;
	<ul style="list-style-type: none"> payments;
	<ul style="list-style-type: none"> dismissals;
	<ul style="list-style-type: none"> adjustments and
	<ul style="list-style-type: none"> ending balance.

1615	The Contractor shall provide reports that list all customers' financial activity on the account and reconcile to the Financial Accounts.
1616	The Contractor shall provide reports listing accounts that have no transaction or payment activity since a specified date (Configurable) or for a period of time (Configurable), including their history and current status.
1617	<p>The Contractor shall provide reports that identify the processed transactions, reconcile to operations reports and summarize the operations activity. Such reports shall summarize the operational activities performed in different customer service departments and areas, broken down by Agency and Toll Facility when applicable, including but not limited to:</p> <ul style="list-style-type: none"> • totals for number of accounts opened and closed by type; • number of transponders assigned by type of transponder; • account replenishment; • invoices generated; • Violation Notices generated; • Violations filed with the court; • Account Plan-related transactions; • Cases opened; • Cases closed; • Cases escalated; • license plates and transponder transactions/trips in the Processing Exception List; • Notices on hold; • disputes processing status; • Evidence Packages created; • placed in collection; • eligible for Registration Hold; • successful Registration Hold; • eligible for Registration Hold release; • successful Registration Hold release; • account status; • any adjustments made; • customer I-Toll transactions/trips Posted and • other CSR activity.
1618	The Contractor shall provide reports that display all customer and non-customer feedback by account type, contact method and users, including but not limited to:

	<ul style="list-style-type: none"> • Cases by category;
	<ul style="list-style-type: none"> • suggestions by category;
	<ul style="list-style-type: none"> • Cases by time period and
	<ul style="list-style-type: none"> • suggestions by time period.
1619	<p>The Contractor shall provide reports that list accounts that require attention, including but not limited to:</p> <ul style="list-style-type: none"> • accounts that have Flags on the account indicating an issue (Configurable by Flag); • replenishment failure; • Credit Card expiration; • Excessive I-Tolls; • disputed Violation Notices; • debt at collections; • Registration Hold; • overpayment; • refund requests; • open Case(s); • Violation Notices on hold; • bankruptcy; • negative balance; • inactivity; • Notifications that require review and • accounts that require follow up action by CSR or customer.
1620	<p>The Contractor shall provide reports that list the status of transactions/trips (count and revenue) processed by the BOS, identifying the exact position in all open workflow points for unpaid transactions, both home (the Agencies') and Interoperable, that Posted to the accounts, those that were rejected due to various reasons and those that are in any other terminal statuses. The reports shall reconcile to the financial reports and interoperable reports.</p>
1621	<p>The Contractor shall provide reports that account for all shift activity with detailed and summarized financial information, including but not limited to:</p> <ul style="list-style-type: none"> • all payment transactions processed for each payment item; • all payment transactions processed by payment method; • all payment transactions processed by Payment Type; • all payment transactions processed by payment channel;

	<ul style="list-style-type: none"> • all Financial Transactions dismissed;
	<ul style="list-style-type: none"> • all voided Financial Transactions;
	<ul style="list-style-type: none"> • all Financial Transactions reversed;
	<ul style="list-style-type: none"> • all Financial Transactions adjusted;
	<ul style="list-style-type: none"> • all Financial Transactions unapplied and re-applied;
	<ul style="list-style-type: none"> • all Financial Transactions waived and
	<ul style="list-style-type: none"> • all Financial Transactions waived by user.
1622	The Contractor shall provide reports that list all financial activity of all CSRs that reconcile to individual CSR activity reports.
1623	The Contractor shall provide reports that list all financial activity of all CSRs that reconcile to financial reconciliation reports.
1624	<p>The Contractor shall provide reports that summarize the operational activities performed in different customer service departments and areas, including but not limited to:</p> <ul style="list-style-type: none"> • WIC(s); • Self-Service Website; • Self-Service Mobile Application; • IVR; • contact center; • mailroom; • Case management department; • Third-Party Service Providers and Business Partners and • Collection Agency.
1625	<p>The Contractor shall provide reports that summarize the payment processing activities performed in different customer service departments and areas, including but not limited to:</p> <ul style="list-style-type: none"> • each individual WIC; • Self-Service Website; • Self-Service Mobile Application; • IVR; • contact center; • automated BOS replenishments; • Lockbox (optional); • electronic deposit; • mailroom;

	<ul style="list-style-type: none"> • Case management department;
	<ul style="list-style-type: none"> • Third-Party Service Providers and Business Partners;
	<ul style="list-style-type: none"> • Collection Agency and
	<ul style="list-style-type: none"> • courts.

1.16.2.3. Payment Processing Reports

1626	<p>The Contractor shall provide reports that track the Credit Card, ACH, check, cash and money order payments that are processed, including but not limited to:</p> <ul style="list-style-type: none"> • number and dollar value of payments; • refunds; • reversals; • adjustments; • voids; • payment date; • activity date; • settlements; • payment item; • payment source; • Payment Type, for example check, ACH, money order, cash; • payment method; • Credit Card type; • card details; • processed amounts; • Violation Notice number paid; • account debited and • account credited.
1627	<p>The Contractor shall provide the capability to produce payment reports by payment source (for example, CSR, Self-Service Website, Self-Service Mobile Application, IVR and Collection Agency) and by Payment Type (for example, Credit Card, ACH, check, cash and money order).</p>
1628	<p>The Contractor shall provide reports that balance and reconcile the Credit Card processed by the BOS to the Credit Card Posting status provided by the Merchant Service Provider and allows operations to investigate discrepancies, including but not limited to:</p> <ul style="list-style-type: none"> • failed Credit Card transactions;

	<ul style="list-style-type: none"> • account number;
	<ul style="list-style-type: none"> • date and time;
	<ul style="list-style-type: none"> • successful Credit Card transactions that did not Post to an account;
	<ul style="list-style-type: none"> • Credit Cards that were processed by the BOS but not the Credit Card processor;
	<ul style="list-style-type: none"> • duplicate Credit Card processing;
	<ul style="list-style-type: none"> • duplicate Credit Card Posting;
	<ul style="list-style-type: none"> • total amount successfully processed;
	<ul style="list-style-type: none"> • total amount Posted to accounts;
	<ul style="list-style-type: none"> • total amounts identified as processed by the Credit Card processor;
	<ul style="list-style-type: none"> • variances and
	<ul style="list-style-type: none"> • chargebacks.
1629	<p>The Contractor shall provide reports that balance and reconcile the ACH transactions processed by the BOS to the ACH Posting status provided by the Merchant Service Provider/ACH processor and allows operations to investigate discrepancies, including but not limited to:</p>
	<ul style="list-style-type: none"> • failed ACH transactions;
	<ul style="list-style-type: none"> • account number;
	<ul style="list-style-type: none"> • date and time;
	<ul style="list-style-type: none"> • successful ACH transactions that did not Post to an account;
	<ul style="list-style-type: none"> • ACH transactions that were processed by the BOS but not the ACH processor;
	<ul style="list-style-type: none"> • duplicate ACH processing;
	<ul style="list-style-type: none"> • duplicate ACH Posting;
	<ul style="list-style-type: none"> • total amount successfully processed;
	<ul style="list-style-type: none"> • total amount Posted to accounts;
	<ul style="list-style-type: none"> • total amounts identified as processed by the ACH processor;
	<ul style="list-style-type: none"> • Variances, and
	<ul style="list-style-type: none"> • returns/rejects.
1630	<p>The Contractor shall provide reports that detail returned checks processed during any timeframe, broken down by type of original payment (toll, fee and penalty).</p>

1.16.2.4. Inventory Management Reports

Inventory management reports shall assist the Agencies and the Contractor in review and management of inventory items.

1631	The Contractor shall provide transponder inventory reports that 1) track the transponder inventory by type of transponder and distributor; 2) ensure there are sufficient transponders in stock; 3) show the status of all transponders at all stages of transponder purchase, fulfillment and recovery/disposition cycle, including but not limited to:
	<ul style="list-style-type: none"> transponders issued to customers;
	<ul style="list-style-type: none"> transponders by status;
	<ul style="list-style-type: none"> transponders in warranty;
	<ul style="list-style-type: none"> transponders in the return material authorization process;
	<ul style="list-style-type: none"> transponders on order but not shipped;
	<ul style="list-style-type: none"> transponders sold and
	<ul style="list-style-type: none"> other operational statuses.
1632	The Contractor shall provide transponder status reports that track the issuance of inventory items, including but not limited to:
	<ul style="list-style-type: none"> sold by item type;
	<ul style="list-style-type: none"> by type of distribution method, for example, by mail, in WIC #1 and WIC #2;
	<ul style="list-style-type: none"> number and frequency of inventory items distributed;
	<ul style="list-style-type: none"> the inventory status;
	<ul style="list-style-type: none"> the status of damaged transponders and
	<ul style="list-style-type: none"> the status of failed transponders.
1633	The Contractor shall provide inventory reports that show beginning balance and end of month balance by inventory location.

1.16.2.5. ROV Lookup Reports

This series of reports provides information about the outcomes of the Agencies' ROV Lookup requests.

1634	The Contractor shall provide DMV Lookup reports that track the ROV Lookup requests and the responses from the various DMVs/ROV Lookup Service Provider(s).
1635	The Contractor shall provide DMV Lookup reconciliation reports that track the quantity of ROV Lookup requests by different attributes, including but not limited to:
	<ul style="list-style-type: none"> jurisdiction;
	<ul style="list-style-type: none"> response (unknown at DMV, ROV provided);
	<ul style="list-style-type: none"> ROV Lookup Service Provider;
	<ul style="list-style-type: none"> Address status (forwarded to updated address, no forwarding address, good);
	<ul style="list-style-type: none"> by date requested;
	<ul style="list-style-type: none"> by date response was received and

	<ul style="list-style-type: none"> • address database used (temporary license plates, trucking, manual lookup).
1636	The Contractor shall provide ROV Lookup reports that reconcile the number of ROV Lookup requests to the invoices from the ROV Lookup Service Providers.
1637	The Contractor shall provide ROV Lookup reconciliation reports shall reconcile to appropriate financial and operations reports.

1.16.2.6. Notifications Reports

1638	The Contractor shall provide Notification reconciliation reports that track the different stages in the Notification process, including but not limited to: qualification, creation, quality review, printing, and mailing.
1639	<p>The Contractor shall provide Notification reconciliation reports that track the quantity of Notification pieces by different attributes, including but not limited to:</p> <ul style="list-style-type: none"> • qualified; • created; • quality reviewed; • printed; • distributed by Notification vendor; • Notification distribution channel; • by date qualified; • by date created; • by date quality review was performed; • by date the Notification was printed; • by date distributed; • Jurisdiction in which the license plate is registered; • Jurisdiction which the Notification was mailed to; • by batch (for example, quantity of Notification pieces processed in a certain batch of items); • by Notification item and • by Notification status (for example, bad address or paid).
1640	The Contractor shall provide Notification reconciliation reports that reconcile the Notification pieces as they move through various stages of the Notification process (for example if a piece of Notification qualified two weeks ago, where is that piece now?).
1641	The Contractor shall provide Notification tracking reports that show trends by Notification type and channel.
1642	The Contractor shall provide Notification reconciliation reports shall reconcile to appropriate financial and operations reports.

1.16.2.7. Collections Reports

The Collection Agencies will transmit payment information to the BOS via the collections interface. For example, when the Collection Agency #1 accepts a payment over the phone from a customer with transactions/trips in collections, the Collection Agency will transmit that payment information which shall be Posted into the BOS.

The BOS shall have the capability to determine the source of the payment (for example, to determine if the payment was accepted from a BOS CSR or from Collection Agency #2) and record that source for tracking and reporting purposes.

1643	Provide reports that track the status of the collections efforts by individual Collection Agency, by Agency and by Toll Facility, including but not limited to:
	<ul style="list-style-type: none"> accounts, Notices and transactions/trips in collections;
	<ul style="list-style-type: none"> toll, fee and penalty amounts placed in collections;
	<ul style="list-style-type: none"> toll, fee and penalty collections to date;
	<ul style="list-style-type: none"> source of toll, fee and penalty payment, for example Collection Agency staff, BOS staff, Lockbox Service Provider (optional), Self-Service Website, Self-Service Mobile Application, IVR;
	<ul style="list-style-type: none"> outstanding toll, fee and penalty amounts;
	<ul style="list-style-type: none"> adjustments and corrections;
	<ul style="list-style-type: none"> any collection disputes, holds or resolution on the account;
	<ul style="list-style-type: none"> open Cases associated with collections;
	<ul style="list-style-type: none"> amount received by the Collection Agency for each transaction in collections and
	<ul style="list-style-type: none"> how long the account has been in collections.
1644	Provide collections reports that list all collections activity and reconcile to financial and Operations reports including but not limited to by individual Collection Agency, by Agency and by Toll Facility.
1645	Provide reports that track the collections cost and show collections trends and success rates by individual Collection Agency, by Agency and by Toll Facility for Violation debt.
1646	Provide reports that track the collections cost and show collections trends and success rates by individual Collection Agency, by Agency and by Toll Facility for negative Account balance debt.

1.16.2.8. Registration Hold Reports

1647	The Contractor shall provide Registration Hold reports, including but not limited to:
	<ul style="list-style-type: none"> current number and dollar value of transactions/trips associated with Registration Hold requests;
	<ul style="list-style-type: none"> date of hold;

	<ul style="list-style-type: none"> • number of hold requests;
	<ul style="list-style-type: none"> • average number of days delinquent for Registration Hold;
	<ul style="list-style-type: none"> • current number and dollar value of accepted and denied Registration Hold;
	<ul style="list-style-type: none"> • current number and dollar value of Registration Hold terminated through quality review process;
	<ul style="list-style-type: none"> • current number and dollar value of payment on Registration Hold;
	<ul style="list-style-type: none"> • current number and dollar value of aging of transactions/trips in Registration Hold queue;
	<ul style="list-style-type: none"> • Registration Hold Notification and
	<ul style="list-style-type: none"> • current number and dollar value of Registration Hold in various Registration Hold statuses.
1648	<p>The Contractor shall provide Registration Hold reports that list accounts and license plates where Registration Hold needs to be initiated, including but not limited to:</p> <ul style="list-style-type: none"> • account number; • license plate number and Jurisdiction; • the date the license plate became eligible for Registration Hold; • the status of the Registration Hold; • the days in Registration Hold status and • all transaction details demonstrating the validity of the Registration Hold.
1649	<p>The Contractor shall provide the capability to reconcile Registration Holds. For example, reconcile data which compares the BOS' records of current Registration Holds to the DMV's records.</p>

1.16.2.9. Registration Hold Release Reports

1650	<p>The Contractor shall provide Registration Hold release reports that list accounts and license plates where the Registration Hold needs to be released, including but not limited to:</p> <ul style="list-style-type: none"> • account number; • license plate number and Jurisdiction; • the date the license plate became eligible for registration release; • the status of the registration release; • number and dollar value of registration release requests; • the days in registration release status and • all transaction details demonstrating the validity of the registration release.
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1.16.2.10. Violations Reports

1651	The Contractor shall provide Violations reports, by Agency and Toll Facility, broken down by tolls, fees and penalties, including but not limited to:
	<ul style="list-style-type: none"> • number and dollar value of Violations;
	<ul style="list-style-type: none"> • average number of days delinquent for Violations;
	<ul style="list-style-type: none"> • number and dollar value of Violations terminated through quality review process (for example, Violations determined to be ineligible for further escalation after review at any status or workflow stage);
	<ul style="list-style-type: none"> • number and dollar value of payment on Violations;
	<ul style="list-style-type: none"> • number and dollar value of aging of transactions/trips in Violations queue;
	<ul style="list-style-type: none"> • Violation Notices and
	<ul style="list-style-type: none"> • number and dollar value of Violations in various Violation statuses.
1652	The Contractor shall provide Violation reports that list accounts and license plate and Jurisdiction where the Violation needs to be initiated, by Agency and Toll Facility, including but not limited to:
	<ul style="list-style-type: none"> • account number;
	<ul style="list-style-type: none"> • license plate number and Jurisdiction;
	<ul style="list-style-type: none"> • the date the license plate became eligible for Violation;
	<ul style="list-style-type: none"> • the status of the Violations;
	<ul style="list-style-type: none"> • the days in Violation status and
1653	all transaction details demonstrating the validity of the Violation.
1654	The Contractor shall provide Violation reports that show payment trends and success rates for Violations by Agency and Toll Facility.
1655	The Contractor shall provide a Violation report that shows the aging of all violations with the transaction count and associated value and the current collection stage.
1656	The Contractor shall provide a Violation report that shows the escalation stage in which violations are resolved (paid, reduced or dismissed) with the transaction count, amount paid, amount dismissed, amount reduced and amount remaining.

1.16.2.11. Case Management Reports

1656	The Contractor shall provide reports that list Case summary information (or details if selected), including but not limited to:
	<ul style="list-style-type: none"> • number of Cases by type;
	<ul style="list-style-type: none"> • number of Cases by Agency and Toll Facility;
	<ul style="list-style-type: none"> • Case established by, such as established by BOS, customer, CSR or Agency;
	<ul style="list-style-type: none"> • Cases opened;

	<ul style="list-style-type: none"> • Cases closed;
	<ul style="list-style-type: none"> • Cases escalated;
	<ul style="list-style-type: none"> • number of Cases that failed to meet the Agencies' Performance Measures;
	<ul style="list-style-type: none"> • average Case handling time by priority;
	<ul style="list-style-type: none"> • longest Case handling time by priority and
	<ul style="list-style-type: none"> • number of affected accounts.
1657	<p>The Contractor shall provide reports that list the detailed Case information by Agency and by all Agencies combined, including but not limited to:</p> <ul style="list-style-type: none"> • Case ID (i.e., uniquely identifies the Case record); • Case type; • account number, if applicable; • severity level or priority; • source of Case status; • created date; • resolved date; • number of days since creation; • number of days since last agent touch; • due date and time; • total time spent working on the Case; • total time spent by a specific user; • total time spent by a specific department; • action taken at each hand-off; • Case history; • related accounts and • Case description/free-form notes on the account.
1658	<p>The Contractor shall provide dispute (Case Type = Dispute) reconciliation reports by Agency and by all Agencies combined, including but not limited to:</p> <ul style="list-style-type: none"> • Transponder-Based Transaction/Trip disputes; • Image-Based Transaction/Trip (I-Tolls and Violations) disputes; • payment for accepted and partially accepted disputes; • dismissed Transponder-Based Transactions/Trips; • dismissed Image-Based Transactions/Trips; • reassigned Transponder-Based Transactions/Trips and

	<ul style="list-style-type: none"> reassigned Image-Based Transactions/Trips.
1659	<p>The Contractor shall provide dispute reconciliation reports by Toll Facility, Agency and combined shall reconcile the Image-Based Transactions/Trips as the Image-Based Transactions/Trips move through various stages of the dispute process, including but not limited to:</p> <ul style="list-style-type: none"> accepted disputes; accepted, partially accepted and denied disputes; dismissals and reassignments.
1660	<p>The Contractor shall provide dispute reconciliation reports by Toll Facility and by all Toll Facilities combined shall be provided, including but not limited to:</p> <ul style="list-style-type: none"> dispute reasons; dismissal reasons by type of dispute; status of the toll when disputed; disputes created by user; resolution time; number of open disputes; number of closed disputes; dispute Notifications received and dispute Notifications sent.
1661	<p>The Contractor shall provide dispute reconciliation reports by Toll Facility and by all Toll Facilities combined shall include all Self-Service Website, Self-Service Mobile Application and IVR transactions.</p>

1.16.3. Financial Management Reports

The BOS shall be capable of generating financial journals, trial balances, financial ledgers and transaction reports. The BOS shall be capable of providing separate financial reports for each Agency, and shall meet the following Requirements.

1662	<p>The Contractor shall provide for the selectable separation of reports by Agency, Interoperable Agencies, Third-Party Service Providers and Business Partners and/or Toll Facility, including but not limited to:</p> <ul style="list-style-type: none"> WIC(s); Self-Service Website; Self-Service Mobile Application; IVR; courts;
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	<ul style="list-style-type: none"> • contact center;
	<ul style="list-style-type: none"> • mailroom;
	<ul style="list-style-type: none"> • Lockbox (optional);
	<ul style="list-style-type: none"> • transponder and
	<ul style="list-style-type: none"> • Collection Agency.
1663	The Contractor shall provide financial journal and ledger reports, separated by Agency and combined, that list all accounts receivables by revenue type, by Toll Facility and in summary, including but not limited to:
	<ul style="list-style-type: none"> • Transponder-Based Transaction/Trip;
	<ul style="list-style-type: none"> • Transponder-Based Transaction/Trip by account type;
	<ul style="list-style-type: none"> • Image-Based Transaction/Trip;
	<ul style="list-style-type: none"> • Notice by transaction status or workflow stage;
	<ul style="list-style-type: none"> • adjustments;
	<ul style="list-style-type: none"> • reversals;
	<ul style="list-style-type: none"> • refunds and their dispositions and
	<ul style="list-style-type: none"> • fees.
1664	The Contractor shall provide transaction and revenue reconciliation reports, separated by Agency and combined, that track a transaction throughout the revenue cycle (from its entry into the BOS until its closure) and help identify the final resolution of each transaction, including but not limited to:
	<ul style="list-style-type: none"> • the expected number and revenue for all transactions/trips;
	<ul style="list-style-type: none"> • Posting status;
	<ul style="list-style-type: none"> • pending status (including workflow location(s));
	<ul style="list-style-type: none"> • termination reasons;
	<ul style="list-style-type: none"> • collected/actual revenue;
	<ul style="list-style-type: none"> • percentage collected and
	<ul style="list-style-type: none"> • variances.
1665	The Contractor shall provide an annual report that provides the analysis of credit card and ACH fees between TCA and the Agencies for the purpose of netting these fees out the interagency toll revenue payments.
1666	The Contractor shall provide the capability to generate all reports by Agency or combined.

1.16.3.1. Trial Balance and Financial Account Reports

The Agencies will utilize reports (journal entry file exports) from the BOS to import into the Agencies' financial accounting systems for the purpose of recording financial active related to the BOS. While

there is no automated interface, the Agencies intend will use these journal entry file exports to record financial activities into their respective general ledgers on a daily or weekly basis.

RCTC is currently in the process of converting its financial accounting system from Eden to Munis. OCTA uses IFIS. Each Agency requires its own file format for import into its general ledger. Furthermore, each Agency has its own Business Rules and revenue recognition policies which the Contractor shall consider when developing the financial processes in the system; these details shall be identified during the Implementation Phase.

1667	The Contractor shall provide file export report of all BOS Financial Account activity for each Agency to be used to record revenues in the Agencies' own financial systems.
1668	<p>The Contractor shall provide the capability for the Agencies to receive information in sufficient detail to record revenues at different steps in the revenue cycle. (For example, before a Violation Notice is mailed, a transaction is in the "billable" stage and in a "billable" Financial Account and when that transaction is included on a Violation Notice, it is in the "billed" stage and in a "billed" Financial Account), including but not limited to:</p> <ul style="list-style-type: none"> • when transaction/trip is submitted to the BOS; • when billable (deemed billable but not yet billed); • when billed; • when paid (payment received from customer) and • when payment remitted to the Agencies.
1669	The Contractor shall structure the Financial accounts so revenues of one entity are not comingled with the revenues of another entity. For example, Image-Based Transaction/Trip toll revenue for one entity shall be separated in the Financial Account from Image-Based Transaction/Trip toll revenue of another entity, from Transponder-Based Transaction/Trip toll revenue and from fee revenue. Entities include the Agencies and also include but are not limited to individual CTOC Agencies and the Collection Agency.
1670	The Contractor shall structure the Financial Accounts in such a way that all revenues and expenses of one Agency and one Toll Facility are easily discernible from the revenues and expenses of another entity and/or other Toll Facilities. For example, all Financial Accounts for an Agency and a Toll Facility can have the same prefix or suffix as an indicator for that Agency or Toll Facility. Each Agency may have one or more Toll Facilities; the BOS shall be capable of rolling up activity to both the Toll Facility and the Agency level, as well as the BOS as whole.
1671	The Contractor shall provide trial balance reports that reconcile all Financial Accounts and confirm the credit and debit balance and show general ledger codes grouped and summarized by asset and liability.
1672	The Contractor shall provide Financial Account reports that reconcile to other transaction and financial reports.
1673	<p>The Contractor shall provide reports summarizing like Financial Accounts (for example, all toll revenue Financial Accounts for a particular Toll Facility), including but not limited to the following timeframes:</p> <ul style="list-style-type: none"> • month;

	<ul style="list-style-type: none"> • month-to-date;
	<ul style="list-style-type: none"> • quarter;
	<ul style="list-style-type: none"> • quarter-to-date;
	<ul style="list-style-type: none"> • year;
	<ul style="list-style-type: none"> • year-to-date;
	<ul style="list-style-type: none"> • from and to date;
	<ul style="list-style-type: none"> • from and to month and
	<ul style="list-style-type: none"> • from and to year.

1.16.3.2. Revenue Reports

1674	<p>The Contractor shall provide a revenue report that reflects all revenue, including but not limited to:</p> <ul style="list-style-type: none"> • Transponder-Based Transactions/Trips toll revenue; • Image-Based Transactions/Trips toll revenue; • all fees and • penalties.
1675	<p>The Contractor shall provide a report that details potential lost revenue by status or workflow stage, as well as reasons for potential loss, such as a report listing those transactions/trips which still possess a receivable balance and have been placed on hold.</p>

1.16.3.3. Payment Reports

1676	<p>The Contractor shall provide a payments report that reflects all payments, including but not limited to:</p> <ul style="list-style-type: none"> • Transponder-Based Transactions/Trips toll revenue; • Image-Based Transactions/Trips toll revenue; • prepayments; • all fees and • penalties.
1677	<p>Payment reports shall reconcile to reports provided by the various interfaces, including but not limited to:</p> <ul style="list-style-type: none"> • Credit Card processor; • collections; • Interoperable Agencies; • bank deposits, and • Lockbox payments, if utilized.

1678	The Contractor shall provide an unallocated payments report that lists all payments that could not be associated with a transaction with sufficient detail for payment research, such as the ability to back-out and re-apply against outstanding receivable.
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1.16.3.4. Registered Account Reports

1679	The Contractor shall provide a report that reflects the prepaid balance in each account as of a point in time.
1680	The Contractor shall provide a report that reflects all replenishments to Registered accounts over a period of time.
1681	The Contractor shall provide a report that reflects all usage of prepaid funds over a period of time.
1682	The Contractor shall provide a report that reflects all adjustments to accounts over a period of time (for example, adjustments would include any transaction that affects an account balance that is not included on a replenishment report or a usage report).
1683	The Contractor shall provide a report that compares the calculated prepaid balance by account to the prepaid balance per the BOS at any point in time (for example, the calculated prepaid balance is the sum of the account balance as of the first day of the month plus replenishments less usage and plus/minus adjustments that occur during the month, compared to the BOS balance as of the end of the month). Variances shall be identified at the account level.

1.16.3.5. Receivable Reports

1684	The Contractor shall provide aged accounts receivable reports that lists all receivables (toll transactions, fees and penalties) for each status or workflow stage, by Agency and Toll Facility and combined, including but not limited to:
	<ul style="list-style-type: none"> • in process (not yet charged to account);
	<ul style="list-style-type: none"> • charged to account (but not yet invoiced or included on a Violation Notice);
	<ul style="list-style-type: none"> • Notice of Toll Evasion Violation;
	<ul style="list-style-type: none"> • Notice of Delinquent Toll Evasion Violation;
	<ul style="list-style-type: none"> • Collection Agency;
	<ul style="list-style-type: none"> • Registration Hold and • court.
1685	The Contractor shall provide aged accounts receivable reports that lists all receivables (toll transactions, fees, penalties) by number of days past due, by Agency and Toll Facility and combined, including but not limited to:
	<ul style="list-style-type: none"> • in process (not yet Posted to an account);
	<ul style="list-style-type: none"> • Posted to an account (but not yet invoiced or sent a Violation Notice);
	<ul style="list-style-type: none"> • current due (invoiced or sent a Violation Notice but not yet past due); • past due 1-30 days;

	<ul style="list-style-type: none"> • past due 31-60 days;
	<ul style="list-style-type: none"> • past due 61-90 days;
	<ul style="list-style-type: none"> • past due 91-120 days;
	<ul style="list-style-type: none"> • past due 121-180 days;
	<ul style="list-style-type: none"> • past due 181 days -12 months;
	<ul style="list-style-type: none"> • past due 12-24 months;
	<ul style="list-style-type: none"> • past due 24-36 months;
	<ul style="list-style-type: none"> • past due 36-48 months;
	<ul style="list-style-type: none"> • past due 48-60 months and
	<ul style="list-style-type: none"> • past due > 60 months.
1686	The Contractor shall provide invoicing summary reports by Agency and Toll Facility, detailing the composition of transactions/trips appearing on Violation Notices by Agency and Toll Facility.
1687	The Contractor shall provide invoicing summary reports by transaction status or workflow stage that track Violation Notice generation to final termination of Violation Notice transactions, including but not limited to counts and amounts for:
	<ul style="list-style-type: none"> • Violation Notices generated;
	<ul style="list-style-type: none"> • payments;
	<ul style="list-style-type: none"> • dismissals;
	<ul style="list-style-type: none"> • status or workflow stage and
	<ul style="list-style-type: none"> • re-issued.

1.16.3.6. Collection Agencies Reports

1688	The Contractor shall provide reports that track the status of collections activities, by individual Collection Agency, Agency and by Toll Facility, including but not limited to:
	<ul style="list-style-type: none"> • number and dollar value of Collections Placements in collections;
	<ul style="list-style-type: none"> • number and dollar value of transactions/trips in collections;
	<ul style="list-style-type: none"> • number and dollar value of Collections Placements successfully collected;
	<ul style="list-style-type: none"> • number and dollar value of transactions/trips successfully collected;
	<ul style="list-style-type: none"> • outstanding amounts (total and separated by fees, penalties and tolls);
	<ul style="list-style-type: none"> • amounts collected (total and separated by fees, penalties and tolls) by payment source (BOS, Collection Agency #1 or Collection Agency #2);
	<ul style="list-style-type: none"> • length of time in collections;
	<ul style="list-style-type: none"> • accounts recalled from collections (total and separated by fees, penalties and tolls);

	<ul style="list-style-type: none"> • transactions/trips recalled from collections (total and separated by fees, penalties and tolls);
	<ul style="list-style-type: none"> • accounts returned uncollectible;
	<ul style="list-style-type: none"> • transactions/trips returned uncollectible and
	<ul style="list-style-type: none"> • success rate.
1689	The Contractor shall provide collections inventory reports that reconcile to collections monthly inventory by Collection Agency, and provide status on collections, including but not limited to:
	<ul style="list-style-type: none"> • number and dollar value of outstanding accounts in collections at the beginning of the month;
	<ul style="list-style-type: none"> • number and dollar value of transactions/trips in collections at the beginning of the month;
	<ul style="list-style-type: none"> • number and dollar value of accounts added during the month;
	<ul style="list-style-type: none"> • number and dollar value of transactions/trips added during the month;
	<ul style="list-style-type: none"> • number and dollar value of accounts returned at the end of the month, by type;
	<ul style="list-style-type: none"> • number and dollar value of transactions/trips returned at the end of the month, by type;
	<ul style="list-style-type: none"> • number and dollar value of outstanding accounts in collections at the end of the month;
	<ul style="list-style-type: none"> • number and dollar value of transactions/trips in collections at the end of the month and
	<ul style="list-style-type: none"> • outstanding amount in collections at the end of the month.

1.16.3.7. Write-Off Reports

1690	The Contractor shall provide a listing of all eligible and processed Write-Offs and their disposition (such as sent to the Agencies approval, Approved by the Agencies, processed), by Toll Facility and in summary, broken down by toll, fee and penalty including but not limited to: all account-level and transaction-level Write-Offs and prior year Write-Offs paid in current year with a breakdown by selectable period for each year.
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1.16.3.8. CTOC Reports

1691	The Contractor shall provide all Interoperable Agency and Toll Facility Reports described in Attachment D: CTOC Technical Specifications for Interagency Data Exchange. The Interoperable reports provided in the BOS shall be updated and modified to be in compliance with the Interoperable Agency Interface specifications.
1692	The Contractor shall provide reports on the status of Interoperable reports and file transmissions to all Toll Facilities, such as files expected but not received, issues with file transmissions/data, etc.
1693	The Contractor shall provide the following reports:

	<ul style="list-style-type: none"> • summary report;
	<ul style="list-style-type: none"> • Interoperable Agency discrepancy;
	<ul style="list-style-type: none"> • adjustments report (Interoperable Agency) and
	<ul style="list-style-type: none"> • Toll Facility discrepancy report.

1.16.4. Operations Reports

1.16.4.1. Operations Management Reports

Operations management reports shall provide insight into the review and management of operations and assess performance.

1694	The Contractor shall provide real-time operations reports.
1695	The BOS shall provide the capability to drill-down to the details for a selected transaction, including the image associated with the license plate if applicable.
1696	<p>The Contractor shall provide BOS performance reports that track the performance of CSC Operations, including but not limited to:</p> <ul style="list-style-type: none"> • customer contacts, mail handling and Violation Notification response; • Case handling; • first contact resolution; • transponder Fulfillment; • payments processed; • customer disbursements processed; • Interoperable Agency settlements processed; • returned payments processed; • chargebacks processed; • payment plans initiated and • balancing and reconciliation.
1697	<p>The Contractor shall provide staff performance reports that track the performance of individual Authorized Users over a period of time (for example, daily weekly and monthly) including but not limited to:</p> <ul style="list-style-type: none"> • customer contacts, mail handling and Notification response; • Case handling; • first contact resolution; • transponder Fulfillment; • payments processed; • customer disbursements processed;

	<ul style="list-style-type: none"> • Interoperable Agency settlements processed;
	<ul style="list-style-type: none"> • returned payments processed;
	<ul style="list-style-type: none"> • chargebacks processed;
	<ul style="list-style-type: none"> • payment plans initiated and
	<ul style="list-style-type: none"> • balancing and reconciliation.

1.16.4.2. Self-Service Website Reports

1698	<p>The Contractor shall provide Self-Service Website activity reports that list all activity associated with the Self-Service Website, and enable operations to assess the Self-Service Website's effectiveness, including but not limited to:</p> <ul style="list-style-type: none"> • number of accounts setup via the Self-Service Website; • account statements accessed; • account maintenance activities; • payments; • disputes; • Cases opened; • Violation Notice inquiries and • other general information.
1699	<p>The Contractor shall provide reporting on the Self-Service Website usage, including but not limited to:</p> <ul style="list-style-type: none"> • number of individual hits by screen; • number of page views; • number of repeat visitors versus new visitors; • bounce rate; • number of updates made to accounts and • number of functional processes, for example Violation Notice payments.

1.16.4.3. Self-Service Mobile Application Reports

1700	<p>The Contractor shall provide Self-Service Mobile Application activity reports that list all activity associated with the Self-Service Mobile Application, and enable operations to assess the Self-Service Mobile Application's effectiveness, including but not limited to:</p> <ul style="list-style-type: none"> • number of accounts setup via the Self-Service Mobile Website; • account statements accessed; • account maintenance activities; • payments;
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	<ul style="list-style-type: none"> • disputes;
	<ul style="list-style-type: none"> • Cases opened;
	<ul style="list-style-type: none"> • Notice inquires and
	<ul style="list-style-type: none"> • other general information.
1701	The Contractor shall provide reporting on the Self-Service Mobile Website usage, including but not limited to:
	<ul style="list-style-type: none"> • number of individual hits by screen;
	<ul style="list-style-type: none"> • number of page views;
	<ul style="list-style-type: none"> • number of repeat visitors versus new visitors;
	<ul style="list-style-type: none"> • bounce rate;
	<ul style="list-style-type: none"> • number of updates made to accounts and
	<ul style="list-style-type: none"> • number of functional processes, for example Account replenishments.

1.16.4.4. Contact Center Reports

1702	The Contractor shall provide contact center reports that help determine how the Contact center is functioning and its effectiveness, including but not limited to:
	<ul style="list-style-type: none"> • quality score rating for CSRs;
	<ul style="list-style-type: none"> • average talk time;
	<ul style="list-style-type: none"> • number of calls offered to CSRs;
	<ul style="list-style-type: none"> • number of calls answered by CSRs;
	<ul style="list-style-type: none"> • number of calls abandoned;
	<ul style="list-style-type: none"> • average time before abandonment;
	<ul style="list-style-type: none"> • service level (what percentage of the calls are answered within the agreed-upon timeframe, such as what percentage of calls are answered within 60 seconds);
	<ul style="list-style-type: none"> • average speed of answer;
	<ul style="list-style-type: none"> • abandon rate;
	<ul style="list-style-type: none"> • CSR availability;
	<ul style="list-style-type: none"> • account maintenance activities;
	<ul style="list-style-type: none"> • payments processed;
	<ul style="list-style-type: none"> • transaction history accessed;
	<ul style="list-style-type: none"> • requested customer support and
	<ul style="list-style-type: none"> • obtained general information.
1703	The Contractor shall provide other performance reports to monitor, including but not limited to:

	<ul style="list-style-type: none"> total number of calls taken by the IVR System;
	<ul style="list-style-type: none"> total number of calls taken using virtual queuing;
	<ul style="list-style-type: none"> total number of calls taken by the CSR (separate by Spanish and English);
	<ul style="list-style-type: none"> the number of and average length of calls handled for each line;
	<ul style="list-style-type: none"> the average and maximum wait time for each line;
	<ul style="list-style-type: none"> the time taken for a CSR to answer a call once that option is selected and
	<ul style="list-style-type: none"> the number of times a given menu is repeated consecutively during a given call.
1704	The Contractor shall provide other performance reports to monitor emails, including but not limited to:
	<ul style="list-style-type: none"> number of emails received CSRs;
	<ul style="list-style-type: none"> number of emails answered by group or individual CSRs;
	<ul style="list-style-type: none"> number of emails unanswered;
	<ul style="list-style-type: none"> average speed of answer by time period, daily, weekly, monthly;
	<ul style="list-style-type: none"> CSR availability and
	<ul style="list-style-type: none"> email purpose.
1705	The Contractor shall provide other performance reports to monitor chats, including but not limited to:
	<ul style="list-style-type: none"> number of chats offered to CSRs;
	<ul style="list-style-type: none"> number of chats answered by CSRs;
	<ul style="list-style-type: none"> number of chats abandoned;
	<ul style="list-style-type: none"> average speed of answer by time period, daily, weekly, monthly;
	<ul style="list-style-type: none"> CSR availability and
	<ul style="list-style-type: none"> chat purpose.
1706	The Contractor shall provide other performance reports to monitor texting, including but not limited to:
	<ul style="list-style-type: none"> number of texts offered to CSRs;
	<ul style="list-style-type: none"> number of texts answered by CSRs;
	<ul style="list-style-type: none"> number of texts unanswered;
	<ul style="list-style-type: none"> average speed of answer by time period, daily, weekly, monthly;
	<ul style="list-style-type: none"> CSR availability and
	<ul style="list-style-type: none"> Text purpose.

1.16.4.5. Print/Mail Reports

1707	The Contractor shall provide reports that allow operations to monitor the Print/Mail House Provider (optional) and/or Contractor performance against agreed to Performance Measures and manage USPS mailing activities, including but not limited to:
	<ul style="list-style-type: none"> • quantity of Notification per type;
	<ul style="list-style-type: none"> • mailing time since receipt of files;
	<ul style="list-style-type: none"> • Notifications rejected and not mailed with reasons and • Exceptions.
1708	The Contractor shall provide reports that show trends as they relate to USPS mailing operations workflow performance (volumes and amounts printed and mailed), including but not limited to:
	<ul style="list-style-type: none"> • Notification for each page limit (for example one-page, two-page, etc.);
	<ul style="list-style-type: none"> • additional inserts;
	<ul style="list-style-type: none"> • printing and mailing exceptions;
	<ul style="list-style-type: none"> • returned mail, with and without forwarding address;
	<ul style="list-style-type: none"> • bad address and • performance against the agreed upon Performance Measures as a percentage by type of Notification.
1709	The Contractor shall provide reports that can be used to reconcile/verify invoices from the Print/Mail House Provider (optional).

1.16.4.6. BOS Management Reports

1710	The Contractor shall provide reports that allow for transaction/trip reconciliation of the BOS, including but not limited to:
	<ul style="list-style-type: none"> • transactions/trips exchanged with the ETTM System;
	<ul style="list-style-type: none"> • transactions/trips Posted to accounts and
	<ul style="list-style-type: none"> • transactions/trips exchanged with Interoperable Agencies.

1.16.4.7. Contractor Performance Requirements Reports

Contractor Performance Measures reports shall assist the Agencies and the Contractor in tracking, management, and assessing of the Contractor against the Performance Measures. The reports shall be designed and Approved during the Reports Design Workshop.

1711	The Contractor shall provide BOS-generated reports that allow Authorized Users to monitor performance to date against each of the Performance Measures. For example, the month to date and year to date performance against any individual Performance Measure.
1712	To the extent possible the reports shall automatically calculate the actual performance against the required Performance Measure(s).

1713	The Contractor shall provide the capability to select a random sample of the work for review and audit including but not limited to:
	<ul style="list-style-type: none"> provide hyperlinked report reflecting a random sample of a certain number of Cases over a certain period of time (for example, 100 Cases which were opened or closed between June 1 and June 30) which shall allow the Agencies to click on the hyperlink to open and audit each Case and
	<ul style="list-style-type: none"> provide hyperlinked report reflecting a random sample of a certain number of adjusted or reversed transactions/trips over a certain period of time (for example, 100 transactions/trips that were dismissed between June 1 and June 30) which shall allow the Agencies to click on the hyperlink to open and audit each dismissal.

1.16.4.8. ETTM Contractor Performance Measures Reports

ETTM System Contractors Performance Measures reports shall assist the Agencies, the Contractor and the ETTM System Contractors in tracking, management, and assessing of the ETTM System Contractors against a subset of their Performance Measures. The ETTM System Contractors has the responsibility to provide for the majority of their Performance Measures Reporting. The report shall be designed and Approved during the Reports Design Workshop.

1714	The Contractor shall provide reports that allow Authorized Users to monitor the ETTM System Contractors performance to date against a subset of the ETTM System Requirements Performance Measures.
1715	The Contractor shall provide reports separately for each Agencies specific ETTM System Contractor.
1716	The Contractor shall provide ETTM System Contractors performance reports which track the performance of the ETTM Systems, including but not limited to:
	<ul style="list-style-type: none"> exchange of data and files between the ETTM Systems and the BOS and
	<ul style="list-style-type: none"> results of all BOS and CSC Operations Contractor QA activities (for example, (trip building and image processing accuracy).

1.16.5. Interface Reconciliation Reports

1.16.5.1. General Requirements for Interface Reconciliation Reports

The BOS interfaces with various other systems and Third-Party Service Providers and Business Partners, as such, reconciliation of the data transfer process and exception identification are critical elements of the BOS. In Interfaces where the BOS initiates the file transfer process, the BOS shall track the successful creation of the file as required by the schedule (Configurable), the successful transfer of the file, the acknowledgement by the third-party of the successful receipt and processing of the file, the receipt of the reconciliation or response file from the third-party and the BOS's successful receipt, processing and acknowledgment of the response file. A similar tracking and reporting shall be provided when the BOS is the recipient of the transfer process. Reconciliation reports shall reconcile to other BOS and financial reports and shall meet the following Requirements.

These reconciliation reports shall be provided in addition to, and not in lieu of, automated reconciliation processes as described in the Requirements.

1.16.5.2. Reconciliation with ETTM System Transactions, Reconciliation Files and Images Reports

These reports shall allow the balancing and reconciliation of transactions/trips and images throughout the revenue cycle, identify variances and errors and assist in investigating the problems, thus minimizing lost revenue. Such reports shall help identify trends in the flow of transactions, their final termination and reconciliation to the ETTM Systems. The transmission of the Transponder Status List files received from the Interoperable Agencies and the home Transponder Status List to the ETTM Systems also shall be tracked.

1717	The Contractor shall provide transaction and image reconciliation reports that help identify issues, including but not limited to: transmission errors, data validity errors, missing images, missing transactions, traffic and transaction trends and exceptions.
1718	The Contractor shall provide transaction transmission reconciliation reports that help validate that all transactions/trips transmitted by the ETTM Systems made it to the BOS and are correctly processed. These reports also shall validate that all other transmissions made by the ETTM Systems were successfully received by the BOS and that all transmissions made by the BOS are successfully received by the ETTM Systems.
1719	The Contractor shall provide daily transaction transmission reconciliation reports that list all the transactions/trips transmitted to the BOS, the number of transactions/trips and the time these transactions/trips were acknowledged by the BOS. These reports also shall list the transactions/trips transmitted to the BOS that were rejected, the status of the re-transmission and records that were identified as exceptions by the receiving entity.
1720	The Contractor shall provide transaction/trip transmission reconciliation reports that summarize the transactions/trips (quantity, amount, Posting status and Posted/paid amounts) by Payment Type that can be validated against existing ETTM Systems reports.
1721	The Contractor shall provide image transmission reconciliation reports that help validate that all images and associated transactions/trips transmitted by the ETTM Systems were successfully received by the BOS. The reports shall list all the transaction images transmitted to the BOS, the number of images and data set in each file, as well as the time these files were acknowledged by the BOS.
1722	The Contractor shall provide image transmission reconciliation reports that list the transactions/trips transmitted to the BOS that were rejected and the status of the re-transmission and images identified as exceptions by the BOS.
1723	The Contractor shall provide transaction and revenue reconciliation reports that reconcile with the Financial Account reports and ETTM Systems reports.
1724	The Contractor shall provide transaction and revenue reconciliation reports that reconcile with accounts receivable and revenue reports for all transactions.
1725	The Contractor shall provide reports that track the receipt of the TSL to the ETTM Systems.

1.16.5.3. Reconciliation with Interoperable Agencies Reports

Interoperability reports are provided to assist in reconciling transaction/trips and financial settlement with Interoperable agencies.

1726	The Contractor shall provide all CTOC reports based on the most recent ICD at the time of Go-Live. The current CTOC ICD is in Attachment D: CTOC Technical Specifications for Interagency Data Exchange.
1727	The Contractor shall provide all CTOC type reports for all interoperable and other service related transactions/trips processed by TCA.

1.16.5.4. Reconciliation with ROV Lookup Source(s) Reports

The BOS shall Interface directly with one or more ROV Lookup sources including the California DMV, the Arizona DMV and a third-party ROV Lookup Provider to obtain vehicle registration information. The California DMV interface shall also be used for the placement and removal of Registration Holds. The exchange of information and status shall be tracked and reported. Reports provided by the BOS shall match the transactional data provided to the applicable ROV Lookup Service Provider.

1728	The Contractor shall provide reports that track the transmission of each vehicle registration lookup request, acknowledgment and response to each request. Data shall include the processing status of each record, including re-transmission and response code for each ROV Lookup Service Provider (initially California DMV, Arizona DMV and the Contractor-selected ROV Lookup Provider).
1729	<p>The Contractor shall provide reports that help identify license plates, including but not limited to:</p> <ul style="list-style-type: none"> • by Jurisdiction; • by license plate type including temporary plates; • license plates for which no registration data is provided; • reason that no registration data is provided; • license plates that have no registration data after an established period of time (Configurable); • problematic license plate types and • exceptions that need to be investigated (Cases).
1730	The Contractor shall provide reports that provide ROV Lookup request and response trends by ROV Lookup Service Provider, Jurisdiction, date and license plate type.
1731	<p>The Contractor shall provide reports that reconcile Registration Hold requests with applicable DMV(s) initially California, including but not limited to:</p> <ul style="list-style-type: none"> • number of Registration Hold requests; • number of Registration Holds placed; • number of Registration Hold requests rejected; • reason that the Registration Hold request was rejected; • exceptions that need to be investigated (Cases). • number of payments received at DMV;

	<ul style="list-style-type: none"> • dollar amount of payments received at DMV;
	<ul style="list-style-type: none"> • payments amount received from DMV and
	<ul style="list-style-type: none"> • number of Registration Holds released;
1732	The Contractor shall provide reports that track Registration Hold statuses and any discrepancies between the status per the BOS and the status per the DMV or out-of-state DMV.

1.16.5.5. Reconciliation with Rental Car Companies Reports

The BOS utilizes the rental car company file exchange process (in addition to what rental car companies can perform on the Self-Service Website Portal) to maintain the vehicle database. File uploads also shall be used to obtain/update vehicle license plates.

1733	The Contractor shall provide the same reports for rental cars processed through TCA.
1734	The Contractor shall provide reports that track the vehicle license plate information provided by the rental car company, including but not limited to: <ul style="list-style-type: none"> • files transmitted or loaded; • license plates added; • license plates identified as exceptions; • effective beginning and end dates/times of the license plates; • updates made to the license plate information and • the processing status of the license plates.
1735	The Contractor shall provide reports that track the rental information provided by the rental car company, including but not limited to: <ul style="list-style-type: none"> • files transmitted or loaded; • Image-Based Transactions/Trips against license plate and/or renter/operator for rental period; • outstanding amounts; • vehicle status (Registration Hold); • Notices and Alerts; • status or workflow stage and • exceptions.
1736	The Contractor shall provide reports that reconcile to Image-Based Transaction/Trip noticing and financial reports.
1737	The Contractor shall provide reports that show Image-Based Transaction/Trip trends and activity on rental car company license plates.
1738	The Contractor shall provide reports that show Image-Based Transaction/Trip trends and activity by license plate.

1.16.5.6. Merchant Account Reconciliation with Merchant Service Provider Reports

The BOS shall Interface with the Merchant Service Provider for processing Credit Card payments and refunds.

1739	The BOS shall balance and reconcile every record processed, including but not limited to:
	<ul style="list-style-type: none"> • payments (sales);
	<ul style="list-style-type: none"> • voids;
	<ul style="list-style-type: none"> • refunds;
	<ul style="list-style-type: none"> • exceptions and • chargebacks, chargeback reversals and replenishment.
1740	The BOS shall load and process the Merchant Service Provider reconciliation files in support of the detailed reconciliation.
1741	The Contractor shall provide reports that track the Credit Card files transmitted to the Merchant Service Provider in batch mode and/or records transmitted in real-time, including but not limited to:
	<ul style="list-style-type: none"> • number of payments;
	<ul style="list-style-type: none"> • chargebacks, chargeback reversals and replenishments;
	<ul style="list-style-type: none"> • refunds;
	<ul style="list-style-type: none"> • reversals;
	<ul style="list-style-type: none"> • adjustments;
	<ul style="list-style-type: none"> • errors;
	<ul style="list-style-type: none"> • authorizations;
	<ul style="list-style-type: none"> • settlements;
	<ul style="list-style-type: none"> • payment source;
	<ul style="list-style-type: none"> • Credit Card type;
	<ul style="list-style-type: none"> • processed amounts;
	<ul style="list-style-type: none"> • process status (for example accepted, declined);
	<ul style="list-style-type: none"> • counts and amounts reported by the Merchant Service Provider for each transaction type;
	<ul style="list-style-type: none"> • counts and amounts reported by the Merchant Service Provider for each card type;
	<ul style="list-style-type: none"> • variances;
	<ul style="list-style-type: none"> • declined reasons;
	<ul style="list-style-type: none"> • date and time of transmission;
	<ul style="list-style-type: none"> • Credit Card account number in PCI-compliant format;

	<ul style="list-style-type: none"> • account number;
	<ul style="list-style-type: none"> • number of attempts and
	<ul style="list-style-type: none"> • processing fees.
1742	The Contractor shall provide reports that track the transmission of the Credit Card expiration update request files, including but not limited to:
	<ul style="list-style-type: none"> • records in the file;
	<ul style="list-style-type: none"> • response received;
	<ul style="list-style-type: none"> • errors;
	<ul style="list-style-type: none"> • no response;
	<ul style="list-style-type: none"> • retries;
	<ul style="list-style-type: none"> • old expiration date;
	<ul style="list-style-type: none"> • new expiration date;
	<ul style="list-style-type: none"> • Credit Card account number in PCI-compliant format;
	<ul style="list-style-type: none"> • account number;
	<ul style="list-style-type: none"> • current account balance (receivable or prepaid);
	<ul style="list-style-type: none"> • status of update;
	<ul style="list-style-type: none"> • exceptions and
	<ul style="list-style-type: none"> • account Alerts.
1743	The Contractor shall provide reports that track the transmission of the Credit Card information update request files, including but not limited to:
	<ul style="list-style-type: none"> • records in the file;
	<ul style="list-style-type: none"> • response received;
	<ul style="list-style-type: none"> • errors;
	<ul style="list-style-type: none"> • no response;
	<ul style="list-style-type: none"> • retries;
	<ul style="list-style-type: none"> • old information;
	<ul style="list-style-type: none"> • new information;
	<ul style="list-style-type: none"> • Credit Card account number in PCI-compliant format;
	<ul style="list-style-type: none"> • account number;
	<ul style="list-style-type: none"> • current account balance (receivable or prepaid);
	<ul style="list-style-type: none"> • status of update;
	<ul style="list-style-type: none"> • exceptions and
	<ul style="list-style-type: none"> • account Alerts.

1744	The Contractor shall provide reports that display Credit Card payment processing fees, including but not limited to:
	<ul style="list-style-type: none"> • card type;
	<ul style="list-style-type: none"> • transaction type;
	<ul style="list-style-type: none"> • quantity processed;
	<ul style="list-style-type: none"> • amount processed;
	<ul style="list-style-type: none"> • per-transaction fees and
1745	percentage fees.
	The Contractor shall provide reports that display Credit Card payment processing trends, including but not limited to:
	<ul style="list-style-type: none"> • card type;
	<ul style="list-style-type: none"> • amount processed;
	<ul style="list-style-type: none"> • amount declined;
	<ul style="list-style-type: none"> • quantity;
	<ul style="list-style-type: none"> • number of errors;
	<ul style="list-style-type: none"> • transaction type (for example, payment, replenishment, reversal, refund);
1746	fees and
	percentages.
1746	The Contractor shall provide reports that balance to financial reports.
1747	The Contractor shall provide reports that balance to settlement reports.
1748	The Contractor shall provide reports that balance to account reports.
1749	The Contractor shall provide reports that balance to operations (CSR, Website, IVR) reports.
1750	The Contractor shall provide reports that validate compliance to the Performance Measures and note the exceptions.

1.16.5.7. Reconciliation with Credit Card Update Service Provider Reports

1751	The Contractor shall provide reports that reflect successful or unsuccessful transmission of update files.
1752	The Contractor shall provide reports that reflect the number of updates requested from the Credit Card update service provider.
1753	The Contractor shall provide reports that reflect the number of updated Credit Card files received from the Credit Card update service provider.
1754	The Contractor shall provide reports that track the transmission of the Credit Card expiration update request files, including but not limited to:
	<ul style="list-style-type: none"> • records in the file;

	<ul style="list-style-type: none"> • response received;
	<ul style="list-style-type: none"> • errors;
	<ul style="list-style-type: none"> • no response;
	<ul style="list-style-type: none"> • retries;
	<ul style="list-style-type: none"> • old expiration date;
	<ul style="list-style-type: none"> • new expiration date;
	<ul style="list-style-type: none"> • Credit Card account number in PCI-compliant format;
	<ul style="list-style-type: none"> • account number;
	<ul style="list-style-type: none"> • current account balance (receivable or prepaid);
	<ul style="list-style-type: none"> • status of update;
	<ul style="list-style-type: none"> • exceptions and
	<ul style="list-style-type: none"> • account Alerts.
1755	<p>The Contractor shall provide reports that track the transmission of the Credit Card information update request files, including but not limited to:</p> <ul style="list-style-type: none"> • records in the file; • response received; • errors; • no response; • retries; • old information; • new information; • Credit Card account number in PCI-compliant format; • account number; • current account balance (receivable or prepaid); • status of update; • exceptions and • account Alerts.

1.16.5.8. Reconciliation with the Agencies Bank Reports

All payments and funds received by the BOS are deposited in the Agencies' Bank Accounts. The Agencies require the capture of all deposit data in the BOS. Fees for services provided also must be reflected separately in the reporting.

1756	The Contractor shall provide completed reconciliation and supporting BOS reports that reconcile files received from and sent to the banks have been processed.
1757	The Contractor shall provide reports that support and identify source of errors, variances and exceptions.
1758	The Contractor shall provide completed reconciliation and supporting BOS reports that reconcile expected revenue to the actual revenue for each account established by the BOS.
1759	The Contractor shall provide reconciliations and supporting BOS reports that reconcile to the financial reports.
1760	The Contractor shall provide reconciliations and supporting BOS reports that reconcile to payments received by the BOS from various entities, such as Interoperable Agencies, Credit Card processor and Lockbox Service Provider (optional).
1761	The Contractor shall provide completed reconciliations and supporting BOS reports that reconcile to payments made by the BOS to various Agencies.
1762	The Contractor shall provide completed reconciliations and supporting BOS reports that reconcile to payments made by the BOS to various entities, such as Interoperable Agencies and customer refunds.
1763	The Contractor shall provide completed reconciliations and supporting BOS reports that reconcile to the bank statements provided by the bank, including but not limited to:
	<ul style="list-style-type: none"> beginning balance;
	<ul style="list-style-type: none"> activities for the month (such as payments, adjustments and checks cleared);
	<ul style="list-style-type: none"> deposits in transit;
	<ul style="list-style-type: none"> outstanding checks;
	<ul style="list-style-type: none"> reconciling items and
	<ul style="list-style-type: none"> ending balance.

1.16.5.9. Reconciliation with Collections Reports

The Contractor shall utilize collection services to pursue Image-Based Transactions/Trips and other unpaid receivable balances.

1764	Reports provided by the BOS shall track:
	<ul style="list-style-type: none"> the transmission of files;
	<ul style="list-style-type: none"> Collections Placements in collections by Collection Agency;
	<ul style="list-style-type: none"> collections aging and
	<ul style="list-style-type: none"> performance of each Collection Agency.
1765	The Contractor shall provide reports that track the transmission of the collection files and collections responses including but not limited to:
	<ul style="list-style-type: none"> number and dollar value of accounts by account type in the collections file;
	<ul style="list-style-type: none"> outstanding amounts (fees, penalties and Tolls);

	<ul style="list-style-type: none"> • number and dollar value of Collections Placements;
	<ul style="list-style-type: none"> • number and dollar value of transactions/trips;
	<ul style="list-style-type: none"> • number of responses received and
	<ul style="list-style-type: none"> • number of errors.

1.16.5.10. Reconciliation with California FTB Tax Intercept Program Reports

The Contractor shall utilize the California FTB to pursue Image-Based Transactions/Trips and other unpaid receivable balances.

1766	<p>Reports provided by the BOS shall track:</p> <ul style="list-style-type: none"> • the transmission of files; • debts placed with FTB; • debt at FTB aging and • performance of FTB.
1767	<p>The Contractor shall provide reports that track the transmission of files and FTB responses, including but not limited to:</p> <ul style="list-style-type: none"> • number and dollar value of accounts by account type in the FTB file; • outstanding amounts (fees, penalties and tolls); • number and dollar value of FTB Placements; • number and dollar value of transactions/trips; • number of responses received and • number of errors.

1.16.5.11. Reconciliation with Lockbox Reports (optional)

All payments and funds received by the Lockbox Service Provider (if elected) are deposited in the Agencies' Bank Accounts. The Agencies require the capture of all deposit data in the BOS. If the Contractor provides a Lockbox Service Provider, the following applies:

1768	<p>The Contractor shall provide reports that track Lockbox Service Provider payments (summary and detail), including but not limited to:</p> <ul style="list-style-type: none"> • account number; • Payment Type; • number of payments; • payment amounts; • payment dates; • document type;
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	<ul style="list-style-type: none"> • document number;
	<ul style="list-style-type: none"> • amount exceptions;
	<ul style="list-style-type: none"> • account exceptions and
	<ul style="list-style-type: none"> • other exceptions.
1769	The Contractor shall provide reports that balance to financial reports.
1770	The Contractor shall provide reports that balance to settlement reports.
1771	The Contractor shall provide reports that balance to account reports.
1772	The Contractor shall provide reports that display payment trends.

1.16.5.12. Reconciliation with Print/Mail House Provider Reports (optional)

The Contractor may utilize the services of third-party Print/Mail House Provider(s) to mail Notifications to customers. The reconciliation of the Notifications transmitted to the Print/Mail House Provider(s) and tracking of mailing date is critical to the CSCBOS operations.

1773	The Contractor shall provide reports that track the Notification files and the Print/Mail House Provider responses, including but not limited to:
	<ul style="list-style-type: none"> • number of records transmitted;
	<ul style="list-style-type: none"> • number of responses received;
	<ul style="list-style-type: none"> • number of bad addresses and
	<ul style="list-style-type: none"> • number of corrections made.
1774	The Contractor shall provide reports that track the Notification files transmitted to the Print/Mail House Provider, including but not limited to:
	<ul style="list-style-type: none"> • Notification type quantity and total dollar value;
	<ul style="list-style-type: none"> • number of Violation Transactions/Trips and fees and penalties in each Notice;
	<ul style="list-style-type: none"> • date transmitted;
	<ul style="list-style-type: none"> • response on each Notification;
	<ul style="list-style-type: none"> • processing status of each Notification;
	<ul style="list-style-type: none"> • date of printing;
	<ul style="list-style-type: none"> • date of mailing;
	<ul style="list-style-type: none"> • number of pages;
	<ul style="list-style-type: none"> • Notifications that were not mailed;
	<ul style="list-style-type: none"> • mailing exceptions (such as duplicate mailing or Notification missing elements);
	<ul style="list-style-type: none"> • cancelled requests;
	<ul style="list-style-type: none"> • re-prints and
	<ul style="list-style-type: none"> • re-transmissions.

1.16.6. Data Analytics (Business Intelligence) (Phase II and Optional)

The commercial off-the-shelf (COTS) data analytics Software will be used in conjunction with the data warehouse to provide data analytics (business intelligence).

1775	The Contractor shall provide a COTS data analytics solution that works in conjunction with the data warehouse.
1776	The Contractor shall provide the capability for the analysis of multi-dimensional data sets, arrays and data cubes using an online analytical processing (OLAP) tool.
1777	The Contractor shall provide 10 pre-defined analytics reports (to be determined during a post-Go-Live Phase II period).
1778	The Contractor shall provide the capability for Authorized Users to display, print and export to reports and presentations the results of analysis in multiple formats, including but not limited to:
	<ul style="list-style-type: none"> all standard forms of tabular reporting;
	<ul style="list-style-type: none"> all standard forms of graphs;
	<ul style="list-style-type: none"> all standard forms of charts and maps by ZIP code, city, county, state and country.
1779	The Contractor shall provide customized, graphical, reporting templates for the display, printing and export of information into reports and presentations, including but not limited to:
	<ul style="list-style-type: none"> graphical displays representing the entire 91 Express Lanes and graphical displays representing OCTA and RCTC 91 Express Lanes separately.
1780	The Contractor shall provide the capability for Authorized Users to do self-service data queries and analysis.
1781	The Contractor shall provide the capability to produce analytical reporting so activity on the complete 91 Express Lanes or only the OCTA and RCTC portions can be analyzed by any combination of the following parameters in both report and data query format, including but not limited to:
	<ul style="list-style-type: none"> account type;
	<ul style="list-style-type: none"> account status;
	<ul style="list-style-type: none"> customer account demographic information;
	<ul style="list-style-type: none"> CSC operational customer service data;
	<ul style="list-style-type: none"> customer Notifications information; payments type;

	<ul style="list-style-type: none">• vehicle type;
	<ul style="list-style-type: none">• Interoperable or home customers;
	<ul style="list-style-type: none">• revenue type;
	<ul style="list-style-type: none">• Transponder-Based Transactions/Trips;
	<ul style="list-style-type: none">• Image-Based Transactions/Trips;
	<ul style="list-style-type: none">• plate type;
	<ul style="list-style-type: none">• Violations;
	<ul style="list-style-type: none">• I-Tolls;
	<ul style="list-style-type: none">• time period (for example, day, week, month, year)
	<ul style="list-style-type: none">• time of day and
	<ul style="list-style-type: none">• day of week of the transaction.

Exhibit B

**Volume III: Customer Service Center
(CSC) Operations**

CONTENTS

1. SCOPE OF WORK AND REQUIREMENTS	1
1.1. OPERATIONAL REQUIREMENTS.....	1
1.1.1. General Requirements	1
1.1.2. Facilities	1
1.2. OPERATIONAL FUNCTIONS	8
1.2.1. Account Management.....	8
1.2.2. Privacy.....	11
1.2.3. Rental Cars	11
1.2.4. Search Warrants, Subpoenas, Litigation and Public Records Requests.....	12
1.2.5. Image Review Support.....	12
1.2.6. Owner Identification.....	14
1.2.7. Customer Communications	15
1.2.8. Transponder Management	22
1.2.9. Registration Hold.....	25
1.2.10. Collections.....	25
1.2.11. Bankruptcy	26
1.2.12. Violation Investigative Review (Disputes), Administrative Review and Hearing Support	27
1.2.13. Banking and Lockbox Services	28
1.2.14. Closing Procedures	29
1.2.15. Escheatment (unclaimed property)	29
1.2.16. Write-Offs	30
1.2.17. Reconciliations.....	30
1.2.18. Financial Reporting.....	31
1.2.19. Revenue Management.....	35
1.2.20. Paper Document Storage.....	36
1.2.21. Interoperability.....	37

1. SCOPE OF WORK AND REQUIREMENTS

The following subsections describe the Scope of Work and the Requirements for the CSC Operations. These Requirements are numbered to track obligations per the Agreement and any changes which may occur during the Project. Many of the Requirements contain underlying lists of specific items and work functions. The intent of these “including but not limited to” lists is to indicate to the proposer the intent and scope of the Requirement.

1.1. Operational Requirements

1.1.1. General Requirements

This section lists the high-level operations Requirements.

1	The Contractor shall provide all management, system maintenance, supervisory, financial and CSC Operations staff, including qualified management, professional and clerical personnel, to professionally operate and administer the Agencies’ CSC Operations in a manner that meets all required Performance Measures.
2	The Contractor shall put in place the organizational structure and headcount required to meet these Requirements.

1.1.2. Facilities

The Agencies currently utilize three facilities to provide customer service, back office operations and traffic management operations. These include the Corona CSC and WIC, the OCTA Store WIC and the Anaheim Processing Center. The Contractor is required to continue to operate these Agency-provided facilities as described in the sections below. The Contractor will have unlimited access to the facilities, with the exception of the OCTA Store, and may use expanded operational hours as needed to accomplish the Work.

The Contractor will not be charged rent/utilities for the use of Agency-provided facilities and furnishings. However, the Contractor shall be responsible for any required improvements, and all improvements shall be Approved by the Agencies. The Agencies anticipate that these facilities are sufficient for all the CSC and back office functions to be performed within these facilities. The Contractor shall evaluate the facilities for use in performing the Work. Based upon the staffing and workspace planning, the Agencies may desire to use some limited workspace within the areas designated for the Contractor’s use. See Attachment A: OCTA/RCTC Building Layouts for facility layouts.

3	The Contractor shall coordinate and facilitate tours of CSC Operations facilities and guide tours.
4	The Contractor shall facilitate and coordinate all BOS and CSC Operations facility related repairs (either as landlord covered no-cost repairs, Agencies pay landlord directly for repairs, or Agencies request that the Contractor pay and process as a pass-thru).
5	The Contractor shall provide the coordination and facilitation of various Agency directed meetings in the CSC Operations conference rooms as requested by the Agencies, including but not limited to:

	<ul style="list-style-type: none"> ensuring conference room is clean and all furniture and Equipment is in working order;
	<ul style="list-style-type: none"> providing meals for meetings (pass-thru) and
	<ul style="list-style-type: none"> attending meeting.
6	The Contractor shall provide and install all internal workspace signage and name plates.
7	The Contractor shall provide all office supplies required for CSC Operations and staff.
8	The Contractor shall provide all Equipment supplies, for example toner, paper, etc.

1.1.2.1. OCTA Store

The OCTA Store is a WIC located in the same building as OCTA's offices and is staffed by OCTA employees. These OCTA employees will be trained by the Contractor and the Contractor shall also provide escalation and operations support. There is no room for operational activities other than walk-in customer service at this site.

Location Name	OCTA Store
Address	600 S. Main Street, Orange CA 92868
Square Footage	N/A
Functionality	WIC

1.1.2.1.1. Hours of Operation and Holidays

9	The Contractor shall train and provide escalation and operations support for the OCTA employees and customer relations staff.
10	The OCTA Store WIC shall be open 8 am- 5 pm Monday – Friday, Pacific Time.
11	The OCTA Store WIC shall observe the following Holidays:
	<ul style="list-style-type: none"> New Year's Day;
	<ul style="list-style-type: none"> Memorial Day;
	<ul style="list-style-type: none"> Independence Day;
	<ul style="list-style-type: none"> Labor Day;
	<ul style="list-style-type: none"> Thanksgiving Day;
	<ul style="list-style-type: none"> Friday after Thanksgiving Day and
	<ul style="list-style-type: none"> Christmas Day.
12	For any listed Holiday occurring on Saturday or Sunday, the OCTA WIC shall observe the Holiday on the same day as OCTA's other staff.

13	OCTA may close the OCTA Store WIC (for example, for emergency or weather conditions).
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1.1.2.2. Corona CSC and Walk-in Center

The Corona site will house the CSC/customer contact center and WIC. The Contractor may propose performing back office production work such as transponder fulfillment and payment and mail processing in the Corona CSC. The Corona WIC will serve as a joint WIC between the Contractor and the RCTC staff serving the future I-15 express lanes. From a customer perspective, the experience should be seamless regardless of the entity responsible for resolution of their inquiry.

Location Name	Corona CSC
Address	301 Corporate Terrace Circle, Corona CA 92879
Square Footage	5009
Functionality	WIC and customer contact center, possible back office operations

The Corona facility shall meet the requirements below.

14	The Contractor shall staff and operate the Corona CSC.
15	The Contractor shall provide maintenance at this facility and ensure that the facility is professional in appearance and clean.
16	The Contractor shall exercise due care in the use, maintenance and storage of the Agency-provided facility, property and assets.
17	The Contractor shall comply with all requirements of the property lease and facility license agreements.
18	The Contractor shall provide adequate security systems to safely monitor and secure employees, customers, data, funds, property, equipment and assets.
19	The Contractor shall promptly notify the Agencies of any weakness in the security at the Corona facility.
20	The Contractor shall utilize cameras in accordance with PCI/PII requirements and the Contractor's preferred operational and security approach. The Agencies shall have access to view and copy the camera footage upon request.
21	The Contractor shall be responsible for design, permitting, and all costs associated with Contractor-desired improvements, including any Contractor-desired security improvements, to the Corona locations. Improvements shall be Approved by the Agencies.
22	The Contractor shall make all Agencies-directed and Approved improvements to the Corona facility, if any, as a combination of additional Work and a pass-through cost.
23	The Contractor shall provide a minimum of one Spanish-speaking CSR in the Corona facility during all the hours of operation.

24	The Contractor shall equip the customer contact center in Corona such that customers shall not hear cross talk when contacting the CSC by phone (crosstalk is any phenomenon by which a signal transmitted on one circuit or channel of a transmission system creates an undesired effect in another circuit or channel).
25	The Contractor must coordinate with the Existing BOS and CSC Operations Contractor for an orderly hand-off of the Corona facility.

1.1.2.2.1. Hours of Operation and Holidays

The Agencies require a high-level of customer service availability. The hours below are the minimum hours which the various elements of the Corona CSC Operation must be staffed and operated.

26	At a minimum, the CSC Operations functions shall be provided from 7 a.m. to 7 p.m. Monday – Friday, Pacific Time.
27	The CSC contact center shall be open and calls/contacts answered from 8 a.m. to 5 p.m. Monday – Friday, Pacific Time.
28	The Corona WIC shall be open 8 am- 6 pm Monday – Friday, Pacific Time.
29	The CSC shall observe the following Holidays:
	• New Year's Day;
	• Memorial Day;
	• Independence Day;
	• Labor Day;
	• Thanksgiving Day;
	• Friday after Thanksgiving Day and
	• Christmas Day.
30	For any listed Holiday occurring on Saturday or Sunday, the CSC shall observe the Holiday on the same day as Agencies' staff.
31	The Contractor shall close the CSC upon Approval from the Agencies (for example, for emergency or weather conditions).

1.1.2.3. Anaheim Processing Center/CSC

The Anaheim site houses the back-office production work such as image review support, payment processing, financial management, Violation and collections processing, system and database administration, data server room and the Traffic Operations Center. This facility can also be used as an overflow facility for inbound/outbound call/contact handling and other CSC activities.

Location Name	Anaheim Processing Center/CSC
Address	180 North Riverview Drive, Suite 200 Anaheim CA 92808
Square Footage	11,985
Functionality	Back-Office Processing, TOC, CSC/customer contact center overflow

The Anaheim facility shall meet the requirements below.

32	The Contractor shall staff and operate the Anaheim CSC facility.
33	The Contractor shall ensure that the facility is professional in appearance and clean.
34	The Contractor shall exercise due care in the use, maintenance and storage of Agency-provided facilities, property and assets.
35	The Contractor shall comply with all requirements of the property lease and facility license agreements.
36	The Contractor shall provide adequate security systems to safely monitor and secure employees, customers, data, funds, property, equipment and assets safe.
37	The Contractor shall promptly notify the Agencies of any weakness in the security at the Anaheim CSC facility.
38	The Contractor shall utilize cameras in accordance with PCI/PII requirements and the Contractor's preferred operational and security approach. The Agencies shall have access to view and copy the camera footage upon request.
39	The Contractor shall be responsible for design, permitting, and all costs associated with Contractor-desired improvements, including any Contractor-desired security improvements, to Agency-provided locations. Improvements shall be Approved by the Agencies.
40	The Contractor shall make all Agencies-directed and Approved improvements to the Anaheim facility, if any, as a combination of additional Work and a pass-through cost.
41	The Contractor shall provide a minimum of one Spanish-speaking CSR in the Anaheim Processing Center Facility during all the hours of operation.
42	The Contractor must coordinate with the Existing BOS and CSC Operations Contractor for an orderly hand-off of the Anaheim Processing Center/CSC Facility.

1.1.2.3.1. Hours of Operation and Holidays

The Agencies require a high-level of operational availability. The hours below are the minimum hours which the various elements of the Anaheim CSC Operation must be staffed and operated.

43	At a minimum, the CSC Operations functions shall be provided from 7 a.m. to 7 p.m. Monday – Friday, Pacific Time.
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44	In the event that the Anaheim Facility is used as an overflow call center, the CSC contact center shall be open and calls/contacts answered from 8 a.m. to 5 p.m. Monday – Friday, Pacific Time.
45	The CSC shall observe the following Holidays:
	<ul style="list-style-type: none"> • New Year’s Day;
	<ul style="list-style-type: none"> • Memorial Day;
	<ul style="list-style-type: none"> • Independence Day;
	<ul style="list-style-type: none"> • Labor Day;
	<ul style="list-style-type: none"> • Thanksgiving Day;
	<ul style="list-style-type: none"> • Friday after Thanksgiving Day and
	<ul style="list-style-type: none"> • Christmas Day.
46	For any listed Holiday occurring on Saturday or Sunday, the Anaheim CSC shall observe the Holiday on the same day as Agencies’ staff.
47	The Contractor shall close the Anaheim CSC upon Approval from the Agencies (for example, for emergency or weather conditions).

1.1.2.4. Traffic Operations Center (TOC) Operations

The Contractor will provide staffing, 24 hours per day and 365 days per year, at the TOC located at the Anaheim Processing Center/CSC. The TOC system is provided by others and the Contractor is not be responsible for the TOC maintenance agreements or Upgrades and Enhancements, other than the CSC Surveillance CCTV system.

48	The Contractor shall operate the TOC system and provide staff in accordance with the TOC SOPs to be developed by the Contractor during the Implementation Phase, including but not limited to:
	<ul style="list-style-type: none"> • monitoring of the 91 Express Lanes;
	<ul style="list-style-type: none"> • coordination of 91 Express Lanes roadway activities and incidents with the Agencies, CHP, Caltrans, customer assistance patrol/freeway service patrol, the ETTM System Contractors, and the BOS administrators and CSC staff as required;
	<ul style="list-style-type: none"> • development of incident reports;
	<ul style="list-style-type: none"> • development of traffic and revenue cost estimates related to roadway incidents as requested by the Agencies;
	<ul style="list-style-type: none"> • monitoring of the CSC Operations;
	<ul style="list-style-type: none"> • notification and coordination with CSC Operations management as required;
	<ul style="list-style-type: none"> • monitoring and control of changeable message signs;

	<ul style="list-style-type: none"> notification and coordination of TOC system issues and repairs with the TOC contractor;
	<ul style="list-style-type: none"> notification and coordination of ETTM System issues and repairs with the ETTM Contractor and
	<ul style="list-style-type: none"> management and retrieval of CCTV video.

1.1.2.5. Serving Customers with Special Needs

All facilities shall meet the Americans with Disabilities Act of 1990 (ADA) standards for accessibility for both staff and customers and be of appropriate size to contain the staff, furniture, equipment and supplies necessary to conduct operations described in this Scope of Work for the duration of the Agreement.

49	The Contractor shall report any facility-related ADA compliance issues to the Agencies immediately.
50	The Contractor shall identify and contract with a real-time translation service to serve customers whose language is other than English and Spanish, and whose language is not spoken by an available Contractor staff person. The service is to be provided on an as-needed basis and be available during all customer service hours.
51	The Contractor shall track the use of the translation service and shall provide tracking and accountability that identifies which account or document is related to each use of the service.
52	The Contractor shall provide and utilize equipment to serve hearing-impaired customers in accordance with customer service best practices and applicable federal and state statute and requirements.

1.1.2.6. Security and Facility Access Control

53	At the Corona CSC/WIC and the Anaheim Processing Center, the Contractor shall be responsible for administering the building access/badge and camera surveillance systems.
54	The Contractor shall provide and/or coordinate all security badges, parking, and administrative needs to access the building office space and for Agency staff or third-party vendors to work from all CSC locations, as needed.
55	The Contractor shall ensure the CSC facilities are accessed only by authorized personnel with the appropriate privileges, and the Contractor shall ensure security is not breached. The Contractor shall be responsible for establishing procedures and policies and carrying out these procedures and policies for all visitors accessing the CSC facilities. The policies and procedures shall be Approved by the Agencies.
56	The Contractor shall ensure access is limited to those functions required for the employees to perform their jobs while providing an appropriate segregation of access, based on employee responsibilities.

57	The Contractor shall maintain and provide to the Agencies as requested an access matrix that lists all personnel with access privileges to the CSC facilities. The matrix shall identify each employee's position, job functions, facility access rights, and access rights. Visitors and guests who are not directly working on the Project must be approved by the Agencies in advance.
58	The Contractor shall conduct reviews of the access matrix against the actual access for all employees in accordance with all security Requirements. Such reviews shall be conducted no less than quarterly or anytime at the request of the Agencies. The Agencies shall be invited to witness this review. The schedule for these reviews shall be included in the Operations Plan.
59	The Contractor shall ensure all facilities used by the Contractor to perform any Work in support of the Agreement shall be established and maintained in compliance with the Security Standards throughout the term of the Agreement.

1.2. Operational Functions

CSC Operations shall cover all functional areas as summarized below, including any required manual interactions or data entry that may be required of Contractor staff.

1.2.1. Account Management

The Contractor shall provide the following Services in an efficient and effective manner that allows customers to establish, manage and monitor their accounts.

60	The Contractor shall process all account opening activities, not otherwise performed by the customer, using the BOS, including but not limited to processing the customer application, customer acceptance of terms and conditions, Account Plan enrollment and qualification verification, payment processing, and transponder Fulfillment.
61	Using the BOS, the Contractor shall be responsible for the Fulfillment of any and all transponder types specified by the Agencies.
62	The Contractor shall support the assigning, qualification verification and management of Account Plans, including non-revenue plans in the BOS, as Approved by the Agencies,
63	In case of an incorrect or incomplete application, the Contractor shall contact the customer to facilitate successful account creation.
64	The Contractor shall support all activities related to account closing. In the event of closing the Contractor shall ensure that the customer's transponder(s) is changed to the appropriate status in the BOS and that all outstanding balances are paid or handled in accordance with the Business Rules, Operations Plan and SOPs prior to closing the account.
65	The Contractor shall update customer account information based on Notification from entities including but not limited to: <ul style="list-style-type: none"> customer or Authorized Designee; Registered Owner of Vehicle (ROV) Lookup Service Provider;

	• United States Post Office;
	• Skip Tracing Service Provider;
	• Banks (for replenishment);
	• Collection Agencies;
	• Print/Mail House Provider;
	• Lockbox Service Provider (if used by Contractor);
	• Credit Card Update Service Provider and
	• Merchant Services Providers (MSPs).

1.2.1.1. Payments, Fees and Refunds

Contractor will process payments at the CSC facilities and over the phone as well as resolve and post any payments where the Lockbox Service Provider (if used by Contractor) was unable to identify the correct account.

66	The Contractor shall process all payments received from customers either directly or through the services of a Lockbox Service Provider.
67	The Contractor shall resolve and process Lockbox Exceptions if a Lockbox Service Provider is utilized. These exceptions are payments which cannot be readily associated with a customer account. The Contractor shall be responsible for conducting timely research on these payments so that they can be posted to a customer account as quickly as possible. If all research avenues have been exhausted and documented and the payment remains unassociated, the payment shall be tracked as an unidentified funds Case for future resolution.
68	The Contractor shall support processing of payments by Agency staff, customers, Franchise Tax Board, DMV, Interoperable Partners and Collection Agencies and reconcile all payments to customer accounts and money deposited in the bank.
69	The Contractor shall apply any fees which require manual application using the BOS in accordance with Business Rules, Operations Plan and SOPs.
70	The Contractor shall research, respond to and process chargebacks.
71	After the pre-established time period determined by the Agencies has expired, the Contractor shall issue refunds using the same channel the customer used, if possible, to make the payment, in accordance with the applicable Agency Business Rules, Operations Plan and SOPs.
72	In the case of check refunds, the Contractor shall use Positive Pay to deter check fraud.
73	The Contractor also shall ensure that Credit Card refunds are successfully processed.

74	The Agencies have different Business Rules related to the processing of refunds. Some refunds may be issued by the Contractor; others will be issued by the Agency; however, the Contractor shall enter these refund checks into the Agencies' financial accounting systems for issuance by the Agencies.
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1.2.1.2. Account Plans

The Agencies have several Account Plans. These plans may be assigned at the individual transponder, or account level and each may have only one Account Plan assigned to it.

The Contractor shall be responsible for managing the various Account Plan programs including, enrollment in the program, eligibility verification, program membership renewal, and handling questions from customers regarding how the programs work and questions about specific transactions/trips under the programs. In addition to the Account Plans listed in this section, the Contractor should expect that plans may be added, deleted or modified over the course of the Operations and Maintenance Phase.

75	In accordance with Business Rules, Operations Plan and SOPs, the Contractor shall provide support for all the Account Plans, including new and modified plans.
76	For the Account Plans that require qualification, the Contractor shall verify qualification, scan and attach the qualification documentation prior to adding the plan(s) to the customer account.
77	For Account Plans requiring qualification, the Contractor shall remove the Account Plan and notify the customer if their eligibility requirements are no longer met.
78	For Account Plans which expire and require renewal, the Contractor shall verify qualification prior to renewing the plan on the customer account.
79	For Account Plans requiring payment, the Contractor shall collect appropriate payment from the customer as required by the enrollment process for the specific Account Plan.

1.2.1.3. Non-Revenue Program

The Agencies allow for non-revenue passage for qualified users on specific facilities. Non-revenue passage may be assigned at the individual transponder, or account level for some or all of the Agencies' facilities. The Contractor shall maintain strict control when a transponder is issued to an account with a non-revenue plan and the reason for issuing it. The Agencies must ALWAYS Approve the issuance of any non-revenue transponder.

The Contractor shall be responsible for managing enrollment in the program after obtaining the Agencies' Approval, verifying eligibility, handling questions from customers in regard to how the programs work and questions about specific transactions/trips under the programs.

80	In accordance with the Business Rules, Operations Plan and SOPs, the Contractor shall provide support for all of the Agencies' non-revenue programs.
81	Prior to applying a non-revenue plan to a transponder, plate or an account, the Contractor shall obtain Approval from the Agencies.

82	The Contractor shall maintain documentation of authorization for each non-revenue plan that has been assigned to a transponder or an account, and this documentation shall be available for review by the Agencies at all times.
83	The Contractor shall manage non-revenue account participants certification that the transactions/trips on a non-revenue account are according to the agreement.
84	The Contractor shall perform random checks to confirm the transponder is being used on an authorized plate
85	The Contractor will administer non-revenue accounts that do not have transponders issued when directed by the Agencies.

1.2.2. Privacy

Privacy is of utmost concern to the Agencies. The Contractor shall adhere to privacy and security Requirements set forth below and in the Security Standards and current law and regulations.

86	The Contractor shall develop and comply with all Approved Security Standards. Security Standards shall be updated to reflect changes in industry requirements, partner agreements and to address detected security weaknesses.
87	The Contractor shall not release information to anyone unless authorized by the Agencies. The Contractor shall develop an SOP and approval process for the release of information.
88	The Contractor shall establish reasonable methods to verify the identity of customers prior to the release of any customer account information, and such methods shall be documented in the Operations Plan and SOPs.
89	The Contractor shall validate the identity of the customer prior to release of any image. This may include requiring a photo ID at a WIC.

1.2.3. Rental Cars

The Agencies' customers utilize rental vehicles on OCTA/RCTC Toll Facilities which create transactions/trips that are initially assigned to a rental agency. The Agencies may utilize Rental Car Service Providers and/or other designated entities for processing the rental car trips.

90	The Contractor shall work directly with customers, the Rental Car Service Provider and/or other designated entity to accurately process all rental car trips and resolve rental-related requests.
91	The Contractor shall enter into agreements with a Rental Car Service Provider for the purpose of providing a seamless and cost-effective solution for customers. The Agencies shall have the right to review and approve all Rental Car Service Provider Agreements.
92	The Contractor shall provide the capability for a rental customer to post-pay a toll based on the Agencies Business Rules
93	The Contractor shall process affidavits of non-liability for rental/lease vehicles and pursue the named party.

94	The Contractor shall resolve charges by rental agencies for accountholders who incur a charge by rental agencies.
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1.2.4. Search Warrants, Subpoenas, Litigation and Public Records Requests

The Agencies receive requests for information and assistance from the law enforcement and legal communities as well as public records requests. These requests are highly time-sensitive and required sensitive and skilled handling.

95	The Contractor shall refer all requests, inquiries, subpoenas, search warrants, public records requests and official information requests to the Agencies, in accordance with Business Rules, Operations Plan and SOPs.
96	In accordance with the Business Rules, Operations Plan and SOPs for handling and tracking of such requests, the Contractor shall gather and provide the information requested by the search warrant or subpoena upon receiving Approval from the Agencies to do so.
97	The Agencies may request that the Contractor compile data for subpoenas, search warrants, litigation matters, or other reasons. The Contractor shall respond to all requests from the Agencies in a timely manner and in accordance with the Business Rules, Operations Plan and SOPs.
98	If the research will take longer than two (2) Business Days, the Contractor must advise the Agencies.
99	The Contractor shall provide qualified personnel to support litigation, including providing testimony as an expert witness upon request from the Agencies.

1.2.5. Image Review Support

Image collection and processing is a fundamental operation of the Agencies' transaction/trip processing and Violation enforcement process. Vehicle license plate images are captured by roadside equipment for all transactions/trips. If a valid FasTrak transponder is not identified, the images associated with that transaction/trip are reviewed by the ETTM System Contractors in a process called image review. These images and results of the review will be used to determine if a plate is associated with a FasTrak account or is a Violation. These will include rear license plate images as well as Region of Interest images. The ETTM System Contractors will identify the plate number, and Jurisdiction and plate type, if applicable, and provide this information to the BOS. The BOS will automatically Post the transaction/trips to the customer accounts, IOP or generate Violation Notices based on the license plate information received from the ETTM System Contractors.

1.2.5.1. Image Review Quality Assurance

The accuracy of the image review process is critical to the successful identification of the ROV. As part of the Quality Assurance (QA) process, the Contractor will conduct an accuracy review and audit process of the manual and automated image review results. Using the ETTM System Contractors' provided quality review tool, the Contractor will perform quality reviews on the results from each ETTM System Contractor to ensure that each ETTM System Contractor is accurately identifying a high percentage of license plates.

100	The Contractor shall provide for an adequate number of trained and qualified image review staff to handle the quality review volumes of the Agencies.
101	The Contractor shall perform manual image review on a sample of at least 1% of all Image-Based Transactions/Trips per month that were provided by each Agencies' ETTM System Contractor to determine accuracy of state, plate type, plate number and OCR confidence level.
102	The Contractor shall provide a report to the Agencies of the audit and findings.
103	The Contractor shall correctly determine for each image set whether the ETTM System Contractor accurately processed the image and if not enter the correct plate information or reject code and provide the findings to the ETTM System Contractor.
104	The Contractor shall work with the Agencies and ETTM System Contractors to take the necessary steps to correct identified errors from the automated review process so that they do not continue to occur. For example, an ETTM System may be mistaking the letter "E" for the letter "F" for the state of California so the Contractor would communicate the problem to the specific ETTM System Contractor and provide examples of the issue.

1.2.5.2. DMV No Registered Owner Information Return Quality Review

Periodically image transactions/trips will be returned from the DMV source with no registered owner information. This can be a result from several factors including a license plate entered incorrectly. Part of the Contractor's responsibility will be to ensure the transactions/trips with no registered owner information were not caused by an incorrect license plate.

105	The Contractor shall review all image transactions/trips that are returned from the DMV source without registered owner information to ensure license plate entry was accurate.
106	The Contractor shall accurately enter information related to the vehicle identified in each image set, including but not limited to: <ul style="list-style-type: none"> • plate number; • plate type, if applicable and • Jurisdiction.
107	The Contractor shall work with the Agencies and ETTM System Contractors to take the necessary steps to correct identified errors from the automated review process so that they do not continue to occur. For example, an ETTM System may be mistaking the letter "E" for the letter "F" for the state of California so the Contractor would communicate the problem to the specific ETTM System Contractor and provide examples of the issue.

1.2.5.3. Customer Inquiry Image Error

Quality reviews are required to verify customer-disputed transactions/trips. Customers may contact the CSCs regarding a notification they received that incorrectly identifies them as a user of a toll facility. This can be a result from several factors including a license plate entered incorrectly. Part of the Contractors responsibility will be to ensure the transactions/trips with no registered owner information were not caused by an incorrect license plate.

108	The Contractor shall also research and review images related to customer disputes and correct and reprocess.
109	The Contractor shall accurately enter information related to the vehicle identified in each image set, including but not limited to: <ul style="list-style-type: none"> • plate number; • plate type, if applicable and • Jurisdiction.
110	The Contractor shall work with the Agencies and ETTM System Contractors to take the necessary steps to correct identified errors from the automated review process so that they do not continue to occur. For example, an ETTM System may be mistaking the letter "E" for the letter "F" for the state of California so the Contractor would communicate the problem to the specific ETTM System Contractor and provide examples of the issue.

1.2.6. Owner Identification

Successful acquisition of accurate ROV information is critical to the success of the Agencies' Violation enforcement program. The Contractor shall be completely responsible for establishing and maintaining both technical and operational relationships with the Registered Owner Lookup Providers. The Contractor must ensure that the Agencies are receiving the optimum number of current and accurate ROV matches.

111	The Contractor shall establish and maintain up-to-date agreements with each Registered Owner Lookup Service Providers.
112	The Contractor shall provide the capability to track and follow the renewal Requirements for each Registered Owner Lookup Service Provider. For example, a state may require that a DMV data access application form be submitted and approved annually.
113	The Contractor shall use online interfaces to the California and Arizona DMV and other DMVs as they become available to manually look up individual license plates at the request of the Agencies or in order to resolve customer disputes.
114	The Contractor shall provide the following ROV-related activities, including but not limited to: <ul style="list-style-type: none"> • Establish and maintain a relationship with each Registered Owner Lookup Service Provider; • Manage current contracts and service level agreements with each Registered Owner Lookup Service Provider; • Monitor and evaluate the number of successful matches by jurisdiction; • Monitor and evaluate the number of successful matches by Registered Owner Lookup Service Provider; • Monitor and evaluate the number of successful matches by type of license plate;

	<ul style="list-style-type: none"> Identify issues with manual license plate identification and provide information to allow the ETTM System Contractors to correct the issue, including examples and training material;
	<ul style="list-style-type: none"> Identify issues with automatic license plate identification and provide information to allow the ETTM System Contractors to fix the issue, and
	<ul style="list-style-type: none"> Identify areas where the ROV match is lower than the average, investigate potential solutions and provide recommendations to the Agencies.
115	The Contractor shall coordinate with the ETTM System Contractors regarding BOS updates required due to any changes in ROV Requirements.
116	The Contractor shall monitor the success of ROV Lookup requests each month and when a change is made by the ETTM System Contractors reporting on the number of requests for which an ROV was obtained (successful lookup) and the number for which a request was not obtained (unsuccessful lookup) by Jurisdiction.
117	The Contractor shall identify Jurisdictions in which the percentage of successful requests decreases by more than five percent (5%) from the prior month and shall work with the appropriate ROV Lookup Service Provider to identify issues and solutions in collaboration with the ETTM System Contractors to ensure images are processed correctly.
118	The Contractor shall develop solutions to increase the ROV Lookup success.
119	The Contractor shall research and then input and manage the BOS Protected Plate data that associates an address with the agency names that are returned from the DMV or ROV Lookup Provider for license plates registered to a customer affiliated with federal, state or local agency that is allowed to shield addresses.
120	The Contractor shall facilitate the Protected Plate process of entering the correct agency address and resending the Violation Notice.

1.2.7. Customer Communications

1.2.7.1. Outgoing Customer Notification

The Contractor is responsible for all necessary customer communication in accordance with the Operations Plan.

121	The Contractor shall make contact with customers, by using the Agencies' required method of communication about account management, general information, marketing, changes to account and privacy policy.
122	The Contractor shall be responsible for printing, pdf creation, storing and associating with accounts, envelopes, mailing and postage for all communications.
123	The Contractor shall be responsible for providing and assembling all materials necessary for the mailing of transponders including, welcome kit, envelopes, sealing wafers, special inserts, mounting activation stickers and mounting strips.

124	The Contractor shall utilize the USPS/NCOA database services to validate a customer address prior to mailing correspondence.
125	The Contractor shall provide all postage meters and be responsible for payment of any postage meter fees.
126	The Contractor shall be required, at its own expense, to communicate to customers or the general public, including resending corrected notifications, any information related to issues or problems caused by the Contractor that affect customers, as further set forth in the Agreement.
127	The Contractor shall be responsible for printing, packaging and distributing printed information, developed by the Agencies.
128	The Contractor shall manage the sending of e-blasts (sending of an email simultaneously to a group of people), developed by the Agencies, to selected groups of customers or all customers using BOS functionality.

1.2.7.2. Outgoing Communications (Future)

The Agencies may elect during the term of the Agreement to offer video tolling for unregistered accounts (mailed invoices) as the first step of the Violations process. The Agencies anticipates that video tolling transactions would be grouped in regular intervals, such as weekly or monthly, prior to mailing invoices to customers.

129	If directed by the Agencies, the Contractor shall manage the mailing of invoices and the subsequent customer dispute and Violations process.
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1.2.7.3. Incoming Customer Communication

Incoming customer communication includes customer applications; replenishment payments; Violation payments; customer complaints; disputes; general public inquiries; legal notices (for example, bankruptcy, subpoena etc.); requests for account closures, account information updates and transponders. These communications will be received through all channels including but not limited to phone calls, faxes, texts, chat sessions, emails, Agency contacts, and mail.

Facilities and procedures are required to provide careful and efficient handling of all incoming customer communication, including the BOS providing for tracking of customer requests as Cases associated to the appropriate account(s).

130	The Contractor shall assume the responsibility for the two existing post office boxes from the existing contractor and establish any additional post office boxes it needs.
131	The Contractor is responsible for all mail pickup and transfer between facilities as required.
132	The Contractor shall receive mail from the post office boxes for incoming mail.

133	All customer contacts handled directly through the Contractor staff shall be noted in the customer account in the BOS to maintain an accurate history of the customer's interaction with the CSC and Agencies.
134	The Contractor shall provide a response for all correspondence received from the customer regardless of which channel the customer uses to communicate, including but not limited to, correspondence received by: <ul style="list-style-type: none"> • email; • fax; • text; • chat; • communication from the website's "Contact Us" feature and • delivered (USPS or by other means) correspondence.
135	The Contractor shall monitor and respond to customer requests received by phone, chat and text in real time when received during regular business hours.
136	The Contractor shall strive to provide first contact resolution and track the number of contacts resolved on first contact.
137	The Contractor shall encourage users of the Agencies' Toll Facilities receiving a Violation Notice to open a FasTrak account when they contact the CSC.
138	The Contractor shall ensure incoming correspondence (paper or electronic) is scanned (in the case of paper correspondence), saved and associated with the customer's account and any applicable Case(s). Non-customer correspondence shall also be scanned and catalogued for easy access. Paper copies shall be shredded, in accordance with security requirements, and policies agreed upon by the Agencies, in adherence with the Security Standards and documented in the Operations Plan.
139	The Contractor shall use the same channel used by the customer or customers preferred channel to respond to the customer correspondence unless the Business Rules, Operations Plan or SOPs specify a different channel or if the nature of the customer issue necessitates the use of a different channel.
140	The Contractor shall monitor the communications channels used and frequency of all customer correspondence and recommend for consideration BOS configuration changes that improve the use of customer-friendly, efficient and cost- effective customer communication methods.
141	Some customer contact may involve questions about Image-Based Transactions/Trips. The Contractor shall utilize the BOS to view images related to the transaction/trip in question and if appropriate work with the ETTM System Contractors to correct issues.

142	All incoming mail shall be processed by the Contractor, in accordance with the SOPs and applicable standards, including but not limited to the Security Standards. Such requirements include but are not limited to: segregation of duties; date stamping the mail, categorization, scanning and/or saving into the BOS as Cases, and then assigning to the appropriate Contractor staff for processing.
143	The Contractor shall develop a workflow process that clearly documents the handling process for all incoming correspondence and communication through all channels, ensuring all incoming correspondence and communications are recorded, reviewed and properly routed (such as, operational correspondence, financial, contractual, etc.). This shall be documented in the Operations Plan and SOPs.
144	The Contractor shall ensure all correspondence handling processes and controls are documented and adhered to by operations staff. The Agencies shall Approve the correspondence handling process and any changes to the handling process.
145	With the exception of customer requests regarding their own accounts, the Contractor shall only answer general inquiries as they relate to general information about the tolling facilities serviced and services provided by the CSC. All other inquiries and communications shall be escalated to the Agencies as a Case as set forth in the Operations Plan and SOPs, unless the Contractor is otherwise directed in writing by the Agencies. This includes inquiries from or communications with the media, government agents, Public Records Act requests and individuals representing organizations for purposes other than directly related to their own customer account.
146	The Contractor shall keep a record of all information requests as a Case, inform the Agencies immediately of inquiries from these entities and direct such inquiries to the Agencies, according to the Operations Plan.
147	Customers may contact the Contractor regarding issues the Contractor does not control, for example debris on the roadway, or general tolling questions. The Contractor shall collect the required information and handle the issue in accordance with the Operations Plan. The Contractor shall create a Case and track the issue until it is accurately resolved or handed off to the appropriate party responsible for resolution in accordance with the Operations Plan.

1.2.7.4. Returned Mail Processing

Returned mail shall be returned by the USPS and the Contractor shall update the BOS to reflect the status of the Notification and attempt to obtain a different address to mail the Notification to the customer if a forwarding address was not provided.

148	The Contractor shall scan each returned envelope and Notification and attach the scan to the correct customer account. Any physical pieces of returned mail received will follow the document disposal process after scanning.
149	The Contractor shall enter a forwarding address, if provided.
150	For addresses without a forwarding address, the Contractor shall mark the address as bad.

151	For bad addresses on FasTrak account correspondence, the Contractor shall attempt to determine a new address using the USPS/NCOA database and Skip Trace services.
152	For bad addresses on Violation Notices, the Contractor shall attempt to determine a new address using the USPS/NCOA database and Skip Trace services.
153	The Contractor shall utilize the USPS/NCOA database and Skip Tracing services to find a customer address.
154	If a different, current address is provided, the Contractor shall update the address in the BOS and take the necessary steps for the BOS to re-issue the correspondence.

1.2.7.5. Collateral Materials for Customers

The Agencies will provide the art work for all customer collateral, excluding system generated notices.

155	The Contractor shall print, deliver to and inventory all collateral materials according to the print specifications provided by the Agencies.
156	The Contractor shall work with the USPS to obtain approval of printed material design to ensure compliance with the USPS requirements and to determine the lowest postage and staff handling effort for each mail piece type.
157	The Contractor shall modify/update as directed by the Agencies and print the generic collateral material when changes to the information contained in the material necessitate a revision.

1.2.7.6. Customer Request Management

The BOS provides the capability to create, assign and manage requests made by customers or Authorized Users which cannot be completely resolved at the time of the request. These requests become Cases. Case management is the creation and management of Cases where a Case represents an activity or action required to satisfy the Agencies, customer or general public need or inquiry.

158	Many customer issues or requests (such as, changing a customer's contact information), can be completely resolved at the time of the customer request. If the issue or request is completely resolved during the initial contact, the Contractor shall notate it in the customer's account.
159	Any customer issue or request that cannot be completely and accurately resolved at the time of request shall be entered into the BOS as a Case, for management, tracking and reporting. Contractor's staff shall work open Cases through to final resolution in a timely manner as required in the Operations Plan and in accordance with the Performance Measures.

160	The Contractor shall accurately resolve and respond to customer issues and requests by the customer's preferred method of contact (email and mail) if available and according to the Business Rules, or by letter, email, mail, phone or text depending on the circumstances of the issue/request. The escalation procedures for customer issues and requests shall be described in the Operations Plan.
161	The Contractor shall respond to customer Cases according to the Business Rules, Operations Plan and SOPs. The CSC Manager responsible for Case management shall review the list of open Cases on a daily basis and shall make sure they are accurately resolved in accordance with and within the timeliness set forth in the Operations Plan and the Performance Measures. The Agencies shall be notified immediately if there are any critical comments or issues that need immediate attention.
162	The Contractor shall be responsible for the resolution of all customer disputes, which are managed as Cases, in accordance with the Agencies' policies, the Business Rules, Operations Plan and SOPs.
163	The Contractor shall select the proper case type and case resolution.
164	The Contractor shall utilize pre-approved auto responses for case resolution as appropriate.
165	The Contractor shall process dispute Cases (Investigative Review) involving adjustments to vehicle class, transaction/trip adjustments and reversals, reassigning of Violations, and other resolutions. Specific types of disputes shall require supervisor/manager review and approval, and all waivers, adjustments and reversals shall be in accordance with the Operations Plan and SOPs.
166	The Contractor shall place the disputed transactions/trips and Violation Notices on hold and release the hold in the BOS in accordance with Operations Plan and Business Rules.
167	The Contractor shall ensure all supporting documentation from the customer to resolve a dispute Case, as required by the Operations Plan and Business Rules, is obtained. If the customer does not provide the supporting documentation, the Contractor shall contact the customer in accordance with the timeframes defined in the Business Rules and Operations Plan.

1.2.7.7. Ongoing Customer Satisfaction Surveys

The Contractor shall work with their Customer Satisfaction Survey Provider to establish a program that provides customer feedback regarding the services the Contractor provides and the Express Lanes themselves.

168	The Contractor shall offer the survey opportunity to every customer each time they contact the CSC.
169	The Contractor shall contract with a third-party Customer Satisfaction Survey Provider.
170	The Contractor shall create a customer survey program to measure the quality of the services they provide.

171	The Contractor shall modify the program as needed or as directed by the Agencies.
172	The Contractor shall make contact with each customer who rates their experience with an overall score below an agreed upon threshold, as noted in the Operations Plan, within five (5) Business Days of the customer submitting the survey.
173	The Contractor shall monitor the customer surveys and provide a report to the Agencies monthly.
174	The Contractor shall provide training on the survey tool to CSRs and other applicable personnel, including the purpose of the survey and the use of the survey tool.
175	The Contractor shall review survey results with CSRs and other applicable personnel during periodic meetings regarding individual's performance.
176	The Contractor shall provide the Agencies convenient, electronic access to the up to date and historic survey results.
177	The Contractor shall include the customer survey results, including trending, in as part of the Monthly Operations Report.

1.2.7.8. Customer Service Quality Monitoring and Reporting

The Contractor interacts with the Agencies' customers directly through many different channels including, but not limited to, in person at the Corona WIC, over the phone, in writing via chat, text, email and responses to the Cases. The quality of these interactions and the service provided to its customer is of utmost importance to the Agencies. In addition to Customer Satisfaction Surveys, the Agencies expect the Contractor to develop and enact quality programs for all aspects of its operation and to train its staff to use deliberate care in each interaction and in serving the Agencies' customers.

178	The Contractor shall ensure all CSC staff is trained in a manner which ensures excellent customer service in every customer interaction as measured by the Performance Measures.
179	The Contractor shall record the reason(s) for each contact (via all contact channels) by using Approved call wrap-up codes, entering account notes or other tracking approach to document the reason for the contact and memorialize the resolution or required next steps.
180	The Contractor shall monitor and score both live and recorded CSR calls for accuracy, efficiency, professionalism and courteousness in accordance with the Approved Quality Plan.
181	The Contractor shall monitor and score Corona WIC CSR interaction, resolution activities and outcomes for accuracy, efficiency, professionalism and courteousness in accordance with the Approved Quality Plan.
182	The Contractor shall review and score all customer interaction channels, resolution activities and outcomes for accuracy, efficiency, professionalism and courteousness in accordance with the Approved Quality Plan.
183	The Contractor shall review and score Case resolution activities and outcomes for accuracy, efficiency, professionalism and courteousness in accordance with the Approved Quality Plan.

184	The Contractor shall periodically monitor CSR screen navigations by remotely viewing the CSR's screen.
185	The Contractor shall track monitoring results and submit a monthly summary to the Agencies as part of the Monthly Operations Report.
186	The Contractor shall track all escalated issues and resolutions and provide a monthly report to the Agencies as part of the Monthly Operations Report.
187	The Contractor shall review information provided by the Agencies upon their review of customer interaction and make any changes to improve customer service.
188	The Contractor shall provide the capability for the Agencies to, at the Agencies' discretion and without prior notification to the Contractor, monitor all live and recorded calls and all other types of correspondence.
189	The Contractor shall provide for review by the Agencies all documentation related to the Contractor's quality program.
190	The Contractor shall conduct monthly quality monitoring calibration meetings for all Contractor staff who monitor customer interaction. The Agencies shall be invited to attend these meetings.

1.2.8. Transponder Management

The Agencies will purchase transponders and the Contractor shall perform all other work related to transponders.

191	The Contractor shall manage all aspects of the transponder lifecycle. This includes but is not limited to:
	<ul style="list-style-type: none"> • receiving into inventory; • testing transponders upon receipt and prior to issuing; • programming transponders as necessary, for example programming a standard 6c transponder to indicate that the vehicle is a motorcycle; • assigning and issuing to customers; • tracking transponders through their life; • recycling (evaluating, cleaning and testing) for reissue; • managing transponder recalls; • warranty return and replacement and • disposal of transponders.
192	Upon customer request, the Contractor shall assign, and mail transponder(s) to customers.
193	The Contractor shall support the distribution of transponders by the Contractor and US mail.

194	The Contractor shall include user guide and mounting instructions, mounting strips and other materials, as may be determined by the Agencies to be required with the distribution of each transponder. The camera-ready copy of any transponder kit materials will be provided by the Agencies and the Contractor shall be responsible for producing these materials.
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1.2.8.1. Transponder Inventory Management

The BOS shall have a transponder inventory and management system that tracks and maintains transponder inventory, identifies and supports the transponder recall program and tracks transponder warranty.

195	The Contractor shall be responsible for ordering (if requested by the Agency), tracking and transporting the transponders at all CSC facilities and the Agency off-site storage location.
196	The Contractor shall ensure that an adequate supply of transponders is available at all times. When the inventory reaches a pre-determined level identified in the Operations Plan the Contractor shall initiate order requests with the Agencies, based upon existing inventory and forecasted requirements.
197	The Contractor shall ensure that an adequate supply of transponder mounting strips, user guides and mounting instructions, and shielded envelopes for transponders are available at all times to accommodate the transponders issued by the CSC and WICs.
198	CSC issues multiple types of transponders, and as such, the Contractor shall be required to manage multiple types of transponders, possibly from multiple manufacturers/providers.
199	The Contractor shall receive shipments of transponders and shall reconcile shipment contents with electronic manifests provided by the transponder manufacturer. The waybill shall be reconciled against the original purchase order and scanned into the BOS for tracking and reconciliation purposes.
200	Monthly, the Contractor shall conduct a physical audit of the transponders that are under its physical control, including for the various transponder types and statuses and quantities. The audit shall compare the physical counts with the BOS counts by transponder type, location and status and completely reconcile any discrepancies. Transponder audit reports shall be included in the Monthly Operations Report.
201	The Contractor shall support the Agencies in their periodic transponder audits that will be no more frequent than quarterly unless discrepancies are found.
202	The Contractor shall distribute new and recycled transponders, if applicable, using the FIFO inventory method.
203	The Contractor shall manage, coordinate and perform the transponder case, electronics, and battery disposal process and provide the Agencies with evidence of disposal.
204	The Contractor shall subcontract with a Certified Disposal Service Provider.
205	The Contractor shall securely store transponders and batteries scheduled for disposal and prepare and ship the transponders and batteries as required for disposal.

206	The Contractor shall coordinate with the Certified Disposal Service Provider for the shipment of the transponders identified for disposal.
207	The Contractor shall track transponders provided to the Certified Disposal Service Provider for disposal and shall reconcile with the BOS provided balance of disposed transponders in accordance with the Reporting and Reconciliation Plan.

1.2.8.2. Transponder Testing

Transponders shall be tested at multiple times in the lifecycle because transponders that are defective or not functioning reliably cause problems for the customers and the Agencies and increase costs. The Agencies will provide equipment for the testing and programming of transponders.

208	The Contractor shall test one hundred (100) percent of the switchable transponders and ten (10) percent of each roll of sticker tags in each shipment when the transponders are received from the manufacturer. This testing shall include but not be limited to <ul style="list-style-type: none"> • verifying that the transponders function and are correctly encoded; • reading the transponder serial number and verifying that the transponder label, barcode and internal coding are consistent, and • ensuring the transponders can be read by simulating functionality on the road.
209	The Contractor shall return the transponders which fail the testing to the manufacturer in accordance with the Operations Plan.

1.2.8.3. Transponder Return to Manufacturer

When transponders are determined to be defective but have not have exceeded their manufacturer's warranty, they are returned to the manufacturer for replacement under warranty.

210	The Contractor shall track transponder warranty status and manage and resolve all warranty issues with the transponder manufacturer.
211	The Contractor shall be responsible for ensuring all transponders found to be defective and still under the manufacturer's warranty are returned to the manufacturer, according to the manufacturer's specified return material authorization (RMA) process.
212	The Contractor shall be responsible for storage of transponders subject to return until such time that the transponder manufacturer accepts the returned transponders.
213	The Contractor shall be responsible for shipment of the transponders identified for return to the manufacturer.
214	The Contractor shall track the warranty returns and confirm that the Agencies receives the proper credit for the transponders returned under warranty in accordance with the Agencies' agreements with the manufacturer.

1.2.9. Registration Hold

California law allows toll agencies to place a hold on DMV vehicle registrations due to unpaid toll Violations. Based on the Business Rules, Operations Plan and SOPs, a Registration Hold may be utilized to enforce payment of a Violation(s).

215	The Contractor shall place and release Registration Holds using BOS functionality and in accordance with the Business Rules, Operations Plan and SOPs.
216	The Contractor shall coordinate with the applicable DMV or Third-Party Provider responsible for placing Registration Holds on the vehicle registrations and respond to any requests that the entity may have.
217	The Contractor shall respond to requests from customers related to Registration Holds and the process for releasing the Registration Hold(s).
218	The Contractor shall initiate a release of the Registration Hold(s) in real-time for customers who have satisfactorily resolved the condition(s) which caused the Registration Hold(s).
219	The Contractor shall reconcile and account for all payments to the DMV for Registration Hold placement and for any payments collected by the DMV from the Agencies' customers.
220	The Contractor shall support all DMV Registration Holds or other enforcement methods allowed by interstate interoperability enforcement agreements.

1.2.10. Collections

This collections process covers the assignment of past due amounts on delinquent FasTrak accounts, and delinquent Violations to the Collection Agencies provided by the Contractor. Non-payment of the Notice of Delinquent Toll Evasion Violation may result in the delinquent Violations escalating to collections. Unpaid transactions/trips and fees on FasTrak accounts that are delinquent may also escalate to collections.

Because Violation Notices are issued by the respective Agency, delinquent violation debts are placed and tracked with a Collection Agencies by Agency. It is also possible that one of the Agencies may elect to place its debt with a Collection Agency while the other Agency does not.

The process of assigning unpaid transactions/trips, Violations, fees and penalties to collections is called Collections Placement, and is an automated BOS process. However, based on the Business Rules, each Collections Placement may require a quality review and/or the Agencies' approval before the Collections Placement file is submitted to the applicable Collection Agency.

Prior to a Collections Placement, the Agencies may require the Contractor to perform outgoing calls or mail a pre-collections letter to alert an individual of an impending Collections Placement and allow one more chance to make a payment.

The Collection Agencies will provide regular collection activity updates to the BOS by electronic interface. Payments for transactions/trips in collections can be made to the Collections Agency or to the CSC. The Contractor will manage, monitor and reconcile the transfer of Collections Placement files and revenue collected by the Collection Agencies and the CSC.

221	The Contractor shall provide the Collection Agencies.
222	The Contractor shall support outbound collections calls and letters prior to Collections Placements.
223	The Contractor shall verify that the BOS is performing Collections Placements according to the Business Rules, Operations Plan and SOPs.
224	While it is expected that the Collection Agencies will be the primary payment processors for debts in collections, the Contractor shall accept payments for amounts in collections.
225	The Contractor shall verify that the Collection Agencies are accurately updating the BOS and shall work directly with the Collection Agencies to completely and accurately resolve any issues in a timely manner, including identification and resolution of any discrepancies between what the BOS identifies is in collections and what Collection Agencies say is in collections.
226	Using the BOS and other data sources as necessary, the Contractor shall perform reconciliations including but not limited to: <ul style="list-style-type: none"> • reconcile files received from the Collection Agencies to the BOS to ensure the files received from the Collection Agencies are correctly Posted to the BOS; • reconcile outstanding collections balances per the BOS to outstanding collections balances per the Collection Agencies on a monthly basis, and research and resolve discrepancies and • reconcile amounts collected by the CSC in relation to Collections Placements sent to the Collection Agencies. There should be no duplicated revenue collections on the same Collections Placement.
227	The Contractor shall review and verify invoices submitted by Collection Agencies, along with required backup documentation and providing feedback to the Agencies.
228	The Contractor shall provide a financial reconciliation between the BOS and the Collection Agencies for a specific customer account at the Agencies' request.
229	The Contractor shall provide assistance to the Collection Agencies regarding the research of disputes when customers contact the Collection Agencies and shall coordinate the resolution with the Collection Agencies.
230	The Contractor shall update the BOS when notified by a Collection Agencies that a customer has been allowed to establish a settlement arrangement to pay a lesser amount or to make periodic payments.

1.2.11. Bankruptcy

The Contractor shall receive and process Notification of bankruptcies related to amounts owed to the Agencies by customers. The laws related to bankruptcy are very specific and must be followed closely from initial Notification through final resolution and potentially transaction Write-Off.

231	The Contractor shall comply with bankruptcy laws.
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232	The Contractor shall document receipt of Notification of bankruptcy within the BOS and place applicable transactions on hold pending the outcome of the bankruptcy process.
233	The Contractor shall remove DMV Holds for trips subject to bankruptcy proceedings.
234	The Contractor shall communicate with the Collection Agencies, as necessary, related to a bankruptcy Notification.
235	The Contractor shall discontinue collection efforts with the Franchise Tax Board for trip subject to bankruptcy proceedings.
236	The Contractor shall update the status of the bankruptcy in the BOS upon notification of changes or the resolution and perform the necessary steps to ensure that the BOS accurately reflects the outcome including but not limited to dismissing amounts due, processing write-offs and reinstating Violations.
237	The Contractor shall send copies of bankruptcy Notifications to the Agencies.
238	The Agencies will notify the Contractor of any bankruptcy proceedings for which the Agencies receive Notifications. The Contractor shall update the status of the bankruptcy in the BOS accordingly and notify the applicable Collection Agency.
239	The Contractor shall follow up with, provide information and respond to requests from all parties including but not limited to customers, attorneys, the bankruptcy courts and the Agencies related to a customer bankruptcy proceeding.

1.2.12. Violation Investigative Review (Disputes), Administrative Review and Hearing Support

When a violator receives a Violation Notice, they can contest (dispute) it. Disputes shall be tracked as Cases in the BOS. The Contractor shall follow California Vehicle Code Section 40250 et seq. with respect to disputes and Administrative Reviews.

240	The Contractor shall manage disputes, subsequent resolutions, and support Administrative Reviews.
241	The Contractor shall receive, research, document and resolve all customer disputes.
242	The Contractor shall investigate all customer disputes to determine if the contesting person (ROV) is responsible for the Violation.
243	The Contractor shall mail the results of the investigation to the person who contested the Violation.
244	When the person contesting a Violation is not satisfied with the results of the Contractor's investigation, they may request an Administrative Review Hearing. The Contractor shall schedule all Administrative Review Hearings and collect payment from the customer in accordance with California Vehicle Code and Agencies' Business Rules and SOPs.
245	The person contesting a Violation can request a waiver of deposit due to financial hardship. The Contractor shall verify that the person is eligible for financial hardship via verification of their W-9 or other Agency Approved process.

246	The Contractor shall adhere to the California Vehicle Code Violation dispute process and Agencies policies.
247	Once an Administrative Review Hearing is requested, the Contractor shall again review the dispute and organize all related information, using primarily the Evidence Package reports from the BOS, and provide the Agencies with all relevant documentation in a comprehensive Evidence Report Package.
248	The Contractor shall be readily available in-person to the Hearing Officer during the Administrative Review Hearing. For Administrative Review Hearings conducted by an Agency-hired third party, the Contractor shall be available as requested by the Agency.
249	The Contractor shall provide a Spanish-speaking interpreter to attend and support all applicable Administrative Review Hearing.
250	The Contractor shall implement all required actions resulting from the Agencies' an Administrative Review Hearing process.
251	The Contractor shall offer and process reduced Violation penalties in accordance with the Business Rules, Operations Plan and SOPs.
252	The Administrative Review Hearing will result in either the Violation(s) being dismissed or violator being required to make payment. The Contractor shall make adjustments to the balance due and/or collect payment from the customer.

1.2.13. Banking and Lockbox Services

The banking and merchant services for the CSC are comprised of the following:

- **Banking Services** – Banking Services are comprised of the Agency-provided depository accounts into which merchant and other deposits are made. The Agencies have selected and contracted with a Banking Services provider.
- **Merchant Services** – Contractor-provided merchant services are comprised of the payment processor and acquiring bank.
- **Refund Account(s)** – Bank Account(s) from which customer refunds are made. The Refund Account(s) is part of the Agencies' Banking Services.
- **Lockbox** – The Contractor may elect to provide and use a Lockbox Service Provider to receive and process all mailed payments related to customer accounts and Violations.

The Agencies will retain ownership of the Bank Accounts and will provide the Contractor with the necessary access to act and transact on behalf of the Agencies. The Contractor will provide the Merchant Service Provider; the Agencies will be the merchant of record for all Merchant Services.

253	The Contractor shall reconcile the BOS reports to the bank, all customer payments, Lockbox (if applicable) and merchant accounts on a daily basis.
254	The Contractor shall utilize the Agencies' Bank(s) and Contractor's MSPs to fulfill the requirement(s) of the Bank and MSPs.
255	The Contractor shall utilize and manage the Agencies refund process and associated refund account(s) to disburse customer refunds which require the issuance of a check. The Contractor shall reconcile and report on the refund activities.

256	The Contractor shall provide armored services with daily pickup at both WICs and Anaheim facility. All funds collected by armored services shall be deposited by next business day.
257	The Contractor shall manage a refund account from which they will issue checks for each of the Agencies.
258	The Contractor shall issue all refunds, including checks.
259	The Contractor shall process any lockbox exceptions transmitted by the Lockbox Service Provider within the same day the payment was received from the customer.

1.2.14. Closing Procedures

260	The Contractor shall perform closing procedures in an accurate and timely manner in accordance with the Performance Measures, including but not limited to: <ul style="list-style-type: none"> perform Posting Day close to finalize counts and revenue for the Revenue Day, perform month-end close on the last Posting Day of the calendar month and perform year-end close on the last Posting Day of the Fiscal Year.
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1.2.15. Escheatment (unclaimed property)

261	The Agencies follow statutory requirements with regard to uncashed checks issued as a form of refund to customers and other funds deemed unclaimed by the Agencies.
262	The Contractor shall work with the Agencies to follow the Escheatment process.
263	The Contractor shall maintain a register of all uncashed checks. The register shall indicate the name, address, check #, amount of check, check issue date, customer account number, and reason for check issuance.
264	The Contractor shall provide the Agencies with lists by Agency of the uncashed checks which are more than three (3) years old.
265	The Contractor shall provide information and conduct research as requested by the Agencies related to uncashed checks and unclaimed funds.
266	The Contractor shall reissue checks at the Agencies' direction.
267	The Contractor shall identify the funds as Escheated in the BOS as directed by the Agencies.
268	As of Go-Live, the Contractor will assume responsibility for existing unclaimed property.
269	Prior to Escheatment, the Contractor will advertise a Notice of Publication of Unclaimed Funds that will run once a week for two weeks.
270	When no inquiries are received, the checks will revert back to the general fund. The Agencies will provide the Contractor with a list of funds to either reissue a check for or to revert back to the general fund.

1.2.16. Write-Offs

The BOS will provide the capability for the Contractor to monitor, conduct, and report on Write-Offs of unpaid balances or aged amounts.

271	The Contractor shall develop a write-off procedure that complies with legislation and the Agencies' policies.
272	Contractor shall configure BOS to perform automatic Write-Offs based on the Business Rules for unpaid balances which meet the Approved criteria.
273	Contractor shall monitor the automatic Write-Offs performed by the BOS and report on these to the Agencies on a monthly basis.

1.2.17. Reconciliations

The Contractor shall be responsible for the management of the financial operations of the CSC, including the balancing and reconciliation of all Financial Transactions.

274	The Contractor's balancing and reconciliation activities, which shall be provided to the Agencies on a weekly and monthly basis, shall include but are not limited to:
	• perform daily balancing and close-out of all shifts;
	• perform daily balancing of all mailed-in payments;
	• perform daily and monthly reconciliation of all Bank Accounts;
	• perform daily and monthly reconciliation of all merchant account activity and fees, including but not limited to Credit Cards and Debit Cards and
	• perform daily and monthly reconciliation of all Lockbox activity.
275	The Contractor shall develop a process for identifying, reporting and resolving all errors and discrepancies, which shall be included in the Operations Plan.
276	The Contractor shall perform other financial and transactional reconciliations in an accurate and timely manner, to be provided to the Agencies for review, in accordance with the Performance Measures, including but not limited to:
	• perform daily, monthly and annual reconciliation of all OCTA/RCTC transactions;
	• perform daily, monthly and annual reconciliation of all Interoperable Agency transactions;
	• perform daily, monthly and annual reconciliation of all transactions placed at a Collection Agency, and
	• perform daily, monthly and annual reconciliation of all Third-Party Service Provider and Business Partner payments.

277	The Contractor shall perform monthly reconciliations of all Financial Accounts, including roll-forward schedules from prior periods, which will be provided to the Agencies for review.
278	The Contractor shall reconcile all payments received from all payment channels within one day of posting to the system. This shall include the identification and resolution of all reconciliation discrepancies.
279	<p>The Contractor shall perform reconciliations, including but not limited to:</p> <ul style="list-style-type: none"> • detailed reconciliation of transactions/trips and revenue, by facility and transaction type; • Bank Accounts; • refunds by refund type; • prepaid account balances; • transponder deposits; • aged accounts receivable; • fees revenue; • penalties; • Write-Offs; • payment transactions and • other cost items and revenues.

1.2.18. Financial Reporting

The Agencies reports on a Fiscal Year beginning July 1 and ending June 30. As a public-sector entity, the Agencies' basic financial statements are presented in compliance with pronouncements in accordance with the Governmental Accounting Standards Board (GASB) and in conformity with GAAP.

While most Financial Transactions are captured automatically through the BOS, some level of manual entry may be required. Reports, including electronic reports and data exports from the BOS, are the primary means by which the Agencies will capture financial information related to the operation of the CSC. The financial reports consist primarily of various BOS-generated reports which summarize the financial and operational performance of the CSC. While most reports are automated, the Contractor is expected to provide manual reports for information that is not automated as requested by the Agencies.

280	The Contractor shall utilize BOS-generated reports Approved by the Agencies to fulfill reporting needs as described in the Reporting and Reconciliation Plan.
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281	The Contractor shall provide all financial reconciliation and reports to the Agencies in a timely manner, but no later than the date(s) prescribed in the Performance Measures.
282	The Contractor shall provide all data to the Agencies in compliance with pronouncements issued by GASB and in conformity with GAAP.
283	The Contractor shall perform ongoing review of reports at a frequency sufficient to guarantee all reports balance and reconcile to related reports.
284	<p>The Contractor shall balance, reconcile and verify the content of the reports, including but not limited to:</p> <ul style="list-style-type: none"> • daily receipts report (by payment method, payment channel and transaction type, including disbursements); • monthly receipts report (by payment method, payment channel and transaction type, including disbursements); • bank reconciliations; • prepaid toll balance; • refunds; • payments to DMVs and other ROV Lookup Service Providers for lookup and Registration Hold fees; • negative balance prepaid customer report; • transaction aging report; • customer aging report for Violation Notices, fees, etc.; • monthly adjustment report as required by the Agencies, and • transponder inventory reconciliation.
285	The Contractor shall enter journal entries, check payments and other Financial Transactions into the Agencies' general ledger systems on a daily, weekly and monthly basis.
286	The Contractor shall, at the request of the Agencies, provide new vendor setup, including soliciting and providing W9 of the new vendor and setting up vendor information in Agencies (OCTA and RCTC) accounting systems.

1.2.18.1. Audits

1.2.18.1.1. SSAE-18 Type II Audit

The Contractor shall engage an independent auditor to perform an SSAE-18 Type II audit to cover the operations of the CSC and provide the resulting report to the Agencies. The auditors have a fiduciary duty to the Agencies; however, the coordination of the audit, including managing the audit and related requests, managing interviews with staff, and the preparation of any supporting documentation or schedules shall be the responsibility of the Contractor.

287	The Contractor shall engage an independent auditor, which has been Approved by the Agencies to perform the SSAE-18 Type II audit.
288	The selected independent auditor shall be experienced and widely recognized in the United States for performing these types of audits. (i.e., the selected audit firm shall perform a minimum of ten (10) such similar audits each year).
289	The Contractor and auditor shall mutually agree on an audit plan, which shall be provided to the Agencies for Approval, including regularly scheduled meetings.
290	The audit shall cover the period of April 1 to March 31 annually, supplemented by a bridge letter covering the period of April 1 through June 30 annually, with the first year covering the Agreement start date through March 31 and the last year covering April 1 through the end of the Agreement term. The Audit periods are deliberately set to include an offset and a bridge letter so that the Agencies' auditors will have the SSAE-18 Type II report in time to start their audit work.
291	The final audit report shall be provided to the Agencies no later than June 30 each year.
292	The Contractor shall comply with all changes to requirements under SSAE-18; in the event SSAE-18 is replaced by a new standard, the new standard shall apply and in the event the SOC1 is replaced by a new reporting form, the Contractor shall submit the new reporting form.
293	The Contractor shall promptly comply with all audit requests.
294	The Contractor shall promptly notify the Agencies of any concerns raised by the auditors, including but not limited to: <ul style="list-style-type: none"> • any asserted weaknesses; • limitations on audit scope; • the auditors' inability to carry out the audit; • the Contractor's inability to carry out the audit; • any projected cost overruns and • time delays in scheduled audit completion.

1.2.18.1.2. Quality Audit

The Contractor shall conduct daily quality audits. These audits shall encompass all aspects of the CSC Operation as described in the Quality Plan. The Contractor must develop an audit report and provide it to the Agencies monthly.

295	The Contractor shall conduct daily quality audits in accordance with the Contractor's Quality Plan. All deficiencies identified through the audit process shall be successfully corrected by the Contractor. The findings in the audits will result in a monthly report to the Agencies.
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296	The Contractor shall institute any corrective measures and procedural or operational changes as requested and Approved by the Agencies as a result of audits at no additional cost to the Agencies. Items identified by the Agencies as critical shall be corrected immediately. Other items identified by the Agencies as non-critical shall be corrected as soon as practicable in accordance with an Approved schedule.
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1.2.18.1.3. Other Audits

Other aspects of the CSC are subject to audit by the Agencies and/or third parties as well as the Contractor. Results of audits conducted by the Agencies and/or third parties, including any prepared audit reports, will be shared with the Contractor, as applicable.

297	The Contractor shall support the Agencies in any audit activity relating to the Agencies' toll collection, BOS, and CSC Operations.
298	The Contractor shall conduct audits in accordance with the Quality Plan. These audits may include but are not limited to: <ul style="list-style-type: none"> • internal control procedures; • revenue/transaction reporting; • physical inventory audit; • security audits; • financial audit; • facility inspections and • OCTA/RCTC processing and performance.
299	As the accountant for the CSC Operations, the Contractor shall supply the Agencies' auditor(s) and management with information and schedules as requested and respond to requests from the Agencies or its auditors in a timely manner.
300	The Contractor shall provide the Agencies and their designee(s) access to the CSC for the purpose of conducting their audit(s).
301	The Contractor shall support the Agencies by running reports and making all requested documentation available for review.
302	The Contractor shall support the Agencies by making Contractor employees, consultants and other involved subcontractors and parties available for interview by auditors.
303	The Contractor shall successfully correct all deficiencies identified through the audit process.

304	The Contractor shall institute all corrective measures and procedural or operational changes as requested and Approved by the Agencies as a result of audits at no additional cost to the Agencies. Items identified by the Agencies as critical shall be corrected immediately. Other items identified by the Agencies as non-critical shall be corrected as soon as practicable in accordance with an Approved schedule.
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1.2.19. Revenue Management

305	The following forms of payment will be accepted by CSC. The Contractor shall account for, credit to the customers' accounts and deposit into the appropriate Bank Account(s) all payments in accordance with the Performance Measures:
	<ul style="list-style-type: none"> • checks (including personal, business, e-check, certified and cashier's checks); • money orders; • cash (United States currency); • Credit Card, including mobile payments and EMV chip integrated circuit card (at in-person locations only) and • Debit Card (PIN-less debit only).
306	Using the BOS, the Contractor shall accept payments from customers who use any combination of the above payment methods. For example, customers can choose to pay a portion of their balance using a check and another portion using a Credit Card, or using two (2) or more different Credit Cards.
307	The Contractor shall deposit and post to customer accounts all payments received from all payment channels within the same day the payment was received from the customer.
308	The Contractor shall deposit any checks received by the CSC electronically using Bank-specified check scanners, which shall interface with the bank software.
309	The Contractor staff shall manually key in check information in the event of a check scan failure.
310	The Contractor shall manually apply in the BOS any fees which are not automatically applied through the BOS, in accordance with the Business Rules, Operations Plan and SOPs. Examples of these fee types are a returned check fee or a one-time paper statement fee, which must be selected by the user.
311	The Contractor shall post all customer payments received by operations into the BOS.
312	The Contractor shall develop a full-cycle chain of custody process (such as, how payments transfer from the mail room to an Agency employee for Posting to the bank for deposit) for all payments and cash balances which shall be included in the Operations Plan.
313	The Contractor shall develop and implement money handling, counting and storage procedures that cover items including but not limited to:
	<ul style="list-style-type: none"> • responsibility for all funds until custody of the funds has passed to the Agencies;

	<ul style="list-style-type: none"> all monies (checks and cash) collected shall be stored in a safe in a secure area until collected or deposited by the bank;
	<ul style="list-style-type: none"> all money handling, counting and storage shall be performed in a secure area and under dual control at all times and
	<ul style="list-style-type: none"> cash shall not be transported through public areas without appropriate security.
314	The Contractor shall deposit all monies received into the Agencies' Bank Accounts.
315	On a daily basis, the Contractor shall reconcile, balance and report to the Agencies all bank deposits of funds received.
316	The Contractor shall develop and implement customer refund procedures in accordance with the Business Rules to be included in the Operations Plan.
317	The Contractor shall remit monies to and collect monies from various parties in accordance with the Performance Measures and Operations Plan. Such remittances may be made by check, wire transfer, or book transfer, and may be made by either the Contractor or the Agencies, in accordance with the Operations Plan and shall include but are not limited to payments to and from:
	<ul style="list-style-type: none"> customers;
	<ul style="list-style-type: none"> the Agencies;
	<ul style="list-style-type: none"> Interoperable Agencies;
	<ul style="list-style-type: none"> Lockbox Service Provider;
	<ul style="list-style-type: none"> DMV;
	<ul style="list-style-type: none"> Collection Agencies, and
	<ul style="list-style-type: none"> Third-Party Service Providers and Business Partners.

1.2.20. Paper Document Storage

The CSC receives and generates paper documents over the course of daily business. These hard copy documents are scanned into the BOS for easy retrieval and association with applicable accounts and Cases on a timely basis and paper documents are shredded.

318	The Contractor shall provide and Approved approach for the handling, storage, scanning and shredding of all paper documentation in accordance with the Security Standards.
319	The Contractor shall provide for secure physical storage, not at the Agencies' facilities, of all paper documents in accordance with the Security Standards and SOPs.
320	The Contractor shall scan all paper documentation into the BOS associating each appropriately with applicable account(s) and Case(s).

321	The Contractor shall redact information in accordance with the Security Standards, Business Rules, Operations Plan and SOPs on the document prior to scanning the paper documentation in to the BOS.
322	The Contractor shall shred and dispose of all paper documentation after it has been successfully scanned in accordance with the Security Standards.

1.2.21. Interoperability

The Agencies are already interoperable with the other toll agencies in California. Over the life of this Agreement, it is likely that interoperability will expand to include all U.S. states and regions. The Agencies will participate in regional and national interoperability.

The Contractor will work in cooperation with all Interoperable Agencies and CSC facilities, and support the Agencies with efforts to provide for efficient and successful operation.

323	Working with the Interoperable Agencies, the Contractor shall facilitate the resolution of interface related issues or errors.
324	The Contractor shall provide financial and transactional reconciliation with Interoperable Agencies.
325	The Contractor shall participate in periodic teleconferences and meetings related to interoperability and other interoperability organizations.
326	The Contractor shall provide a point of contact for resolution of issues arising with interoperable transactions/trips and customer service including dispute resolution.
327	The Contractor shall monitor and manage the electronic file transfers within the BOS as required.
328	The Contractor shall manage and reconcile interoperable receivables and payables.

Exhibit B

Volume IV: Performance Measures

CONTENTS

1	INTRODUCTION.....	1
1.1	BOS PERFORMANCE MEASURES.....	1
1.2	CSC OPERATIONS PERFORMANCE MEASUREMENT.....	5
1.3	NON-COMPLIANCE PERFORMANCE ADJUSTMENTS.....	8
1.4	ESCALATION	8
1.5	CORRECTIVE ACTIONS.....	8
1.6	NON-CHARGEABLE AND CHARGEABLE FAILURES	9
1.6.1	Non-Chargeable Failures.....	9
1.6.2	Chargeable Failures.....	9
1.7	PERFORMANCE REPORTING.....	10

TABLES

TABLE 1: BOS PERFORMANCE MEASURES AND ADJUSTMENTS.....	ERROR! BOOKMARK NOT DEFINED.
TABLE 2: CSC OPERATIONS PERFORMANCE MEASURES AND NON-COMPLIANCE POINTS	6
TABLE 3: NON-COMPLIANCE ADJUSTMENTS	8

1 INTRODUCTION

The following describes the Performance Measures for the BOS and CSC Operations. The Agencies require the Contractor to continuously operate the BOS and CSC in accordance with the standards of performance identified in Requirements and these Performance Measures.

The Contractor's performance will be both self-monitored and monitored by the Agencies and is rated based on the Contractor's ability to meet these Performance Measures, which reflect the minimum performance expected of the Contractor to provide timely and reliable BOS processing and well as the minimum level of customer service.

1.1 BOS Performance Measures

BOS performance will be measured in categories that align with the primary functions of the BOS. The specific method of measuring the Contractor's performance will vary depending on the individual Performance Measure, but will generally be measured either by event, per calendar/Business Day or on a monthly basis. If a Performance Measure is not met, the Contractor is assessed an Adjustment to the monthly fee, based on the calculations described in the table. For some categories, the amount by which the Performance Measure is missed matters in determining how well the BOS is performing, therefore the non-compliance fees increase as the deviation from the Performance Measure increases.

Table 1, below, provides the BOS Performance Measures, measurement calculations and Adjustments for the Contractor. The Contractor's monthly invoice will be adjusted by the percentages and amounts shown. Attachment G: Sample KPI Adjustments provides sample scenarios for calculating the monthly KPI Adjustments.

Table 1: BOS Performance Measurers and Adjustments

#	BOS Performance Measure	Measurement Calculation and Frequency of Adjustments	Adjustments
1	BOS availability - Priority 1	<p>Calculates BOS Availability if a Priority 1 event has occurred during the period.</p> <p>Monthly Measurement of 99.80% uptime target.</p> <p>Availability shall be calculated as follows:</p> <p>Availability = $(1 - [\text{Total number of hours of Priority 1 downtime per month} / \text{Total hours in the month}]) * 100$</p>	<p>A 3% Adjustments to the monthly maintenance fee for availability between 99.50% and 99.80%;</p> <p>A 5% Adjustments to the monthly maintenance fee for availability between 99% and 99.49% and</p> <p>A 10% Adjustments to the monthly maintenance fee for availability below 99%.</p>
2	BOS availability - Priority 2	<p>Calculates BOS Availability if a Priority 2 event has occurred during the period.</p> <p>Monthly Measurement of 99.80% uptime target.</p> <p>Availability shall be calculated as follows:</p> <p>Availability = $(1 - [\text{Total number of hours of Priority 2 downtime per month} / \text{Total hours in the month}]) * 100$</p>	<p>A 1.0% Adjustments to the monthly maintenance fee for availability between 99.50% and 99.80%;</p> <p>A 1.5% Adjustments to the monthly maintenance fee for availability between 99% and 99.49% and</p> <p>A 3% Adjustments to the monthly maintenance fee for availability below 99%.</p>
3	Interface data and file exchanges	Per individual data or file exchange that is inaccurate, has incomplete data, is not technically compliant with the ICD, the or is not provided in the required time frame, per the ICD and/or agreed to operating procedures. Applies to all Interfaces other than Contractor-provided Third-party Service Providers and Business Partners.	\$250
4	Interface acknowledgements	Per individual event of a scheduled data or file exchange that is not acknowledged in the typical or required time frame, per the ICD and/or agreed to operating procedures.	\$250
5	Interface exception handling	Per individual data or file exchange where and exception information is not provided to the source system and the designate contact is not notified in the required or typical time frame, per the ICD and/or agreed to operating procedures. Exceptions are inaccurate information identified during data validation or an anomaly that prevents data, files and images from being properly processed.	\$250
6	Trip Posting	Per hour or partial hour in which files are not accurately posted within two (2) hours of receipt.	\$1000
7	Job Process	Per discrete event where a BOS Software job and/or process does not correctly run and complete within the expected time. Expected time = scheduled time + maximum run time.	<p>\$250 per event and up to 60 minutes of delay.</p> <p>\$100 for each partial additional hour of delay.</p>
8	Account replenishments	Per calendar day in which all eligible Accounts with a valid payment mechanism are not replenished within one (1) hour of reaching the low-balance threshold.	<p>\$2,500</p> <p>Escalates by \$2,500 each subsequent Calendar Day up to a maximum of \$10,000 per Calendar Day</p>

#	BOS Performance Measure	Measurement Calculation and Frequency of Adjustments	Adjustments
9	Sending of customer-initiated, non-batched email or text	Per calendar day for each type of automated Notification that is not correctly sent within 15 minutes of eligibility.	\$500
10	Mailing of USPS Notifications	Per subsequent calendar day in which eligible customer Notifications are not sent within three (3) Calendar Days.	\$500
11	Reporting	Per calendar day for each report that is not generated by the BOS, delivered and/or made available with accurate data per the reporting schedule.	\$100
12	Monthly system maintenance reports	Per subsequent Business Day that the monthly report is not generated within the required time frame.	\$500
13	Respond to agency requested information	Per subsequent Business Day that Contractor does not provide acknowledgement and status of requested information within two (2) Business Days.	\$500
14	Following the Approved change management process	Per event of Contractor not following Approved change management process and required testing before making a change to the BOS Hardware or Software.	\$5,000
15	Log, track and report all BOS failures or reported System issues.	Per event of Contractor not following Approved process and accurately logging event within the PMMS.	\$250
16	Acknowledgement of BOS failure and degradation notifications by Contractor	Per event without intentional human acknowledgment (recorded within the PMMS) by the Contractor's maintenance personnel of receiving notification of a BOS failure or degradation from the BOS, other Contractor personnel, customers, the Agencies, Third-Party Service Providers and Business Partners or another contractor as follows: <ul style="list-style-type: none"> • Within one (1) hour of notification for a Priority 1 event; • Within four (4) hours of notification for a Priority 2 event; and • Within twenty-four (24) hours of notification for a Priority 3 event. 	Priority 1 - \$1,000 Priority 2 - \$500 Priority 3 - \$250
17	Repair of Priority 1 failure or degradation	Per Priority 1 failure that is not repaired within four (4) hours.	\$ 2,500 per event and \$200 for each subsequent hour of delay.
18	Repair of Priority 2 failure or degradation	Per Priority 2 failure that is not repaired within twenty-four (24) hours.	\$1,000 per event and \$100 for each subsequent hour of delay.
19	Repair of Priority 3 failure or degradation	Per Priority 3 failure that is not repaired within three (3) Calendar Days.	\$500 per event and \$500 for each subsequent Calendar Day of delay.
20	Protect sensitive customer information from exposure to others	Per event of exposure of PII or PCI data to unauthorized persons.	\$25,000 per event and per subsequent day of exposure and all costs of direct damages, Notification and remediation.
21	Notify all affected customers of security breach.	Per event of customer Notifications not being sent within two (2) calendar days of security breach.	\$5,000 per event and \$2,500 for each subsequent Calendar Day of delay.

#	BOS Performance Measure	Measurement Calculation and Frequency of Adjustments	Adjustments
22	Remediate all PCI or PII related deficiencies	Per calendar day if deficiency remains after one (1) month from the initial date when any PCI or PII vulnerability is identified during PCI compliance audits, normal network and BOS monitoring, testing or vulnerability scans. This includes completing the Approved change management process, complete testing and successful placement into production of fixes required to achieve compliance.	\$500 per Calendar Day
23	Recovery Point Objective (RPO)	In case of primary BOS failure and transfer of production to the DR site, where the RPO is more than ten (10) minutes.	\$5,000 per event and \$1,000 for each subsequent ten (10) minutes of extended RPO.
24	Recovery Time Objective (RTO)	In case of primary BOS failure and transfer of production to the DR site, where the RTO is more than twenty-four (24) hours.	\$5,000 per event and \$250 per each subsequent hour of extended RPO.

1.2 CSC Operations Performance Measurement

The CSC Operations Performance Measures are tracked and reported to measure the ability of the Contractor to execute the key business processes and SOPs required. The Performance Measures are intended to align with the primary functions of the CSC Operations.

Some Performance Measures will be used to measure performance of processes that execute multiple times per day, for example, serving customers at the CSC or via the telephone. Other Performance Measures assess the Contractor's performance on the completion of a specific task, for example the completion of accurate monthly reconciliation and submittal of the reconciliation documentation to the Agencies.

The specific method of measuring the Contractor's performance will vary depending on the Performance Measure, but will generally be measured on a per item, daily or monthly basis. Non-compliance with the Performance Measures will result in assignment of non-compliance points, which are used to calculate the monthly Adjustments. This process is described in the following section. Regardless of how a Requirement is measured, the Contractor shall provide monthly reporting for all Performance Measures.

1.2.1.1 Performance Scorecard

For CSC Operations performance measurement, each Performance Measure is assigned a weighted non-compliance point value. The value of the non-compliance points assigned depends on the severity of the failure and its potential impact on the Agencies' business.

The Contractor shall develop Performance Measure reports, including the Monthly Performance Scorecard. Failure to comply with the Performance Measure will result in the associated non-compliance points being applied to the Contractor's Monthly Performance Scorecard. If the accumulated non-compliance points reach a specified threshold, the Contractor's invoice for the month will be adjusted by a percentage of the total invoice value, as shown in Table 3.

Table 2, below, provides the BOS Performance Measures, measurement calculations and Adjustments for the Contractor. The Contractor's monthly invoice will be adjusted by the percentages and amounts shown.

Attachment G: Sample KPI Adjustments provides sample scenarios for calculating the monthly KPI Adjustments.

Table 2: CSC Operations Performance Measures and Non-Compliance Points

OPS#	CSC Operational Performance Measures	Measurement and Frequency	Non-Compliance Points*
1	Reporting of all Operations Failures to the Agencies - The Contractor shall notify the Agencies of all observed operations failures identifying the failure utilizing the Approved notification process defined in the Operations Plan, SOPs and Business Rules.	Per failure to report observed operational failure using Approved notification process within 60 minutes	3
2	Monthly Reconciliations - The Contractor shall ensure all reconciliations are completed per the Requirements and that discrepancies are investigated, resolved, reconciled and closed and that the monthly roll-up of daily reconciliations, summarizing the daily activities for the entire month is provided.	Per month in which monthly roll-up is not provided within three (3) Business Days of month end	30
3	Quality Assurance - The Contractor shall ensure that all approved Quality Assurance (QA) processes, per the Quality Plan are completed monthly.	Per month in which 100% of approved QA processes are not followed	40
4	Customer Satisfaction - The Contractor shall use a Customer Satisfaction Survey to determine customer satisfaction with how contacts are handled. The post-contact survey questions will gauge the customers' satisfaction with the Service they received when contacting the CSC.	Per month in which Contractor does not achieve an average of 4.5 (at a minimum) out of 5	30
5	Speed of Answer - Call Center request to speak with a CSR - The Contractor shall answer incoming calls, after the caller elects to speak with a CSR.	Per Business Day in which 80% of calls are not answered within 60 seconds	3
6	Abandon Rate - The Contractor shall ensure incoming calls do not abandon prior to speaking with a CSR.	Per Business Day in which 4% of calls or more are abandoned	3
7	Speed of Answer - Chat - The Contractor shall answer incoming chat requests when a customer elects to chat with a CSR.	Per Business Day in which 80% of chats are not answered within 60 seconds	3
8	Speed of Answer - Text - The Contractor shall respond to incoming texts when a customer elects to text the CSC.	Per Business Day in which 80% of texts are not answered within 60 seconds	3
9	Speed of Answer - Email - The Contractor shall respond to incoming email requests when a customer elects to email the CSC.	Per Business Day in which 90% of emails are not responded to within 1 Business Day	3
10	First Contact Resolution - The Contractor shall resolve customer requests on the first contact with the CSC. Customers will be provided a question on the customer surveys to indicate if their request was resolved on the first contact.	Per Business Day in which Contractor does not resolve 85% of calls (per survey results)	5
11	CSC WIC Customer Wait Time - The Contractor shall ensure waiting times for customers to interact with a CSR at the CSCs remain within acceptable limits.	Per Business Day in which 80% of wait times exceed five (5) minutes	3
12	Timeliness of Customer Case Resolution - The Contractor shall completely and accurately resolve customer requests, including resolving customer complaints, made via all channels. Resolution of a customer request means completely resolving the issue, complaint or inquiry, such that no further follow up by the customer, the Contractor or the Agencies is required.	Per Business Day in which 90% of cases are not resolved within one (1) Business Day	3
		Per Business Day in which 98% of cases are not resolved within five (5) Business Days	3
13	Accuracy of Customer Request Resolution - The Contractor shall completely and accurately resolve the customer requests. Resolution of a customer request means completely resolving the issue, complaint or inquiry, such that no further follow up by the customer, the Contractor or the Agencies is required.	Per month that 99% accuracy is not met	30
14	Reason Code Accuracy - The Contractor shall select the correct transaction reason code. The BOS shall select a random sample set of one-hundred (100) transactions which required a reason code each month which will be reviewed for accuracy as part of the Contractor's Quality Assurance process. Both the process and the final outcome will be evaluated and the transactions which are determined to be adjusted or reversed for the wrong reason or inappropriately adjusted or reversed will be identified.	Per month that 99% accuracy is not met	30

OPS#	CSC Operational Performance Measures	Measurement and Frequency	Non-Compliance Points*
15	OCTA/RCTC Identified High Priority Issues Acknowledged and Assigned - The Contractor shall acknowledge and assign to appropriate staff all high priority customer issues. The Agencies will designate specific issues as "high priority" when the issues are provided to the Contractor. These issues are entered into the Case process for tracking to final resolution which will be communicated to the Agencies and the customer.	Per High Priority Issue that is not acknowledged and assigned within two (2) business hours	3
16	OCTA/RCTC Identified High Priority Issues Accurately and Completely Resolved - The Contractor shall accurately and completely resolve all high priority customer issues. Resolution means completely resolving the issue for the inquiry, such that the issue requires no further follow up by the customer, the Contractor or the Agencies.	Per High Priority Issue that is not accurately and completely resolved within one (1) Business Day	3
17	Processing of Returned Mail - The Contractor shall process all returned mail. The customer account must be updated with any new information and further research tasks shall be undertaken in accordance with the Business Rules to attempt to obtain an address for customers with only an undeliverable address.	Per Business Day in which 90% of the sample size of returned mail is not processed within three (3) Business Days	3
		Per Business Day in which 100% of the sample size of returned mail is not processed within ten (10) Business Days	3
18	Processing of Transponder Requests - The Contractor shall package and transmit all transponder requests to shipping provider.	Per Business Day in which 100% of transponder requests are not processed within two (2) Business Days	3
19	Payment Processing - The Contractor shall ensure all payments are posted to the correct account.	Per Business Day in which 100% of payments are not processed within two (2) Business Day	5
20	Research and Resolve Unidentified Payments - The Contractor shall ensure 100% of all cash, money order and check payments which are ineligible for immediate posting to a customer account (for example, payments missing sufficient information to identify the posting account) are completely and accurately resolved (for example, posted to an account, refunded to the customer or documented as all avenues exhausted). These include payments which cannot be readily associated with a customer account. The Contractor shall be responsible for conducting timely research on these payments so that the payments can be posted to a customer account as quickly as possible or, if all research avenues are exhausted and documented, tracked as unidentified funds in case of future customer contact	Per Business Day in which 100% of all unidentified payments are not completely and accurately resolved within five (5) Business Days	3
21	Process and Issue Refunds - The Contractor shall ensure 100% of all eligible refunds are completely and accurately mailed to customer or entered into Agency AP system as directed by the Agencies.	Per Business Day in which 100% of all refunds are not completely and accurately issued within five (5) Business Days	3
22	Staff Turnover/Attrition - The Contractor shall ensure the voluntary staff turnover / attrition rate does not exceed 5% of the total workforce each month. The Contractor is expected to implement employee engagement tools, training and career development processes to ensure the workforce remains consistent	Per month in which voluntary turnover/attrition exceeds 5%	10
23	TOC - Adherence to Standard Operating Procedures - The Contractor shall follow the SOPs defined for the TOC, which will describe duties such as notifying relevant agencies (CalTrans, Agencies, FSP) of an incident, alerting the tow truck providers, performing pricing signage updates, daily check of cameras, etc.	Per Business Day in which there is an event of non-compliance with the SOPs	3

For monthly measures the Contractor shall measure performance by comparing the target performance level defined in these Performance Measures against their actual performance for the month as applicable.

1.3 Non-Compliance Performance Adjustments

The Contractor's performance score will be determined each month by adding the points assessed for non-compliance as described above. A performance Adjustments will be made in each month that the Contractor exceeds the allowable number of non-compliance points up to a maximum monthly Adjustment.

Table 3: Non-Compliance Adjustments

Performance Level	Non-Compliance Points Range	Monthly Invoice Adjustments Percent
Level 1	0-30	0%
Level 2	31-50	1%
Level 3	51-150	2%
Level 4	151-250	5%
Level 5	251-400	12%
Level 6	401+	25%

1.4 Escalation

Non-compliance points will accrue as follows:

- The first month that a specific Performance Measure is not met will result in the assessment of the initial value of the associated non-compliance points assigned in Table 3.
- If a specific Performance Measure is not met for a second consecutive month, the non-compliance points assessed for that failure will be doubled for that month.
- If a specific Performance Measure is not met for a third consecutive month and for all subsequent consecutive months thereafter, the non-compliance points assessed for that failure will be tripled for that month.

1.5 Corrective Actions

Failure to meet a Performance Measure does not relieve the Contractor of the Requirement to complete the activity associated with the Performance Measure. The Contractor shall identify the failure condition, take immediate action to remedy the condition and ensure that corrective action is taken to prevent repeated failures in the future. This will be documented in a Corrective Action Plan (CAP). For example, if the Contractor fails to completely and accurately resolve 100% of the customer requests within the time required by the Performance Measure, the unresolved customer requests must still be completely and accurately resolved and the Contractor must identify the root cause of the failure, the extent of the problem and provide a plan to prevent future occurrences. The Contractor must complete activities in a first-in, first-out order (FIFO). Skipping prior day's work in order to catch up with a Performance Measure will not be allowed.

1	The Contractor shall identify the failure condition, take immediate action to remedy the condition and ensure that corrective action is taken to prevent repeated failures.
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2	Failure to meet a Performance Measure shall not relieve the Contractor of the Requirement to complete the activity associated with the Performance Measure. Any failure to meet a Performance Measure that requires the completion of a specific action(s), for example completing daily reconciliations or completing image review correctly, which is not completed in accordance with the Requirement, shall not relieve the Contractor of the responsibility to perform in accordance with the Operations Plan and the Requirements.
3	If a Performance Measure involving completing work in certain period of time is missed, the work shall be completed in order, such that the oldest work is completed before starting any newer work. The Contractor shall not skip any prior work and process new work to avoid a subsequent Performance Measure Adjustment.
4	The Contractor shall develop a Corrective Action Plan (CAP) for each failure to meet a Performance Measure identifying the root cause(s), the extent of the problem and providing a plan to rectify the current situation and prevent future occurrences. For example, if the Contractor fails to completely and accurately resolve customer requests within the time required by the Performance Measure, the unresolved customer requests shall be completely and accurately resolved and the Contractor must identify the root cause of the failure, the extent of the problem and provide a plan to prevent future occurrences.
5	The Contractor shall submit the CAP to the Agencies for review and Approval.
6	The CAP provided by the Contractor shall be in a format Approved by the Agencies as part of the Operations Plan.

1.6 Non-Chargeable and Chargeable Failures

For purposes of calculating Performance Measures, chargeable and non-chargeable failures are defined as follows:

- *Non-chargeable failures are those failures identified in the following section. Adjustments will not be assessed for non-chargeable failures.*
- *Chargeable failures are any failures not specifically identified as non-chargeable. Adjustments will be assessed for chargeable failures.*

1.6.1 Non-Chargeable Failures

7	Non-chargeable failures are limited to:
	<ul style="list-style-type: none"> • Force majeure, as defined in the Agreement; • BOS failures caused by environmental or operating conditions outside of those that the Contractor controls as established in the Requirements; • Preventive maintenance as allowed in the Maintenance Plan and • failures that are the responsibility of other contractors and Third-Party Service Provider and Business Partners as determined by the Agencies.

1.6.2 Chargeable Failures

8	Chargeable failures shall include any failures not specifically identified as non-chargeable.
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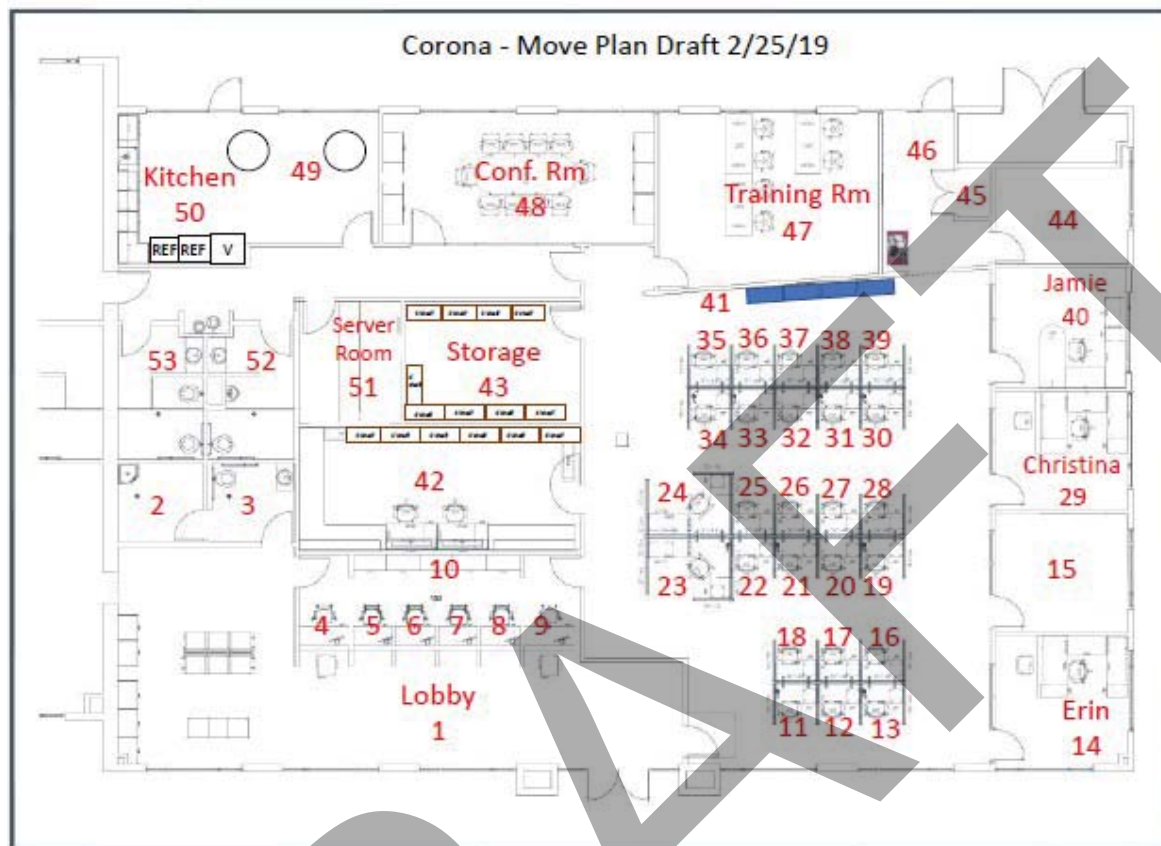
1.7 Performance Reporting

The Contractor is required to provide the Agencies a Monthly Operations Report that includes the Contractor's Performance Reports and Performance Scorecard. The Contractor's Performance Report will include a series of reports detailing the Contractor's performance against each Performance Measure and details related to the failure events that resulted in the non-compliance. The Contractor's Performance Report shall contain all information necessary for the Agencies to verify the Contractor performance as reported by the Contractor.

9	The Contractor shall prepare and submit to the Agencies the Performance Reports as part of the Contractor's Monthly Operations Report on an agreed-upon day each month as defined in these Requirements.
10	The Performance Report shall include: 1) a Performance Scorecard calculating the non-compliance points assessed that month, if applicable; 2) a series of reports that is comprised of one (1) report per Performance Measure, detailing the Contractor's performance against the Requirement that month supporting the Scorecard for each Performance Measure, and 3) a historical report detailing the Contractor's performance against each Requirement for the most recent 13 months. Copies of all CAPs related to failures for that month must be included.
11	The Contractor shall provide the required Monthly Operations Report to the Agencies before an invoice will be considered for payment.

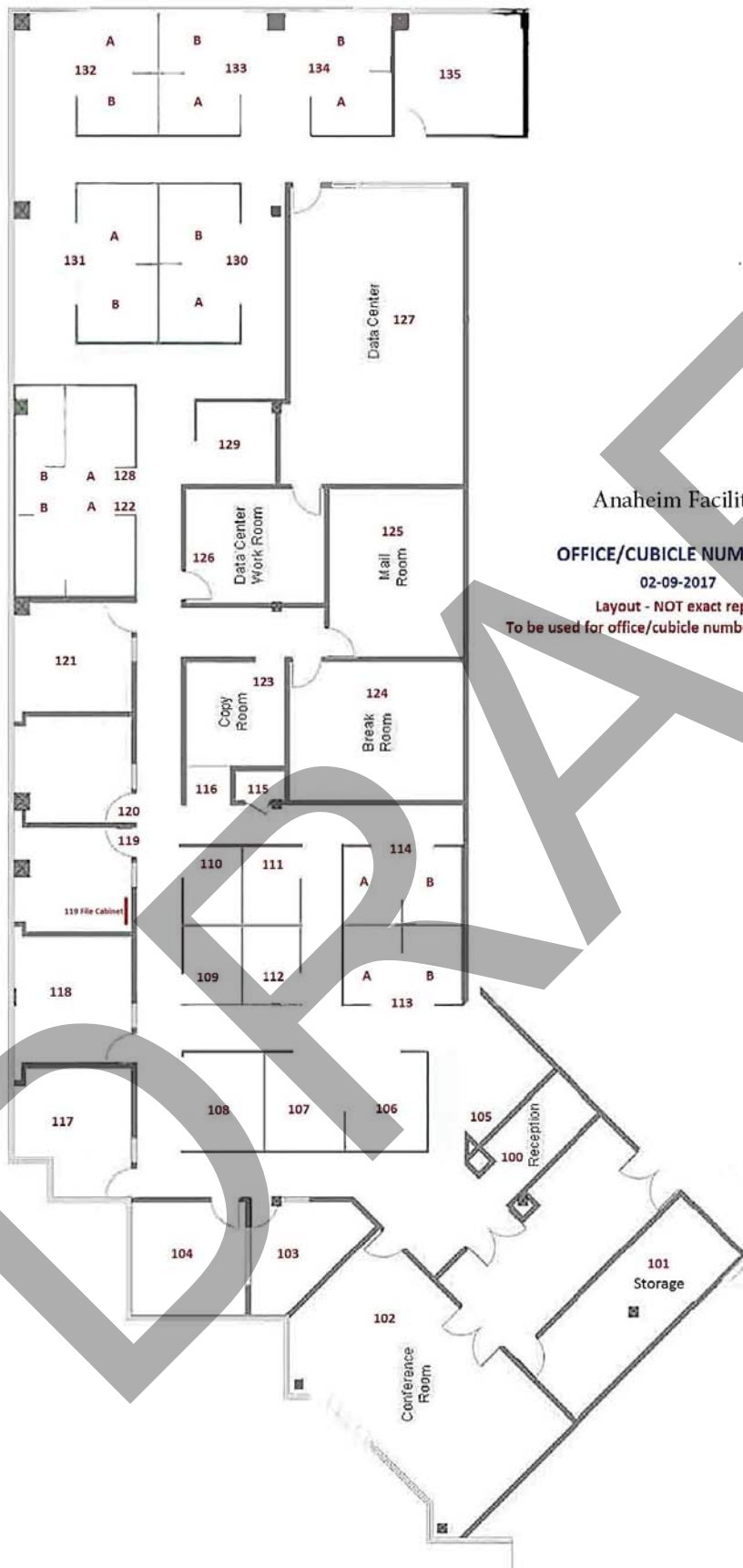
Attachment A: OCTA/RCTC Building Layouts

DRAFT



Legend

- Copier
- 3 Hi Lat File
- metal shelves



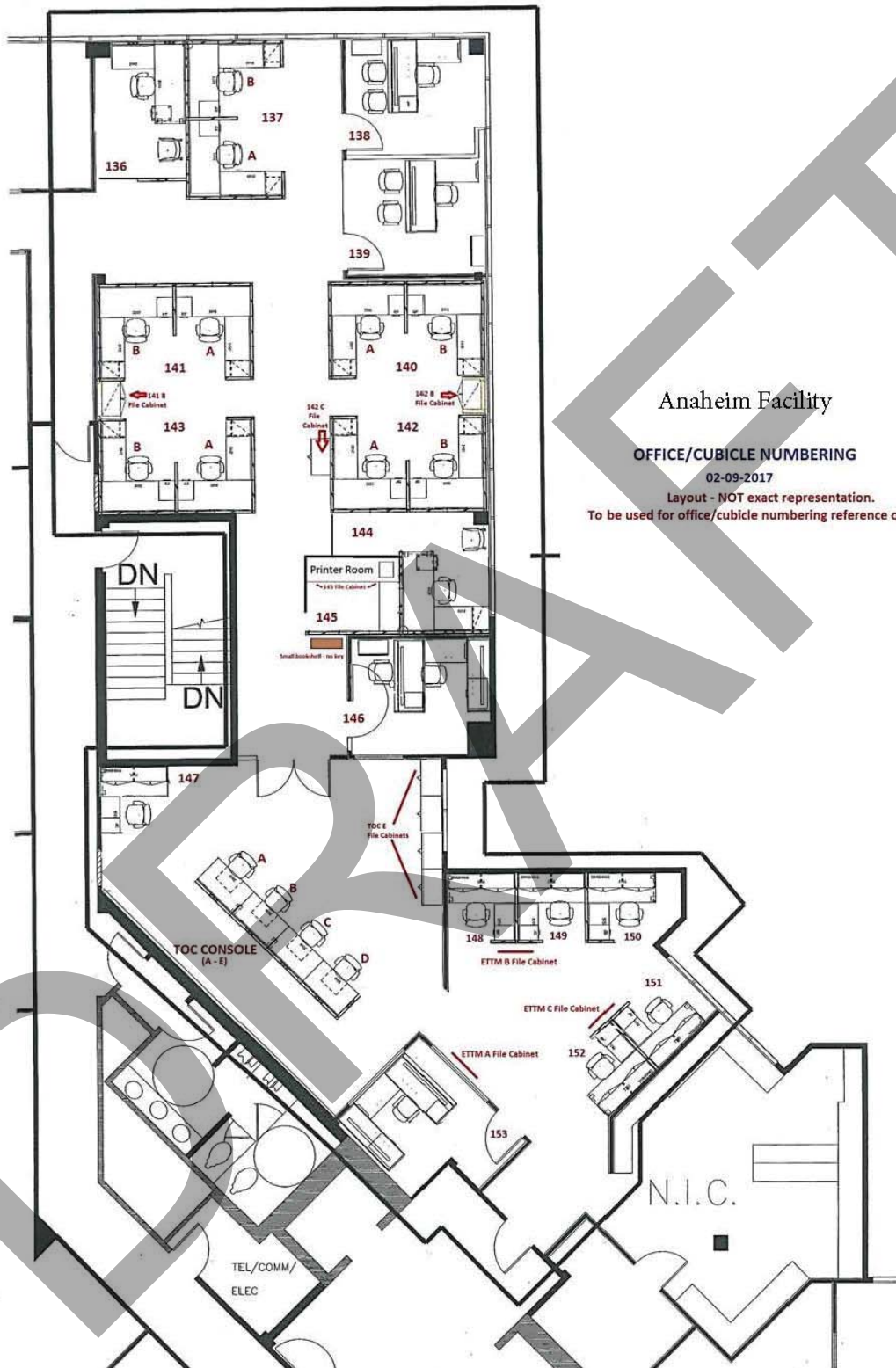
Anaheim Facility

OFFICE/CUBICLE NUMBERING

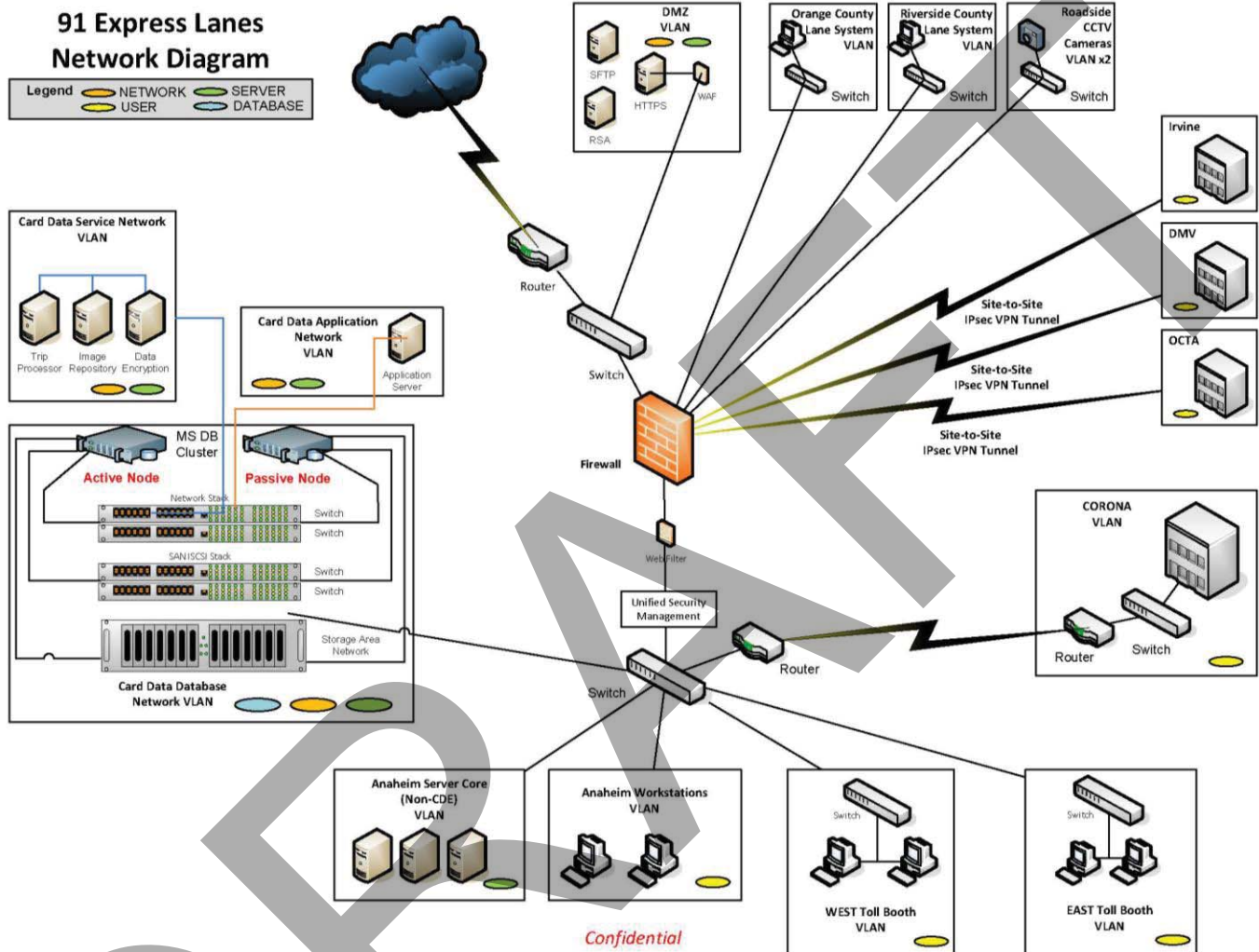
02-09-2017

Layout - NOT exact representation.

To be used for office/cubicle numbering reference only.



Attachment B: BOS Network and Server Room Layout



Note:

1. The diagram reflects the current network layout. Changes in ETTM System Contractors and/or interoperability processes may occur in the future.
2. ETTM System Contractor has a separate ISP and security hardware that would not be the Contractor's responsibility, but need to be considered in determining power, heating, access, and operations of the room.

Figure B-1: 91 Express Lanes Network Diagram

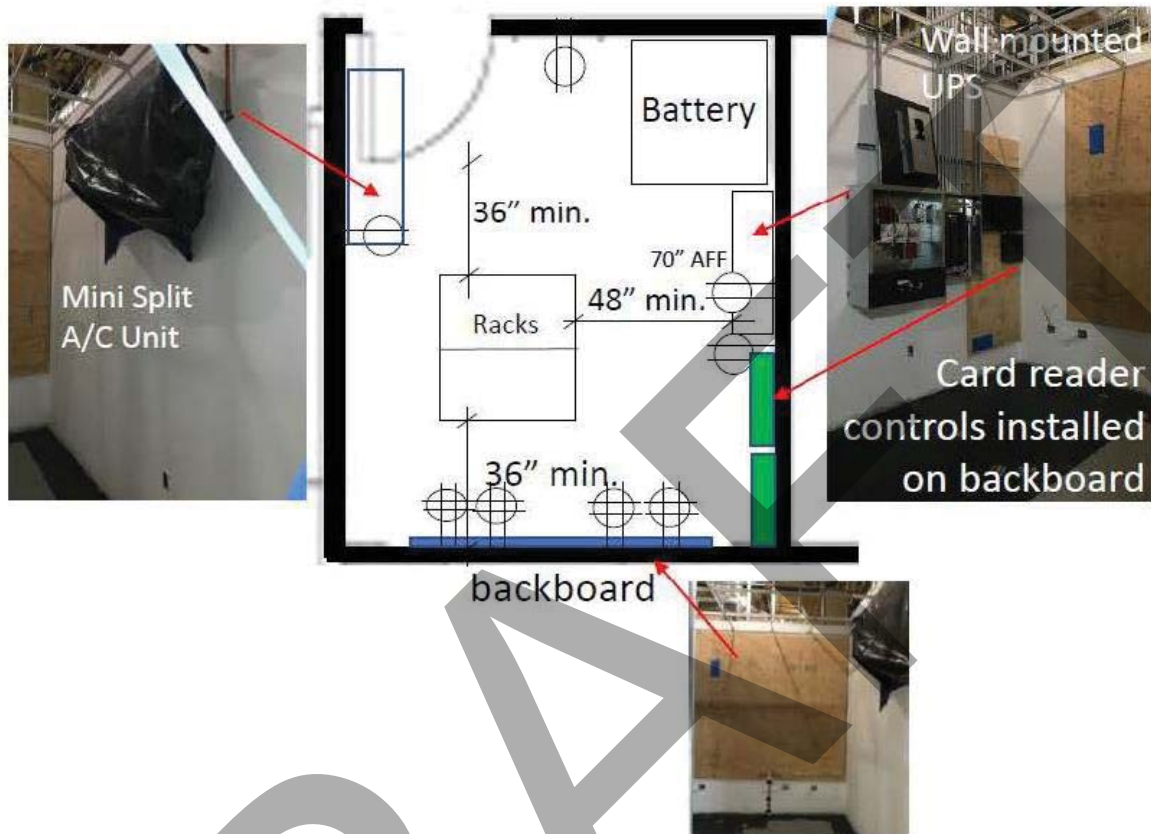


Figure B-2: Server Room Layout

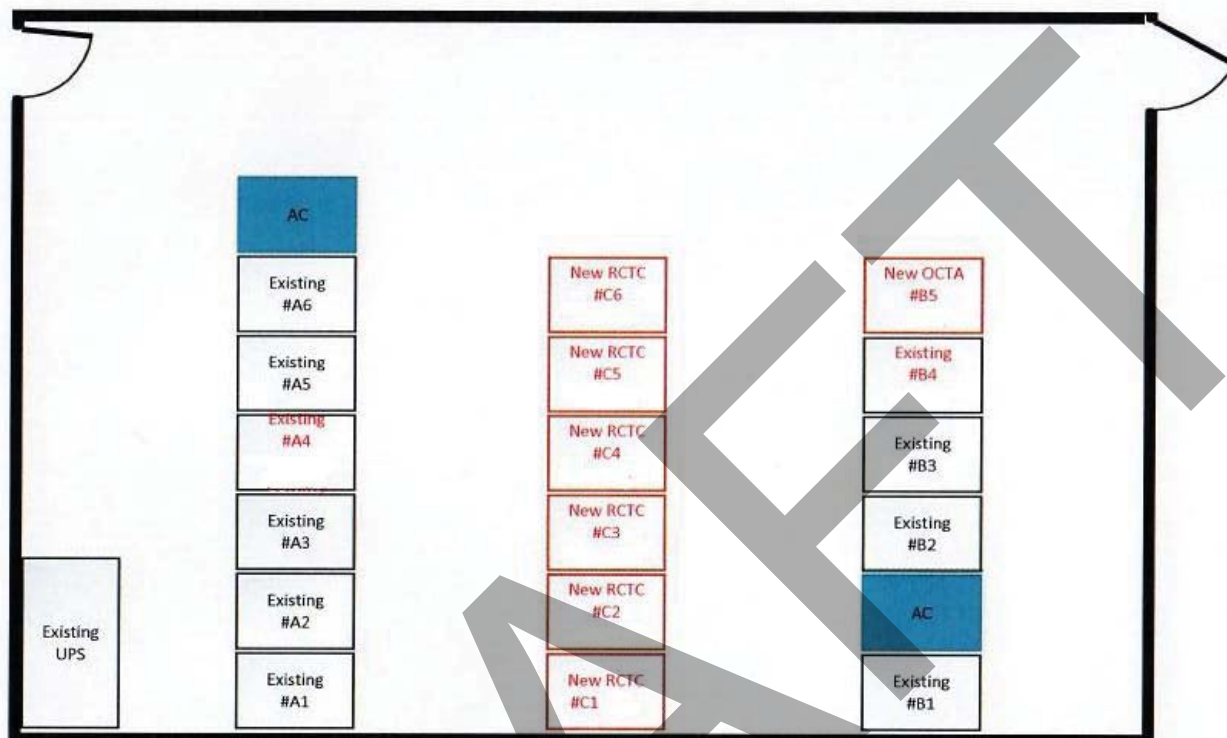


Figure B-3: ADC Rack Layout (12/15/15)

Attachment C: Equipment Lists

Table C-1: Network Equipment

Location	Item	Equip Name	Description	Comments	Vendor	Model	Serial #	Ship Date	Warr Exp.	Recommendations
Anaheim	Switch	ana-svr-sw01	Catalyst 4948 48 Port		Cisco	WS-C4948-S	FOX1347H69B	2/16/2010	8/20/2016	Vendor discretion to maintain or replace
Anaheim	Switch	ana-sw06	Catalyst 3750 24 Port		Cisco	WS-C3750G-24PS-E	FOC1118Y0QQ	6/27/2007	1/10/2014	Vendor discretion to maintain or replace
Anaheim	Switch	91EL-CORE-02	Catalyst 4507R+E Chassis		Cisco	WS-C4507R+E	SFXS1939Q3EV	2/11/2016	7/26/2020	Vendor discretion to maintain or replace
Anaheim	Switch	91EL-CORE-01	Catalyst 4507R+E Chassis		Cisco	WS-C4507R+E	SFXS1946Q0KJ	2/11/2016	7/26/2020	Vendor discretion to maintain or replace
Anaheim	Firewall	91EL-ASA-02	ASA5545 Firewall		Cisco	ASA5545-FPWR-K9	SFTX2007109D	2/11/2016	7/26/2020	Vendor discretion to maintain or replace
Anaheim	Firewall	91EL-ASA-01	ASA5545 Firewall		Cisco	ASA5545-FPWR-K9	SFTX200710ES	2/11/2016	7/26/2020	Vendor discretion to maintain or replace
Anaheim	Line card		Line Card for Catalyst 4507R+E Chassis		Cisco	1PWS-X4748-RJ45-E=	SCAT2004L60X	6/30/2016	7/26/2020	Vendor discretion to maintain or replace
Anaheim	Line card		Line Card for Catalyst 4507R+E Chassis		Cisco	1PWS-X4748-RJ45V+E=	SCAT2005L2FU	6/30/2016	7/26/2020	Vendor discretion to maintain or replace
Anaheim	Line card		Line Card for Catalyst 4507R+E Chassis		Cisco	1PWS-X4748-RJ45-E=	SCAT2004L5VS	6/30/2016	7/26/2020	Vendor discretion to maintain or replace
Anaheim	Line card		Line Card for Catalyst 4507R+E Chassis		Cisco	1PWS-X4748-RJ45-E=	SCAT2004L5ZZ	6/30/2016	7/26/2020	Vendor discretion to maintain or replace
Anaheim	Line card		Line Card for Catalyst 4507R+E Chassis		Cisco	30PWS-X4748-RJ45-E	SCAT2004L5S1	6/30/2016	7/26/2020	Vendor discretion to maintain or replace
Anaheim	Line card		Line Card for Catalyst 4507R+E Chassis		Cisco	1PWS-X4748-RJ45V+E=	SCAT2005L2KY	6/30/2016	7/26/2020	Vendor discretion to maintain or replace
Anaheim	Switch		Catalyst 3650 12 Port	Switch for CMS Signs	Cisco	WS-C3650-12S-S	SFCW2049C0JQ	5/2/2017	6/11/2022	Vendor discretion to maintain or replace
Anaheim	Web Filter		Web Security Gateway 810	Barracuda WSG 810 to both ASA5545	Barracuda Networks	BYF810A33	BAR-YF-926397	6/5/2017	12/21/2020	Vendor discretion to maintain or replace
Anaheim	Switch		Catalyst 3650 24 Port		Cisco	WS-C3650-24TS-S	SFDO2143V1MX	3/15/2018	3/13/2021	Vendor discretion to maintain or replace
Anaheim	Switch		Catalyst 3560 24 Port TS	OCTA - ETTM	Cisco	WS-C3560G-24TS-S	FOC1417Y20Q	6/1/2010		Vendor discretion to maintain or replace
Anaheim	Network Time Server		Tempus LX CDMA		EndRun Technologies	3014-0001-000	08040018	4/24/2008	4/24/2011	Vendor discretion to maintain or replace
Anaheim	Switch	pub-sw02	Catalyst 3650 24 Port	Public network switch	Cisco	WS-C3650-24TD-S	FDO1936E0P4	2/4/2016	2/1/2020	Vendor discretion to maintain or replace
Anaheim	Switch	pub-sw01	Catalyst 3650 24 Port	Public network switch	Cisco	WS-C3650-24TD-S	FDO1936E0NS	2/4/2016	2/1/2020	Vendor discretion to maintain or replace
Anaheim	Router	ana2cscRTR	4300 Router ANA to CSC		Cisco	ISR4331/K9	FDO1846A057	2/11/2015	2/12/2020	Vendor discretion to maintain or replace
Anaheim	Router	MISCAL01	1900 Router AT&T Managed Internet	Property of AT&T Asset #: T1807890	Cisco	XDC1921Y	FTX1901807J	4/16/2015		Vendor discretion to maintain or replace
Anaheim			US Robotics	Property of AT&T Asset #: T1807890				4/16/2015		Vendor discretion to maintain or replace
Anaheim	Switch	ana-svr-sw02	Catalyst 4948 48 Port		Cisco	WS-C4948-S	FOX1347G638	2/16/2010	8/20/2016	Vendor discretion to maintain or replace
Anaheim	Switch		Catalyst 3850 48 Port	iSCSI switch for Nimble SAN (Lync)	Cisco	WS-C3850-48T-E	FOC1917U01U	6/22/2015	6/21/2020	Vendor discretion to maintain or replace
Anaheim	Switch		Catalyst 3850 48 Port	iSCSI switch for Nimble SAN (Lync)	Cisco	WS-C3850-48T-E	FCW1917C01F	6/22/2015	6/21/2020	Vendor discretion to maintain or replace

Location	Item	Equip Name	Description	Comments	Vendor	Model	Serial #	Ship Date	Warr Exp.	Recommendations
Anaheim	Switch	ETTM	Catalyst 3650 24 Port	RCTC - ETTM	Cisco	WS-C3650-24TS-S	FDOC1946E2E9			Vendor discretion to maintain or replace
Corona	Switch		Catalyst 3560X 48 Port		Cisco	WS-C3560X-48T-S	FDO1708P1VP	6/18/2013	6/21/2020	Vendor discretion to maintain or replace
Corona	Switch		Catalyst 3560X 48 Port		Cisco	WS-C3560X-48T-S	FDO1708P1VA	6/18/2013	6/21/2020	Vendor discretion to maintain or replace
Corona	Router	csc2anaRTR	4300 Router ANA to CSC		Cisco	ISR4331/K9	FDO1834C007	2/11/2015	2/12/2019	Vendor discretion to maintain or replace
Corona	Switch		Catalyst 3650 48 Port		Cisco	1PWS-C3650-48FS-S	SFDO2013Q095	10/10/2016	10/9/2019	Vendor discretion to maintain or replace
Corona	Environment Monitoring		temp/hum		AVTECH	Room Alert 32E	RA32-FABD41	2/15/2018	2/15/2019	Vendor discretion to maintain or replace
Anaheim	Switch		Catalyst 3850 48 Port	iSCSI switch for Nimble SAN (RAMS)	Cisco	WS-C3850-48T-E	SFOC2001U0XB	2/23/2016	2/23/2021	Vendor discretion to maintain or replace
Anaheim	Switch		Catalyst 3850 48 Port	iSCSI switch for Nimble SAN (RAMS)	Cisco	WS-C3850-48T-E	SFOC2001X11C	2/23/2016	2/23/2021	Vendor discretion to maintain or replace
Anaheim			Catalyst 3850 48 Port	iSCSI switch for Nimble SAN (UTIL)	Cisco	WS-C3850-48T-E	SFOC2111X1RG	3/29/2018	4/2/2021	Vendor discretion to maintain or replace
Anaheim			Catalyst 3850 48 Port	iSCSI switch for Nimble SAN (UTIL)	Cisco	WS-C3850-48T-E	SFCW2128F0KK	3/29/2018	4/2/2021	Vendor discretion to maintain or replace
Anaheim	Switch		Catalyst 3850 48 Port	Parsons camera network switch	Cisco	WS-C3850-48T-S	FCW2013C09L	6/6/2016	8/31/2020	Vendor discretion to maintain or replace
Anaheim	Switch		Catalyst 3850 48 Port	Parsons camera network switch	Cisco	WS-C3850-48T-S	FCW2013C09U	6/6/2016	8/31/2020	Vendor discretion to maintain or replace
Anaheim	Environment Monitoring		temp/hum		Sensaphone	IMS-1001	00:07:F9:00:67:CB	10/29/2014	10/29/2017	Vendor discretion to maintain or replace
Corona	Switch		Catalyst 3560X 48 Port POE		Cisco	WS-C3560X-48FS-S	FDO2106E2PE	2/23/2017	2/22/2020	Vendor discretion to maintain or replace
TOC	Switch		Catalyst 3650 48 Port SS		Cisco	1PWS-C3650-48TS-S	SFDO2008E156	7/27/2016	7/26/2019	Vendor discretion to maintain or replace
TOC	Switch		Catalyst 3650 48 Port TS		Cisco	1PWS-C3650-48FS-S	SFDO2022Q0KX	7/27/2016	7/26/2019	Vendor discretion to maintain or replace
TOC	Switch		Catalyst 3650 48 Port SS		Cisco	1PWS-C3650-48FS-S	SFDO1953E0A7	6/21/2016	6/20/2019	Vendor discretion to maintain or replace
TOC	Switch		Catalyst 3650 48 Port TS		Cisco	1PWS-C3650-48TS-S	SFDO2007E2U7	6/21/2016	6/20/2019	Vendor discretion to maintain or replace

Table C-2: Air Conditioners

Manufacturer ID	Model	Serial	Location	Notes	Recommendations
Liebert Blower #1	MM060E-D00L0	0640N136544	AF1-Cold Isle 2	ADC Server Room Suite 199	Vendor discretion to maintain or replace
5 TON Liebert Unit # 1	PFH067A-YL3	0640N136579	Roof of building	ADC Server Room Suite 200	Vendor discretion to maintain or replace
Liebert Blower #2	MM060ED00L0	0640N136537	AF2-Cold Isle 1	Above Kerry's Cubicle	Vendor discretion to maintain or replace
5 TON Liebert Unit # 2	PFH067A-YL3	0640N136443	Roof of building	ADC Server Room Suite 200	Vendor discretion to maintain or replace
Liebert CRV-20 Condenser Unit # 1	CR020RA1A7	N10JBM0014	Anaheim ADC	ADC Row B - Rack Type	Vendor discretion to maintain or replace
Liebert CRV-20 5 T Minimate blower #1	CRV-20	N10JBM0014	Anaheim ADC	ADC Row B - Rack Type	Vendor discretion to maintain or replace
Liebert CRV-20 Condenser Unit # 2	CRV-20	N10JBM0013	Anaheim ADC	ADC Row A - Rack Type	Vendor discretion to maintain or replace
Liebert CRV-20 5 T Minimate blower #2		N10JBM0013	Anaheim ADC	ADC Row A - Rack Type	Vendor discretion to maintain or replace
ICP International Comfort Products	N4H460GKG101	E164405664	Anaheim TOC & TOC Closet	TOC and TOC closet	Vendor discretion to maintain or replace
ICP International Comfort Products	FEM4X600BL	A171885453	Roof of building	TOC and TOC closet	Vendor discretion to maintain or replace
NA	NA	NA	Corona Server Room	New Unit in CSC	Vendor discretion to maintain or replace

Table C-3: UPS and Generator

location	Item	Description	Vendor	Model	Serial #	LocGroup	Ship Date	Warr Exp.	Recommendations	Comments
Anaheim	Anaheim Generator	Anaheim Generator	Olympian Caterpillar	95A02612-S	2020969		NA	NA	Vendor discretion to maintain or replace	Expected to be replaced
Anaheim	Uninterruptible Power Supply	Anaheim A Power UPS	Ferrups	FE18KVA	BJ512FN0127	ADC	NA	NA	Vendor discretion to maintain or replace	
Anaheim	18KVA Uninterruptible Power Supply	Anaheim B Power UPS	Powerware	Powerware Model 9170 18KVA	173T011 / Ka103Q0232	TOC Data closet	NA	NA	Vendor discretion to maintain or replace	
Corona CSC	Uninterruptible Power Supply	UPS	GE	UPS LP33	UBS302LP2242100	CSC Data Closet	3/2019	3/2021	Vendor discretion to maintain or replace	Installed 3/2019
Corona CSC	Generator	Corona Generator	NA	NA	NA		NA	NA	Vendor discretion to maintain or replace	TBD

Table C-4: Security and Fire Systems

location	Item	Description	Vendor	Model	Serial #	Ship Date	Warr Exp.	Recommendations	Comments
Anaheim/TOC Closet	DPSI Fire Suppression System	Fire Suppression System	DPSI	10014421		NA	NA	Vendor discretion to maintain or replace	1 Inergen Tank
Anaheim ADC	DPSI Fire Suppression System	Fire Suppression System				NA	NA	Vendor discretion to maintain or replace	6 Inergen Tanks
Anaheim	Badge System	Badge System			NA	NA	NA	Vendor discretion to maintain or replace	
Anaheim	Alarm System	Panel Type 5800+	Honeywell	Panel Type 5800+	NA	NA	NA	Vendor discretion to maintain or replace	Installed 10/2012
Anaheim	CCTV System				NA	NA	NA	Vendor discretion to maintain or replace	Cameras and Software
Corona CSC	Badge System	Badge System	Kantech	Kantech 300/400	NA	NA	NA	Vendor discretion to maintain or replace	Installed 3/2019
Corona CSC	Alarm System				NA	NA	NA	Vendor discretion to maintain or replace	Installed 3/2019
Corona CSC	CCTV System				NA	NA	NA	Vendor discretion to maintain or replace	Installed 3/2019
Corona CSC	Vela Desktop RFID Reader	6C Transponder Desktop Reader	Star Systems		NA	NA	NA	Vendor discretion to maintain or replace	

Table C-5: Miscellaneous Equipment

location	Item	Description	Vendor	Model	Serial #	LocGroup	Ship Date	Warr Exp.	Recommendations	Comments
Corona CSC	Vela Desktop RFID Reader	6C Transponder Desktop Reader	Star Systems				NA	NA	Vendor discretion to maintain or replace	
Corona CSC	T21 Desktop Transponder Reader		Identitty 5200		ID52000023,28,				Vendor discretion to maintain or replace	3 Units

Table C-6: Anaheim Server Room Rack - ADC A

AC	F/B A6	F/B A5	F/B A4	F/B A3	F/B A2	F/B A1
CRAC-2 Cold Isle 2 Liebert - CRV		44	44 1 FDU Connector Housing for 72 connectors	44 B/F (B) Pulizzi (F) Patch 1-12 /	44 B Pulizzi (B) Pulizzi (F) AMP NetConnect /	44 F Flexlight 2000 Panel Splice
		43 B Eaton PDU	43 2 Corning Patch Panel (PCH-04U)	43 F Patch 13-24	43 B/F AMP NetConnect	43 F
	42 F XFMR (transformer to the SMART UPS RT 3000)	42 B Eaton PDU	42 3 Six 12 Port SC FDU Panels (CCH-CP12-59)	42	42 F AMP Net Connect (starts on RU 43)	42 F
	41 F	41 B CordHolder	41 4	41 F Patch 25-48	41 F 1B4-1 Patch Panel	41 F
	40 F SMART UPS RT 3000	40 B	40 5	40 F	40 F 1B4-2 Patch Panel	40 F
	39 F	39 B Shelf holding svrVMS modem	39 F PDU (New Instock Easton - OCTA Asset)	39 F Patch 49-72	39 F Cable Management	39 F
	38 F	38	38	38 F	38 F 2B4-1 Patch Panel	38 F
	37	37	37 F Firewall-A (5545-IPS-K9)	37	37 F 2B4-2 Patch Panel	37 F
	36 F Pulizzi	36	36 F Firewall-B (5545-IPS-K9)	36 F Patch 73-96	36 F Cable Management	36 F
	35 F Pulizzi	35 F Cisco 3650 - Barracuda Failover	35	35 F	35 F 1B3-1 Patch Panel	35 F
	34	34	34	34 F Patch 97-120	34 F 1B3-2 Patch Panel	34 F
	33 F US Robotics - sitting on router	33 F Barracuda Web Filter 810	33	33 F	33 F Cable Management	33 F
	32 F Cisco 1900 - AT&T Router Host: MISCAL01	32 F	32 1	32	32 F 2B3-1 Patch Panel	32 F
	31 F ana2cscRTR - cisco 4300	31	31 2 Cisco 4507r+e Chassis (1)	31	31 F 2B3-2 Patch Panel	31 F
	30	30	30 3 91EL-CORE-01	30 F ANA-SW06 - POE 3750G	30 F Cable Management	30 F

	29	F	PUB-SW01	29		29	4	29		29	F	1B2-1 Patch Panel	29	F		
	28	F	PUB-SW02	28		28	5	28	F	ANA-SVR-SW01 (A4 F 25)	28	F	1B2-2 Patch Panel	28	F	
	27			27	F	OCTA CMS Switch Cisco 3850-NM-Blank	27	6	27		27	F	Cable Management	27	F	
	26			26			26	7	26	F	Nortel	26		2B2-1 Patch Panel	26	F
	25	F	Eaton PDU	25			25	8	25	F	Nortel	25		2B2-2 Patch Panel (B) Pulizzi / (F) Cable Management	25	F
	24			24			24	9	24	F	MG1000	24	B/F	(B) Pulizzi / (F) B1-1 Patch Panel	24	F
	23	F	End Run Time Server	23			23	10	23	F		23	B/F	(F) B1-1 Patch Panel	23	F
	22	F	Eaton PDU	22			22	11	22	F		22	F	B1-2 Patch Panel	22	F
	21			21	F	Keyboard / Monitor	21	1	21	F		21	F	Cable Management	21	F
	20	F	Keyboard / Monitor	20	F	Eaton Power ETTM	20	2	20	F		20	F	1B5-1 / 1B5-2 Patch Panel	20	F
	19	F		19			19	3	19	F	MG1000	19	F	Cable Management	19	F
	18			18	F	ETMNAS1 - Synology 18TB NAS	18	4	18	F		18	F	1C1-1 / 1C1-2 Patch Panel	18	F
	17	F	Quantum Scalar i80	17	F	TZCSP	17	5	17	F		17	B/F	(B) Shelf w/ (F) Cable Management (B) 3 CPTC Loop (F) 1C2-1 / 1C2-2 Patch Panel	17	F
	16	F		16	F		16	6	16	F		16	B/F		16	F
	15	F		15	F	TZC	15	7	15	F		15	F	Cable Management	15	
	14	F		14	F		14	1	14	F	Netpath Teltronics	14	F	1C3-1 / 1C3-2 Patch Panel	14	
13	F		13	F	SAN	13	2	13			13	F	Cable Management	13		

	12 F	12 F	12 3 91EL-CORE-02	12	12 F 1C4-1 / 1C4-2 Patch Panel	12
	11 F svrTapeBackup	11 F MOMs	11 4	11	11 F Cable Management	11
	10 F	10	10 5	10	10 F 1C5-1 / 1C5-2 Patch Panel	10
	9 F Quantum Scalar i3	9 F Powervault	9 6	9	9 F Cable Management	9
	8 F	8 F	8 7	8	8 F 1C6-1 / 1C6-2 Patch Panel	8
	7 F	7 F TZCTest	7 8	7	7 F Cable Management	7
	6	6 F	6 9	6	6	6
	5	5 B OCTA ETTM - Cisco Catalyst 3560 24 Port	5 10	5	5	5
	4	4	4 11	4	4	4
	3	3	3	3	3	3 Freestanding - IMXL3260S1Z
	2	2	2	2	2	2 DataLink DL50 Phone
	1	1	1	1 Freestanding - Synology	1	1 Freestanding - UDS

Table C- 7: Anaheim Server Room Rack - ADC B

F/B	B1	AC	F/B	B2	F/B	B3	F/B	B4	F/B	B5				
42	B	AMP Net Connect	42	B	1B2-1 Patch Panel	42	B	1B3-1 Patch Panel	42	B	1B4-1 Patch Panel	42	B	1B5-1 Patch Panel (1-24)
41	B	(Fiber patch from A to B)	41	B	1B2-2 Patch Panel	41	B	1B3-2 Patch Panel	41	B	1B4-2 Patch Panel	41	B	1B5-2 Patch Panel (25-48)
40	B	B1-1 Patch Panel	40			40			40			40	B	Eaton PDU (A Power)
39	B	B1-2 Patch Panel	39			39			39			39	B	Eaton PDU (B Power)
38			38			38			38			38		
37			37			37			37			37	B	OCTA CMS Theia Server Superlogics
36	B	ANA-SVR-SW02	36			36			36			36		
35			35			35			35	B		35		
34	F	svrAV01	34			34			34	B	Shelf	34		
33	F		33			33			33	B		33		
32	F		32			32			32	B	2U Cable Management Name Point	32	B	Shelf CYCUION FIB1-10/100w/sc60bf
31			31			31			31	B	GE INTERLOGIX KALATEL KTS-250-16	31	B	
30	F	svrwww01 (DMZ)	30			30			30	B	(MON OUTPUTS 1-16)	30	B	
29	F	svrwww02 (DMZ)	29			29			29	B	GE INTERLOGIX KALATEL KTS-250-16 (MON OUTPUTS 17-32)	29	B	AVOCENT ESP-16 MI (3X) (CAMS1-16 / CAMS17-32 / CAMS33-48)
28			28			28			28	B		28	B	
27	F	svrSQL01	27	B	san-switch-01	27	B	Media Server svrLY3MD01 (Lync Project)	27	B	GE INTERLOGIX KALATEL KTS-250-16 (MON OUTPUTS 33-48)	27	B	
26	F	Edge Server (Lync Project) svrLYED01	26	B	san-switch-02	26	B	MP-124 VOIP Galaxy (Lync Project)	26	B		26	B	
25	F	Reverse Proxy Server (Lync Project) svrLYRP01	25	F	sramsvm1	25	B	AudioCode Mediant 1000B (Lync Project)	25			25		
24			24	F	sramsvm3	24	B		24			24		
23			23	F	sramsvm2	23	F	svrADC03 (Physical Domain Controller)	23	B	Axis P7216CH-01	23	B	Eaton PDU (A Power)
22	F	SOPHOS Email Gateway ES5000	22	F	sramsvm1	22			22			22	B	Eaton PDU (B Power)
21			21	B	2B2-1 Patch Panel	21	B	2B3-1 Patch Panel	21	B	2B4-1 Patch Panel	21		
20			20	B	2B2-2 Patch Panel	20	B	2B3-2 Patch Panel	20	B	2B4-2 Patch Panel	20	B	IFS CARD CAGE PS-R3 (POWER SUPPLY)/ (7x) VR4930WDM (CAMS1-7)
19			19	F	svrLANG	19			19			19	B	
18			18	F	sramzcl	18	F	Exchange Server (Lync Project) svrmail01	18	B		18	B	

17		17 F	sramzc2	17 F	svmhost1 (Lync Project)	17 B	Axis Q7920 Chassis	17 B	IFS CARD CAGE PS-R3 (POWER SUPPLY)/ (7x) VR4930WDM (CAMS8-14)
16		16 F	NETAPP - DS14MK4 - Disk Enclosure	16 F	svmhost2 (Lync Project)	16 B	AXISCH-01	16 B	
15		15 F		15 F	svmhost3 (Lync Project)	15 B	B-01-B14	15 B	
14		14 F		14		14 B		14 B	IFS CARD CAGE PS-R3 (POWER SUPPLY)/ (7x) VR4930WDM (CAMS15-21)
13		13 F	NETAPP - DS14MK4 - Disk Enclosure	13 B	switch - cisco - ws-c3850-48t-e (Lync Project)	13		13 B	
12		12 F		12 B	switch - cisco - ws-c3850-48t-e (Lync Project)	12		12 B	
11		11 F		11		11 B		11 B	COMAIR ROTROM MB100-320 (BAY1)
10 F	AVUSM	10 F	NETAPP - DS14MK4 - Disk Enclosure	10 F	NETAPP - SD14MK4 - Disk Enclosure	10 B	Cybermation System	10 B	IFS CARD CAGE PS-R3 (POWER SUPPLY)/ (7x) VR4930WDM (CAMS22-28)
9		9 F		9 F		9 B		9 B	
8 B	FORTIWEB	8 F		8 F		8 B		8 B	
7 B		7 F	NETAPP - DS14MK4 - Disk Enclosure	7 F	NETAPP - SD14MK4 - Disk Enclosure	7 B		7 B	IFS CARD CAGE PS-R3 (POWER SUPPLY)/ (7x) VR4930WDM (CAMS29-35)
6		6 F		6 F		6 B		6 B	
5		5 F		5 F		5		5 B	
4		4 F	NETAPP - FAS2050-SAN Controller/Disk Enclosure	4		4		4 B	IFS CARD CAGE PS-R3 (POWER SUPPLY)/ (5x) VR4930WDM / VT7450
3		3 F		3 F	NimbleStorage - CS300-2P-24T-1200F	3		3 B	(VMS 91 WB / VMS 55 NB / VMS91 EB)(D12 4-CHANNEL)
2		2 F		2 F		2		2 B	
1		1 F		1 F		1	Floor AXIS 291	1	

Table C-8: Anaheim Server Room Rack - ADC C

	C1 (SIIC - Toll System Rack)		C2 (SIIC - RAMs 4 Infrastructure)		C3 (SIIC - Communications Rack)		C4 (SIIC - CCTV Rack)		C5 (SIIC - CCTV) OCTA - KAPSCH		C6 (SIIC - CCTV) RCTC - KAPSCH
F/B		F/B		F/B		F/B		F/B		F/B	
42 B	1C1-1 Patch Panel	42 B	1C2-1 Patch Panel	42 B	1C3-1 Patch Panel	42 B	1C4-1 Patch Panel	42 B	1C5-1 Patch Panel	42 B	1C6-1 Patch Panel
41 B	Cable Management	41 B	Cable Management	41 B	Cable Management	41 B	1C4-2 Patch Panel	41 B	1C5-2 Patch Panel	41 B	1C6-2 Patch Panel
40		40		40		40		40		40	
39		39		39		39	FDU (12 strands MM to A1, 20 strands MM to TOC)	39 B	Robotics	39	
38		38		38		38		38 B	Inlane ISP Cisco Router	38	
37		37		37		37 F	ATMS-01	37		37	
36		36		36		36 F		36 F	Firewall	36	
35		35		35		35 F	NVR-01 (OCTA)	35		35	
34		34		34		34 F		34 F	Switch	34	
33		33 F	RAMSNAS01	33		33 F		33		33	
32		32 F		32		32 F		32 F	IMAGE REVIEW/OCR SERVER 1	32 F	IMAGE REVIEW/OCR SERVER 1
31		31 F	ANANAS01	31		31 F	NVR-02 (RCTC)	31		31	
30		30 F		30		30 F		30 F	IMAGE REVIEW/OCR SERVER 2	30 F	IMAGE REVIEW/OCR SERVER 2
29		29		29		29 F		29		29	
28		28 F	svmhost4	28		28 F		28 F	APP1	28 F	APP1
27		27 F		27		27		27 F		27 F	
26		26 F	svmhost5	26		26		26		26	
25		25 F		25		25 B	Catalyst 3850 48 RC-CCTV-SW01	25 F	DATABASE 1	25 F	DATABASE 1
24		24 F	svmhost6	24		24 B	Catalyst 3850 48 RC-CCTV-SW02	24 F		24 F	
23 F	KVM Tripp-Lite	23 F		23		23		23		23	
22		22		22		22 B	24 port FDU	22 F	APP2	22 F	APP2
21 B	1C1-2 Patch Panel	21 B	1C2-2 Patch Panel	21 B	1C3-2 Patch Panel	21		21 F		21 F	

20 B Cable Management	20 B Cable Management	20 B Cable Management	20 F Christie (Video Wall Ctrl)	20	20
19	19 F SRAMSDDB2	19	19	21 F DATABASE 2	21 F DATABASE 2
18	18 F	18	18 F Christie (Video Wall Ctrl)	20 F	20 F
17 B Pulizzi Power Controller	17 F SRAMSAPP2	17	17	19	19
16	16 F	16 F svmhost 7 (Util VM)	16 F Christie (Video Wall Ctrl)	18 F	18 F
15 B Cisco Catalyst 3650 24 port switch	15 F SRAMZCS1	15	15	15 F TAPE BACKUP	15 F TAPE BACKUP
14	14 F	14 F svmhost8 (Util VM)	14 F Christie (Video Wall Ctrl)	14 F	14 F
13 F TZC1	13 F SRAMZCS2	13	13	13 F	13 F
12 F	12 F	12 F svmhost9 (Util VM)	12 F Christie (Video Wall Ctrl)	12	12
11 F TZC Spare	11	11	11	11 F	11 F
10 F	10 B Cisco 3850	10 B Cisco 3850 (Util VM)	10 F Christie (Video Wall Ctrl)	10 F DAS1	10 F DAS1
9 F MOMs	9 B Cisco 3850	9 B Cisco 3850 (Util VM)	9	9 F	9 F
8 F SAN - Dell Equallogic PS4210	8	8	8 F Christie (Video Wall Ctrl)	8 F	8 F
7 F	7 F Nimble CS300	7 F Nimble CS1000 (Util VM)	7	7	7
6 F Dell Powervault TL1000 (Tape Backup)	6 F	6 F	6 F Christie (Video Wall Ctrl)	6 F	6 F
5	5 F	5 F	5	5 F DAS2	5 F DAS2
4	4	4	4 F Christie (Video Wall Ctrl)	4 F	4 F
3	3	3	3	3 F	3 F
2	2	2	2	2	2
1	1	1	1	1	1

Table C-9: Anaheim ETTM Closet

F/B	TOC 1	F/B	TOC 2
42	F 1U FDU	42	
41	F/B (F) 1U FDU / (B) PDU	41	
40	B PDU	40	
39		39	
38		38	
37	F Sensephone IMS 1000	37	
36		36	
35	F 1 - 24 Patch Panel	35	
34	F 25 - 48 Patch Panel	34	
33	F 1 - 48 New TOC Patch Panel	33	
32	F 49 - 96 New TOC Patch Panel	32	
31	F New TOC Patch Panel	31	
30	F Catalyst 3650 48 Port POE Switch	30	
29	F Catalyst 3650 48 Port Switch	29	
28	F Catalyst 3650 48 Port POE Switch	28	
27	F Catalyst 3650 48 Port Switch	27	
26		26	
25		25	
24		24	
23		23	
22		22	
21		21	
20		20	
19		19	
18		18	
17		17	
16		16	
15		15	
14		14	
13		13	
12		12	
11		11	
10		10	
9		9	
8		8	
7		7	
6		6	
5		5	
4		4	
3		3	
2		2	

Table C-10: Corona CSC Relocation Rack

F/B	CSC 1	F/B	CSC 2
42		42	
41		41	
40	1 U 24 Port Patch Panel (01 - 24) [1A-24A]	40	
39	1 U Cable Management	39	
38	Catalyst 3560X 48 Port	38	
37	1 U Cable Management	37	
36	1 U 24 Port Patch Panel (25 - 48) [25A-48A]	36	AVTECH Room Alert 32E - temp sensor
35	1 U Cable Management	35	
34	1 U 24 Port Patch Panel (49 - 72) [49A-72A]	34	Synology 18TB NAS (CSCNAS01)
33	1 U Cable Management	33	1 U Cable Management
32	Catalyst 3650 48 Port	32	File & Print Server (svrscdata)
31	1 U Cable Management	31	1 U Cable Management
30	1 U 24 Port Patch Panel (73 - 96) [73A-81A; 5-9, 5-11, 5-13, 5-14, 5-15, 5-16]	30	Domain Controller (vsrvadccsc)
29	1 U Cable Management	29	1 U Cable Management
28	1 U 24 Port Patch Panel (97 - 120) [1B-24B]	28	
27	1 U Cable Management	27	
26		26	
25	1 U Cable Management	25	
24	1 U 24 Port Patch Panel (121 - 144) [25B-48B]	24	Keyboard / Monitor (KVM)
23	1 U Cable Management	23	
22	1 U 24 Port Patch Panel (145 - 168) [49B-72B]	22	
21	1 U Cable Management	21	IAS Edge (svrLYI3MD02) - SFB
20	Catalyst 3560X 48 Port	20	1 U Cable Management
19	1 U Cable Management	19	IAS Application Server (svrLYI302) - SFB
18	1 U 24 Port Patch Panel (169 - 192) [73B-81B; ...]	18	1 U Cable Management
17	1 U Cable Management	17	Corp Info Audio Codes (svrLYSW02) - SFB
16	1 U 24 Port Patch Panel (193 - 216) [TB1 - TB10]	16	1 U Cable Management
15	1 U Cable Management	15	Corp Info MP-124 VOIP Gateway - SFB
14		14	1 U Cable Management
13	1 U Cable Management	13	Catalyst 3750 48 Port PS
12		12	1 U Cable Management
11		11	Cisco 4300 Router (csc-4331-router)
10		10	
9		9	
8		8	DVR DS-7700
7		7	
6		6	

Attachment D: CTOC Technical Specifications for Interagency Data Exchange

Note: The CTOC Technical Specs are currently being modified for the merger of the Western Region. The Contractor should comply with the version provided by the Agencies during design.

CALIFORNIA TOLL OPERATORS COMMITTEE (“CTOC”)

Technical Specification

for

Interagency Electronic Data Interchange

Revision G.5.8

Mar 13, 2018

Table of Contents

1	LIST OF REVISIONS	5
2	DOCUMENT CONTROL.....	12
3	GOAL.....	13
4	BUSINESS RULES	14
5	TECHNICAL SPECIFICATIONS.....	15
5.1	File Exchange Methodology.....	15
5.2	Process Flow Diagram (Example)	16
6	FILE NAMING CONVENTIONS.....	17
7	CALIFORNIA'S DEFINITION FOR TITLE 21'S 32-BIT TRANSPONDER ID NUMBER FIELD.....	19
7.1	Tag Type	19
7.2	Facility Code.....	19
7.3	Internal Tag ID.....	20
7.4	Title 21 Agencies Out-Of-State.....	21
8	GENERAL FILE FORMAT RULES.....	21
8.1	Toll Charges Processing.....	22
8.1.1	Narrative	22
8.2	Toll Charges File	23
8.2.1	Toll Charges Header Record Format	23
8.2.2	Toll Charges Detail Record Format	24
8.2.3	Toll Charges Trailer Record Format	24
8.2.4	Toll Charges Sample File	24
8.2.5	Business Rules.....	25
8.3	Reconciled Toll Charges File	26
8.3.1	Reconciled Toll Charges Header Record Format	26
8.3.2	Reconciled Toll Charges Detail Record Format.....	26

8.3.3	Reconciled Toll Charges Trailer Record Format.....	26
8.3.4	Reconciled Toll Charges Sample File.....	27
8.4	Tag Status File.....	27
8.4.1	Tag Status Header Record Format	27
8.4.2	Tag Status Detail Record Format.....	28
8.4.3	Tag Status Trailer Record Format.....	28
8.4.4	Tag Status Sample File.....	28
8.5	Pay by Plate Processing.....	28
8.5.1	Narrative	28
8.6	Pay By Plate File.....	30
8.6.1	Pay by Plate Header Record Format	30
8.6.2	Pay by Plate Detail Record Format.....	30
8.6.3	Pay by Plate Trailer Record Format.....	30
8.6.4	Pay by Plate Sample File.....	30
8.6.5	Business Rules.....	31
8.7	License Plate Status File	31
8.7.1	Plate Status Header Record Format	31
8.7.2	Plate Status Detail Record Format.....	31
8.7.3	Plate Status Trailer Record Format.....	31
8.7.4	Plate Status Sample File.....	32
8.7.5	Business Rules.....	32
8.8	Reconciled Pay-By-Plate Charges File.....	33
8.8.1	Reconciled Pay-By-Plate Header Record Format.....	33
8.8.2	Reconciled Pay-By-Plate Detail Record Format	34
8.8.3	Reconciled Pay-By-Plate Trailer Record Format	34
8.8.4	Reconciled Pay-By-Plate Sample File	34
8.9	Correction File Processing.....	34
8.9.1	Narrative.....	34

8.10	Correction File	35
8.10.1	Correction File Header Record Format	35
8.10.2	Toll Charges Correction Detail Record Format	35
8.10.3	Correction File Trailer Record Format	37
8.10.4	Correction Sample File	37
8.11	Reconciled Correction File	38
8.11.1	Reconciled Correction Header Record Format	38
8.11.2	Reconciled Correction Record Format	38
8.11.3	Reconciled Correction Trailer Record Format	41
8.11.4	Reconciled Correction Sample File	41
APPENDIX A: PLAZA/LANE DESCRIPTIONS		42
APPENDIX B: TITLE 21 DEFINITION		51
APPENDIX C: SUB TYPE DEFINITIONS FOR TAG RECORD FILE		52
C.1	Subtype - A	52
C.2	Subtype - B	52
C.3	Subtype - C	52
APPENDIX D: LICENSE PLATE DATE LOGIC		53
APPENDIX E: VIOLATION ENFORCEMENT VIA PLATE READS		54
APPENDIX F: CALIFORNIA 6C ELECTRONIC TOLL COLLECTION STANDARD		55

1 LIST OF REVISIONS

Rev. A Initial Release

Rev. B Adds Good Tags File Layout

Rev. C Adds Toll Violations File Layout

Rev. D Adds Statement Descriptions in Appendix E
Document Reformatted

Rev. E Revise Good Tags File to Tag Status File
Changed Processing Times

Rev. F Modifies Violations File Format
Adds License Plate Exchange File Layout
Adds Document Distribution List
Adds Additional Plaza/Lane Designations for TCA

Rev. G Modified Tag Status File Format to additional tag information fields
Added new Appendix F - Violations Reject File
Rename old Appendix F (Plaza/Lane Designations) to Appendix I
Re-organize document to current form
Add Title 21 definition as Appendix K
Add Title 21 approved messages codes as Appendix L

Rev. G (1-7-2002) Combined commented versions of document into current version for
comment and approval.

Rev. G (2-26-2002) Questions and answers revisions to document. Rev. G (FINAL) Final
comments added from teleconference.

Rev. G.1 (FINAL) Final corrections:

- 1) Remove DIFF from tag status file header.
- 2) Fix sample file for tag status.
- 3) Pay-by-Plate Processing Narrative correction.
- 4) Reconciled Pay-By-Plate Charges File – fixed Reconcile codes.

Rev. G.2 (FINAL) Corrections:

- 1) Change to General File Format Rule #15 regarding transaction uniqueness.
- 2) Add General File Format Rule #16 regarding sequence numbering.

Rev. G.3 (FINAL) Corrections:

- 1) Remove “optional” from 3 subtypes on Tag Status File. Subtypes must be sent.
- 2) Remove the San Diego CALTRANS Bridge (Coronado).

Rev. G.4 (April 26, 2004) Corrections:

- 1) Corrected Title 21 tag range assignments to reflect current approved assigned

ranges.

- 2) Corrected Definition of License Plate field (in License Plate Status File) to read “Alphanumeric” instead of “Alpha”.
- 3) Added the following “Format conforming to DMV Parking Manual” to the description of the License Plate Field.
- 4) Added “Daily Violation Sweep” Flowchart to Appendix D.
- 5) Updated “Pay by Certificate” Flowchart in Appendix E.

Rev. G.4.1.a. (December 13, 2010) Corrections:

- 1) Corrected Table of Contents to include page 11, “File Naming Conventions”
- 2) Updated the “Document Control” to remove Harry Hansen, Jr. and add Joyce Hill as the Document Control contact.
- 3) Updated the California’s Definition for Title 21’s 32-BIT Transponder ID number Field to include the current Facility Codes, descriptions for Tag Type and Title 21 Out-of-state Agencies (February 16, 2010)
- 4) Record Appendixes as listed in Rev. G.4:
 - a) Appendix A: Plaza/Lane Description
 - b) Appendix B: Title 21 Definition
 - c) Appendix C: Subtype Definitions for Tag Record File
 - d) Appendix D: License Plate Date Logic
 - e) Appendix E: Violation Enforcement via Plate Reads
- 5) Appendix A: Added lane and descriptions for TCA (Windy Ridge SB/NB Lane 13, November 3, 2009)
- 6) Appendix A: Added lane and descriptions for I-680 Express lanes
- 7) Appendix A: Corrected lane and descriptions for SANGAG

Rev. G.4.1.b. (April 7, 2011) Corrections

- 1) Appendix A: Added lane and description for TCA (Tomato Springs SB/NB Lane 13, 2004).
- 2) Updated agency name in Table 2, Agency Codes, to add “BATA.”
- 3) Updated the California’s Definition for Title 21’s 32-BIT Transponder ID number Field to include the current Facility Codes, descriptions for Tag Type and Title 21 Out-of-state Agencies (January 13, 2011)

Rev. G.4.2. (June 21, 2011) Corrections:

- 1) Appendix A: Deleted lanes and description for TCA (Portola Parkway North Off Lanes 2248-03, 2248-04 and Portola Parkway North On Lanes 2249-03, 2249-04)
- 2) Changes:
 - a) Updated California’s Definition for Title 21’s 32-Bit Transponder Id Number Field, Section 7.1 Transponder Tag Type ID for HOV Switchable Tags. (March 24, 2011)
 - b) Includes Example Tag
- 3) Updated General File Format Rules for switchable tag mode. (February 14, 2011)
 - a) Section 8.2.2 Field: Tag ID; Notes section
 - b) Section 8.3.2 Field: Tag ID; Notes section
 - c) Section 8.4.2 Field: Tag ID

Rev. G.4.3. (November 16, 2011) Changes:

- 1) Added LA Metro to the Agency Codes; Section 6.0, Table 2.
- 2) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 17, October 7, 2011)
- 3) Added lanes and descriptions for LA Metro to Appendix A: Plaza/Lane Descriptions

Rev. G.4.4. (December 21, 2011) Changes:

- 1) Added lanes and descriptions for 237 Express Lanes to Appendix A: Plaza/Lane Descriptions

Rev. G.4.5. (November 20, 2012) Changes:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 19, September 25, 2012)
- 2) Added lane and changed descriptions for SANDAG 1-15 to Appendix A: Plaza/Lane Descriptions

Rev. G.4.6. (March 22, 2013) Changes:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 21, March 21, 2013)
 - a) Note: Version 20: Newly assigned Facility Codes for TCA; Table 1 & 2.
 - b) Version 21: Newly assigned Facility Codes for SR-91; Table 2

Rev. G.4.7 (April 03, 2013) Changes:

- 1) Added/updated plazas for LA Metro to Appendix A: Plaza/Lane Descriptions

Rev. G.4.8 (November 15, 2013) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 22, October 25, 2013)

Rev. G.4.9 (December 4, 2013) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 23, November 21, 2013)

Rev. G.4.9.a (April 16, 2014) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 24, April 3, 2014)

Rev. G.4.9.b (October 23, 2014) Changes:

- 1) Updated plazas for TCA to Appendix A: Plaza/Lane Descriptions
 - a) Closed: 61 lanes
 - b) Added: 4 lane
 - c) Name Changes: 6 lanes

Rev. G.4.9.c (November 10, 2014) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 25, November 6, 2014)

Rev. G.4.9.d (November 13, 2014) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 26, November 13, 2014)

Rev. G.4.9.e (May 21, 2015) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 27, November 13, 2014)
- 2) Change:
 - a) Deleted TCA's CLOSED lanes from the APPENDIX A: Plaza/Lane Descriptions
 - b) 2.0 Document Control: Removed Joyce Hill, added Rick Carrier
- 3) Add:
 - a) APPENDIX A: Plaza/Lane Descriptions
 - b) 4001-4009 Reserved for OCTA
 - c) 4020-4040 Reserved for RCTC

Rev. G.4.9.f (June 08, 2015) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.2, Table 1, (Version 28, June 4, 2015)
- 2) Deleted "(Pilot Project)" from Section 7.2, Table 1

Rev. G.4.9.g (June 15, 2015) Update:

- 1) Added "(Multiprotocol Tags)" to Section 7.2, Table 1
- 2) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.2, Table 2, (Version 29, June 15, 2015)

Rev. G.5 Draft V0 (April 21, 2006) Modifications:

- 1) Changed "Amount Charged" to "Amount Posted" in TRAN AMOUNT field in Reconciled Toll Charges and Reconciled Pay-by-Plate Charges files
- 2) Add "Account Identifier" field to tag file
- 3) Add "Account Identifier" and "Plate Identifier" fields to plate file
- 4) Eliminate "D" (Delete option) in the Tag File (which should always be INIT only)
- 5) Added clarifying language about the Daily Violation Database Sweep
- 6) BATA added to the list of Agency Codes used in filename. BATA will use the code assigned to ATCAS (Caltrans).
- 7) San Francisco Airport added to list of Agency Codes.

Rev. G.5 Draft V1 (November 21, 2013) Modifications:

- 1) Added a Note to the Toll Charges Processing narrative to standardize exclusion of non-revenue plates.
- 2) Added VERSION to all header files. This field will contain the Version Number, "REVG.5" right justified. This will allow for backward compatibility in the future.
- 3) Updated Appendix A, adding new I-15 plazas and lanes.
- 4) Updated Appendix F with new ranges from CALTRANS.
- 5) Added Entry/Exit Times and Axle Count to toll and Pay-By-Plate transaction files.

Rev G.5 Draft V2 (April 16, 2014) Modifications:

- 1) Modified Section 4.0 - Item 3 - Added more clarity to Guarantee of payments for valid plates.
- 2) Modified Section 8.1.1 - Narrative (2nd Paragraph) - clarified note.
- 3) Modified Section 8.2.2
 - a) Removed DST Field

- b) Modified AXLE Count Notes
- c) Added OCCUPANCY Field
- 4) Modified Section 8.2.4 –
 - a) Modified Toll Charges Sample File to include how different Trip Types are included.
- 5) Added new section 8.2.5 - Business Rules to describe how Entry/Exit Information is included in the Toll Charges File.
- 6) Modified Section 8.3.2 -
 - a) Changed Notes for the first 13 Fields to reflect that it should be same as the original Toll Charges File.
 - b) Removed DST Field
 - c) Removed INFERRED TAG READ Field.
 - d) Added Occupancy Field
- 7) Modified Section 8.5.1 -
 - a) Pay by Plate Narrative - Modified previously modified Paragraph 4.
 - b) Removed GENERAL GUIDELINES Section.
- 8) Modified Section 8.6.2 - Remove DST Flag
- 9) Added New Section 8.6.5 – Business Rules for Plate Status Files.
- 10) Modified Section 8.7.2 - Plate Status Detail Record Format
 - a) Removed PlateID
 - b) Changed Definition of Action Code
 - c) Added PLATE TYPE - to differentiate Universal Non-Revenue Plate Accounts.
- 11) Added New Section 8.7.5 – Business Rules for Plate Status Files.
- 12) Modified Section 8.8.2 - Reconciled Pay-by-Plate Detail Record Format
 - a) Modified Notes for field 1 thru 13 to reflect that it will be same as the PBP Plate Transaction File
 - b) Removed DST

Rev G.5 Draft V3 (June 17, 2014)

- 1) Section 5.2 – Included updated process flow
- 2) Section 8.3.1 - Reconciled Toll Charge File - Added POST AMT Field
- 3) Section 8.7.5 – Modified Business Rules section based on comments from the meeting.
- 4) Section 8.8.2 - Reconciled PBP Charge File - Added POST AMT Field.

Rev G.5 Draft V4 (December 2, 2014)

- 1) Updated document to include changes made in Rev. G.4.9.a, Rev. G.4.9.b, Rev. G.4.9.c and Rev. G.4.9.d.
 - a) Updated California's Definition for Tile 21's 32-Bit Transponder Id Number Field, Section 7.0
 - b) Updated plazas for TCA to Appendix A: Plaza/Lane Description
- 2) Revision of the document based on comments
- 3) Section 5.2 – Included updated process flow

Rev G.5 Draft V5 (January 22, 2015)

- 1) Section 8.5.2 – Removed bullet in C - Exception of Distance based toll.

Rev G.5 Draft V6 (May 1, 2015)

- 1) Updated 8.2.2 Toll Charges Detail Record Format to add 6C Tag compatibility.
- 2) Updated 8.3.2 Reconciled Toll Charges Detail Record Format to add 6C Tag compatibility
- 3) Updated 8.4.2 Tag Status Record Format to add 6C Tag compatibility
- 4) Added Appendix F – 6C Toll Operators Coalition AVI Transponder Programming Standard (Version 2.0 November 20,2014)

Rev G.5 Draft V7 (June 1, 2015)

- 1) Updated document to include changes made in Rev. G.4.9.e (May 21, 2015)
 - a) Changed 2.0 Document Control: Removed Joyce Hill, added Rick Carrier
 - b) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 27, November 13, 2014)
 - c) Deleted TCA's CLOSED lanes from the APPENDIX A: Plaza/Lane Descriptions
 - d) Added notes to APPENDIX A: Plaza/Lane Descriptions
 - i. 4001-4009 Reserved for OCTA
 - ii. 4020-4040 Reserved for RCTC
- 2) Updated Section 8.2.2
 - a) Changed Notes for Occupancy field
- 3) Updated document to include changes made in Rev. G.4.9.f (June 08, 2015)
 - a) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.2, Table 1, (Version 28, June 4, 2015)
 - b) Deleted "(Pilot Project)" from Section 7.2, Table 1

Rev G.5 Draft V8 (June 15, 2015)

- 1) Updated document to include changes made in Rev. G.4.9.g (June 15, 2015)
 - a) Updated Switchable Transponder Tags Facility Codes, Section 7.2, Table 2 to extend the LA MTA range in T21 CA Transponder ID Ver. 29
 - b) Added "(Multiprotocol Tags)" to Section 7.2, Table 1

Rev G.5.1 (October 20, 2015) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 30, October 7, 2015)
- 2) Updated Appendix F, 6C Programming Standard, Version 2.1

Rev G.5.2 (February 19, 2016) Update:

- 1) Added/updated plazas for I-580 Express Lanes to Appendix A: Plaza/Lane Descriptions

Rev G.5.3 (May 5, 2016) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 31, April 20, 2016)
- 2) Updated Appendix F, 6C Programming Standard, Version 3, rev. 3

Rev G.5.4 (August 17, 2016) Update:

- 1) Added/updated plazas for 91 Express Lanes to Appendix A: Plaza/Lane Descriptions

Rev G.5.5 (December 27, 2016) Update:

- 1) Added field justification clarification for the ACCOUNT ID field in the Tag Status Detail Record table (section 8.4.2) and the Plate Status Detail Record table (section 8.7.2)
- 2) Updated the sample file examples in sections 8.2.4, 8.3.4, 8.4.4, 8.6.4, 8.7.4, and 8.8.4.
- 3) Added ATI information section 9 to separate ATI files from CTOC files
- 4) Updated I-580 lanes in Appendix A: Plaza/Lane Descriptions

Rev G.5.5.a (Mar 9, 2017) Update:

- 1) Updated SANDAG Express Lanes in Appendix A: Plaza/Lane Descriptions

Rev G.5.6 (Oct 13, 2017) Update:

- 1) Section 3 – Changed the reference to Senate Bill 1523 to Streets and Highways Code
- 2) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 32, September 26, 2017)
- 3) Section 8.2.2 - Added Vehicle Type to the Toll Charges Detail Record
- 4) Modified section 8.4.2 - Tag Status Detail Record
 - a. Removed "*D – deactivate tag*"
 - b. Added clean air vehicles to Subtype B
- 5) Section 8.6.2 – Added Vehicle Type to the Pay by Plate Detail Record
- 6) Section 8.7.2 – Added a Subtype for clean air vehicles to the Plate Status Detail Record
- 7) Deleted Section 9, ATI Processing
- 8) Updated I-680 Express Lanes in Appendix A: Plaza/Lane Descriptions
- 9) Updated notes in APPENDIX A: Plaza/Lane Descriptions
 - a. 4020-4399 Reserved for RCTC
- 10) Deleted Subtypes "L", "S", "B", and "R" from APPENDIX C: Sub Type Definitions

Rev G.5.7 (Jan 24, 2018) Update:

- 1) Removed ATI File extensions in table 1
- 2) Fixed version typos throughout section 8

Rev G.5.8 (Mar 13, 2018) Update:

- 1) Section 6 – Added Correction File and Reconciled Correction File to table 1
- 2) Section 8 – Added TRAN FEE and TRAN FEE TYPE to the Toll Charges file, and the Reconciled Toll Charges file.
- 3) Section 8 – Added sections for Correction File and Reconciled Correction File processing

2 DOCUMENT CONTROL

All suggested additions, changes, and deletions should be submitted to:

Rick Carrier
c/o Transportation Corridor Agencies 125 Pacifica
Irvine, CA 92618
Phone: (949) 754-3471
Fax: (949) 754-3464
Email: rcarrier@thetollroads.com

Archival of this document will be at:

Transportation Corridor Agencies 125 Pacifica
Irvine, CA 92618

Any requests for changes, modifications, corrections, etc. will be logged, and then forwarded (through CALTRANS) to the CTOC members for comment before incorporation into this Specification. No additions, modifications or deletions shall be valid and effective unless and until the same have been agreed to by the CTOC members.

3 GOAL

The members of the California Toll Operators Committee acknowledge that one of their goals is to offer interoperability to their customers including the ability to offer a single account statement to each customer setting forth their transaction activities on all participating facilities. In addition, and in accordance with California Streets and Highways Code, Section 27565, the CTOC agencies will ensure that, for purposes of toll collection, the vehicle owner shall not be required to purchase or install more than one transponder device to use on all participating toll facilities.

Acquiring Agency	The owner/operator of the facilities at which a transaction occurred.
AVI	Automatic Vehicle Identification
CHP	California Highway Patrol – State law enforcement agency charged with enforcing the California Vehicle Code.
Facility Code	A number within a range of numbers assigned by CALTRANS to the Issuing Agency, which is programmed into the transponder for automatic identification purposes.
Issuing Agency	The entity that establishes the account and issues the transponders.
Lane Controller	Device which records data read from a transponder by overhead antennas, reads light curtains to provide for vehicle separation, treadles to determine axle count, and can control gates or barriers if the proper toll is paid via AVI or deposit of coins.
Plate	License plate of a vehicle; captured by violation enforcement system (VES) if present.
Reciprocating Agency	Any agency with which the Issuing Agency has a User Fee Processing Agreement.
Tag ID	A number ranging from 0 to 1023 associated with a single facility code that further uniquely identifies a transponder. For example, a facility code of 132196 would have 1024 tag ids associated with it.
Tag Type	A number within a range that identifies the type of transponder.
Transponder (tag)	Device to allow for automatic transaction identification, works by means of radio signal activation and returns the information programmed into it.
VES	Violation Enforcement System: for facilities with video enforcement, this would consist of high speed and video cameras to capture potential violator's license plate for further identification and forwarding to a Violation Processing System. For facilities without video enforcement, this might consist of visual enforcement by the CHP or other designated agency.

4 BUSINESS RULES

- 1) Identification of Issuing Agency - The Facility Code on the tag will identify the Issuing Agency (holder of the account). This requirement ensures that tags cannot be transferred from one agency to another.
- 2) Guarantee of payment for valid tags - The Issuing Agency will honor all transactions on transponders that were deemed "valid" in the Tag Status File, as sent to the Acquiring Agency for the date associated with each toll event. The Acquiring Agency has the responsibility to validate such transactions.
- 3) Guarantee of payment for valid plates - The Issuing Agency will honor all transactions on license plates deemed "valid" in the License Plate File, as sent to the Acquiring Agency for the date associated with each trip. The Acquiring Agency has the responsibility to validate these transactions against the latest plate status file received from the Issuing Agency. Due to the nature of plate based trips, trips may be finalized by the Acquiring Agency a few days after the actual transaction day. The Issuing Agency, up to a minimum of 90-days from the date of the transaction, shall make a best effort to post the trip to the account the license plate was registered to at the time of transaction. If the account balance is negative at the time of posting, the Issuing Agency would reject such transactions. Upon receipt of the rejection record of the PBP transaction, the Acquiring Agency may treat the trip as a violation.
- 4) Tag and Plate transactions are to be processed according to their status at the time of the transaction in the toll lane.
- 5) By convention all agencies accept that the reconciled toll charges will be available by 8:00 a.m. the following business day after processing with all reconciliation completed no longer than 14 calendar days after receipt. If reconciliation for a particular file is not received within 14 calendar days, the Issuing Agency shall honor all transactions within the original subject file.
- 6) The suggested time for the completion of the upload of all tag status (and plate status) files needed by an entity is set at 1:00 a.m.; the suggested time the lanes should be updated (with the tag status files) is no later than 5:00 a.m. This is to allow time for the loading of tag lists into lane controllers. This is a guideline. Some agencies may be able to load the tag lists to their lane controllers sooner. If a tag status (and/or plate status) file has not been received from an Issuing Agency, then the Receiving Agency should send an e-mail notification, by 10 a.m. of the same business day (or the next business day in the case of weekends and holidays), of non-receipt of the file(s). If a file (or files) is received past the recommended deadline, the receiving agency should make a best-effort to use the file(s) received.
- 7) Initialization files will be sent at least on a weekly basis on Saturdays at 1:00 a.m. for the plate and tag files.

5 TECHNICAL SPECIFICATIONS

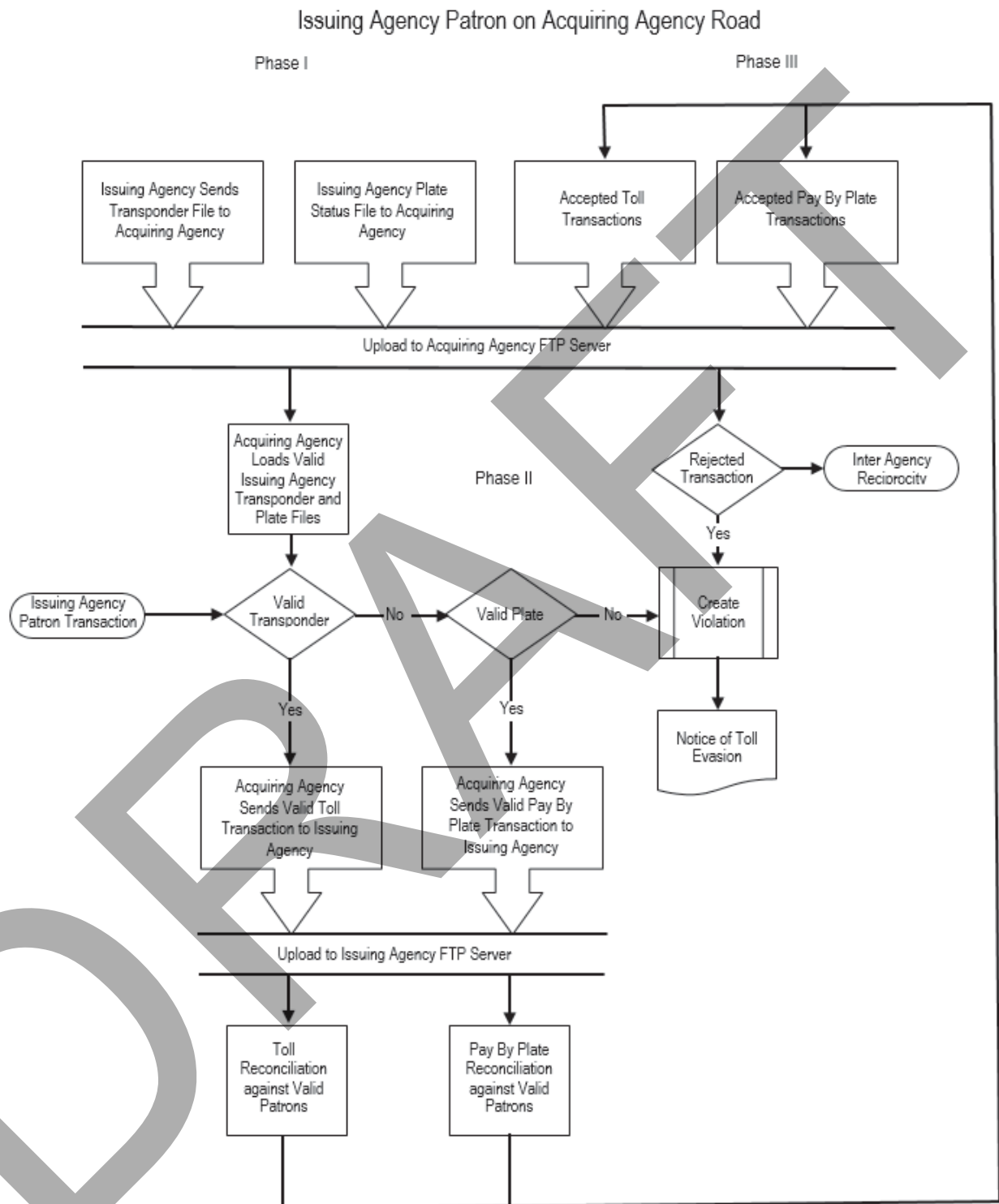
5.1 File Exchange Methodology

Currently the file transfer mechanism utilizes the ftp (file transfer) protocol over the Internet to exchange the data files to/from each agency's ftp server. The transfer files are created with an agency's proprietary software, but the files conform to the formats described in this document. The files are generated in an ASCII format, and then the sending agency encrypts the file using PGP (pretty good privacy) encryption tools, and the receiving agency's public key. This also has the effect of compressing the data. The sending agency then utilizes the ftp protocol to send the encrypted files to the receiving agency's ftp server. The receiving agency possesses its private key and can therefore decrypt the received files. After decryption, the receiving agency processes the data with their own proprietary software.

Requirements

- Each agency must have a publicly accessible ftp server, with or without a DNS entry on the Internet. An ftp exchange can be accomplished with only the IP address.
- The receiving agency will provide a special account and password to each agency that will transmit files to it. This is to prevent anonymous users from accessing the ftp site.
- Each agency shall install a PGP encryption package suitable for the platform they run on.
- Files will be encrypted before transmission to ensure the confidential data does not fall into unauthorized hands.

5.2 Process Flow Diagram (Example)



Phase I – Occurs nightly before major traffic flow.
Phase II – occurs during the day while transactions are being logged by the Toll System.
Phase III – occurs early the next day before major traffic flow.

6 FILE NAMING CONVENTIONS

The file names (and extensions) are designed to be able to tell, at a glance, the information contained in the file, its source and its destination. All file names and extensions shall use lowercase characters.

The file extensions shall define the type of information contained in the file and shall be as shown in Table 1.

Table 1 - File Extensions

File Description	File Extension	Originate/Response
Tag Status File	tag	Originate
License Plate Status File	plt	Originate
Toll Charges File	tol	Originate
Pay by Plate File	pbp	Originate
Correction File	cor	Originate
Reconciled Toll Charges File	trc	Response
Reconciled Pay by Plate File	prc	Response
Reconciled Correction File	crc	Response

File names shall use two distinct formats depending on whether the file is an Originate file or a Response file.

Originate file names shall have the format:

aabb_yyyymmdd_hhmmss.xxx

Where the fields are defined as follows:

FILE NAMING CONVENTION:

aa bb _ yyyymmdd _ hhmmss .xxx

1

2

*

3

*

4

*

5

FIELD EXPLANATIONS:

- 1 Agency code of file creator (see Table 2)
- 2 Agency code of file recipient (see Table 2)
- 3 Creation date of file
- 4 Creation time of file
- 5 File extension (see Table 1)
- * Underscore delimiter

Table 2 - Agency Codes

Agency Name	Agency Code
BATA/CALTRANS (ATCAS)	at
Golden Gate Bridge	gg
SANDAG (I-15)	sd
SR-91	sr
TCA	tc
CTV	cv
LA Metro	la
ATI	ti
All agencies	xx

Response file names shall have the format:

aabb_yyyymmdd_hhmmss_eeff_yyyymmdd_hhmmss.xxx

Where the fields are defined as follows:

FILE NAMING CONVENTION:



FIELD EXPLANATIONS:

- | | |
|--|---|
| ① Agency code of response file creator (see Table 2) | ⑥ Agency code of originate file recipient (see Table 2) |
| ② Agency code of response file recipient (see Table 2) | ⑦ Creation date of the originate file |
| ③ Creation date of the response file | ⑧ Creation time of the originate file |
| ④ Creation time of the response file | ⑨ File extension (see Table 1) |
| ⑤ Agency code of originate file creator (see Table 2) | * Underscore delimiter |

The format of the Response file name is such that one can tell, at a glance, not only the creator of the Response file, but also the Originate file to which this file is a response.

7 CALIFORNIA'S DEFINITION FOR TITLE 21'S 32-BIT TRANSPONDER ID NUMBER FIELD¹

In the State of California, the 32-bit Transponder ID Number Field specified in the Title 21 standard has been further subdivided into three data fields to represent Tag Type, Facility Code, and Internal Tag ID. These fields are currently defined as follows:

32-Bit Transponder ID Number Field		
<i>Tag Type</i>	<i>Facility Code</i>	<i>Internal Tag ID</i>
4 Bits	18 Bits	10 Bits
16 Possibilities	262,144 Possibilities	1,024 Possibilities
Most Significant Bit		Least Significant Bit

7.1 Tag Type

A 4-bit field currently established to uniquely differentiate California's transponder from transponders that originate from agencies external to the state. In the future, the unassigned bits could be used to recommend a unique North American agency numbering scheme, or to further describe the operational behavior of the transponder. The 4-bit field is defined in decimal notation as follows:

- 0- California SOV.
- 2- Existing Out of State
- 4- California HOV2
- 8- California HOV3+
- 1, 3, 9-15 - Unassigned. Available for a future use.

7.2 Facility Code

An 18-bit field used to identify the facility or entity conducting business. Facility Code ranges are assigned based upon the number of transponders that are projected to be utilized. The 18-bit field is defined in decimal notation as shown in the two tables below. Table 1 is for non-switchable transponder tags and Table 2 is for switchable transponder tags:

¹ California Department of Transportation, Ver 31, April 20, 2016

Table 1

Non-Switchable Transponder Tags Facility Codes (Tag Type 0)		
Agency	Facility Codes Assigned	No. of Transponders
State of California	0 – 75,000	76,801,024
Facility Codes 75,001 thru 125,000 are reserved for Switchable Transponder Tags. See Table 2 below		
Sacramento County Dept. of Airports	125,001 – 125,020	20,480
TCA	129,314 – 132,094	2,847,744
SR-91	132,096 – 132,990	916,480
SANDAG I-15	132,992 – 133,001	10,240
Golden Gate Bridge	133,015 – 133,407	402,432
SANDAG/SBX	134,583 – 134,876	301,056
Port of Oakland	140,000 – 140,001	2,048
LA World Airports	141,000 – 141,052	54,272
BATA	145,000 – 148,928	4,023,296
SENTRI	184,876 – 185,022	150,528
TCA (Multiprotocol Tags)	186,000 – 186,500	513,024
SANDAG I-15	258,960 – 259,100	144,384
Caltrans ATCAS	260,096 – 262,136	2,089,948

Table 2

Switchable Transponder Tags Facility Codes (Tag Type 0, 4, 8)²		
Agency	Facility Codes Assigned	No. of Transponders
LA MTA	75,001 – 76,955	2,001,920
TCA	80,000 – 80,978	1,002,496
SR-91	81,000 – 81,366	375,808
SANDAG/SBX	83,000 – 83,009	10,240
BATA	90,000 – 93,907	4,001,792

7.3 Internal Tag ID

A 10-bit field used to refer to the unique identification numbers that belongs to an assigned Facility Code. For each Facility Code, a block of 1,024 Internal Tag IDs will be assigned within the Transponder ID Number Field. Assignment of the Internal Tag IDs is the responsibility of the Facility Code Agency.

² Switchable transponders have Facility Code range from 75,001 to 125,000

7.4 Title 21 Agencies Out-Of-State

Since the Title 21 standard is an open specification there are other agencies outside of California that can also use interoperable transponders. These external agencies could inadvertently duplicate California's transponder ID number field assignments and render them non-unique.

Following is a listing of out-of-state Title 21 agencies that have contacted the California Department of Transportation to participate in California's unique definition for the 32-bit Transponder ID Number field. Please note that this listing does not ensure that the assignments are unique as they may have been duplicated by another agency outside of California.

32-bit Transponder ID Number Field Definition for Title 21 Agencies Out-of-State			
<i>Agency</i>	<i>Tag Type</i>	<i>Facility Codes Assigned</i>	<i>No. of Transponders</i>
Colorado E-470 Public Highway Authority	2	0 – 9,766	10,001,408
Denver International Airport	2	10,000 – 10,029	30,720
Golden Ears Bridge, Vancouver, Canada	2	15,000 – 16,000	1,025,024

8 GENERAL FILE FORMAT RULES

The following rules apply to all files used in interoperability:

1. All files will be in ASCII format.
2. All files will use the comma “,” as the field delimiter.
3. All files will use the line feed “LF” (hex 0A) as the record delimiter.
4. Each file will contain:
 - a. A header record
 - b. Detail records
 - c. A trailer record
5. All numeric fields will be fixed size and with leading zeros.
6. All date fields will be delimited with a forward slash “/”.
7. All time fields will be delimited with a colon “:”.
8. The Plaza/Lane combination will be pre-defined for validation and printing on patron statements (see Appendix A for Plaza/Lane designations).
9. Date fields will have the following format: MM/DD/YYYY
10. Time fields will have the following format: HH:MM:SS
11. The BUSINESS DAY field will be implemented by each agency according to that agencies' own requirements.
12. For files that are exchanged under a comprehensive/differential update, the comprehensive update will occur on Saturday morning at 1:00 a.m. of any given week, and the differentials will take place on the remaining days of the week.
13. By mutual consent, file transfer times can be adjusted.
14. Processing and file transfer take place 365/366 days per year.

15. a) Transaction Number and Date must be a unique combination.
b) Tag#, Plaza, Lane, Date, and Time must be a unique combination for tolls.
c) Plate#, Plaza, Lane, Date, and Time must be a unique combination for pay-by-plates.
d) Also, the transaction number cannot be 0.
16. A unique sequence numbering scheme is required for each .plt, .pbp, .tol, .tag file going to each agency. For example, when TCA is sending files to SR-91, the .tol files, the .plt files, the .tag files, and the .pbp files would be numbered 1,2,3, etc. in sequence, within each file type. So, you would have a .tol with a sequence of #1, a .plt with a sequence # of 1, etc. This would be repeated for TCA sending to CALTRANS, TCA sending to Golden Gate Bridge, and TCA sending to SANDAG. So, you would have 4 sets (one set for each receiving agency) of 4 unique sequence numbers for outgoing files. You would also have to track the same information for incoming files from each agency. This would bring the total to 32 unique sequences (4 agencies times 4 file types times 2 – incoming and outgoing). If the systems are designed to incorporate CTV now, then the number goes to 40 (4 more outgoing and 4 more incoming). An e-mail should be sent to the sending agency by the receiving agency, by 10a.m., when a file is detected as missing. This will probably occur on the day the NEXT file is received (sequence #1 is received on Monday, then sequence #3 is received on Wednesday – you can conclude that sequence #2 was missed and report it on Wednesday. You can't report it on Tuesday because if you haven't received anything, you don't know if it has been missed.)

8.1 Toll Charges Processing

8.1.1 Narrative

Interoperability requires that certain static information be exchanged by the Issuing and Acquiring agencies on a daily basis. Each agency integrates the information from the other agency's *Tag Status File* into their own lane controllers at the beginning of each day, prior to any significant traffic flow on their own facility. This allows the lane controllers to differentiate between Valid and Invalid transponders. Each agency can then take such action, based on their own requirements, to handle invalid transponders, such as taking violation photographs of the issuing patron's license plates, thereby reducing the load on the Acquiring Agency's image processing center.

Note: Agencies agree by convention not to send transponder or plate information for their own designated non-revenue account holders (accounts setup for maintenance trucks, agency employees, and other such entities that have the privilege of using that agency's toll facility free of charge).

The transponder data is also stored in an electronic database and is deemed to be a valid and definitive record of the Issuing Agency's active customer transponder list until a subsequent file is received from the Issuing Agency. At the end of the Acquiring Agency's processing day, the trips that were recorded by its system are compared to the list of active transponders from the Issuing Agency. Those trips that have a transponder identified with them and whose transponder number matches a number on the Issuing Agency's most recent list are segregated and assembled into an electronic

file. This is transmitted to the Issuing Agency as described under the *Technical Specifications* section.

The Issuing Agency, upon receipt of the Acquiring Agency's *Toll Charges File*, integrates it into their database so that their own patrons can be charged for the trip the patron took on the Acquiring Agency's facility. At an agreed upon time interval, the Acquiring Agency totals the trips taken by issuing agency patrons and invoices the Issuing Agency for the aggregate total of those trips. Pursuant to the User Fee Processing Agreement, the Issuing Agency guarantees payment of transactions recorded by the Acquiring Agency of issuing agency transponders until a new transponder list is received from the Issuing Agency. Therefore, there should be no transactions that would be rejected by the Issuing Agency that were sent by the Acquiring Agency.

After a Toll Charges file is processed by the Issuing Agency, the Issuing Agency will create a *Reconciled Toll Charges File* and send it to the Acquiring Agency. This file will contain a detail record for each and every transaction received by the Issuing Agency from the Acquiring Agency in the corresponding Toll Charges file.

8.2 Toll Charges File

8.2.1 Toll Charges Header Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#HEADER	7	Indicates this is a header record (#HEADER)
2	FILE TYPE	TOLL	4	Indicates this is a toll charges file (TOLL)
3	SEQUENCE #	Integer	6	Sequence # generated by sending agency, has matching entry in the trailer record
4	BUSINESS DAY	Date	10	Business day
5	SOURCE	Alpha	2	Two letter code of source entity
6	DESTINATION	Alpha	2	Two letter code of destination entity
7	CREATE DATE	Date	10	Transmission file create day
8	CREATE TIME	Time	8	Transmission file create time in 24 hr. clock
9	VERSION	Alpha	10	"REV G.5.8", right justified, space filled to the left.

8.2.2 Toll Charges Detail Record Format

Field #	Field Name	Field Type	Length	Notes
1	TAG ID	Hex	10	Tag ID in hex format, right justified, space filled to the left. The first three characters will be blank for Title-21 tags. The first three characters will be the Agency Code for 6C tags.
2	TRAN #	Integer	10	Transaction # generated by sending agency
3	TRAN AMOUNT	Money	8	Amount charged for transaction
4	ENTRY TRAN DATE	Date	10	Transaction date – Entry, Space Filled
5	ENTRY TRAN TIME	Time	8	Transaction time in 24-hour format – Entry, Space Filled
6	ENTRY_PLAZA	Integer	4	Location/Plaza Site – Entry
7	ENTRY_LANE	Integer	2	Lane identifier – Entry
8	EXIT TRAN DATE	Date	10	Transaction date – Exit
9	EXIT TRAN TIME	Time	8	Transaction time in 24-hour format – Exit
10	EXIT_PLAZA	Integer	4	Location/Plaza Site – Exit
11	EXIT_LANE	Integer	2	Lane identifier – Exit
12	AXLE COUNT	Integer	2	Number of Axles – if Toll is based on axle based classification (Default Value = 0 for Agencies that do not use Axle Based classification). Space Filled.
13	OCCUPANCY	Integer	1	Occupancy if Toll is based on Occupancy – (Values 0 – NA (default); 1 – SOV; 2 – HOV2; 3 – HOV3+; 4 Carpool; 5, 6, 7 – reserved for future use). Default Value = 0 for Agencies that do not use Occupancy to determine Tolls.
14	PROTOCOL TYPE	Integer	1	Tag Protocol Type (Values 0 – Title 21; 1 – 6C)
15	VEHICLE TYPE	Integer	1	Vehicle – (Values 0 – NA (default); 1 - Clean Air Vehicle)
16	TRAN FEE	Money	8	Amount charged for transaction fee
17	TRAN FEE TYPE	Integer	1	Fee Type 0 – NA (default); 1 – HOV Only; 2 – Occupancy Detection; 3 - Other, 4, 5, 6 – reserved for future use)

8.2.3 Toll Charges Trailer Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#TRAILER	8	Trailer record indicator
2	SEQUENCE #	Integer	6	Sequence # matching entry in header
3	BUSINESS DATE	Date	10	Business day
4	RECORD COUNT	Integer	6	Number of detail records
5	TRAN SUM	Money	10	Total amount of all transactions in file

8.2.4 Toll Charges Sample File

```
#HEADER,TOLL,000123,06/23/2017,SR,TC,06/24/2017,02:02:19, REVG.5.8
678100FA,0000403986,00000.25, , , ,06/23/2017,20:14:50,4001,03,00,0,1,0, ,0
810012C,0004279389,00001.00,06/22/2017,11:09:20,1163,03,06/22/2017,11:09:25,4002,03,02,0,0,0,00024.90,1
810012E,0004310216,00001.00,06/23/2017,06:43:09,1162,03,06/23/2017,06:43:12,1172,99,02,3,0,1, ,0
#TRAILER,000123,06/23/2017,00000,0000003.25
```

Note: The different trips in the file are included not to describe the SR-91 Tolling transactions, but merely to show the different types of trips that different agencies may include in their Toll Charges Files. The PlazalDs shown in the file are fictitious. The different types of transactions are referenced in the Business Rules Section (Section 8.2.5). Please review the description of the transaction types in the Business Rules section below.

- The first transaction is Type A
- The second transaction is Type B.

8.2.5 Business Rules

Tolls are usually based on location (Plaza and Lane). Transactions or trips can be classified into the following based on how each agency classifies them based on locations.

- A. (Transaction Type A) - Barrier based tolls – tolls charged at a single point of passage. (Golden Gate Bridge and the Bay Area Bridges are examples of such toll structure). For such trips, there is only one Plaza/Lane.

For such trips the following fields will be left blank:

- ENTRY TRAN DATE
- ENTRY TRAN TIME
- ENTRY_PLAZA
- ENTRY_LANE

The Plaza/Lane and transaction time will be reflected in the following fields.

- EXIT TRAN DATE
- EXIT TRAN TIME
- EXIT_PLAZA
- EXIT_LANE

- B. (Transaction Type B) Distance based tolls – tolls charged based on distance and usually based on where the vehicle entered the toll facility and where it exited from. In some cases, tolls are determined based on which zone a vehicle entered and the zone it exited from. (SANDAG I-15 and SBX Toll Facilities; LA Metro HOT Lane project falls into this category).

For such trips the Entry and Exit Plaza/Lane/Time Information is usually available and will be populated in the transaction record in the following fields:

- ENTRY TRAN DATE
- ENTRY TRAN TIME
- ENTRY_PLAZA
- ENTRY_LANE
- EXIT TRAN DATE
- EXIT TRAN TIME
- EXIT_PLAZA
- EXIT_LANE

8.3 Reconciled Toll Charges File

8.3.1 Reconciled Toll Charges Header Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#HEADER	7	Indicates this is a header record (#HEADER)
2	FILE TYPE	RECONCILE	9	Indicates this is a reconciled toll charges file (RECONCILE)
3	SEQUENCE #	Integer	6	Sequence # from the originating toll charges file, duplicated in trailer record
4	BUSINESS DATE	Date	10	Business day
5	SOURCE	Alpha	2	Two letter code of source entity
6	DESTINATION	Alpha	2	Two letter code of destination entity
7	CREATE DATE	Date	10	Transmission file create day
8	CREATE TIME	Time	8	Transmission file create time in 24 hr. clock
9	VERSION	Alpha	10	"REV G.5.8", right justified, space filled to the left.

8.3.2 Reconciled Toll Charges Detail Record Format

Field #	Field Name	Field Type	Length	Notes
1	TAG ID	Hex	10	Same as what is in the Toll Charges File
2	TRAN #	Integer	10	Same as what is in the Toll Charges File
3	TRAN AMOUNT	Money	8	Same as what is in the Toll Charges File
4	ENTRY TRAN DATE	Date	10	Same as what is in the Toll Charges File
5	ENTRY TRAN TIME	Time	8	Same as what is in the Toll Charges File
6	ENTRY_PLAZA	Integer	4	Same as what is in the Toll Charges File
7	ENTRY_LANE	Integer	2	Same as what is in the Toll Charges File
8	EXIT TRAN DATE	Date	10	Same as what is in the Toll Charges File
9	EXIT TRAN TIME	Time	8	Same as what is in the Toll Charges File
10	EXIT_PLAZA	Integer	4	Same as what is in the Toll Charges File
11	EXIT_LANE	Integer	2	Same as what is in the Toll Charges File
12	AXLE COUNT	Integer	2	Same as what is in the Toll Charges File
13	Occupancy	Integer	1	Same as what is in the Toll Charges File
14	PROTOCOL TYPE	Integer	1	Same as what is in the Toll Charges File
16	VEHICLE TYPE	Integer	1	Same as what is in the Toll Charges File
17	TRAN FEE	Money	8	Same as what is in the Toll Charges File
18	TRAN FEE TYPE	Integer	1	Same as what is in the Toll Charges File
15	POST AMT	Money	8	Amount Posted by Issuing Agency
16	RESPONSE CODE	Alpha	1	A – Accepted O – Over 30 days old D – Duplicate F – Invalid format (does not conform to CTOC format) I – Invalid (not found in tag file, etc.) Note: Only A indicates Paid. All other codes are reasons for rejection.

8.3.3 Reconciled Toll Charges Trailer Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#TRAILER	8	Trailer record indicator (#TRAILER)
2	SEQUENCE #	Integer	6	Sequence # matching entry in header
3	BUSINESS DATE	Date	10	Business day
4	DETAIL COUNT	Integer	6	Total count of all detail records
5	DETAIL AMOUNT	Money	10	Total amount of all detail records
6	ACCEPTED CNT	Integer	6	Count of accepted detail records

7	ACCEPTED SUM	Money	10	Total amount of accepted detail records
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8.3.4 Reconciled Toll Charges Sample File

#HEADER,RECONCILE,000123,06/24/2017,TC,SR,06/25/2017,03:02:19, REV G.5.8
6781000FA,0000403986,00000.25,
,0,00000.00,I
810012C,0004279389,00001.00,06/22/2017,11:09:20,1163,03,06/22/2017,11:09:25,4002,03,02,0,0,0,
00024.90,1,00025.90,A
810012E,0004310216,00001.00,06/23/2017,06:43:09,1162,03,06/23/2017,06:43:12,1172,99,02,3,0,1,
,0,00001.00,A
#TRAILER,000123,06/24/2017,000003,0000027.15,000002,0000026.90

8.4 Tag Status File

8.4.1 Tag Status Header Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#HEADER	7	Indicates this is a header record (#HEADER)
2	FILE TYPE	TAGS	4	Indicates this is a tag status file (TAGS)
3	ACTION CODE	Alpha	4	Update code: INIT – means an initial load (always)
4	SEQUENCE #	Integer	6	Sequence # generated by sending agency, has matching entry in the trailer record
5	BUSINESS DATE	Date	10	Business Day
6	SOURCE	Alpha	2	Two letter code of source entity
7	DESTINATION	Alpha	2	Two letter code of destination entity
8	CREATE DATE	Date	10	Transmission file create day
9	CREATE TIME	Time	8	Transmission file create time in 24 hr. clock
10	VERSION	Alpha	10	“REV G.5.8”, right justified, space filled to the left.

8.4.2 Tag Status Detail Record Format

Field #	Field Name	Field Type	Length	Notes
1	TAG ID	Hex	10	Tag ID in hex format, right justified, space filled to the left. The first three characters will be blank for Title-21 tags. The first three characters will be the Agency Code for 6C tags.
2	ACCOUNT ID	Numeric	10	Unique Identifier for Account to which the tag is assigned, right justified, space filled to the left.
3	ACTION CODE	Alpha	1	A – Add tag as valid (all “A” for INIT load)
4	TAG TYPE	Alpha	1	Tag Type: N – Non-revenue (universal to all entities) V – Valid I – Invalid
5	SUBTYPE - A	Alpha	1	First info field: H – Switchable HOV tag. Agencies issuing switchable tags must include this indicator in tag status file. Receiving agency may use this info at their discretion. N – No information See Appendix C for subtypes used by local agencies for regional use
6	SUBTYPE - B	Alpha	1	Second info field N – No information C – Clean Air Vehicle X – TBD Y – TBD Z – TBD See Appendix C for subtypes used by local agencies for regional use
7	SUBTYPE - C	Alpha	1	Third info field N – No information See Appendix C for subtypes used by local agencies for regional use
8	PROTOCOL TYPE	Integer	1	Tag Protocol Type (Values 0 – Title 21; 1 – 6C)

8.4.3 Tag Status Trailer Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#TRAILER	8	Trailer record indicator (#TRAILER)
2	SEQUENCE #	Integer	6	Sequence # matching entry in header
3	BUSINESS DATE	Date	10	Business day
4	DETAIL COUNT	Integer	8	Total count of all detail records

8.4.4 Tag Status Sample File

```
#HEADER,TAGS,INIT,000123,06/23/2017,SR,TC,06/23/2017,02:02:19, REVG.5.8
6781000FA, 2010000,A,N,N,N,N,1
810012C, 2010001,A,V,N,N,N,0
810012D, 2010002,A,I,N,N,N,0
#TRAILER,000123,06/23/2017,00000003
```

8.5 Pay by Plate Processing

8.5.1 Narrative

The individual agencies may require a patron (according to each agency's policies) to supply a description of the vehicles the patron intends to use on the agency's facility, along with the license plate number. The purpose of this is to allow the Issuing Agency to identify the patron via the Acquiring Agency's video enforcement system should the

patron's transponder not register with the Automatic Vehicle Identification equipment of the Acquiring Agency. In this way, the patron can be positively identified and the toll properly credited to the patron's account. If the license plate is not identified in the Acquiring Agency's license plate list, it is forwarded to DMV for further identification. The name and address returned by the DMV is used to send a notice of toll evasion or a payment request to the registered owner of the vehicle. However, some of the license plates recorded by the Acquiring Agency's video enforcement system may be license plates of reciprocating agency patrons. If the Acquiring Agency possesses a license plate list of the Issuing Agency's active patrons, the Acquiring Agency can use this list to extract the toll information and forward it to the Issuing Agency for recording those trips taken on the Acquiring Agency's Toll Facility by the Issuing Agency's patrons. The Acquiring Agency shall then invoice the Issuing Agency for the aggregate toll for the agreed upon time period of these license plate reads.

The initial exchange of license plate information provides for a complete transfer of active customer's license plate information from the Issuing Agency to the Reciprocating Agencies using the *License Plate Status File*. This initial data contains the license plate, license state and the effective date of the license plate only. The Reciprocating Agency stores this in their database. Subsequent exchanges of license plate data will be Full (*Init*) or Updates (*Diff*) depending on the delivery date. If this data is received by the Reciprocating Agency from the Issuing Agency, the code tells what action the Reciprocating Agency should take with respect to the license plate data the Reciprocating Agency has on file. If the code tells the Reciprocating Agency that the license plate is no longer valid, the date that accompanies the information is considered an end effective date, and subsequent violations by a vehicle with that license plate are no longer forwarded to the Issuing Agency, but routed to the normal violation enforcement system.

Should the owner of the vehicle again become a patron of the Issuing Agency, another record will be received by the Reciprocating Agency with the license plate, a re-activation code and a date. The Reciprocating Agency shall interpret the date as a new start effective date, and would remove any reference to an end effective date. Subsequent plate reads by the Reciprocating Agency shall therefore properly identify the vehicle as belonging to a customer of the Issuing Agency, and the toll information will be extracted, formatted and forwarded to the Issuing Agency as described in these *Technical Specifications*. As with the Transponder status data, the plate data received by the Reciprocating Agency from the Issuing Agency is considered valid and binding until a subsequent transmission is received from the Issuing Agency.

When receiving a plate file (*Init* or *Diff*), a sweep should be made of all violations currently being processed to check for updated plate information that might identify a toll agency patron. If a violation is identified as belonging to a toll agency patron, and the violation trip has not been issued a Notice of Toll Evasion, then the violation should be forwarded to the appropriate toll agency using the next available .pbp file. If the violation trip has been escalated to a Notice of Toll Evasion, or higher, it is up to the Acquiring Agency to determine whether to process the trip as a violation or to process it as a PBP trip. (Note: there is no provision at this time in the CTOC Agreements to allow for Issuing Agency to assess an additional PBP fee to recover any violation processing costs incurred by the Acquiring Agency - such as image review, postage to mail the notices, DMV Hold Costs,

etc.)

Pay-By-Plate Files (.pbp) should be sent on a daily basis, when transactions are available. At a minimum, Pay-By-Plate Files (.pbp) shall be sent at least every 14 calendar days.

Note: Agencies agree by convention not to send plate information for their own designated non-revenue account holders.

8.6 Pay By Plate File

8.6.1 Pay by Plate Header Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#HEADER	7	Indicates this is a header record (#HEADER)
2	FILE TYPE	PAYBYPLATE	10	Indicates this is a pay by plate file (PAYBYPLATE)
3	SEQUENCE #	Integer	6	Sequence # generated by sending agency, has matching entry in the trailer record
4	BUSINESS DATE	Date	10	Business day
5	SOURCE	Alpha	2	Two letter code of source entity
6	DESTINATION	Alpha	2	Two letter code of destination entity
7	CREATE DATE	Date	10	Transmission file create day
8	CREATE TIME	Time	8	Transmission file create time in 24 hr. clock
9	VERSION	Alpha	10	"REV G.5.8", right justified, space filled to the left.

8.6.2 Pay by Plate Detail Record Format

Field #	Field Name	Field Type	Length	Notes
1	LICENSE PLATE	Alphanumeric	10	License plate of patron (left justified with trailing spaces)
2	TRAN #	Numeric	10	Transaction #
3	STATE	Alpha	2	State code
4	TRAN AMT	Money	8	Amount charged
5	ENTRY TRAN DATE	Date	10	Transaction date – Entry
6	ENTRY TRAN TIME	Time	8	Transaction time - Entry
7	ENTRY PLAZA	Alpha	4	Location/Plaza site - Entry
8	ENTRY LANE	Alpha	2	Lane identifier – Entry
9	EXIT TRAN DATE	Date	10	Transaction date – Exit
10	EXIT TRAN TIME	Time	8	Transaction time - Exit
11	EXIT PLAZA	Alpha	4	Location/Plaza site - Exit
12	EXIT LANE	Alpha	2	Lane identifier – Exit
13	AXLE COUNT	Integer	2	Axle Count
14	VEHICLE TYPE	Integer	1	Vehicle – (Values 0 – NA (default); 1 - Clean Air Vehicle, 2, 3, 4, - reserved for future use)

8.6.3 Pay by Plate Trailer Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#TRAILER	8	Trailer record indicator (#TRAILER)
2	SEQUENCE #	Integer	6	Sequence # matching entry in header
3	BUSINESS DATE	Date	10	Business day
4	DETAIL CNT	Integer	6	Total count of all detail records
5	DETAIL SUM	Money	10	Total amount of detail records

8.6.4 Pay by Plate Sample File

#HEADER,PAYBYPLATE,000123,06/23/2017,TC,SR,06/23/2017,02:02:19, REV G.5.8
1ABC234 ,0000403986,CA,00000.25,06/23/2017,20:14:50,2216,02,06/23/2017,20:14:55,4002,02,02,0
#TRAILER,000123,06/23/2017,000001,0000000.25

8.6.5 Business Rules

Refer to Section 8.2.5 for the Business Rules on how the Entry and Exit Information is populated based on the various trip types.

8.7 License Plate Status File

8.7.1 Plate Status Header Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#HEADER	7	Indicates this is a header record (#HEADER)
2	FILE TYPE	PLATES	6	Indicates this is a patron plate update file (PLATES)
3	UPDATE CODE	Alpha	4	Update code: INIT – means an initial load DIFF – means a differential update
4	SEQUENCE #	Integer	6	Sequence # generated by sending agency, has matching entry in the trailer record
5	SOURCE	Alpha	2	Two letter code of source entity
6	DESTINATION	Alpha	2	Two letter code of destination entity
7	CREATE DATE	Date	10	Transmission file create day
8	CREATE TIME	Time	8	Transmission file create time in 24 hr. clock
9	VERSION	Alpha	10	"REV G.5.8", right justified, space filled to the left.

8.7.2 Plate Status Detail Record Format

Field #	Field Name	Field Type	Length	Notes
1	ACCOUNT ID	Numeric	10	Unique Identifier for Account to which the plate is assigned, right justified, space filled to the left
2	LICENSE PLATE	Alphanumeric	10	License plate of patron (left justified, space filled to right). Format conforming to DMV Parking Manual
3	STATE	Alpha	2	License state of patron
4	ACTION CODE	Alpha	1	A – Plate Active at the time of this File for the effective date range specified. (INIT file will only have A Records) D – Delete License Plate. Was entered incorrectly or Account Balance has become Negative. This ACTION CODE can be found only in Differential Files.
5	EFFECTIVE START DATE	Date	10	Effective start date of this plate
6	EFFECTIVE END DATE	Date	10	Effective end date of this plate (blank if this plate is still valid)
7	PLATE TYPE	Alpha	1	N – Plate assigned to Universal Non-revenue account (universal to all entities) R – Plate assigned to Revenue Account
8	SUBTYPE	Alpha	1	N – No information C – Clean air vehicle X – TBD Y – TBD Z – TBD

8.7.3 Plate Status Trailer Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#TRAILER	8	Trailer record indicator (#TRAILER)
2	SEQUENCE #	Integer	6	Sequence # matching entry in header
3	BUSINESS DATE	Date	10	Business day
4	DETAIL COUNT	Integer	8	Total count of all detail records

8.7.4 Plate Status Sample File

```
#HEADER, PLATES, DIFF, 000123, SR, TC, 04/23/2017, 02:02:19, REVG. 5.8  
11317432, 1ABC234, CA, A, 04/22/2017, R, N  
11317334, 1ABC236, CA, D, 04/16/2000, 04/22/2016, R, C  
#TRAILER, 000123, 0/23/2017, 00000002
```

8.7.5 Business Rules

The following business rules apply to the Plate Status file created by the Issuing Agency.

- Only License Plates belonging to Transponder based accounts are included in the Plate Status File. License Plates belonging to a Plate based account are not included in this file.
- License Plates belonging to designated Non-Revenue Accounts are not included in the Plate Status files (accounts belonging to maintenance vehicles, agency staff, etc. that grant the license plate discounts while using Issuing Agency's Toll Facilities).
- License Plates belonging to Universal Non-Revenue Accounts, may be included in the License Plate file. These records will be clearly indicated by the PLATE TYPE field that will be set to "N" for Non-Revenue.
- The Comprehensive File shall include only Plates with ACTION CODE = A. Only License Plates that are active against accounts in good standing (positive account balance). License Plates belonging to Accounts that are in negative balance are not included in the Comprehensive Plate File. The Acquiring Agency system will use the Comprehensive Plate File to replace the Plate database for the Issuing Agency.
- When a Differential File is created by the Issuing Agency:
 - ACTION CODE = A is used to send new License Plates to be added to the Plate Status file.
 - ACTION CODE = A is used to send License Plates that has an EFFECTIVE END DATE when the vehicle is no longer used by the account holder, but did have possession of the vehicle till the END DATE.
 - ACTION CODE = D is used to remove a License Plate record due to – a) Account Balance becoming Negative; b) License Plate is deleted at the Issuing Agency due to data entry error; c) any other reason the License Plate that was previously eligible for posting trips, becomes no longer eligible.
- When an account balance becomes negative, the Issuing Agency shall follow the rules below to send these updates to the other agencies.
 - If the next Plate Status file to be sent is Differential (DIFF), include the license plates with Status Code D to indicate that the license plates are no longer valid.

- If the next Plate Status file to be sent is Comprehensive (INIT), then do not include the License Plates for the account in the file.
- When the account balance for an account that was previously negative, changes to a positive balance, the account becomes available for posting again. While generating the Plate Status File, the Issuing Agency should ensure that the EFFECTIVE START DATE is same as the original start date for the License Plate, before the account became negative.
- To prevent sending old deactivated plates in the Comprehensive Plate Status File, Issuing Agencies should ensure that License Plates belong to accounts in good standing (positive balance) and License Plates are not included if the EFFECTIVE END DATE is more than 120-days older than the date the Plate Status File is generated.
- Issuing Agency shall cleanse/filter data to ensure that the Plate Status file does not contain any License Plates with special characters (non-alpha-numeric characters).

8.8 Reconciled Pay-By-Plate Charges File

8.8.1 Reconciled Pay-By-Plate Header Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#HEADER	7	Indicates this is a header record (#HEADER)
2	FILE TYPE	PLATERECON	10	Indicates this is a pay by plate reconciliation file (PLATERECON)
3	SEQUENCE #	Integer	6	Sequence # generated by sending agency, has matching entry in the trailer record
4	BUSINESS DATE	Date	10	Business day
5	SOURCE	Alpha	2	Two letter code of source entity
6	DESTINATION	Alpha	2	Two letter code of destination entity
7	CREATE DATE	Date	10	Transmission file create day
8	CREATE TIME	Time	8	Transmission file create time in 24 hr. clock
9	VERSION	Alpha	10	"REV G.5.8", right justified, space filled to the

8.8.2 Reconciled Pay-By-Plate Detail Record Format

Field #	Field Name	Field Type	Length	Notes
1	LICENSE PLATE	Alphanumeric	10	Same as PBP Plate Transaction File
2	TRAN #	Numeric	10	Same as PBP Plate Transaction File
3	STATE	Alpha	2	Same as PBP Plate Transaction File
4	TRAN AMT	Money	8	Same as PBP Plate Transaction File
5	ENTRY TRAN DATE	Date	10	Same as PBP Plate Transaction File
6	ENTRY TRAN TIME	Time	8	Same as PBP Plate Transaction File
7	ENTRY PLAZA	Alpha	4	Same as PBP Plate Transaction File
8	ENTRY LANE	Alpha	2	Same as PBP Plate Transaction File
9	EXIT TRAN DATE	Date	10	Same as PBP Plate Transaction File
10	EXIT TRAN TIME	Time	8	Same as PBP Plate Transaction File
11	EXIT PLAZA	Alpha	4	Same as PBP Plate Transaction File
12	EXIT LANE	Alpha	2	Same as PBP Plate Transaction File
13	AXLE COUNT	Integer	2	Same as PBP Plate Transaction File
14	POST AMT	Money	8	Amount Posted by the Issuing Agency
15	RECON CODE	Alpha	1	Reconcile code: A – Accepted O – Over 90 days old (Note 1 below) D – Duplicate F – Invalid CTOC format I – Invalid (not found on plate file) Note: Only A indicates Paid. All other codes are reasons for rejection.

Note 1: As a general guideline, each agency should make a “good faith” effort to process pay-by-plate transactions when the account is in good standing.

8.8.3 Reconciled Pay-By-Plate Trailer Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#TRAILER	8	Trailer record indicator (#TRAILER)
2	SEQUENCE #	Numeric	6	Sequence # matching entry in header
3	BUSINESS DATE	Date	10	Business day
4	DETAIL CNT	Numeric	6	Total count of all detail records
5	DETAIL AMOUNT	Money	10	Total amount of all detail records
6	ACCEPT CNT	Numeric	6	Total count of all accepted detail records
7	ACCEPT SUM	Money	10	Total amount of all accepted detail records

8.8.4 Reconciled Pay-By-Plate Sample File

```
#HEADER,PLATERCON,000123,06/24/2017,SR,TC,06/24/2017,02:02:19, REVG.5.8
1ABC234,0000403986,CA,00000.25,06/23/2017,20:14:50,2216,02,06/23/2017,20:14:55,4002,02,02,A
#TRAILER,000123,06/24/2017,000001,0000000.25
```

8.9 Correction File Processing

8.9.1 Narrative

The Correction File is created by the Acquiring Agency to replace transaction information already sent to the Issuing Agency, with updated/corrected information. Correction data is intended to inform the Issuing Agency of updated/corrected information to the original transaction. The Correction File can be used for adjustments related to Occupancy, Axle, Class, Customer Service Issue, or Lane Issue.

After a Correction file is processed by the Issuing Agency, the Issuing Agency will create a *Reconciled Toll Charges File* or a *Reconciled Pay by Plate File* and send it to the

Acquiring Agency. This file will contain a detail record for each and every transaction received by the Issuing Agency from the Acquiring Agency in the corresponding Correction file.

8.10 Correction File

8.10.1 Correction File Header Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#HEADER	7	Indicates this is a header record (#HEADER)
2	FILE TYPE	CORR	4	Indicates this is a correction file (CORR)
3	SEQUENCE #	Integer	6	Sequence # generated by sending agency, has matching entry in the trailer record
4	BUSINESS DAY	Date	10	Business day
5	SOURCE	Alpha	2	Two letter code of source entity
6	DESTINATION	Alpha	2	Two letter code of destination entity
7	CREATE DATE	Date	10	Transmission file create day
8	CREATE TIME	Time	8	Transmission file create time in 24 hr. clock
9	VERSION	Alpha	10	"REV G.5.8", right justified, space filled to the left.

8.10.2 Toll Charges Correction Detail Record Format

Field #	Field Name	Field Type	Length	Notes
1	CORRECTION DATE	Date	10	The date the adjustment was made by the Acquiring Agency. Required for adjustments. Not required for transaction resubmittals.
2	CORRECTION TIME	Time	8	The time the adjustment was made by the Acquiring Agency. Required for adjustments. Not required for transaction resubmittals.
3	CORRECTION REASON	Alpha	1	The reason for the adjustment. Values: C – Class adjusted. Apply toll/class from this record. I – Ignore original transaction. Back out original transaction (full credit to account). L – Location information corrected. Apply toll/location from this record. T – Toll adjusted. Apply toll from this record. O – Other adjustment/correction. Apply fields from this record. For adjustments where the original transaction is required to be backed out, an "I" must be sent by the Acquiring Agency before a "C", "L", "T" or "O".
4	CORRECTION COUNT	Integer	3	An incrementing sequence number for each adjustment of a Transaction identified by its specific Transaction #. Values: 1 – 999
5	ISSUING AGENCY SEQUENCE #	Integer	6	Sequence # provided by the Issuing Agency within the Reconciliation File for either the original transaction or the most recent adjustment/correction.
6	ORIGINAL TAG ID	Hex	10	Tag ID in hex format, right justified, space filled to the left. The first three characters will be blank for Title-21 tags. The first three characters will be the Agency Code for 6C tags. Leave blank for plate transaction.
7	ORIGINAL LICENSE	Alphanumeric	10	License plate of patron (left justified with trailing spaces).

	PLATE	c		Leave blank for tag transaction.
8	ORIGINAL STATE	Alpha	2	State code. Leave blank for tag transaction.
9	ORIGINAL TRAN #	Integer	10	Original transaction # generated by sending agency
10	ORIGINAL TRAN AMOUNT	Money	8	Amount charged for transaction
11	ORIGINAL ENTRY TRAN DATE	Date	10	Transaction date – Entry, Space Filled
12	ORIGINAL ENTRY TRAN TIME	Time	8	Transaction time in 24-hour format – Entry, Space Filled
13	ORIGINAL ENTRY PLAZA	Integer	4	Location/Plaza Site – Entry
14	ORIGINAL ENTRY LANE	Integer	2	Lane identifier – Entry
15	ORIGINAL EXIT TRAN DATE	Date	10	Transaction date – Exit
16	ORIGINAL EXIT TRAN TIME	Time	8	Transaction time in 24-hour format – Exit
17	ORIGINAL EXIT PLAZA	Integer	4	Location/Plaza Site – Exit
18	ORIGINAL EXIT LANE	Integer	2	Lane identifier – Exit
19	ORIGINAL AXLE COUNT	Integer	2	Number of Axles – if Toll is based on axle based classification (Default Value = 0 for Agencies that do not use Axle Based classification). Space Filled.
20	ORIGINAL OCCUPANCY	Integer	1	Occupancy if Toll is based on Occupancy – (Values 0 – NA (default); 1 – SOV; 2 – HOV2; 3 – HOV3+; 4 Carpool; 5, 6, 7 – reserved for future use). Default Value = 0 for Agencies that do not use Occupancy to determine Tolls.
21	ORIGINAL PROTOCOL TYPE	Integer	1	Leave blank for plate transaction. Tag Protocol Type (Values 0 – Title 21; 1 – 6C)
22	ORIGINAL VEHICLE TYPE	Integer	1	Leave blank for plate transaction. Vehicle – (Values 0 – NA (default); 1 - Clean Air Vehicle)
23	ORIGINAL TRAN FEE	Money	8	Amount charged for transaction fee
24	ORIGINAL TRAN FEE TYPE	Integer	1	Fee Type 0 – NA (default); 1 – HOV Only; 2 – Occupancy Detection; 3 – Other; 4, 5, 6 – reserved for future use)
25	CORRECTION REASON	Alpha	1	The reason for the adjustment. Values: C – Class adjusted. Apply toll/class from this record. L – Location information corrected. Apply toll/location from this record. T – Toll adjusted. Apply toll from this record. O – Other adjustment/correction. Apply fields from this record. For adjustments where the original transaction is required to be backed out, an “I” must be sent by the Acquiring Agency before a “C”, “L”, “T” or “O”.
26	CORRECTION COUNT	Integer	3	An incrementing sequence number for each adjustment of a Transaction identified by its specific Transaction #. Values: 1 – 999
27	ISSUING AGENCY SEQUENCE #	Integer	6	Sequence # provided by the Issuing Agency within the Reconciliation File for either the original transaction or the most recent adjustment/correction.
28	CORRECTED TAG ID	Hex	10	Tag ID in hex format, right justified, space filled to the left. The first three characters will be blank for Title-21 tags. The first three characters will be the Agency Code for 6C tags. Leave blank for plate transaction.
29	CORRECTED	Alphanumeric	10	License plate of patron (left justified with trailing spaces).

	LICENSE PLATE	c		Leave blank for tag transaction.
30	CORRECTED STATE	Alpha	2	State code. Leave blank for tag transaction.
31	CORRECTED TRAN #	Integer	10	Transaction # generated by sending agency
32	CORRECTED TRAN AMOUNT	Money	8	Amount charged for transaction
33	CORRECTED ENTRY TRAN DATE	Date	10	Transaction date – Entry, Space Filled
34	CORRECTED ENTRY TRAN TIME	Time	8	Transaction time in 24-hour format – Entry, Space Filled
35	CORRECTED ENTRY PLAZA	Integer	4	Location/Plaza Site – Entry
36	CORRECTED ENTRY LANE	Integer	2	Lane identifier – Entry
37	CORRECTED EXIT TRAN DATE	Date	10	Transaction date – Exit
38	CORRECTED EXIT TRAN TIME	Time	8	Transaction time in 24-hour format – Exit
39	CORRECTED EXIT PLAZA	Integer	4	Location/Plaza Site – Exit
40	CORRECTED EXIT LANE	Integer	2	Lane identifier – Exit
41	CORRECTED AXLE COUNT	Integer	2	Number of Axles – if Toll is based on axle based classification (Default Value = 0 for Agencies that do not use Axle Based classification). Space Filled.
42	CORRECTED OCCUPANCY	Integer	1	Occupancy if Toll is based on Occupancy – (Values 0 – NA (default); 1 – SOV; 2 – HOV2; 3 – HOV3+; 4 Carpool; 5, 6, 7 – reserved for future use). Default Value = 0 for Agencies that do not use Occupancy to determine Tolls. Leave blank for plate transaction.
43	CORRECTED PROTOCOL TYPE	Integer	1	Tag Protocol Type (Values 0 – Title 21; 1 – 6C). Leave blank for plate transaction.
44	CORRECTED VEHICLE TYPE	Integer	1	Vehicle – (Values 0 – NA (default); 1 - Clean Air Vehicle)
45	CORRECTED TRAN FEE	Money	8	Amount charged for transaction fee – can be greater than original amount
46	CORRECTED TRAN FEE TYPE	Integer	1	Fee Type 0 –NA (default); 1 – HOV Only; 2 – Occupancy Detection; 3 – Other; 4, 5, 6 – reserved for future use)

8.10.3 Correction File Trailer Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#TRAILER	8	Trailer record indicator
2	SEQUENCE #	Integer	6	Sequence # matching entry in header
3	BUSINESS DATE	Date	10	Business day
4	RECORD COUNT	Integer	6	Number of detail records

8.10.4 Correction Sample File

```
#HEADER,CORR,000246,06/25/2017,SR,TC,06/25/2017,08:01:21, REV.5.8
06/24/2017,11:05:17,I,1,035628, 810012C, ,0004279389,00001.00,06/22/2017,
11:09:20,1163,03,06/22/2017,11:09:25,4002,03,02,0,0,0,00024.90,1,T,001,035629, 810012C,
,0002468102,00000.70,06/22/2017,11:09:20,1163,03,06/22/2017,11:09:25,4002,03,02,0,0,0,00024.90,0
#TRAILER,000246,06/25/2017,000001
```

8.11 Reconciled Correction File

8.11.1 Reconciled Correction Header Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#HEADER	7	Indicates this is a header record (#HEADER)
2	FILE TYPE	CORRECON	8	Indicates this is a reconciled correction file (CORRECON)
3	SEQUENCE #	Integer	6	Sequence # from the originating correction file, duplicated in trailer record
4	BUSINESS DATE	Date	10	Business day
5	SOURCE	Alpha	2	Two letter code of source entity
6	DESTINATION	Alpha	2	Two letter code of destination entity
7	CREATE DATE	Date	10	Transmission file create day
8	CREATE TIME	Time	8	Transmission file create time in 24 hr. clock
9	VERSION	Alpha	10	"REV G.5.8", right justified, space filled to the left.

8.11.2 Reconciled Correction Record Format

Field #	Field Name	Field Type	Length	Notes
1	CORRECTION DATE	Date	10	The date the adjustment was made by the Acquiring Agency. Required for adjustments. Not required for transaction resubmittals.
2	CORRECTION TIME	Time	8	The time the adjustment was made by the Acquiring Agency. Required for adjustments. Not required for transaction resubmittals.
3	CORRECTION REASON	Alpha	1	The reason for the adjustment. Values: C – Class adjusted. Apply toll/class from this record. I – Ignore original transaction. Back out original transaction (full credit to account). L – Location information corrected. Apply toll/location from this record. T – Toll adjusted. Apply toll from this record. O – Other adjustment/correction. Apply fields from this record. For adjustments where the original transaction is required to be backed out, an "I" must be sent by the Acquiring Agency before a "C", "L", "T" or "O".
4	CORRECTION COUNT	Integer	3	An incrementing sequence number for each adjustment of a Transaction identified by its specific Transaction #. Values: 1 – 999
5	ISSUING AGENCY SEQUENCE #	Integer	6	Sequence # provided by the Issuing Agency within the Reconciliation File for either the original transaction or the most recent adjustment/correction.
6	ORIGINAL TAG ID	Hex	10	Tag ID in hex format, right justified, space filled to the left. The first three characters will be blank for Title-21 tags. The first three characters will be the Agency Code for 6C tags. Leave blank for plate transaction.
7	ORIGINAL LICENSE PLATE	Alphanumeric	10	License plate of patron (left justified with trailing spaces). Leave blank for tag transaction.
8	ORIGINAL STATE	Alpha	2	State code. Leave blank for tag transaction.

9	ORIGINAL TRAN #	Integer	10	Original transaction # generated by sending agency
10	ORIGINAL TRAN AMOUNT	Money	8	Amount charged for transaction
11	ORIGINAL ENTRY TRAN DATE	Date	10	Transaction date – Entry, Space Filled
12	ORIGINAL ENTRY TRAN TIME	Time	8	Transaction time in 24-hour format – Entry, Space Filled
13	ORIGINAL ENTRY PLAZA	Integer	4	Location/Plaza Site – Entry
14	ORIGINAL ENTRY LANE	Integer	2	Lane identifier – Entry
15	ORIGINAL EXIT TRAN DATE	Date	10	Transaction date – Exit
16	ORIGINAL EXIT TRAN TIME	Time	8	Transaction time in 24-hour format – Exit
17	ORIGINAL EXIT PLAZA	Integer	4	Location/Plaza Site – Exit
18	ORIGINAL EXIT LANE	Integer	2	Lane identifier – Exit
19	ORIGINAL AXLE COUNT	Integer	2	Number of Axles – if Toll is based on axle based classification (Default Value = 0 for Agencies that do not use Axle Based classification). Space Filled.
20	ORIGINAL OCCUPANCY	Integer	1	Occupancy if Toll is based on Occupancy – (Values 0 – NA (default); 1 – SOV; 2 – HOV2; 3 – HOV3+; 4 Carpool; 5, 6, 7 – reserved for future use). Default Value = 0 for Agencies that do not use Occupancy to determine Tolls. Leave blank for plate transaction.
21	ORIGINAL PROTOCOL TYPE	Integer	1	Tag Protocol Type (Values 0 – Title 21; 1 – 6C) Leave blank for plate transaction.
22	ORIGINAL VEHICLE TYPE	Integer	1	Vehicle – (Values 0 – NA (default); 1 - Clean Air Vehicle)
23	ORIGINAL TRAN FEE	Money	8	Amount charged for transaction fee
24	ORIGINAL TRAN FEE TYPE	Integer	1	Fee Type 0 –NA (default); 1 – HOV Only; 2 – Occupancy Detection; 3 – Other; 4, 5, 6 – reserved for future use)
25	CORRECTION REASON	Alpha	1	The reason for the adjustment. Values: C – Class adjusted. Apply toll/class from this record. L – Location information corrected. Apply toll/location from this record. T – Toll adjusted. Apply toll from this record. O – Other adjustment/correction. Apply fields from this record. For adjustments where the original transaction is required to be backed out, an “I” must be sent by the Acquiring Agency before a “C”, “L”, “T” or “O”.
26	CORRECTION COUNT	Integer	3	An incrementing sequence number for each adjustment of a Transaction identified by its specific Transaction #. Values: 1 – 999
27	ISSUING AGENCY SEQUENCE #	Integer	6	Sequence # provided by the Issuing Agency within the Reconciliation File for either the original transaction or the most recent adjustment/correction.

28	CORRECTED TAG ID	Hex	10	Tag ID in hex format, right justified, space filled to the left. The first three characters will be blank for Title-21 tags. The first three characters will be the Agency Code for 6C tags. Leave blank for plate transaction.
29	CORRECTED LICENSE PLATE	Alphanumeric	10	License plate of patron (left justified with trailing spaces). Leave blank for tag transaction.
30	CORRECTED STATE	Alpha	2	State code. Leave blank for tag transaction.
31	CORRECTED TRAN #	Integer	10	Transaction # generated by sending agency
32	CORRECTED TRAN AMOUNT	Money	8	Amount charged for transaction
33	CORRECTED ENTRY TRAN DATE	Date	10	Transaction date – Entry, Space Filled
34	CORRECTED ENTRY TRAN TIME	Time	8	Transaction time in 24-hour format – Entry, Space Filled
35	CORRECTED ENTRY PLAZA	Integer	4	Location/Plaza Site – Entry
36	CORRECTED ENTRY LANE	Integer	2	Lane identifier – Entry
37	CORRECTED EXIT TRAN DATE	Date	10	Transaction date – Exit
38	CORRECTED EXIT TRAN TIME	Time	8	Transaction time in 24-hour format – Exit
39	CORRECTED EXIT PLAZA	Integer	4	Location/Plaza Site – Exit
40	CORRECTED EXIT LANE	Integer	2	Lane identifier – Exit
41	CORRECTED AXLE COUNT	Integer	2	Number of Axles – if Toll is based on axle based classification (Default Value = 0 for Agencies that do not use Axle Based classification). Space Filled.
42	CORRECTED OCCUPANCY	Integer	1	Occupancy if Toll is based on Occupancy – (Values 0 – NA (default); 1 – SOV; 2 – HOV2; 3 – HOV3+; 4 Carpool; 5, 6, 7 – reserved for future use). Default Value = 0 for Agencies that do not use Occupancy to determine Tolls. Leave blank for plate transaction.
43	CORRECTED PROTOCOL TYPE	Integer	1	Tag Protocol Type (Values 0 – Title 21; 1 – 6C). Leave blank for plate transaction.
44	CORRECTED VEHICLE TYPE	Integer	1	Vehicle – (Values 0 – NA (default); 1 - Clean Air Vehicle)
45	CORRECTED TRAN FEE	Money	8	Amount charged for transaction fee – can be greater than original amount
46	CORRECTED TRAN FEE TYPE	Integer	1	Fee Type 0 –NA (default); 1 – HOV Only; 2 – Occupancy Detection; 3 – Other; 4, 5, 6 – reserved for future use)
47	POST AMT	Money	8	Amount Posted by Issuing Agency
48	RESPONSE CODE	Alpha	1	A – Accepted O – Over 30 days old D - Duplicate F – Invalid format (does not conform to CTOC format) I – Invalid (not found in tag file, etc.) Note: Only A indicates Paid. All other codes are reasons for rejection.

8.11.3 Reconciled Correction Trailer Record Format

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	#TRAILER	8	Trailer record indicator (#TRAILER)
2	SEQUENCE #	Integer	6	Sequence # matching entry in header
3	BUSINESS DATE	Date	10	Business day
4	DETAIL COUNT	Integer	6	Total count of all detail records
5	DETAIL AMOUNT	Money	10	Total amount of all detail records
6	ACCEPTED CNT	Integer	6	Count of accepted detail records
7	ACCEPTED SUM	Money	10	Total amount of accepted detail records

8.11.4 Reconciled Correction Sample File

```
#HEADER,CORRECON,000246,06/26/2017,SR,TC,06/26/2017,01:01:21, REVG.5.8
06/24/2017,11:05:17,I,1,035628, 810012C, ,0004279389,00001.00,06/22/2017,
11:09:20,1163,03,06/22/2017,11:09:25,4002,03,02,0,0,0,00024.90,1,T,001,035629, 810012C,
,0002468102,00000.70,06/22/2017,11:09:20,1163,03,06/22/2017,11:09:25,4002,03,02,0,0,0,00024.90,0,00025.60,A
#TRAILER,000246,06/26/2017,000001,0000025.60,000001,0000025.60
```

APPENDIX A: PLAZA/LANE DESCRIPTIONS

Plaza	Lane	Statement Description (22-character limit)
0002	01	Antioch-Lane 1
0002	02	Antioch-Lane 2
0002	03	Antioch-Lane 3
0003	01	Richmond-Lane 1
0003	02	Richmond-Lane 2
0003	03	Richmond-Lane 3
0003	04	Richmond-Lane 4
0003	05	Richmond-Lane 5
0003	06	Richmond-Lane 6
0003	07	Richmond-Lane 7
0004	01	Bay Bridge-Lane 1
0004	02	Bay Bridge-Lane 2
0004	03	Bay Bridge-Lane 3
0004	04	Bay Bridge-Lane 4
0004	05	Bay Bridge-Lane 5
0004	06	Bay Bridge-Lane 6
0004	07	Bay Bridge-Lane 7
0004	08	Bay Bridge-Lane 8
0004	09	Bay Bridge-Lane 9
0004	10	Bay Bridge-Lane 10
0004	11	Bay Bridge-Lane 11
0004	12	Bay Bridge-Lane 12
0004	13	Bay Bridge-Lane 13
0004	14	Bay Bridge-Lane 14
0004	15	Bay Bridge-Lane 15
0004	16	Bay Bridge-Lane 16
0004	17	Bay Bridge-Lane 17
0004	18	Bay Bridge-Lane 18
0004	19	Bay Bridge-Lane 19
0004	20	Bay Bridge-Lane 20
0004	21	Bay Bridge-Lane 21
0004	22	Bay Bridge-Lane 22
0005	01	San Mateo-Lane 1
0005	02	San Mateo-Lane 2
0005	03	San Mateo-Lane 3
0005	04	San Mateo-Lane 4
0005	05	San Mateo-Lane 5
0005	06	San Mateo-Lane 6
0005	07	San Mateo-Lane 7
0005	08	San Mateo-Lane 8
0005	09	San Mateo-Lane 9
0005	10	San Mateo-Lane 10
0006	01	Dumbarton-Lane 1
0006	02	Dumbarton-Lane 2
0006	03	Dumbarton-Lane 3
0006	04	Dumbarton-Lane 4
0006	05	Dumbarton-Lane 5
0006	06	Dumbarton-Lane 6
0006	07	Dumbarton-Lane 7
0007	01	Carquinez-Lane 1
0007	02	Carquinez-Lane 2
0007	03	Carquinez-Lane 3
0007	04	Carquinez-Lane 4
0007	05	Carquinez-Lane 5

Plaza	Lane	Statement Description (22-character limit)
0007	06	Carquinez-Lane 6
0007	07	Carquinez-Lane 7
0007	08	Carquinez-Lane 8
0007	09	Carquinez-Lane 9
0007	10	Carquinez-Lane 10
0007	11	Carquinez-Lane 11
0007	12	Carquinez-Lane 12
0008	01	Benicia-Lane 1
0008	02	Benicia-Lane 2
0008	03	Benicia-Lane 3
0008	04	Benicia-Lane 4
0008	05	Benicia-Lane 5
0008	06	Benicia-Lane 6
0008	07	Benicia-Lane 7
0008	08	Benicia-Lane 8
0008	09	Benicia-Lane 9
0008	10	Benicia-Lane 10
0008	11	Benicia-Lane 11
0008	12	Benicia-Lane 12
0008	13	Benicia-Lane 13
0008	14	Benicia-Lane 14
0008	15	Benicia-Lane 15
0008	16	Benicia-Lane 16
0008	17	Benicia-Lane 17
0015	01	I-15 Legacy Toll Zone
0201	01	SFO Long Term Garage
0204	01	SFO Long Term Lot
0821	01	SFO INTL G LV 1
0825	01	SFO INTL LV 3
0828	01	SFO INTL A LV 1
0831	01	SFO INTL A LV 3
0843	01	SFO Domestic LV 1
0844	01	SFO Domestic LV 2
0847	01	SFO Domestic LV 3
0850	01	SFO Domestic LV 46
0854	01	SFO Domestic LV 5
1131	01	La Paz On-Lane 1
1131	02	La Paz On-Lane 2
1133	02	La Paz Off-Lane 2
1141	01	Aliso Creek Off -Lane 1
1141	02	Aliso Creek Off-lane 2
1143	02	Aliso Creek On-Lane 2
1162	02	El Toro Off-Lane 2
1162	03	El Toro Off-Lane 3
1163	02	El Toro On-Lane 2
1163	03	El Toro On-Lane 3
1190	10	Catalina View South-Lane 10
1190	11	Catalina View South-Lane 11
1190	12	Catalina View South-Lane 12
1190	13	Catalina View South-Lane 13
1191	10	Catalina View North-Lane 10
1191	11	Catalina View North-Lane 11
1191	12	Catalina View North-Lane 12
1191	13	Catalina View North-Lane 13
1215	02	Newport Coast Off-Lane 2
1217	01	Newport Coast On-Lane 1
1217	02	Newport Coast On-Lane 2

Plaza	Lane	Statement Description (22-character limit)
1226	02	Ford Road Off-Lane 2
1227	02	Bonita Canyon On-Lane 2
2144	01	Oso Parkway On-Lane 1
2144	02	Oso Parkway On-Lane 2
2145	01	Oso Parkway Off-Lane 1
2145	02	Oso Parkway Off-Lane 2
2177	01	Antonio Parkway Off-Lane 1
2177	02	Antonio Parkway Off-Lane 2
2178	01	Antonio Parkway On-Lane 1
2178	02	Antonio Parkway On-Lane 2
2199	02	Los Alisos Blvd Off-Lane 2
2200	02	Los Alisos Blvd On-Lane 2
2216	02	Portola Parkway South Off - Lane 2
2217	01	Portola Parkway South On - Lane 1
2217	02	Portola Parkway South On - Lane 2
2234	02	Alton Parkway Off - Lane 2
2235	01	Alton Parkway On - Lane 1
2235	02	Alton Parkway On - Lane 2
2248	02	Portola Parkway North Off - Lane 2
2249	02	Portola Parkway North On - Lane 2
2257	11	Tomato Springs – North Lane 11
2257	12	Tomato Springs – North Lane 12
2257	13	Tomato Springs – North Lane 13
2260	11	Tomato Springs – South Lane 11
2260	12	Tomato Springs – South Lane 12
2260	13	Tomato Springs – South Lane 13
3042	02	Irvine Blvd. - East Off Lane 2
3043	01	Irvine Blvd. - East On Lane 1
3043	02	Irvine Blvd. - East On Lane 2
3057	11	Orange Grove South Lane 11
3057	12	Orange Grove South Lane 12
3058	11	Orange Grove North Lane 11
3058	12	Orange Grove North Lane 12
3145	10	Windy Ridge South Lane 10
3145	11	Windy Ridge South Lane 11
3145	12	Windy Ridge South Lane 12
3145	13	Windy Ridge South Lane 13
3150	10	Windy Ridge North Lane 10
3150	11	Windy Ridge North Lane 11
3150	12	Windy Ridge North Lane 12
3150	13	Windy Ridge North Lane 13
3482	01	Irvine Blvd. - West SB On Lane 1
3482	02	Irvine Blvd. - West SB On Lane 2
3486	02	Irvine Blvd. - West NB Off Lane 2
3490	01	Irvine Blvd. – West NB On – Lane 1
3490	11	Irvine Ranch North Lane 11
3490	12	Irvine Ranch North- Lane 12
3491	01	Portola Parkway West SB On – Lane 1
3491	11	Irvine Ranch South- Lane 11
3491	12	Irvine Ranch South- Lane 12
3497	02	Portola Parkway West NB On - Lane 2
3498	02	Portola Parkway West Off - Lane 2
4001	01	91E 55-Co. Line L#1
4001	02	91E 55-Co. Line L#2
4001	03	91E 55-Co. Line L#3
4002	01	91W Co. Line-55 L#1
4002	02	91W Co. Line-55 L#2

Plaza	Lane	Statement Description (22-character limit)
4002	03	91W Co. Line-55 L#
4010	01	GG Bridge - Lane 1
4010	02	GG Bridge - Lane 2
4010	03	GG Bridge - Lane 3
4010	04	GG Bridge - Lane 4
4010	05	GG Bridge - Lane 5
4010	06	GG Bridge - Lane 6
4010	07	GG Bridge - Lane 7
4010	08	GG Bridge - Lane 8
4010	09	GG Bridge - Lane 9
4010	10	GG Bridge - Lane 10
4010	11	GG Bridge - Lane 11
4010	12	GG Bridge - Lane 12
4020	1	91E Co. Line-McKinley L#1
4020	2	91E Co. Line-McKinley L#2
4020	3	91E Co. Line-McKinley L#3
4021	1	91W McKinley-Co. Line L#1
4021	2	91W McKinley-Co. Line L#2
4021	3	91W McKinley-Co. Line L#3
4022		15S
4023		15N
4024	1	91E Co. Line-15S L#1
4024	2	91E Co. Line-15S L#2
4024	3	91E Co. Line-15S L#3
4025	1	91W 15N - Co. Line L#1
4025	2	91W 15N - Co. Line L#2
4025	3	91W 15N - Co. Line L#3
5010	01	I-680 South Andrade
5011	01	I-680 South Washington
5012	01	I-680 South Mission
5013	01	I-680 South Calaveras
5110	01	SR 237/I-880 Connector WB
5111	01	SR 237 First WB
5118	01	SR 237 First EB
5119	01	SR 237/I-880 Connector EB
5050	21	580 N First Zone WB
5051	21	580 Livermore Zone WB
5052	21	580 Isabel Zone WB
5053	21	580 Airway Zone WB
5054	21	580 Fallon Zone WB
5055	21	580 Santa Rita Zone WB
5056	21	580 Hacienda Zone WB
5057	21	580 San Ramon Zone WB
5070	01	580 Airway Zone 1 EB
5070	02	580 Airway Zone 1 EB
5071	01	580 Airway Zone 2 EB
5071	02	580 Airway Zone 2 EB
5072	01	580 Isabel Zone EB
5072	02	580 Isabel Zone EB
5073	01	580 Livermore Zone EB
5073	02	580 Livermore Zone EB
5074	01	580 N First Zone EB
5074	02	580 N First Zone EB
5075	01	580 Vasco Zone EB
5075	02	580 Vasco Zone EB
5076	01	580 Greenville Zone EB
5076	02	580 Greenville Zone EB

Plaza	Lane	Statement Description (22-character limit)
5210	01	680 Crow Canyon Zone SB
5211	01	680 Alcosta Zone SB
5212	01	680 Crow Canyon Zone NB
5213	01	680 Livorna Zone NB
6000	01	110NB HGTC To Rosecrans
6001	01	110NB HGTC To I-105
6002	01	110NB HGTC To Slauson
6003	01	110NB HGTC To 39th
6004	01	110NB HGTC To Adams
6005	01	110NB Rosecrans To I-105
6006	01	110NB Rosecrans To Slauson
6007	01	110NB Rosecrans To 39th
6008	01	110NB Rosecrans To Adams
6009	01	110NB I-105 To Slauson
6010	01	110NB I-105 To 39th
6011	01	110NB I-105 to Adams
6012	01	110NB 39th to Adams
6013	01	110NB Slauson to 39th
6014	01	110NB Slauson to Adams
6100	01	110SB Adams to Jefferson
6101	01	110SB Adams to Manchester
6102	01	110SB Adams to Century
6103	01	110SB Adams to I-105
6104	01	110SB Adams to El Segundo
6105	01	110SB Adams to HGTC
6106	01	110SB Jefferson to Manchester
6107	01	110SB Jefferson to Century
6108	01	110SB Jefferson to I-105
6109	01	110SB Jefferson to El Segundo
6110	01	110SB Jefferson to HGTC
6111	01	110SB 39th to Manchester
6112	01	110SB 39th to Century
6113	01	110SB 39th to I-105
6114	01	110SB 39th to El Segundo
6115	01	110SB 39th to HGTC
6116	01	110SB Manchester to Century
6117	01	110SB Manchester to I-105
6118	01	110SB Manchester to El Segundo
6119	01	110SB Manchester to HGTC
6120	01	110SB Century to I-105
6121	01	110SB Century to El Segundo
6122	01	110SB Century to HGTC
6123	01	110SB I-105 to El Segundo
6124	01	110SB I-105 to HGTC
6125	01	110SB El Segundo to HGTC
6200	01	10EB Alameda to I-710
6201	01	10EB Alameda to Atlantic
6202	01	10EB Alameda to Del Mar
6203	01	10EB Alameda to Baldwin
6204	01	10EB Alameda to I-605
6205	01	10EB I-710 to Atlantic
6206	01	10EB I-710 to Del Mar
6207	01	10EB I-710 to Baldwin
6208	01	10EB I-710 to I-605
6209	01	10EB Atlantic to Del Mar
6210	01	10EB Atlantic to Baldwin
6211	01	10EB Atlantic to I-605

Plaza	Lane	Statement Description (22-character limit)
6212	01	10EB Del Mar to Baldwin
6213	01	10EB Del Mar to I-605
6214	01	10EB Baldwin to I-605
6301	01	10WB I-605 to Fremont
6302	01	10WB I-605 to I-710
6303	01	10WB I-605 to Alameda
6304	01	10WB Del Mar to Atlantic
6305	01	10WB Del Mar to I-710
6306	01	10WB Del Mar to Alameda
6307	01	10WB Fremont to I-710
6308	01	10WB Fremont to US-101
6309	01	10WB Fremont to Alameda
6310	01	10WB Del Mar to US-101
6311	01	10WB I-605 to US-101
8016	01	I-15/SR 163 Interchange
8017	01	I-15 Access
8018	01	Ammo Rd NB Entry
8019	01	Miramar Way NB
8019	02	Miramar Way NB
8019	03	Miramar Way NB
8019	98	Miramar Way NB
8020	01	Miramar Rd NB Entry
8021	01	Mira Mesa Bl NB Entry
8022	01	Mira Mesa Bl NB
8022	02	Mira Mesa Bl NB
8022	03	Mira Mesa Bl NB
8022	98	Mira Mesa Bl NB
8023	01	Poway Rd NB
8023	02	Poway Rd NB
8023	03	Poway Rd NB
8023	98	Poway Rd NB
8024	01	SR 56 NB Exit
8024	02	SR 56 NB Exit
8024	98	SR 56 NB Exit
8025	01	Sabre Springs Transit
8025	02	Sabre Springs Transit
8026	01	SR 56 NB Entry
8027	01	Carmel Mountain Rd NB
8027	02	Carmel Mountain Rd NB
8027	03	Carmel Mountain Rd NB
8027	98	Carmel Mountain Rd NB
8028	01	Camino del Norte NB
8029	01	Bernardo Center Dr NB
8029	02	Bernardo Center Dr NB
8029	03	Bernardo Center Dr NB
8029	04	Bernardo Center Dr NB
8029	98	Bernardo Center Dr NB
8030	01	Duenda Rd NB Entry
8031	01	Via Rancho Pkwy NB
8031	02	Via Rancho Pkwy NB
8031	03	Via Rancho Pkwy NB
8031	98	Via Rancho Pkwy NB
8032	01	Del Lago NB Exit
8033	01	Del Lago NB Entry
8034	01	Centre City NB Entry
8035	01	Centre City Pkwy NB
8035	02	Centre City Pkwy NB

Plaza	Lane	Statement Description (22-character limit)
8035	98	Centre City Pkwy NB
8036	01	Felicita Rd NB
8036	02	Felicita Rd NB
8036	98	Felicita Rd NB
8037	01	Hale Ave NB Exit
8039	01	SR 78/I-15 Interchange
8040	01	Hale Ave SB Entry
8041	01	Felicita Rd SB
8041	02	Felicita Rd SB
8041	99	Felicita Rd SB
8042	01	9th Ave SB Entry
8044	01	Del Lago SB Exit
8045	01	Del Lago SB Entry
8046	01	Via Rancho Pkwy SB
8046	02	Via Rancho Pkwy SB
8046	03	Via Rancho Pkwy SB
8046	99	Via Rancho Pkwy SB
8047	01	Duenda Rd SB Entry
8048	01	Rancho Bernardo Transit
8048	02	Rancho Bernardo Transit
8048	03	Rancho Bernardo Transit
8048	04	Rancho Bernardo Transit
8048	05	Rancho Bernardo Transit
8049	01	Bernardo Center Dr SB
8049	02	Bernardo Center Dr SB
8049	03	Bernardo Center Dr SB
8049	99	Bernardo Center Dr SB
8050	01	Camino del Norte SB
8051	01	Carmel Mountain Rd SB
8051	02	Carmel Mountain Rd SB
8051	03	Carmel Mountain Rd SB
8051	99	Carmel Mountain Rd SB
8052	01	SR 56 SB Entry
8052	02	SR 56 SB Entry
8052	03	SR 56 SB Entry
8053	01	Poway Rd SB
8053	02	Poway Rd SB
8053	03	Poway Rd SB
8053	04	Poway Rd SB
8053	99	Poway Rd SB
8054	01	Poway Rd SB Entry
8055	01	Mercy Rd SB
8055	02	Mercy Rd SB
8055	03	Mercy Rd SB
8055	99	Mercy Rd SB
8056	01	Mercy Rd – 1 SB Entry
8057	01	Mercy Rd – 2 SB Entry
8058	01	Mira Mesa Transit
8058	02	Mira Mesa Transit
8059	01	Miramar Rd SB
8059	02	Miramar Rd SB
8059	03	Miramar Rd SB
8059	99	Miramar Rd SB
8060	01	Miramar Rd SB Entry
8061	01	Miramar Way SB
8061	02	Miramar Way SB
8061	03	Miramar Way SB

Plaza	Lane	Statement Description (22-character limit)
8061	99	Miramar Way SB
9001	01	SR-54 NB Exit
9001	02	SR-54 NB Exit
9001	98	SR-54 NB Exit
9002	01	San Miguel Rch NB On
9002	02	San Miguel Rch NB On
9003	01	East H NB On
9003	02	East H NB On
9003	03	East H NB On
9003	04	East H NB On
9003	05	East H NB Off
9003	98	East H NB Off
9004	01	Otay Lks Rd NB On
9004	02	Otay Lks Rd NB On
9004	03	Otay Lks Rd NB On
9004	04	Otay Lks Rd NB On
9004	05	Otay Lks Rd NB Off
9004	98	Otay Lks Rd NB Off
9005	01	Olymp Pkwy NB On
9005	02	Olymp Pkwy NB On
9005	03	Olymp Pkwy NB On
9005	04	Olymp Pkwy NB On
9005	05	Olymp Pkwy NB Off
9005	98	Olymp Pkwy NB Off
9006	01	Birch Rd NB On
9006	02	Birch Rd NB On
9006	03	Birch Rd NB On
9006	04	Birch Rd NB On
9006	05	Birch Rd NB Off
9006	98	Birch Rd NB Off
9010	01	Otay Toll Plz NB Entry
9010	02	Otay Toll Plz NB Entry
9010	03	Otay Toll Plz NB Entry
9010	04	Otay Toll Plz NB Entry
9010	05	Otay Toll Plz NB Entry
9011	01	SR-54 SB Entry
9011	02	SR-54 SB Entry
9011	99	SR-54 SB Entry
9012	01	San Miguel Rch SB Off
9012	02	San Miguel Rch SB Off
9013	01	East H SB Off
9013	02	East H SB Off
9013	03	East H SB On
9013	04	East H SB On
9013	99	East H SB On
9014	01	Otay Lks Rd SB Off
9014	02	Otay Lks Rd SB Off
9014	03	Otay Lks Rd SB On
9014	04	Otay Lks Rd SB On
9014	99	Otay Lks Rd SB On
9015	01	Olymp Pkwy SB Off
9015	02	Olymp Pkwy SB Off
9015	03	Olymp Pkwy SB On
9015	04	Olymp Pkwy SB On
9015	99	Olymp Pkwy SB On
9016	01	Birch Rd SB Off
9016	02	Birch Rd SB Off

Plaza	Lane	Statement Description (22-character limit)
9016	03	Birch Rd SB On
9016	04	Birch Rd SB On
9016	99	Birch Rd SB On
9020	01	Otay Toll Plz SB Exit
9020	02	Otay Toll Plz SB Exit
9020	03	Otay Toll Plz SB Exit
9020	04	Otay Toll Plz SB Exit
9020	05	Otay Toll Plz SB Exit

Note: 4001-4009 Reserved for OCTA
4020-4399 Reserved for RCTC
5000-5999 Reserved for Bay Area Express Lane Network
6000-6999 Reserved for LA Metro

APPENDIX B: TITLE 21 DEFINITION

Narrative

In 1990 the California State legislature directed the California Department of Transportation (Caltrans) to develop specifications for an Automatic Vehicle Identification (AVI) system such that a vehicle owner would not have to install more than one device to use toll facilities statewide.

Caltrans developed open compatibility specifications for a two-way communications protocol for AVI including an initial set of Transaction Record Type codes which were mandated for statewide Electronic Toll Collection (ETC) use. This standard was Chaptered into the California Code of Regulations in 1992 as Title 21, Chapter 16, Articles 1 through 4, and is commonly referred to as "Title 21".

The Title 21 standard envisioned more complex Transaction Record Type codes being developed for both ETC and other new applications. To maintain the growth of Title 21 it was specified that Caltrans shall function as the standards monitoring authority to authorize the use of new record types and to assign record type numbers to newly authorized records.

After Title 21 was Chaptered the 32-bit Transponder ID field within the specification was further defined, primarily to identify the facility and patron that was conducting the electronic transaction. Numerous additional Transaction Record Type Codes were also approved involving lane specific, data transfer and manufacturer specific information.

Both of these Caltrans documents are considered "living" because as the system expands and evolves changes to them will be required.

Contact Caltrans' Traffic Operations office in Sacramento for the latest version of either of these documents, or to request new Transaction Record Type codes.

APPENDIX C: SUB TYPE DEFINITIONS FOR TAG RECORD FILE

C.1 Subtype - A

Field Character	Description	Used By
N	Subtype Not Used	All Agencies

C.2 Subtype - B

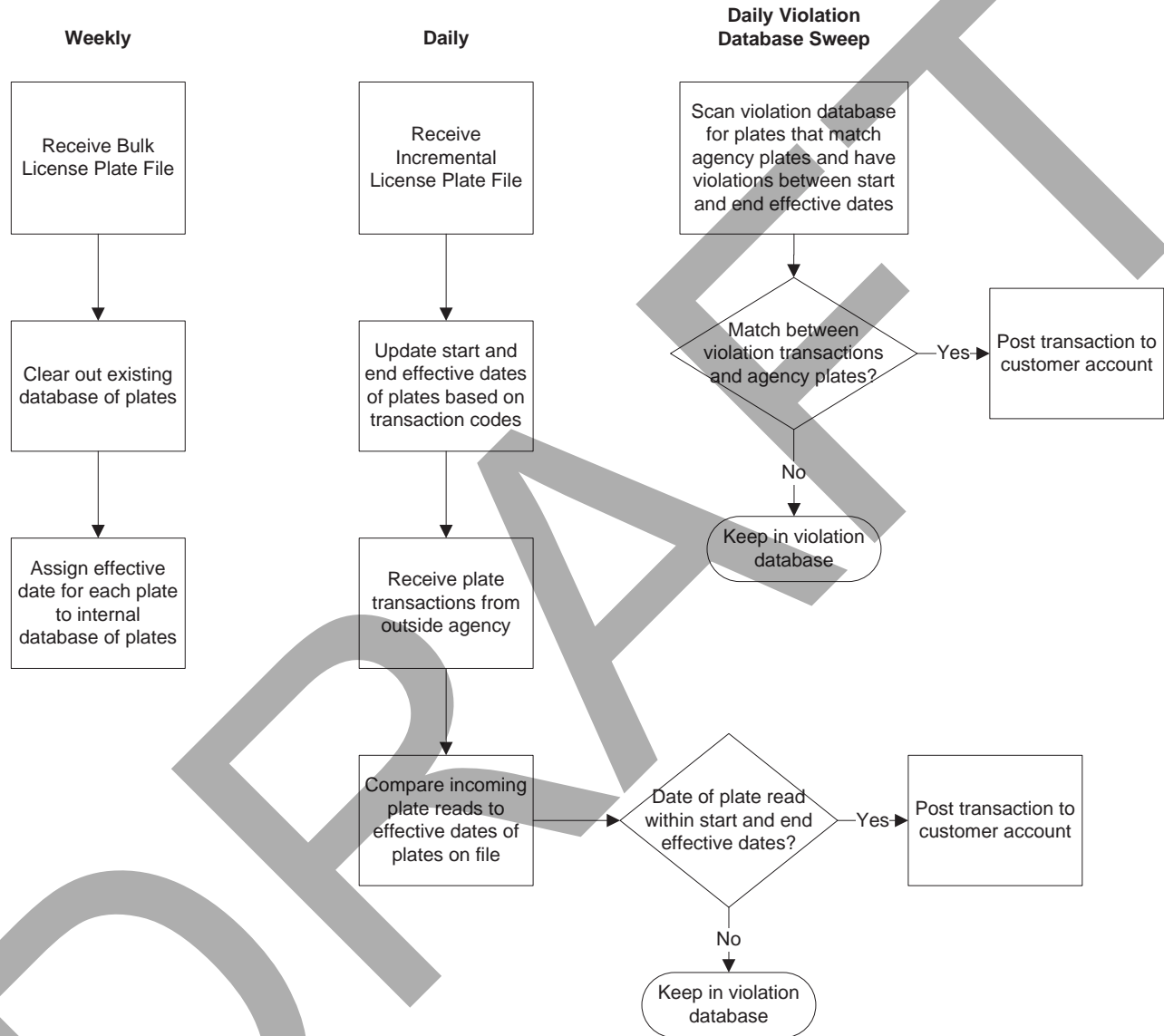
Field Character	Description	Used By
N	Subtype Not Used	All Agencies

C.3 Subtype - C

Field Character	Description	Used By
N	Subtype Not Used	All Agencies

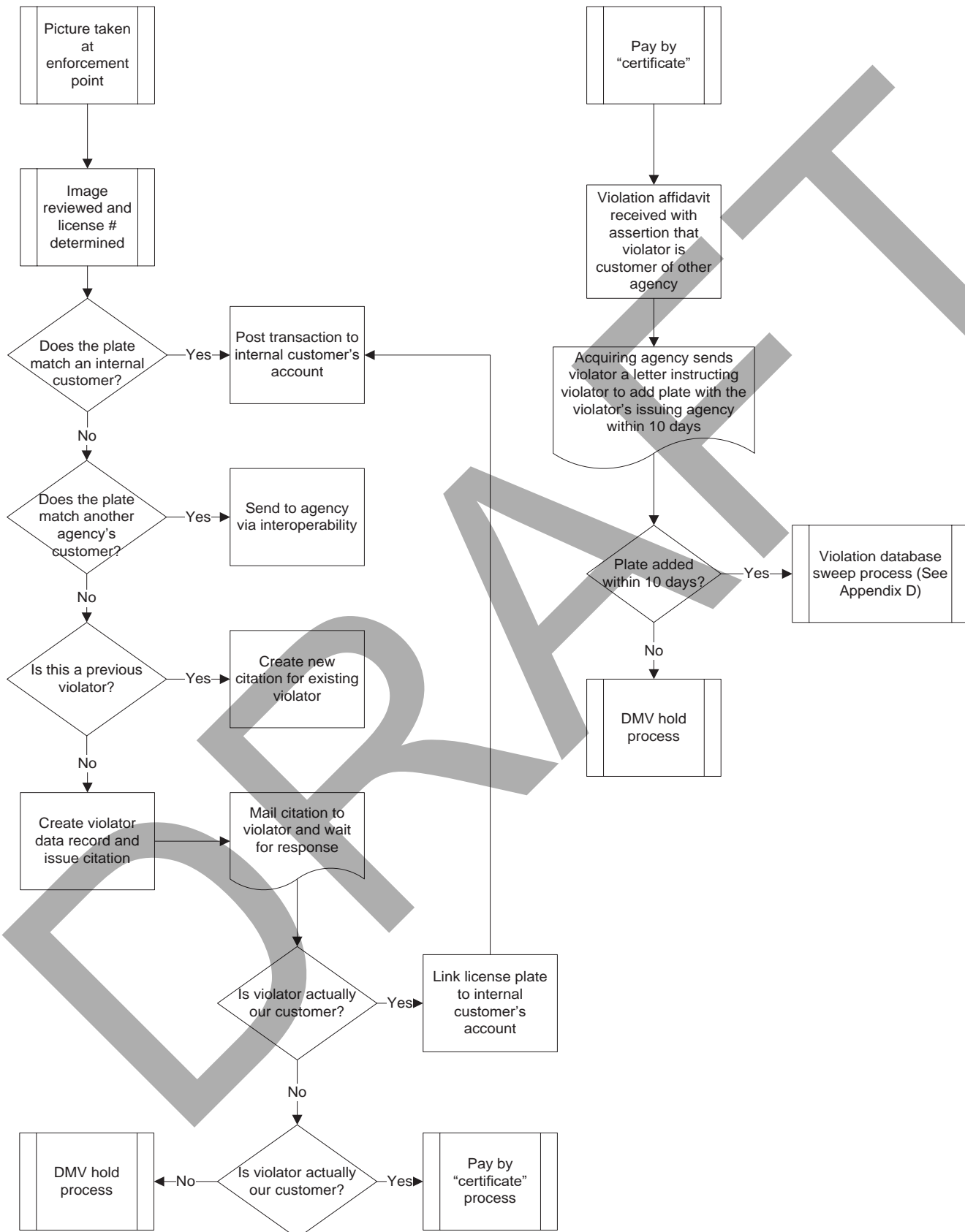
APPENDIX D: LICENSE PLATE DATE LOGIC

License Plate Date Logic



APPENDIX E: VIOLATION ENFORCEMENT VIA PLATE READS

Violation Enforcement via Plate Reads



APPENDIX F: CALIFORNIA 6C ELECTRONIC TOLL COLLECTION STANDARD



California-6C-Protocol-Application-Standard.pdf

DRAFT

Attachment E: Estimated Volumes

The volumes provided are estimates based on the best available information and are not guaranteed to be accurate. The Offeror's experience will differ based on the Offeror's approach to the Scope of Work, the implementation of a new BOS, potential changes in CSC Operations, etc.

Table E-1: Estimated Volumes

ID	ITEM	OCTA	RCTC	91EL Combined
Transactions/Trips				
A1	Average Monthly Toll Revenue	\$ 3,991,000.00	\$ 4,029,000.00	
A2	Average Monthly Violation Revenue	\$ 823,000.00	\$ 920,000.00	
A1	Monthly Average Transponder-Based Home Account Trips	444,000	360,000	
A2	Monthly Average Transponder-Based CTOC Away Agency Trips	559,000	536,000	
A3	Monthly Average Image-Based Trips that are posted to a Home Account before being eligible for mailing of Violation Notice	120,000	79,000	
A4	Monthly Average Image-Based Trips that sent to CTOC Away Agency before being eligible for mailing of Violation Notice	218,000	168,000	
A5	Monthly Average Violations Trips eligible for mailing of a Violation Notice	25,000	30,000	
A6	Total Average Monthly Trips (should be close to total of above)	1,437,000	1,290,000	
A7	Monthly Average HOV Eligible Trips	378,000	328,000	
Revenue				
B1	Average Monthly Toll Revenue	\$ 3,991,000.00	\$ 4,029,000.00	
B2	Average Monthly Violation Revenue	\$ 823,000.00	\$ 920,000.00	
B3	Average Monthly Account Fee Revenue	\$ 232,000.00	\$ 232,000.00	
Violations and Registration Hold				
C1	Monthly average Notice of Toll Evasion Violation mailed in-state	44,200	46,100	
C2	Monthly average Notice of Toll Evasion Violation mailed out-of-state	4,600	5,100	
C3	Monthly average Notice of Delinquent Toll Evasion Violation mailed in-state	21,500	23,100	
C4	Monthly average Notice of Delinquent Toll Evasion Violation mailed out-of-state	1,900	2,300	
C5	Nixies returned			14,000
Average Monthly CA Registration Holds Placed		Currently Not Utilizing		
Transponder Data				
D1	Monthly Average of Total Transponders Issued (by channel)			4,500
D2	Requested at Corona WIC			530
D3	Requested at OCTA Store WIC (Staffed by OCTA)			150
D4	Requested via Phone			2,800
D5	Requested via Mail			250
D6	Requested via Website			810
D7	Monthly Average Transponder Swaps			1,100
D8	Monthly Average Transponders Returned (not including swaps)			620
D9	Total Active Transponders			215,000
Account Data				
E1	Monthly Average Accounts Opened by Channel			1,500
E2	Opened via Corona WIC			400
E3	Opened via OCTA Store WIC (Staffed by OCTA)			60
E4	Opened via Phone			700
E5	Opened via Mail			130
E6	Opened via Website			550
E7	Monthly Average Accounts Opened by Type			1,500
E8	New Business Accounts			70
E9	New Personal Accounts			1,400
E10	New Non-Revenue Accounts			0
E11	Total Current Active Accounts			142,000
E12	Personal			135,000
E13	Business			6,600
E14	Non-Revenue			8
E15	Average Monthly Accounts Closed			500

RFP 9-1177
Exhibit B
Attachment B

ID	ITEM	OCTA	RCTC	91EL Combined
Customer Service Activity				
F1	Monthly Average Calls Handled by Call Type			47,700
F2	Customer Service			4,700
F3	Exsting Accounts			13,100
F4	New Accounts			2,400
F5	Violations			8,200
F6	Monthly Average CSR Handled Calls			28,200
F7	Calls by Time of Day			29,960
F8	8AM			3,280
F9	9AM			3,420
F10	10AM			3,440
F11	11AM			3,270
F12	12PM			3,180
F13	1PM			3,130
F14	2PM			3,250
F15	3PM			3,520
F16	4PM			3,460
F17	5PM			55
F18	Monthly Average Calls Handled Completely by IVR			19,260
F19	Monthly Average Spanish Speaker Calls		Not Tracked	
Payment Data				
Monthly Average Customer Account Replenishments by Payment Type				
G1	Credit Card (average number of payments)			73,800
G2	Credit Card (\$ amount)			\$ 4,912,000.00
G3	Credit Card by mail (average number of payments)			360
G4	Credit Card by mail (\$ amount)			\$ 22,000.00
G5	Credit Card by Corona WIC (average number of payments)			4,100
G6	Credit Card by Corona WIC (\$ amount)			\$ 271,000.00
G7	Credit Card by OCTA Store WIC (average number of payments)			91
G8	Credit Card by OCTA Store WIC (\$ amount)			\$ 4,800.00
G9	ACH (average number of payments)		Currently Not Utilizing	
G10	ACH (\$ amount)		Currently Not Utilizing	
G11	Checks by mail (average number of payments)			400
G12	Checks by mail (\$ amount)			\$ 44,800.00
G13	Checks by Corona WIC (average number of payments)			55
G14	Checks by Corona WIC (\$ amount)			\$ 30,900.00
G15	Checks by OCTA Store WIC (average number of payments)			5
G16	Checks by OCTA Store WIC (\$ amount)			\$ 2,400.00
G17	Cash by mail (average number of payments)			5
G18	Cash by mail (\$ amount)			\$ 400.00
G19	Cash by Corona WIC (average number of payments)			77
G20	Cash by Corona WIC (\$ amount)			\$ 6,300.00
G21	Cash by OCTA Store WIC (average number of payments)			13
G22	Cash by OCTA Store WIC (\$ amount)			\$ 750.00
Monthly Average Number of Customer Account Replenishments by Payment Channel				
H1	Mail			760
H2	Corona WIC/CSC			4,300
H3	OCTA Store WIC			110
H4	Automatic via account			63,100
H5	Website one time			5,500
H6	IVR			568

RFP 9-1177
Exhibit B
Attachment B

ID	ITEM	OCTA	RCTC	91EL Combined
Monthly Average Violation Payments by Type				
I1	Credit Card (average number of payments)	6,300	10,300	
I2	Credit Card (\$ amount)	\$ 165,000.00	\$ 261,000.00	
I3	Credit Card by mail (average number of payments)	190	330	
I4	Credit Card by mail (\$ amount)	\$ 4,500.00	\$ 7,600.00	
I5	Credit Card by Corona WIC (average number of payments)	1,600	2,700	
I6	Credit Card by Corona WIC (\$ amount)	\$ 31,000.00	\$ 44,000.00	
I7	Credit Card by OCTA Store WIC (average number of payments)	8	7	
I8	Credit Card by OCTA Store WIC (\$ amount)	\$ 168.97	\$ 173.43	
I9	ACH (average number of payments)	Currently Not Utilizing		
I10	ACH (\$ amount)	Currently Not Utilizing		
I11	Checks by mail (average number of payments)	2,300	2,500	
I12	Checks by mail (\$ amount)	\$ 528,000.00	\$ 450,000.00	
I13	Checks by Corona WIC (average number of payments)	1	1	
I14	Checks by Corona WIC (\$ amount)	\$ 65.00	\$ 18.00	
I15	Checks by OCTA Store WIC (average number of payments)	0	0	
I16	Checks by OCTA Store WIC (\$ amount)	\$ 14.00	\$ 5.00	
I17	Cash by mail (average number of payments)	2	2	
I18	Cash by mail (\$ amount)	\$ 28.00	\$ 62.00	
I19	Cash by Corona WIC (average number of payments)	3	6	
I20	Cash by Corona WIC (\$ amount)	\$ 200.00	\$ 170.00	
I21	Cash by OCTA Store WIC (average number of payments)	2	5	
I22	Cash by OCTA Store WIC (\$ amount)	\$ 150.00	\$ 280.00	
Monthly Average Violation Payments by Channel				
J1	Mail	2,500	2,800	
J2	Corona WIC/CSC	1,600	2,700	
J3	OCTA Store WIC	10	12	
J4	Website	4,500	7,200	
J5	Payment Amount	\$ 130,000.00	\$ 209,000.00	
J6	IVR	Currently Not Utilizing		
Refunds by Type				
K1	Credit Card (average monthly number of refunds)			310
K2	Credit Card Average Monthly Total Dollars Refunded			\$ 12,000.00
K3	Check (average monthly number of refunds)			230
K4	Check Average Total Monthly Dollars Refunded			\$ 12,000.00
Average Monthly Walk-in Center Counts				
L1	Visitors to OCTA Store			330
L2	Visitors to Corona			1,200

RFP 9-1177
Exhibit B
Attachment B

ID	ITEM	OCTA	RCTC	91EL Combined
Average Monthly Correspondence (non violation)				
M1	Incoming Mail Pieces			790
M2	Incoming Emails			2,900
M3	Incoming Fax			1,400
M4	Outgoing Mail (account statements)			22,300
M5	Outgoing Mail (account related, non statements)			15,500
M6	Outgoing Mail (transponders)			3,000
M7	Outgoing Mail (total)			40,700
M8	Outgoing Email			53,700
M9	Customer Service Emails			2,900
M10	Enotifications			31,900
M11	Estatements			19,000
M12	Eblasts			2
M13	Nixies returned			760
M14	Total Voice Broadcast			10,100
M15	Successful			9,000
M16	Attempted			1,200
Average Monthly Postage				
N1	Violation postage	\$ 30,000.00	\$ 32,000.00	
N2	Other postage			\$ 22,000.00
Average Monthly Self-Service Website Use				
O1	Monthly Average Self-Service Website Functions			37,400
O2	Credit Card Payments			5,500
O3	Violation Payments			11,600
O4	Credit Card Updates			5,200
O5	Contact Phone Updates			560
O6	Contact Email Updates			220
O7	Plan Changes			36
O8	Customer Contacts Additions			230
O9	Deactivate Vehicles			3,600
O10	Update Vehicle Details			870
O11	Add Vehicles			3,500
O12	Request Additional Transponders			130
O13	Request Replacement Transponders			44
O14	Report Lost Transponders			730
O15	Update Customer Address			690
O16	Reset/Change Password			3,300
O17	Add Security Questions			490
O18	Update Security Questions			180
O19	Update PIN			89
O20	Request Account Closure			110
O21	Request UserName Credentials			560
Average Monthly Reviews and Court Appearances				
P1	Violation Investigative Reviews	900	710	
P2	Administrative Review Hearings	7	6	
Average Monthly Collections Activity				
Q1	Number of collections placements per month	16,000	17,400	
Q2	Value of collections placed	\$ 1,332,000.00	\$ 1,459,000.00	

Attachment F: Sample OCTA/RCTC Reports

Sample Monthly Status Report

Note: Some data has been redacted

Attached is the 91 Express Lanes Monthly Status Report for November 2018; OCTA and RCTC Fiscal Year 2018-19

The following information is provided in this report:

1. EXECUTIVE SUMMARY

- 1.1a OCTA
- 1.1b RCTC

2. OPERATIONS

2.1 OCTA Traffic and Revenue

- 2.1a Current Month-to-Date as of November 30, 2018
- 2.1b Fiscal Year 2018-19 To-Date as of November 30, 2018
- 2.1c Weekday Peak-hour Volume for November 2018
- 2.1d Violation Collection

2.2 RCTC Traffic and Revenue

- 2.2a Current Month-to-Date as of November 30, 2018
- 2.2b Fiscal Year 2018-19 To-Date as of November 30, 2018
- 2.2c Eastbound Peak-hour Volume for November 2018
- 2.2d Westbound Peak-hour Volume for November 2018
- 2.2e Violation Collection

2.3 Multi Agency Trip and Revenue Statistics

2.4 Customer Service and Violation Processing

- 2.4a Performance Measures
- 2.4b Incoming Call Activity
- 2.4c Transponder Distribution
- 2.4d Transponder Inventory
- 2.4e Incoming Email Activity
- 2.4f Congestion-related Complaints

2.5 Operations Highlights

- 2.5a On-road Operations
- 2.5b Caltrans Projects in 91 Corridor
- 2.5c IT
- 2.5d ETTM
- 2.5e Finance and Administration

3. PROJECTS UPDATE

- 3.1 Telephone System
- 3.2 Camera System

4. STAFFING

5. ATTACHMENTS

- OCTA
- RCTC
- Combined Agencies

91 EXPRESS LANES MONTHLY STATUS REPORT

November 2018

OCTA/RCTC FISCAL YEAR 2018-19

1. EXECUTIVE SUMMARY

1.1a OCTA

The 2018-19 fiscal year-to-date traffic volume is 6.5% higher than the same period last year. The 2018-19 fiscal year-to-date potential revenue is 6.5% higher than the same period last year.

During November 2018, peak-hour eastbound traffic volumes met or exceeded 90% of defined capacity 19 times, with Friday, November 30th during the 2:00 p.m. hour having the highest volume at 103% as reflected in Chart 2.1c. As demonstrated in the same chart, westbound peak-hour traffic volumes top out at 78% of defined capacity. Average revenue per-trip for the month of November 2018 is \$3.01.

1.1b RCTC

The 2018-19 fiscal year-to-date traffic volume is 6.0% higher than the same period last year. The 2018-19 fiscal year-to-date potential revenue is 25.4% higher than the same period last year.

During November 2018, peak-hour eastbound traffic volumes exceeded the current level of service 75 times and are potentially available for a toll increase as seen in Chart 2.2c. As demonstrated in Chart 2.2d, westbound peak-hour traffic volumes met or exceeded the level of service 69 times and are potentially available for a toll increase. Average revenue per-trip for the month of November 2018 is \$3.62.

2. OPERATIONS

2.1 OCTA – Traffic and Revenue

Total traffic volume on the 91 Express Lanes for November 2018 was 1,415,344; this represents a 30-day average of 47,178 vehicles per day and a 6.0% decrease from the previous month's total traffic volume of 1,505,256. Potential toll revenue for November was \$4,255,226. This represents a 30-day average of \$141,841 and a 6.6% decrease from the previous month's potential revenue of \$4,557,905. Carpool percentage for November was 26.6%, which is up from the previous month's rate of 24.6%.

Month-to-date and year-to-date traffic and revenue data are summarized in the tables below.

The following trip and revenue statistics tables represent all trips taken on the 91 Express Lanes and associated potential revenue.

2.1a OCTA Current Month-to-Date as of November 30, 2018

(FY 2018-19 data is for the corresponding month in that fiscal year.)

Trips	Nov-18 MTD Actual	Stantec MTD Projected	# Variance	% Variance	Nov-17 MTD Actual	Yr-to-Yr % Variance
Full Toll Lanes	1,038,190	1,062,440	(24,250)	(2.3%)	1,003,409	3.5%
3+ Lanes	377,154	320,996	56,158	17.5%	338,015	11.6%
Total Gross Trips	1,415,344	1,383,436	31,908	2.3%	1,341,424	5.5%
Revenue						
Full Toll Lanes	\$4,186,694	\$4,254,542	(\$67,848)	(1.6%)	\$3,962,952	5.6%
3+ Lanes	\$68,532	\$81,164	(\$3,742)	(4.6%)	\$66,471	16.5%
Total Gross Revenue	\$4,255,226	\$4,335,707	(\$71,590)	(1.7%)	\$4,029,424	5.8%
Average Revenue per Trip						
Average Full Toll Lanes	\$4.03	\$4.00	\$0.03	0.7%	\$3.95	2.1%
Average 3+ Lanes	\$0.21	\$0.25	(\$0.05)	(18.8%)	\$0.20	4.4%
Average Gross Revenue	\$3.01	\$3.13	(\$0.12)	(3.9%)	\$3.00	0.3%

Refer to Attachment A1 for Traffic and Potential Revenue 13-month history.

2.1b OCTA Fiscal Year 2018-19 to-Date as of November 30, 2018

(FY 2018-19 data is for the period July 1, 2018 through November 30, 2018; FY 2017-18 data is for the corresponding period in that fiscal year.)

Trips	FY 2018-19 YTD Actual	Stantec YTD Projected	# Variance	% Variance	FY 2017-18 YTD Actual	Yr-to-Yr % Variance
Full Toll Lanes	5,453,910	5,531,356	(77,446)	(1.4%)	5,218,436	4.5%
3+ Lanes	1,934,417	1,677,904	256,513	15.3%	1,717,624	12.6%
Total Gross Trips	7,388,327	7,209,260	179,067	2.5%	6,936,060	6.5%
Revenue						
Full Toll Lanes	\$21,611,559	\$22,008,223	(\$87,630)	(0.4%)	\$20,297,571	6.5%
3+ Lanes	\$374,259	\$419,779	(\$9,724)	(2.3%)	\$355,554	5.3%
Total Gross Revenue	\$21,985,819	\$22,428,001	(\$97,354)	(0.4%)	\$20,653,125	6.5%
Average Revenue per Trip						
Average Full Toll Lanes	\$3.96	\$3.98	(\$0.02)	(0.4%)	\$3.89	1.9%
Average 3+ Lanes	\$0.19	\$0.25	(\$0.06)	(22.7%)	\$0.21	(6.5%)
Average Gross Revenue	\$2.98	\$3.11	(\$0.14)	(4.3%)	\$2.98	(0.1%)

91 Express Lanes November 2018 Status Report
Issued December 14, 2018

2.1c OCTA Weekday Peak Volume for the Month of November 2018

EASTBOUND PEAK-HOUR VOLUMES

PM Time	Monday 10/29/18				Tuesday 10/30/18				Wednesday 10/31/18				Thursday 11/01/18				Friday 11/02/18			
	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.
1400 - 1500													\$5.20	438	3,307	97%	\$5.35	533	3,395	100%
1500 - 1600													\$6.00	693	3,455	102%	\$9.65	733	2,841	84%
1600 - 1700													\$9.30	477	2,610	77%	\$9.45	493	2,735	80%
1700 - 1800													\$9.20	537	2,833	83%	\$6.90	547	2,896	85%
1800 - 1900													\$4.75	693	2,848	84%	\$6.40	755	2,946	87%
1900 - 2000													\$5.50	622	2,293	67%	\$5.95	692	2,388	70%

PM Time	Monday 11/05/18				Tuesday 11/06/18				Wednesday 11/07/18				Thursday 11/08/18				Friday 11/09/18			
	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.
1400 - 1500	\$5.05	421	2,650	78%	\$5.05	432	3,030	89%	\$5.05	451	2,971	87%	\$5.20	464	3,234	95%	\$5.35	501	3,309	97%
1500 - 1600	\$5.40	664	3,077	91%	\$5.65	651	2,855	84%	\$6.25	639	3,276	96%	\$6.00	624	2,953	87%	\$9.65	675	2,606	77%
1600 - 1700	\$5.25	486	2,946	87%	\$5.50	445	2,939	86%	\$6.75	491	2,831	83%	\$9.30	462	2,473	73%	\$9.45	499	2,757	81%
1700 - 1800	\$5.20	621	3,165	93%	\$5.40	543	2,879	85%	\$6.90	504	2,519	74%	\$9.20	579	2,824	83%	\$6.90	619	2,856	84%
1800 - 1900	\$5.40	714	2,832	83%	\$3.85	735	3,102	91%	\$3.85	588	2,532	74%	\$4.75	702	2,787	82%	\$6.40	774	2,826	83%
1900 - 2000	\$3.75	517	2,041	60%	\$3.75	629	2,495	73%	\$3.75	407	1,590	47%	\$5.50	719	2,729	80%	\$5.95	656	2,246	66%

PM Time	Monday 11/12/18				Tuesday 11/13/18				Wednesday 11/14/18				Thursday 11/15/18				Friday 11/16/18			
	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.
1400 - 1500	\$5.05	480	2,135	63%	\$5.05	432	2,814	83%	\$5.05	438	2,861	84%	\$5.20	454	3,224	95%	\$5.35	519	3,403	100%
1500 - 1600	\$5.40	669	2,789	82%	\$5.65	647	2,803	82%	\$6.25	616	3,095	91%	\$6.00	637	3,269	96%	\$9.65	692	2,669	79%
1600 - 1700	\$5.25	483	2,504	74%	\$5.50	450	2,856	84%	\$6.75	438	2,728	80%	\$9.30	446	2,524	74%	\$9.45	464	2,674	79%
1700 - 1800	\$5.20	590	2,491	73%	\$5.40	607	3,010	89%	\$6.90	490	2,592	76%	\$9.20	609	2,814	83%	\$6.90	564	2,806	83%
1800 - 1900	\$5.40	590	1,953	57%	\$3.85	710	3,035	89%	\$3.85	719	3,176	93%	\$4.75	704	2,976	88%	\$6.40	750	2,788	82%
1900 - 2000	\$3.75	467	1,417	42%	\$3.75	552	2,198	65%	\$3.75	641	2,515	74%	\$5.50	604	2,387	70%	\$5.95	734	2,581	76%

PM Time	Monday 11/19/18				Tuesday 11/20/18				Wednesday 11/21/18				Thursday 11/22/18				Friday 11/23/18			
	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.
1400 - 1500	\$5.05	507	2,782	82%	\$5.05	613	3,166	93%	\$7.30	615	3,241	95%	\$5.20	748	1,809	53%	\$4.85	460	1,371	40%
1500 - 1600	\$5.40	660	2,981	88%	\$5.65	541	2,306	68%	\$8.35	619	2,676	79%	\$4.85	646	1,587	47%	\$4.85	449	1,319	39%
1600 - 1700	\$5.25	501	2,828	83%	\$5.50	516	2,758	81%	\$8.35	610	2,631	77%	\$4.85	693	1,549	46%	\$4.85	446	1,246	37%
1700 - 1800	\$5.20	589	2,873	85%	\$5.40	624	2,838	83%	\$8.35	646	2,479	73%	\$4.85	758	1,671	49%	\$4.85	423	1,154	34%
1800 - 1900	\$5.40	707	2,758	81%	\$3.85	705	2,851	84%	\$5.90	578	1,970	58%	\$5.20	742	1,522	45%	\$4.85	411	968	28%
1900 - 2000	\$3.75	582	1,998	59%	\$3.75	704	2,500	74%	\$5.65	525	1,617	48%	\$5.20	917	1,732	51%	\$4.85	386	835	25%

PM Time	Monday 11/26/18				Tuesday 11/27/18				Wednesday 11/28/18				Thursday 11/29/18				Friday 11/30/18			
	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.
1400 - 1500	\$5.05	446	2,649	78%	\$5.05	439	2,955	87%	\$5.05	449	2,828	83%	\$5.20	382	2,755	81%	\$5.35	555	3,508	103%
1500 - 1600	\$5.40	646	3,037	89%	\$5.65	690	2,856	84%	\$6.25	687	3,246	95%	\$6.00	596	2,992	88%	\$9.65	697	2,643	78%
1600 - 1700	\$5.25	471	2,860	84%	\$5.50	463	2,960	87%	\$6.75	528	3,053	90%	\$9.30	381	2,236	66%	\$9.45	434	2,672	79%
1700 - 1800	\$5.20	609	2,910	86%	\$5.40	594	3,003	88%	\$6.90	530	2,666	78%	\$9.20	487	2,274	67%	\$6.90	620	2,844	84%
1800 - 1900	\$5.40	689	2,786	82%	\$3.85	713	2,962	87%	\$3.85	671	2,941	87%	\$4.75	623	2,542	75%	\$6.40	708	2,837	83%
1900 - 2000	\$3.75	447	1,732	51%	\$3.75	573	2,275	67%	\$3.75	716	2,797	82%	\$5.50	445	1,702	50%	\$5.95	659	2,263	67%

Refer to Attachment A3 for a history of Eastbound Weekday Peak-hour Volumes

91 Express Lanes November 2018 Status Report
Issued December 14, 2018

WESTBOUND PEAK-HOUR VOLUMES

AM Time	Monday 10/29/18				Tuesday 10/30/18				Wednesday 10/31/18				Thursday 11/01/18				Friday 11/02/18			
	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.
0400 - 0500													\$3.00	755	2,357	69%	\$3.00	678	1,960	58%
0500 - 0600													\$4.85	824	2,382	70%	\$4.60	739	2,419	71%
0600 - 0700													\$5.05	645	2,069	61%	\$4.85	602	1,924	57%
0700 - 0800													\$5.55	481	2,098	62%	\$5.40	452	1,830	54%
0800 - 0900													\$5.05	306	1,864	55%	\$4.85	308	1,709	50%
0900 - 1000													\$4.00	290	2,193	65%	\$4.00	294	1,601	47%

AM Time	Monday 11/05/18				Tuesday 11/06/18				Wednesday 11/07/18				Thursday 11/08/18				Friday 11/09/18			
	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.
0400 - 0500	\$3.00	740	2,276	67%	\$3.00	792	2,470	73%	\$3.00	734	2,358	69%	\$3.00	746	2,281	67%	\$3.00	668	2,031	60%
0500 - 0600	\$4.85	881	2,464	72%	\$4.85	867	2,508	74%	\$4.85	845	2,376	70%	\$4.85	833	2,405	71%	\$4.60	774	2,379	70%
0600 - 0700	\$5.05	587	2,018	59%	\$5.05	596	2,174	64%	\$5.05	641	2,064	61%	\$5.05	697	2,174	64%	\$4.85	628	2,028	60%
0700 - 0800	\$5.55	512	2,186	64%	\$5.55	492	2,202	65%	\$5.55	506	2,262	67%	\$5.55	525	2,378	70%	\$5.40	427	1,794	53%
0800 - 0900	\$5.05	347	2,160	64%	\$5.05	325	2,138	63%	\$5.05	311	1,950	57%	\$5.05	322	2,038	60%	\$4.85	326	1,780	52%
0900 - 1000	\$4.00	314	2,096	62%	\$4.00	287	2,242	66%	\$4.00	301	2,040	60%	\$4.00	284	2,124	62%	\$4.00	274	1,601	47%

AM Time	Monday 11/12/18				Tuesday 11/13/18				Wednesday 11/14/18				Thursday 11/15/18				Friday 11/16/18			
	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.
0400 - 0500	\$3.00	475	1,463	43%	\$3.00	782	2,399	71%	\$3.00	798	2,447	72%	\$3.00	795	2,391	70%	\$3.00	709	1,981	58%
0500 - 0600	\$4.85	525	1,579	46%	\$4.85	891	2,497	73%	\$4.85	816	2,377	70%	\$4.85	855	2,536	75%	\$4.60	763	2,467	73%
0600 - 0700	\$5.05	331	1,246	37%	\$5.05	617	2,052	60%	\$5.05	636	2,166	64%	\$5.05	588	2,133	63%	\$4.85	585	1,959	58%
0700 - 0800	\$5.55	292	1,207	36%	\$5.55	514	2,146	63%	\$5.55	471	2,193	65%	\$5.55	502	2,167	64%	\$5.40	406	1,803	53%
0800 - 0900	\$5.05	283	1,245	37%	\$5.05	332	2,149	63%	\$5.05	322	1,941	57%	\$5.05	372	2,027	60%	\$4.85	312	1,734	51%
0900 - 1000	\$4.00	453	1,944	57%	\$4.00	326	2,158	63%	\$4.00	287	1,961	58%	\$4.00	319	2,135	63%	\$4.00	280	1,731	51%

AM Time	Monday 11/19/18				Tuesday 11/20/18				Wednesday 11/21/18				Thursday 11/22/18				Friday 11/23/18			
	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.
0400 - 0500	\$3.00	774	2,493	73%	\$3.00	766	2,377	70%	\$3.00	722	1,959	58%	\$1.65	56	110	3%	\$1.65	92	219	6%
0500 - 0600	\$4.85	853	2,479	73%	\$4.85	904	2,551	75%	\$5.05	785	2,356	69%	\$1.65	54	147	4%	\$1.65	133	362	11%
0600 - 0700	\$5.05	525	2,021	59%	\$5.05	479	1,895	56%	\$5.20	450	1,826	54%	\$1.65	49	159	5%	\$2.45	135	434	13%
0700 - 0800	\$5.55	456	2,037	60%	\$5.55	429	1,849	54%	\$5.65	401	1,595	47%	\$1.65	84	240	7%	\$3.00	131	457	13%
0800 - 0900	\$5.05	422	2,121	62%	\$5.05	407	1,938	57%	\$5.65	337	1,662	49%	\$1.65	154	403	12%	\$3.00	156	614	18%
0900 - 1000	\$4.00	425	2,082	61%	\$4.00	401	2,041	60%	\$5.20	355	1,403	41%	\$2.45	320	701	21%	\$3.75	331	953	28%

AM Time	Monday 11/26/18				Tuesday 11/27/18				Wednesday 11/28/18				Thursday 11/29/18				Friday 11/30/18			
	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.
0400 - 0500	\$3.00	838	2,577	76%	\$3.00	796	2,418	71%	\$3.00	787	2,470	73%	\$3.00	752	2,329	69%	\$3.00	698	2,031	60%
0500 - 0600	\$4.85	895	2,522	74%	\$4.85	975	2,635	78%	\$4.85	844	2,408	71%	\$4.85	793	2,391	70%	\$4.60	766	2,363	70%
0600 - 0700	\$5.05	597	2,056	60%	\$5.05	575	1,999	59%	\$5.05	630	2,097	62%	\$5.05	590	1,989	59%	\$4.85	591	1,919	56%
0700 - 0800	\$5.55	453	1,960	58%	\$5.55	500	2,149	63%	\$5.55	510	2,205	65%	\$5.55	428	1,859	55%	\$5.40	412	1,805	53%
0800 - 0900	\$5.05	360	2,007	59%	\$5.05	346	2,229	66%	\$5.05	371	2,146	63%	\$5.05	307	1,874	55%	\$4.85	311	1,867	55%
0900 - 1000	\$4.00	314	1,974	58%	\$4.00	305	2,149	63%	\$4.00	290	2,199	65%	\$4.00	273	1,839	54%	\$4.00	261	1,611	47%

2.1d OCTA Violation Collection

“Customers” are FasTrak account holders with any FasTrak toll facility in California; “Non-customer Violations” are considered true violators who travel the 91 Express Lanes without a valid FasTrak account.

COLLECTION EFFORTS	November-18		Q2 To-Date		FY 2018-19 To-Date	
	Records	Recovered	Records	Recovered	Records	Recovered
COFIROUTE RECOVERED						
Customer Violations	20,056	78,270	44,513	167,769	112,393	421,412
Non-customer Violations	7,518	203,323	16,344	439,525	43,582	1,160,477
Cofiroute Collection Totals:	27,574	\$ 281,593	60,857	\$ 607,294	155,975	\$ 1,581,889
COLLECTION AGENCY RECOVERED						
Unresolved Customer Acct Collections	71	5,143	122	8,949	289	21,952
Unresolved Non-customer Violations	1,556	136,566	3,049	271,506	6,451	566,011
Judgments	147	20,889	282	41,810	698	94,216
*Tax Intercept	107	13,086	597	69,353	1,229	146,282
*Lottery Intercept	16	913	52	3,124	92	6,664
Collection Agency Totals:	1,897	\$ 176,597	4,102	\$ 394,742	8,759	835,125
TOTAL COLLECTION:	29,471	\$ 458,190	64,959	\$ 1,002,036	164,734	\$ 2,417,014

*Note: Data is based on activity month when collected. Additional data may be received after the date of this report.

2.2 RCTC – Traffic and Revenue

Total traffic volume on the 91 Express Lanes for November 2018 was 1,226,885; this represents a 30-day average of 40,896 vehicles per day and a 6.5% decrease from the previous month's total traffic volume of 1,311,938. Potential toll revenue for November was \$4,440,392. This represents a 30-day average of \$148,013 and a 9.6% decrease from the previous month's potential revenue of \$4,913,634. Carpool percentage for November was 24.4%, which is up from the previous month's rate of 22.7%.

Month-to-date and year-to-date traffic and revenue data are summarized in the tables below.

The following trip and revenue statistics tables represent all trips taken on the 91 Express Lanes and associated potential revenue.

2.2a RCTC Current Month-to-Date as of November 30, 2018

(FY 2018-19 data is for the corresponding month in that fiscal year.)

	NOV-18 MTD Actual	Stantec MTD Projected	# Variance	% Variance	Nov-17 MTD Actual	Yr-to-Yr % Variance
Trips						
Full Toll Lanes	927,903	624,457	303,446	48.6%	915,744	1.3%
3+ Lanes	298,982	226,329	72,653	32.1%	258,159	15.8%
Total Gross Trips	1,226,885	850,786	376,099	44.2%	1,173,903	4.5%
Revenue						
Full Toll Lanes	\$4,408,880	\$1,856,172	\$2,552,708	137.5%	\$3,701,519	19.1%
3+ Lanes	\$31,512	\$0	\$31,512		\$28,277	11.4%
Total Gross Revenue	\$4,440,392	\$1,856,172	\$2,584,220	139.2%	\$3,729,796	19.1%
Average Revenue per Trip						
Average Full Toll Lanes	\$4.75	\$2.97	\$1.78	59.9%	\$4.04	17.6%
Average 3+ Lanes	\$0.11	\$0.00	\$0.11		\$0.11	0.0%
Average Gross Revenue	\$3.62	\$2.18	\$1.44	66.1%	\$3.18	13.8%

Refer to Attachment B1 for Traffic and Potential Revenue history.

2.2b RCTC Fiscal Year 2018-19 to-Date as of November 30, 2018

(FY 2018-19 data is for the period July 1, 2018 through November 30, 2018; FY 2017-18 data is for the corresponding period in that fiscal year.)

	FY 2018-19 YTD Actual	Stantec YTD Projected	# Variance	% Variance	FY 2017-18 YTD Actual	Yr-to-Yr % Variance
Trips						
Full Toll Lanes	4,886,478	3,116,014	1,770,464	56.8%	4,772,629	2.4%
3+ Lanes	1,541,321	1,084,343	456,978	42.1%	1,293,049	19.2%
Total Gross Trips	6,427,799	4,200,357	2,227,442	53.0%	6,065,678	6.0%
Revenue						
Full Toll Lanes	\$22,910,249	\$9,342,729	\$13,567,520	145.2%	\$18,257,926	25.5%
3+ Lanes	\$174,164	\$0	\$174,164		\$153,280	13.6%
Total Gross Revenue	\$23,084,413	\$9,342,729	\$13,741,684	147.1%	\$18,411,206	25.4%
Average Revenue per Trip						
Average Full Toll Lanes	\$4.69	\$3.00	\$1.69	56.3%	\$3.83	22.5%
Average 3+ Lanes	\$0.11	\$0.00	\$0.11		\$0.12	(8.3%)
Average Gross Revenue	\$3.59	\$2.22	\$1.37	61.7%	\$3.04	18.1%

91 Express Lanes November 2018 Status Report
Issued December 14, 2018

2.2c RCTC Eastbound Peak-hour Volume for November 2018

Refer to Attachment B3.1 and B3.2 for a history of Eastbound Peak-hour Volumes.

Eastbound PM Peak - County Line to McKinley

PM Time	Monday 10/29/18					Tuesday 10/30/18					Wednesday 10/31/18					Thursday 11/01/18					Friday 11/02/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
1400 - 1500																\$7.55	229	1,269	1,498	E	\$16.40	332	1,197	1,529	E
1500 - 1600																\$9.60	341	1,016	1,357	D	\$16.40	364	934	1,298	D
1600 - 1700																\$8.55	196	786	982	C	\$11.40	233	901	1,134	C
1700 - 1800																\$3.95	248	923	1,171	C	\$7.40	246	973	1,219	D
1800 - 1900																\$3.95	304	888	1,192	C	\$5.05	311	958	1,269	D
1900 - 2000																\$4.05	274	691	965	C	\$3.95	333	879	1,212	D

PM Time	Monday 11/05/18					Tuesday 11/06/18					Wednesday 11/07/18					Thursday 11/08/18					Friday 11/09/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
1400 - 1500	\$4.05	240	1,012	1,252	E	\$5.15	227	1,093	1,320	F	\$5.15	259	1,139	1,398	F	\$7.55	256	1,275	1,531	F	\$16.40	321	1,196	1,517	F
1500 - 1600	\$5.05	358	982	1,340	F	\$5.15	362	892	1,254	E	\$6.55	330	994	1,324	F	\$9.60	372	975	1,347	F	\$16.40	351	944	1,295	E
1600 - 1700	\$4.05	224	911	1,135	D	\$4.05	193	921	1,114	D	\$3.95	240	970	1,210	E	\$8.55	224	942	1,166	D	\$11.40	258	1,019	1,277	E
1700 - 1800	\$4.05	229	882	1,111	D	\$4.05	250	865	1,115	D	\$3.95	211	783	994	C	\$3.95	244	945	1,189	D	\$7.40	267	953	1,220	E
1800 - 1900	\$4.05	292	754	1,046	D	\$4.05	318	857	1,175	D	\$3.95	273	796	1,069	D	\$3.95	311	934	1,245	E	\$5.05	369	954	1,323	F
1900 - 2000	\$2.20	220	571	791	B	\$4.05	254	690	944	C	\$3.95	253	677	930	C	\$4.05	315	850	1,165	D	\$3.95	322	859	1,181	D

PM Time	Monday 11/12/18					Tuesday 11/13/18					Wednesday 11/14/18					Thursday 11/15/18					Friday 11/16/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
1400 - 1500	\$4.05	252	803	1,055	D	\$5.15	227	946	1,173	D	\$5.15	260	1,099	1,359	F	\$7.55	267	1,186	1,453	F	\$17.70	311	1,193	1,504	F
1500 - 1600	\$5.05	329	876	1,205	E	\$5.15	348	916	1,264	E	\$6.55	337	993	1,330	F	\$9.60	327	1,019	1,346	F	\$17.70	367	916	1,283	E
1600 - 1700	\$4.05	219	858	1,077	D	\$4.05	206	946	1,152	D	\$3.95	213	928	1,141	D	\$8.55	211	853	1,064	D	\$11.40	237	891	1,128	D
1700 - 1800	\$4.05	289	728	1,017	D	\$4.05	257	854	1,111	D	\$3.95	220	894	1,114	D	\$3.95	265	895	1,160	D	\$6.70	261	980	1,241	E
1800 - 1900	\$4.05	278	585	863	C	\$4.05	289	914	1,203	E	\$3.95	298	962	1,260	E	\$3.95	384	1,218	1,602	F	\$6.70	342	899	1,241	E
1900 - 2000	\$2.20	207	428	635	B	\$4.05	224	658	882	C	\$3.95	270	778	1,048	D	\$4.05	250	680	930	C	\$5.15	310	936	1,246	E

PM Time	Monday 11/19/18					Tuesday 11/20/18					Wednesday 11/21/18					Thursday 11/22/18					Friday 11/23/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
1400 - 1500	\$4.05	288	1,122	1,410	F	\$5.15	331	1,194	1,525	F	\$13.65	615	2,366	2,981	F	\$4.05	393	766	1,159	D	\$4.05	233	510	743	B
1500 - 1600	\$5.05	373	981	1,354	F	\$5.15	311	932	1,243	E	\$10.60	446	2,228	2,674	F	\$4.05	313	617	930	C	\$2.20	192	462	654	B
1600 - 1700	\$4.05	258	964	1,222	E	\$4.05	264	1,011	1,275	E	\$8.55	751	2,352	3,103	F	\$4.05	352	638	990	C	\$2.20	216	404	620	B
1700 - 1800	\$4.05	273	852	1,125	D	\$4.05	334	971	1,305	F	\$6.70	760	2,213	2,973	F	\$4.05	351	588	939	C	\$2.20	180	352	532	B
1800 - 1900	\$4.05	296	804	1,100	D	\$4.05	329	920	1,249	E	\$4.05	418	1,044	1,462	F	\$4.05	349	498	847	C	\$2.20	174	260	434	B
1900 - 2000	\$2.20	271	688	959	C	\$4.05	328	792	1,120	D	\$4.05	232	541	773	B	\$4.05	400	529	929	C	\$1.50	166	216	382	A

PM Time	Monday 11/26/18					Tuesday 11/27/18					Wednesday 11/28/18					Thursday 11/29/18					Friday 11/30/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
1400 - 1500	\$4.05	227	1,006	1,233	E	\$5.15	225	1,046	1,271	E	\$5.15	257	1,090	1,347	F	\$7.55	205	1,034	1,239	E	\$17.70	291	1,163	1,454	F
1500 - 1600	\$5.05	307	892	1,199	D	\$5.15	346	903	1,249	E	\$6.55	375	1,007	1,382	F	\$9.60	290	862	1,152	D	\$17.70	358	869	1,227	E
1600 - 1700	\$4.05	222	842	1,064	D	\$4.05	199	930	1,129	D	\$3.95	230	974	1,204	E	\$8.55	148	748	896	C	\$11.40	195	939	1,134	D
1700 - 1800	\$4.05	242	801	1,043	D	\$4.05	240	898	1,138	D	\$3.95	239	852	1,091	D	\$3.95	186	676	862	C	\$6.70	275	897	1,172	D
1800 - 1900	\$4.05	293	705	998	C	\$4.05	272	859	1,131	D	\$3.95	279	887	1,166	D	\$3.95	236	762	998	C	\$6.70	347	866	1,213	E
1900 - 2000	\$2.20	184	510	694	B	\$4.05	216	669	885	C	\$3.95	286	841	1,127	D	\$4.05	190	547	737	B	\$5.15	294	773	1,067	D

91 Express Lanes November 2018 Status Report
Issued December 14, 2018

Eastbound PM Peak - County Line to I-15 South

PM Time	Monday 10/29/18					Tuesday 10/30/18					Wednesday 10/31/18					Thursday 11/01/18					Friday 11/02/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
1400 - 1500																\$5.05	114	777	891	C	\$5.15	129	784	913	C
1500 - 1600																\$5.15	184	696	880	C	\$2.80	163	582	745	B
1600 - 1700																\$2.80	118	590	708	B	\$2.85	121	562	683	B
1700 - 1800																\$2.85	125	581	706	B	\$2.85	127	586	713	B
1800 - 1900																\$2.85	144	538	682	B	\$2.85	180	556	736	B
1900 - 2000																\$2.85	145	466	611	B	\$2.85	160	399	559	B

PM Time	Monday 11/05/18					Tuesday 11/06/18					Wednesday 11/07/18					Thursday 11/08/18					Friday 11/09/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
1400 - 1500	\$2.85	104	649	753	B	\$5.15	108	731	839	C	\$5.05	118	714	832	C	\$5.05	122	791	913	C	\$5.15	135	738	873	C
1500 - 1600	\$2.85	180	674	854	C	\$2.80	150	605	755	B	\$5.15	156	650	806	C	\$5.15	140	668	808	C	\$2.80	171	574	745	B
1600 - 1700	\$2.85	106	645	751	B	\$2.85	119	595	714	B	\$2.85	122	633	755	B	\$2.80	129	551	680	B	\$2.85	104	571	675	B
1700 - 1800	\$2.85	140	614	754	B	\$2.85	118	547	665	B	\$2.85	119	511	630	B	\$2.85	142	590	732	B	\$2.85	133	543	676	B
1800 - 1900	\$2.85	154	508	662	B	\$2.85	153	601	754	B	\$2.85	132	491	623	B	\$2.85	142	561	703	B	\$2.85	171	493	664	B
1900 - 2000	\$2.85	116	361	477	B	\$2.85	143	532	675	B	\$2.85	157	454	611	B	\$2.85	170	562	732	B	\$2.85	159	449	608	B

PM Time	Monday 11/12/18					Tuesday 11/13/18					Wednesday 11/14/18					Thursday 11/15/18					Friday 11/16/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
1400 - 1500	\$2.85	145	502	647	B	\$5.15	116	638	754	B	\$5.05	103	658	761	B	\$5.05	117	806	923	C	\$5.15	141	754	895	C
1500 - 1600	\$2.85	192	609	801	C	\$2.80	152	603	755	B	\$5.15	157	635	792	B	\$5.15	152	707	859	C	\$2.80	181	632	813	C
1600 - 1700	\$2.85	127	554	681	B	\$2.85	105	607	712	B	\$2.85	106	616	722	B	\$2.80	124	586	710	B	\$2.85	113	583	696	B
1700 - 1800	\$2.85	131	484	615	B	\$2.85	142	575	717	B	\$2.85	123	515	638	B	\$2.85	139	516	655	B	\$2.85	158	552	710	B
1800 - 1900	\$2.85	155	399	554	B	\$2.85	161	558	719	B	\$2.85	162	584	746	B	\$2.85	82	238	320	A	\$2.85	151	537	688	B
1900 - 2000	\$2.85	135	285	420	B	\$2.85	140	444	584	B	\$2.85	168	499	667	B	\$2.85	146	526	672	B	\$2.85	190	541	731	B

PM Time	Monday 11/19/18					Tuesday 11/20/18					Wednesday 11/21/18					Thursday 11/22/18					Friday 11/23/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
1400 - 1500	\$2.85	142	664	806	C	\$5.15	171	684	855	C	\$2.85	42	125	167	A	\$2.85	189	357	546	B	\$1.90	128	283	411	B
1500 - 1600	\$2.85	178	659	837	C	\$2.80	128	542	670	B	\$2.85	109	304	413	B	\$2.85	169	342	511	B	\$1.90	139	261	400	A
1600 - 1700	\$2.85	141	620	761	B	\$2.85	158	591	749	B	\$2.85	23	44	67	A	\$2.85	185	346	531	B	\$1.90	125	214	339	A
1700 - 1800	\$2.85	139	538	677	B	\$2.85	162	564	726	B	\$2.85	13	42	55	A	\$2.85	249	337	586	B	\$1.90	136	217	353	A
1800 - 1900	\$2.85	156	489	645	B	\$2.85	172	542	714	B	\$2.85	110	292	402	B	\$2.85	277	314	591	B	\$1.90	118	157	275	A
1900 - 2000	\$2.85	161	406	567	B	\$2.85	201	510	711	B	\$2.85	140	304	444	B	\$2.85	361	331	692	B	\$1.90	117	135	252	A

PM Time	Monday 11/26/18					Tuesday 11/27/18					Wednesday 11/28/18					Thursday 11/29/18					Friday 11/30/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
1400 - 1500	\$2.85	117	646	763	B	\$5.15	125	716	841	C	\$5.05	108	653	761	B	\$5.05	108	643	751	B	\$5.15	137	762	899	C
1500 - 1600	\$2.85	162	634	796	B	\$2.80	163	611	774	B	\$5.15	175	681	856	C	\$5.15	120	632	752	B	\$2.80	158	574	732	B
1600 - 1700	\$2.85	122	537	659	B	\$2.85	108	636	744	B	\$2.85	128	694	822	C	\$2.80	98	520	618	B	\$2.85	118	581	699	B
1700 - 1800	\$2.85	133	591	724	B	\$2.85	113	611	724	B	\$2.85	124	517	641	B	\$2.85	89	427	516	B	\$2.85	126	533	659	B
1800 - 1900	\$2.85	136	522	658	B	\$2.85	123	495	618	B	\$2.85	130	569	699	B	\$2.85	132	433	565	B	\$2.85	161	521	682	B
1900 - 2000	\$2.85	109	355	464	B	\$2.85	136	502	638	B	\$2.85	172	595	767	B	\$2.85	95	372	467	B	\$2.85	148	455	603	B

91 Express Lanes November 2018 Status Report
Issued December 14, 2018

Eastbound PM Peak Total

PM Time	Monday 10/29/18			Tuesday 10/30/18			Wednesday 10/31/18			Thursday 11/01/18			Friday 11/02/18		
	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.
1400 - 1500										343	2,046	2,389	461	1,981	2,442
1500 - 1600										525	1,712	2,237	527	1,516	2,043
1600 - 1700										314	1,376	1,690	354	1,463	1,817
1700 - 1800										373	1,504	1,877	373	1,559	1,932
1800 - 1900										448	1,426	1,874	491	1,514	2,005
1900 - 2000										419	1,157	1,576	493	1,278	1,771

PM Time	Monday 11/05/18			Tuesday 11/06/18			Wednesday 11/07/18			Thursday 11/08/18			Friday 11/09/18		
	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.
1400 - 1500	344	1,661	2,005	335	1,824	2,159	377	1,853	2,230	378	2,066	2,444	456	1,934	2,390
1500 - 1600	538	1,656	2,194	512	1,497	2,009	486	1,644	2,130	512	1,643	2,155	522	1,518	2,040
1600 - 1700	330	1,556	1,886	312	1,516	1,828	362	1,603	1,965	353	1,493	1,846	362	1,590	1,952
1700 - 1800	369	1,496	1,865	368	1,412	1,780	330	1,294	1,624	386	1,535	1,921	400	1,496	1,896
1800 - 1900	446	1,262	1,708	471	1,458	1,929	405	1,287	1,692	453	1,495	1,948	540	1,447	1,987
1900 - 2000	336	932	1,268	397	1,222	1,619	410	1,131	1,541	485	1,412	1,897	481	1,308	1,789

PM Time	Monday 11/12/18			Tuesday 11/13/18			Wednesday 11/14/18			Thursday 11/15/18			Friday 11/16/18		
	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.
1400 - 1500	397	1,305	1,702	343	1,584	1,927	363	1,757	2,120	384	1,992	2,376	452	1,947	2,399
1500 - 1600	521	1,485	2,006	500	1,519	2,019	494	1,628	2,122	479	1,726	2,205	548	1,548	2,096
1600 - 1700	346	1,412	1,758	311	1,553	1,864	319	1,544	1,863	335	1,439	1,774	350	1,474	1,824
1700 - 1800	420	1,212	1,632	399	1,429	1,828	343	1,409	1,752	404	1,411	1,815	419	1,532	1,951
1800 - 1900	433	984	1,417	450	1,472	1,922	460	1,546	2,006	466	1,456	1,922	493	1,436	1,929
1900 - 2000	342	713	1,055	364	1,102	1,466	438	1,277	1,715	396	1,206	1,602	500	1,477	1,977

PM Time	Monday 11/19/18			Tuesday 11/20/18			Wednesday 11/21/18			Thursday 11/22/18			Friday 11/23/18		
	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.
1400 - 1500	430	1,786	2,216	502	1,878	2,380	657	2,491	3,148	582	1,123	1,705	361	793	1,154
1500 - 1600	551	1,640	2,191	439	1,474	1,913	555	2,532	3,087	482	959	1,441	331	723	1,054
1600 - 1700	399	1,584	1,983	422	1,602	2,024	774	2,396	3,170	537	984	1,521	341	618	959
1700 - 1800	412	1,390	1,802	496	1,535	2,031	773	2,255	3,028	600	925	1,525	316	569	885
1800 - 1900	452	1,293	1,745	501	1,462	1,963	528	1,336	1,864	626	812	1,438	292	417	709
1900 - 2000	432	1,094	1,526	529	1,302	1,831	372	845	1,217	761	860	1,621	283	351	634

PM Time	Monday 11/26/18			Tuesday 11/27/18			Wednesday 11/28/18			Thursday 11/29/18			Friday 11/30/18		
	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.
1400 - 1500	344	1,652	1,996	350	1,762	2,112	365	1,743	2,108	313	1,677	1,990	428	1,925	2,353
1500 - 1600	469	1,526	1,995	509	1,514	2,023	550	1,688	2,238	410	1,494	1,904	516	1,443	1,959
1600 - 1700	344	1,379	1,723	307	1,566	1,873	358	1,668	2,026	246	1,268	1,514	313	1,520	1,833
1700 - 1800	375	1,392	1,767	353	1,509	1,862	363	1,369	1,732	275	1,103	1,378	401	1,430	1,831
1800 - 1900	429	1,227	1,656	395	1,354	1,749	409	1,456	1,865	368	1,195	1,563	508	1,387	1,895
1900 - 2000	293	865	1,158	352	1,171	1,523	458	1,436	1,894	285	919	1,204	442	1,228	1,670

91 Express Lanes November 2018 Status Report
Issued December 14, 2018

2.2d RCTC Westbound Peak-hour Volume for November 2018

Refer to Attachment B3.3 and B3.4 for a history of Westbound Peak-hour Volumes.

Westbound AM Peak - McKinley to County Line

AM Time	Monday 10/29/18					Tuesday 10/30/18					Wednesday 10/31/18					Thursday 11/01/18					Friday 11/02/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
0400 - 0500																\$6.55	392	1,089	1,481	E	\$3.95	366	754	1,120	C
0500 - 0600																\$16.90	442	737	1,179	C	\$7.90	424	1,103	1,527	E
0600 - 0700																\$15.15	344	957	1,301	D	\$7.15	385	1,138	1,523	E
0700 - 0800																\$10.90	344	1,211	1,555	E	\$6.70	317	1,163	1,480	E
0800 - 0900																\$7.90	189	1,244	1,433	E	\$5.15	190	967	1,157	C
0900 - 1000																\$3.95	175	1,333	1,508	E	\$4.05	148	742	890	C

AM Time	Monday 11/05/18					Tuesday 11/06/18					Wednesday 11/07/18					Thursday 11/08/18					Friday 11/09/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
0400 - 0500	\$6.55	395	984	1,379	F	\$6.55	398	1,098	1,496	F	\$6.55	392	1,105	1,497	F	\$6.55	389	945	1,334	E	\$3.95	383	789	1,172	D
0500 - 0600	\$17.90	548	867	1,415	F	\$16.15	566	870	1,436	F	\$17.15	480	662	1,142	D	\$16.90	474	720	1,194	D	\$7.90	455	1,025	1,480	F
0600 - 0700	\$16.55	326	785	1,111	D	\$16.15	356	885	1,241	E	\$15.15	404	970	1,374	F	\$15.15	427	964	1,391	F	\$7.15	401	1,207	1,608	F
0700 - 0800	\$11.90	339	1,213	1,552	F	\$11.90	322	1,324	1,646	F	\$12.65	380	1,343	1,723	F	\$10.90	363	1,555	1,918	F	\$6.70	319	1,092	1,411	F
0800 - 0900	\$7.15	221	1,397	1,618	F	\$7.15	199	1,273	1,472	F	\$7.15	224	1,322	1,546	F	\$7.90	221	1,335	1,556	F	\$5.15	212	1,017	1,229	E
0900 - 1000	\$4.05	183	1,057	1,240	E	\$5.05	172	1,219	1,391	F	\$3.95	150	1,017	1,167	D	\$3.95	186	1,090	1,276	E	\$4.05	164	740	904	C

AM Time	Monday 11/12/18					Tuesday 11/13/18					Wednesday 11/14/18					Thursday 11/15/18					Friday 11/16/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
0400 - 0500	\$6.55	236	696	932	C	\$6.55	367	1,019	1,386	F	\$6.55	446	1,073	1,519	F	\$6.55	426	1,053	1,479	F	\$3.95	384	693	1,077	D
0500 - 0600	\$18.90	340	583	923	C	\$17.45	569	834	1,403	F	\$18.45	490	655	1,145	D	\$18.20	501	704	1,205	E	\$7.90	484	1,092	1,576	F
0600 - 0700	\$17.55	229	679	908	C	\$17.15	349	765	1,114	D	\$16.15	409	963	1,372	F	\$16.15	387	933	1,320	E	\$7.15	390	1,151	1,541	F
0700 - 0800	\$13.20	231	753	984	C	\$13.20	335	1,192	1,527	F	\$13.95	335	1,274	1,609	F	\$12.20	341	1,292	1,633	F	\$6.70	301	1,146	1,447	F
0800 - 0900	\$8.45	192	765	957	C	\$8.45	240	1,368	1,608	F	\$8.45	249	1,287	1,536	F	\$9.20	252	1,272	1,524	F	\$5.15	213	1,088	1,301	E
0900 - 1000	\$4.05	210	702	912	C	\$5.05	183	1,175	1,358	F	\$3.95	166	981	1,147	D	\$3.95	192	1,178	1,370	F	\$4.05	140	760	900	C

AM Time	Monday 11/19/18					Tuesday 11/20/18					Wednesday 11/21/18					Thursday 11/22/18					Friday 11/23/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
0400 - 0500	\$6.55	418	1,116	1,534	F	\$6.55	380	1,077	1,457	F	\$7.45	402	701	1,103	D	\$1.50	13	30	43	A	\$1.50	40	70	110	A
0500 - 0600	\$18.90	529	900	1,429	F	\$17.45	587	995	1,582	F	\$6.70	445	1,090	1,535	F	\$1.50	22	39	61	A	\$1.50	71	132	203	A
0600 - 0700	\$17.55	321	900	1,221	E	\$17.15	280	836	1,116	D	\$6.70	324	977	1,301	E	\$1.50	22	52	74	A	\$1.50	54	202	256	A
0700 - 0800	\$13.20	307	1,213	1,520	F	\$13.20	307	1,154	1,461	F	\$6.70	257	970	1,227	E	\$1.50	44	80	124	A	\$1.50	77	237	314	A
0800 - 0900	\$8.45	250	1,262	1,512	F	\$8.45	250	1,233	1,483	F	\$4.05	222	878	1,100	D	\$1.50	74	136	210	A	\$1.50	108	275	383	A
0900 - 1000	\$4.05	215	997	1,212	E	\$5.05	199	918	1,117	D	\$2.20	197	659	856	C	\$2.20	142	215	357	A	\$2.20	145	322	467	B

AM Time	Monday 11/26/18					Tuesday 11/27/18					Wednesday 11/28/18					Thursday 11/29/18					Friday 11/30/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
0400 - 0500	\$6.55	436	1,112	1,548	F	\$6.55	410	1,032	1,442	F	\$6.55	403	1,146	1,549	F	\$6.55	376	1,045	1,421	F	\$3.95	375	742	1,117	D
0500 - 0600	\$18.90	553	922	1,475	F	\$17.45	590	875	1,465	F	\$18.45	526	712	1,238	E	\$18.20	421	648	1,069	D	\$7.90	461	981	1,442	F
0600 - 0700	\$17.55	337	890	1,227	E	\$17.15	318	736	1,054	D	\$16.15	403	1,113	1,516	F	\$16.15	329	904	1,233	E	\$7.15	399	1,146	1,545	F
0700 - 0800	\$13.20	335	1,164	1,499	F	\$13.20	361	1,189	1,550	F	\$13.95	363	1,256	1,619	F	\$12.20	314	1,071	1,385	F	\$6.70	302	1,135	1,437	F
0800 - 0900	\$8.45	242	1,357	1,599	F	\$8.45	242	1,402	1,644	F	\$8.45	253	1,390	1,643	F	\$9.20	226	1,149	1,375	F	\$5.15	200	1,111	1,311	E
0900 - 1000	\$4.05	160	1,037	1,197	D	\$5.05	174	1,252	1,426	F	\$3.95	170	1,175	1,345	E	\$3.95	172	1,173	1,345	E	\$4.05	133	773	906	C

91 Express Lanes November 2018 Status Report
Issued December 14, 2018

Westbound AM Peak - I-15 North to County Line

AM Time	Monday 10/29/18					Tuesday 10/30/18					Wednesday 10/31/18					Thursday 11/01/18					Friday 11/02/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
0400 - 0500																\$5.05	245	713	958	C	\$2.85	190	613	803	C
0500 - 0600																\$12.40	374	1,083	1,457	E	\$5.15	235	1,009	1,244	D
0600 - 0700																\$13.40	368	1,024	1,392	D	\$6.65	281	917	1,198	C
0700 - 0800																\$10.40	223	1,156	1,379	D	\$5.15	174	870	1,044	C
0800 - 0900																\$6.65	136	1,075	1,211	D	\$5.15	118	831	949	C
0900 - 1000																\$5.15	112	864	976	C	\$2.85	112	629	741	B

AM Time	Monday 11/05/18					Tuesday 11/06/18					Wednesday 11/07/18					Thursday 11/08/18					Friday 11/09/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
0400 - 0500	\$5.05	260	813	1,073	D	\$5.05	272	772	1,044	D	\$5.05	254	730	984	C	\$5.05	252	722	974	C	\$2.85	180	634	814	C
0500 - 0600	\$16.40	375	975	1,350	E	\$14.40	340	1,029	1,369	E	\$14.40	381	1,065	1,446	F	\$12.40	365	1,061	1,426	F	\$5.15	322	990	1,312	E
0600 - 0700	\$15.40	321	1,070	1,391	E	\$13.40	348	1,091	1,439	F	\$15.40	339	981	1,320	E	\$13.40	374	1,006	1,380	E	\$6.65	293	945	1,238	E
0700 - 0800	\$11.40	250	1,163	1,413	F	\$9.40	243	1,198	1,441	F	\$11.40	245	1,233	1,478	F	\$10.40	241	1,249	1,490	F	\$5.15	168	884	1,052	D
0800 - 0900	\$6.50	154	1,200	1,354	E	\$6.50	180	1,269	1,449	F	\$6.50	139	1,150	1,289	E	\$6.65	134	1,104	1,238	E	\$5.15	114	813	927	C
0900 - 1000	\$5.05	103	862	965	C	\$5.15	104	966	1,070	D	\$5.15	102	841	943	C	\$5.15	120	882	1,002	D	\$2.85	88	563	651	B

AM Time	Monday 11/12/18					Tuesday 11/13/18					Wednesday 11/14/18					Thursday 11/15/18					Friday 11/16/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
0400 - 0500	\$5.05	158	458	616	B	\$5.05	274	795	1,069	D	\$5.05	257	738	995	C	\$5.05	262	725	987	C	\$2.85	220	644	864	C
0500 - 0600	\$17.40	216	666	882	C	\$15.40	355	1,029	1,384	E	\$15.70	324	1,029	1,353	E	\$13.70	378	1,107	1,485	F	\$5.15	283	1,016	1,299	E
0600 - 0700	\$16.40	201	800	1,001	D	\$14.70	367	1,107	1,474	F	\$16.70	352	1,050	1,402	F	\$14.70	337	1,055	1,392	E	\$6.65	300	871	1,171	D
0700 - 0800	\$12.40	123	645	768	B	\$10.70	265	1,185	1,450	F	\$12.70	245	1,232	1,477	F	\$11.70	241	1,168	1,409	F	\$5.15	179	930	1,109	D
0800 - 0900	\$8.55	109	594	703	B	\$8.55	155	1,195	1,350	E	\$8.55	125	1,027	1,152	D	\$6.65	140	1,058	1,198	D	\$5.15	108	787	895	C
0900 - 1000	\$5.05	137	507	644	B	\$5.15	118	875	993	C	\$5.15	121	827	948	C	\$5.15	93	877	970	C	\$2.85	90	596	686	B

AM Time	Monday 11/19/18					Tuesday 11/20/18					Wednesday 11/21/18					Thursday 11/22/18					Friday 11/23/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
0400 - 0500	\$5.05	261	774	1,035	D	\$5.05	273	712	985	C	\$5.15	229	589	818	C	\$1.90	26	22	48	A	\$1.90	29	63	92	A
0500 - 0600	\$17.40	366	969	1,335	E	\$15.40	382	991	1,373	E	\$8.55	332	811	1,143	D	\$1.90	18	49	67	A	\$1.90	42	125	167	A
0600 - 0700	\$16.40	300	1,154	1,454	F	\$14.70	280	1,073	1,353	E	\$5.15	215	884	1,099	D	\$1.90	16	54	70	A	\$1.90	57	124	181	A
0700 - 0800	\$12.40	220	1,165	1,385	E	\$10.70	189	928	1,117	D	\$2.85	141	758	899	C	\$1.90	31	67	98	A	\$1.90	47	130	177	A
0800 - 0900	\$8.55	173	1,015	1,188	D	\$8.55	162	860	1,022	D	\$2.85	112	692	804	C	\$1.90	61	114	175	A	\$1.90	43	213	256	A
0900 - 1000	\$5.05	154	618	772	B	\$5.15	147	665	812	C	\$2.85	95	468	563	B	\$1.90	121	217	338	A	\$1.90	105	288	393	A

AM Time	Monday 11/26/18					Tuesday 11/27/18					Wednesday 11/28/18					Thursday 11/29/18					Friday 11/30/18				
	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS	Price	HOV	SOV	Vol.	LOS
0400 - 0500	\$5.05	276	825	1,101	D	\$5.05	258	742	1,000	C	\$5.05	269	768	1,037	D	\$5.05	245	672	917	C	\$2.85	220	606	826	C
0500 - 0600	\$17.40	375	1,000	1,375	E	\$15.40	412	1,049	1,461	F	\$15.70	357	1,050	1,407	F	\$13.70	300	1,057	1,357	E	\$5.15	306	893	1,199	D
0600 - 0700	\$16.40	312	1,103	1,415	F	\$14.70	330	1,132	1,462	F	\$16.70	345	994	1,339	E	\$14.70	324	981	1,305	E	\$6.65	267	805	1,072	D
0700 - 0800	\$12.40	211	1,068	1,279	E	\$10.70	237	1,125	1,362	E	\$12.70	242	1,181	1,423	F	\$11.70	189	868	1,057	D	\$5.15	159	874	1,033	D
0800 - 0900	\$8.55	154	989	1,143	D	\$8.55	151	1,198	1,349	E	\$8.55	173	1,116	1,289	E	\$6.65	117	932	1,049	D	\$5.15	136	855	991	C
0900 - 1000	\$5.05	123	727	850	C	\$5.15	102	795	897	C	\$5.15	118	833	951	C	\$5.15	57	443	500	B	\$2.85	97	601	698	B

91 Express Lanes November 2018 Status Report
Issued December 14, 2018

Westbound AM Peak Total

AM Time	Monday 10/29/18			Tuesday 10/30/18			Wednesday 10/31/18			Thursday 11/01/18			Friday 11/02/18		
	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.
0400 - 0500										637	1,802	2,439	556	1,367	1,923
0500 - 0600										816	1,820	2,636	659	2,112	2,771
0600 - 0700										712	1,981	2,693	666	2,055	2,721
0700 - 0800										567	2,367	2,934	491	2,033	2,524
0800 - 0900										325	2,319	2,644	308	1,798	2,106
0900 - 1000										287	2,197	2,484	260	1,371	1,631

AM Time	Monday 11/05/18			Tuesday 11/06/18			Wednesday 11/07/18			Thursday 11/08/18			Friday 11/09/18		
	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.
0400 - 0500	655	1,797	2,452	670	1,870	2,540	646	1,835	2,481	641	1,667	2,308	563	1,423	1,986
0500 - 0600	923	1,842	2,765	906	1,899	2,805	861	1,727	2,588	839	1,781	2,620	777	2,015	2,792
0600 - 0700	647	1,855	2,502	704	1,976	2,680	743	1,951	2,694	801	1,970	2,771	694	2,152	2,846
0700 - 0800	589	2,376	2,965	565	2,522	3,087	625	2,576	3,201	604	2,804	3,408	487	1,976	2,463
0800 - 0900	375	2,597	2,972	379	2,542	2,921	363	2,472	2,835	355	2,439	2,794	326	1,830	2,156
0900 - 1000	286	1,919	2,205	276	2,185	2,461	252	1,858	2,110	306	1,972	2,278	252	1,303	1,555

AM Time	Monday 11/12/18			Tuesday 11/13/18			Wednesday 11/14/18			Thursday 11/15/18			Friday 11/16/18		
	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.
0400 - 0500	394	1,154	1,548	641	1,814	2,455	703	1,811	2,514	688	1,778	2,466	604	1,337	1,941
0500 - 0600	556	1,249	1,805	924	1,863	2,787	814	1,684	2,498	879	1,811	2,690	767	2,108	2,875
0600 - 0700	430	1,479	1,909	716	1,872	2,588	761	2,013	2,774	724	1,988	2,712	690	2,022	2,712
0700 - 0800	354	1,398	1,752	600	2,377	2,977	580	2,506	3,086	582	2,460	3,042	480	2,076	2,556
0800 - 0900	301	1,359	1,660	395	2,563	2,958	374	2,314	2,688	392	2,330	2,722	321	1,875	2,196
0900 - 1000	347	1,209	1,556	301	2,050	2,351	287	1,808	2,095	285	2,055	2,340	230	1,356	1,586

AM Time	Monday 11/19/18			Tuesday 11/20/18			Wednesday 11/21/18			Thursday 11/22/18			Friday 11/23/18		
	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.
0400 - 0500	394	1,154	1,548	641	1,814	2,455	703	1,811	2,514	688	1,778	2,466	604	1,337	1,941
0500 - 0600	556	1,249	1,805	924	1,863	2,787	814	1,684	2,498	879	1,811	2,690	767	2,108	2,875
0600 - 0700	430	1,479	1,909	716	1,872	2,588	761	2,013	2,774	724	1,988	2,712	690	2,022	2,712
0700 - 0800	354	1,398	1,752	600	2,377	2,977	580	2,506	3,086	582	2,460	3,042	480	2,076	2,556
0800 - 0900	301	1,359	1,660	395	2,563	2,958	374	2,314	2,688	392	2,330	2,722	321	1,875	2,196
0900 - 1000	347	1,209	1,556	301	2,050	2,351	287	1,808	2,095	285	2,055	2,340	230	1,356	1,586

AM Time	Monday 11/26/18			Tuesday 11/27/18			Wednesday 11/28/18			Thursday 11/29/18			Friday 11/30/18		
	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.	HOV	SOV	Vol.
0400 - 0500	712	1,937	2,649	668	1,774	2,442	672	1,914	2,586	621	1,717	2,338	595	1,348	1,943
0500 - 0600	928	1,922	2,850	1,002	1,924	2,926	883	1,762	2,645	721	1,705	2,426	767	1,874	2,641
0600 - 0700	649	1,993	2,642	648	1,868	2,516	748	2,107	2,855	653	1,885	2,538	666	1,951	2,617
0700 - 0800	546	2,232	2,778	598	2,314	2,912	605	2,437	3,042	503	1,939	2,442	461	2,009	2,470
0800 - 0900	396	2,346	2,742	393	2,600	2,993	426	2,506	2,932	343	2,081	2,424	336	1,966	2,302
0900 - 1000	283	1,764	2,047	276	2,047	2,323	288	2,008	2,296	229	1,616	1,845	230	1,374	1,604

2.2e Violation Collection

“Customers” are FasTrak account holders with any FasTrak toll facility in California; “Non-customer Violations” are considered true violators who travel the 91 Express Lanes without a valid FasTrak account.

2.3 Multi Agency Traffic Statistics for the Month of November 2018

MULTI AGENCY TRIP AND REVENUE STATISTICS MONTH ENDING November 30, 2018

Nov-18 MTD	Transactions by Agency	Transactions Using Both Segments	% Using Both Segments	Revenue
Westbound				
OCTA	684,793	429,667	63%	\$ 1,735,050
RCTC	659,672	429,667	65%	\$ 2,803,117
I-15	284,743	193,709	68%	\$ 1,266,792
McKinley	374,929	235,958	63%	\$ 1,536,325
Eastbound				
OCTA	730,551	398,432	55%	\$ 2,520,176
RCTC	567,213	398,432	70%	\$ 1,637,275
I-15	203,975	157,960	77%	\$ 438,546
McKinley	363,238	240,472	66%	\$ 1,198,729

2.4 Customer Service and Violation Processing

2.4a Performance Measures

2.4b Incoming Call Activity

2.4c Transponder Distribution

. 2.4d Transponder Inventory

2.4e Incoming Email Activity

2.4f Complaints

Refer to Attachment A4 for OCTA – Toll Credits Relative to Traffic Congestion.
Refer to Attachment B4 for RCTC – Toll Credits Relative to Traffic Congestion.

2.5 Operations Highlights

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Note: Mileage data recorded as of June, 2017

2.5e Finance and Administration

Wire-Transfer Requests Issued for October/November 2018

3. PROJECTS UPDATE

4. STAFFING

5. ATTACHMENTS

5.1a OCTA

- A1 Traffic Volume & Associated Potential Revenue; Most Recent 13-Month Period
- A2 Global Demand 91 Express Lanes vs. SR91 Mainline for the current month
- A3 Eastbound Weekday Peak Volumes for Determining Toll Adjustments
- A4 Toll Credits Relative to Traffic Congestion; Most Recent 6-Month Period

5.1b RCTC

- B1 Traffic Volume & Associated Potential Revenue
- B2 Global Demand 91 Express Lanes vs. SR91 Mainline for the current month
- B3.1–3.2 Eastbound Peak Volumes for Determining Toll Adjustments
- B3.3–3.4 Westbound Peak Volumes for Determining Toll Adjustment
- B4 Toll Credits Relative to Traffic Congestion

5.1c Combined Agencies

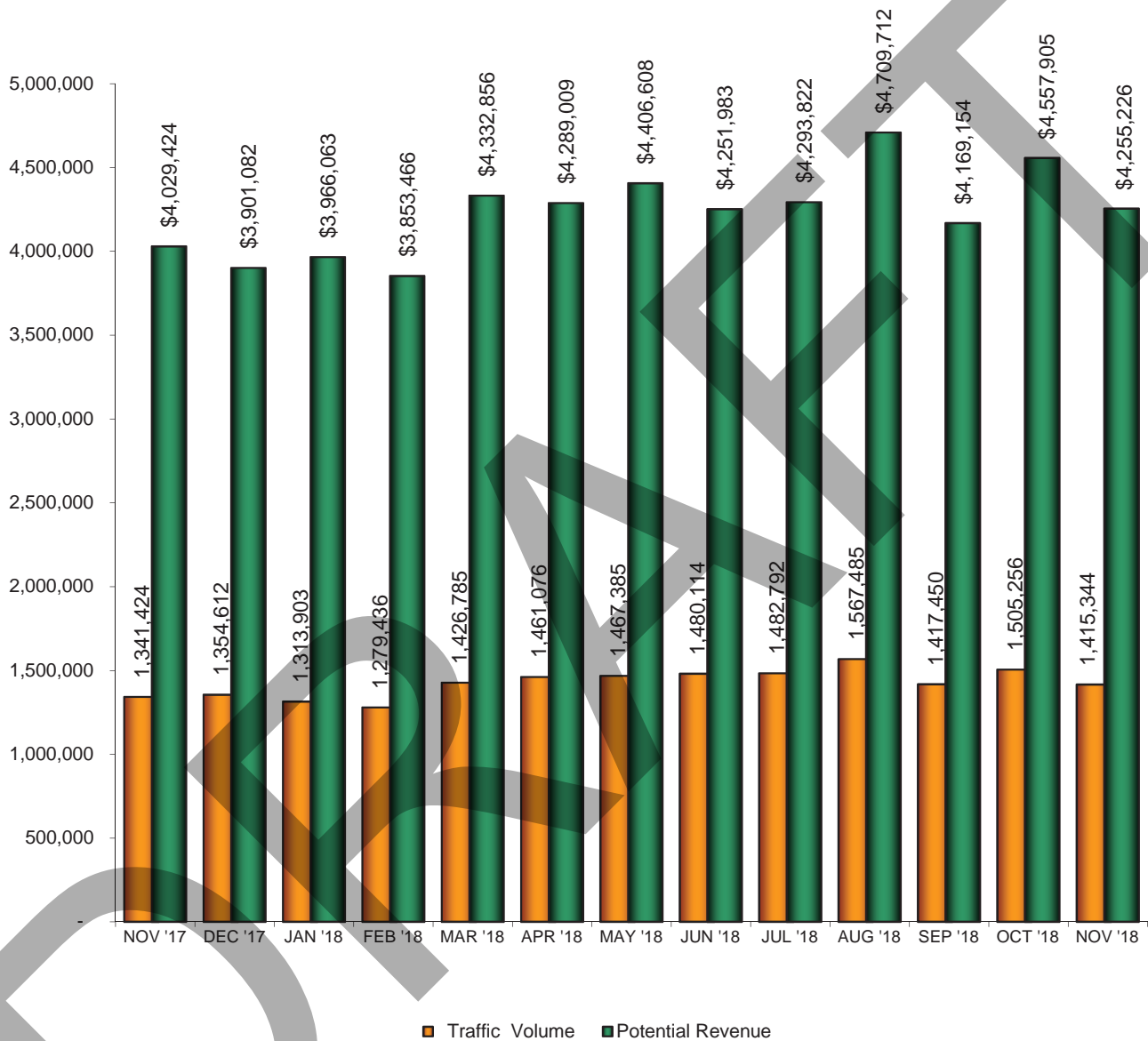
- C1 Transponder Distribution; Most Recent 13-Month Period
- C2 Active Accounts & Transponders Assigned; Most Recent 13-Month Period
- C3 Customer Communication Channel; Most Recent 13-Month Period

DRAFT

ATTACHMENT A1

OCTA TRAFFIC VOLUME AND ASSOCIATED POTENTIAL REVENUE

Most-recent 13-month Period
November 2017 through November 2018

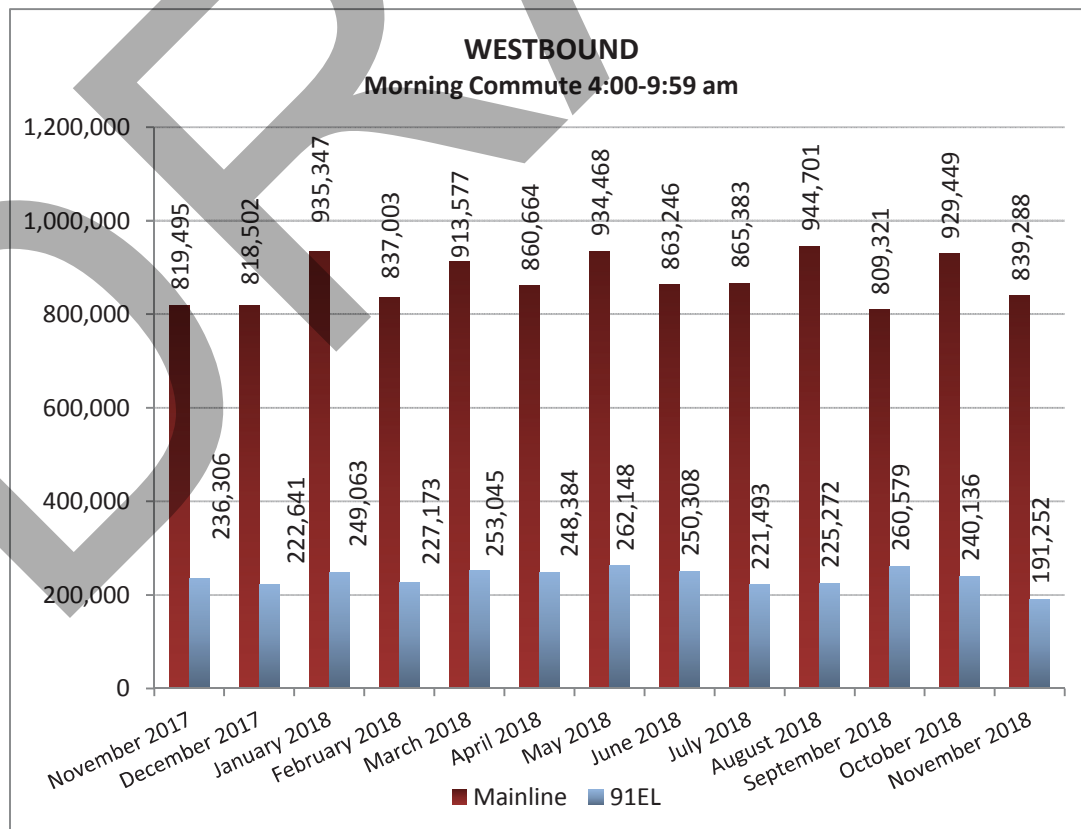
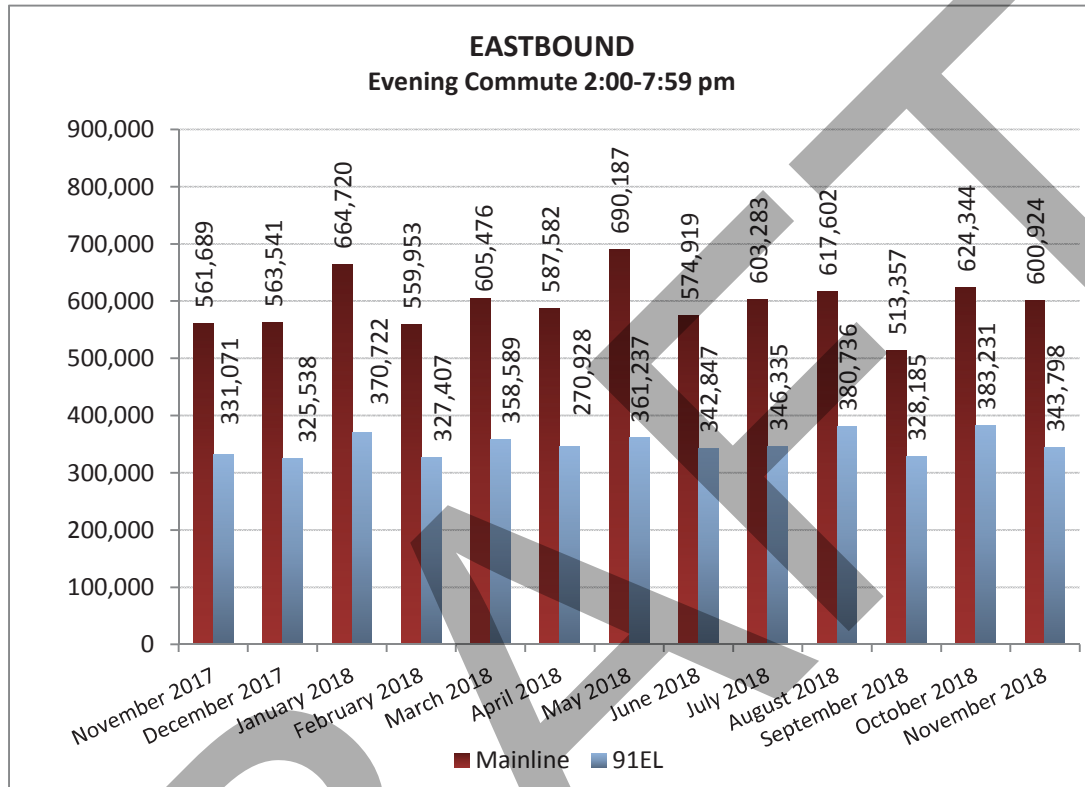


GLOBAL DEMAND

91 EXPRESS LANES vs. SR91 MAINLINE

The Total Combined Facility is made up of six lanes in each direction. The 91 Express Lanes provides commuters 33% of those lanes.

November 2018
1,975,262





OCTA WEEKDAY PEAK VOLUMES FOR DETERMINING TOLL ADJUSTMENTS

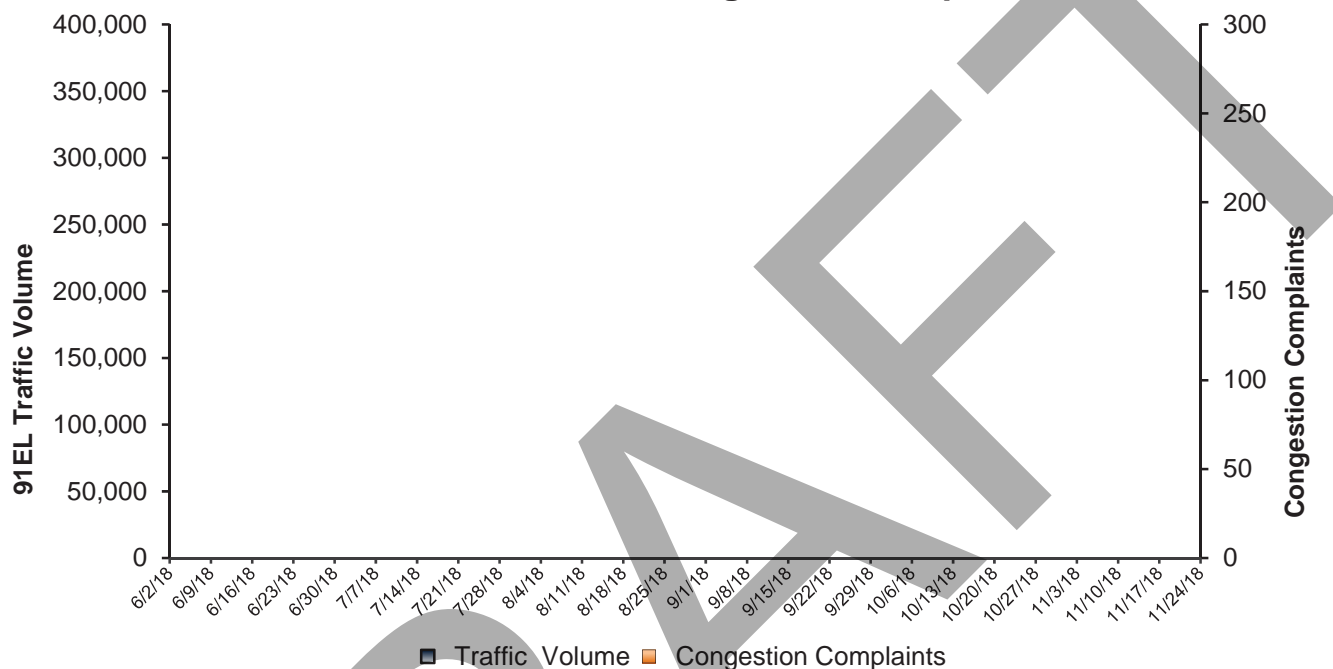
CR = Congestion-related Adjustment in place - 6-month freeze on any increase	Traffic volume > 3,128 is flagged for review. When flagged hours occur 6 or more times during the most recent 12-week period and the average flagged-volume is > 3,128, the toll for that day and time will be increased as follows	FY 2018-19 Congestion-Relief Toll Adjustments
COLA = Cost of Living Adjustment implemented July 1 each FY. No freeze on future adjustments.	Previously adjusted hour flagged for possible 50% toll reduction	July 1, 2018 Hours received a COLA adjustment for this quarter
Week containing a Holiday toll adjustment	~ to or < 2,720	October 1, 2018 5 Hours received adjustments for the quarter
Week containing a traffic anomaly, major incident or accident	~ to or > 3,128	January 1, 2019
12-week period selected for Congestion-Related Adjustment at beginning of next Quarter	3,200 - 3,299	April 1, 2019
Most recent 12-consecutive-week period (excluding weeks containing Holidays or Traffic Anomalies)	~ to or > 3,300	Eligible for \$1.00 increase

Fy	Week	Monday - Friday	MONDAY					TUESDAY					WEDNESDAY					THURSDAY					FRIDAY									
#	Weekdays	2:00	3:00	4:00	5:00	6:00	7:00	2:00	3:00	4:00	5:00	6:00	7:00	2:00	3:00	4:00	5:00	6:00	7:00	2:00	3:00	4:00	5:00	6:00	7:00	2:00	3:00	4:00	5:00	6:00	7:00	
35	Feb 19-23	2,081	2,680	2,294	2,210	1,507	1,131	2,747	3,119	2,561	2,963	2,670	2,306	2,834	3,123	2,604	2,910	3,022	2,214	3,035	3,009	2,617	2,735	3,018	2,322	3,124	2,620	2,728	2,906	2,718	2,215	
36	Feb 26-Mar 2	2,429	3,159	2,600	2,865	2,863	1,909	2,535	3,182	2,595	2,860	2,805	1,740	2,959	3,176	2,353	2,971	2,511	3,075	3,211	2,493	2,847	2,846	2,736	3,175	2,776	2,843	2,594	2,208	1,877		
37	Mar 5-9	2,449	2,554	2,465	3,123	1,810	2,615	3,085	2,644	2,895	2,911	1,462	2,899	2,793	2,767	2,763	2,993	3,410	3,055	3,068	2,594	2,753	2,942	2,896	3,001	2,948	2,877	2,705	2,105			
38	Mar 12-16	2,501	3,057	2,078	2,153	3,012	1,722	2,691	2,833	2,555	2,853	2,855	2,500	2,749	3,262	2,662	2,877	2,759	1,924	2,950	3,149	2,543	2,851	2,831	2,447	3,110	2,680	2,722	2,991	2,021		
39	Mar 19-23	2,375	3,215	2,848	2,953	2,758	1,695	2,556	3,168	2,570	3,051	2,954	2,149	2,846	3,081	2,480	2,957	2,379	1,861	2,818	2,936	2,573	2,429	2,085	1,602	3,127	2,655	2,689	2,902	2,616	2,010	
41	Apr 2-6	2,436	3,184	2,875	2,617	2,095	1,460	2,850	3,009	2,451	2,978	2,804	2,206	2,861	2,698	2,617	2,953	3,407	2,638	3,028	2,594	2,901	2,834	3,044	2,374	3,176	2,706	2,721	2,962	2,302	1,817	
42	Apr 9-13	2,614	3,075	2,787	3,035	2,797	1,705	2,798	3,130	2,617	3,049	2,987	2,206	2,879	3,250	2,680	2,887	2,659	2,497	3,029	2,938	2,701	2,867	2,917	2,751	3,379	2,741	2,765	2,880	2,210		
43	Apr 16-20	2,519	3,067	2,985	3,024	2,681	1,698	2,841	3,097	2,657	3,092	2,639	1,986	2,595	3,121	2,291	3,121	2,979	2,094	3,085	3,242	2,559	2,888	2,962	2,056	3,121	2,848	2,813	2,942	2,607	2,057	
44	Apr 23-27	2,457	2,968	2,964	2,914	2,556	1,530	2,832	3,010	2,460	3,016	2,818	2,175	2,964	2,951	2,922	3,182	3,073	3,257	3,070	2,577	2,738	3,029	2,522	3,295	2,648	2,674	2,976	2,577	1,906		
45	Apr 30-May 4	2,584	3,024	2,941	3,104	2,271	1,545	2,925	3,163	2,565	2,955	2,688	1,624	2,829	3,024	2,776	3,101	2,776	1,746	3,282	3,147	2,512	2,869	2,867	2,330	3,276	2,567	2,580	2,426	2,993	1,863	
46	May 7-11	2,590	3,112	3,073	2,825	2,322	1,518	2,565	3,174	2,534	2,902	2,944	1,947	2,947	3,175	2,332	2,833	2,980	2,207	3,101	3,251	2,739	2,880	2,874	2,386	3,127	2,881	2,969	2,889	2,231	1,881	
47	May 14-18	2,432	2,974	2,923	2,943	2,493	1,513	2,726	2,930	2,607	2,903	3,032	2,066	2,847	2,883	2,980	3,052	2,101	3,068	3,213	2,660	2,844	3,190	2,732	3,120	2,705	2,702	2,832	2,707	1,899		
48	May 21-25	2,400	3,055	3,085	3,010	2,228	1,272	2,866	3,125	2,675	2,971	2,674	1,811	2,824	3,101	2,439	2,867	3,100	2,094	3,243	3,245	2,804	2,970	2,975	2,047	3,243	2,767	2,776	2,560	1,761		
49	May 28-Jun 1	2,511	2,981	2,830	2,911	2,652	1,684	2,935	3,125	2,657	2,985	2,914	1,538	2,844	3,101	2,515	2,973	2,910	1,929	3,285	3,147	2,855	2,975	3,051	2,192	3,247	2,674	2,738	2,834	2,336	1,912	
50	Jun 4-8	2,520	2,976	2,778	2,945	2,554	1,702	2,841	2,955	2,528	2,885	2,668	1,263	2,905	3,121	2,507	2,888	2,836	1,872	3,126	3,041	2,548	2,744	2,852	2,419	3,277	2,731	2,814	2,812	2,745	1,836	
51	Jun 11-15	2,479	3,076	2,981	2,916	2,694	1,914	2,655	3,025	2,516	2,880	2,884	2,244	2,742	3,121	2,661	2,774	2,880	2,178	2,777	3,025	2,538	2,841	2,948	2,373	3,275	2,638	2,669	2,925	2,678	1,979	
52	Jun 18-22	2,527	3,010	2,803	2,586	2,806	1,609	2,794	2,939	2,485	2,886	3,022	2,176	2,747	3,121	2,455	2,933	3,062	2,552	3,199	2,949	2,697	2,976	2,749	3,270	2,701	2,665	2,592	2,689	2,019		
53	Jun 25-29	2,429	2,932	2,937	2,937	2,820	1,849	2,841	3,131	2,668	2,932	2,937	1,434	2,842	3,121	2,560	2,952	2,220	2,973	2,957	2,688	2,688	2,744	2,852	2,419	3,277	2,602	2,621	2,831	2,827	2,049	
1	Jul 2-6	2,429	2,880	2,902	3,013	2,415	1,677	3,242	2,851	2,846	3,011	2,769	1,969	2,807	3,141	2,516	2,826	2,626	2,626	3,121	2,516	2,826	2,626	2,626	2,626	3,121	2,516	2,826	2,626	2,626	2,049	
2	Jul 9-13	2,534	3,151	2,905	3,012	2,520	1,766	2,834	2,730	3,132	2,414	2,932	2,378	2,902	3,172	2,821	2,533	3,172	2,121	3,172	2,821	2,533	3,172	2,821	2,533	3,172	2,821	2,533	2,667	2,059		
3	Jul 16-20	2,272	3,121	2,854	2,860	2,728	1,900	2,734	2,861	2,512	2,945	2,316	1,768	3,132	2,821	2,533	2,816	2,471	3,087	2,998	2,864	2,542	2,998	2,551	3,200	2,661	2,707	2,828	2,574	1,993		
4	Jul 23-27	2,692	3,121	2,721	3,032	2,901	1,875	2,747	2,702	3,041	2,493	2,977	2,259	2,973	3,132	2,763	2,763	2,485	2,893	2,472	3,163	2,960	2,915	3,392	2,908	2,534	3,222	2,836	2,903	2,887	2,400	2,034
5	Jul 30-Aug 3	2,640	2,878	2,842	3,031	2,631	1,879	2,949	2,800	2,512	2,958	2,833	2,308	2,977	3,132	2,763	2,763	2,485	2,893	2,472	3,163	2,960	2,915	3,392	2,908	2,534	3,222	2,836	2,903	2,887	2,400	2,034
6	Aug 6-10	2,636	3,061	2,825	3,048	2,468	2,263	2,869	2,890	3,047	2,514	2,835	2,690	2,500	3,132	2,763	2,763	2,485	2,893	2,472	3,163	2,960	2,915	3,392	2,908	2,534	3,222	2,836	2,903	2,887	2,400	2,034
7	Aug 13-17	2,610	2,927	2,802	2,847	2,984	1,840	2,949	2,735	3,055	2,689	2,902	2,154	2,973	3,111	2,850	2,666	2,952	2,298	3,158	2,987	2,589	2,654	2,902	2,478	3,194	2,618	2,665	2,617	2,797	1,876	
8	Aug 20-24	2,637	3,137	2,898	2,944	2,292	1,907	2,766	3,023	2,456	2,794	2,542	2,305	2,978	3,111	2,850	2,666	2,952	2,298	3,158	2,987	2,589	2,654	2,902	2,478	3,194	2,618	2,665	2,617	2,797	1,876	
9	Aug 27-31	2,503	3,077	2,858	2,988	2,891	2,231	2,740	2,682	3,279	2,468	2,929	2,373	2,864	3,147	2,805	2,634	2,959	2,547	3,474	3,075	3,167	2,565	2,842	2,630	3,290	2,720	2,381	2,645	2,693	2,002	
10	Sep 3-7	2,471	3,033	2,833	2,911	2,612	1,912	2,811	2,749	2,484	2,595	2,970	2,202	2,989	3,145	2,727	2,486	3,130	2,415	3,156	3,022	2,432	2,733	2,938	3,339	2,611	2,723	2,811	2,734	1,739		
11	Sep 10-14	2,472	3,034	2,885	3,018	2,798	1,735	2,753	2,806	3,231	2,669	2,980	2,023	2,905	3,085	2,652	2,633	2,887	2,633	3,175	3,196	2,830	2,446	2,855	2,655	3,322	2,775	2,567	2,937	2,935	2,435	
12	Sep 17-21	2,585	3,097	2,879	2,872	2,825	1,896	2,789	2,318	3,231	2,669	2,980	2,023	2,905	3,085	2,652	2,633	2,887	2,633	3,175	3,196	2,830	2,446	2,855	2,655	3,322	2,775	2,567	2,937	2,935	2,435	
13	Sep 24-28	2,572	3,079	2,905	3,014	2,709	1,918	2,735	2,635	3,231	2,669	2,980	2,023	2,905	3,085	2,652	2,633	2,887	2,633	3,175	3,196	2,830	2,446	2,855	2,655	3,322	2,775	2,567	2,937	2,935	2,435	
14	Oct 1-5	2,476	2,884	3,036	3,034	2,401	1,755	2,844	2,891	2,865	2,952	2,878	2,395	2,893	3,099	2,997	2,992	3,023	1,993	3,150	3,039	2,574	2,767	2,847	2,865	3,233	2,833	3,032	2,811	2,811	2,147	
15	Oct 8-12	2,555	2,898	2,838	3,019	2,442	1,725	2,923	2,820	3,017	2,858	2,987	2,467	2,990	3,184	2,915	2,926	2,922	2,550	3,111	3,056	2,592	2,889	2,910	2,674	3,569	2,790	2,792	2,856	2,734	2,329	
16	Oct 15-19	2,435	2,942	2,943	2,987	2,645	1,702	2,825	2,456	2,915	3,125	3,106	1,485	3,011	3,166	2,920	2,514	3,026	2,198	3,303	3,106	2,502	2,880	3,071	2,453	3,184	2,675	2,933	2,957	2,666	2,305	
17	Oct 22-26	2,564	3,051	2,948	3,048	2,618	1,791	2,928	2,998	2,861	3,151	3,024	2,323	3,073	3,219	2,548	2,593	2,945	2,565	2,701	3,271	2,554	2,939	2,979	2,513	3,481	2,906	2,831	2,797	2,865	2,326	
18	Oct 29-Nov 2	2,589	3,086	2,919	2,876	2,444	1,599	2,875	2,715	2,894	3,042	3,002	2,514	3,045	3,230	2,915	2,903	3,085	1,573	3,290	3,146	2,860	2,833	2,948	2,299	3,398	2,841	2,735	2,896	2,946	2,388	
19	Nov 5-9	2,650	3,077	2,946	3,165	2,832	2,041	3,030	2,855	2,939	2,947	3,102	2,495	2,971	3,276	2,931	2,919															

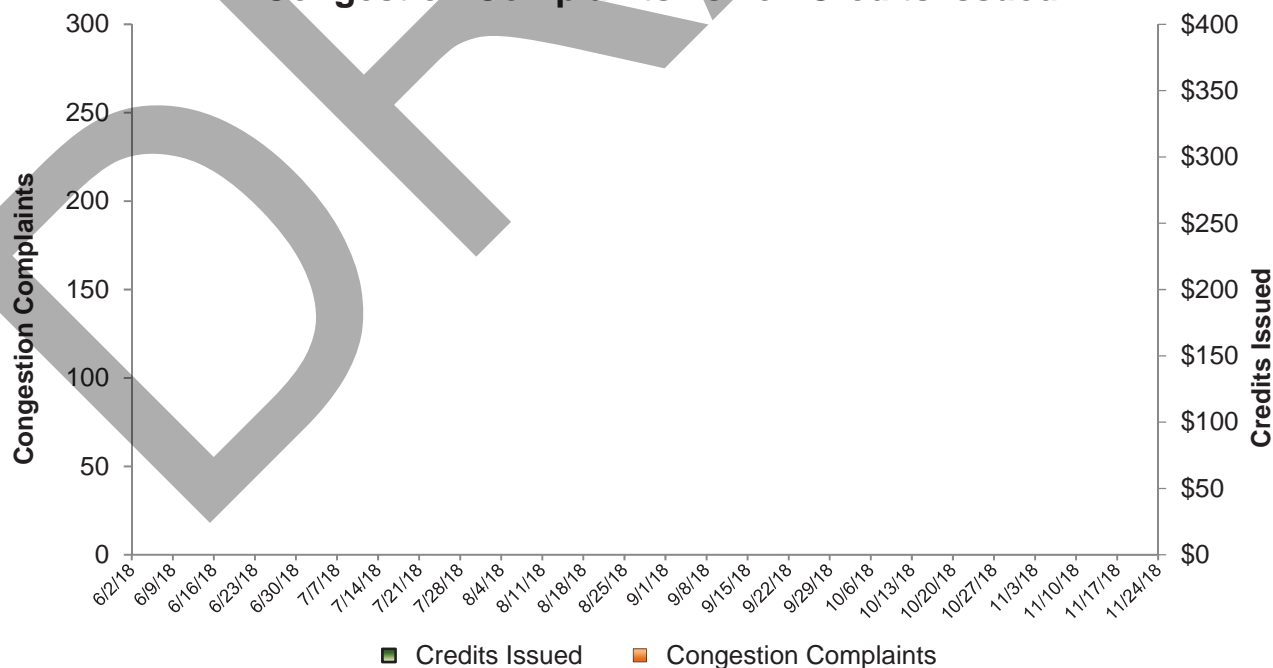
ATTACHMENT A4

OCTA's Most Recent 6-Month Period
June 2018 through November 2018

Traffic Volume vs Congestion Complaints



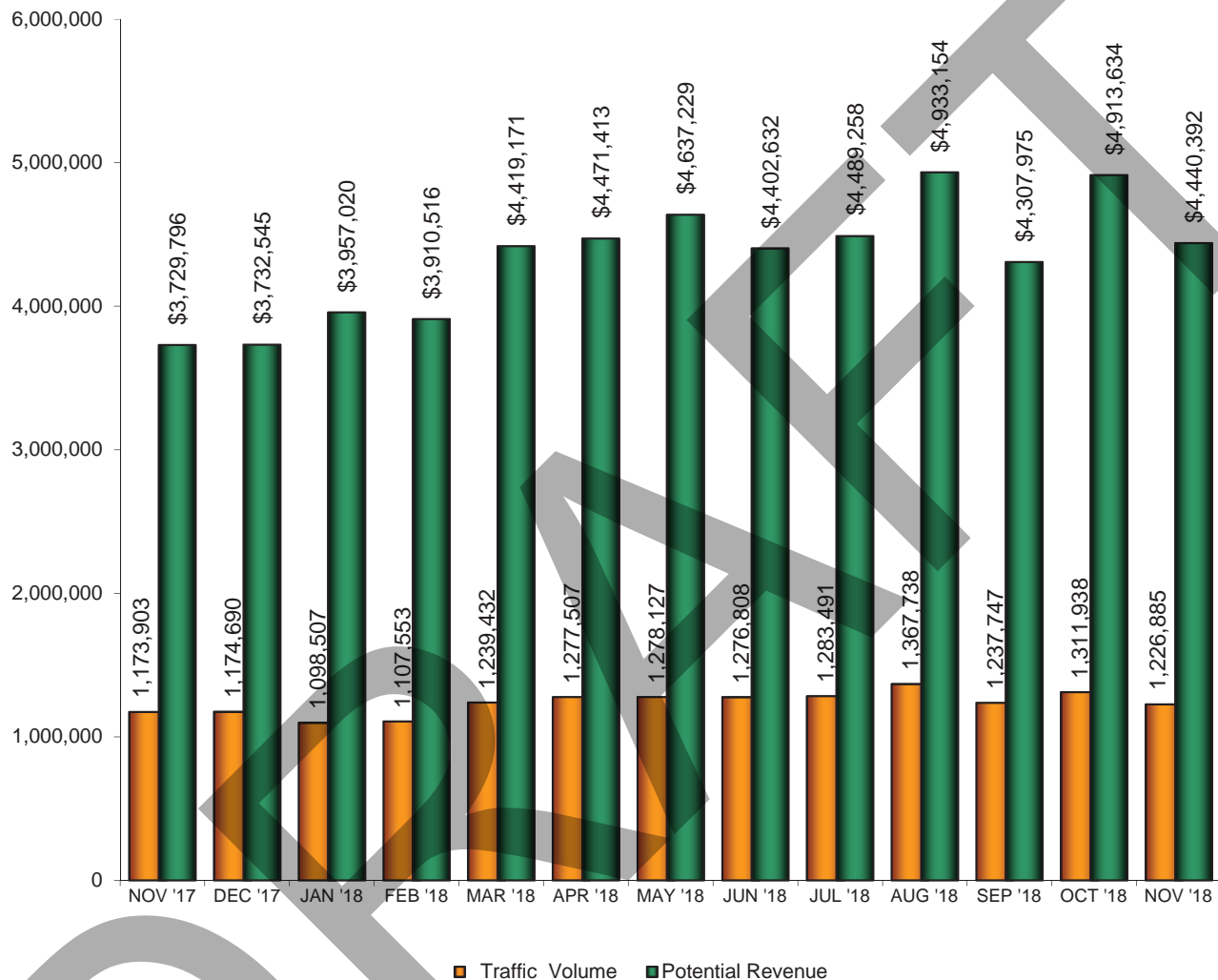
Congestion Complaints vs Toll Credits Issued



ATTACHMENT B1

RCTC TRAFFIC VOLUME AND ASSOCIATED POTENTIAL REVENUE

Most-recent 13-month Period
November 2017-November 2018

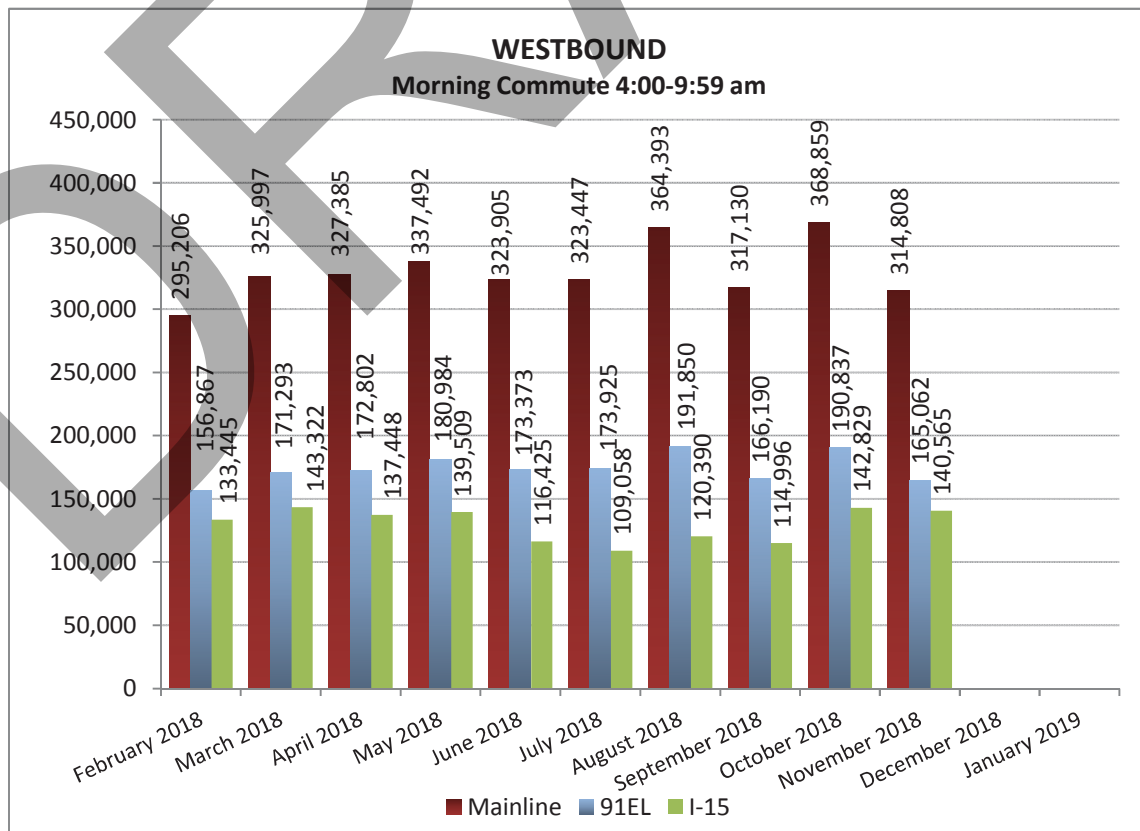
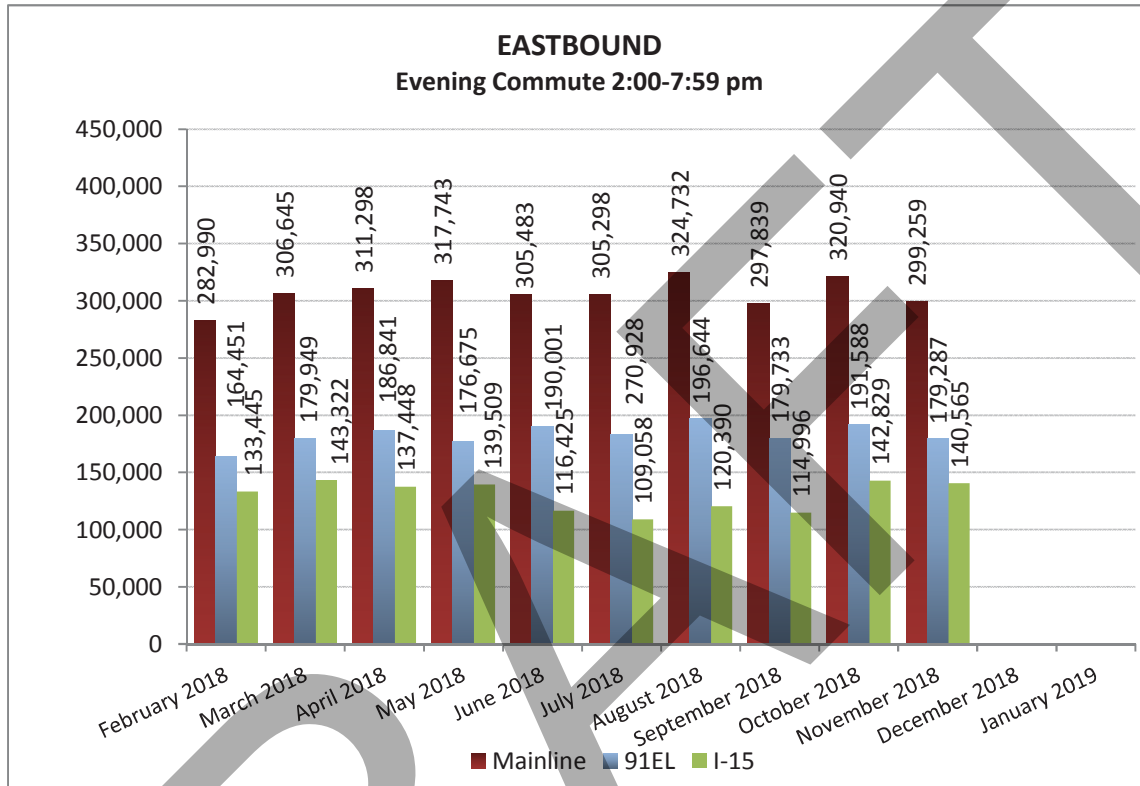


RCTC GLOBAL DEMAND

91 EXPRESS LANES vs. SR91 MAINLINE

The Total Combined Facility is made up of six lanes in each direction. The 91 Express Lanes provides commuters 33% of those lanes.

November 2018
1,213,960



ATTACHMENT B3.1



RCTC EASTBOUND PEAK VOLUMES FOR DETERMINING TOLL ADJUSTMENTS
Eastbound PM Peak - County Line to McKinley

DURING RAMP-UP PERIOD (March 20, 2017 to March 19, 2019)

Toll Adjustment Consideration	
 	Above Current LOS
 	Below Current LOS
 	Toll Adjustment (+)
 	Toll Adjustment (-)

Latest 6 Congestion-Relief Toll Adjustments	
May 21, 2018	3 Tolls received adjustments
June 11, 2018	3 Tolls received adjustments
July 1, 2018	574 Tolls received COLA adjustments
August 19, 2018	1 Toll received adjustments
October 1, 2018	30 Tolls received adjustments
November 12, 2018	37 Tolls received adjustments

Level of Service (LOS)	Traffic Volume (Range)
A	0-400
B	401-800
C	801-1000
D	1001-1200
E	1201-1300
F	>1300

	Time	Monday (PM)				Tuesday (PM)				Wednesday (PM)				Thursday (PM)				Friday (PM)			
		Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment
WEEK 17 Oct 23 - Oct 27	2:00 PM	C	4.05	1,172	D	✓	D	5.15	1,225	E	✓	D	5.15	1,401	F	✓	F	7.55	1,298	E	✓
	3:00 PM	D	5.05	1,270	E	✓	D	5.15	1,308	F	✓	E	6.55	1,412	F	✓	F	9.60	1,483	F	✓
	4:00 PM	C	4.05	1,152	D	✓	C	4.05	1,176	D	✓	C	3.95	1,112	D	✓	F	8.55	1,015	D	✓
	5:00 PM	C	4.05	1,108	D	✓	C	4.05	1,118	D	✓	C	3.95	1,044	D	✓	C	3.95	1,190	D	✓
	6:00 PM	C	4.05	996	C	✓	C	4.05	1,137	D	✓	C	3.95	1,194	D	✓	C	3.95	1,243	E	✓
	7:00 PM	B	2.20	713	B	✓	C	4.05	876	C	✓	C	3.95	988	C	✓	C	4.05	957	C	✓
WEEK 18 Oct 28 - Nov 03	2:00 PM	C	4.05	1,206	E	✓	D	5.15	1,196	D	✓	D	5.15	1,339	F	✓	F	7.55	1,498	F	✓
	3:00 PM	D	5.05	1,335	F	✓	D	5.15	1,252	E	✓	E	6.55	1,302	F	✓	F	9.60	1,374	F	✓
	4:00 PM	C	4.05	1,166	D	✓	C	4.05	1,167	D	✓	C	3.95	1,179	D	✓	F	8.55	982	D	✓
	5:00 PM	C	4.05	1,053	D	✓	C	4.05	1,089	D	✓	C	3.95	1,153	D	✓	C	3.95	1,171	D	✓
	6:00 PM	C	4.05	1,103	D	✓	C	4.05	1,060	D	✓	C	3.95	1,278	E	✓	C	3.95	1,192	D	✓
	7:00 PM	B	2.20	829	C	✓	C	4.05	1,017	D	✓	C	3.95	689	B	✓	C	4.05	965	C	✓
WEEK 19 Nov 04 - Nov 10	2:00 PM	C	4.05	1,252	E	✓	D	5.15	1,320	F	✓	D	5.15	1,398	F	✓	F	7.55	1,531	F	✓
	3:00 PM	D	5.05	1,340	F	✓	D	5.15	1,254	E	✓	E	6.55	1,354	F	✓	F	9.60	1,347	F	✓
	4:00 PM	C	4.05	1,135	D	✓	C	4.05	1,114	D	✓	C	3.95	1,210	E	✓	F	8.55	1,166	D	✓
	5:00 PM	C	4.05	1,111	D	✓	C	4.05	1,115	D	✓	C	3.95	994	C	✓	C	3.95	1,189	D	✓
	6:00 PM	C	4.05	1,046	D	✓	C	4.05	1,175	D	✓	C	3.95	1,069	D	✓	C	3.95	1,245	E	✓
	7:00 PM	B	2.20	791	B	✓	C	4.05	944	C	✓	C	3.95	930	C	✓	C	4.05	1,165	D	✓
WEEK 20 Nov 11 - Nov 17	2:00 PM	C	4.05	1,055	D	✓	D	5.15	1,173	D	✓	D	5.15	1,359	F	✓	F	7.55	1,453	F	✓
	3:00 PM	D	5.05	1,205	F	✓	D	5.15	1,264	E	✓	E	6.55	1,330	F	✓	F	9.60	1,346	F	✓
	4:00 PM	C	4.05	1,077	D	✓	C	4.05	1,152	D	✓	C	3.95	1,141	D	✓	F	8.55	1,084	D	✓
	5:00 PM	C	4.05	1,017	D	✓	C	4.05	1,111	D	✓	C	3.95	1,014	D	✓	C	3.95	1,180	D	✓
	6:00 PM	C	4.05	863	C	✓	C	4.05	1,203	E	✓	C	4.05	1,260	E	✓	C	3.95	1,602	F	✓
	7:00 PM	B	2.20	686	B	✓	C	4.05	882	C	✓	C	3.95	1,048	D	✓	C	4.05	930	C	✓
WEEK 21 Nov 18 - Nov 24	2:00 PM	C	4.05	1,410	F	✓	D	5.15	1,525	F	✓	F	13.65	2,981	F	✓	C	4.05	1,159	D	✓
	3:00 PM	D	5.05	1,354	F	✓	D	5.15	1,243	E	✓	F	10.60	2,674	F	✓	C	4.05	930	C	✓
	4:00 PM	C	4.05	1,222	E	✓	C	4.05	1,275	E	✓	F	8.55	3,103	F	✓	C	4.05	990	C	✓
	5:00 PM	C	4.05	1,125	D	✓	C	4.05	1,305	F	✓	E	6.70	2,973	F	✓	C	4.05	939	C	✓
	6:00 PM	C	4.05	1,100	D	✓	C	4.05	1,249	E	✓	C	4.05	1,462	F	✓	C	4.05	847	C	✓
	7:00 PM	B	2.20	959	C	✓	D	4.05	1,120	D	✓	C	4.05	773	B	✓	C	4.05	929	C	✓
WEEK 22 Nov 25 - Dec 01	2:00 PM	C	4.05	1,233	E	✓	D	5.15	1,271	E	✓	D	5.15	1,347	F	✓	F	7.55	1,239	E	✓
	3:00 PM	D	5.05	1,199	D	✓	D	5.15	1,249	E	✓	E	6.55	1,382	F	✓	F	9.60	1,152	D	✓
	4:00 PM	C	4.05	1,064	D	✓	C	4.05	1,099	D	✓	C	3.95	1,204	E	✓	F	8.55	896	C	✓
	5:00 PM	C	4.05	1,043	D	✓	C	4.05	1,138	D	✓	C	3.95	1,091	D	✓	F	13.95	882	C	✓
	6:00 PM	C	4.05	998	C	✓	C	4.05	1,131	D	✓	C	3.95	1,166	D	✓	F	13.95	998	C	✓
	7:00 PM	B	2.20	694	B	✓	C	4.05	885	C	✓	C	3.95	1,127	D	✓	F	14.05	737	B	✓



RCTC EASTBOUND PEAK VOLUMES FOR DETERMINING TOLL ADJUSTMENTS
Eastbound PM Peak - County Line to I-15 South
DURING RAMP-UP PERIOD (March 20, 2017 to March 19, 2019)

Toll Adjustment Consideration	
Yellow	Above Current LOS
Light Blue	Below Current LOS
Green	Toll Adjustment (+)
Red	Toll Adjustment (-)

Latest 6 Congestion-Relief Toll Adjustments

May 21, 2018	3 Tolls received adjustments
June 11, 2018	3 Tolls received adjustments
July 1, 2018	574 Tolls received COLA adjustments
August 19, 2018	1 Toll received adjustments
October 1, 2018	30 Tolls received adjustments
November 12, 2018	37 Tolls received adjustments

Level of Service (LOS)	Traffic Volume (Range)
A	0-400
B	401-800
C	801-1000
D	1001-1200
E	1201-1400
F	>1400

	Monday (PM)					Tuesday (PM)					Wednesday (PM)					Thursday (PM)					Friday (PM)					
	Time	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment
WEEK 17 Oct 21 - Oct 27	2:00 PM	B	2.85	757	B		C	5.15	794	B	✓	C	5.05	857	C		C	5.05	752	B	✓	C	5.15	913	C	
	3:00 PM	B	2.85	780	B		B	2.80	773	B		C	5.15	842	C		C	5.15	860	C		B	2.80	764	B	
	4:00 PM	B	2.85	734	B		B	2.85	729	B		B	2.85	672	B		B	2.80	740	B		B	2.85	695	B	
	5:00 PM	B	2.85	699	B		B	2.85	764	B		B	2.85	681	B		B	2.85	760	B		B	2.85	561	B	
	6:00 PM	B	2.85	648	B		B	2.85	704	B		B	2.85	665	B		B	2.85	743	B		B	2.85	552	B	
	7:00 PM	B	2.85	435	B		B	2.85	644	B		B	2.85	689	B		B	2.85	744	B		B	2.85	576	B	
WEEK 18 Oct 28 - Nov 03	Time	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment
	2:00 PM	B	2.85	685	B		C	5.15	808	C		C	5.05	906	C		C	5.05	891	C		C	5.15	913	C	
	3:00 PM	B	2.85	864	C	✓	B	2.80	695	B		C	5.15	803	C		C	5.15	880	C		B	2.80	745	B	
	4:00 PM	B	2.85	761	B		B	2.85	719	B		B	2.85	743	B		B	2.80	785	B		B	2.85	683	B	
	5:00 PM	B	2.85	722	B		B	2.85	755	B		B	2.85	671	B		B	2.85	706	B		B	2.85	713	B	
	6:00 PM	B	2.85	673	B		B	2.85	731	B		B	2.85	738	B		B	2.85	682	B		B	2.85	736	B	
7:00 PM	B	2.85	582	B		B	2.85	704	B		B	2.85	603	B		B	2.85	611	B		B	2.85	559	B		
WEEK 19 Nov 04 - Nov 10	Time	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment
	2:00 PM	B	2.85	753	B		C	5.15	839	C		C	5.05	832	C		C	5.05	913	C		C	5.15	873	C	
	3:00 PM	B	2.85	854	C	✓	B	2.80	755	B		C	5.15	806	C		C	5.15	808	C		B	2.80	745	B	
	4:00 PM	B	2.85	751	B		B	2.85	714	B		B	2.85	755	B		B	2.80	680	B		B	2.85	675	B	
	5:00 PM	B	2.85	754	B		B	2.85	665	B		B	2.85	630	B		B	2.85	732	B		B	2.85	676	B	
	6:00 PM	B	2.85	662	B		B	2.85	754	B		B	2.85	623	B		B	2.85	703	B		B	2.85	664	B	
7:00 PM	B	2.85	477	B		B	2.85	605	B		B	2.85	611	B		B	2.85	732	B		B	2.85	608	B		
WEEK 20 Nov 11 - Nov 17	Time	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment
	2:00 PM	B	2.85	667	B		C	5.15	754	B	✓	C	5.05	791	B		C	5.05	923	C		C	5.15	895	C	
	3:00 PM	B	2.85	591	C	✓	B	2.80	755	B		C	5.15	792	B	✓	C	5.15	859	C		B	2.80	813	C	✓
	4:00 PM	B	2.85	681	B		B	2.85	712	B		B	2.85	722	B		B	2.80	710	B		B	2.85	696	B	
	5:00 PM	B	2.85	615	B		B	2.85	717	B		B	2.85	638	B		B	2.85	655	B		B	2.85	710	B	
	6:00 PM	B	2.85	554	B		B	2.85	719	B		B	2.85	746	B		B	2.85	320	A	✓	B	2.85	688	B	
7:00 PM	B	2.85	420	B		B	2.85	584	B		B	2.85	667	B		B	2.85	672	B		B	2.85	731	B		
WEEK 21 Nov 18 - Nov 24	Time	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment
	2:00 PM	B	2.85	806	C	✓	C	5.15	855	C		B	2.85	167	A	✓	B	2.85	546	B		A	1.90	411	B	✓
	3:00 PM	B	2.85	837	C	✓	B	2.80	670	B		B	2.85	413	B		B	2.85	511	B		A	1.90	400	A	✓
	4:00 PM	B	2.85	761	B		B	2.85	749	B		B	2.85	67	A	✓	B	2.85	531	B		A	1.90	339	A	✓
	5:00 PM	B	2.85	677	B		B	2.85	726	B		B	2.85	55	A	✓	B	2.85	586	B		A	1.90	353	A	✓
	6:00 PM	B	2.85	645	B		B	2.85	714	B		B	2.85	402	B		B	2.85	591	B		A	1.90	275	A	✓
7:00 PM	B	2.85	567	B		B	2.85	711	B		B	2.85	444	B		B	2.85	692	B		A	1.90	252	A	✓	
WEEK 22 Nov 25 - Dec 01	Time	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment
	2:00 PM	B	2.85	763	B		C	5.15	841	C		C	5.05	761	B	✓	F	\$5.05	751	B	✓	F	\$5.15	899	C	✓
	3:00 PM	B	2.85	796	B		B	2.80	774	B		C	5.15	856	C		F	\$5.15	752	B	✓	F	\$2.80	732	B	✓
	4:00 PM	B	2.85	659	B		B	2.85	744	B		B	2.85	822	C	✓	F	\$2.80	618	B	✓	F	\$2.85	699	B	✓
	5:00 PM	B	2.85	724	B		B	2.85	724	B		B	2.85	641	B		F	\$2.85	516	B	✓	F	\$2.85	659	B	✓
	6:00 PM	B	2.85	658	B		B	2.85	618	B		B	2.85	699	B		F	\$2.85	565	B	✓	F	\$2.85	682	B	✓
7:00 PM	B	2.85	464	B		B	2.85	638	B		B	2.85	767	B		F	\$2.85	467	B	✓	F	\$2.85	603	B	✓	



RCTC WESTBOUND PEAK VOLUMES FOR DETERMINING TOLL ADJUSTMENTS Westbound AM Peak - McKinley to County Line

DURING RAMP-UP PERIOD (March 20, 2017 to March 19, 2019)

Toll Adjustment Consideration

Above Current LOS
Below Current LOS
Toll Adjustment (+)
Toll Adjustment (-)

Latest 6 Congestion-Relief Toll Adjustments

May 21, 2018	3 Tolls received adjustments
June 11, 2018	3 Tolls received adjustments
July 1, 2018	574 Tolls received COLA adjustments
August 19, 2018	1 Toll received adjustments
October 1, 2018	30 Tolls received adjustments
November 12, 2018	37 Tolls received adjustments

Level of Service (LOS)

A	0-400
B	401-800
C	801-1000
D	1001-1200
E	1201-1350
F	>1350

Traffic Volume (Range)

A	0-400
B	401-800
C	801-1000
D	1001-1200
E	1201-1350
F	>1350

	Monday (AM)						Tuesday (AM)						Wednesday (AM)						Thursday (AM)						Friday (AM)					
	Time	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment				
WEEK 17 Oct 23 - Oct 27	4:00 AM	E	6.55	1,446	F	✓	E	6.55	1,419	F	✓	E	6.55	1,522	F	✓	E	6.55	1,502	F	✓	C	3.95	1,104	D	✓				
	5:00 AM	F	17.90	1,241	E	✓	F	16.15	1,529	F	✓	F	17.15	1,139	D	✓	F	16.90	1,228	E	✓	F	7.90	1,481	F	✓				
	6:00 AM	F	16.55	1,232	E	✓	F	16.15	1,213	E	✓	F	15.15	1,342	E	✓	F	15.15	1,272	E	✓	F	7.15	1,534	F	✓				
	7:00 AM	F	11.90	1,517	F	✓	F	11.90	1,499	F	✓	F	12.65	1,642	F	✓	F	10.90	1,569	F	✓	E	6.70	1,418	F	✓				
	8:00 AM	F	7.15	1,707	F	✓	F	7.15	1,634	F	✓	F	7.15	1,595	F	✓	F	7.90	1,629	F	✓	D	5.15	1,272	E	✓				
	9:00 AM	C	4.05	1,201	E	✓	D	5.05	1,357	F	✓	C	3.95	1,253	E	✓	C	3.95	1,430	F	✓	C	4.05	934	C	✓				
WEEK 18 Oct 28 - Nov 03	4:00 AM	E	6.55	1,448	F	✓	E	6.55	1,432	F	✓	E	6.55	1,502	F	✓	E	6.55	1,481	F	✓	C	3.95	1,120	D	✓				
	5:00 AM	F	17.90	1,328	E	✓	F	16.15	1,477	F	✓	F	17.15	1,198	D	✓	F	16.90	1,379	D	✓	C	7.90	1,527	F	✓				
	6:00 AM	F	16.55	1,268	E	✓	F	16.15	1,058	D	✓	F	15.15	1,367	E	✓	F	15.15	1,306	E	✓	F	7.15	1,523	F	✓				
	7:00 AM	F	11.90	1,632	F	✓	F	11.90	1,606	F	✓	F	12.65	1,586	F	✓	F	10.90	1,555	F	✓	E	6.70	1,480	F	✓				
	8:00 AM	F	7.15	1,510	F	✓	F	7.15	1,607	F	✓	F	7.15	1,467	F	✓	F	7.90	1,433	F	✓	D	5.15	1,157	D	✓				
	9:00 AM	C	4.05	1,227	E	✓	D	5.05	1,230	E	✓	C	3.95	1,017	D	✓	C	3.95	1,508	F	✓	C	4.05	890	C	✓				
WEEK 19 Nov 04 - Nov 10	4:00 AM	E	6.55	1,379	F	✓	E	6.55	1,496	F	✓	E	6.55	1,497	F	✓	E	6.55	1,334	E	✓	C	3.95	1,172	D	✓				
	5:00 AM	F	17.90	1,415	F	✓	F	16.15	1,436	F	✓	F	17.15	1,142	D	✓	F	16.90	1,194	D	✓	F	7.90	1,480	F	✓				
	6:00 AM	F	16.55	1,111	D	✓	F	16.15	1,241	E	✓	F	15.15	1,374	F	✓	F	15.15	1,391	F	✓	F	7.15	1,608	F	✓				
	7:00 AM	F	11.90	1,552	F	✓	F	11.90	1,446	F	✓	F	12.65	1,723	F	✓	F	10.90	1,918	F	✓	E	6.70	1,411	F	✓				
	8:00 AM	F	7.15	1,618	F	✓	F	7.15	1,472	F	✓	F	7.15	1,546	F	✓	F	7.90	1,556	F	✓	D	5.15	1,229	E	✓				
	9:00 AM	C	4.05	1,240	E	✓	D	5.05	1,391	F	✓	C	3.95	1,167	D	✓	C	3.95	1,276	E	✓	C	4.05	904	C	✓				
WEEK 20 Nov 11 - Nov 17	4:00 AM	E	6.55	932	C	✓	E	6.55	1,386	F	✓	E	6.55	1,519	F	✓	E	6.55	1,479	F	✓	C	3.95	1,077	D	✓				
	5:00 AM	F	18.90	923	C	✓	F	17.45	1,403	F	✓	F	18.45	1,345	D	✓	F	18.20	1,285	E	✓	F	7.90	1,576	F	✓				
	6:00 AM	F	17.55	908	C	✓	F	17.45	1,114	D	✓	F	18.45	1,372	F	✓	F	16.15	1,320	E	✓	F	7.15	1,547	F	✓				
	7:00 AM	F	13.20	984	C	✓	F	13.20	1,527	F	✓	F	13.95	1,609	F	✓	F	12.20	1,633	F	✓	E	6.70	1,447	F	✓				
	8:00 AM	F	8.45	957	C	✓	F	8.45	1,608	F	✓	F	8.45	1,536	F	✓	F	9.20	1,524	F	✓	D	5.15	1,301	E	✓				
	9:00 AM	C	4.05	912	C	✓	D	5.05	1,358	F	✓	C	3.95	1,147	D	✓	C	3.95	1,370	F	✓	C	4.05	900	C	✓				
WEEK 21 Nov 18 - Nov 24	4:00 AM	E	6.55	1,534	F	✓	E	6.55	1,457	F	✓	F	7.45	1,103	D	✓	A	1.50	43	A	✓	A	1.50	110	A	✓				
	5:00 AM	F	18.90	1,429	F	✓	F	17.45	1,582	F	✓	E	6.70	1,535	F	✓	A	1.50	61	A	✓	A	1.50	203	A	✓				
	6:00 AM	F	17.55	1,221	E	✓	F	17.15	1,116	D	✓	E	6.70	1,301	E	✓	A	1.50	74	A	✓	A	1.50	256	A	✓				
	7:00 AM	F	13.20	1,520	F	✓	F	13.20	1,461	F	✓	E	6.70	1,227	E	✓	A	1.50	124	A	✓	A	1.50	314	A	✓				
	8:00 AM	F	8.45	1,512	F	✓	F	8.45	1,484	F	✓	C	4.05	1,100	D	✓	A	1.50	210	A	✓	A	1.50	383	A	✓				
	9:00 AM	C	4.05	1,212	E	✓	D	5.05	1,117	D	✓	B	2.20	856	C	✓	B	2.20	357	A	✓	B	2.20	467	B	✓				
WEEK 22 Nov 25 - Dec 01	4:00 AM	E	6.55	1,548	F	✓	E	6.55	1,442	F	✓	E	6.55	1,549	F	✓	E	6.55	1,421	F	✓	C	3.95	1,117	D	✓				
	5:00 AM	F	18.90	1,475	F	✓	F	17.45	1,465	F	✓	F	18.45	1,238	E	✓	F	18.20	1,069	D	✓	F	7.90	1,442	F	✓				
	6:00 AM	F	17.55	1,227	E	✓	F	17.15	1,054	D	✓	F	16.15	1,516	F	✓	F	16.15	1,233	E	✓	F	7.15	1,545	F	✓				
	7:00 AM	F	13.20	1,499	F	✓	F	13.20	1,550	F	✓	F	13.95	1,619	F	✓	F	12.20	1,385	F	✓	E	6.70	1,437	F	✓				
	8:00 AM	F	8.45	1,599	F	✓	F	8.45	1,644	F	✓	F	8.45	1,643	F	✓	F	9.20	1,375	F	✓	D	5.15	1,311	E	✓				
	9:00 AM	C	4.05	1,197	D	✓	D	5.05	1,426	F	✓	C	3.95	1,345	E	✓	C	3.95	1,345	E	✓	C	4.05	906	C	✓				



RCTC WESTBOUND PEAK VOLUMES FOR DETERMINING TOLL ADJUSTMENTS
Westbound AM Peak - I-15 North to County Line
DURING RAMP-UP PERIOD (March 20, 2017 to March 19, 2019)

Toll Adjustment Consideration	
Yellow	Above Current LOS
Light Blue	Below Current LOS
Green	Toll Adjustment (+)
Red	Toll Adjustment (-)

Latest 6 Congestion-Relief Toll Adjustments

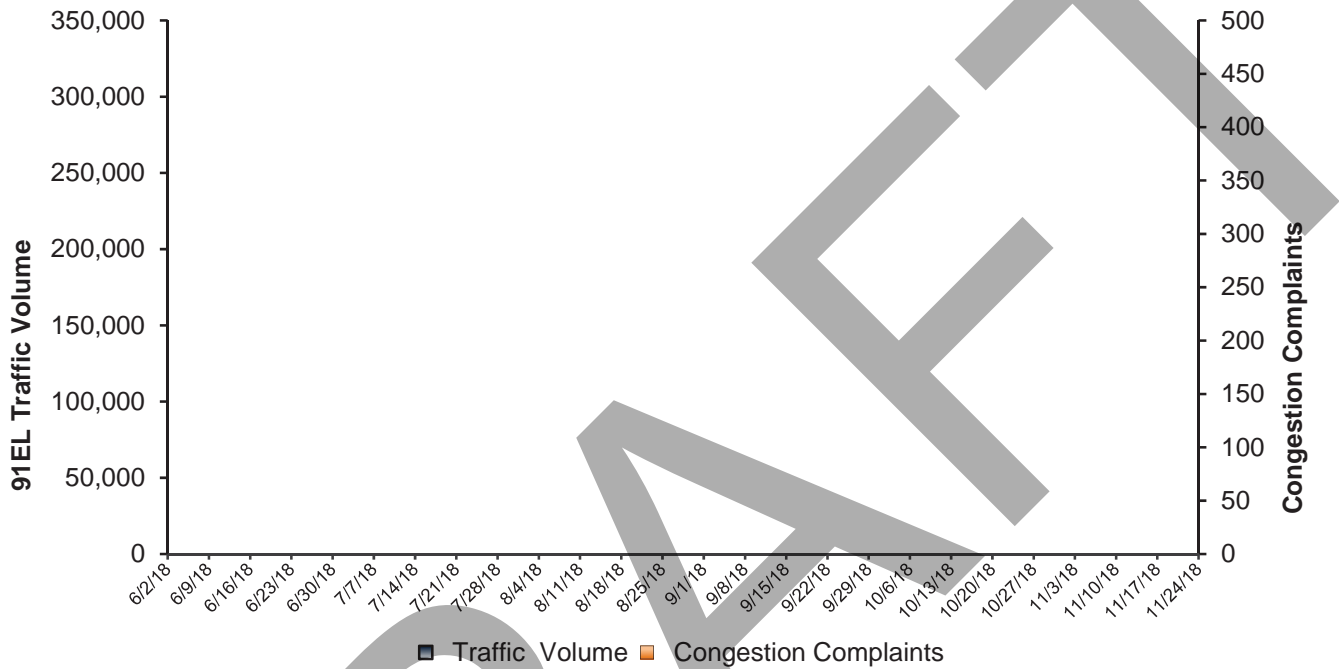
May 21, 2018	3 Tolls received adjustments
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October 1, 2018	30 Tolls received adjustments
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Level of Service (LOS)	Traffic Volume (Range)
A	0-400
B	401-800
C	801-1000
D	1001-1200
E	1201-1400
F	>1400

	Monday (AM)					Tuesday (AM)					Wednesday (AM)					Thursday (AM)					Friday (AM)					
	Time	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment	Current LOS	Current Toll	Volume	Actual LOS	Available for Toll Adjustment
WEEK 17 Oct 21 - Oct 27	4:00 AM	C	5.05	1,023	D	✓	C	5.05	997	C	✓	C	5.05	988	C	✓	C	5.05	882	C	✓	B	2.85	813	C	✓
	5:00 AM	F	16.40	1,322	E	✓	F	14.40	1,324	E	✓	F	14.40	1,399	E	✓	F	12.40	1,421	F	✓	C	5.15	1,266	E	✓
	6:00 AM	F	15.40	1,430	F	✓	F	13.40	1,416	F	✓	F	15.40	1,297	E	✓	F	13.40	1,262	E	✓	D	6.65	1,223	E	✓
	7:00 AM	F	11.40	1,383	E	✓	F	9.40	1,408	F	✓	F	11.40	1,435	F	✓	F	10.40	1,432	F	✓	C	5.15	1,051	D	✓
	8:00 AM	D	6.50	1,337	E	✓	D	6.50	1,456	F	✓	D	6.50	1,293	E	✓	D	6.65	1,350	E	✓	C	5.15	947	C	✓
	9:00 AM	C	5.05	873	C	✓	C	5.15	996	C	✓	C	5.15	1,016	D	✓	C	5.15	1,006	D	✓	B	2.85	699	B	✓
WEEK 18 Oct 28 - Nov 03	4:00 AM	C	5.05	1,044	D	✓	C	5.05	971	C	✓	C	5.05	935	C	✓	C	5.05	958	C	✓	B	2.85	803	C	✓
	5:00 AM	F	16.40	1,299	E	✓	F	14.40	1,315	E	✓	F	14.40	1,482	F	✓	F	12.40	1,457	F	✓	C	5.15	1,244	E	✓
	6:00 AM	F	15.40	1,375	E	✓	F	13.40	1,340	E	✓	F	15.40	1,416	F	✓	F	13.40	1,392	E	✓	D	6.65	1,198	D	✓
	7:00 AM	F	11.40	1,334	E	✓	F	9.40	1,438	F	✓	F	11.40	1,370	E	✓	F	10.40	1,379	E	✓	C	5.15	1,044	D	✓
	8:00 AM	D	6.50	1,203	E	✓	D	6.50	1,468	F	✓	D	6.50	1,160	D	✓	D	6.65	1,211	E	✓	C	5.15	949	C	✓
	9:00 AM	C	5.05	851	C	✓	C	5.15	965	C	✓	C	5.15	886	C	✓	C	5.15	976	C	✓	B	2.85	741	B	✓
WEEK 19 Nov 04 - Nov 10	4:00 AM	C	5.05	1,073	D	✓	C	5.05	1,044	D	✓	C	5.05	984	C	✓	C	5.05	974	C	✓	B	2.85	814	C	✓
	5:00 AM	F	16.40	1,350	E	✓	F	14.40	1,369	E	✓	F	14.40	1,446	F	✓	F	12.40	1,426	F	✓	C	5.15	1,312	E	✓
	6:00 AM	F	15.40	1,391	E	✓	F	13.40	1,439	F	✓	F	15.40	1,320	E	✓	F	13.40	1,380	E	✓	D	6.65	1,238	E	✓
	7:00 AM	F	11.40	1,413	F	✓	F	9.40	1,441	F	✓	F	11.40	1,478	F	✓	F	10.40	1,490	F	✓	C	5.15	1,052	D	✓
	8:00 AM	D	6.50	1,354	E	✓	D	6.50	1,449	F	✓	D	6.50	1,289	E	✓	D	6.65	1,238	E	✓	C	5.15	927	C	✓
	9:00 AM	C	5.05	965	C	✓	C	5.15	1,070	D	✓	C	5.15	943	C	✓	C	5.15	1,002	D	✓	B	2.85	651	B	✓
WEEK 20 Nov 11 - Nov 17	4:00 AM	C	5.05	616	B	✓	C	5.05	1,069	D	✓	C	5.05	995	C	✓	C	5.05	987	C	✓	B	2.85	864	C	✓
	5:00 AM	F	17.40	882	C	✓	F	15.40	1,384	E	✓	F	15.70	1,353	E	✓	F	13.70	1,485	F	✓	C	5.15	1,299	E	✓
	6:00 AM	F	16.40	1,001	D	✓	F	14.70	1,474	F	✓	F	16.70	1,402	F	✓	F	14.70	1,392	E	✓	D	6.65	1,171	D	✓
	7:00 AM	F	12.40	768	B	✓	F	10.70	1,450	F	✓	F	12.70	1,477	F	✓	F	11.70	1,409	F	✓	C	5.15	1,109	D	✓
	8:00 AM	E	8.55	703	B	✓	E	8.55	1,350	E	✓	E	8.55	1,152	D	✓	D	6.65	1,198	D	✓	C	5.15	895	C	✓
	9:00 AM	C	5.05	644	B	✓	C	5.15	993	C	✓	C	5.15	948	C	✓	C	5.15	970	C	✓	B	2.85	686	B	✓
WEEK 21 Nov 18 - Nov 24	4:00 AM	C	5.05	1,035	D	✓	C	5.05	985	C	✓	C	5.15	818	C	✓	A	1.90	48	A	✓	A	1.90	92	A	✓
	5:00 AM	F	17.40	1,335	E	✓	F	15.40	1,373	E	✓	E	8.55	1,143	D	✓	A	1.90	67	A	✓	A	1.90	167	A	✓
	6:00 AM	F	16.40	1,194	F	✓	F	14.70	1,353	E	✓	C	5.15	1,099	D	✓	A	1.90	70	A	✓	A	1.90	181	A	✓
	7:00 AM	F	12.40	1,385	E	✓	F	10.70	1,112	D	✓	B	2.85	899	C	✓	A	1.90	98	A	✓	A	1.90	177	A	✓
	8:00 AM	E	8.55	1,188	D	✓	E	8.55	1,022	D	✓	B	2.85	804	C	✓	A	1.90	175	A	✓	A	1.90	256	A	✓
	9:00 AM	C	5.05	772	B	✓	C	5.15	812	C	✓	B	2.85	563	B	✓	A	1.90	338	A	✓	A	1.90	393	A	✓
WEEK 22 Nov 25 - Dec 01	4:00 AM	C	5.05	1,101	D	✓	C	5.05	1,000	C	✓	C	5.05	1,037	D	✓	C	5.05	917	C	✓	B	2.85	826	C	✓
	5:00 AM	F	17.40	1,375	E	✓	F	15.40	1,461	F	✓	F	15.70	1,407	F	✓	F	13.70	1,357	C	✓	C	5.15	1,199	D	✓
	6:00 AM	F	16.40	1,415	F	✓	F	14.70	1,462	F	✓	F	16.70	1,339	E	✓	F	14.70	1,305	E	✓	D	6.65	1,072	D	✓
	7:00 AM	F	12.40	1,279	E	✓	F	10.70	1,362	E	✓	F	12.70	1,423	F	✓	F	11.70	1,057	D	✓	C	5.15	1,033	D	✓
	8:00 AM	E	8.55	1,143	D	✓	E	8.55	1,349	E	✓	E	8.55	1,289	E	✓	D	6.65	1,049	D	✓	C	5.15	991	C	✓
	9:00 AM	C	5.05	850	C	✓	C	5.15	897	C	✓	C	5.15	951	C	✓	C	5.15	500	B	✓	B	2.85	698	B	✓

**RCTC's Most Recent 6-Month Period
June 2018 through November 2018**

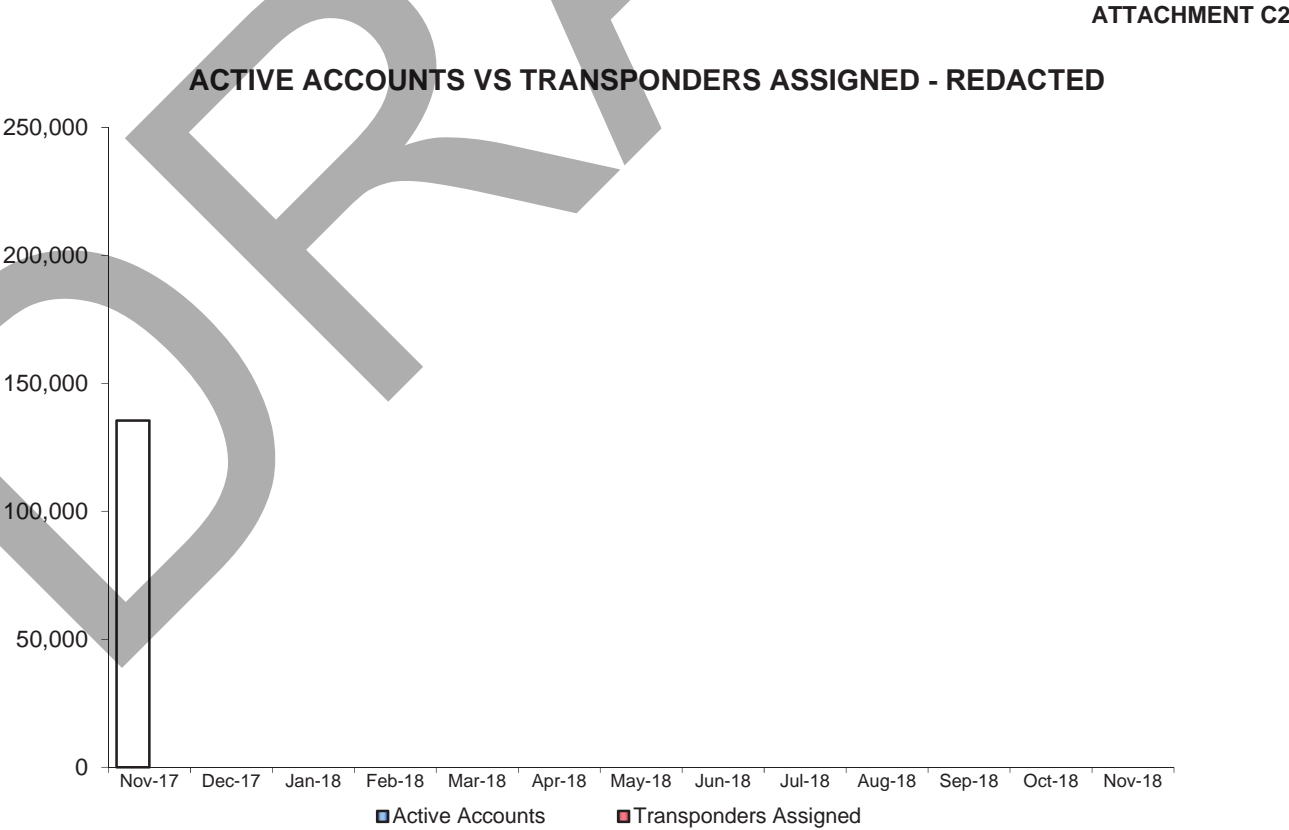
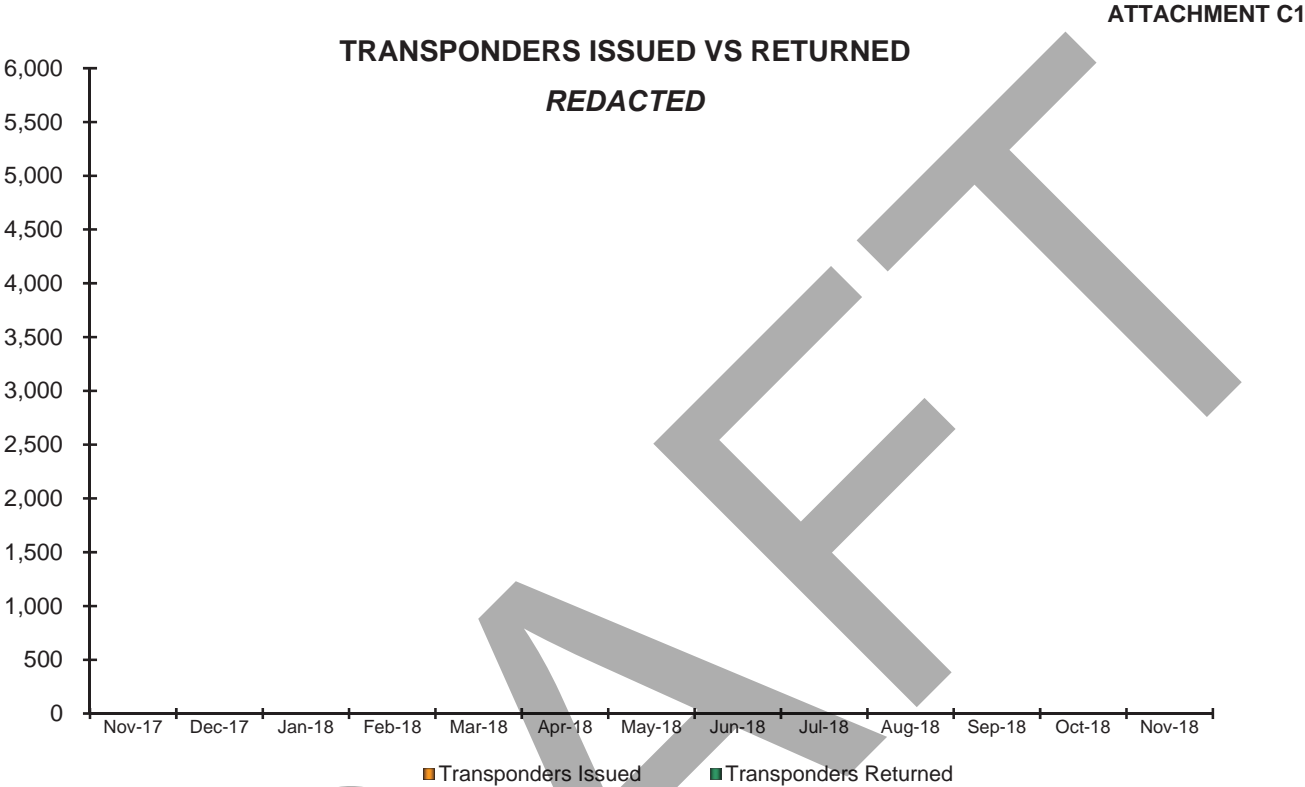
Traffic Volume vs Congestion Complaints - Redacted



Congestion Complaints vs Toll Credits Issued - Redacted



91 Express Lanes
TRANSPONDER DISTRIBUTION
Most Recent 13-Month Period
November 2017 through November 2018



91 Express Lanes
CUSTOMER COMMUNICATION CHANNEL
Most Recent 13-Month Period
November 2017 through November 2018

REDACTED

Nov-18
Oct-18
Sep-18
Aug-18
Jul-18
Jun-18
May-18
Apr-18
Mar-18
Feb-18
Jan-18
Dec-17
Nov-17

■ CSC Phones

■ Website

■ Email

■ US Mail

Sample Quarterly Status Report

Sample 91 Express Lanes Quarterly Status Report

NOTE: Some data has been redacted.

Attached is the 91 Express Lanes Quarterly Status Report for the First Quarter of OCTA's Fiscal Year 2018-19; July 1 through September 30, 2018.

The following information is provided in this report:

1. OPERATIONS

- 1.1 Quarterly Operations Overview
 - 1.1a Trip and Revenue Statistics for the First Quarter of FY2018-19
 - 1.1b Multi Agency Trip and Revenue Statistics
- 1.2 Operations Highlights
 - 1.2.1 Customer Accounts and Transponder Distribution
 - 1.2.2 Traffic Volumes
 - 1.2.3 Incidents and Accidents
 - 1.2.4 On-road Maintenance
 - 1.2.5 Customer Service and Violation Processing
 - 1.2.6 ETTM Status
 - 1.2.7 Information Technology

2. FINANCIAL PERFORMANCE

3. OTHER ACTIVITIES AND ISSUES

- 3.1 Traffic Volume and Associated Potential Revenue
- 3.2 Active Accounts and Transponders Assigned

91 EXPRESS LANES QUARTERLY STATUS REPORT**FIRST QUARTER - OCTA FISCAL YEAR 2018-19**

July 1 through September 30, 2018

1. OPERATIONS**1.1 Quarterly Operations Overview**

Total traffic volume on the 91 Express Lanes for the first quarter of Fiscal Year 2018-19 was 4,467,727; representing a daily average of 48,562. This is an increase of 1.3% in total traffic volume from the previous quarter's total of 4,408,575. Potential toll revenue for the first quarter is \$13,172,688; an increase of 1.7% from the previous quarter's total of \$12,947,640. Traffic volume for the first quarter of FY 2018-19 was up 7.7% compared to the first quarter of FY 2017-18. Potential revenue for the same period was 7.0% above that of FY 2017-18. Carpool percentage for the first quarter was 26.6%, compared to 25.9% in the previous quarter. The first quarter traffic and revenue data compared to Stantec projections are summarized below.

Please note that the trip and revenue statistics table 1.1a represents all trips taken on the OCTA portion of the 91 Express Lanes and associated potential revenue. The Multi Agency Trip and Revenue statistics table 1.1b represents all trips taken on the 91 Express Lanes and associated revenue by Agency segments.

1.1a Trip and Revenue Statistics for the First Quarter of FY 2018-19

(FY2016-17 and FY2017-18 data is for July 1 through September 30, 2018)

Trips	FY 2018-19 1st Qtr	Stantec 1st Qtr Projected	# Variance	% Variance	FY 2017-18 1st Qtr	Yr-to-Yr % Variance
Full Toll Lanes	3,280,307	3,312,475	(32,168)	(1.0%)	3,100,900	5.8%
3+ Lanes	1,187,420	1,043,523	143,897	13.8%	1,047,712	13.3%
Total Gross Trips	4,467,727	4,355,998	111,729	2.6%	4,148,612	7.7%
Revenue						
Full Toll Lanes	\$12,944,382	\$13,185,568	(\$241,186)	(1.8%)	\$12,087,254	7.1%
3+ Lanes	\$228,306	\$251,468	(\$23,163)	(9.2%)	\$221,621	3.0%
Total Gross Revenue	\$13,172,688	\$13,437,036	(\$264,348)	(2.0%)	\$12,308,875	7.0%
Average Revenue per Trip						
Average Full Toll Lanes	\$3.95	\$3.98	(\$0.03)	(0.8%)	\$3.90	1.3%
Average 3+ Lanes	\$0.19	\$0.24	(\$0.05)	(20.8%)	\$0.21	(9.5%)
Average Gross Revenue	\$2.95	\$3.08	(\$0.13)	(4.2%)	\$2.97	(0.7%)

1.1b Multi-Agency Trip and Revenue Statistics for the First Quarter of FY 2018-19

MULTI AGENCY TRIP AND REVENUE STATISTICS

QUARTER ENDING September 30, 2018

FY 18-19 1st Qtr	Transactions by Agency	Transactions Using Both Segments	% Using Both Segments	Revenue
Westbound				
OCTA	2,193,431	1,344,289	61%	\$ 5,408,641
RCTC	2,104,105	1,344,289	64%	\$ 8,676,885
I-15	910,450	605,703	67%	\$ 3,920,155
McKinley	1,193,655	738,586	62%	\$ 4,756,731
Eastbound				
OCTA	2,274,296	1,241,190	55%	\$ 7,764,047
RCTC	1,784,871	1,241,190	70%	\$ 5,053,502
I-15	641,434	493,975	77%	\$ 1,387,906
McKinley	1,143,437	747,215	65%	\$ 3,665,596

1.2 Operations Highlights

1.2.1 Customer Accounts and Transponder Distribution

During the first quarter of FY2018-19, the 91 Express Lanes opened a daily average of 53 new accounts per 7-day week. Total active customer accounts at the end of the first quarter numbered 143,301 with 218,136 transponders assigned. As of the end of the first quarter, full-toll paying accounts made up approximately 92% of all active accounts. Full-toll paying accounts include all accounts except discount-toll accounts (3+Carpool, zero emission vehicles, disabled person, disabled veteran, and motorcycle) and non-toll accounts (Caltrans, CHP).

1.2.2 Traffic Volumes

Combined Facility (SR91 general-purpose lanes plus OCTA 91 Express Lanes) global demand data is compiled at the mid-point of the OCTA Express Lanes between Imperial Hwy and Weir Canyon using Caltrans' loops; therefore, traffic volumes are only a representation of throughput in the 91 Corridor and may differ from traffic volumes obtained through OCTA's TollPlus system.

During the first quarter, weekday peak-hour global demand averaged 94,096 vehicles per weekday (excluding holidays). During peak traffic hours the OCTA 91 Express Lanes captured 38% of the eastbound evening commuter traffic and 21% of the westbound morning commuter traffic, with overall capture rate of 29%.

1.2.3 Incidents and Accidents

OCTA Customer Assistance Specialists responded to an average of 4 calls per day during the first quarter. The majority of these calls continue to be debris removal and assisting stalled vehicles.

There were 38 accidents reported during the first quarter; of the 38 accidents reported, 23 originated in the OCTA 91 Express Lanes and 15 originated in the general purpose lanes.

1.2.5 Customer Service and Violation Processing- REDACTED

Activity	Response	Performance Standard
Call Wait Times		
Abandon Rate		
Total Calls		
Calls Handled by Customer Service Reps		
Calls Handled by IVR (automated system)		
Transponder Distribution		
Processing Response Time		

During the fourth quarter, Violation Processing processed 151,145 OCTA transactions (vehicles without transponder-reads or valid accounts). These violations are pursued in accordance with state toll-evasion enforcement procedures and OCTA policy.

First-quarter and year-to-date collection efforts are summarized in the following table:

COLLECTION EFFORTS	Q1		FY 2018-19 To-Date	
	Records	Recovered	Records	Recovered
COFIROUTE RECOVERED				
Customer Violations				
Non-customer Violations				
Cofiroute Collection Totals:				
COLLECTIONS AGENCY RECOVERED				
Unresolved Customer Acct Collections				
Unresolved Non-customer Violations				
Judgments				
*Tax Intercept				
*Lottery Intercept				
Collections Agency Totals:				
TOTAL COLLECTION:				

*Note: Data is based on activity quarter when collected. Additional data may be received after the date of this report.

1.2.6 ETTM

Cofiroute USA completed maintenance on the ETTM equipment at lane level. Coordinated efforts were made with vendors to perform maintenance on generators, A/C units, and UPS units. Damaged cameras were replaced and sent out for repairs. Quarterly Vault inspections were completed. Various OCTA equipment was bench tested to insure proper functionality before installation in the field. Failed Equipment was replaced with spare units in the lanes and sent to vendors for replacement. Failed sign equipment was replaced with vendor provided spares. Crosstown re-terminated the connection to the OCTA 55NB info sign switch.

1.2.7 Information Technology

During the first quarter, routine IT operations including hardware maintenance, security patches, and updates were performed on schedule. Migration from WhatsUp Gold to Solarwinds has been completed for system monitoring as well. New Virtual Machine group was installed and configured on Nimble. All NetApp VMs were successfully migrated to the new Nimble VM farm. Quarterly and monthly system checks were also completed on schedule.

On July 24, 2018, in the late evening, the Barracuda Web Filter became unresponsive and required a power cycle to regain functionality.

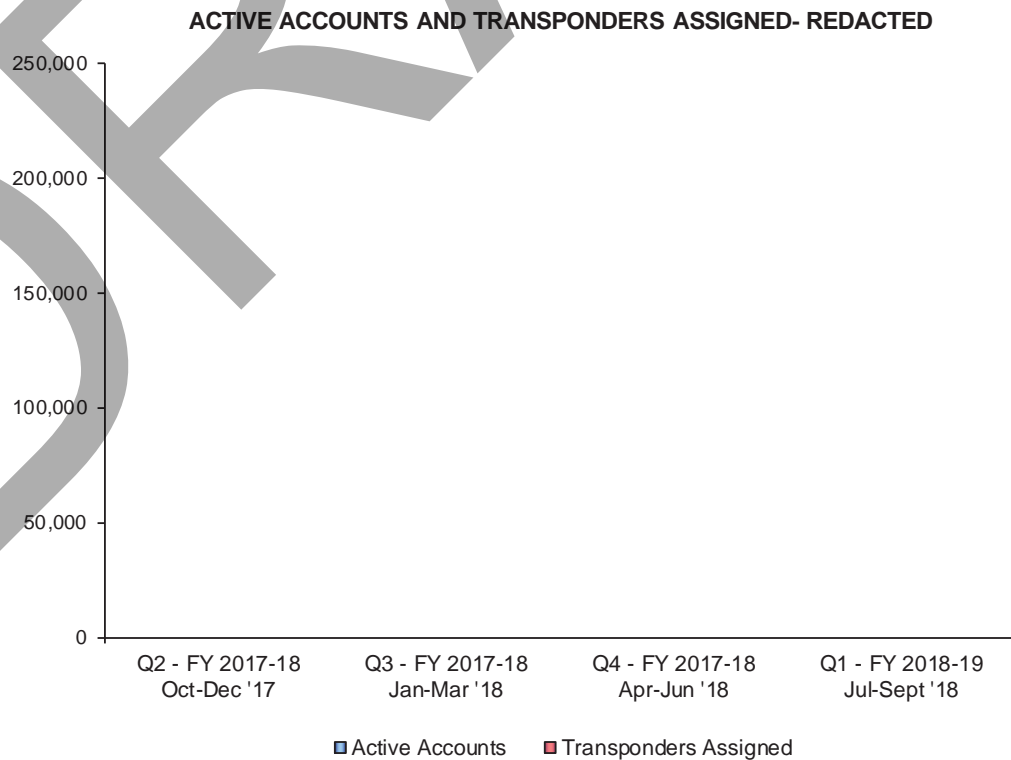
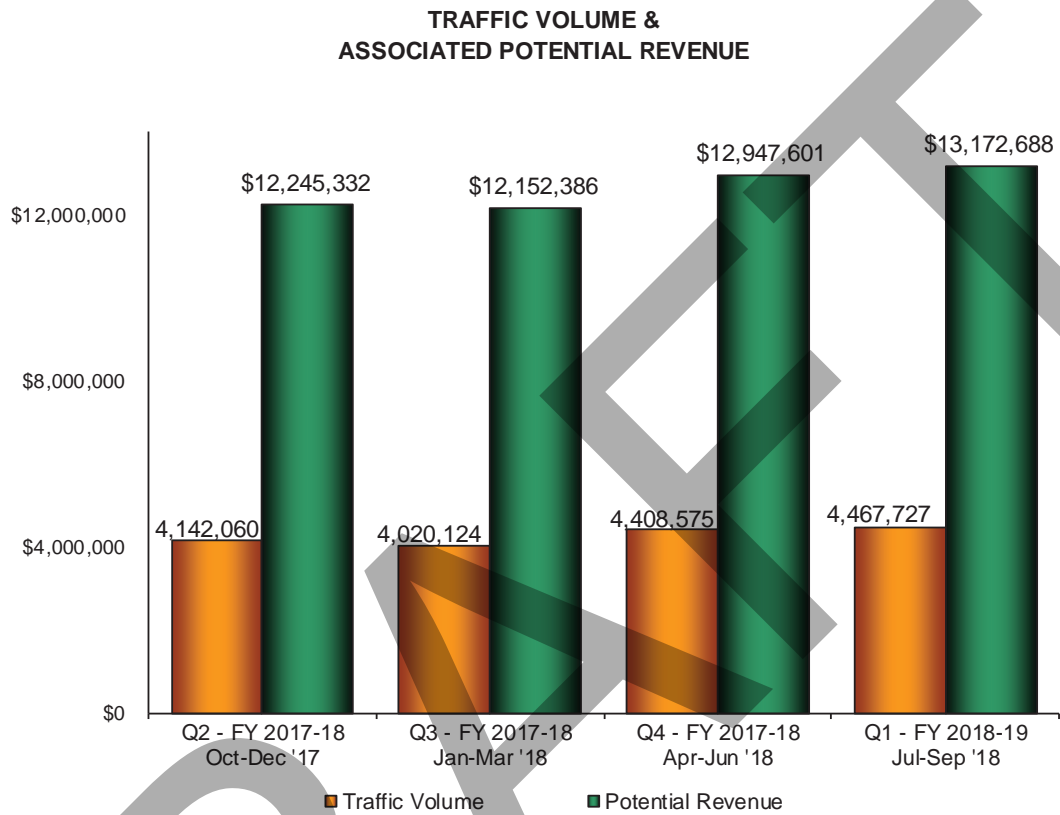
2. FINANCIAL PERFORMANCE

Traffic and revenue statistics for the first quarter of FY 2018-19 are detailed in Section 1.1 of this report. OCTA prepares the consolidated financials for the 91 Express Lanes. On a monthly basis, Cofiroute USA provides OCTA with financial data regarding certain revenue and expenditure categories and line items under Cofiroute USA control.

Cofiroute USA continues to provide OCTA with the required financial information on or before the required date each month.

3. OTHER ACTIVITIES AND ISSUES

OCTA'S FISCAL YEAR 2018-19 ~ Q1 Most-recent Four Quarters



Sample Weekday Peak-Hour Traffic, Global Demand and Traffic and Revenue Statistics

Following are the Weekday Peak-Hour Traffic, Global Demand and Traffic and Revenue statistics for the 91 Express Lanes for the period Jan 06-12, 2019. The Multi Agency Trip and Revenue Statistics and Weekday Peak Volumes for Determining Toll Adjustments are also provided.

WEEKDAY PEAK-HOUR TRAFFIC

Eastbound PM Peak

PM Time	Monday 01/07/19				Tuesday 01/08/19				Wednesday 01/09/19				Thursday 01/10/19				Friday 01/11/19			
	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.
1400 - 1500	\$5.05	445	2,494	73%	\$5.05	478	2,851	84%	\$5.05	448	2,885	85%	\$5.95	534	3,260	96%	\$6.35	588	3,359	99%
1500 - 1600	\$5.40	713	3,274	96%	\$5.65	683	2,823	83%	\$7.00	749	2,959	87%	\$6.00	680	3,093	91%	\$9.65	785	2,632	77%
1600 - 1700	\$5.25	470	2,765	81%	\$5.50	492	2,917	86%	\$6.75	518	3,151	93%	\$8.80	597	3,020	89%	\$9.45	531	2,617	77%
1700 - 1800	\$5.20	623	3,053	90%	\$5.40	539	2,880	85%	\$6.90	479	2,493	73%	\$9.20	530	2,357	69%	\$6.90	627	2,872	84%
1800 - 1900	\$5.40	768	2,576	76%	\$3.85	741	2,953	87%	\$3.85	751	2,902	85%	\$4.75	761	2,978	88%	\$6.40	796	2,889	85%
1900 - 2000	\$3.75	436	1,379	41%	\$3.75	653	2,347	69%	\$3.75	728	2,573	76%	\$5.50	761	2,646	78%	\$5.95	685	2,149	63%

Westbound AM Peak

AM Time	Monday 01/07/19				Tuesday 01/08/19				Wednesday 01/09/19				Thursday 01/10/19				Friday 01/11/19			
	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.	Price	HOV	Vol.	Cap.
0400 - 0500	\$3.00	772	2,461	72%	\$3.00	775	2,343	69%	\$3.00	771	2,393	70%	\$3.00	780	2,335	69%	\$3.00	670	1,936	57%
0500 - 0600	\$4.85	868	2,383	70%	\$4.85	993	2,639	78%	\$4.85	902	2,518	74%	\$4.85	892	2,504	74%	\$4.60	806	2,420	71%
0600 - 0700	\$5.05	626	2,043	60%	\$5.05	632	2,021	59%	\$5.05	675	2,130	63%	\$5.05	656	2,103	62%	\$4.85	651	2,012	59%
0700 - 0800	\$5.55	495	2,008	59%	\$5.55	511	2,054	60%	\$5.55	480	1,944	57%	\$5.55	528	2,091	62%	\$5.40	486	1,963	58%
0800 - 0900	\$5.05	353	1,968	58%	\$5.05	321	1,962	58%	\$5.05	365	2,042	60%	\$5.05	394	2,123	62%	\$4.85	339	1,904	56%
0900 - 1000	\$4.00	404	1,987	58%	\$4.00	350	1,966	58%	\$4.00	411	2,104	62%	\$4.00	395	2,242	66%	\$4.00	359	1,601	47%

WEEKDAY PEAK-HOUR GLOBAL DEMAND

The following throughput data is obtained from the PeMS (Freeway Performance Measurement System) website. This project is conducted by UC Berkeley, with the cooperation of Caltrans. The following Combined Facility data is compiled at the mid-point of the facility using Caltrans' loops; therefore, traffic volumes are only a representation of throughput in the 91 Corridor and will differ from traffic volumes obtained through OCTA's Toll Plus system.

FY 2018-19 Wk	Week Days Monday-Friday	Lanes	Eastbound Demand 2:00-7:59 pm	EB Capture Rate	Westbound Demand 4:00-9:59 am	WB Capture Rate	Combined Facility Demand	Overall Capture Rate
28	Jan 06-12 2019	91EL	82,857	37%	50,151	21%	133,008	28%
		Mainline	143,237	63%	192,674	79%	335,911	72%
		TOTAL:	226,094		242,825		468,919	

February 07, 2019
91EL FY 2018-19 Week 28 Status Report
Page 2 of 3

TRIP AND REVENUE STATISTICS

WEEK ENDING January 12, 2019

(FY 2018-19 and FY 2017-18 data is for Sunday through Saturday)

	FY 2018-19 Current Week Actual	Stantec Current Week Projected	# Variance	% Variance	FY 2017-18 Corresponding Week Actual	Yr-to-Yr % Variance
Trips						
Full Toll Lanes	230,203	242,929	(12,726)	(5.2%)	217,347	5.9%
3+ Lanes	83,315	70,429	12,886	18.3%	72,583	14.8%
Total Gross Trip	313,518	313,358	160	0.1%	289,930	8.1%
Revenue						
Full Toll Lanes	\$ 929,881	\$ 985,987	\$ (56,106)	(5.7%)	\$ 865,878	7.4%
3+ Lanes	\$ 18,807	\$ 18,810	\$ (3)	(0.0%)	\$ 17,343	8.4%
Total Gross Revenue	\$ 948,688	\$ 1,004,797	\$ (56,108)	(5.6%)	\$ 883,221	7.4%
Average Revenue Per Trip						
Average Full Toll Lanes	\$4.04	\$4.06	(\$0.02)	(0.5%)	\$3.98	1.5%
Average 3+ Lanes	\$0.23	\$0.27	(\$0.04)	(14.8%)	\$0.24	(4.2%)
Average Gross Revenue	\$3.03	\$3.21	(\$0.18)	(5.6%)	\$3.05	(0.7%)

MONTH-TO-DATE AS OF January 12, 2019

(FY 2018-19 and FY 2017-18 data is for January 01, 2019 through January 12, 2019)

	FY 2018-19 MTD Actual	Stantec MTD Projected	# Variance	% Variance	FY 2017-18 MTD Actual	Yr-to-Yr % Variance
Trips						
Full Toll Lanes	373,445	383,428	(9,983)	(2.6%)	365,215	2.3%
3+ Lanes	142,988	128,246	14,742	11.5%	124,782	14.6%
Total Gross Trip	516,433	511,674	4,759	0.9%	489,997	5.4%
Revenue						
Full Toll Lanes	\$ 1,535,729	\$ 1,555,591	\$ (19,862)	(1.3%)	\$ 1,493,634	2.8%
3+ Lanes	\$ 31,262	\$ 29,676	\$ 1,586	5.3%	\$ 33,222	(5.9%)
Total Gross Revenue	\$ 1,566,991	\$ 1,585,267	\$ (18,277)	(1.2%)	\$ 1,526,856	2.6%
Average Revenue Per Trip						
Average Full Toll Lanes	\$4.11	\$4.06	\$0.05	1.2%	\$4.09	0.5%
Average 3+ Lanes	\$0.22	\$0.23	(\$0.01)	(4.3%)	\$0.27	(18.5%)
Average Gross Revenue	\$3.03	\$3.10	(\$0.07)	(2.3%)	\$3.12	(2.9%)

FISCAL YEAR-TO-DATE AS OF January 12, 2019

(FY 2018-19 and FY 2017-18 data is for July 01 through January 12, 2018)

	FY 2018-19 YTD Actual	Stantec YTD Projected	# Variance	% Variance	FY 2017-18 YTD Actual	Yr-to-Yr % Variance
Trips						
Full Toll Lanes	6,846,790	6,971,875	(125,085)	(1.8%)	6,576,244	4.1%
3+ Lanes	2,478,258	2,137,259	340,999	16.0%	2,204,425	12.4%
Total Gross Trip	9,325,048	9,109,134	215,914	2.4%	8,780,669	6.2%
Revenue						
Full Toll Lanes	\$ 27,154,221	\$ 27,773,825	\$ (619,603)	(2.2%)	\$ 25,620,257	6.0%
3+ Lanes	\$ 481,177	\$ 529,770	\$ (48,593)	(9.2%)	\$ 460,807	4.4%
Total Gross Revenue	\$ 27,635,399	\$ 28,303,595	\$ (668,196)	(2.4%)	\$ 26,081,063	6.0%
Average Revenue Per Trip						
Average Full Toll Lanes	\$3.97	\$3.98	(\$0.01)	(0.3%)	\$3.90	1.8%
Average 3+ Lanes	\$0.19	\$0.25	(\$0.06)	(24.0%)	\$0.21	(9.5%)
Average Gross Revenue	\$2.96	\$3.11	(\$0.15)	(4.8%)	\$2.97	(0.3%)

February 07, 2019
91EL FY 2018-19 Week 28 Status Report
Page 3 of 3

MULTI AGENCY TRIP AND REVENUE STATISTICS

WEEK ENDING January 12, 2019

(FY 2018-19 data is for Sunday through Saturday)

FY 2018-19 Current Week	Transactions by Agency	Transactions Using Both Segments	% Using Both Segments	Revenue
Westbound				
OCTA	151,850	96,092	63%	\$ 379,500
RCTC	148,370	96,092	65%	\$ 725,850
I-15	63,255	43,510	69%	\$ 309,963
McKinley	85,115	52,582	62%	\$ 415,887
Eastbound				
OCTA	161,668	85,973	53%	\$ 569,188
RCTC	122,335	85,973	70%	\$ 390,509
I-15	44,303	34,988	79%	\$ 97,977
McKinley	78,032	50,985	65%	\$ 292,532



OCTA WEEKDAY PEAK VOLUMES FOR DETERMINING TOLL ADJUSTMENTS

Week Ending January 12, 2019
OCTA FY 2018-19 - Week 28

CR = Congestion-related Adjustment in place - 6-month freeze on any increase	Traffic volume > 3,128 is flagged for review. When flagged hours occur 6 or more times during the most recent 12-week period and the average flagged-volume is > 3,128, the toll for that day and time will be increased as follows:	FY 2018-19 Congestion-Related Toll Adjustments
COLA = Cost of Living Adjustment implemented July 1 each FY. No freeze on future adjustments.	<ul style="list-style-type: none"> < or < 2,720 previously adjusted hour flagged for possible 50% toll reduction < or < 3,128 flag for qualifying hours for possible toll increase 3,200 - 3,299 Eligible for 75% increase > or > 3,300 Eligible for \$1.00 increase 	<ul style="list-style-type: none"> July 1, 2018 Hours received a COLA adjustment for this Quarter October 1, 2018 5 Hours received adjustments for this Quarter January 1, 2019 4 Hours received adjustments for this Quarter April 1, 2019
Week containing a Holiday toll adjustment		
Week containing a traffic anomaly, major incident or accident		
12-week period selected for Congestion-related Adjustment at beginning of next Quarter		
Most recent 12-consecutive-week period (excluding weeks containing Holidays or Traffic Anomalies)		

FY	Monday - Friday	MONDAY					TUESDAY					WEDNESDAY					THURSDAY					FRIDAY										
Week	Weekdays	2:00	3:00	4:00	5:00	6:00	7:00	2:00	3:00	4:00	5:00	6:00	7:00	2:00	3:00	4:00	5:00	6:00	7:00	2:00	3:00	4:00	5:00	6:00	7:00							
42	Apr 9-13	2,614	3,075	2,767	3,035	2,797	1,705	2,798	3,139	2,617	3,049	2,987	2,206	2,879	3,250	2,666	2,887	2,699	2,497	3,205	2,959	2,701	2,867	2,917	2,781	3,279	2,741	2,725	2,755	2,880	2,210	
43	Apr 16-20	2,519	3,067	2,985	3,024	2,681	1,698	2,841	3,097	2,657	3,092	2,639	1,985	2,595	3,131	2,251	3,121	2,975	2,094	3,085	3,262	2,559	2,889	2,962	2,956	3,211	2,840	2,811	2,942	2,907	2,057	
44	Apr 23-27	2,457	2,968	2,964	2,914	2,556	1,530	2,832	3,101	2,460	3,016	2,918	2,176	2,964	3,065	2,481	2,762	3,182	2,173	3,257	3,079	2,577	2,745	3,029	2,522	3,206	3,646	2,674	2,976	2,577	1,906	
45	Apr 30-May 4	2,584	3,024	2,941	3,104	2,271	1,545	2,920	3,163	2,565	2,955	2,688	1,624	2,829	3,024	2,560	3,101	2,776	1,865	3,282	3,014	2,512	2,869	2,967	2,330	3,276	2,567	2,380	2,426	2,993	1,863	
46	May 7-11	2,590	3,112	3,073	2,825	2,322	1,518	2,565	3,174	2,534	2,902	2,844	1,947	2,947	3,176	2,332	2,833	2,580	2,207	3,101	3,257	2,799	2,880	2,874	2,386	3,233	2,853	2,908	2,889	2,231	1,881	
47	May 14-18	2,432	2,974	2,923	2,943	2,493	1,513	2,726	3,081	2,607	2,903	3,032	2,066	2,847	2,883	2,632	2,980	2,462	2,101	3,109	3,210	2,860	2,844	3,190	2,375	3,206	2,706	2,832	2,707	1,899		
48	May 21-25	2,400	3,055	3,085	3,100	2,228	1,272	2,666	3,076	2,675	2,971	2,674	1,811	2,824	3,011	2,439	2,967	3,104	2,094	3,213	3,240	2,804	2,970	2,975	2,047	3,211	2,764	2,665	2,592	2,689	2,019	
49	May 28-Jun 1	918	999	937	911	862	924	2,935	3,125	2,667	2,985	2,901	1,930	2,844	3,071	2,575	2,973	2,910	1,829	3,126	3,097	2,555	2,975	3,051	2,192	3,248	2,674	2,718	2,894	2,336	1,912	
50	Jun 4-8	2,520	2,976	2,778	2,945	2,554	1,702	2,841	3,059	2,528	2,885	2,968	2,169	2,905	3,131	2,527	2,888	2,836	1,872	3,126	3,097	2,548	2,744	2,852	2,419	3,277	2,733	2,814	2,812	2,745	1,836	
51	Jun 11-15	2,479	3,076	2,981	2,916	2,694	1,914	2,655	3,025	2,516	2,860	2,854	2,244	2,742	3,044	2,591	2,980	2,716	1,777	3,148	3,036	2,538	2,841	2,948	2,373	3,281	2,848	2,925	2,678	1,979		
52	Jun 18-22	2,527	3,010	2,803	2,546	2,806	1,609	2,794	2,939	2,495	2,896	3,022	2,133	2,747	3,254	2,190	2,903	3,062	2,552	3,133	2,941	2,459	2,791	2,976	2,749	3,211	2,764	2,665	2,592	2,689	2,019	
53	Jun 25-29	2,429	2,832	2,937	2,937	2,820	1,849	2,841	3,131	2,668	2,932	2,867	1,438	2,842	3,252	2,560	2,793	2,952	2,220	3,073	2,957	2,688	3,029	2,950	2,564	3,213	2,602	2,621	2,831	2,827	2,049	
1	Jul 2-6	2,429	2,880	2,902	3,013	2,415	1,677	3,242	2,851	2,846	3,011	2,760	1,963	2,857	3,116	2,818	2,859	2,688	1,858	3,107	2,915	2,746	2,213	2,333	1,661	3,155	2,543	2,550	2,458	2,124	1,672	
2	Jul 9-13	2,534	3,058	2,905	3,012	2,520	1,766	2,834	2,730	3,132	2,414	2,834	2,376	2,802	3,177	2,821	2,533	3,179	2,121	3,107	2,625	2,801	2,531	2,977	2,387	3,289	2,600	2,670	2,943	2,687	2,058	
3	Jul 16-20	2,272	3,121	2,854	2,860	2,728	1,900	2,734	2,861	3,037	2,512	2,945	2,316	2,768	3,132	2,812	2,553	3,179	2,671	3,087	2,938	2,864	2,542	2,886	2,551	3,260	2,651	2,707	2,828	2,574	1,993	
4	Jul 23-27	2,692	3,077	2,721	3,032	2,901	1,875	2,747	2,702	3,041	2,493	2,677	2,259	2,973	3,254	2,760	2,485	2,893	2,472	3,168	2,960	2,915	2,392	2,908	2,534	3,222	2,836	2,903	2,887	2,400	2,034	
5	Jul 30-Aug 3	2,640	2,976	2,842	3,031	2,831	1,879	2,949	2,800	2,698	2,988	3,163	2,316	2,858	3,262	2,477	3,108	2,227	1,833	3,254	3,163	3,018	2,490	2,850	2,380	3,282	2,671	2,681	2,828	2,727	2,059	
6	Aug 6-10	2,636	3,061	2,825	2,961	2,468	2,263	2,869	2,880	3,047	2,514	2,716	2,436	2,936	3,236	2,749	2,548	3,003	2,474	3,176	3,004	3,105	2,686	2,937	2,017	3,295	2,532	2,650	2,644	2,689	2,091	
7	Aug 13-17	2,610	2,927	2,802	2,847	2,984	1,840	2,949	2,735	3,255	2,689	2,902	2,514	3,129	3,242	2,608	2,412	2,910	2,562	3,239	3,193	3,002	2,429	2,934	2,345	3,241	2,674	2,714	2,839	2,788	2,047	
8	Aug 20-24	2,637	3,137	2,898	2,944	2,292	2,907	2,760	3,023	2,456	2,794	2,503	2,978	3,141	2,850	2,666	2,942	2,385	3,198	2,987	2,793	2,654	2,902	2,478	2,796	3,194	2,618	2,665	2,617	2,797	1,876	
9	Aug 27-31	2,503	3,000	2,858	2,988	2,891	2,231	2,740	2,682	3,279	2,468	2,929	2,379	3,164	3,147	2,805	2,834	2,999	2,447	3,174	3,075	3,167	2,565	2,942	2,630	3,297	2,720	2,881	2,646	2,693	2,002	
10	Sep 3-7	941	945	933	879	919	1,012	2,811	2,749	2,944	2,559	2,970	2,201	2,989	3,143	2,709	2,486	3,130	2,416	3,158	3,051	3,002	2,432	2,793	3,308	3,338	2,611	2,773	2,811	2,794	1,792	
11	Sep 10-14	2,472	3,034	2,885	3,018	2,798	1,735	2,753	2,806	3,231	2,669	2,980	2,029	2,905	3,098	2,652	2,933	2,987	2,633	3,176	3,109	2,830	2,446	2,855	2,656	3,322	2,775	2,867	3,091	2,995	2,435	
12	Sep 17-21	2,585	3,097	2,879	2,872	2,625	1,896	2,789	2,918	3,318	2,532	2,734	2,908	2,745	2,982	3,055	3,041	2,645	2,930	3,169	2,907	2,854	2,508	3,141	2,682	3,310	2,642	2,716	2,811	2,435		
13	Sep 24-28	2,572	3,075	3,005	3,014	2,709	1,918	2,735	2,835	3,063	2,663	3,106	2,736	2,981	3,265	3,079	2,698	2,840	2,686	3,267	3,244	3,023	2,667	2,898	2,502	3,312	2,608	2,727	2,875	2,923	2,341	
14	Oct 1-5	2,476	2,884	3,036	3,204	2,401	1,755	2,844	2,891	2,985	2,952	2,876	2,336	2,883	3,177	2,961	2,592	3,021	1,993	3,150	3,039	2,574	2,767	2,847	2,865	3,303	2,833	3,032	2,811	2,811	2,447	
15	Oct 8-12	2,555	2,898	2,838	3,019	2,442	1,726	2,923	2,820	3,017	2,858	2,887	2,463	2,990	3,184	2,915	2,626	2,922	2,550	3,111	3,056	2,552	2,889	2,910	2,674	3,389	2,709	2,792	2,856	2,734	2,329	
16	Oct 15-19	2,436	2,942	2,943	2,987	2,635	1,709	2,605	2,956	2,815	3,195	3,106	2,186	3,044	3,156	2,999	2,514	2,926	2,188	3,105	3,006	2,905	2,496	2,990	3,071	2,454	3,308	2,605	2,633	2,957	2,666	2,306
17	Oct 22-26	2,564	3,051	2,948	3,048	2,676	1,751	2,928	2,849	2,861	3,151	3,024	2,323	2,975	3,219	2,548	2,592	2,545	2,565	2,701	3,274	2,565	2,539	2,979	2,513	3,381	2,605	2,631	2,797	2,855	2,326	
18	Oct 29-Nov 2	2,589	3,195	2,919	2,876	2,844	2,095	2,875	2,715	2,894	2,982	3,002	2,514	3,215	3,230	2,915	3,083	2,585	1,573	3,307	3,450	2,610	2,833	2,848	2,293	3,496	2,841	2,735	2,896	2,946	2,388	
19	Nov 5-9	2,650	3,077	2,946	3,165	2,832	2,041	3,030	2,859	2,939	2,879	3,102	2,495	3,071	3,276	2,831	2,519	3,352	1,590	3,234	2,953	2,473	2,824	2,787	2,729	3,309	2,606	2,757	2,856	2,826	2,246	
20	Nov 12-16	2,135	2,789	2,904	2,981	1,953	1,417	2,814	2,830	2,807	3,010	3,035	2,198	2,861	3,085	2,729	2,592	3,176	2,515	3,224	3,269	2,524	2,914	2,976	2,387	3,406	2,669	2,674	2,806	2,788	2,581	
21	Nov 19-23	2,782	2,981	2,828	2,973	2,758	1,698	3,166	2,306	2,758	2,838	2,851	2,250	3,121	2,976	2,971	2,478	1,810	1,617	1,809	1,587	1,545	1,671	1,522	1,732	1,971	1,919	1,546	1,154	868	835	
22	Nov 26-30	2,649	3,037	2,860	2,910	2,786	1,732	2,955	2,856	2,960	3,003	2,962	2,275	2,823	3,246	3,053	2,666	2,841	2,797	2,755	2,992	2,236	2,274	2,542	1,702	3,308	2,833	2,672	2,844	2,837	2,263	
23	Dec 3-7	2,512	3,076	2,901	3,117	2,723	2,247	2,908	2,796	2,816	3,060	3,063	2,793	2																		
24	Dec 10-14	2,655	3,084	2,918	2,954	2,515	1,699	2,763	3,036	2,768	3,012	2,948	2,336	2,988	3,101	2,946	2,600	3,196	2,754	3,139	3,022	2,484	2,827	2,861	2,887	3,391	2,634	2,641	2,735	2,856	2,186	
25	Dec 17-21	2,600	3,035	3,040	2,892	2,867	2,253	2,957	2,755	2,890	2,899	2,814	2,678	3,035	3,110	2,966	2,600	3,196	2,754	3,139	3,022	2,484	2,827	2,861	2,887	3,391	2,634	2,641	2,735	2,856	2,186	
26	Dec 24-28	2,100	2,162	1,840	1,773	1,750	1,770	1,839	1,844	2,068	3,111	1,412	1,452	2,062	2,035	2,267	1,940	1,941	2,06	2,963	3,024	2,442	2,550	2,312	1,467	3,142	2,612	2,321	2,324	2,007	1,473	
27	Dec 31-Jan 4	2,438	2,965	2,965																												

Other Sample Reports

Table F-1: Sample Reconciliation Report

Trip Reconciliation Report RCTC						Date: 12-30-2018
Lane Transactions						
RAMS Received Transactions		Distinct T2C Transactions				
Pre-processing Transactions						
Qualified Transactions		Unqualified Transactions				
No Tag or Plate Read Transactions		Duplicate - Unqualified State				
Plate Read and Tag Read Transactions		Multiple Transactions				
Data Error - Unqualified State		Split Transactions				
Plate Read Qualified		Straddle - Unqualified State				
Tag Read Qualified		Total				
Total						
Grand Total						
Variance						
Trip Building Transactions						
Trip Building Transactions		Txn Count	Trip Count	Trip Building Trips	Trip Count	
Transactions Built - Single Gantry				Multi Gantry	Trips Built Using Tag	
Transactions Built - Multi Gantry					Trips Built Using Tag - Rejected	
Trip Building Queue					Trips Built Using Plate	
Orphan Trip - Rejected					Trips Built Using Plate - Rejected	
Transactions in Image Review					Orphan Rejected Trips	
Transaction Hold for Images					Total	
Entry and Exit Date are Different				Single Gantry	RC-91 Trips	
Total					RC-91 Trips - Rejected	
					I-15 Trips	
					Orphan Rejected Trips	
					Total	
Processed Trips						
Customer Trips		Trip Count	Potential Revenue	Grand Total		
Dismissed				Variances		
Image Review				Qualified Trip Count		
In Process				Processed Trip Count		
IOP Trips				Variance		
Violated Trips						
Total						
Reprocessed Trips						
Grand Total						

Note: Data redacted

Trip Reconciliation		Trip Count	Potential Rev
Customer Trips	Customer Posted		
	Adjusted		
Dismissed	Trips are in Image Review		
	Hotplate		
	Post the Transaction to the Unidentified Account		
	Transaction is in Tripbuilding Queue		
Image Review	Preprocess		
	Pending		
	Outstanding		
In Process	RCA Response Pending		
	OOSP Response Pending		
	Negative Balance Hold		
	Hold 21 Days Older		
	Hold for Process		
	Hold for Trip Pricing		
	Transaction Hold for Images		
IOP Trips	Posted to IOP Customer		
Violated Trips	Rejected		
	Violator Posted		
	Linked to Customer		
	Dismissed		
Total			
Reprocessed Trips	Linked to Customer		
	Linked to Violator		
	Linked to IOP		
Grand Total			

Note: Data redacted

Table F-2: Sample Reconciliation Image Review Dismissals by Reason Code

Date: 01-01-2019

Reason Code	IMR Count
BLURRED	
CHP	
CO/FLAG	
DMVISSUE	
GLARE	
IMGDARK	
IMGHIGH	
IMGLOW	
MOTORCYCLE	
NOPLATES	
NOVEHICLE	
OBSTRUCTED	
OCTABUS	
OUTOFCOUNTRY	
PAPERPLATES	
POLICE	
POORRES	
RTABUS	
STRADDLE	
Total	

Note: Data redacted

Table F-3: Reconciliation IMR Sub Set

Date: 01-01-2019

Trip Reconciliation Type		IMR Count
Customer Trips	Customer Posted	
	Adjusted	
Dismissed	Trips are in Image Review	
	Transaction is in Tripbuilding Queue	
	Hotplate	
Image Review	Pending	
	Outstanding	
In Process	OOSP Response Pending	
	RCA Response Pending	
	Negative Balance Hold	
	Hold 21 Days Older	
	Hold for Process	
	Hold for Trip Pricing	
	Transaction Hold for Images	
IOP Trips	Posted to IOP Customer	
	Rejected	
Violated Trips	Violator Posted	
	Dismissed	
	Linked to Customer	
Total		
Reprocessed Trips	Linked to IOP	
	Linked to Customer	
	Linked to Violator	
Grand Total		

Note: Data redacted

Table F-4: Excerpt from Active Customers by Zip/City Report

Zip1	City	AccountStatus	Total
92277	29 PALMS	AC	
92530	3257 MOUNTAIN ST	AC	
92865	92865	AC	
98520	ABERDEEN	AC	
21009	ABINGDON	AC	
24210	ABINGDON	AC	
24211	ABINGDON	AC	
70420	ABITA SPRINGS	AC	
93510	ACTON	AC	
30101	ACWORTH	AC	
49355	ADA	AC	
75001	ADDISON	AC	
92301	ADELANTO	AC	
92301	ADELATO	AC	

Note: Data has been redacted.

Table F-5: Sample RCTC Maintenance Mode Trips Report

										Plaza	Count	Amount
										4020		
										4022		
										Total:		
Trip Date	Trip Hour	Plaza Id	LN1 Count	LN1 Toll	LN2 Count	LN2 Toll	LN3 Count	LN3 Toll	Plaza Cnt	Plaza Toll		
1/21/2019												
1/21/2019												
1/21/2019												
1/21/2019												
1/26/2019												
1/26/2019												
1/26/2019												
1/26/2019												
1/26/2019												
1/26/2019												

Note: Data redacted

Table F-6: Sample Monthly Counts Online Tracking Report

	July		August		September		October	
Transaction Type	#	%	#	%	#	%	#	%
Opt In E-Statement								
Online Applications								
Address Update								
Close Account								
Contacts Updated								
Credit Card Payment								
Credit Card Update								
Email Update								
Lost/Stolen Tag Reported								
Tag - Additional Requested								
Tag - Replacement Requested								
Password Change								
Phone Update								
Pin Updated								
Email Username/Password								
Plan Change								
Security Questions Added								
Security Questions Updated								
Vehicle Added								
Vehicle Deactivated								
Vehicle Updated								
Violation Payment								
Total Online Transactions								
	→							
	+/-							

Note: Data redacted

Table F-7: Sample Weekly Recap Report

Weekly Recap - January 27 through February 02, 2019				
	Actual Potential	Stantec Projected	Variance	Variance %
Total Revenue				
Total Traffic				
Direction	HOV	SOV	Total	HOV %
EB Traffic				
WB Traffic				
Total				
Destination	HOV	SOV	Total	Destination %
EB County Line to I-15				
EB County Line to McKinley				
Total				
WB I-15 to County Line				
WB McKinley to County Line				
Total				
Peak Period Recap	Volume	LOS	Toll Price	Day of Week & Hour
EB County Line to McKinley				
WB McKinley to County Line				
Performance - Peak Period				
EB Speed Highest Volume Hour				
EB Speed Average Peak Period				
WB Speed Highest Volume Hour				
WB Speed Average Peak Period				

Note: Data redacted

Performance - Single Lane Throughput			
	Volume	LOS	Day of Week & Hour
County Line to I-15 Southbound			
County Line to McKinley			
I-15 Northbound to County Line			
McKinley to County Line			
	Actual		
% of Customers without Transponder Read			

Note: Data redacted

Table F-9: Sample RCTC Weekly Trip Counts (Hourly Breakdown) Report

[illegible]

Page 56 of 71

Table 10: Sample Preprocessing Transaction Counts by Trip Segment and Trip Date Report

	RCTC											OCTA											
Hour	15NB L1	91WB L1	91WB L2	91WB L3	WB Total	91EB L1	91EB L2	91EB L3	15SB L2	EB Total	RC Total	91WB L1	91WB L2	91WB L3	WB Total	91EB L1	91EB L2	91EB L3	EB Total	OC Total	Total	Hour	
0																							
1																							
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							
13																							
14																							
15																							
16																							
17																							
18																							
19																							
20																							
21																							
22																							
23																							

Note: Data redacted

Table F-11: Sample Image Dismissal Report

Gantry	A											B														A		B		Gantry	TOTAL DISMISSED	TOTAL IMRs
	Image Dark	Blurred	Glare	Image High	Image Left	Image Low	Image Right	No Image	No Vehicle	Poor Resolution	Straddle	CalTrans	CHP	Company / Flag	DMV Issue	No Plate	FIRE	Gov't Vehicle	Motorcycle	MTA Bus	Obstructed	OCTA Bus	Out of Country	Paper Plate	Police	RTA Bus	A	B				
EB																																
SB																																
NB																																
WB																																

Note: Data redacted

Table F-12: CSC Transponder Inventory Log

Date	Day	Transponder	Beginning	New	Recycled	New - Defect / Wrong Label	Tags	Physical Cnt	@ Other	Ending	Beginning	Daily	Recycled	Defects (W)	Defects (NW)	Physical Cnt	@ Other	Ending Balance @ CSC	Beginning	Defective	Defective	New - Defect /	Physical Cnt	Sent to transponder vendor	Sent to be	Ending	Tags At
		Inventory	Balance	Ship ment	Transpo nders	Defect / Wro ng Lab el	Repleni shed	Adjust ment	Locati ons	Balan ce	Balan ce	Retu rns	(to col F)	(to col O)	(to col P)	Adjust ment	Locati ons	Balan ce	Balan ce	(Warra nty)	(No Warra nty)	(Warra nty)	Adjust ment	Sent to transpo nder vendor	Destro yed	Balan ce	transpo nder vendor
		A + B + C	D	E	F	G	H			A	I	J	K	L	M			B	N	O	P	Q		R	S	C	
01/01 /19	Tu e																										
01/02 /19	Wed																										
01/03 /19	Thu																										
01/04 /19	Fri																										
01/05 /19	Sat																										
01/06 /19	Sun																										
01/07 /19	Mon																										
01/08 /19	Tue																										
01/09 /19	Wed																										
01/10 /19	Thu																										
01/11 /19	Fri																										
01/12 /19	Sat																										
01/13 /19	Sun																										
01/14 /19	Mon																										
01/15 /19	Tue																										
01/16 /19	Wed																										
01/17 /19	Thu																										
01/18 /19	Fri																										

Table F-13: Sample Transponder Activity Report

	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19
AVAILABLE TO ISSUE												
Beginning Inventory On Hand at CSC	--	--	--	--	--	--	--	--	--	--	--	--
Add:												
New Transponders Received From transponder vendor	--	--	--	--	--	--	--	--	--	--	--	--
Replacement tags Received From transponder vendor	--	--	--	--	--	--	--	--	--	--	--	--
Recycled Transponders	--	--	--	--	--	--	--	--	--	--	--	--
Received from OCTA to CSC	--	--	--	--	--	--	--	--	--	--	--	--
Total Inventory Increase	--	--	--	--	--	--	--	--	--	--	--	--
Deduct												
Returned to transponder vendor - Defective New Tags	--	--	--	--	--	--	--	--	--	--	--	--
Issued From CSC to Customers	--	--	--	--	--	--	--	--	--	--	--	--
Issued From CSC to Processing Dept.	--	--	--	--	--	--	--	--	--	--	--	--
Issued From CSC to OCTA	--	--	--	--	--	--	--	--	--	--	--	--
Total Inventory Reduction	--	--	--	--	--	--	--	--	--	--	--	--
Physical Inventory Adjustments (+/-)	--	--	--	--	--	--	--	--	--	--	--	--
Transponders at other locations (+/-)	--	--	--	--	--	--	--	--	--	--	--	--
Ending Inventory On Hand at CSC	--	--	--	--	--	--	--	--	--	--	--	--
Transponder Type Breakdown												
Internal Transponders	--	--	--	--	--	--	--	--	--	--	--	--
External Transponders	--	--	--	--	--	--	--	--	--	--	--	--
Switchable Transponders	--	--	--	--	--	--	--	--	--	--	--	--
RETURNED TRANSPONDERS - NOT PROCESSED												
Beginning Returned Transponders On Hand at CSC	--	--	--	--	--	--	--	--	--	--	--	--
Add:												
Daily Returns	--	--	--	--	--	--	--	--	--	--	--	--
Other Increases	--	--	--	--	--	--	--	--	--	--	--	--
Total Increase	--	--	--	--	--	--	--	--	--	--	--	--
Deduct												
Recycled Transponders	--	--	--	--	--	--	--	--	--	--	--	--
Defective Transponders Under Warranty	--	--	--	--	--	--	--	--	--	--	--	--
Scrap Transponders	--	--	--	--	--	--	--	--	--	--	--	--
Other Deductions	--	--	--	--	--	--	--	--	--	--	--	--
Total Reduction	--	--	--	--	--	--	--	--	--	--	--	--
Physical Inventory Adjustments (+/-)	--	--	--	--	--	--	--	--	--	--	--	--
Ending Returned Transponders On Hand at CSC	--	--	--	--	--	--	--	--	--	--	--	--
SCRAP TRANSPONDERS												
Beginning Scrap Transponders On Hand at CSC	--	--	--	--	--	--	--	--	--	--	--	--
Add:												
Scrap Transponders	--	--	--	--	--	--	--	--	--	--	--	--

Page 61 of 71

Table F-14: Sample Transponder Inventory Report

Status	Jul Activity	7/31/2018	Aug Activity	8/31/2018	Sep Activity	9/30/2018	Oct Activity	10/31/2018	Nov Activity	11/30/2018	Dec Activity	12/31/2018	Jan Activity	1/31/2019
ASSN														
DISPOSED														
EXP														
INVN														
LOST														
MISS														
REPL														
RETN														
DMGD														
DEFC														
STOL														
LOSTCOLL														
Number of Transponders on Hand	Jul Activity	Jul-18	Aug Activity	Aug-18	Sep Activity	Sep-18	Oct Activity	Oct-18	Nov Activity	Nov-18	Dec Activity	Dec-18	Jan Activity	Jan-19
Orange Location														
Inventory Status														
Anaheim Location														
Inventory Status														
Corona														
Inventory Status														
Returned Status														
Assigned Status (Tag Rpt 9)														
Total Transponders on Hand														
<i>Note: Data has been redacted.</i>														

Table F-15: Sample Summary of Findings (Transponders) Report
INVENTORY as of end-of-day Date

	Physical Count	Clipboard Log	Difference	% error	Transponder Log
New					
Recycle					
Return @ CSC					
Defective (W)					
Scrap/Destroy (no W)					
At other location					
At transponder vendor					

Note: Data has been redacted.

Table F- 16: Sample Transponder Analysis Report

	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19
Orange Location	--	--	--	--	--	--	--
Inventory Status	--	--	--	--	--	--	--
Anaheim Location	--	--	--	--	--	--	--
Inventory Status	--	--	--	--	--	--	--
Corona	--	--	--	--	--	--	--
Inventory Status	--	--	--	--	--	--	--
Returned Status	--	--	--	--	--	--	--
Assigned Status (Tag Rpt 9)	--	--	--	--	--	--	--
Total Transponders on Hand	--	--	--	--	--	--	--
Contract # C-6-1365 (2016 to present)							
# of transponders purchased to date					--	--	--
Unit cost							
Subtotal							
Sales Tax****							
Total Cost							
Contract # C-1-2915 (2012 to 2016)							
# of transponders purchased to date							
Unit cost							
Subtotal							
Sales Tax****							
Total Cost							
Contract # C-1-2915 (2012 to 2016)							
# of transponders purchased to date							
Unit cost							
Subtotal							
Sales Tax****							
Total Cost							
Contract # C-1-2915 (2012 to 2016)							
# of transponders purchased to date							
Unit cost							
Subtotal							
Sales Tax****							
Total Cost							
Contract # C-6-0802 (2007 to 2016)							
# of transponders purchased to date							
Unit cost							
Subtotal							
Sales Tax****							
Total Cost							
Total Inventory Valuation - FIFO							

Note: Data has been redacted.

Table F-17: Sample RCTC Toll Credits Report

Trip Month	TOTAL		Congestion Credits		Toll Credits		Anniversary Credits	
	Count	Dismissed Amount	Count	Amount	Count	Amount	Count	Amount
201703								
201704								
201705								
201706								
201707								
201708								
201709								
201710								
201711								
201712								
201801								
201802								
201803								
201804								
201805								
201806								
201807								
201808								
201809								
201810								
201811								
201812								
201901								
TOTAL								

Note: Data has been redacted

Table F-18: Sample RCTC Violation Report

Month	Year	Total Txns	Total Tolls	Total Vio's	Vio Rate	Paid Count	Paid Rate	Customer Count	Customer Rate	Dismissed Count	Dismissed Rate	Open Count	Open Rate	NTEVCount	NDTEVCount
3	2017														
4	2017														
5	2017														
6	2017														
7	2017														
8	2017														
9	2017														
10	2017														
11	2017														
12	2017														
1	2018														
2	2018														
3	2018														
4	2018														
5	2018														
6	2018														
7	2018														
8	2018														
9	2018														
10	2018														
11	2018														
12	2018														
1	2019														

Note: Data has been redacted.

Table 19: RCTC Violations Summary Report

Total									
Trip Month	Count	Total Outstanding	Count	Total Paid	Count	Total Paid/Dismissed	Count	Total Dismissed	Count
201703									
201704									
201705									
201706									
201707									
TOTAL									

Dismissed																
Trip Month	Count	%	Toll Amount	NTEV(P)	Count	Penalty 1	NDTEV(P)	Count	Penalty 2	NDTEVPE/COLL (HOLD)	Count	Penalty 2	COLL (LGBS)	Count	Penalty 2	Total Dismissed
201703																
201704																
201705																
201706																
201707																
TOTAL																

Paid																
Trip Month	Count	%	Toll Amount	NTEV(P)		NDTEV(P)		NDTEVPE/COLL (HOLD)		COLL (LGBS)		Total Paid				
	Count	%	Toll Amount	Count	Penalty 1	Count	Penalty 2	Count	Penalty 2	Count	Penalty 2	Count	Penalty 2			
201703																
201704																
201705																
201706																
201707																
TOTAL																

Toll Paid/Penalty Dismissed												
Trip Month	Count	%	Toll Amount	NTEV(P)		NDTEV(P)		NDTEVPE/COLL (HOLD)		COLL (LGBS)		Total Paid/Dismissed
	Count	%	Toll Amount	Count	Penalty 1	Count	Penalty 2	Count	Penalty 2	Count	Penalty 2	
201703												
201704												
201705												
201706												
201707												
TOTAL												

Outstanding												
Trip Month	Count	%	Toll Amount	NTEV(P)		NDTEV(P)		NDTEVPE/COLL (HOLD)		COLL (LGBS)		Balance Due
	Count	% <td>Toll Amount</td> <td>Count</td> <td>Penalty 1</td> <td>Count</td> <td>Penalty 2</td> <td>Count</td> <td>Penalty 3</td> <td>Count</td> <td>Penalty 3</td> <td></td>	Toll Amount	Count	Penalty 1	Count	Penalty 2	Count	Penalty 3	Count	Penalty 3	
201703												
201704												
201705												
201706												
201707												
TOTAL												

Note: Data has been redacted.

Table F-20: Sample Partial Paid/Dismissed Monthly Summary Report

Trip Month	91EL		TCA		LA Metro		Bay Area		South Bay		I-15		First Time Vio		Write Off < \$1.00		Total	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
201703																		
201704																		
201705																		
201706																		
201707																		
201708																		
201709																		
201710																		
201711																		
201712																		
201801																		
201802																		
201803																		
201804																		
201805																		
201806																		
201807																		
201808																		
201809																		
201810																		
201811																		
201812																		
201901																		
Total																		
%																		

Note: Data has been redacted.

Table F-21: Sample Dismissals (by type) Monthly Summary Report

Trip Month	First Time Vio		ADMINCVDIS - Bad Image		ADMINDISMI - Bad Image		ADDRVAL - Cancel		ADMINCVDIS - Cancel		AFDVAL - Cancel		Out of Country		Rental		Sold		Stolen		Wrong Plate		SUSPENDVIO		MANUAL - INIT - INIT		CANCEL - INIT		Total	
	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount	Count	Amount
201703																														
201704																														
201705																														
201706																														
201707																														
201708																														
201709																														
201710																														
201711																														
201712																														
201801																														
201802																														
201803																														
201804																														
201805																														
201806																														
201807																														
201808																														
201809																														
201810																														
201811																														
201812																														
201901																														
Total																														
%																														

Note: Data has been redacted.

Table F-22: Sample Service Center Performance Report

Service Center Performance Report									
<div> <div>Start Date:</div> <div>1/1/2019 12:00:00 AM</div> </div> <div> <div>End Date:</div> <div>1/31/2019 11:59:59 PM</div> </div> <div>  </div>									
Queue Name	Offered	Answered	Abandoned <= 20sec	Abandoned > 20sec	Returned to IVR	CSR Disc <=10 Secs	Abandoned Rate	Avg Talk Time hh:mm:ss	Avg Wait Time hh:mm:ss
Customer Service									
Existing Accounts									
New Accounts									
Violations									
Totals:									
Call Center Activity									
Answered	Total Calls	% of Total							
Abandoned <= 20sec									
Abandoned > 20sec									
IVR Completed Calls									
Returned to IVR									
Total Calls									

Table F-23: Sample Front Counter Service Monitoring Report

	Total Minutes	Total Customers	Total Time per Customer	Percent of Customers coming in for four weeks	Min Time	Max Time	Date of Max Time
Customer Service							
Existing Accounts							
New Accounts							
Violator							
Total							
Week 1 (6/11 - 6/15)							
Customer Service							
Existing Accounts							
New Accounts							
Violator							
Total							

Note: Data has been redacted.

Attachment G: Sample KPI Calculations

Table G-1: Sample BOS Performance Measure Scenario: KPI 1

Scenario	The BOS is not available for CSRs to access accounts when the call center is open for a total of three (3) hours in a month.
----------	--

Downtime Hours (Priority 1 event)	3
-----------------------------------	---

Total Penalty	\$2,500
---------------	---------

	KPI 1
Days	30
Hours	24
Minutes	60
Total Minutes	43200
Availability %	99.80%
Total Available Minutes	43113.6
Allowable Downtime Minutes	86.4
Downtime Minutes	180
Actual Availability %	99.58%
Penalty Percentage	1.00%
Monthly Invoice Amt	\$250,000
Total Penalty	\$2,500

Table G-2: Sample BOS Performance Measure Scenario: KPI 3 and 4

Scenario		System update causes error with ETTM System-BOS interface that interrupts exchange of data and sending of scheduled files to the OCTA and RCTC ETTM Systems and acknowledgements of files sent from the ETTM System.	
Number of Data/File Exchange Errors (OCTA ETTM)		10	
Number of Data/File Exchange Errors (RCTC ETTM)		10	
Number of Acknowledgement Errors (OCTA ETTM)		5	
Number of Acknowledgement Errors (RCTC ETTM)		5	
Combined / Stacked Penalty		\$7,500	
		KPI 3	KPI 4
Total Errors		20	10
Penalty per Increment		\$250	\$250
Penalty		\$5,000	\$2,500

DRAFT

Table G-3: Sample Performance Measure Scenario: KPI 7

Scenario	On two separate occasions, BOS Software jobs are completed after the expected time. Jobs Process Event #1 is completed 90 minutes after the expected time and Jobs Process Event #2 is completed 45 minutes after the expected time.
----------	--

Number of Job Process events	2
Job Process Event #1 Delay (minutes)	90
Job Process Event #2 Delay (minutes)	45

Combined / Stacked Penalty	\$600
----------------------------	--------------

KPI 7	
Job Process Event #1 Penalty	\$250
Job Process Event #2 Penalty	\$250
Penalized Job Process Event #1 hours	1
Job Process Event #1 Delay Penalty	\$100
Penalized Job Process Event #2 hours	-
Job Process Event #2 Delay Penalty	\$0
Total Penalty	\$600

Table G-4: Sample BOS Performance Measure Scenario: KPI 9 and 10

Scenario	Customer contact information is unavailable for seven (7) days which stops all customer correspondence (email, text, and USPS) until corrections are made to make contact information available.	
Number of Days without Notifications	7	
Combined / Stacked Penalty	\$5,500	
	KPI 9	KPI 10
Total Days without Notifications	7	7
Allowable delay without Penalty (hours)	0.25	NA
Allowable delay without Penalty (days)	NA	3
Penalty Increments (days)	7	4
Penalty per Increment (\$)	\$500	\$500
Penalty	\$3,500	\$2,000

Table G-5: Sample BOS Performance Measure Scenario: KPI 14 & 15

Scenario	Agency audit discovers two (2) instances where Contractor does not follow the Approved change management process and eight (8) BOS failures that were not accurately logged within PMMS.	
Number of Change Mgt Events	2	
Number of BOS failures not logged	8	
Combined / Stacked Penalty	\$12,000	
	KPI 16	KPI 17
Total Events	2	8
Penalty per Increment	\$5,000	\$250
Penalty	\$10,000	\$2,000

Table G-6: Sample BOS Performance Measure Scenario: KPI 16-19

Scenario	BOS failure occurs at noon. Contractor acknowledges failure at 3:00 PM, repairs Priority 1 failure at 5pm, Priority 2 failure at midnight, and Priority 3 failure seven (7) days following initial BOS failure.
----------	---

Acknowledgement Time (hours)	3
Time to Repair Priority 1 failure (hours)	5
Time to Repair Priority 2 failure (hours)	12
Time to Repair Priority 3 failure (days)	7

Combined / Stacked Penalty	\$3,500
----------------------------	---------

KPI 16	
Hours to Acknowledge (Priority 1)	3
Allowed Hours to Acknowledge (Priority 1)	1
Penalty Increments (Priority 1)	1
Penalty per Increment (Priority 1)	\$1,000
Hours to Acknowledge (Priority 2)	3
Allowed Hours to Acknowledge (Priority 2)	4
Penalty Increments (Priority 2)	-
Penalty per Increment (Priority 2)	\$500
Hours to Acknowledge (Priority 3)	3
Allowed Hours to Acknowledge (Priority 3)	24
Penalty Increments (Priority 3)	-
Penalty per Increment (Priority 3)	\$250
Penalty	\$1,000

	KPI 17	KPI 18	KPI 19
Time to Repair (hours)	3	12	168
Time to Repair (days)	NA	NA	7
Allowed Time to Repair (hours)	4	24	NA
Allowed Time to Repair (days)	NA	NA	3
Hours of Delay	-	-	NA
Days of Delay	NA	NA	4
Penalty per Event	\$2,500	\$1,000	\$500
Penalty per Hour of Delay	\$200	\$100	NA
Penalty per Day of Delay	NA	NA	\$500
Penalty	-	-	\$2,500

Table G-7: Sample BOS Performance Measure Scenario: KPI 20-22

Scenario	Agency audit finds PCI data was exposed to unauthorized persons seven (7) days ago. Contractor immediately notifies all affected customers and begins addressing PCI vulnerability. Contractor successfully implements, tests, and obtains approval of the fixes required five (5) weeks from the initial PCI vulnerability.	
Total days PII/PCI data exposed to unauthorized	7	
Total days to contact customers of breach	7	
Total days to remediate PII/PCI deficiencies	35	
Combined / Stacked Penalty	\$192,500	
KPI 20		
Number of security breach events	1	
Total days PII/PCI data exposed to unauthorized	7	
Unpenalized days till customer notification	1	
Days PII/PCI data exposed to unauthorized	6	
Penalty per Event & subsequent days of exposure	\$25,000	
Penalty	\$175,000	
KPI 21		
Number of Events	1	
Total days to contact customers of breach	7	
Unpenalized days to contact customers of breach	3	
Days of delay	4	
Penalty per Event	\$5,000	
Penalty per day of delay	\$2,500	
Penalty	\$15,000	
KPI 22		
Total days to remediate PII/PCI deficiencies	35	
Unpenalized days to remediate PII/PCI deficiencies	30	
Days of delay	5	
Penalty per day of delay	\$500	
Penalty	\$2,500	

Table G-8: Sample BOS Performance Measure Scenario: KPI 23-24

Scenario	Primary BOS failure occurs at noon impacting production data for 30 minutes. Full transfer of production to the DR site is achieved by 6:00pm.
----------	--

RPO (Minutes)	30
RTO (hours)	6

Combined / Stacked Penalty	\$7,000
----------------------------	----------------

KPI 25	
Number of RPO events	1
Total RPO minutes	30
Unpenalized RPO minutes	10
Penalized RPO minutes	20
Penalty per RPO Event	\$5,000
Penalty per increment	\$1,000
Penalty	\$7,000

KPI 26	
Number of RTO events	-
Total RTO hours	6
Unpenalized RTO hours	24
Penalized RTO hours	-
Penalty per RTO Event	\$5,000
Penalty per increment	\$250
Penalty	-

**Table G-9: Sample CSC Operations
Calculation: Example 1**

Category	KPI Miss Frequency	Penalty
Reporting of all Operations Failures to the Agencies	0	0
Monthly Reconciliations	0	0
Customer Satisfaction	95.0%	0
Speed of Answer - Calls	2 days	6
Abandon Rate	0 days	0
Speed of Answer - Chat	0	0
Speed of Answer - Text	1 day	3
Speed of Answer - Email	1 day	3
First Contact Resolution	2 days	10
WIC Wait Time	0	0
Resolve Customer Cases - Timeliness	1 day	3
Resolve Customer Cases - Accuracy	99.75%	0
Reason Code - Accuracy	99.30%	0
Identified High Priority Issues - Assigned	0	0
Identified High Priority Issues - Resolved	0	0
Processing of Returned Mail	0 days	0
Processing of New Transponder Requests	1 day	3
Payment Processing	0 days	0
Research and Resolve Unidentified Payments	0 days	0
Process and Issue Refunds	0	0
Staff Turnover / Attrition	3%	0
		28
	Invoice Penalty	0%

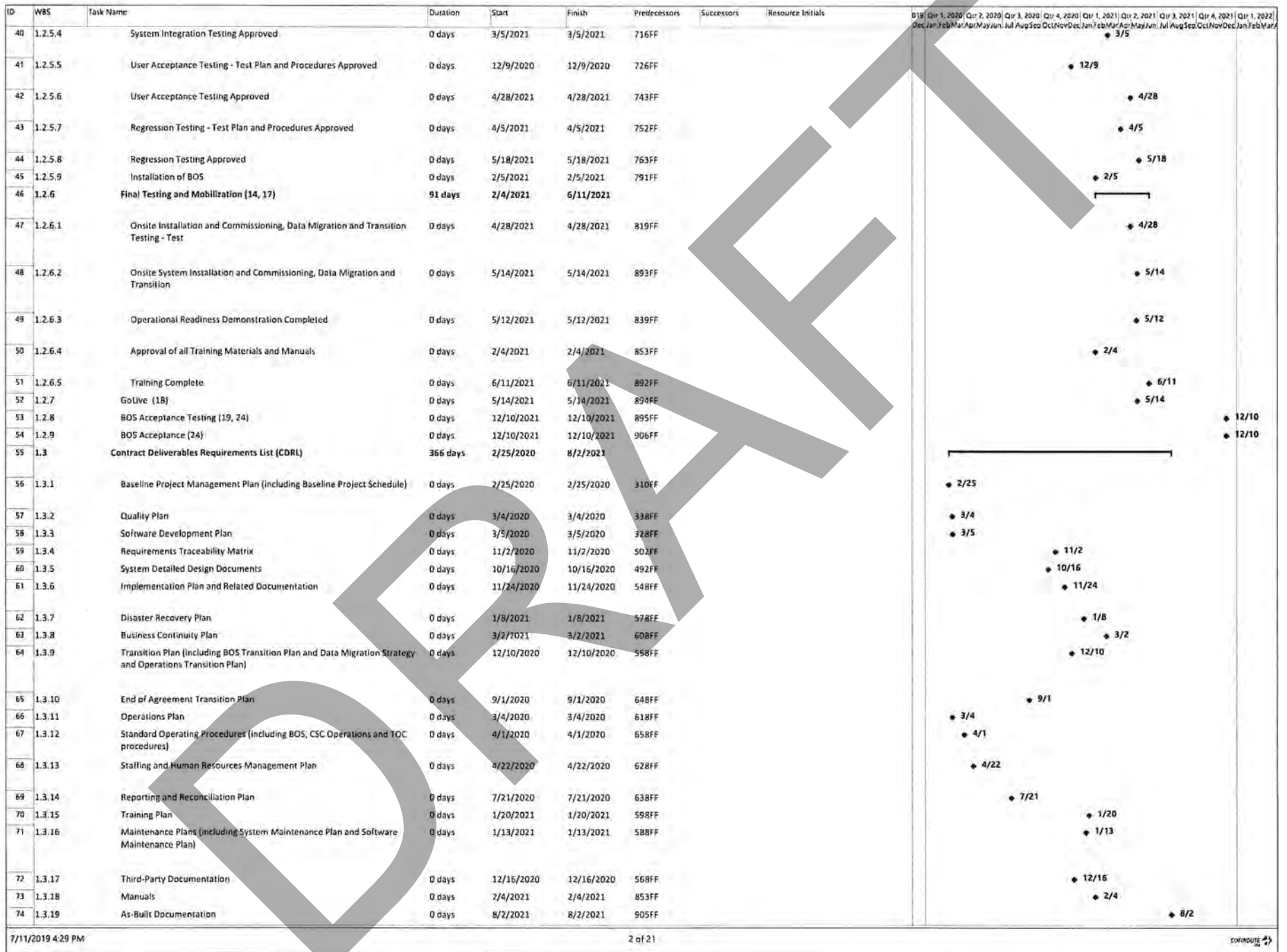
**Table G-10: Sample CSC
Operations Calculation: Example 2**

Category	KPI Miss Frequency	Penalty
Reporting of all Operations Failures to the Agencies	0	0
Monthly Reconciliations	0	0
Customer Satisfaction	90.5%	0
Speed of Answer - Calls	6 days	18
Abandon Rate	2 days	6
Speed of Answer - Chat	3 days	9
Speed of Answer - Text	1 day	3
Speed of Answer - Email	2 days	6
First Contact Resolution	3 days	15
WIC Wait Time	3 days	9
Resolve Customer Cases - Timeliness	2 days	6
Resolve Customer Cases - Accuracy	99.10%	0
Reason Code - Accuracy	99.30%	0
Identified High Priority Issues - Assigned	0	0
Identified High Priority Issues - Resolved	0	0
Processing of Returned Mail	2 days	6
Processing of New Transponder Requests	3 days	9
Payment Processing	0 days	0
Research and Resolve Unidentified Payments	2 days	6
Process and Issue Refunds	2 days	6
Staff Turnover / Attrition	7%	10
		109
	Invoice Penalty	2%

**Table G-11: Sample CSC
Operations Calculation: Example 3**

Category	KPI Miss Frequency	Penalty
Reporting of all Operations Failures to the Agencies	1	3
Monthly Reconciliations	0	0
Customer Satisfaction	78.0%	30
Speed of Answer - Calls	10 days	30
Abandon Rate	7 days	21
Speed of Answer - Chat	5 days	15
Speed of Answer - Text	4 days	12
Speed of Answer - Email	4 days	12
First Contact Resolution	8 days	40
WIC Wait Time	5 days	15
Resolve Customer Cases - Timeliness	2 days	6
Resolve Customer Cases - Accuracy	98.90%	30
Reason Code - Accuracy	99.30%	0
Identified High Priority Issues - Assigned	1	3
Identified High Priority Issues - Resolved	0	0
Processing of Returned Mail	4 days	12
Processing of New Transponder Requests	6 days	18
Payment Processing	3 days	15
Research and Resolve Unidentified Payments	3 days	9
Process and Issue Refunds	2 days	6
Staff Turnover / Attrition	7%	10
		287
	Invoice Penalty	12%

1 of 21



ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors	Resource Initials	
75	1.3.20	Master Test Plan and Test Procedures	0 days	9/24/2020	9/24/2020	471FF			619
76	1.3.21	Unit Testing Documentation	0 days	2/3/2021	2/3/2021	687FF			9/24
77	1.3.22	System Integration Testing Documentation	0 days	3/5/2021	3/5/2021	716FF			2/3
78	1.3.23	User Acceptance Testing Documentation	0 days	4/28/2021	4/28/2021	743FF			3/5
79	1.3.24	Regression Testing Documentation	0 days	5/18/2021	5/18/2021	763FF			4/28
80	1.3.25	Full Software Integration Testing Documentation (includes Approval of all associated updated documents: SDDD, Requirements Traceability Matrix and Business Rules documents)	0 days	8/2/2021	8/2/2021	905FF			5/18
81	1.3.26	Onsite Installation and Commissioning Testing Documentation	0 days	4/28/2021	4/28/2021	819FF			8/2
82	1.3.27	Operational and Acceptance Testing Documentation	0 days	5/12/2021	5/12/2021	839FF			4/28
83	1.3.28	Training Materials and Manuals	0 days	2/4/2021	2/4/2021	853FF			5/12
84	1.3.29	Training Report	0 days	6/11/2021	6/11/2021	892FF			2/4
85	1.4	CSC Operations Milestones	293 days	3/4/2020	4/28/2021				6/11
86	1.4.1	Operations Plan Complete	0 days	3/4/2020	3/4/2020	618FF			3/4
87	1.4.2	Standard Operating Procedures Complete	0 days	4/1/2020	4/1/2020	658FF			4/1
88	1.4.3	Staffing Plan Complete	0 days	4/22/2020	4/22/2020	628FF			4/22
89	1.4.4	Reporting and Reconciliation Plan Complete	0 days	7/21/2020	7/21/2020	638FF			7/21
90	1.4.5	CSC Facility Buildout	0 days	2/21/2021	2/21/2021	865FF			2/21
91	1.4.6	User Acceptance Complete	0 days	4/28/2021	4/28/2021	743FF			4/28
92	1.4.7	Training Materials Available	0 days	2/4/2021	2/4/2021	853FF			2/4
93	1.4.8	Training Begins	0 days	3/24/2021	3/24/2021	876FF			3/24
94									
95	2	Meetings	508 days	1/6/2020	12/31/2021				
96	2.1	Project Management Monthly Status Meeting	464 days	2/6/2020	12/1/2021				
97	2.1.1	Project Management Monthly Status Meeting 1	2 hrs	2/6/2020	2/6/2020	A,D,DC,P,T,TM,QM,P			2/6
98	2.1.2	Project Management Monthly Status Meeting 2	2 hrs	3/5/2020	3/5/2020	A,D,DC,P,T,TM,QM,P			3/5
99	2.1.3	Project Management Monthly Status Meeting 3	2 hrs	4/2/2020	4/2/2020	A,D,DC,P,T,TM,QM,P			4/2
100	2.1.4	Project Management Monthly Status Meeting 4	2 hrs	5/7/2020	5/7/2020	A,D,DC,P,T,TM,QM,P			5/7
101	2.1.5	Project Management Monthly Status Meeting 4	2 hrs	6/4/2020	6/4/2020	A,D,DC,P,T,TM,QM,P			6/4
102	2.1.6	Project Management Monthly Status Meeting 6	2 hrs	7/2/2020	7/2/2020	A,D,DC,P,T,TM,QM,P			7/2
103	2.1.7	Project Management Monthly Status Meeting 7	2 hrs	8/6/2020	8/6/2020	A,D,DC,P,T,TM,QM,P			8/6
104	2.1.8	Project Management Monthly Status Meeting 8	2 hrs	9/3/2020	9/3/2020	A,D,DC,P,T,TM,QM,P			9/3
105	2.1.9	Project Management Monthly Status Meeting 9	2 hrs	10/1/2020	10/1/2020	A,D,DC,P,T,TM,QM,P			10/1
106	2.1.10	Project Management Monthly Status Meeting 10	2 hrs	11/5/2020	11/5/2020	A,D,DC,P,T,TM,QM,P			11/5
107	2.1.11	Project Management Monthly Status Meeting 11	2 hrs	12/3/2020	12/3/2020	A,D,DC,P,T,TM,QM,P			12/3
108	2.1.12	Project Management Monthly Status Meeting 12	2 hrs	1/7/2021	1/7/2021	A,D,DC,P,T,TM,QM,P			1/7
109	2.1.13	Project Management Monthly Status Meeting 13	2 hrs	2/4/2021	2/4/2021	A,D,DC,P,T,TM,QM,P			2/4
110	2.1.14	Project Management Monthly Status Meeting 14	2 hrs	3/4/2021	3/4/2021	A,D,DC,P,T,TM,QM,P			3/4
111	2.1.15	Project Management Monthly Status Meeting 15	2 hrs	4/1/2021	4/1/2021	A,D,DC,P,T,TM,QM,P			4/1
112	2.1.16	Project Management Monthly Status Meeting 16	2 hrs	5/6/2021	5/6/2021	A,D,DC,P,T,TM,QM,P			5/6
113	2.1.17	Project Management Monthly Status Meeting 17	2 hrs	6/3/2021	6/3/2021	A,D,DC,P,T,TM,QM,P			6/3
114	2.1.18	Project Management Monthly Status Meeting 18	2 hrs	7/1/2021	7/1/2021	A,D,DC,P,T,TM,QM,P			7/1
115	2.1.19	Project Management Monthly Status Meeting 19	2 hrs	8/5/2021	8/5/2021	A,D,DC,P,T,TM,QM,P			8/5

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3 of 21

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ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors	Resource Initials	<div> <div>Q1'19</div> <div>Q2'19</div> <div>Q3'19</div> <div>Q4'19</div> <div>Q1'20</div> <div>Q2'20</div> <div>Q3'20</div> <div>Q4'20</div> <div>Q1'21</div> <div>Q2'21</div> <div>Q3'21</div> <div>Q4'21</div> <div>Q1'22</div> </div>
116	2.1.20	Project Management Monthly Status Meeting 20	2 hrs	9/2/2021	9/2/2021			A,D,DC,P,T,TM,QM,P	
117	2.1.21	Project Management Monthly Status Meeting 21	2 hrs	10/7/2021	10/7/2021			A,D,DC,P,T,TM,QM,P	10/7
118	2.1.22	Project Management Monthly Status Meeting 22	2 hrs	11/4/2021	11/4/2021			A,D,DC,P,T,TM,QM,P	11/4
119	2.1.23	Project Management Monthly Status Meeting 23	2 hrs	12/2/2021	12/2/2021			A,D,DC,P,T,TM,QM,P	12/2
120	2.2	Internal Status Meeting	508 days	1/6/2020	12/31/2021				
121	2.2.1	Internal Status Meeting 1	1 hr	1/6/2020	1/6/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	1/6
122	2.2.2	Internal Status Meeting 2	1 hr	1/13/2020	1/13/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	1/13
123	2.2.3	Internal Status Meeting 3	1 hr	1/20/2020	1/20/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	1/20
124	2.2.4	Internal Status Meeting 4	1 hr	1/27/2020	1/27/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	1/27
125	2.2.5	Internal Status Meeting 5	1 hr	2/3/2020	2/3/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	2/3
126	2.2.6	Internal Status Meeting 6	1 hr	2/10/2020	2/10/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	2/10
127	2.2.7	Internal Status Meeting 7	1 hr	2/17/2020	2/17/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	2/17
128	2.2.8	Internal Status Meeting 8	1 hr	2/24/2020	2/24/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	2/24
129	2.2.9	Internal Status Meeting 9	1 hr	3/2/2020	3/2/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	3/2
130	2.2.10	Internal Status Meeting 10	1 hr	3/9/2020	3/9/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	3/9
131	2.2.11	Internal Status Meeting 11	1 hr	3/16/2020	3/16/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	3/16
132	2.2.12	Internal Status Meeting 12	1 hr	3/23/2020	3/23/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	3/23
133	2.2.13	Internal Status Meeting 13	1 hr	3/30/2020	3/30/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	3/30
134	2.2.14	Internal Status Meeting 14	1 hr	4/6/2020	4/6/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	4/6
135	2.2.15	Internal Status Meeting 15	1 hr	4/13/2020	4/13/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	4/13
136	2.2.16	Internal Status Meeting 16	1 hr	4/20/2020	4/20/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	4/20
137	2.2.17	Internal Status Meeting 17	1 hr	4/27/2020	4/27/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	4/27
138	2.2.18	Internal Status Meeting 18	1 hr	5/4/2020	5/4/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	5/4
139	2.2.19	Internal Status Meeting 19	1 hr	5/11/2020	5/11/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	5/11
140	2.2.20	Internal Status Meeting 20	1 hr	5/18/2020	5/18/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	5/18
141	2.2.21	Internal Status Meeting 21	1 hr	5/25/2020	5/25/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	5/25
142	2.2.22	Internal Status Meeting 22	1 hr	6/1/2020	6/1/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	6/1
143	2.2.23	Internal Status Meeting 23	1 hr	6/8/2020	6/8/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	6/8
144	2.2.24	Internal Status Meeting 24	1 hr	6/15/2020	6/15/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	6/15
145	2.2.25	Internal Status Meeting 25	1 hr	6/22/2020	6/22/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	6/22
146	2.2.26	Internal Status Meeting 26	1 hr	6/29/2020	6/29/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	6/29
147	2.2.27	Internal Status Meeting 27	1 hr	7/6/2020	7/6/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	7/6
148	2.2.28	Internal Status Meeting 28	1 hr	7/13/2020	7/13/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	7/13
149	2.2.29	Internal Status Meeting 29	1 hr	7/20/2020	7/20/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	7/20
150	2.2.30	Internal Status Meeting 30	1 hr	7/27/2020	7/27/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	7/27
151	2.2.31	Internal Status Meeting 31	1 hr	8/3/2020	8/3/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	8/3
152	2.2.32	Internal Status Meeting 32	1 hr	8/10/2020	8/10/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	8/10
153	2.2.33	Internal Status Meeting 33	1 hr	8/17/2020	8/17/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	8/17
154	2.2.34	Internal Status Meeting 34	1 hr	8/24/2020	8/24/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	8/24
155	2.2.35	Internal Status Meeting 35	1 hr	8/31/2020	8/31/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	8/31
156	2.2.36	Internal Status Meeting 36	1 hr	9/8/2020	9/8/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	9/8
157	2.2.37	Internal Status Meeting 37	1 hr	9/14/2020	9/14/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	9/14
158	2.2.38	Internal Status Meeting 38	1 hr	9/21/2020	9/21/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	9/21
159	2.2.39	Internal Status Meeting 39	1 hr	9/28/2020	9/28/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	9/28
160	2.2.40	Internal Status Meeting 40	1 hr	10/5/2020	10/5/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	10/5
161	2.2.41	Internal Status Meeting 41	1 hr	10/12/2020	10/12/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	10/12
162	2.2.42	Internal Status Meeting 42	1 hr	10/19/2020	10/19/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	10/19
163	2.2.43	Internal Status Meeting 43	1 hr	10/26/2020	10/26/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	10/26
164	2.2.44	Internal Status Meeting 44	1 hr	11/2/2020	11/2/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	11/2
165	2.2.45	Internal Status Meeting 45	1 hr	11/9/2020	11/9/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	11/9
166	2.2.46	Internal Status Meeting 46	1 hr	11/16/2020	11/16/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	11/16

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors	Resource Initials	019 Qtr 1, 2020 Qtr 2, 2020 Qtr 3, 2020 Qtr 4, 2020 Qtr 1, 2021 Qtr 2, 2021 Qtr 3, 2021 Qtr 4, 2021 Qtr 1, 2022
167	2.2.47	Internal Status Meeting 47	1 hr	11/23/2020	11/23/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	11/23
168	2.2.48	Internal Status Meeting 48	1 hr	11/30/2020	11/30/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	11/30
169	2.2.49	Internal Status Meeting 49	1 hr	12/7/2020	12/7/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	12/7
170	2.2.50	Internal Status Meeting 50	1 hr	12/14/2020	12/14/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	12/14
171	2.2.51	Internal Status Meeting 51	1 hr	12/21/2020	12/21/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	12/21
172	2.2.52	Internal Status Meeting 52	1 hr	12/28/2020	12/28/2020			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	12/28
173	2.2.53	Internal Status Meeting 53	1 hr	1/4/2021	1/4/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	1/4
174	2.2.54	Internal Status Meeting 54	1 hr	1/11/2021	1/11/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	1/11
175	2.2.55	Internal Status Meeting 55	1 hr	1/18/2021	1/18/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	1/18
176	2.2.56	Internal Status Meeting 56	1 hr	1/25/2021	1/25/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	1/25
177	2.2.57	Internal Status Meeting 57	1 hr	2/1/2021	2/1/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	2/1
178	2.2.58	Internal Status Meeting 58	1 hr	2/8/2021	2/8/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	2/8
179	2.2.59	Internal Status Meeting 59	1 hr	2/15/2021	2/15/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	2/15
180	2.2.60	Internal Status Meeting 60	1 hr	2/22/2021	2/22/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	2/22
181	2.2.61	Internal Status Meeting 61	1 hr	3/1/2021	3/1/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	3/1
182	2.2.62	Internal Status Meeting 62	1 hr	3/8/2021	3/8/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	3/8
183	2.2.63	Internal Status Meeting 63	1 hr	3/15/2021	3/15/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	3/15
184	2.2.64	Internal Status Meeting 64	1 hr	3/22/2021	3/22/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	3/22
185	2.2.65	Internal Status Meeting 65	1 hr	3/29/2021	3/29/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	3/29
186	2.2.66	Internal Status Meeting 66	1 hr	4/5/2021	4/5/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	4/5
187	2.2.67	Internal Status Meeting 67	1 hr	4/12/2021	4/12/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	4/12
188	2.2.68	Internal Status Meeting 68	1 hr	4/19/2021	4/19/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	4/19
189	2.2.69	Internal Status Meeting 69	1 hr	4/26/2021	4/26/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	4/26
190	2.2.70	Internal Status Meeting 70	1 hr	5/3/2021	5/3/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	5/3
191	2.2.71	Internal Status Meeting 71	1 hr	5/10/2021	5/10/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	5/10
192	2.2.72	Internal Status Meeting 72	1 hr	5/17/2021	5/17/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	5/17
193	2.2.73	Internal Status Meeting 73	1 hr	5/24/2021	5/24/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	5/24
194	2.2.74	Internal Status Meeting 74	1 hr	5/31/2021	5/31/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	5/31
195	2.2.75	Internal Status Meeting 75	1 hr	6/7/2021	6/7/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	6/7
196	2.2.76	Internal Status Meeting 76	1 hr	6/14/2021	6/14/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	6/14
197	2.2.77	Internal Status Meeting 77	1 hr	6/21/2021	6/21/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	6/21
198	2.2.78	Internal Status Meeting 78	1 hr	6/28/2021	6/28/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	6/28
199	2.2.79	Internal Status Meeting 79	1 hr	7/5/2021	7/5/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	7/5
200	2.2.80	Internal Status Meeting 80	1 hr	7/12/2021	7/12/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	7/12
201	2.2.81	Internal Status Meeting 81	1 hr	7/19/2021	7/19/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	7/19
202	2.2.82	Internal Status Meeting 82	1 hr	7/26/2021	7/26/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	7/26
203	2.2.83	Internal Status Meeting 83	1 hr	8/2/2021	8/2/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	8/2
204	2.2.84	Internal Status Meeting 84	1 hr	8/9/2021	8/9/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	8/9
205	2.2.85	Internal Status Meeting 85	1 hr	8/16/2021	8/16/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	8/16
206	2.2.86	Internal Status Meeting 86	1 hr	8/23/2021	8/23/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	8/23
207	2.2.87	Internal Status Meeting 87	1 hr	8/30/2021	8/30/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	8/30
208	2.2.88	Internal Status Meeting 88	1 hr	9/7/2021	9/7/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	9/7
209	2.2.89	Internal Status Meeting 89	1 hr	9/13/2021	9/13/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	9/13
210	2.2.90	Internal Status Meeting 90	1 hr	9/20/2021	9/20/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	9/20
211	2.2.91	Internal Status Meeting 91	1 hr	9/27/2021	9/27/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	9/27
212	2.2.92	Internal Status Meeting 92	1 hr	10/4/2021	10/4/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	10/4
213	2.2.93	Internal Status Meeting 93	1 hr	10/11/2021	10/11/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	10/11
214	2.2.94	Internal Status Meeting 94	1 hr	10/18/2021	10/18/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	10/18
215	2.2.95	Internal Status Meeting 95	1 hr	10/25/2021	10/25/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	10/25
216	2.2.96	Internal Status Meeting 96	1 hr	11/1/2021	11/1/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	11/1
217	2.2.97	Internal Status Meeting 97	1 hr	11/8/2021	11/8/2021			FM,P,T,P,QM,OT,D,CO,SM,TW,TM	11/8

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors	Resource Initials	019	Qtr 1, 2020	Qtr 2, 2020	Qtr 3, 2020	Qtr 4, 2020	Qtr 1, 2021	Qtr 2, 2021	Qtr 3, 2021	Qtr 4, 2021	Qtr 1, 2022
269	3.2.1	ETIM	0 days	12/31/2020	12/31/2020	785	286											12/31
270	3.2.2	CTOC	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
271	3.2.3	NIOP	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
272	3.2.4	IVR	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
273	3.2.5	Merchant Services Provider	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
274	3.2.6	Print & Mail	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
275	3.2.7	Address Correction	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
276	3.2.8	CADMV	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
277	3.2.9	AZ-DMV	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
278	3.2.10	SMS	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
279	3.2.11	LockBox	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
280	3.2.12	Finance System	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
281	3.2.13	Skip Tracing	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
282	3.2.14	Collections	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
283	3.2.15	Occupancy Detection System	0 days	11/16/2020	11/16/2020	701SF-20 days												11/16
284	3.3	Environments	126 days	10/8/2020	4/7/2021													10/8
285	3.3.1	Unit Test Environment Ready	0 days	10/8/2020	10/8/2020	670SF-20 days												12/31
286	3.3.2	SIT/QA/Data Migration Environment Ready	0 days	12/31/2020	12/31/2020	269												1/14
287	3.3.3	Site-to-Site VPN for development team to connect to lower environments	0 days	1/14/2021	1/14/2021	780												4/7
288	3.3.4	DR Environment Ready	0 days	4/7/2021	4/7/2021	816												
289																		
290	4	Preliminary Project Planning (0,2)	46 days	1/2/2020	3/5/2020													
291	4.1	KickOff Meeting	12 days	1/2/2020	1/17/2020													
292	4.1.1	Send Meeting Invite	1 day	1/2/2020	1/2/2020	2	293FS+1 day	P,D										1/2
293	4.1.2	Prepare Meeting Materials	3 days	1/6/2020	1/8/2020	292FS+1 day	297,294,341FF	D,P,TM,SM,DC										1/8
294	4.1.3	Kick Off Meeting	1 day	1/16/2020	1/17/2020	304,314,293,30C295		A,BM,BTM,CO,MM,D,FM,OT,P,P,QM										1/17
295	4.1.4	Kick Off Meeting Completed	0 days	1/17/2020	1/17/2020	294												1/17
296	4.2	Electronic Document Management System	6 days	1/9/2020	1/16/2020													
297	4.2.1	Setup Sharepoint Site	1 day	1/9/2020	1/9/2020	293	298	P,QM										1/9
298	4.2.2	Setup Account and Access	2 days	1/10/2020	1/13/2020	297	299	DC										1/13
299	4.2.3	Prepare Access Instructions	4 days	1/13/2020	1/16/2020	298	300	DC										1/16
300	4.2.4	Electronic Document Management System Completed	0 days	1/16/2020	1/16/2020	299	294											1/16
301	4.3	Project Management Plan	39 days	1/2/2020	2/25/2020													
302	4.3.1	Project Management Plan Draft	8 days	1/2/2020	1/13/2020	2	303,312FF	D,QM,TM,P,P,TW,SM,CM										1/13
303	4.3.2	Internal QA Review	2 days	1/14/2020	1/15/2020	302	304FF	P,QM,D,TW										1/15
304	4.3.3	Submit to Agency for Comment	1 day	1/15/2020	1/15/2020	303FF	305,294	DC										1/15
305	4.3.4	Agency Review	15 days	1/16/2020	2/5/2020	304	306	A										2/5
306	4.3.5	Revise based on Comments	3 days	2/6/2020	2/10/2020	305	307	D,QM,P,TM,BM,CM										2/10
307	4.3.6	Joint Review Meeting	1 day	2/11/2020	2/11/2020	306	308FF	P,D,A,TM,SM,P,QM										2/11
308	4.3.7	Submit Final	1 day	2/11/2020	2/11/2020	307FF	309	DC										2/11
309	4.3.8	Agency Approval Review	10 days	2/12/2020	2/25/2020	308	310	A										2/25
310	4.3.9	Project Management Plan Approved	0 days	2/25/2020	2/25/2020	309	5FF,56FF											2/25
311	4.4	Contract Data Requirements List (CDRL)	38 days	1/7/2020	2/27/2020													
312	4.4.1	CDRL Draft	5 days	1/7/2020	1/13/2020	302FF	313	P,P,D,QM,TM,SM										1/13
313	4.4.2	Internal QA Review	1 day	1/14/2020	1/14/2020	312	314	P,QM										1/14
314	4.4.3	Submit for Approval	1 day	1/15/2020	1/15/2020	313	315,294	DC										1/15
315	4.4.4	Agency Review	15 days	1/16/2020	2/5/2020	314	316	A										2/5
316	4.4.5	Revise based on Comments	5 days	2/6/2020	2/12/2020	315	317	P,D,QM,TM,TW										2/12
317	4.4.6	Submit Final	1 day	2/13/2020	2/13/2020	316	318	DC										2/13

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors	Resource Initials	<div> <div>Q1 1, 2020</div> <div>Q1 2, 2020</div> <div>Q1 3, 2020</div> <div>Q1 4, 2020</div> <div>Q1 1, 2021</div> <div>Q1 2, 2021</div> <div>Q1 3, 2021</div> <div>Q1 4, 2021</div> <div>Q1 1, 2022</div> </div>
318	4.4.7	Agency Approval Review	10 days	2/14/2020	2/27/2020	317	319	A	<div> <div>2/27</div> </div>
319	4.4.8	CDRL Approved	0 days	2/27/2020	2/27/2020	318	6FF		<div> <div>2/27</div> </div>
320	4.5	Software Development Plan	46 days	1/2/2020	3/5/2020				<div> <div>1/17</div> </div>
321	4.5.1	Software Development Plan Draft	12 days	1/2/2020	1/17/2020	2	322	SM,TM,BM,BTM,TW	<div> <div>1/21</div> </div>
322	4.5.2	Internal QA Review	2 days	1/20/2020	1/21/2020	321	323	P,QM	<div> <div>1/22</div> </div>
323	4.5.3	Submit for Approval	1 day	1/22/2020	1/22/2020	322	324	DC	<div> <div>2/12</div> </div>
324	4.5.4	Agency Review	15 days	1/23/2020	2/12/2020	323	325	A	<div> <div>2/19</div> </div>
325	4.5.5	Revise based on Comments	5 days	2/13/2020	2/19/2020	324	326	SM,TM,BM	<div> <div>2/20</div> </div>
326	4.5.6	Submit Final	1 day	2/20/2020	2/20/2020	325	327	DC	<div> <div>3/5</div> </div>
327	4.5.7	Agency Approval Review	10 days	2/21/2020	3/5/2020	326	328	A	<div> <div>3/5</div> </div>
328	4.5.8	Software Development Plan Approved	0 days	3/5/2020	3/5/2020	327	7FF,58FF		<div> <div>1/15</div> </div>
329	4.6	Quality Assurance Plan	45 days	1/2/2020	3/4/2020				<div> <div>1/17</div> </div>
330	4.6.1	Quality Assurance Plan Draft	10 days	1/2/2020	1/15/2020	2	331	SM,TM,QM,P,BTM	<div> <div>1/20</div> </div>
331	4.6.2	Internal QA Review	2 days	1/16/2020	1/17/2020	330	332	QM,P	<div> <div>2/10</div> </div>
332	4.6.3	Submit for Approval	1 day	1/20/2020	1/20/2020	331	333	DC	<div> <div>2/17</div> </div>
333	4.6.4	Agency Review	15 days	1/21/2020	2/10/2020	332	334	A	<div> <div>2/18</div> </div>
334	4.6.5	Revise based on Comments	5 days	2/11/2020	2/17/2020	333	335	QM,P,D,BTM	<div> <div>2/19</div> </div>
335	4.6.6	Joint Review Meeting	1 day	2/18/2020	2/18/2020	334	336	QM,DC,P,D,A	<div> <div>3/4</div> </div>
336	4.6.7	Submit Final	1 day	2/19/2020	2/19/2020	335	337	DC	<div> <div>3/4</div> </div>
337	4.6.8	Agency Approval Review	10 days	2/20/2020	3/4/2020	336	338	A	<div> <div>3/4</div> </div>
338	4.6.9	Quality Assurance Plan Approved	0 days	3/4/2020	3/4/2020	337	8FF,57FF,463		<div> <div>1/8</div> </div>
339	5	System Design and Development Meetings and Workshops (1,6)	135 days	1/2/2020	7/10/2020				<div> <div>1/8</div> </div>
340	5.1	Business Rules Workshop	67 days	1/2/2020	4/3/2020				<div> <div>1/22</div> </div>
341	5.1.1	Prepare Meeting Materials	5 days	1/2/2020	1/8/2020	293FF	342	SM,TM,P,D,CO,FM,BBA	<div> <div>1/29</div> </div>
342	5.1.2	Submit Meeting Materials 10 prior to Workshop	0 days	1/8/2020	1/8/2020	341	343	DC	<div> <div>2/3</div> </div>
343	5.1.3	Agency Review	10 days	1/9/2020	1/22/2020	342	345FS+3 days	A	<div> <div>1/31</div> </div>
344	5.1.4	Business Rules Workshop 1	5 days	1/28/2020	2/3/2020				<div> <div>2/4</div> </div>
345	5.1.4.1	Deliver Workshop	2 days	1/28/2020	1/29/2020	343FS+3 days	346,348	TM,P,QM,A,FM,OT,P,D,T,SM,CO,BBA	<div> <div>2/3</div> </div>
346	5.1.4.2	Document Workshop	3 days	1/30/2020	2/3/2020	345		TM,SM,TW,DC,QM,P,BBA	<div> <div>2/5</div> </div>
347	5.1.5	Business Rules Workshop 2	4 days	1/30/2020	2/4/2020				<div> <div>2/12</div> </div>
348	5.1.5.1	Deliver Workshop	2 days	1/30/2020	1/31/2020	345	349,351	TM,SM,P,QM,A,FM,P,T,D,CO,BBA,BM	<div> <div>2/14</div> </div>
349	5.1.5.2	Document Workshop	2 days	2/3/2020	2/4/2020	348	363	TM,SM,TW,DC,QM,P,BBA,BM	<div> <div>2/17</div> </div>
350	5.1.6	Business Rules Workshop 3	3 days	2/3/2020	2/5/2020				<div> <div>3/9</div> </div>
351	5.1.6.1	Deliver Workshop	1 day	2/3/2020	2/3/2020	348	352	TM,P,QM,A,FM,OT,P,D,T,SM,BBA,BM	<div> <div>3/11</div> </div>
352	5.1.6.2	Document Workshop	2 days	2/4/2020	2/5/2020	351	353	TM,SM,TW,DC,QM,P,BBA,BM	<div> <div>3/12</div> </div>
353	5.1.7	Prepare Business Rules Sheet	5 days	2/6/2020	2/12/2020	352	354	DC,D,CO,FM,BBA	<div> <div>3/13</div> </div>
354	5.1.8	QA Review of Business Rules Sheet	2 days	2/13/2020	2/14/2020	353	355	QM,P	<div> <div>4/3</div> </div>
355	5.1.9	Submit Business Rules for Review	1 day	2/17/2020	2/17/2020	354	356	DC	<div> <div>4/3</div> </div>
356	5.1.10	Agency Review	15 days	2/18/2020	3/9/2020	355	357	A	<div> <div>2/11</div> </div>
357	5.1.11	Update Business Rules Based on Comments Received	2 days	3/10/2020	3/11/2020	356	358	QM,D,SM,TW,TM,BBA	<div> <div>2/12</div> </div>
358	5.1.12	Joint Review Meeting	1 day	3/12/2020	3/12/2020	357	359	A,P,D,CO,FM,TM,SM	<div> <div>2/26</div> </div>
359	5.1.13	Submit for Approval	1 day	3/13/2020	3/13/2020	358	360,411	DC	<div> <div>2/27</div> </div>
360	5.1.14	Agency Review for Approval	15 days	3/16/2020	4/3/2020	359	361	A	<div> <div>2/28</div> </div>
361	5.1.15	Business Rules Workshop Completed	0 days	4/3/2020	4/3/2020	360	10FF,473		<div> <div>3/2</div> </div>
362	5.2	Software Walkthrough Meetings	26 days	2/5/2020	3/11/2020				<div> <div>2/11</div> </div>
363	5.2.1	Prepare Agenda of Walkthrough	5 days	2/5/2020	2/11/2020	349	364	TM,SM,BM,SE,DA2,SD1,BTM,ST2	<div> <div>2/12</div> </div>
364	5.2.2	Submit Agenda of Walkthrough	1 day	2/12/2020	2/12/2020	363	365	DC	<div> <div>2/26</div> </div>
365	5.2.3	Agency Review	10 days	2/13/2020	2/26/2020	364	366	A	<div> <div>2/27</div> </div>
366	5.2.4	Software Walkthrough Meeting 1	1 day	2/27/2020	2/27/2020	365	367	TM,SM,P,D,FM,CO,BM,BBA,SD1	<div> <div>2/28</div> </div>
367	5.2.5	Software Walkthrough Meeting 2	1 day	2/28/2020	2/28/2020	366	368	TM,SM,P,D,FM,CO,BM,BBA,SD1,ST2	<div> <div>3/2</div> </div>
368	5.2.6	Software Walkthrough Meeting 3	1 day	3/2/2020	3/2/2020	367	369,378	TM,SM,P,D,FM,CO,BBA,BM,SD1,ST2	

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors	Resource Initials	019	Qtr 1, 2020	Qtr 2, 2020	Qtr 3, 2020	Qtr 4, 2020	Qtr 1, 2021	Qtr 2, 2021	Qtr 3, 2021	Qtr 4, 2021	Qtr 1, 2022
369	5.2.7	Prepare Software Walkthrough Meeting Notes	2 days	3/3/2020	3/4/2020	368	370,374	D,DC										
370	5.2.8	Address Software Walkthrough Open Action Items	5 days	3/5/2020	3/11/2020	369	372,371FF	TM,SM,P,D										
371	5.2.9	Send update status report of Action Items	1 day	3/11/2020	3/11/2020	370FF		DC,P,TM,SM										
372	5.2.10	Software Walkthrough Meeting Complete	0 days	3/11/2020	3/11/2020	370	11FF											
373	5.3	Use Case Workshops	20 days	3/3/2020	3/30/2020													
374	5.3.1	Prepare Meeting Materials	7 days	3/5/2020	3/13/2020	369	375	TM,SM,CO,FM,BBA,BM,DO1,TW										
375	5.3.2	Submit Meeting Materials 10 prior to Workshop	1 day	3/16/2020	3/16/2020	374	376,379	DC										
376	5.3.3	Agency Review	10 days	3/17/2020	3/30/2020	375		A										
377	5.3.4	Use Case Workshop 1	13 days	3/3/2020	3/19/2020													
378	5.3.4.1	Prepare Workshop	2 days	3/3/2020	3/4/2020	368	379	CO,FM,SM,P,D,BBA,BM,SE										
379	5.3.4.2	Deliver Workshop	1 day	3/17/2020	3/17/2020	378,375	380,382	P,CO,TM,SM,DC,D,A,BBA,BM,SE										
380	5.3.4.3	Document Workshop	2 days	3/18/2020	3/19/2020	379		D,P,DC,TM,BBA,BM										
381	5.3.5	Use Case Workshop 2	3 days	3/18/2020	3/20/2020													
382	5.3.5.1	Deliver Workshop	1 day	3/18/2020	3/18/2020	379	383,385	CO,SM,P,D,BBA,BM,SE										
383	5.3.5.2	Document Workshop	2 days	3/19/2020	3/20/2020	382		P,CO,TM,SM,DC,D,BBA,BM,TW										
384	5.3.6	Use Case Workshop 3	3 days	3/19/2020	3/23/2020													
385	5.3.6.1	Deliver Workshop	1 day	3/19/2020	3/19/2020	382	386	P,CO,TM,SM,DC,D,A,BM,BBA,SE										
386	5.3.6.2	Document Workshop	2 days	3/20/2020	3/23/2020	385	387	P,D,DC,TM,BBA,BM,TW										
387	5.3.7	Use Case Workshop Completed	0 days	3/23/2020	3/23/2020	386	15FF,411,389FS-											
388	5.4	Performance Reporting Workshop	59 days	3/10/2020	6/1/2020													
389	5.4.1	Prepare Meeting Materials	5 days	3/10/2020	3/16/2020	387FS-10 days	390	TM,SM,CO,T,TW,SE,BBA,DA2										
390	5.4.2	Submit Meeting Materials 10 prior to Workshop	1 day	3/17/2020	3/17/2020	389	391	DC										
391	5.4.3	Agency Review	10 days	3/18/2020	3/31/2020	390	393	A										
392	5.4.4	Performance Reporting Workshop 1	3 days	4/1/2020	4/3/2020													
393	5.4.4.1	Deliver Workshop	2 days	4/1/2020	4/2/2020	391	394,396	TM,SM,CO,T,TW,BBA,SE,DA2										
394	5.4.4.2	Document Workshop	1 day	4/3/2020	4/3/2020	393	401	TM,SM,TW,DC,QM,P,BBA,SE,DA2										
395	5.4.5	Performance Reporting Workshop 2	3 days	4/3/2020	4/7/2020													
396	5.4.5.1	Deliver Workshop	2 days	4/3/2020	4/6/2020	393	397,399	TM,SM,CO,T,TW										
397	5.4.5.2	Document Workshop	1 day	4/7/2020	4/7/2020	396	401	TM,SM,TW,DC,QM,P,BBA,BM,SE										
398	5.4.6	Performance Reporting Workshop 3	3 days	4/7/2020	4/9/2020													
399	5.4.6.1	Deliver Workshop	2 days	4/7/2020	4/8/2020	396	400	TM,SM,CO,T,TW,BBA,BM,SE										
400	5.4.6.2	Document Workshop	1 day	4/9/2020	4/9/2020	399	401	TM,SM,TW,DC,QM,P,BBA,BM,SE										
401	5.4.7	Revise Performance Monitoring Report Document	2 days	4/10/2020	4/13/2020	394,397,400	402	D,SM,TM,TW,P,SE										
402	5.4.8	QA Review Performance Review Document	2 days	4/14/2020	4/15/2020	401	403	QM,P,D										
403	5.4.9	Submit Performance Review Document	1 day	4/16/2020	4/16/2020	402	404	DC										
404	5.4.10	Agency Review	15 days	4/17/2020	5/8/2020	403	405	A										
405	5.4.11	Update Performance Review Document with Comments Received	5 days	5/11/2020	5/15/2020	404	406	D,TM,QM,P,SE,BBA,TW										
406	5.4.12	Submit Performance Review Document for Approval	1 day	5/18/2020	5/18/2020	405	407	DC										
407	5.4.13	Agency Review for Approval	10 days	5/19/2020	6/1/2020	406	408	A										
408	5.4.14	Performance Reporting Workshop Completed	0 days	6/1/2020	6/1/2020	407	13FF											
409	5.5	System Design Workshops (1,6)	77 days	3/24/2020	7/10/2020													
410	5.5.1	System Design Iteration 1	27 days	3/24/2020	4/29/2020													
411	5.5.1.1	Perform BOS System Design Iteration 1 Activities	10 days	3/24/2020	4/6/2020	359,387	412	DA2,DA1,SD1										
412	5.5.1.2	Submit Initial Design Materials	1 day	4/7/2020	4/7/2020	411	413	DC										
413	5.5.1.3	Agency Review	10 days	4/8/2020	4/21/2020	412	416,414	A										
414	5.5.1.4	System Design Iteration 1 Complete	0 days	4/21/2020	4/21/2020	413	432,503											
415	5.5.1.5	System Design Workshop 1	6 days	4/22/2020	4/29/2020		420											
416	5.5.1.5.1	Workshop prep	2 days	4/22/2020	4/23/2020	413	417	BM,BBA,SD1,SD1,DA2										
417	5.5.1.5.2	Deliver Workshop	2 days	4/24/2020	4/27/2020	416	418	BBA,BM,SE,SD1,D,BS2										
418	5.5.1.5.3	Document Workshop	2 days	4/28/2020	4/29/2020	417		BM,TW,BBA,DA2,BS2,SD1										

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors	Resource Initials	019	Qtr 1, 2020	Qtr 2, 2020	Qtr 3, 2020	Qtr 4, 2020	Qtr 1, 2021	Qtr 2, 2021	Qtr 3, 2021	Qtr 4, 2021	Qtr 1, 2022
419	5.5.2	System Design Iteration 2	18 days	4/30/2020	5/26/2020													
420	5.5.2.1	Perform BOS System Design Iteration 2 Activities	12 days	4/30/2020	5/18/2020	415	422	DA2,DA1,SD1										
421	5.5.2.2	System Detailed Design Workshop 2	6 days	5/19/2020	5/26/2020													
422	5.5.2.2.1	Workshop Prep	2 days	5/19/2020	5/20/2020	420	423	BM,BBA,SD1,SD1,DA2										
423	5.5.2.2.2	Deliver Workshop	2 days	5/21/2020	5/22/2020	422	424	BBA,BM,SE,SD1,D,BS2										
424	5.5.2.2.3	Document Workshop	2 days	5/25/2020	5/26/2020	423	426	BM,TW,BBA,DA2,BS2,SD1										
425	5.5.3	System Design Iteration 3	16 days	5/27/2020	6/17/2020													
426	5.5.3.1	Perform BOS System Design Iteration 3 Activities	12 days	5/27/2020	6/11/2020	424	428	DA2,DA1,SD1										
427	5.5.3.2	System Detailed Design Workshop 3	4 days	6/12/2020	6/17/2020													
428	5.5.3.2.1	Workshop Prep	2 days	6/12/2020	6/15/2020	426	429	BM,BBA,SD1,SD1,DA2										
429	5.5.3.2.2	Deliver Workshop	2 days	6/16/2020	6/17/2020	428	430FF	BBA,BM,SE,SD1,D,BS2										
430	5.5.3.2.3	Document Workshop	2 days	6/16/2020	6/17/2020	429FF		BM,TW,BBA,DA2,BS2,SD1										
431	5.5.4	Reports Design	56 days	4/22/2020	7/10/2020													
432	5.5.4.1	Reports Design	16 days	4/22/2020	5/14/2020	414	434	DD1,SD1,BM,SD1,DA2										
433	5.5.4.2	Reports Design Workshops	40 days	5/15/2020	7/10/2020													
434	5.5.4.2.1	Prepare Meeting Materials	4 days	5/15/2020	5/20/2020	432	435	TW,SD1,SD1,DD1,SM,BBA										
435	5.5.4.2.2	Submit Meeting Materials 10 prior to Workshop	1 day	5/21/2020	5/21/2020	434	436	DC										
436	5.5.4.2.3	Agency Review	10 days	5/22/2020	6/4/2020	435	438	A										
437	5.5.4.2.4	Reports Design Workshop 1	3 days	6/5/2020	6/9/2020													
438	5.5.4.2.4.1	Deliver Workshop	2 days	6/5/2020	6/8/2020	436	439,441	BM,BBA,SE,SM,SD1										
439	5.5.4.2.4.2	Document Workshop	1 day	6/9/2020	6/9/2020	438		TW,BBA,SD1										
440	5.5.4.2.5	Reports Design Workshop 2	3 days	6/9/2020	6/11/2020													
441	5.5.4.2.5.1	Deliver Workshop	2 days	6/9/2020	6/10/2020	438	442,444	BM,BBA,SE,SM,SD1										
442	5.5.4.2.5.2	Document Workshop	1 day	6/11/2020	6/11/2020	441		TW,BBA,SD1										
443	5.5.4.2.6	Reports Design Workshop 3	2 days	6/11/2020	6/12/2020													
444	5.5.4.2.6.1	Deliver Workshop	1 day	6/11/2020	6/11/2020	441	445	BM,BBA,SE,SM,SD1										
445	5.5.4.2.6.2	Document Workshop	1 day	6/12/2020	6/12/2020	444	446	TW,BBA,SD1										
446	5.5.4.2.7	Update Draft Standard Reports Document	4 days	6/15/2020	6/18/2020	445	448,447	TW,DD1,BBA,BM,SE,DA2										
447	5.5.4.2.8	Submit Draft Standard Reports Document For Review	1 day	6/19/2020	6/19/2020	446		DC										
448	5.5.4.2.9	Agency Review and Approval	15 days	6/19/2020	7/10/2020	446	449	A										
449	5.5.4.2.10	Reports Design Workshop Complete	0 days	7/10/2020	7/10/2020	448	483,450,12FF											
450	5.5.4.3	System Design Workshops Complete	0 days	7/10/2020	7/10/2020	449	521FS-10 days,4											
451	6	Data Migration Design and Workshops	50 days	3/24/2020	6/2/2020													
452	6.1	Data Migration Design Material Preparation	20 days	3/24/2020	4/20/2020	387	453	MM,DS,BM,TW,DA1										
453	6.2	Submit to Agency to review	1 day	4/21/2020	4/21/2020	452	454	DC										
454	6.3	Data Migration Workshop	8 days	4/22/2020	5/1/2020	453												
455	6.3.1	Deliver Workshop	5 days	4/22/2020	4/28/2020		456	MM,DS,BM,TW,DA1										
456	6.3.2	Document Workshop notes	3 days	4/29/2020	5/1/2020	455	457	TW										
457	6.4	Update Data Migration Design Document	4 days	5/4/2020	5/8/2020	456	458	TW,MM										
458	6.5	Internal QA Review	2 days	5/11/2020	5/12/2020	457	459	P,TN,BM,TM										
459	6.6	Submit for Agency Review	15 days	5/13/2020	6/2/2020	458	460											
460	6.7	Data Migration Design document approved	0 days	6/2/2020	6/2/2020	459	515											
461	7	System Design and Development Documents (4,10)	284.33 days	4/6/2020	5/18/2021													
462	7.1	Master Test Plan	53 days	7/13/2020	9/24/2020													
463	7.1.1	Master Test Plan Draft	10 days	7/13/2020	7/24/2020	338,387,450	464	SM,TM,P,D										
464	7.1.2	Internal QA Review	5 days	7/27/2020	7/31/2020	463	465	QM,P,D										
465	7.1.3	Submit for Approval	1 day	8/3/2020	8/3/2020	464	466	DC										
466	7.1.4	Agency Review	15 days	8/4/2020	8/24/2020	465	467	A										
467	7.1.5	Revise based on Comments	10 days	8/25/2020	9/8/2020	466	468	P,D,SM										
468	7.1.6	Joint Review Meeting	1 day	9/9/2020	9/9/2020	467	469	SM,TM,P,D,QM,P,FM,A										
469	7.1.7	Submit Final	1 day	9/10/2020	9/10/2020	468	470	DC										

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors	Resource Initials	019 Qtr 1, 2020 Qtr 2, 2020 Qtr 3, 2020 Qtr 4, 2020 Qtr 1, 2021 Qtr 2, 2021 Qtr 3, 2021 Qtr 4, 2021 Qtr 1, 2022
470	7.1.8	Agency Review for Approval	10 days	9/11/2020	9/24/2020	469	471	A	■ 9/24
471	7.1.9	Master Test Plan Approved	0 days	9/24/2020	9/24/2020	470	17FF,75FF		■ 9/24
472	7.2	Business Rules Document	56 days	4/6/2020	6/23/2020				■ 4/17
473	7.2.1	Business Rules Draft Completed	10 days	4/6/2020	4/17/2020	361	474	SM, TM, P, CO, T, D, TW	■ 4/21
474	7.2.2	Internal QA Review	2 days	4/20/2020	4/21/2020	473	475	QM, P, D	■ 4/22
475	7.2.3	Submit for Approval	1 day	4/22/2020	4/22/2020	474	476	DC	■ 5/28
476	7.2.4	Agency Review	25 days	4/23/2020	5/28/2020	475	477	A	■ 6/4
477	7.2.5	Revise based on Comments	5 days	5/29/2020	6/4/2020	476	478	D, P, QM, TM	■ 6/5
478	7.2.6	Joint Review Meeting	1 day	6/5/2020	6/5/2020	477	479	SM, TM, P, D, DC, A	■ 6/9
479	7.2.7	Submit Final	2 days	6/8/2020	6/9/2020	478	480	DC	■ 6/23
480	7.2.8	Agency Review for Approval	10 days	6/10/2020	6/23/2020	479	481	A	■ 6/23
481	7.2.9	Business Rules Completed	0 days	6/23/2020	6/23/2020	480	19FF		■ 8/11
482	7.3	System Detailed Design Document	69 days	7/13/2020	10/16/2020				■ 8/18
483	7.3.1	System Detailed Design Document Draft Completed	22 days	7/13/2020	8/11/2020	449	484, 494	SM, TM, P	■ 8/18
484	7.3.2	Internal QA Review	5 days	8/12/2020	8/18/2020	483	485FF	QM, P, D	■ 9/23
485	7.3.3	Submit for Approval	1 day	8/18/2020	8/18/2020	484FF	486, 661	DC	■ 9/24
486	7.3.4	Agency Review	25 days	8/19/2020	9/23/2020	485	487	A	■ 10/1
487	7.3.5	Joint Review Meeting	1 day	9/24/2020	9/24/2020	486	488	SM, TM, P, CO, P, FM, D, DC, QM, A	■ 10/2
488	7.3.6	Revise based on Comments	5 days	9/25/2020	10/1/2020	487	489	TM, SM, D	■ 10/16
489	7.3.7	Joint Review Meeting	1 day	10/2/2020	10/2/2020	488	490FF	SM, TM, P, CO, P, FM, D, DC, QM, A	■ 10/16
490	7.3.8	Submit Final	1 day	10/2/2020	10/2/2020	489FF	491	DC	■ 10/16
491	7.3.9	Agency Review for Approval	10 days	10/5/2020	10/16/2020	490	492	A	■ 10/16
492	7.3.10	System Detailed Design Document Approved	0 days	10/16/2020	10/16/2020	491	20FF, 60FF		■ 10/16
493	7.4	Requirements Traceability Matrix (RTM)	58 days	8/12/2020	11/2/2020				■ 8/25
494	7.4.1	RTM Draft	10 days	8/12/2020	8/25/2020	483	495	SM, TM, P, D, DC	■ 9/1
495	7.4.2	Internal QA Review	5 days	8/26/2020	9/1/2020	494	496	QM, P, D, TM	■ 9/2
496	7.4.3	Submit for Approval	1 day	9/2/2020	9/2/2020	495	497	DC	■ 10/8
497	7.4.4	Agency Review	25 days	9/3/2020	10/8/2020	496	498	A	■ 10/15
498	7.4.5	Revise based on Comments	5 days	10/9/2020	10/15/2020	497	499	P, D, QM	■ 10/16
499	7.4.6	Joint Review Meeting	1 day	10/16/2020	10/16/2020	498	500	SM, TM, P, D, DC, A	■ 10/19
500	7.4.7	Submit Final	1 day	10/19/2020	10/19/2020	499	501	DC	■ 11/2
501	7.4.8	Agency Review for Approval	10 days	10/20/2020	11/2/2020	500	502	A	■ 11/2
502	7.4.9	Requirements Traceability Matrix Approved	0 days	11/2/2020	11/2/2020	501	18FF, 59FF		■ 11/2
503	7.5	System Development	127 days	4/22/2020	10/20/2020	414	540FS-20 days, 5		■ 6/17
504	7.5.1	Development Iteration 1	65 days	4/22/2020	7/23/2020		522, 509		■ 7/1
505	7.5.1.1	Development	40 days	4/22/2020	6/17/2020		506, 508	SD1, SD1, SD1, SM	■ 7/23
506	7.5.1.2	Unit Testing	10 days	6/18/2020	7/1/2020	505	507	SD1, SD1, SM, DD1, SD1	■ 7/1
507	7.5.1.3	Development Integration Testing	15 days	7/2/2020	7/23/2020	506		SD1, SD1, SM, DD1, SD1	■ 7/1
508	7.5.1.4	Update System Detailed Design Document	10 days	6/18/2020	7/1/2020	505		TW, SD1	■ 9/18
509	7.5.2	Development Iteration 2	62 days	7/24/2020	10/20/2020	504	532, 527, 253SF-2		■ 10/2
510	7.5.2.1	Development	40 days	7/24/2020	9/18/2020		511, 513	SD1, SD1, SD1, SM	■ 10/20
511	7.5.2.2	Unit Testing	10 days	9/21/2020	10/2/2020	510	512	SD1, SD1, SM, DD1, SD1	■ 9/25
512	7.5.2.3	Development Integration Testing	12 days	10/5/2020	10/20/2020	511		SD1, SD1, SM, DD1, SD1	■ 2/23
513	7.5.2.4	Update System Detailed Design Document	5 days	9/21/2020	9/25/2020	510		TW, SD1	■ 3/23
514	7.6	Data Migration Development	243.33 days	6/3/2020	5/18/2021				■ 4/20
515	7.6.1	Perform Data Migration Development Activities	183.33 days	6/3/2020	2/23/2021	460	516	MM, DD2, DA1, DD1	■ 5/18
516	7.6.2	Unit Test Data migration activities	20 days	2/23/2021	3/23/2021	515	517	MM, DD2, DA1, DD1	
517	7.6.3	Perform Data migration integration test with BOS	20 days	3/23/2021	4/20/2021	516	518	MM, DD2, DA1, DD1	
518	7.6.4	Update Data Migration Documentation	20 days	4/20/2021	5/18/2021	517		MM, DD2, DA1, DD1	

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors	Resource Initials	019	Qtr 1, 2020	Qtr 2, 2020	Qtr 3, 2020	Qtr 4, 2020	Qtr 1, 2021	Qtr 2, 2021	Qtr 3, 2021	Qtr 4, 2021	Qtr 1, 2022
519	7.7	Internal QA	104 days	6/26/2020	11/20/2020													
520	7.7.1	QA Iteration 1	42 days	6/26/2020	8/25/2020													
521	7.7.1.1	Prepare Test Cases	20 days	6/26/2020	7/24/2020	450FS-10 days	522,526	BTM,ST1,ST2,BBA										
522	7.7.1.2	Execute Functional Test Cases	12 days	7/27/2020	8/11/2020	504,521	523,524	BTM,ST1,ST2,BBA										
523	7.7.1.3	Prepare Internal QA Report	2 days	8/12/2020	8/13/2020	522	527	BTM,ST1,ST2,BBA										
524	7.7.1.4	Defect Fixes	10 days	8/12/2020	8/25/2020	522	536	SD1,SD1,SD1										
525	7.7.2	QA Iteration 2	84 days	7/27/2020	11/20/2020		671											
526	7.7.2.1	Prepare Test Cases	22 days	7/27/2020	8/25/2020	521,450	527,531	BTM,ST1,ST2,BBA										
527	7.7.2.2	Execute Functional Test Cases	12 days	10/21/2020	11/5/2020	526,509,523	528,529	BTM,ST1,ST2,BBA										
528	7.7.2.3	Prepare Internal QA Report	2 days	11/6/2020	11/9/2020	527		BTM,ST1,ST2,BBA										
529	7.7.2.4	Defect Fixes	10 days	11/6/2020	11/19/2020	527	537	SD1,SD1,SD1										
530	7.7.2.5	Regression Test	62 days	8/26/2020	11/20/2020													
531	7.7.2.5.1	Prepare Test Cases	15 days	8/26/2020	9/16/2020	526	532	BTM,ST1,ST2,BBA										
532	7.7.2.5.2	Execute Functional Test Cases	10 days	10/21/2020	11/3/2020	531,509	533	BTM,ST1,ST2,BBA										
533	7.7.2.5.3	Execute Complete Regression Test Cases	10 days	11/4/2020	11/17/2020	532	534	BTM,ST1,ST2,BBA										
534	7.7.2.5.4	Prepare Internal QA Report	3 days	11/18/2020	11/20/2020	533		SD1,SD1,SD1										
535	7.8	Interim Software Walkthroughs	63 days	8/26/2020	11/23/2020													
536	7.8.1	System Walkthrough Iteration 1	2 days	8/26/2020	8/27/2020	524		P,P,SM,BM										
537	7.8.2	System Walkthrough Iteration 2	2 days	11/20/2020	11/23/2020	529		P,P,SM,BM										
538	8	BOS and CSC Operations Documentation (6,14)	297 days	1/2/2020	3/2/2021													
539	8.1	Implementation Plan	45 days	9/23/2020	11/24/2020													
540	8.1.1	Implementation Plan Draft	10 days	9/23/2020	10/6/2020	503FS-20 days	541	SM,TM,P,D										
541	8.1.2	Internal QA Review	2 days	10/7/2020	10/8/2020	540	542	QM,P										
542	8.1.3	Submit for Approval	1 day	10/9/2020	10/9/2020	541	543	DC										
543	8.1.4	Agency Review	15 days	10/12/2020	10/30/2020	542	544	A										
544	8.1.5	Revise based on Comments	5 days	11/2/2020	11/6/2020	543	545	D,QM,SM,TM										
545	8.1.6	Joint Review Meeting	1 day	11/9/2020	11/9/2020	544	546	SM,TM,P,P,D,DC,QM,A										
546	8.1.7	Submit Final	1 day	11/10/2020	11/10/2020	545	547	DC										
547	8.1.8	Agency Review for Approval	10 days	11/11/2020	11/24/2020	546	548	A										
548	8.1.9	Implementation Plan Approved	0 days	11/24/2020	11/24/2020	547	23FF,61FF											
549	8.2	Transition Plan	55 days	9/23/2020	12/10/2020													
550	8.2.1	Transition Plan Draft	10 days	9/23/2020	10/6/2020	503FS-20 days	551	SM,TM,P,D										
551	8.2.2	Internal QA Review	2 days	10/7/2020	10/8/2020	550	552	QM,P,D										
552	8.2.3	Submit for Approval	1 day	10/9/2020	10/9/2020	551	553	DC										
553	8.2.4	Agency Review	25 days	10/12/2020	11/13/2020	552	554	A										
554	8.2.5	Revise based on Comments	5 days	11/16/2020	11/20/2020	553	555	D,QM,SM,TM,CO,P										
555	8.2.6	Joint Review Meeting	2 days	11/20/2020	11/23/2020	554	556	D,QM,SM,TM,CO,P,A										
556	8.2.7	Submit Final	1 day	11/24/2020	11/24/2020	555	557	DC										
557	8.2.8	Agency Review for Approval	10 days	11/25/2020	12/10/2020	556	558	A										
558	8.2.9	Transition Plan Approved	0 days	12/10/2020	12/10/2020	557	24FF,64FF											
559	8.3	Third Party Documentation	59 days	9/23/2020	12/16/2020													
560	8.3.1	Third Party Documentation Compiled	10 days	9/23/2020	10/6/2020	503FS-20 days	561	SM,TM,D										
561	8.3.2	Internal QA Review	2 days	10/7/2020	10/8/2020	560	562	QM,D,P										
562	8.3.3	Submit for Approval	1 day	10/9/2020	10/9/2020	561	563	DC										
563	8.3.4	Agency Review	25 days	10/12/2020	11/13/2020	562	564	A										
564	8.3.5	Revise based on Comments	5 days	11/16/2020	11/20/2020	563	565	D,QM,P										
565	8.3.6	Joint Review Meeting	1 day	11/23/2020	11/23/2020	564	566	SM,TM,D,A										
566	8.3.7	Submit Final	5 days	11/24/2020	12/2/2020	565	567	DC										
567	8.3.8	Agency Review for Approval	10 days	12/3/2020	12/16/2020	566	568	A										
568	8.3.9	Third Party Documentation Approved	0 days	12/16/2020	12/16/2020	567	29FF,72FF											
569	8.4	Disaster Recovery Plan	54 days	10/21/2020	1/8/2021													

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors	Resource Initials	019	Qtr 1, 2020	Qtr 2, 2020	Qtr 3, 2020	Qtr 4, 2020	Qtr 1, 2021	Qtr 2, 2021	Qtr 3, 2021	Qtr 4, 2021	Qtr 1, 2022
570	8.4.1	Disaster Recovery Plan Draft	7 days	10/21/2020	10/29/2020	503	571	SM,TM,P,D										
571	8.4.2	Internal QA Review	4 days	10/30/2020	11/4/2020	570	572	QM,P,D										
572	8.4.3	Submit for Approval	1 day	11/5/2020	11/5/2020	571	573	DC										
573	8.4.4	Agency Review	25 days	11/6/2020	12/14/2020	572	574,600	A										
574	8.4.5	Revise based on Comments	5 days	12/15/2020	12/21/2020	573	575	DC,P,D										
575	8.4.6	Joint Review Meeting	1 day	12/22/2020	12/22/2020	574	576	D,QM,TM,P,A										
576	8.4.7	Submit Final	1 day	12/23/2020	12/23/2020	575	577	DC										
577	8.4.8	Agency Review for Approval	10 days	12/24/2020	1/8/2021	576	578	A										
578	8.4.9	Disaster Recovery Plan Approved	0 days	1/8/2021	1/8/2021	577	26FF,62FF											
579	8.5	Maintenance Plan	57 days	10/21/2020	1/13/2021													
580	8.5.1	Maintenance Plan Draft	10 days	10/21/2020	11/3/2020	503	581	SM,TM,P,OT,D										
581	8.5.2	Internal QA Review	4 days	11/4/2020	11/9/2020	580	582	QM,P,D										
582	8.5.3	Submit for Approval	1 day	11/10/2020	11/10/2020	581	583	DC										
583	8.5.4	Agency Review	25 days	11/11/2020	12/17/2020	582	584	A										
584	8.5.5	Revise based on Comments	5 days	12/18/2020	12/24/2020	583	585	D,QM,P										
585	8.5.6	Joint Review Meeting	1 day	12/24/2020	12/28/2020	584	586	SM,TM,P,OT,D,P,A										
586	8.5.7	Submit Final	1 day	12/29/2020	12/29/2020	585	587	DC										
587	8.5.8	Agency Review for Approval	10 days	12/30/2020	1/13/2021	586	588	A										
588	8.5.9	Maintenance Plan Approved	0 days	1/13/2021	1/13/2021	587	28FF,71FF											
589	8.6	Training Plan	62 days	10/21/2020	1/20/2021													
590	8.6.1	Training Plan Draft	15 days	10/21/2020	11/10/2020	503	591	SM,TM,P,D										
591	8.6.2	Internal QA Review	4 days	11/11/2020	11/16/2020	590	592	QM,P,D										
592	8.6.3	Submit for Approval	1 day	11/17/2020	11/17/2020	591	593	DC										
593	8.6.4	Agency Review	25 days	11/18/2020	12/24/2020	592	594	A										
594	8.6.5	Revise based on Comments	5 days	12/28/2020	1/4/2021	593	595	D,QM,SM,TM,CO,P										
595	8.6.6	Joint Review Meeting	1 day	1/5/2021	1/5/2021	594	596	D,QM,SM,TM,CO,P,A										
596	8.6.7	Submit Final	1 day	1/6/2021	1/6/2021	595	597	DC										
597	8.6.8	Agency Review for Approval	10 days	1/7/2021	1/20/2021	596	598	A										
598	8.6.9	Training Plan Approved	0 days	1/20/2021	1/20/2021	597	25FF,70FF											
599	8.7	Business Continuity Plan	54 days	12/15/2020	3/2/2021													
600	8.7.1	Business Continuity Plan Draft	10 days	12/15/2020	12/29/2020	503,573	601	SM,TM,P,CO,FM,D										
601	8.7.2	Internal QA Review	3 days	12/30/2020	1/4/2021	600	602	QM,P,D										
602	8.7.3	Submit for Approval	1 day	1/5/2021	1/5/2021	601	603	DC										
603	8.7.4	Agency Review	25 days	1/6/2021	2/9/2021	602	604	A										
604	8.7.5	Revise based on Comments	4 days	2/10/2021	2/15/2021	603	605	D,QM,P										
605	8.7.6	Joint Review Meeting	1 day	2/16/2021	2/16/2021	604	606FF	SM,TM,P,CO,FM,D,A										
606	8.7.7	Submit Final	1 day	2/16/2021	2/16/2021	605FF	607	DC										
607	8.7.8	Agency Review for Approval	10 days	2/17/2021	3/2/2021	606	608	A										
608	8.7.9	Business Continuity Plan Approved	0 days	3/2/2021	3/2/2021	607	27FF,63FF											
609	8.8	Operations Plan	45 days	1/2/2020	3/4/2020													
610	8.8.1	Operations Plan Draft	10 days	1/2/2020	1/15/2020		611,650	SM,TM,P,CO,T,P,FM										
611	8.8.2	Internal QA Review	2 days	1/16/2020	1/17/2020	610	612	QM,D,T										
612	8.8.3	Submit for Approval	1 day	1/20/2020	1/20/2020	611	613	DC										
613	8.8.4	Agency Review	5 days	1/21/2020	1/27/2020	612	614	A										
614	8.8.5	Revise based on Comments	15 days	1/28/2020	2/17/2020	613	615	D,T,QM,P										
615	8.8.6	Joint Review Meeting	1 day	2/18/2020	2/18/2020	614	616	SM,TM,P,CO,T,P,FM,A										
616	8.8.7	Submit Final	1 day	2/19/2020	2/19/2020	615	620,617	DC										
617	8.8.8	Agency Review for Approval	10 days	2/20/2020	3/4/2020	616	618	A										
618	8.8.9	Operations Plan Approved	0 days	3/4/2020	3/4/2020	617	31FF,66FF,86FF											
619	8.9	Staffing and Human Resources Plan	45 days	2/20/2020	4/22/2020													
620	8.9.1	Staffing and Human Resources Plan Draft	10 days	2/20/2020	3/4/2020	616	621	CO,T,P,FM,D										

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors	Resource Initials		Q1 1, 2020	Q1 2, 2020	Q1 3, 2020	Q1 4, 2020	Q1 1, 2021	Q1 2, 2021	Q1 3, 2021	Q1 4, 2021	Q1 1, 2022
621	8.9.2	Internal QA Review	2 days	3/5/2020	3/6/2020	620	622	QM,D,P										
622	8.9.3	Submit for Approval	1 day	3/9/2020	3/9/2020	621	623	DC										
623	8.9.4	Agency Review	15 days	3/10/2020	3/30/2020	622	624	A										
624	8.9.5	Revise based on Comments	5 days	3/31/2020	4/6/2020	623	625	D,QM,T										
625	8.9.6	Joint Review Meeting	1 day	4/7/2020	4/7/2020	624	626	CO,T,P,FM,D,A										
626	8.9.7	Submit Final	1 day	4/8/2020	4/8/2020	625	630,627	DC										
627	8.9.8	Agency Review for Approval	10 days	4/9/2020	4/22/2020	626	628	A										
628	8.9.9	Staffing and Human Resources Plan Approved	0 days	4/22/2020	4/22/2020	627	32FF,68FF,88FF,i											
629	8.10	Reporting and Reconciliation Plan	72 days	4/9/2020	7/21/2020													
630	8.10.1	Reporting and Reconciliation Plan Draft	20 days	4/9/2020	5/7/2020	626	631	SM,TM,FM,D,P										
631	8.10.2	Internal QA Review	4 days	5/8/2020	5/13/2020	630	632	QM,P,D										
632	8.10.3	Submit for Approval	1 day	5/14/2020	5/14/2020	631	633	DC										
633	8.10.4	Agency Review	15 days	5/15/2020	6/4/2020	632	634	A										
634	8.10.5	Revise based on Comments	20 days	6/5/2020	7/2/2020	633	635	P,D,QM										
635	8.10.6	Joint Review Meeting	1 day	7/6/2020	7/6/2020	634	636	SM,TM,FM,D,P,A										
636	8.10.7	Submit Final	1 day	7/7/2020	7/7/2020	635	640,637	DC										
637	8.10.8	Agency Review for Approval	10 days	7/8/2020	7/21/2020	636	638	A										
638	8.10.9	Reporting and Reconciliation Plan Approved	0 days	7/21/2020	7/21/2020	637	33FF,69FF,89FF											
639	8.11	End of Agreement Transition Plan	40 days	7/8/2020	9/1/2020													
640	8.11.1	End of Agreement Transition Plan Draft	10 days	7/8/2020	7/21/2020	636	641	TM,P,D,T										
641	8.11.2	Internal QA Review	2 days	7/22/2020	7/23/2020	640	642	QM,D,P										
642	8.11.3	Submit for Approval	1 day	7/24/2020	7/24/2020	641	643	DC										
643	8.11.4	Agency Review	10 days	7/27/2020	8/7/2020	642	644	A										
644	8.11.5	Revise based on Comments	5 days	8/10/2020	8/14/2020	643	645	D,QM,P										
645	8.11.6	Joint Review Meeting	1 day	8/17/2020	8/17/2020	644	646	TM,P,D,T,A										
646	8.11.7	Submit Final	1 day	8/18/2020	8/18/2020	645	647	DC										
647	8.11.8	Agency Review for Approval	10 days	8/19/2020	9/1/2020	646	648	A										
648	8.11.9	End of Agreement Transition Plan Approved	0 days	9/1/2020	9/1/2020	647	34FF,65FF											
649	8.12	Standard Operating Procedures	55 days	1/16/2020	4/1/2020													
650	8.12.1	Standard Operating Procedures Draft	10 days	1/16/2020	1/29/2020	610	651	SM,TM,P										
651	8.12.2	Internal QA Review	2 days	1/30/2020	1/31/2020	650	652	QM,P										
652	8.12.3	Submit for Approval	1 day	2/3/2020	2/3/2020	651	653	DC										
653	8.12.4	Agency Review	25 days	2/4/2020	3/9/2020	652	654	A										
654	8.12.5	Revise based on Comments	5 days	3/10/2020	3/16/2020	653	655	P										
655	8.12.6	Joint Review Meeting	1 day	3/17/2020	3/17/2020	654	656	A,CO,T,P,P,FM										
656	8.12.7	Submit Final	1 day	3/18/2020	3/18/2020	655	657	DC										
657	8.12.8	Agency Review for Approval	10 days	3/19/2020	4/1/2020	656	658	A										
658	8.12.9	Standard Operating Procedures Approved	0 days	4/1/2020	4/1/2020	657	35FF,67FF,87FF											
659	9	Testing and Installation (12, 14)	246 days	6/1/2020	5/18/2021													
660	9.1	Unit Testing - Test Plan and Procedures	55 days	8/19/2020	11/4/2020													
661	9.1.1	Unit Testing - Plan Draft	20 days	8/19/2020	9/16/2020	485	662,689	SM,TM,P,D										
662	9.1.2	Internal QA Review	2 days	9/17/2020	9/18/2020	661	663	QM,P										
663	9.1.3	Submit for Approval	1 day	9/21/2020	9/21/2020	662	664	DC										
664	9.1.4	Agency Review	15 days	9/22/2020	10/12/2020	663	665	A										
665	9.1.5	Revise based on Comments	5 days	10/13/2020	10/19/2020	664	666	P										
666	9.1.6	Joint Review Meeting	2 days	10/19/2020	10/20/2020	665	667	SM,TM,P,D,DC,P,A										
667	9.1.7	Submit Final	1 day	10/21/2020	10/21/2020	666	668	DC										
668	9.1.8	Agency Review for Approval	10 days	10/22/2020	11/4/2020	667	669	A										
669	9.1.9	Unit Testing Plan and Procedures Approved	0 days	11/4/2020	11/4/2020	668	37FF,670											

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors	Resource Initials		Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022
814	10.1.3	Onsite Installation and Commissioning Test	42 days	3/2/2021	4/28/2021													
815	10.1.3.1	Deploy Application to installed systems	3 days	3/2/2021	3/4/2021	803	821	TW,SM,CM,OT										
816	10.1.3.2	Deploy Application to installed systems	2 days	4/6/2021	4/7/2021	809	827,817FF,833,2	TW,SM,CM,OT										
817	10.1.3.3	Submit Onsite Installation and Commissioning Test results to Agency	1 day	4/7/2021	4/7/2021	816FF	818	DC,D,P,QM										
818	10.1.3.4	Agency Review	15 days	4/8/2021	4/28/2021	817	819	A										
819	10.1.3.5	Onsite Installation and Commissioning Test Complete	0 days	4/28/2021	4/28/2021	818	477FF,81FF											
820	10.1.4	Transition Testing	35 days	3/5/2021	4/22/2021													
821	10.1.4.1	Transition Test	10 days	3/5/2021	3/18/2021	815	823,822FF	D,FM,CO,T,D,QM,U										
822	10.1.4.2	Test ETM System Transition	2 days	3/17/2021	3/18/2021	821FF												
823	10.1.4.3	Prepare Transition Test Report	2 days	3/19/2021	3/22/2021	821	824	D,QM,D										
824	10.1.4.4	QA Review Test Report	2 days	3/23/2021	3/24/2021	823	825FF	D,QM,P										
825	10.1.4.5	Submit Test Report for Review	1 day	3/24/2021	3/24/2021	824FF	826	DC										
826	10.1.4.6	Resolve Issues	5 days	3/25/2021	3/31/2021	825		TM,MM,SM,D,P,DC										
827	10.1.4.7	Transition Re-Test	5 days	4/8/2021	4/14/2021	816	828	D,FM,CO,T,D,QM,U										
828	10.1.4.8	Prepare Transition Test Report	3 days	4/15/2021	4/19/2021	827	829	D,QM,D										
829	10.1.4.9	QA Review Test Report	2 days	4/20/2021	4/21/2021	828	830	D,QM,P										
830	10.1.4.10	Submit Results of Regression Testing	1 day	4/22/2021	4/22/2021	829	831	DC,QM										
831	10.1.4.11	Transition Testing Complete	0 days	4/22/2021	4/22/2021	830												
832	10.2	Operational Readiness Demonstration	26 days	4/7/2021	5/12/2021													
833	10.2.1	Operational Readiness Demonstration	4 days	4/7/2021	4/12/2021	816	834,876SF-10 da	D,FM,CO,T,D,QM,U										
834	10.2.2	Disaster Recovery Test	3 days	4/12/2021	4/15/2021	833	835	D,FM,CO,T,D,QM,U,S,NA,TM,SM,MM										
835	10.2.3	Prepare Operation Readiness Test Report	3 days	4/16/2021	4/20/2021	834	836	D,QM,P,TM,SM,MM										
836	10.2.4	QA Review Operation Readiness Test Report	1 day	4/21/2021	4/21/2021	835	837FF	QM,D,P,P										
837	10.2.5	Submit Operational Readiness Report for Review	1 day	4/21/2021	4/21/2021	836FF	838	DC										
838	10.2.6	Agency Review	15 days	4/22/2021	5/12/2021	837	839	A										
839	10.2.7	Operational Readiness Demonstration Completed	0 days	5/12/2021	5/12/2021	838	49FF,82FF,893											
840	10.3	PCI Certification Activity	60 days	3/10/2021	6/1/2021													
841	10.3.1	Coordinate ROC	20 days	3/10/2021	4/7/2021	833SF	842	SC										
842	10.3.2	Remediate initial findings	20 days	4/7/2021	5/4/2021	841	843	SC										
843	10.3.3	Complete ROC Report, SAQ, and AOC	20 days	5/5/2021	6/1/2021	842		SC										
844	10.4	Training Materials and Manuals	45 days	12/10/2020	2/12/2021													
845	10.4.1	Training Materials and Manuals Draft	10 days	12/10/2020	12/23/2020	791FS-40 days	846	SM,TM,P,T										
846	10.4.2	Internal QA Review	2 days	12/24/2020	12/28/2020	845	847	QM,P,T										
847	10.4.3	Submit for Approval	1 day	12/29/2020	12/29/2020	846	848	DC										
848	10.4.4	Agency Review	15 days	12/30/2020	1/20/2021	847	849	A										
849	10.4.5	Revise based on Comments	5 days	1/21/2021	1/27/2021	848	850	P,D,QM,SM,TM,T										
850	10.4.6	Joint Review Meeting	1 day	1/28/2021	1/28/2021	849	851	T,A										
851	10.4.7	Submit Final	1 day	1/29/2021	1/29/2021	850	853SF+5 days,85DC											
852	10.4.8	Agency Review for Approval	10 days	2/1/2021	2/12/2021	851		A										
853	10.4.9	Training Materials and Manuals Approved	0 days	2/4/2021	2/4/2021	851SF+5 days	50FF,73FF,83FF,i											
854	10.5	Ramp-Up to Operations	370 days	1/1/2020	6/11/2021													
855	10.5.1	Facilities BuildOut	76 days	11/6/2020	2/25/2021													
856	10.5.1.1	Build out of cubicles	72 days	11/6/2020	2/21/2021													
857	10.5.1.1.1	Floor Plan prepared	10 days	11/6/2020	11/20/2020	893SF-120 days	858	T,D,F										
858	10.5.1.1.2	QA Review of Floor Plan	5 days	11/20/2020	11/30/2020		857	QM,P,T,D,F										
859	10.5.1.1.3	Submit Floor Plan for Review	1 day	12/1/2020	12/1/2020	858	860	DC										
860	10.5.1.1.4	Respond to Comments	5 days	12/2/2020	12/8/2020	859	861	A										
861	10.5.1.1.5	Submit Floor Plan for Approval	1 day	12/9/2020	12/9/2020	860	862SF+5 days	T,D,QM,F										
862	10.5.1.1.6	Agency Approval for Floor Plan	1 day	12/15/2020	12/15/2020	861SF+5 days	863	DC										
863	10.5.1.1.7	Order cubicles fixtures	14 days	12/16/2020	1/6/2021	862	864	A										

ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Successors	Resource Initials	
864	10.5.1.1.8	Install Cubicle Set 1	2 days	2/11/2021	2/14/2021	863	865	T,D,F	
865	10.5.1.1.9	Install Cubicle Set 2	2 days	2/18/2021	2/21/2021	864	90FF	D,F,T,QM	
866	10.5.1.2	Data Center Support Systems Deployment	10 days	12/16/2020	12/30/2020	798	867	TM,NA,OT,O	
867	10.5.1.3	Server Systems deployment	10 days	12/31/2020	1/14/2021	866	868	TM,NA,OT,O	
868	10.5.1.4	Network Support Infrastructure Implementation	10 days	1/15/2021	1/28/2021	867	869	TM,NA,OT,O	
869	10.5.1.5	Workstation Equipment Refresh	20 days	1/29/2021	2/25/2021	868	895	NA,OT,O,S	
870	10.5.2	Staffing	334 days	1/1/2020	4/22/2021				
871	10.5.2.1	Recruiting	22 days	3/24/2021	4/22/2021				
872	10.5.2.1.1	Recruiting / Screening Group 1	22 days	3/24/2021	4/22/2021	628,882FS-22 da	H,CO		
873	10.5.2.2	Training	334 days	1/1/2020	4/22/2021				
874	10.5.2.2.1	Prepare Training Room and Materials	6 days	2/25/2021	3/5/2021	876SF-6 days	T		
875	10.5.2.2.2	Existing Staff Training	26 days	3/15/2021	4/19/2021				
876	10.5.2.2.2.1	Training Class 1	7 days	3/15/2021	3/24/2021	853,833SF-10 da	877,93FF,874SF-T,CO		
877	10.5.2.2.2.2	Training Class 2	7 days	3/24/2021	4/1/2021	876	878,882	T,CO	
878	10.5.2.2.2.3	Training Class 3	6 days	4/2/2021	4/9/2021	877	879	T,CO	
879	10.5.2.2.2.4	Training Class 4	6 days	4/12/2021	4/19/2021	878	880	T,CO	
880	10.5.2.2.2.5	Existing Staff Training Completed	0 days	4/19/2021	4/19/2021	879	885,893		
881	10.5.2.2.3	New Staff Training	334 days	1/1/2020	4/22/2021				
882	10.5.2.2.3.1	New Staff Training Class 1	15 days	4/2/2021	4/22/2021	877	872FS-22 days	T,CO	
883	10.5.2.2.3.2	New Staff Training Completed	0 days	1/1/2020	1/1/2020		885,893		
884	10.5.3	Training Report	39 days	4/20/2021	6/11/2021				
885	10.5.3.1	Training Report Draft	5 days	4/20/2021	4/26/2021	880,883	886	P,T	
886	10.5.3.2	Internal QA Review	2 days	4/27/2021	4/28/2021	885	887	QM,P,T	
887	10.5.3.3	Submit for Review	1 day	4/29/2021	4/29/2021	886	888	DC	
888	10.5.3.4	Agency Review	15 days	4/30/2021	5/20/2021	887	889	A	
889	10.5.3.5	Address Review Comments	5 days	5/21/2021	5/27/2021	888	890	T,CO	
890	10.5.3.6	Submit for Approval	1 day	5/28/2021	5/28/2021	889	891	DC	
891	10.5.3.7	Agency Approval	10 days	5/31/2021	6/11/2021	890	892	A	
892	10.5.3.8	Training Report Complete	0 days	6/11/2021	6/11/2021	891	51FF,84FF		
893	11	Onsite Installation and Commissioning	2 days	5/13/2021	5/14/2021	839,880,883	48FF,857SF-120	T,D,F	
894	12	Go Live (18)	0 days	5/14/2021	5/14/2021	893	895FS+1 day,52F		
895	13	BOS Acceptance Testing (19, 24)	145 days	5/18/2021	12/10/2021	894FS+1 day,861	906,53FF	SM,O,OT,P,D,T,TM,QM	
896	14	As-Built Documentation	55 days	5/17/2021	8/2/2021				
897	14.1	As-Built Document Draft	10 days	5/17/2021	5/28/2021	894	898	P,SM,TM	
898	14.2	Internal QA Review	2 days	5/31/2021	6/1/2021	897	899	P,QM	
899	14.3	Submit for Approval	1 day	6/2/2021	6/2/2021	898	900	DC	
900	14.4	Agency Review	25 days	6/3/2021	7/8/2021	899	901	A	
901	14.5	Revise based on Comments	5 days	7/9/2021	7/15/2021	900	902	P	
902	14.6	Joint Review Meeting	1 day	7/16/2021	7/16/2021	901	903	P,SM,TM,A	
903	14.7	Submit Final	1 day	7/19/2021	7/19/2021	902	904	DC	
904	14.8	Agency Review for Approval	10 days	7/20/2021	8/2/2021	903	905	A	
905	14.9	As-Built Documentation Approved	0 days	8/2/2021	8/2/2021	904	74FF,80FF		
906	15	BOS Acceptance (24)	0 days	12/10/2021	12/10/2021	895	54FF		

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ID	WBS	Task Name	Duration	Start	Finish	Q Q Q Q Q Q Q Q Q Q Q Q Q Q
0	0	Implementation Schedule (RFP 9-1177) - Agency Interaction	510.13 days	1/1/2020	1/3/2022	
95	2	Meetings	508 days	1/6/2020	12/31/2021	
96	2.1	Project Management Monthly Status Meeting	464 days	2/6/2020	12/1/2021	
97	2.1.1	Project Management Monthly Status Meeting 1	2 hrs	2/6/2020	2/6/2020	2/6
98	2.1.2	Project Management Monthly Status Meeting 2	2 hrs	3/5/2020	3/5/2020	3/5
99	2.1.3	Project Management Monthly Status Meeting 3	2 hrs	4/2/2020	4/2/2020	4/2
100	2.1.4	Project Management Monthly Status Meeting 4	2 hrs	5/7/2020	5/7/2020	5/7
101	2.1.5	Project Management Monthly Status Meeting 4	2 hrs	6/4/2020	6/4/2020	6/4
102	2.1.6	Project Management Monthly Status Meeting 6	2 hrs	7/2/2020	7/2/2020	7/2
103	2.1.7	Project Management Monthly Status Meeting 7	2 hrs	8/6/2020	8/6/2020	8/6
104	2.1.8	Project Management Monthly Status Meeting 8	2 hrs	9/3/2020	9/3/2020	9/3
105	2.1.9	Project Management Monthly Status Meeting 9	2 hrs	10/1/2020	10/1/2020	10/1
106	2.1.10	Project Management Monthly Status Meeting 10	2 hrs	11/5/2020	11/5/2020	11/5
107	2.1.11	Project Management Monthly Status Meeting 11	2 hrs	12/3/2020	12/3/2020	12/3
108	2.1.12	Project Management Monthly Status Meeting 12	2 hrs	1/7/2021	1/7/2021	1/7
109	2.1.13	Project Management Monthly Status Meeting 13	2 hrs	2/4/2021	2/4/2021	2/4
110	2.1.14	Project Management Monthly Status Meeting 14	2 hrs	3/4/2021	3/4/2021	3/4
111	2.1.15	Project Management Monthly Status Meeting 15	2 hrs	4/1/2021	4/1/2021	4/1
112	2.1.16	Project Management Monthly Status Meeting 16	2 hrs	5/6/2021	5/6/2021	5/6
113	2.1.17	Project Management Monthly Status Meeting 17	2 hrs	6/3/2021	6/3/2021	6/3
114	2.1.18	Project Management Monthly Status Meeting 18	2 hrs	7/1/2021	7/1/2021	7/1
115	2.1.19	Project Management Monthly Status Meeting 19	2 hrs	8/5/2021	8/5/2021	8/5
116	2.1.20	Project Management Monthly Status Meeting 20	2 hrs	9/2/2021	9/2/2021	9/2
117	2.1.21	Project Management Monthly Status Meeting 21	2 hrs	10/7/2021	10/7/2021	10/7
118	2.1.22	Project Management Monthly Status Meeting 22	2 hrs	11/4/2021	11/4/2021	11/4
119	2.1.23	Project Management Monthly Status Meeting 23	2 hrs	12/2/2021	12/2/2021	12/2
290	4	Preliminary Project Planning (0,2)	46 days	1/2/2020	3/5/2020	
291	4.1	KickOff Meeting	12 days	1/2/2020	1/17/2020	
294	4.1.3	Kick Off Meeting	1 day	1/16/2020	1/17/2020	1/17

ID	WBS	Task Name	Duration	Start	Finish	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
301	4.3	Project Management Plan	39 days	1/2/2020	2/25/2020	■													
305	4.3.4	Agency Review	15 days	1/16/2020	2/5/2020	■	2/5												
307	4.3.6	Joint Review Meeting	1 day	2/11/2020	2/11/2020	■	2/11												
309	4.3.8	Agency Approval Review	10 days	2/12/2020	2/25/2020	■	2/25												
311	4.4	Contract Date Requirements List (CDRL)	38 days	1/7/2020	2/27/2020	■													
315	4.4.4	Agency Review	15 days	1/16/2020	2/5/2020	■	2/5												
318	4.4.7	Agency Approval Review	10 days	2/14/2020	2/27/2020	■	2/27												
320	4.5	Software Development Plan	46 days	1/2/2020	3/5/2020	■													
324	4.5.4	Agency Review	15 days	1/23/2020	2/12/2020	■	2/12												
327	4.5.7	Agency Approval Review	10 days	2/21/2020	3/5/2020	■	3/5												
329	4.6	Quality Assurance Plan	45 days	1/2/2020	3/4/2020	■													
333	4.6.4	Agency Review	15 days	1/21/2020	2/10/2020	■	2/10												
335	4.6.6	Joint Review Meeting	1 day	2/18/2020	2/18/2020	■	2/18												
337	4.6.8	Agency Approval Review	10 days	2/20/2020	3/4/2020	■	3/4												
339	5	System Design and Development Meetings and Workshops (1,6)	135 days	1/2/2020	7/10/2020	■													
340	5.1	Business Rules Workshop	67 days	1/2/2020	4/3/2020	■													
343	5.1.3	Agency Review	10 days	1/9/2020	1/22/2020	■	1/22												
344	5.1.4	Business Rules Workshop 1	5 days	1/28/2020	2/3/2020	■													
345	5.1.4.1	Deliver Workshop	2 days	1/28/2020	1/29/2020	■	1/29												
347	5.1.5	Business Rules Workshop 2	4 days	1/30/2020	2/4/2020	■													
348	5.1.5.1	Deliver Workshop	2 days	1/30/2020	1/31/2020	■	1/31												
350	5.1.6	Business Rules Workshop 3	3 days	2/3/2020	2/5/2020	■													
351	5.1.6.1	Deliver Workshop	1 day	2/3/2020	2/3/2020	■	2/3												
356	5.1.10	Agency Review	15 days	2/18/2020	3/9/2020	■	3/9												
358	5.1.12	Joint Review Meeting	1 day	3/12/2020	3/12/2020	■	3/12												
360	5.1.14	Agency Review for Approval	15 days	3/16/2020	4/3/2020	■	4/3												
362	5.2	Software Walkthrough Meetings	26 days	2/5/2020	3/11/2020	■													
365	5.2.3	Agency Review	10 days	2/13/2020	2/26/2020	■	2/26												
373	5.3	Use Case Workshops	20 days	3/3/2020	3/30/2020	■													
376	5.3.3	Agency Review	10 days	3/17/2020	3/30/2020	■	3/30												

ID	WBS	Task Name	Duration	Start	Finish	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
377	5.3.4	Use Case Workshop 1	13 days	3/3/2020	3/19/2020										
379	5.3.4.2	Deliver Workshop	1 day	3/17/2020	3/17/2020										
384	5.3.6	Use Case Workshop 3	3 days	3/19/2020	3/23/2020										
385	5.3.6.1	Deliver Workshop	1 day	3/19/2020	3/19/2020										
388	5.4	Performance Reporting Workshop	59 days	3/10/2020	6/1/2020										
391	5.4.3	Agency Review	10 days	3/18/2020	3/31/2020										
404	5.4.10	Agency Review	15 days	4/17/2020	5/8/2020										
407	5.4.13	Agency Review for Approval	10 days	5/19/2020	6/1/2020										
409	5.5	System Design Workshops (1,6)	77 days	3/24/2020	7/10/2020										
410	5.5.1	System Design Iteration 1	27 days	3/24/2020	4/29/2020										
413	5.5.1.3	Agency Review	10 days	4/8/2020	4/21/2020										
431	5.5.4	Reports Design	56 days	4/22/2020	7/10/2020										
433	5.5.4.2	Reports Design Workshops	40 days	5/15/2020	7/10/2020										
436	5.5.4.2.3	Agency Review	10 days	5/22/2020	6/4/2020										
448	5.5.4.2.9	Agency Review and Approval	15 days	6/19/2020	7/10/2020										
461	7	System Design and Development Documents (4,10)	284.33 days	4/6/2020	5/18/2021										
462	7.1	Master Test Plan	53 days	7/13/2020	9/24/2020										
466	7.1.4	Agency Review	15 days	8/4/2020	8/24/2020										
468	7.1.6	Joint Review Meeting	1 day	9/9/2020	9/9/2020										
470	7.1.8	Agency Review for Approval	10 days	9/11/2020	9/24/2020										
472	7.2	Business Rules Document	56 days	4/6/2020	6/23/2020										
476	7.2.4	Agency Review	25 days	4/23/2020	5/28/2020										
478	7.2.6	Joint Review Meeting	1 day	6/5/2020	6/5/2020										
480	7.2.8	Agency Review for Approval	10 days	6/10/2020	6/23/2020										
482	7.3	System Detailed Design Document	69 days	7/13/2020	10/16/2020										
486	7.3.4	Agency Review	25 days	8/19/2020	9/23/2020										
487	7.3.5	Joint Review Meeting	1 day	9/24/2020	9/24/2020										
489	7.3.7	Joint Review Meeting	1 day	10/2/2020	10/2/2020										
491	7.3.9	Agency Review for Approval	10 days	10/5/2020	10/16/2020										
493	7.4	Requirements Traceability Matrix (RTM)	58 days	8/12/2020	11/2/2020										

Project: Implementation Schedule
Date: 7/11/2019

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone



Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only



External Tasks
External Milestone
Deadline
Critical
Critical Split
Progress
Manual Progress



7/11/2019 4:38 PM

8 of 8

COFIROUTE USA

Attachment 4
91 BOS Agreement
Cost Summary Sheet

DESCRIPTION OF SERVICES	TOTAL COST (\$)
BASE CONTRACT	
BOS Implementation Costs	\$ 14,249,091
Initial O&M Term	\$ 58,733,713
BOS Administration, Maintenance and Support Services Costs (Maintenance Years 1-5)	\$ 21,499,884
CSC Operations Costs (Operations Years 1-5)	\$ 32,261,843
Transition and Succession Costs	\$ 240,821
Traffic Operations Center Labor (Operations Years 1-5)	\$ 2,401,837
Additional Services - OCTA and RCTC (O&M Years 1-5)	\$ 2,329,328
OPTIONAL EXTENSIONS	
Total Option Term 1 Cost (O&M Years 6-8)	\$ 43,233,264
BOS Administration, Maintenance and Support Services Costs (Maintenance Years 6-8)	\$ 14,985,015
CSC Operations Costs (Operations Years 6-8)	\$ 25,542,219
Traffic Operations Center Labor (Operations Years 6-8)	\$ 1,621,029
Additional Services OCTA and RCTC (O&M Years 6-8)	\$ 1,085,000
Total Option Term 2 Cost (O&M Years 9-11)	\$ 48,590,674
BOS Administration, Maintenance and Support Services Costs (Maintenance Years 9-11)	\$ 15,417,963
CSC Operations Costs (Operations Years 9-11)	\$ 30,215,759
Traffic Operations Center Labor (Operations Years 9-11)	\$ 1,771,342
Additional Services OCTA and RCTC (O&M Years 9-11)	\$ 1,185,609
Total Base Contract and Optional Extensions Cost	\$ 164,806,742