



BAY AREA EXPRESS LANES



MTC Express Lanes Quarterly Report 4th Quarter, October - December, 2017

Submitted: February 21, 2018

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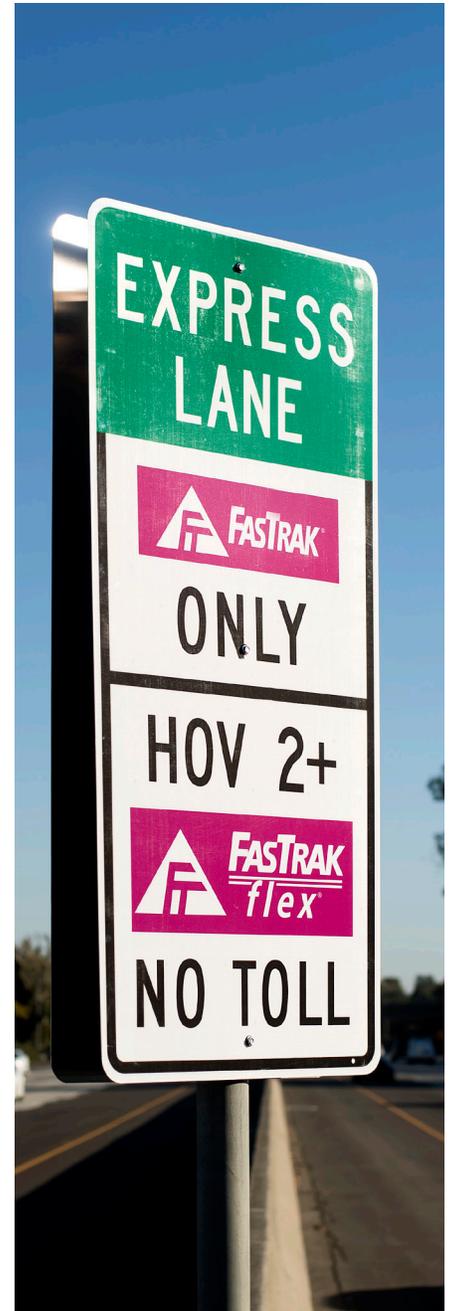
I. PROGRAM HIGHLIGHTS

The purpose of this report is to summarize the progress of delivering Metropolitan Transportation Commission (MTC) Express Lanes. The report covers the fourth quarter of 2017, October 1 to December 31.

The California Transportation Commission (CTC) approved MTC’s application to implement and operate its 270-mile express lane network on October 27, 2011. Soon thereafter, work began to environmentally clear the first phase of express lane conversion projects and produce a Concept of Operations describing how the Express Lanes will operate. The first of MTC’s express lanes opened in October 2017 on I-680 in Contra Costa County. Several additional projects are at varying stages of development.

Project Development & Construction	4 th Quarter 2017 Highlights	Current Activities
<p>I-880 Alameda (ALA-880) San Leandro to Milpitas <i>Hegenberger Road/Lewelling Boulevard to Dixon Landing Road</i></p>	<ul style="list-style-type: none"> Overall, 88% of MTC’s express lanes scope of work to be delivered through Caltrans’ median barrier contract is complete as of December 2017. The express lanes civil contractor began construction. In December 2017, Caltrans received bids for a pavement resurfacing contract within the limits of BAIFA’s civil express lanes project. While the low bid was 21% over the engineer’s estimate, BAIFA may be able to absorb its share of the cost increase under its existing agreement with Caltrans. 	<ul style="list-style-type: none"> The express lanes civil contractor is installing sign foundations in the median barrier in Fremont. The toll system integrator will submit for the encroachment permit in January 2018 and begin coordination with the civil construction contractor in February 2018. Staff is coordinating with local cities to share project information. Monthly construction notices and two ramp closure/detour notices were sent during the fourth quarter.
<p>I-680 Contra Costa Southern Segment (CC-680 South) Walnut Creek to San Ramon <i>Livorna Road/Rudgear Road to Alcosta Boulevard</i></p>	<ul style="list-style-type: none"> Removal and replacement of median barrier signs was completed in October 2017. Backhaul operations and maintenance started in October 2017. The toll system went live to the public on October 9, 2017. See Appendix B for 4th Quarter performance data. 	<ul style="list-style-type: none"> The integrator is fine tuning field equipment and addressing punch list items in preparation for Operations Testing in March 2018. The Backhaul contractor will address the remainder of punch list items and complete project ‘as-built’ documentation.

Project Development & Construction	4 th Quarter 2017 Highlights	Current Activities
<p>I-680 Contra Costa Northern Segment Southbound Conversion (CC-680 North)</p> <p>Martinez to Walnut Creek <i>Marina Vista Boulevard to Rudgear Road/SR 242</i></p>	<ul style="list-style-type: none"> A contract to remove trees along southbound I-680 in Walnut Creek between South Main Street and Livorna Road was awarded in October 2017, and work was completed in December 2017. 	<ul style="list-style-type: none"> The final encroachment permit package will be submitted in January 2018. Utility relocation is cleared to begin in February 2018, subject to PG&E's schedule. CCTA plans to advertise for civil construction in April 2018 and award a contract in June 2018, subject to approval of funds by the California Transportation Commission in March 2018. The toll system integrator will begin its 100% design package for the toll system in relation to the civil design, backhaul communications and power. Staff have revised the projected open date to Fall 2021. The change reflects the time needed to secure state funding for the gap closure portion of the project, an allowance for rain delay and the likelihood that the toll system integrator will have to work on the I-80 Express Lanes at the same time.
<p>I-80 Solano (SOL-80)</p> <p>Fairfield to Vacaville <i>Red Top Road to I-505</i></p>	<ul style="list-style-type: none"> The 100% design document was submitted to Caltrans in October 2017. Staff reviewed potential opportunities to fund construction with funds from Senate Bill 1 and Regional Measure 3. BAIFA, Caltrans and the Solano Transportation Authority determined that Caltrans will advertise and award the civil construction contract. 	<ul style="list-style-type: none"> The final design document will be submitted to Caltrans in January 2018. The project is scheduled to reach the Ready-to-List milestone by March 2018. An application for funds through the Senate Bill 1 Solutions for Congested Corridors Program will be submitted in February 2018.
<p>Program Management</p>	<ul style="list-style-type: none"> Staff completed preparations for 'go live' operations, and Regional Operations Center staff began official operations on October 9, 2017. Staff continued a customer education campaign to prepare drivers for the opening of the I-680 Contra Costa Express Lanes. Staff hosted a media event prior to the opening of the I-680 Contra Costa Express Lanes, and monitored media coverage. 	<ul style="list-style-type: none"> Staff is procuring an Express Lanes Program Advisor, which combines the responsibilities in the current Program Manager and Toll System Manager contracts. An award recommendation is anticipated in early 2018.
<p>Toll System</p>	<ul style="list-style-type: none"> The toll system went live to the public on October 9, 2017. 	<ul style="list-style-type: none"> The integrator is addressing punch list items and deferred functionality in order to commence Operations Testing in March 2018. This test verifies the toll system meets all specifications and leads to the maintenance phase of operations. The integrator will perform the deferred Disaster Recovery Test in February 2018 to ensure that the failover to the redundant toll system host is functional.



I-680 Contra Costa Express Lanes pavement marking (top), Variable Toll Messaging Sign (bottom) and regulatory sign (right).

Photos courtesy of Noah Berger.

II. PROGRAM OVERVIEW

A. Program Description

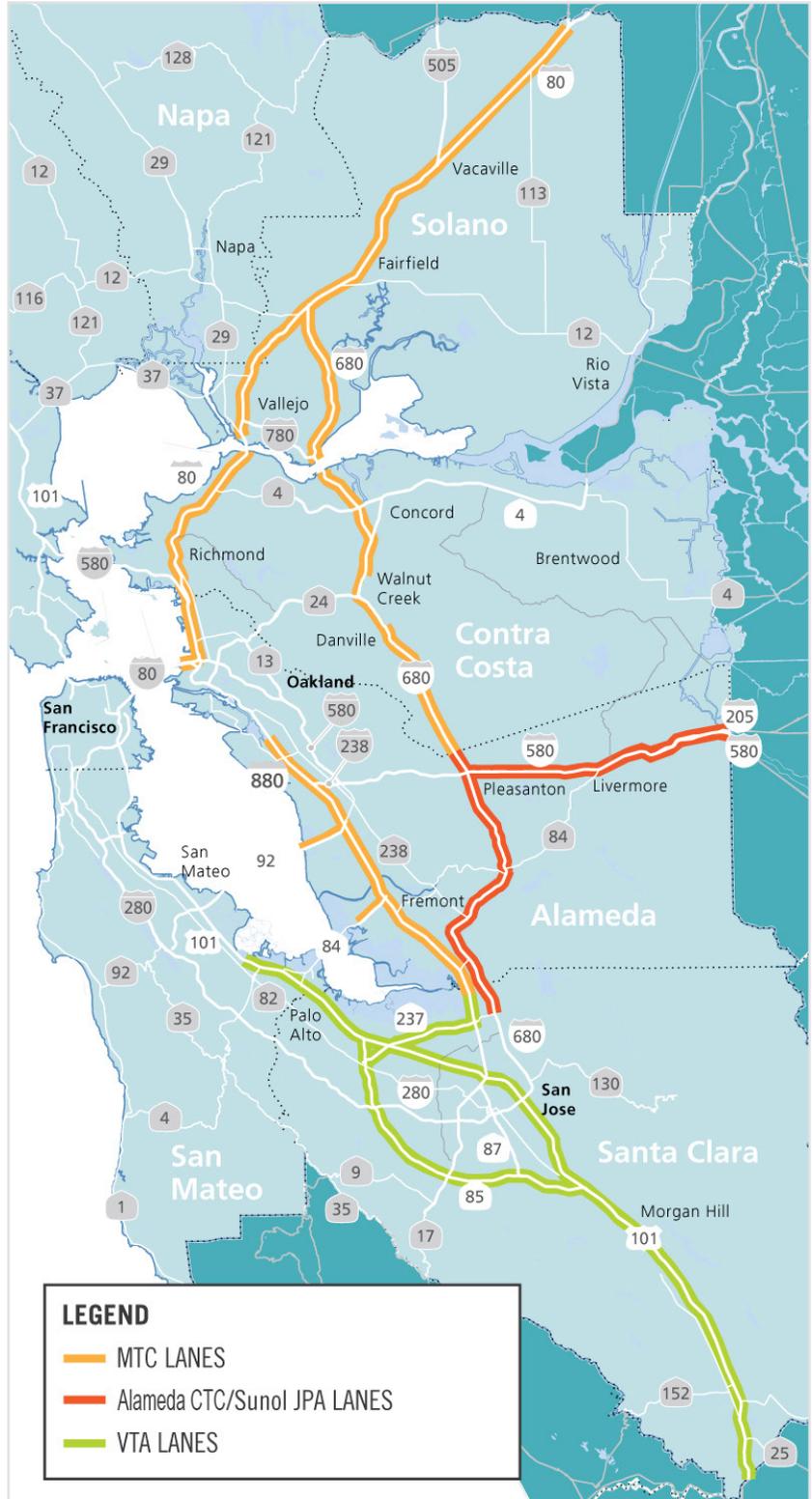
MTC and partner agencies are implementing a regional network of express lanes called Bay Area Express Lanes. Upon completion, Bay Area Express Lanes will comprise 550 miles of express lanes operated by MTC, the Valley Transportation Authority (VTA), the Alameda County Transportation Commission (Alameda CTC) and the Sunol Smart Corridors Joint Powers Authority (Sunol JPA).

Primary objectives for Bay Area Express Lanes include:

- Create a seamless network of HOV lanes to encourage carpools, vanpools and express buses;
- Make the best use of HOV lane capacity;
- Provide reliable travel times for solo drivers; and
- Better manage all lanes to keep traffic moving.

MTC’s portion of the Bay Area Express Lanes, referred to as MTC Express Lanes, will include 270 miles of express lanes – 150 miles of converted high occupancy vehicle (HOV) lanes and 120 miles of new lanes – on I-80 in Alameda, Contra Costa and Solano Counties; I-880 in Alameda County; I-680 in Contra Costa and Solano counties; and the westbound approaches to the Bay Bridge, San Mateo Bridge and Dumbarton Bridge.

Appendix B includes an overview of how express lanes operate.



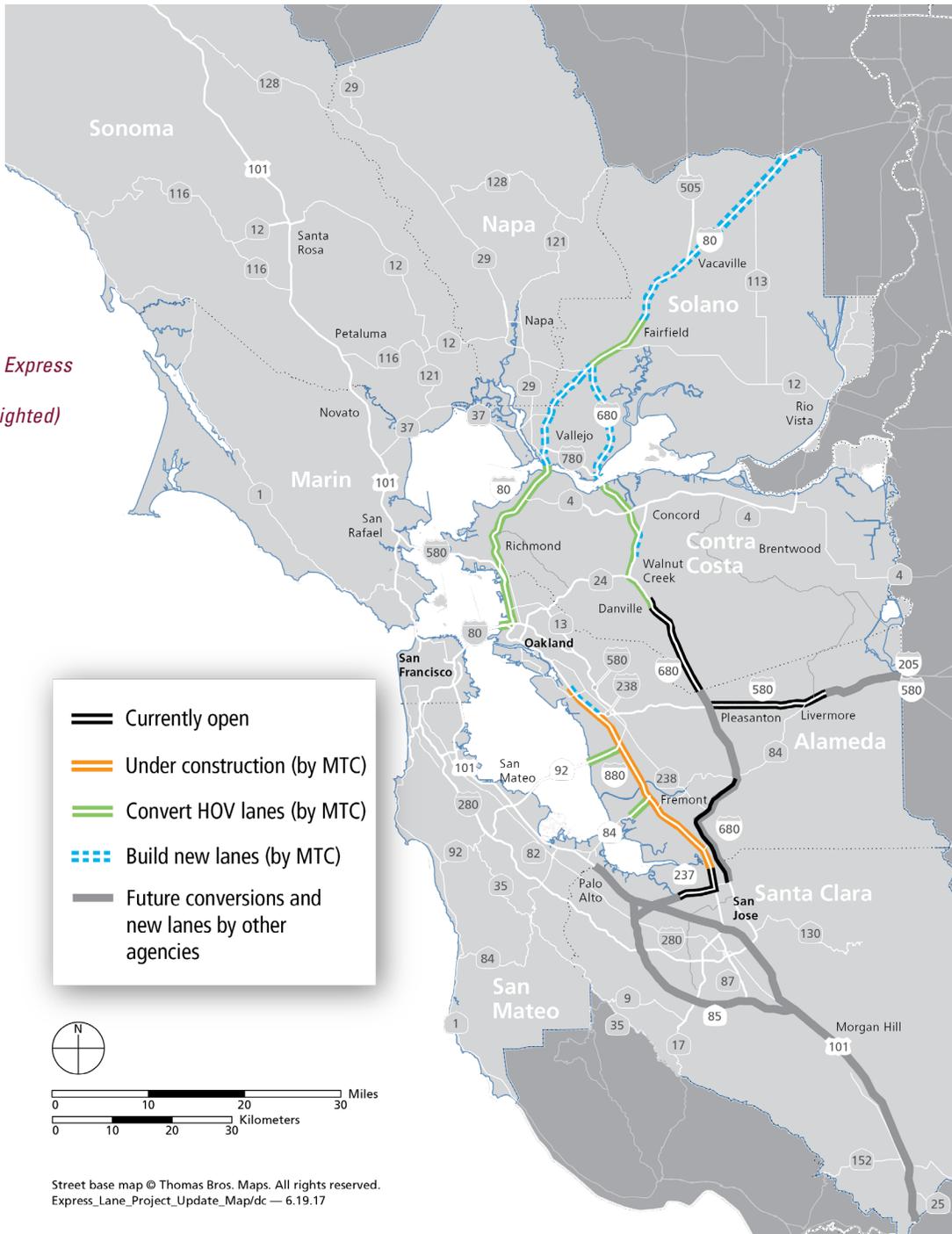
Map of Bay Area Express Lane Network

B. Operating Authority

MTC and the Bay Area Toll Authority (BATA) have formed a joint powers authority to develop and operate MTC Express Lanes. The joint powers authority, known as the Bay Area Infrastructure Financing Authority (BAIFA), is composed primarily of representatives of the three counties where the express lanes are located: Alameda, Contra Costa and Solano. BAIFA is responsible for policy and operational decisions such as toll rates, project phasing and use of revenue.

The map below highlights MTC’s portion of Bay Area Express Lanes and shows where lanes will be converted from HOV lanes and where new lanes will be added.

*Map of Bay Area Express Lanes
(MTC lanes highlighted)*



C. MTC Express Lane Project Funding

MTC is using existing funding to convert existing HOV lanes to express lanes and to conduct environmental studies and design on some gap closure projects, so they are “shelf-ready” should construction funding become available. This will allow MTC to open as much of its 270-mile network as quickly as possible.

The table below lists the projects that comprise MTC Express Lanes according to current funding status.

County	Route	Project	Geographical Limits	Miles	Environmental	Design	Construction
NEAR TERM CONVERSIONS AND GAP CLOSURE OPPORTUNITY PROJECTS							
ALA	880	I-880 Alameda	Between San Leandro and Milpitas <i>Hegenberger Rd./Lewelling Blvd. to Dixon Landing Rd.</i>	51	●	●	●
CC	680	I-680 Contra Costa Southern Segment	Between Walnut Creek and San Ramon <i>Livorna Rd./Rudgear Rd. to Alcosta Blvd.</i>	23	●	●	●
CC	680	I-680 Contra Costa Northern Segment - Southbound Conversion	Martinez to Walnut Creek <i>Marina Vista Blvd. to Rudgear Rd.</i>	11	●	●	●
SOL	80	I-80 Solano	Fairfield to Vacaville <i>Red Top Rd. to I-505</i>	36	●	●	○
FUTURE CONVERSIONS AND GAP CLOSURE OPPORTUNITY PROJECTS							
ALA/ CC	80	I-80 and Westbound Bridge Approaches	Cummings Skyway to Bay Bridge San Mateo Bridge Westbound Approach Dumbarton Bridge Westbound Approach	50	◐	○	○
CC	680	I-680 Northern Segment - Northbound Conversion	Walnut Creek to Benicia <i>North Main St. to the Benicia Bridge</i>	5	◐	○	○
CC	680	I-680 Northern Segment - Northbound Extension	Walnut Creek to Concord <i>North Main St. to SR 242</i>	7	○	○	○

KEY

● Funded ◐ Partially Funded ○ Unfunded

ALA = Alameda, CC = Contra Costa, SOL = Solano

III. CAPITAL DELIVERY

A. Schedule

The schedule summary below reflects the “open to traffic” dates of the original “baseline” schedule, and the current completion forecast for the projects that are fully funded.

Project	Baseline Opening	Forecast Opening	Confidence Level	Detail Page
I-880 Alameda (ALA-880) San Leandro and Milpitas <i>Hegenberger Rd./Lewelling Blvd. to Dixon Landing Rd.</i>	Spring 2019	End of 2019		15
I-680 Contra Costa Southern Segment (CC-680 South) Walnut Creek and San Ramon <i>Livorna Rd./Rudgear Rd. to Alcosta Blvd.</i>	Fall 2016	Fall 2017 Actual		17
I-680 Contra Costa Northern Segment - Southbound Conversion (CC-680 North) Martinez to Walnut Creek <i>Marina Vista Blvd. to Rudgear Rd./SR 242</i>	Fall 2018	Fall 2021		19

KEY

-  Within schedule shown.
-  Identified potential risks that may significantly impact schedule if not mitigated.
-  Known impact to schedule, changes forthcoming.

B. Capital Costs

The cost summary below shows: 1) the costs of each express lane [corridor or segment] including planning, design and construction of the civil infrastructure, and installation and integration of the backhaul communications and toll system, and 2) programwide costs including planning and design, and implementation of centralized elements of the backhaul network and toll system. The program cost estimate includes the full estimated cost to complete MTC Express Lanes. The approved expenditure plan fullyfunds the first three projects listed below, the environmental and design phases for the I-80 projects in Solano County, and the environmental phase for the westbound approaches to the San Mateo and Dumbarton Bridges. The expended-to-date amounts shown represent the amount of BATA Express Lane funds expended through December 31, 2017, the end of the fourth quarter.

Project ⁽¹⁾	Program Estimate ⁽²⁾	Cost Forecast ⁽³⁾	Regional Measure 2 Funds (allocated)	BATA Express Lane Funds ⁽⁴⁾			Physical % Complete ⁽⁵⁾	Confidence Level ⁽⁶⁾
				Dec. 2015 Amendment	June 2017 Amendment	Expended through 12/31/17		
NEAR TERM CONVERSIONS AND GAP CLOSURE OPPORTUNITY PROJECTS							<i>Costs shown in millions of escalated dollars</i>	
I-880 Alameda	132.5	132.5		77.8	132.5	45.4	35%	●
I-680 Contra Costa Southern Segment	55.6	55.6		55.6	55.6	49.0	97%	●
I-680 Contra Costa Northern Segment Southbound ⁽⁷⁾	56.9	56.9	5.6	51.3	51.3	5.2	20%	●
I-80 Solano	228.2	34.2	15.2	19.0	19.0	6.9	20%	●
Centralized Toll System	33.6	33.6		33.6	33.6	14.5	60%	●
Program Planning, Coordination & Management	28.4	28.4		28.4	28.4	17.0	70%	●
Program Contingency	18.1	18.1		35.9	5.1	0.0		●
Capitalized Start-up O&M	16.0	16.0		16.0	16.0	5.0 ⁽⁸⁾		●
FUTURE CONVERSIONS AND GAP CLOSURE OPPORTUNITY PROJECTS								
I-80 Alameda/Contra Costa and Westbound approaches to the Bay, San Mateo & Dumbarton Bridges	110.9	5.7	5.0	0.7	0.7	0.7	1%	
I-680 Contra Costa Northern Segment - Northbound Conversion	14.6	1.5	1.5			0.0	5%	
I-680 Contra Costa Northbound Express Lane Completion (North Main Street to SR-242)	57.3							
Centralized & Program Costs & Start-Up O&M - Gap Closures & Future Conversions	TBD							
Previously unallocated BATA Express Lanes Capital Budget funds				23.9				
TOTALS	752.1	382.5	27.4	342.2	342.2	143.7	45%	

⁽¹⁾ Other gap closure and extension projects not shown: ALA-880 extension northbound from Lewelling to Hegenberger; SOL-80 gap closure from Carquinez Bridge to Red Top Road; SOL-80 extension east of I-505; SOL-80 gap closure.

⁽²⁾ Program estimate represents current estimated cost to complete each project.

⁽³⁾ Cost forecast represents current estimated cost to complete phases that are funded for each project.

⁽⁴⁾ BATA Express Lane Funds represent the funds that have been allocated from the BATA budget.

⁽⁵⁾ Physical percent complete shown is based on the achievement of major milestones whether those milestones were completed using BAIFA funds or other funds. Projects that have completed milestones using other funds include I-680 Contra Costa Northern Segment, I-80 Solano West and I-80 Solano East.

⁽⁶⁾ ● = within budget, ● = identified potential risks that may significantly exceed budget if not mitigated, ● = known impacts to budget - changes forthcoming.

⁽⁷⁾ Program estimate reflects total cost for express lanes (\$37.9 million of which BAIFA's contribution is \$32.3 million and RM2's contribution is \$5.6 million) plus BAIFA's contribution to the HOV Completion project (\$19 million). The table does not reflect other funding for the HOV Completion Project: Measure J (\$37 million), RM2 (\$13 million), STIP (\$16 million).

⁽⁸⁾ Includes \$2.9 million transferred to the I-680 Contra Costa Express Lanes operating budget. See page 24 for a summary of expenses paid through this quarter.

C. Change Management

The change management process captures the changes in the program that have an impact on the approved baselines. There was one change to the MTC Express Lanes Program in the fourth quarter.

Staff have revised the projected open date for the I-680 North Segment Southbound express lane to Fall 2021. The change reflects the time needed to secure state funding for the gap closure portion of the project, an allowance for rain delay and the likelihood that the toll system integrator will have to work on the I-80 Express Lanes at the same time.

D. Risk Management Plan

MTC manages risk at both the program and contract level by identifying risks that could negatively impact the program’s cost and schedule, and assigning responsibility to the person best positioned to manage each risk. Risks managed at the contract level are associated with contingency funding authorized by BAIFA for specific contracts. Risks managed at the program level would draw upon the program contingency line item in the Express Lanes Expenditure Plan. Staff regularly review the risk exposure and mitigation plans at both the contract and program level.

In 2016, the program began using Monte Carlo simulation to evaluate potential collective impacts of identified risks in the program’s capital cost risk register. Monte Carlo simulation is a computerized technique that uses repeated random sampling from a range of variable inputs (risk probabilities and cost impact ranges) to determine the probability of different cost outcomes. This tool provides a realistic way of estimating uncertainty due to identified risks.

Chart #1 shows the median risk exposure for the program-level risks using Monte Carlo analysis. As of December 31, 2017, the risk exposure stands at \$6.1 million, which is lower than the \$10.0 million reported last quarter. The reasons for this reduction are two-fold. First, in the most recent review, staff identified and excluded certain risks on the I-880 Alameda and I-680 North Segment that are accounted for in planned contingencies within the project budget. Second, a few

remaining risks on the I-680 South Segment have been retired as construction is complete and the lanes are open for revenue service.

Chart #2 tracks the program’s cost forecast and risk exposure as compared to the authorized program budget. Consistent with the amendment to the Expenditure Plan that was adopted on June 28, 2017, the cost forecast for the program has been increased to \$337.1 million and the authorized budget has been increased to \$342.2 million.

The current program contingency of \$5.1 million would not be sufficient if the risk exposure of \$6.1 million were to be realized. Staff plans to be diligent in managing cost and risk while seeking new funding opportunities.

The top contributors to the program-level risk exposure and the associated mitigation strategies are as follows:

I-880 Alameda

- Caltrans is currently managing a repaving project in the corridor. Coordination issues with the project may delay completion of express lanes work and impact the open-to-traffic date. MTC staff has: met with Caltrans to create a sequence of activities that would reduce the overall schedule; evaluated alternative ways to expedite the work; and recommended specification changes to the Caltrans repaving project.

Chart #1: Median Risk Exposure (\$M)

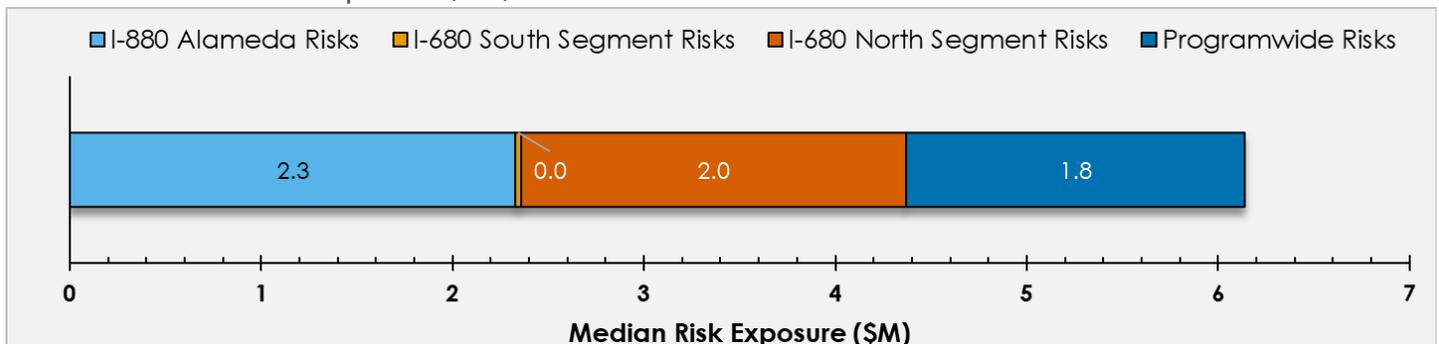


Chart #1 shows the contribution of each project’s risks toward the total program risk exposure.

I-880 Alameda (continued)

- Toll system integrator costs associated with schedule slippage and midday tolling may exceed available contingency, which was originally allocated for other known changes to tolling hardware. The project team is actively negotiating with the toll systems integrator on additional cost items, especially schedule slippage, and working closely with Caltrans to get their plans approved ahead of schedule.

I-680 Contra Costa Northern Segment

- To minimize impacts to Walnut Creek residents adjacent to the construction along South Main Street, CCTA plans to do most freeway widening work from within the State’s right-of-way. The designer has revised the sound wall design and methods of construction to accommodate work in the State’s Right-of-Way while maintaining the original construction duration. There is, however, a risk that the cost of work will increase.
- Caltrans is currently managing a safety project in the corridor. Coordination with the project may delay completion of express lanes work and impact the open-to-traffic date. MTC and Caltrans staff are looking for ways to coordinate the construction sequence that would reduce the overall schedule.

- Demand for construction-related services in the Bay Area is driving up some project costs. As a result, costs may escalate at higher than projected levels resulting in increased costs for design or construction. The program management team is monitoring the Caltrans Construction Cost Index, ENR Construction Cost Index and CPI, and would adjust estimates if the escalation level is higher than estimated in the program budget. The program management team has conducted an independent review of engineers’ estimates, and moving forward, will explore ways to better account for the bid environment prior to advertising construction projects for the corridor.

Programwide Risks

- Potential changes to state or national interoperability requirements may cause changes to design or operational policy that may have cost impacts for MTC’s Express Lanes Program. The California Toll Operators Committee has a goal that all operators will be able to read and process 6C transactions by spring of 2019. This would require tuning for the I-680 Contra Costa Southern Segment and thus may have cost impacts for MTC’s Express Lanes. This risk will be managed by participating in the development plan of the transition from Title 21 compliant toll technology to 6C compliant toll technology.

Chart #2: Program Cost Forecast and Risk Exposure vs. Authorized Budget (\$M)

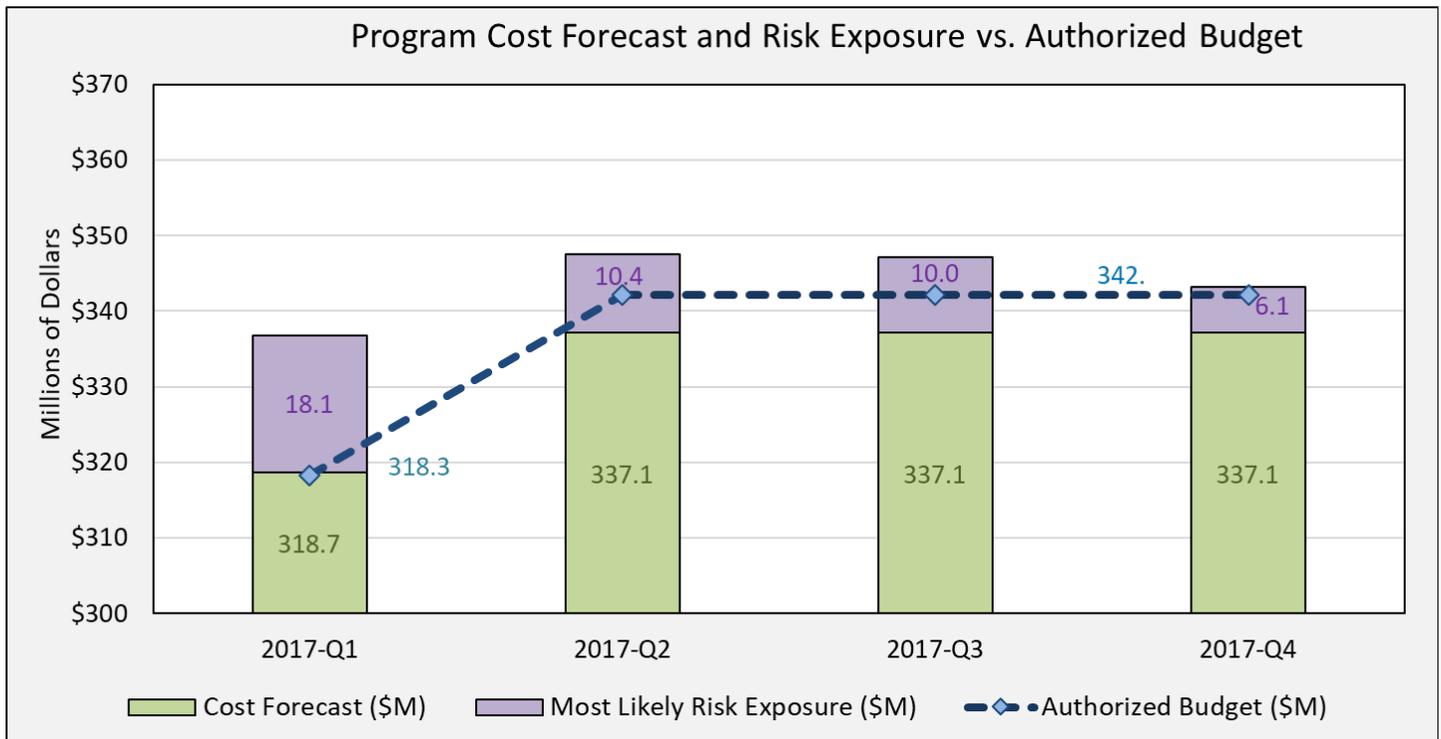


Chart #2 shows the program cost forecast and risk exposure as compared to the authorized program budget.

E. Capital Project Summaries

Centralized Functions

Toll System and Program Management, Planning and Regional Coordination

Total Estimated Cost

\$33.6 million for the Centralized Toll System
\$28.4 for Program Planning, Coordination and Management

Schedule

Centralized Toll System was ready for the opening of the I-680 Contra Costa Southern Segment on October 9, 2017.

Program Planning, Coordination and Management is ongoing through the opening of the funded projects.

Project Description

The Centralized Toll System includes the elements of the toll system that are needed to toll all the express lanes, as well as the backhaul communications network components, such as fiber optic cable and leased line services, that transport toll data from MTC lanes to host and toll operations data centers. Centralized toll system work includes designing and implementing the hardware and software for dynamic tollsetting and trip building, integration with the FasTrak[®] Customer Service Center, and acquiring spare parts.

Program management, planning and regional coordination tasks include managing the expenditure plan, cost, schedule and risk; developing the express lane business rules and toll ordinance; conducting customer education and outreach; building out the Regional Operations Center and developing operating procedures; planning for future express lanes; and coordinating with partner agencies to offer a seamless experience for drivers.

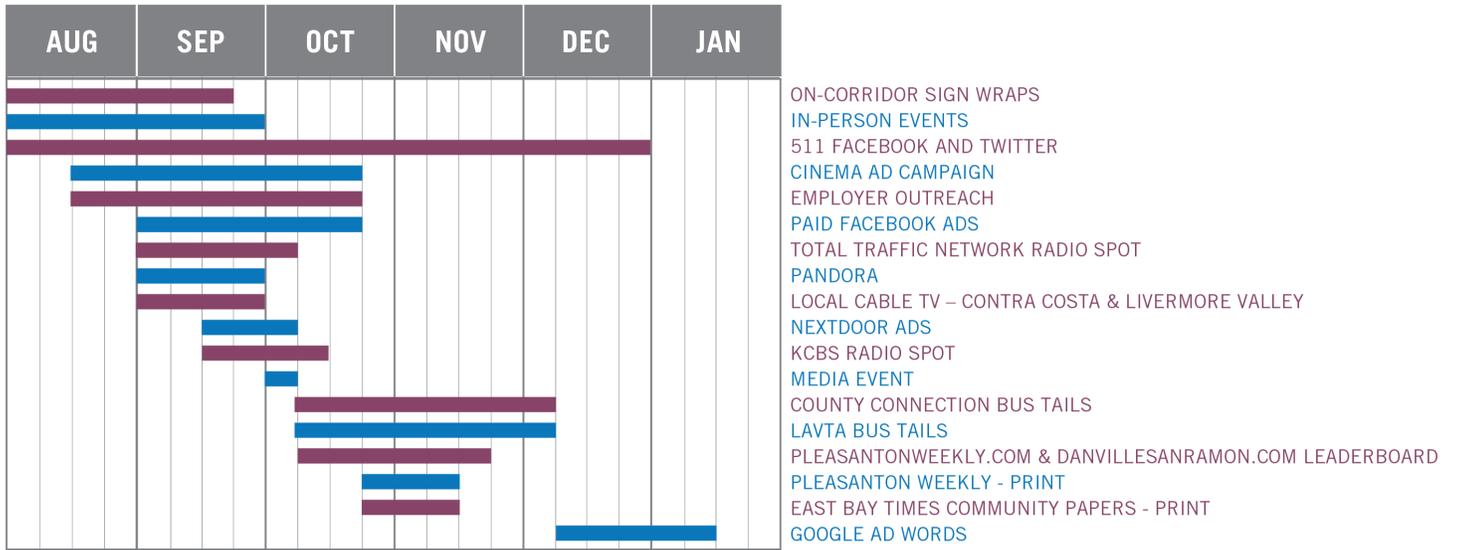
Program Management Highlights and Progress

- Staff completed preparations for 'go live' operations, and Regional Operations Center staff began official operations on October 9, 2017.
- Staff continued a customer education campaign to prepare drivers for the opening of the I-680 Contra Costa Express Lanes per the schedule on the following page.
- Staff hosted a media event prior to the opening of the I-680 Contra Costa Express Lanes, and monitored media coverage.
- Staff responded to a modest number of public comments about the I-680 Contra Costa Express Lanes. Common themes were:
 1. Concern about worse traffic in the general purpose lanes in the middle of the day;
 2. Concern about cars weaving in and out of the express lanes; and
 3. Questions about express lanes performance.

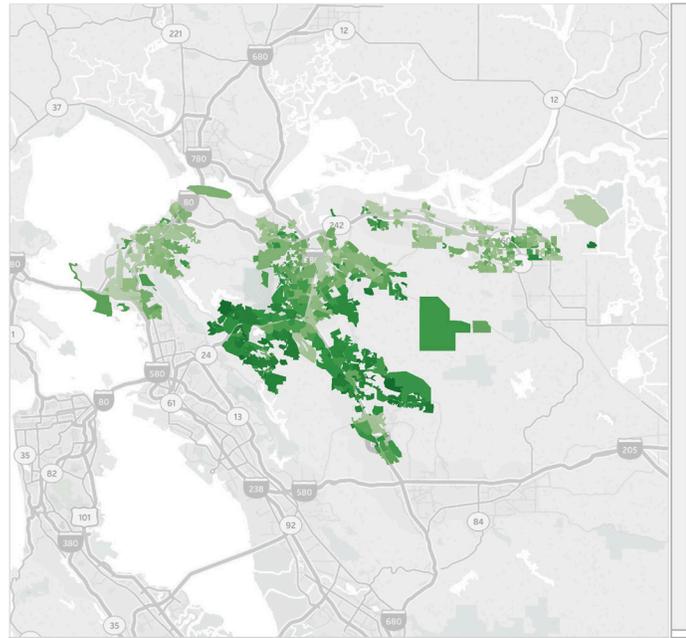
Current Program Management Activities

- Staff is procuring an Express Lanes Program Advisor, which combines the responsibilities in the current Program Manager and Toll System Manager contracts. An award recommendation is anticipated in early 2018.

I-680 Contra Costa Express Lanes Customer Education Implementation Schedule



I-680 Contra Costa Express Lanes Nextdoor Household Reach by Neighborhood (San Francisco, Oakland, San Jose)



Overall household reach

22.74%

Households reached on Nextdoor / total households in area

Top 5 neighborhoods by reach

- | | | |
|---|------------------------------|--------|
| 1 | Sorrel (Walnut Creek, CA) | 82.61% |
| 2 | Hidden Valley (Danville, CA) | 74.55% |
| 3 | Alamo Crest (Alamo, CA) | 74.36% |
| 4 | Glenwood (Danville, CA) | 73.33% |
| 5 | Magee Ranch (Danville, CA) | 72.58% |

Household Reach
2.15% 82.61%

Household reach
22.74%
93,122 out of all households in area

Member engagement
19.88%
22,826 members engaged with post

Positive Sentiment
75%
(thanks + pos comments) /
(all thanks + comments)

I-680 Contra Costa Express Lanes customer education: bus advertisement (left), website banner (right), 511 Express Lanes website (bottom).



511 SF Bay

Wherever you're going, start here

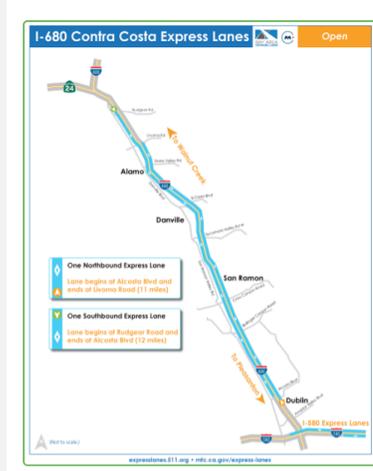
- Home
- 511 Phone & Voice
- Alerts & News
- Transit
- Carpool & Vanpool
- Driving
- Biking
- Getting Around
- For Employers

Wherever you're going, start here

Home / Driving / Bay Area Express Lanes

Bay Area Express Lanes : How They Work

How They Work Find a Lane For Carpools For Solo Drivers Get FasTrak



Now Open! I-680 Contra Costa Express Lanes

All drivers need FasTrak[®]; carpools, clean air vehicles, and other toll-free vehicles must use a FasTrak Flex[®] toll tag. Get FasTrak[®] for express lanes.

- Information Card
- 'How to Use' Video
- Express Lanes Map
- Toll Zone Location Map
- Pricing Sign Example
- Frequently Asked Questions
- Photos & Graphics
- Bay Area Express Lanes Logos
- Press Contact: John Goodwin
 - Email: jgoodwin@bayareametro.gov
 - Phone: (415) 778-5262



Get FasTrak for express lanes: Find a retailer or apply online



Find a partner to carpool toll-free in express lanes

Toll System Highlights and Progress

- The construction contract for the backhaul communications network for the host data centers and I-680 Contra Costa Southern Segment was awarded in December 2015.
- The toll operations staffing contract was awarded in March 2016.
- Final toll system host and software design was approved in March 2016, and Factory Acceptance Testing of hardware and software was held in June 2016.
- Primary toll system host hardware was installed at the Benicia-Martinez Bridge toll plaza in November 2016 and communications were established with the field equipment. Back-up operations hardware was also installed at the Traveler Information Center (TIC) located at Caltrans District 4 in Oakland.
- Buildout of the Regional Operations Center was finished in March 2017.
- The integrator completed the formal First Zone Test, which was the first field test to compile live lane transactions into a single trip, in May 2017 and the Communications End-to-End Testing for the toll systems communications network in June 2017.
- The toll system began using the full backhaul network as of June 2017.
- The integrator completed Corridor Testing, which fully tested the entire toll and communications system, in August 2017 and finished installing and commissioned all field equipment in September 2017.
- The integrator and the FasTrak® Customer Service Center completed Production Readiness Testing of the data exchange in September 2017.
- The toll system went live to the public on October 9, 2017.

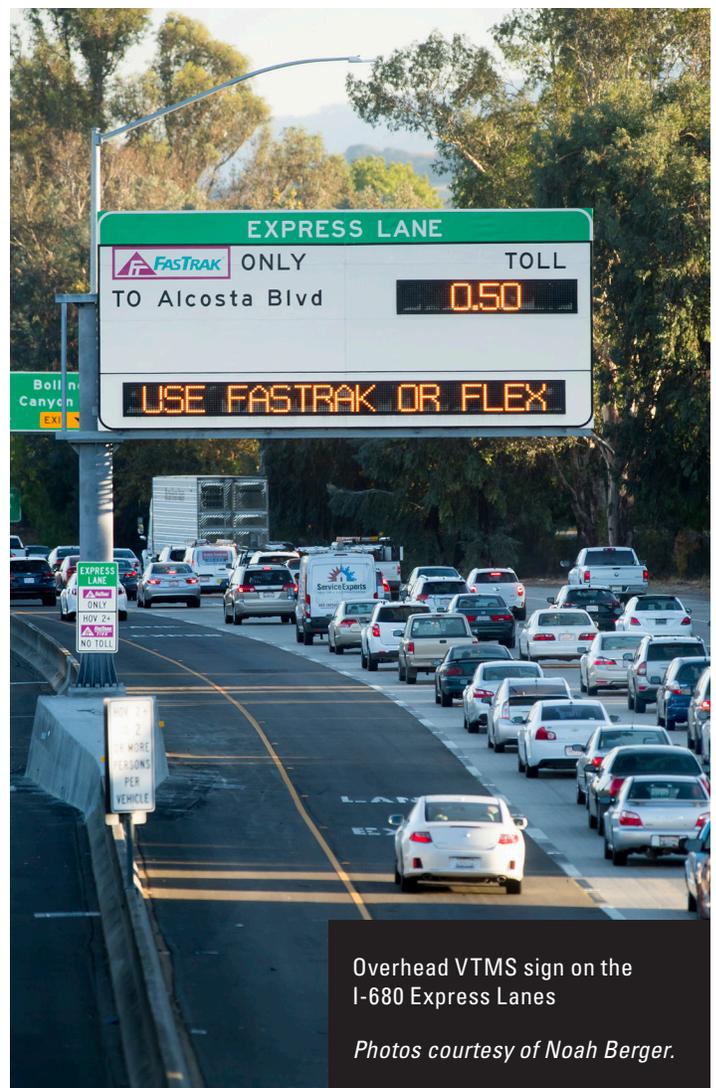
Current Toll System Activities

- The integrator is addressing punch list items and deferred functionality in order to commence Operations Testing in March 2018. This test verifies the toll system meets all specifications and leads to the maintenance phase of operations.
- The integrator will perform the deferred Disaster Recovery Test in February 2018 to ensure that the failover to the redundant toll system host is functional.



Closed-circuit television (CCTV) camera.

Photos courtesy of Noah Berger.



Overhead VTMS sign on the I-680 Express Lanes

Photos courtesy of Noah Berger.

I-880 Alameda (ALA-880)

Oakland to Milpitas

Hegenberger Road/Lewelling Boulevard to Dixon Landing Road

Total Program Estimate

\$132.5 million

Scheduled Open Date

End of 2019

Project Description

The project converts the existing I-880 HOV lanes that run from Hegenberger Road to Dixon Landing Road in the southbound direction and from Dixon Landing Road to Lewelling Boulevard in the northbound direction to express lanes.

The conversion involves lane striping and installing sign gantries, signs, FasTrak[®] toll tag readers, traffic monitoring video cameras and California Highway Patrol observation areas. It will result in 51 express lane miles between Oakland and Milpitas.

The express lanes conversion project is being coordinated with a median barrier reconstruction project and a future pavement resurfacing project, both led by Caltrans. The median barrier reconstruction project will install foundations and other infrastructure required for the future express lanes construction for a large portion of the express lanes corridor.

Project Highlights and Progress

- Public open house was held in March 2015.
- Preliminary engineering report and environmental document were completed in October 2016.
- Caltrans approved the mid-day hours of operation assessment in December 2016.
- Resolution of Caltrans comments on 100% design was completed in May 2017.
- Civil construction contract bids were opened in June 2017.
- Caltrans issued the encroachment permit for the civil construction contract in June 2017.
- The toll system integrator submitted its 100% design package to Caltrans for review in September 2017.
- Caltrans' median barrier construction contractor began work in April 2016. Overall, 88% of MTC's express lanes scope of work to be delivered through Caltrans' median



barrier contract was complete as of December 2017. Barrier demolition is complete. All express lane sign structure foundations are complete and foundations for lighting are complete to just north of 98th Ave in Oakland. (See construction photos on page 16.)

- The express lanes civil contractor began construction.

Current Project Activities

- The express lanes civil contractor is installing sign foundations in the median barrier in Fremont.
- The toll system integrator will address Caltrans' comments on the 100% design submittal, submit for the encroachment permit in January 2018, and begin coordination with the civil construction contractor in February 2018.
- Staff is coordinating with local cities to share project information. Monthly construction notices and two ramp closure/detour notices were sent during the fourth quarter.

Current Project Activities (continued)

- In December 2017, Caltrans received bids for a pavement resurfacing contract within the limits of BAIFA’s civil express lanes project. While the low bid was 21% over the engineer’s estimate, BAIFA may be able to absorb its share of the cost increase under its existing agreement with Caltrans.

Project Schedule by Phase



*Includes I-880 median barrier improvements.

Project Cost

Program Estimate ⁽¹⁾	Cost Forecast ⁽²⁾	Regional Measure 2 Funds (allocated)	BATA Express Lane Funds ⁽³⁾			Physical % Complete ⁽⁴⁾
			Dec. 2015 Amendment	June 2017 Amendment	Expended through 12/31/17	
132.5	132.5		77.8	132.5	45.4	35%

The program estimate for this project includes planning, design, construction, utilities, backhaul communications and toll system integration.

Costs shown in millions of escalated dollars.

- ⁽¹⁾ Program estimate represents current estimated cost to complete each project.
- ⁽²⁾ Cost forecast represents current estimated cost to complete phases that are funded for each project.
- ⁽³⁾ BATA Express Lane Funds represent the funds that have been allocated from the BATA budget.
- ⁽⁴⁾ Physical percent complete shown is based on the achievement of major milestones whether those milestones were completed using BAIFA funds or other funds.



Drilling work for a cast-in-drilled-hole (CIDH) pile foundation. The pile will support a new overhead variable toll message sign (VTMS).



Completed CIDH foundation in the I-880 median. The foundation will support a new overhead VTMS.



Foundation preparation for a communications hub at Dixon Landing Road.

I-680 Contra Costa Southern Segment (CC-680 South)

Walnut Creek to San Ramon

Livorna Road/Rudgear Road to Alcosta Boulevard

Total Program Estimate

\$55.6 million

Scheduled Open Date

Fall 2017 - ACTUAL

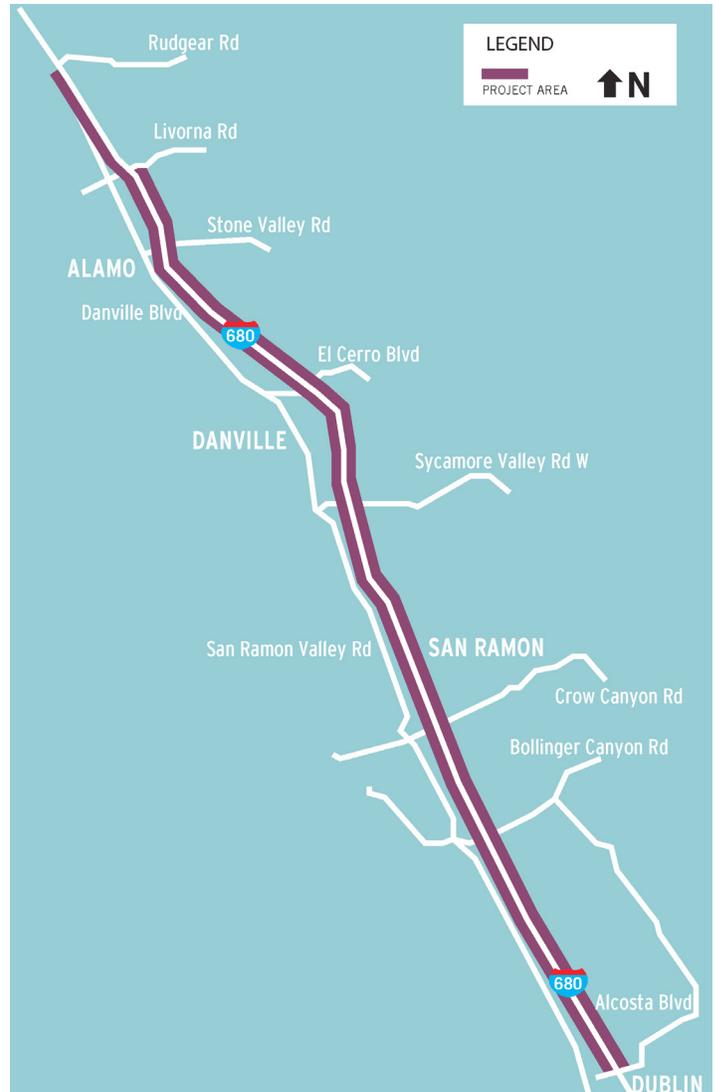
Project Description

The project converts existing HOV lanes to express lanes on I-680 from Rudgear Road to Alcosta Boulevard in the southbound direction and from Alcosta Boulevard to Livorna Road in the northbound direction. It will result in 23 express lane miles through San Ramon, Danville, Alamo and southern Walnut Creek. No widening or additional lanes will be added to the freeway.

This conversion project includes striping lanes and installing sign gantries, signs, FasTrak[®] toll tag readers, and traffic monitoring video cameras. In addition, the project installs equipment and observation areas to help the California Highway Patrol enforce proper use of the lanes.

Project Highlights and Progress

- Public open house was held in March 2014.
- Preliminary engineering report and environmental document were completed in August 2014.
- Final design and permits for both the backhaul communication network and the toll system were completed in December 2015.
- Final roadway design was completed in April 2015. Civil construction was completed in May 2017.
- Toll system equipment installation was mostly finished by June 2017.
- Backhaul contractor completed fiber optic installation between Walnut Creek and San Ramon in June 2016 and from Walnut Creek to the express lanes data center in Martinez in June 2017, totaling 26 miles of fiber.
- Three express lanes data centers (Benicia-Martinez toll plaza, Caltrans District 4 and the Regional Operations Center) and the two corridor hubs were online and utilized by the toll system integrator during system implementation.
- Corridor Testing was completed in August 2017.
- Toll system equipment and software was finalized and tested in September 2017.
- HOV lane pavement markings (i.e. diamonds) were removed, and new pavement markings (i.e. EXPRS LANE) were installed in September 2017.
- Removal and replacement of median barrier signs was completed in October 2017.
- Backhaul operations and maintenance started in October 2017.

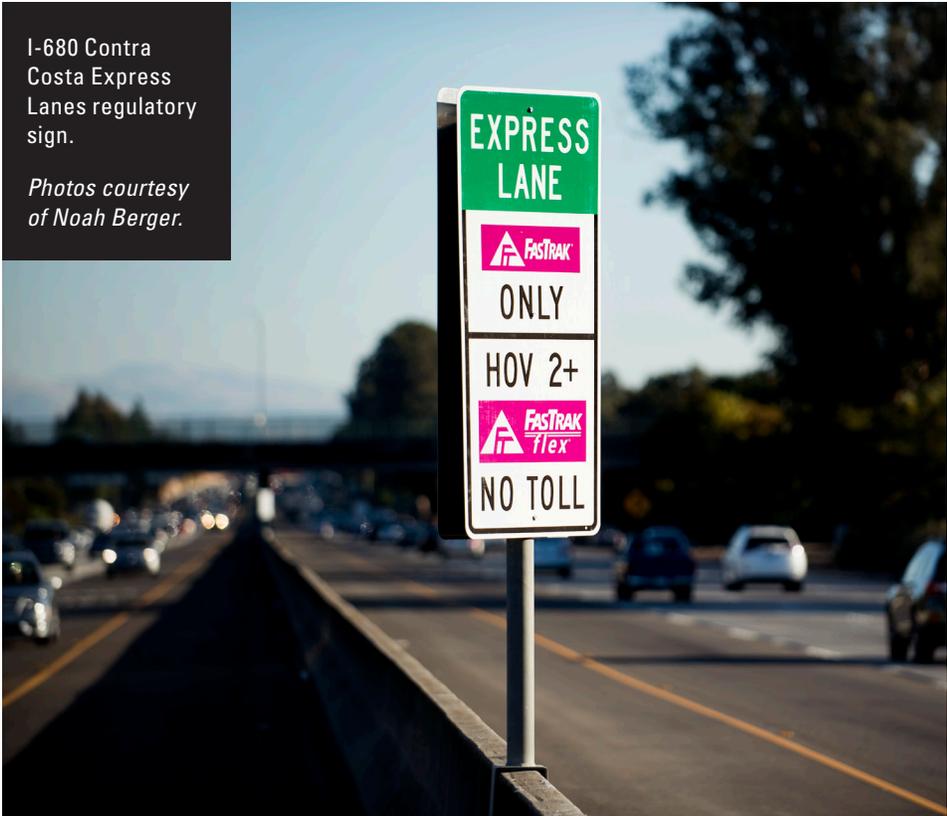


Project Highlights and Progress (continued)

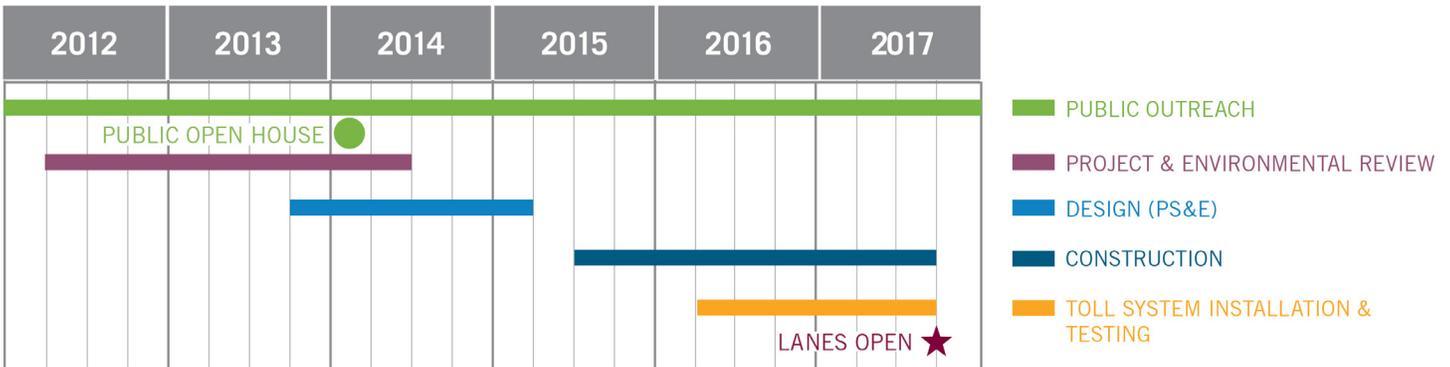
- The toll system went live to the public on October 9, 2017.

Current Project Activities

- The integrator is fine tuning field equipment and addressing punch list items in preparation for Operations Testing in March 2018. This test verifies the toll system meets all specifications and leads to the maintenance phase of operations.
- The Backhaul contractor will address the remainder of punch list items and complete project 'as-built' documentation.



Project Schedule by Phase



Project Cost

Program Estimate ⁽¹⁾	Cost Forecast ⁽²⁾	Regional Measure 2 Funds (allocated)	BATA Express Lane Funds ⁽³⁾			Physical % Complete ⁽⁴⁾
			Dec. 2015 Amendment	June 2017 Amendment	Expended through 12/31/17	
55.6	55.6		55.6	55.6	49.0	97%

The program estimate for this project includes planning, design, construction, utilities, backhaul communications and toll system integration.

Costs shown in millions of escalated dollars.

(1) Program estimate represents current estimated cost to complete each project.
 (2) Cost forecast represents current estimated cost to complete phases that are funded for each project.
 (3) BATA Express Lane Funds represent the funds that have been allocated from the BATA budget.
 (4) Physical percent complete shown is based on the achievement of major milestones whether those milestones were completed using BAIFA funds or other funds.

I-680 Northern Segment Southbound Conversion (CC-680 North)

Martinez to Walnut Creek

Benicia Bridge to Rudgear Road

Total Program Estimate

\$56.9 million (\$51.3 million to be funded by BAIFA)

Scheduled Open Date

Fall 2021

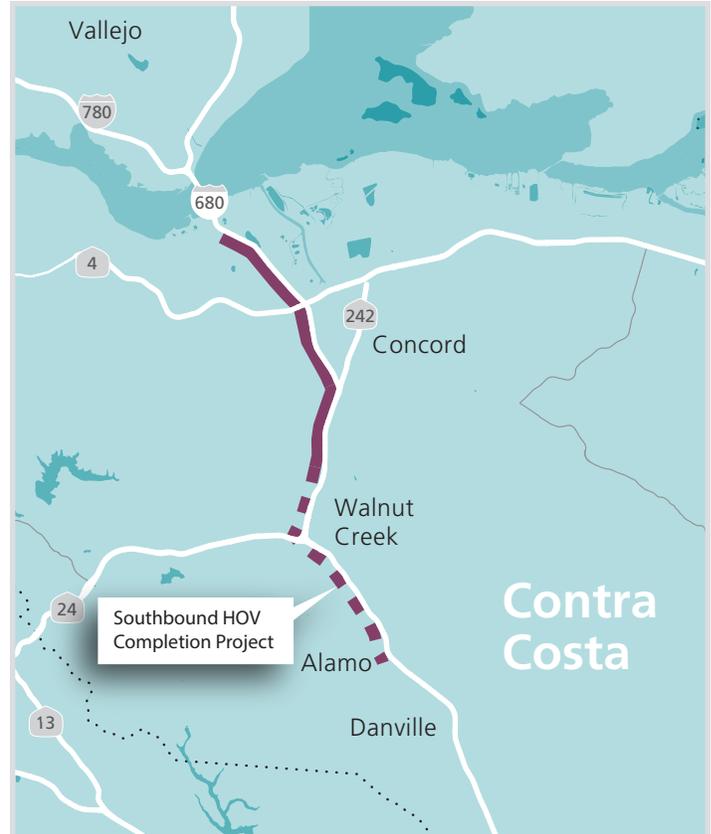
Project Description

The project will convert 11 miles of the existing HOV lane on southbound I-680 from just south of Marina Vista Avenue in Martinez to North Main Street in Walnut Creek into an express lane. It also includes express lane elements for the I-680 Southbound HOV Completion Project. Once complete, I-680 will have a continuous southbound express lane from Martinez to the Alameda County line.

Civil construction will be delivered by the Contra Costa Transportation Authority (CCTA). MTC will install toll and communications equipment and will operate the express lanes.

Project Highlights and Progress

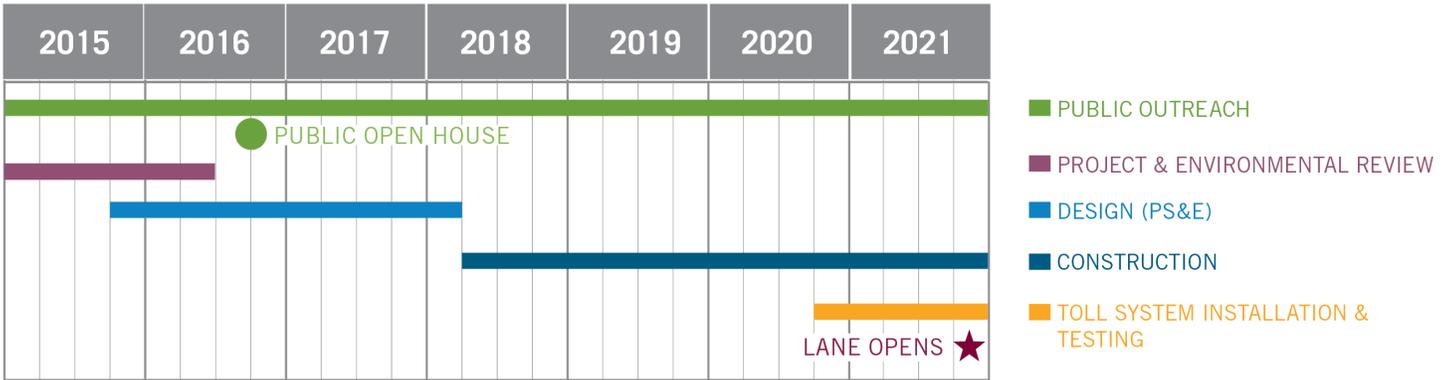
- Caltrans accepted the Traffic Operation Analysis Report in October 2015, and agreed with the mid-day hours of operation analysis in early 2017.
- Caltrans signed the environmental document in December 2016 and approved the Project Report in August 2017.
- Project staff met with the Walnut Creek Mayor and city staff in May 2017 to review the construction plan and impacts.
- Environmental revalidation was completed in September 2017. The Office of U.S. Fish and Wildlife Service provided concurrence that the project is not likely to adversely affect any known federally listed species.
- Final design plans were submitted to Caltrans in August 2017, and comments were received in September 2017.
- A contract to remove trees along southbound I-680 in Walnut Creek between South Main Street and Livorna Road was awarded in October 2017, and work was completed in December 2017.



Current Project Activities

- The final encroachment permit package will be submitted in January 2018.
- Utility relocation is cleared to begin in February 2018, subject to PG&E's schedule.
- CCTA plans to advertise for civil construction in April 2018 and award a contract in June 2018, subject to the approval of funds by the California Transportation Commission in March 2018.
- The toll system integrator will begin its 100% design package for the toll system in relation to the civil design, backhaul communications and power.
- Staff have revised the projected open date to Fall 2021. The change reflects the time needed to secure state funding for the gap closure portion of the project, an allowance for rain delay and the likelihood that the toll system integrator will have to work on the I-80 Express Lanes at the same time.

Project Schedule by Phase



Project Cost

Program Estimate ⁽¹⁾	Cost Forecast ⁽²⁾	Regional Measure 2 Funds (allocated)	BATA Express Lane Funds ⁽³⁾			Physical % Complete ⁽⁴⁾
			Dec. 2015 Amendment	June 2017 Amendment	Expended through 12/31/17	
56.9	56.9	5.6	51.3	51.3	5.2	20%

The program estimate for this project includes planning, design, construction, utilities, backhaul communications and toll system integration

⁽¹⁾ Program estimate reflects total cost for express lanes (\$37.9 million of which BAIFA's contribution is \$32.3 million and RM2's contribution is \$5.6 million) plus BAIFA's contribution to the HOV Completion project (\$19 million). The table does not reflect other funding for the HOV Completion Project: Measure J (\$37million), RM2 (\$13million), STIP (\$16m million).

⁽²⁾ Cost forecast represents current estimated cost to complete phases that are funded for each project.

⁽³⁾ BATA Express Lane Funds represent the funds that have been allocated from the BATA budget.

⁽⁴⁾ Physical percent complete shown is based on the achievement of major milestones whether those milestones were completed using BAIFA funds or other funds.

I-80 Solano (SOL-80)

Fairfield to Vacaville

Red Top Road to I-505

Total Program Estimate

\$228.2 million

Scheduled Open Date

End of 2021

Project Description

This project will convert the existing eastbound and westbound HOV lanes to express lanes between Red Top Road and Air Base Parkway in Fairfield. Conversion work includes striping lanes and installing sign gantries, signs, FasTrak® toll tag readers and traffic-monitoring video cameras.

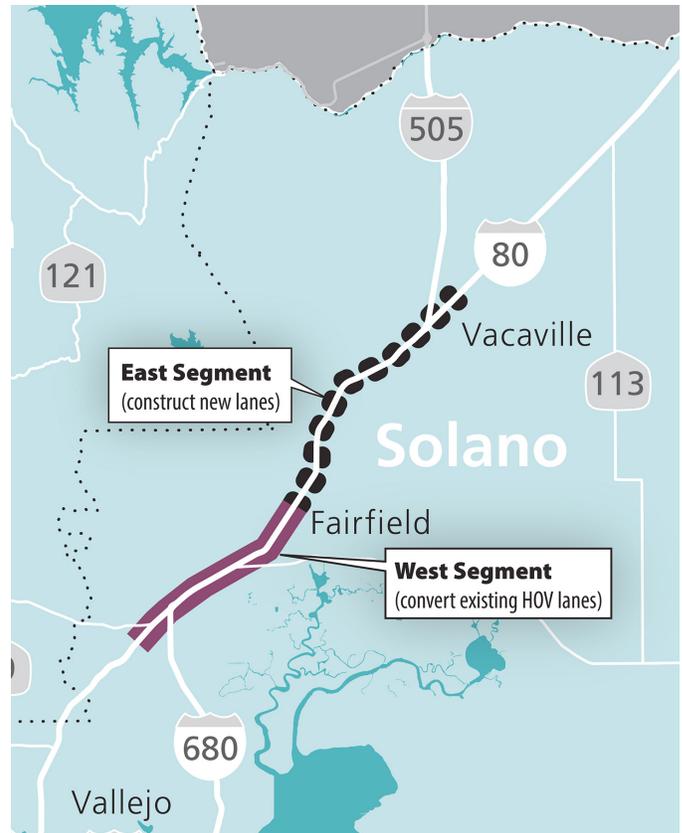
The project will also construct new eastbound and westbound lanes between Air Base Parkway and I-505 in Vacaville. In this section, the highway will be widened along with the installation of express lane striping, signage and equipment. The project will result in 36 miles of express lanes on I-80 in Solano County.

The Solano Transportation Authority (STA) is the lead agency for environmental clearance and civil design.

Caltrans will advertise and award the construction contract, and a blended Caltrans/STA team will administer construction. MTC will install toll and communications equipment and will operate the express lanes.

Project Highlights and Progress

- A public open house was held in August 2015.
- The preliminary engineering report and environmental document were completed in December 2015.
- The 100% design document was submitted to Caltrans in October 2017 and STA received comments from Caltrans.
- Staff reviewed potential opportunities to fund construction with funds from Senate Bill 1 and Regional Measure 3.
- BAIFA, Caltrans and STA determined that Caltrans will advertise and award the civil construction contract.



Current Project Activities

- The final design document will be submitted to Caltrans in January 2018. Since Caltrans will advertise and award the civil construction contract, an encroachment permit is not necessary.
- The project is scheduled to reach the Ready-to-List milestone in March 2018.
- An application for funds through the Senate Bill 1 Solutions for Congested Corridors Program will be submitted in February 2018.

Project Schedule by Phase



* Funding for these activities is not yet secured.

Project Cost

Program Estimate ⁽¹⁾	Cost Forecast ⁽²⁾	Regional Measure 2 Funds (allocated)	BATA Express Lane Funds ⁽³⁾			Physical % Complete ⁽⁴⁾
			Dec. 2015 Amendment	June 2017 Amendment	Expended through 12/31/17	
228.2	34.2	15.2	19.0	19.0	6.9	20%

The program estimate for this project includes planning, design, construction, utilities, backhaul communications and toll system integration.

Costs shown in millions of escalated dollars.

- (1) Program estimate represents current estimated cost to complete each project.
- (2) Cost forecast represents current estimated cost to complete phases that are funded for each project. I-80 Solano is funded through the design phase.
- (3) BATA Express Lane Funds represent the funds that have been allocated from the BATA budget.
- (4) Physical percent complete shown is based on the achievement of major milestones whether those milestones were completed using BAIFA funds or other funds.

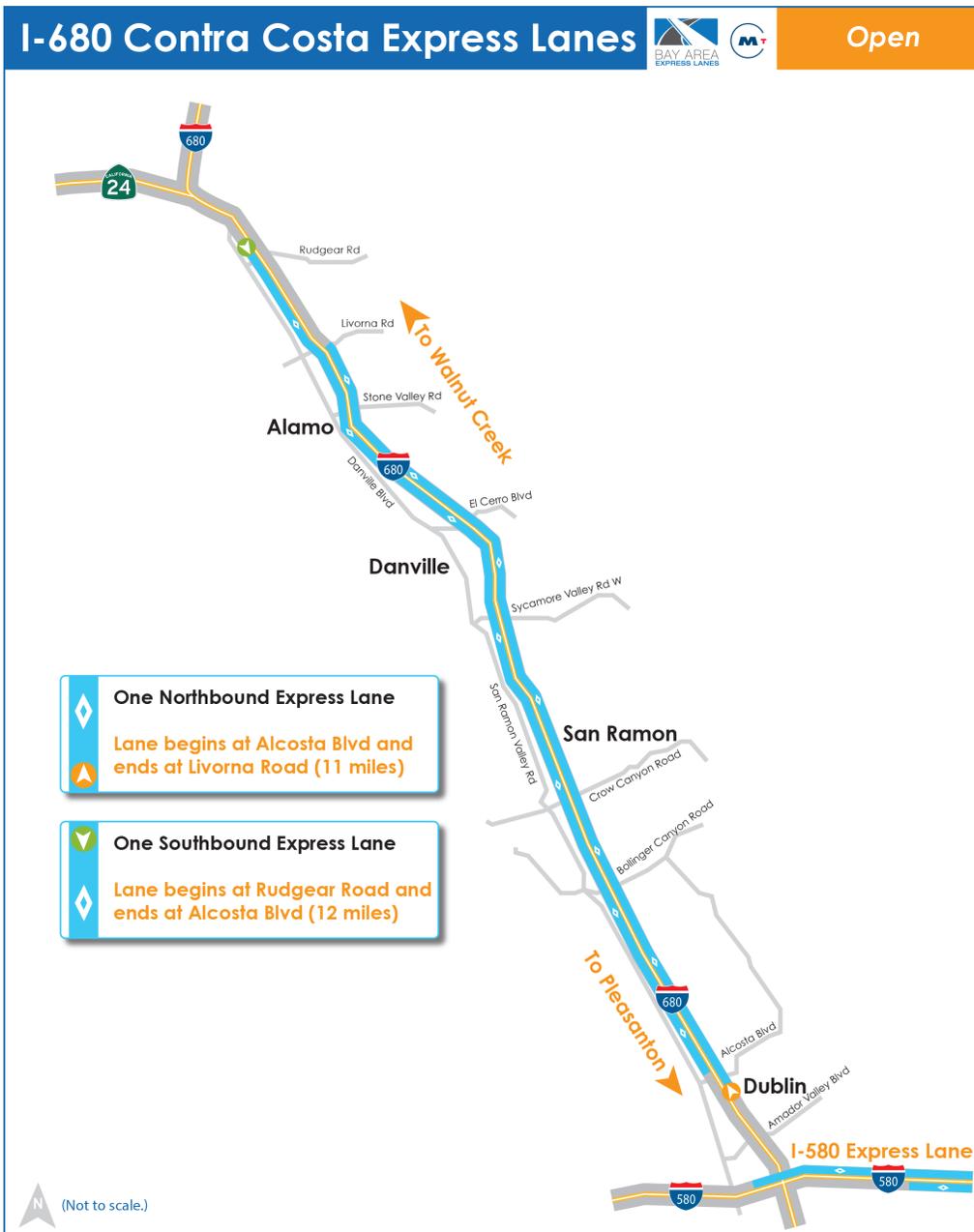
IV. OPERATIONS

I-680 Contra Costa Express Lanes

The I-680 Contra Costa Express Lanes opened October 9, 2017. The lanes run 11 miles northbound from Alcosta Boulevard to Livorna Road and 12 miles southbound from Rudgear Road to Alcosta Boulevard. Regional Operations Center staff monitor equipment and lane performance, make toll rate adjustments, and coordinate with the California Highway Patrol (CHP) and Caltrans on incident management. The FasTrak[®] Customer Service Center issues toll tags, handles toll invoicing and collections, and provides customer service. Toll tag and vehicle occupancy requirements are enforced automatically by the toll

system and manually by the CHP under contract to BAIFA. A 'backhaul' fiber network and supplemental leased-line services offer fast and secure transfer of tolling data. Roadway maintenance is also funded by the express lanes. Program and contractor staff perform public outreach and education, track and report on program performance and analyze traffic, and support operations in other ways as needed.

See **Appendix B** for a summary of fourth quarter express lanes performance.



Rules of the Road

- Hours are Monday through Friday, 5 a.m. – 8 p.m.
- Tolls change based on traffic congestion; there is no maximum toll
- All vehicles in the express lane must use a FasTrak[®] or FasTrak Flex[®] toll tag
- Carpools of 2 or more people, eligible clean air vehicles, motorcycles and transit buses travel toll-free with a properly set FasTrak Flex[®] toll tag
- Learn more at expresslanes.511.org

Operating Revenue and Expense Summary

The summary below shows the FY 2017/18 operating budget through the end of the fourth quarter for 1) revenue received by BAIFA from tolls, violations and capital start-up funds, and 2) expense incurred by BAIFA for the FasTrak® Customer Service Center, the I-680 Contra Costa Express Lanes, the Backhaul communications network, and program staffing and administration. Toll and violation revenue will first be used to fully fund operating expenses and then to improve mobility in the I-680 corridor, as available.

FY 2017/18 BAIFA Operating Budget⁽¹⁾

	FY 2017-18 Budget	Actual as of 12/31/2017	% of Budget
REVENUE			
General Toll Revenue	5,200	1,737	33%
Violation Revenue	500	0	0%
Transfers In from Capital Fund	2,915	2,915	100%
Total Revenue	8,615	4,652	54%
EXPENSE			
FasTrak® Operations and Maintenance			
RCSC Operations	1,335	202	15%
Banking/Credit Card Fees	240	0	0%
Toll Collection Services	225	0	0%
<i>Subtotal</i>	1,800	202	11%
Express Lanes Administration			
Salaries, Benefits & Overhead	1,460	307	21%
Professional/Consultant Service	322	105	33%
Audit/Accounting/Other	30	0	0%
Insurance	59	0	0%
Other	99	0	0%
<i>Subtotal</i>	1,970	412	21%
Express Lanes & Backhaul Operations and Maintenance			
Express Lane Toll Operators	799	77	10%
California Highway Patrol Enforcement	320	0	0%
Roadway Maintenance	1,392	18	1%
Toll System Operations & Maintenance	1,916	0	0%
Caltrans Express Lanes Operations & Maintenance	155	0	0%
Utility Service	263	12	5%
<i>Subtotal</i>	4,845	107	2%
Total Expense	8,615	721	8%
NET (Total Revenue less Total Expense)	0	3,931	

⁽¹⁾ Dollars rounded to nearest thousand.



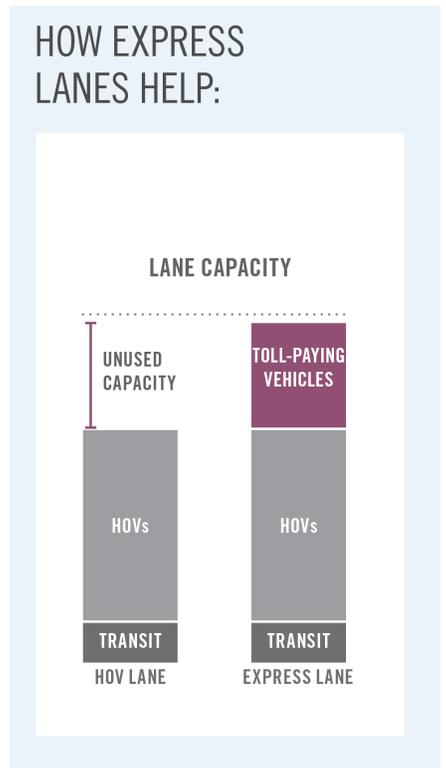
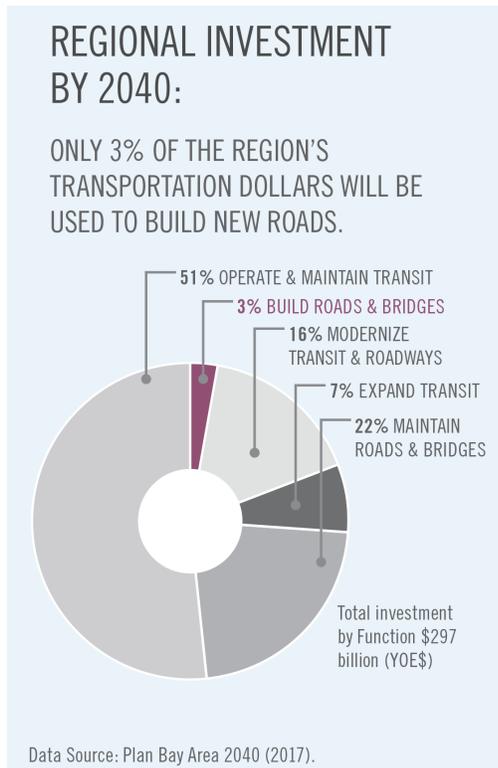
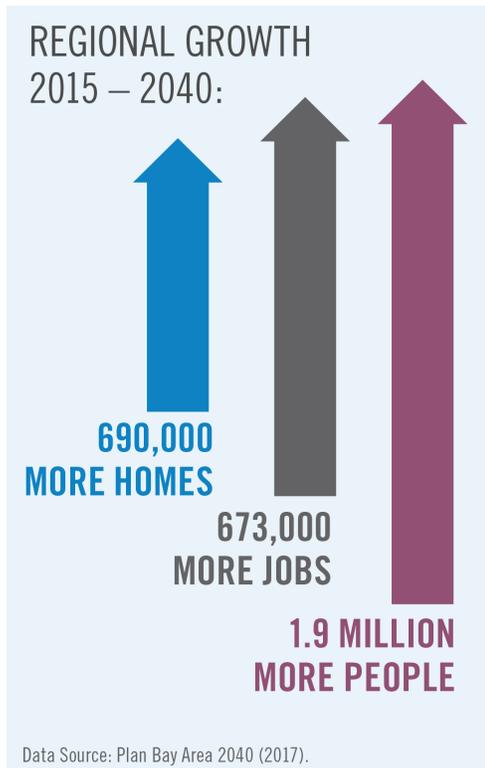
APPENDICES

APPENDIX A

1. Why Express Lanes?

The Bay Area lacks the necessary transportation funding and land to build enough transportation capacity to keep up with regional growth. Bay Area Express Lanes maximize use of our highways by A) filling any empty space in existing HOV lanes,

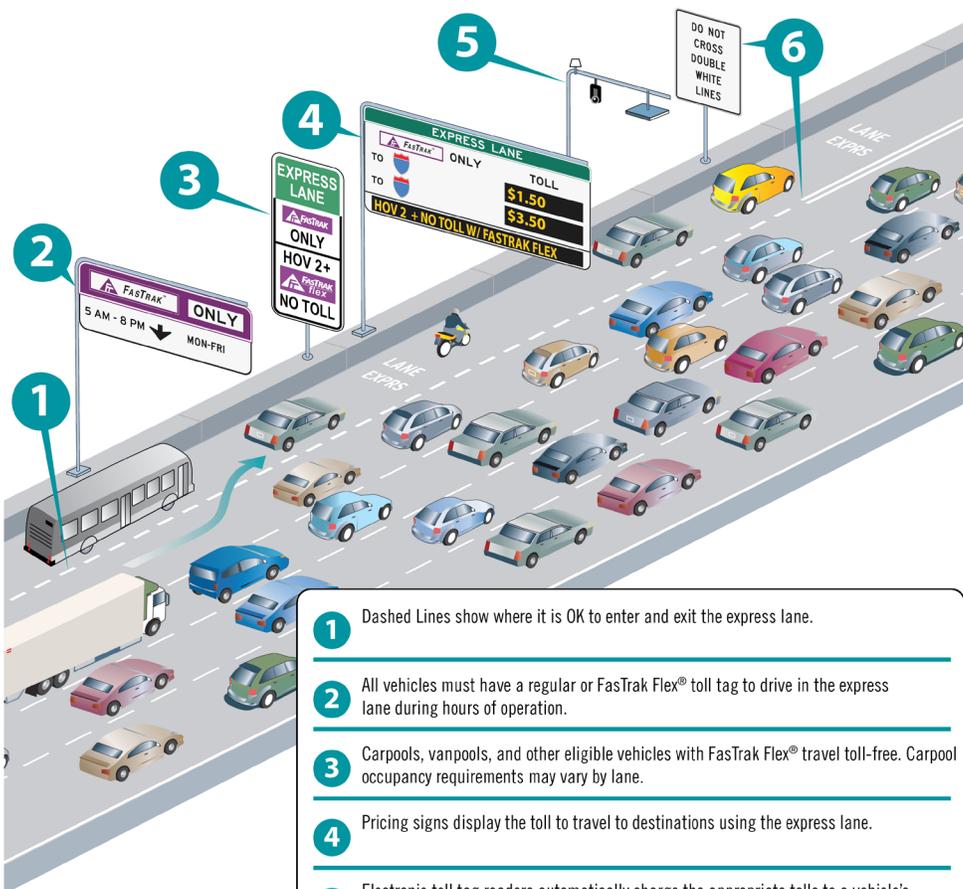
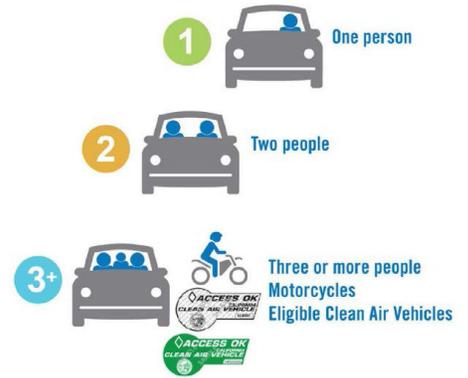
B) improving operations in existing HOV lanes through better carpool enforcement and strategies to prevent lane slowdowns, and C) filling gaps in the HOV lane system to encourage more carpooling.



2. How Express Lanes Work

MTC Express Lanes are free to carpoolers, vanpoolers, motorcycles, eligible clean air vehicles and transit buses. Solo drivers can choose to pay tolls to use the lanes. Tolls for solo drivers will be collected electronically via FasTrak®, as on Bay Area toll bridges. Overhead electronic pricing signs will display the current toll rates, which will increase as traffic congestion increases and decrease as traffic congestion decreases.

On MTC Express Lanes, carpools, qualifying clean-air vehicles and other toll-exempt vehicles must use a FasTrak Flex® toll tag set to “2” or “3+” to travel toll-free. Solo drivers pay to use the lanes with either a standard FasTrak® toll tag or a FasTrak Flex® toll tag set to “1.” Drivers should move the switch before driving.



- 1 Dashed Lines show where it is OK to enter and exit the express lane.
- 2 All vehicles must have a regular or FasTrak Flex® toll tag to drive in the express lane during hours of operation.
- 3 Carpools, vanpools, and other eligible vehicles with FasTrak Flex® travel toll-free. Carpool occupancy requirements may vary by lane.
- 4 Pricing signs display the toll to travel to destinations using the express lane.
- 5 Electronic toll tag readers automatically charge the appropriate tolls to a vehicle's FasTrak® account.
- 6 Double white lines show where it is illegal to enter and exit the express lane. These access limitations improve traffic flow.

The figure to the left explains how to use Bay Area Express Lanes. MTC Express Lanes will be mostly “open” access, meaning drivers will enter and exit the express lanes similar to how they enter and exit HOV lanes today. Areas in locations prone to excessive weaving or with safety issues will have limited access to restrict entry and exit at these locations. Signage and lane striping will identify the limited entry and exit locations. Limited access is a way to improve travel speeds in express lanes.

3. System Technology and Elements

MTC Express Lanes are implemented by overlaying communications equipment on new and existing freeway infrastructure. Express lanes implementation requires four discrete elements that are integrated through design, construction and operations, including:

Civil Infrastructure (Highway Modifications)

For lane conversions, the civil infrastructure consists of sign structures, sign panels, lane striping, and conduit work for power and communications. For gap closure and extension projects, the civil infrastructure includes highway widening to add lanes as well as the signage and communications equipment required for conversions.

The civil contractor will put in place the foundations and structures upon which the toll systems contractor will install the toll equipment. In addition, the civil contractor will construct the infrastructure necessary to provide power and communications to the toll system.

Toll System

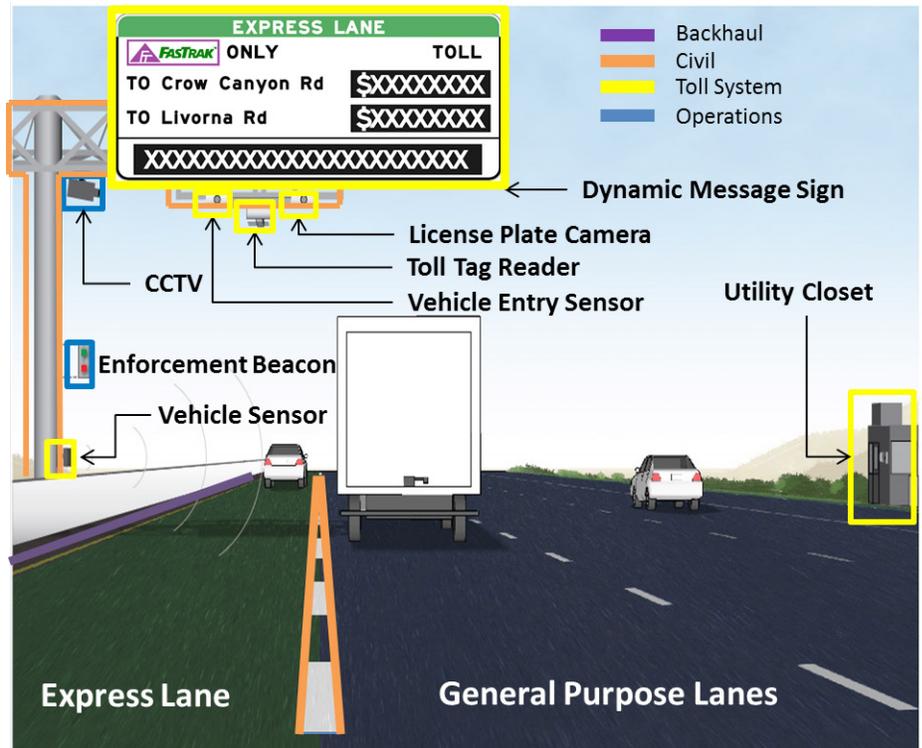
The toll system consists of two components, the in-lane system and the back-end “host” system. The lane system consists of all the equipment on the highway needed to operate the toll system including toll tag readers, cameras and vehicle detection. The host system serves as the brain of the toll system, which collects and processes all the data from the highway and sends it to the regional customer service center for billing.

Backhaul Communications Network

The backhaul network is the communication line along which data collected in the lanes is sent to the toll host system, operations center and regional customer service center. The backhaul contractor will install new conduit and communications fiber as well as utilize existing Caltrans, BART and other infrastructure to build the network. The backhaul network is being designed with the expectation that it will become part of a broader regional communications network.

Operations

The operations element consists of everything that is needed to successfully operate the express lanes including: an operations center, the regional customer service center, enforcement, public outreach, performance monitoring and ongoing maintenance. An express lanes Regional Operations Center will be established in the Bay Area Metrocenter building in San Francisco where operators will actively monitor the condition of the lanes and coordinate with Caltrans and the California Highway Patrol to ensure that the lanes operate efficiently.



For illustrative purposes only

APPENDIX B

I-680 Contra Costa Express Lanes Operations Report

I-680 Contra Costa Express Lanes Performance

4th Quarter, October – December 2017



Bay Area Infrastructure Financing Authority

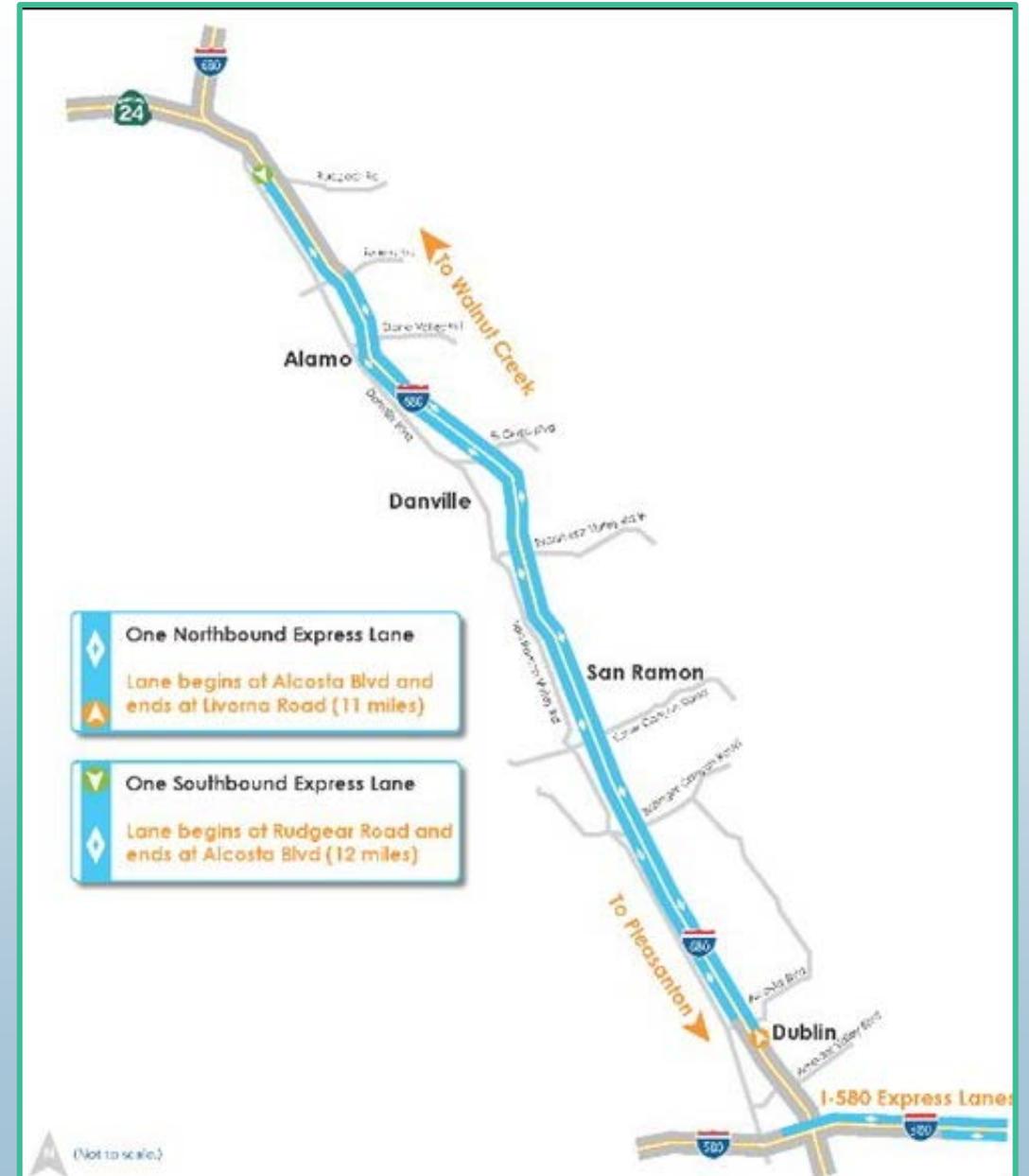
Last Updated: January 26, 2018



METROPOLITAN TRANSPORTATION COMMISSION

Rules of the Road

- Hours: 5 a.m. to 8 p.m. Monday-Friday
- FasTrak[®] required
- Carpools (2+), clean-air vehicles & motorcycles toll-free with FasTrak Flex[®]



Summary of Performance Highlights

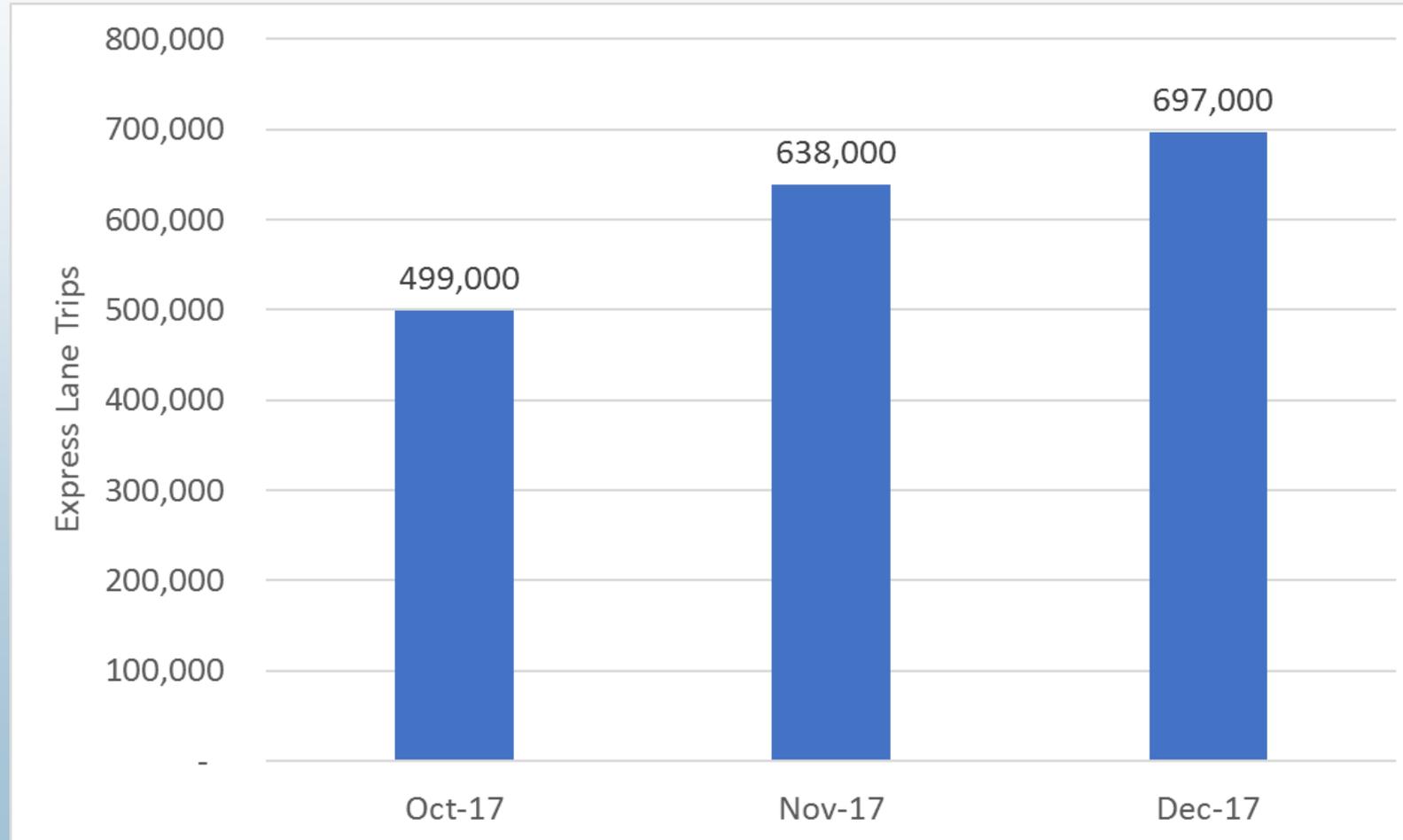


- The express lanes opened on October 9, 2017.
- There were over 1.8 million trips in the express lanes through December.
- In December, 31% of trips were by vehicles declared as carpools. Vehicles without FasTrak[®] accounts represented 9% of all trips.
- In the peak periods, express lane users were able to travel at speeds that were 6 to 9 miles per hour faster than the general purpose lanes, on average in December.
- Peak period tolls paid decreased in December in response to lighter traffic. In December, the average toll paid in the northbound p.m. peak period was \$2.60. In the southbound a.m. peak period it was \$1.60. In the middle of the day, it was \$0.85.
- The highest posted toll to travel the entire corridor during the quarter was \$6.25 in the p.m. peak period in the northbound direction, in October.

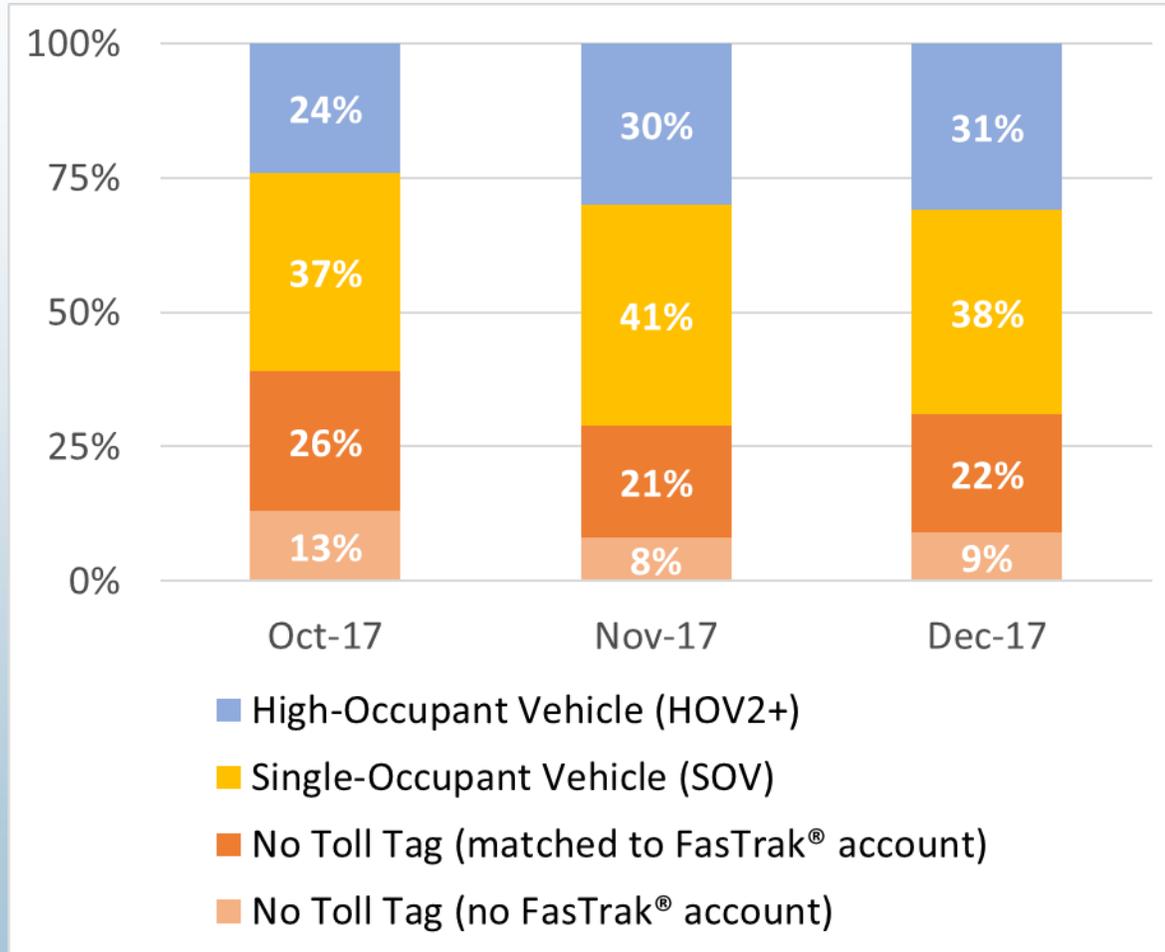


Express Lane Trips

In total, there were over 1.8 million trips taken in the express lanes between October and December.



Express Lane Trip Types



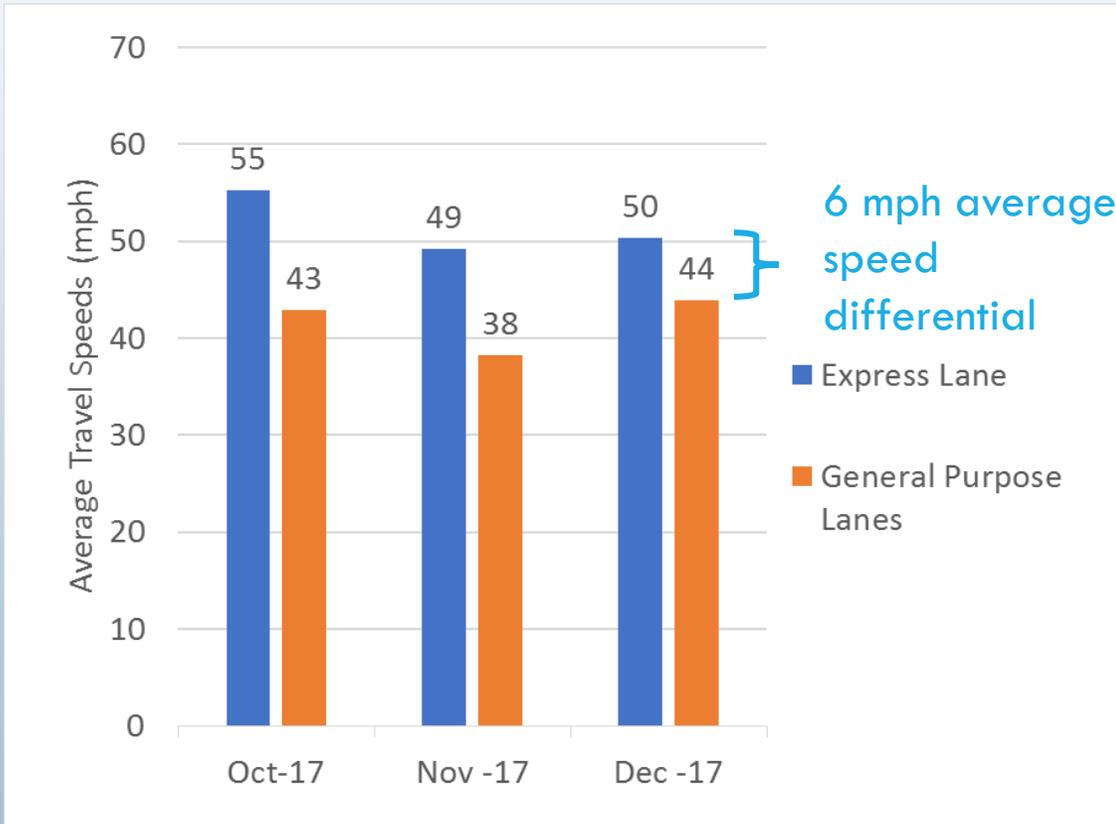
- The number of vehicles declared as carpools, including clean air vehicles eligible to use the lanes toll-free, increased each month. In December, the carpool share was 31%.
- The share of carpool trips in the a.m. and p.m. peak periods runs slightly higher than the overall averages shown at left. In December, the carpool share in peak periods was 32% for a.m. and 36% for p.m.
- Paying customers represented 60% of all users in December. This includes single occupant vehicles and users with no tag that were matched to a FasTrak® account.
- In December 9% of trips were by users without a FasTrak® account (violators).

Percentages of SOVs and HOVs are based on toll tag settings detected by the toll system.

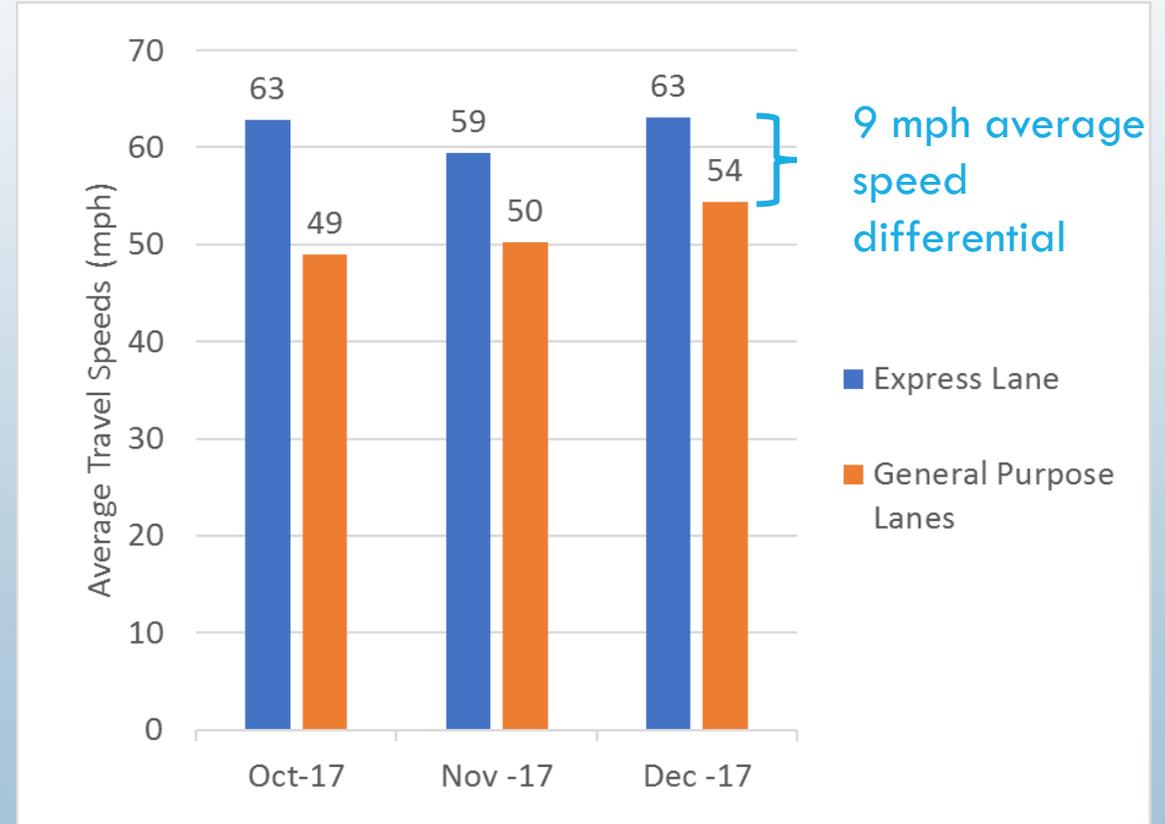
Traffic Speeds

Speeds in the express lanes were an average of 6 to 9 miles faster than those in the general purpose lanes, in December – a slightly smaller difference than in October and November due largely to faster speeds in the general purpose lanes.

Northbound P.M. Peak Hour (5 - 6pm)



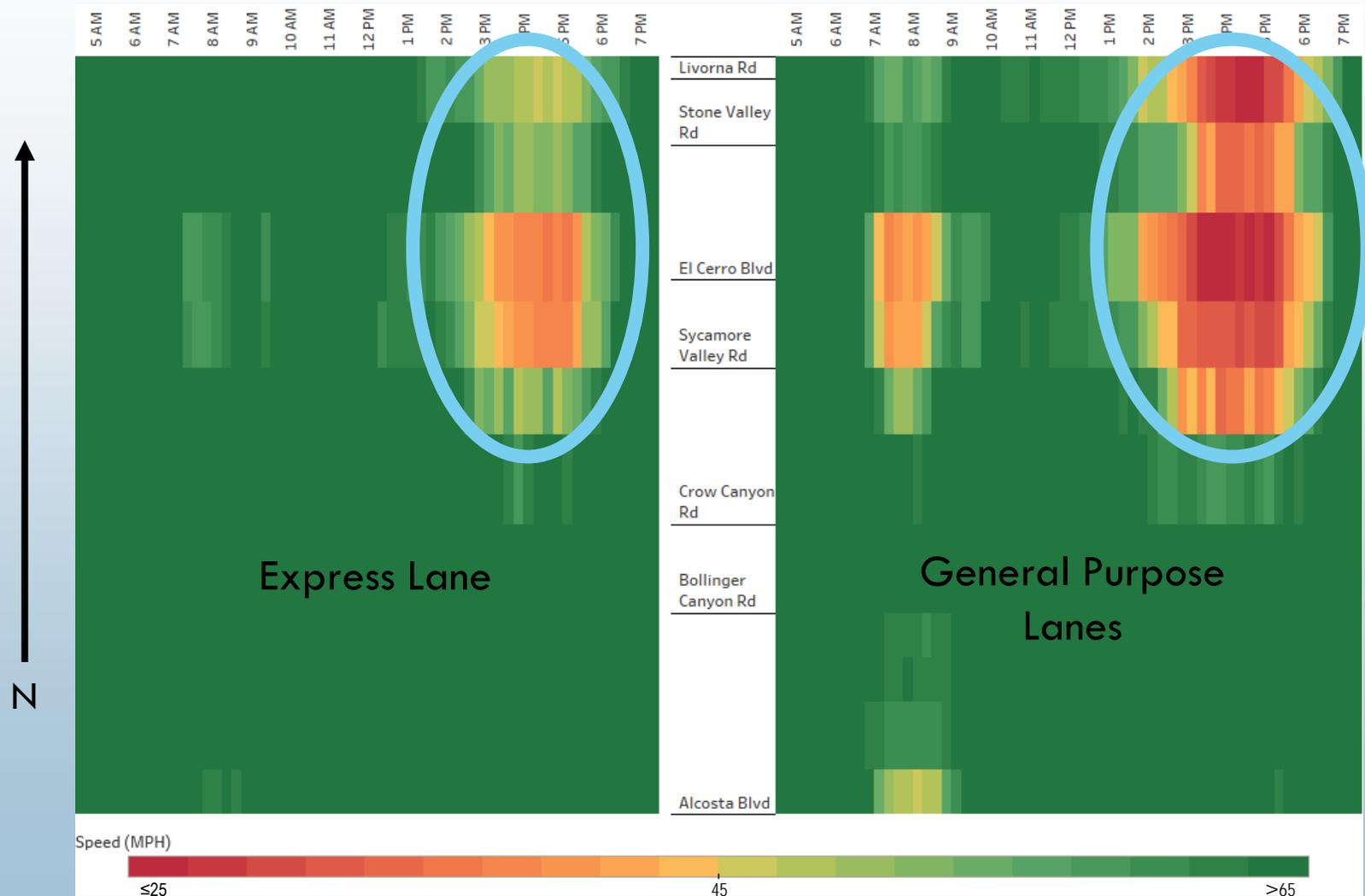
Southbound A.M. Peak Hour (8 - 9am)



Speeds are averaged over the distance of the express lane. Peak hours are defined as the hours with lowest average corridor speeds across all lanes.

Northbound Corridor Speeds

(October 12 – October 31)



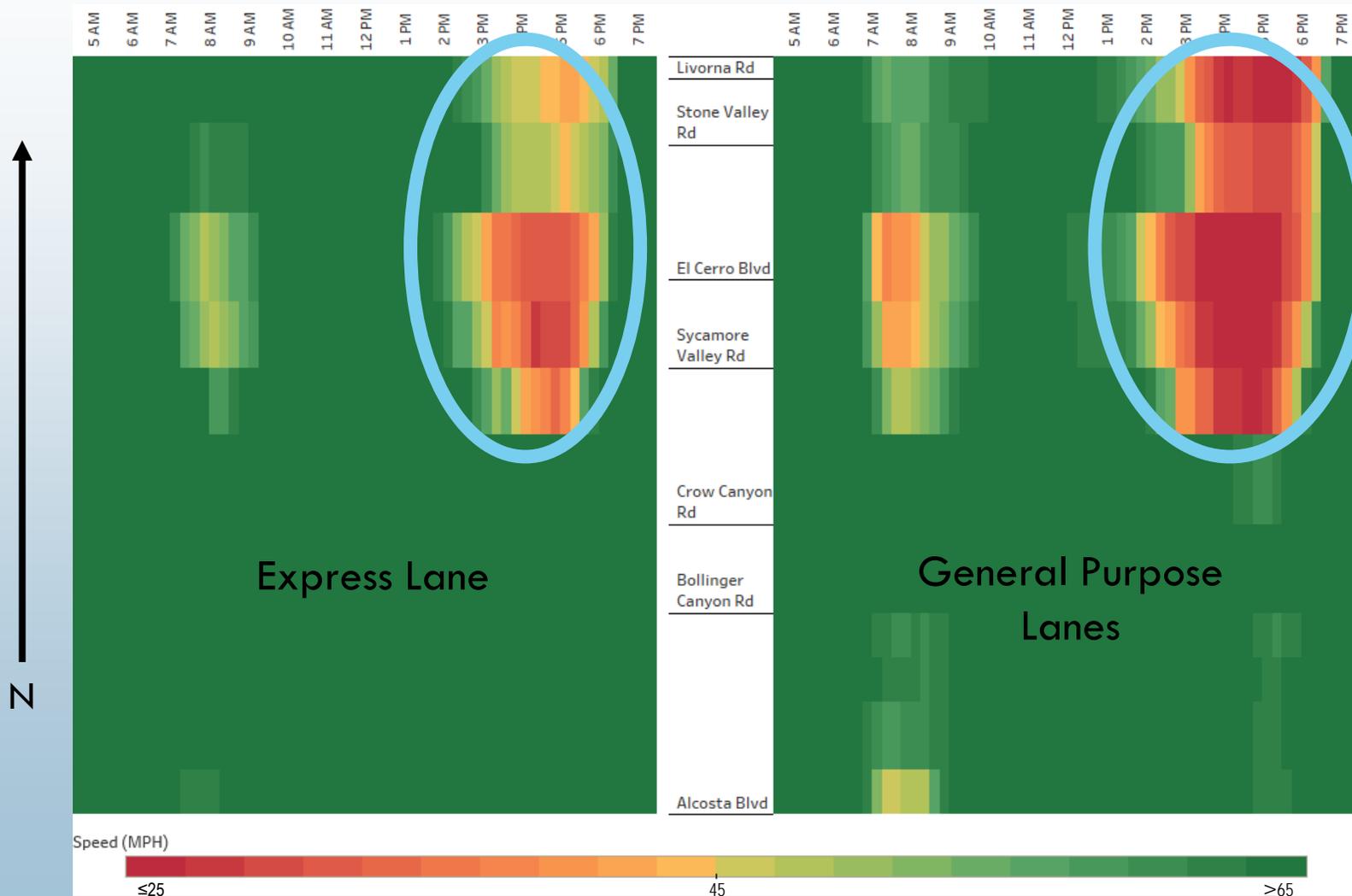
Congestion originating north of the express lane regularly caused the slowdowns shown in the general purpose lanes in the p.m. peak period.

In the congested areas circled at left, express lane users were able to travel an average of 10 mph faster than vehicles in the general purpose lanes.

Traffic flowed well in all lanes during the middle of the day, 10 a.m. to 2 p.m.

Northbound Corridor Speeds

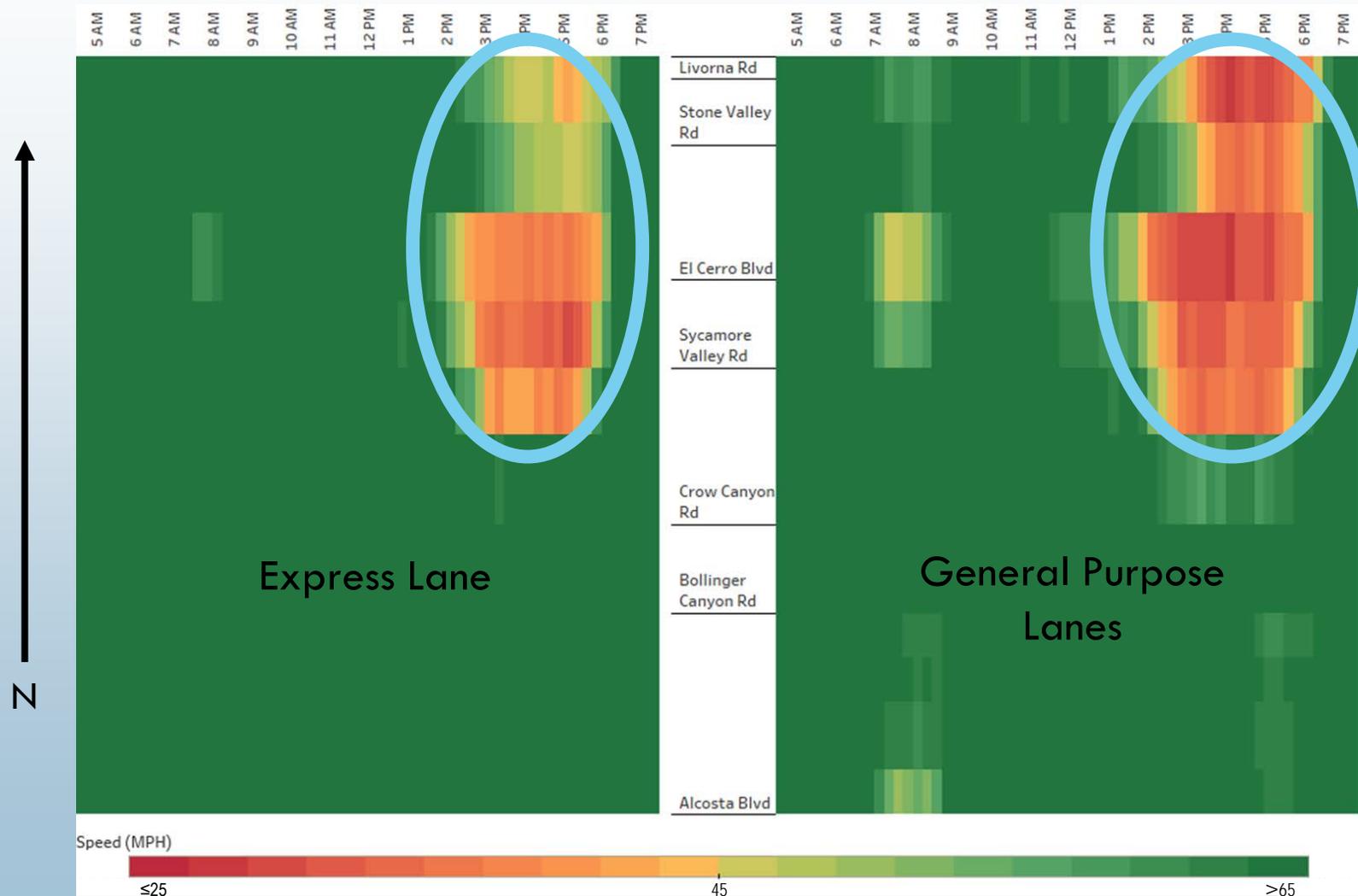
(November 1 – November 30)



The same congestion patterns were present in November with somewhat slower peak period speeds. This may be due to several factors including increased travel, weather, shorter days and the time change in November.

Northbound Corridor Speeds

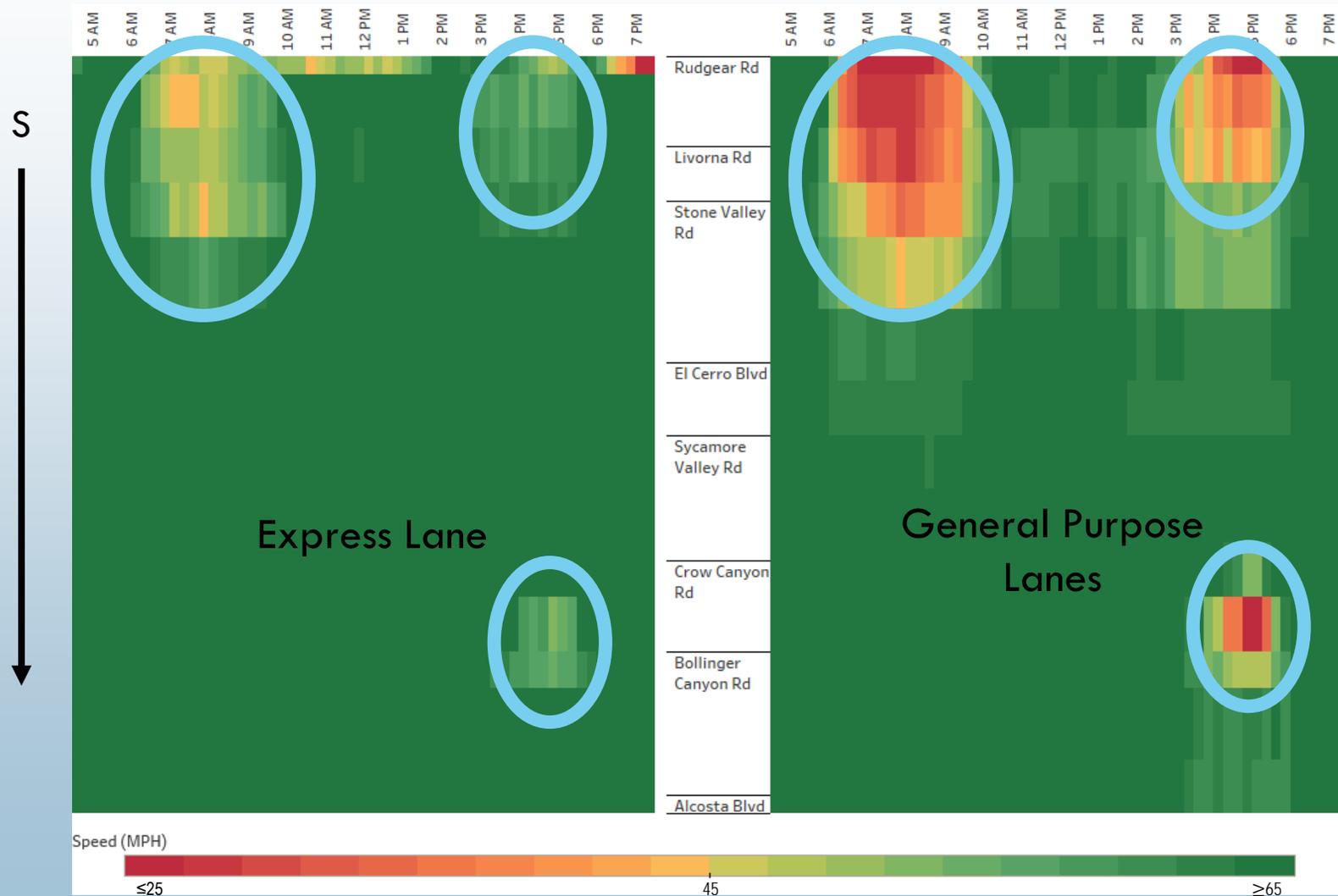
(December 1 – December 31)



Average speeds in the general purpose lanes and the express increased in December. This is reflected by less red shading in the circled areas and less orange and yellow throughout the charts.

Southbound Corridor Speeds

(October 12 – October 31)

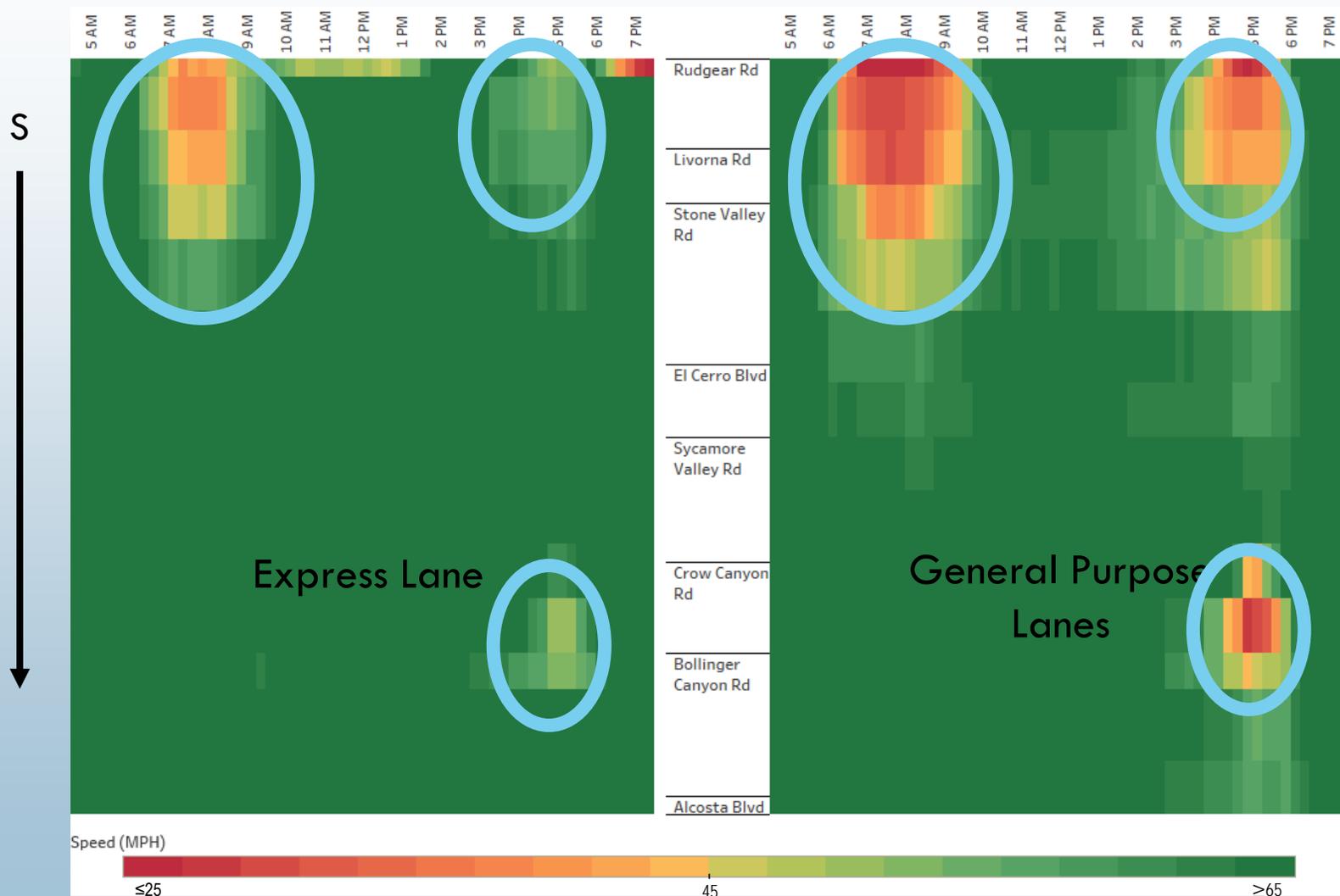


As shown on the right, slowdowns regularly occurred in the general purpose lanes between Rudgear Rd. and Stone Valley Rd. in both the a.m. and p.m. peak periods, and near Bollinger Canyon Rd. in the p.m. peak.

In the congested areas circled at left, express lane users were able to travel an average of 10 mph faster than vehicles in the general purpose lanes.

Southbound Corridor Speeds

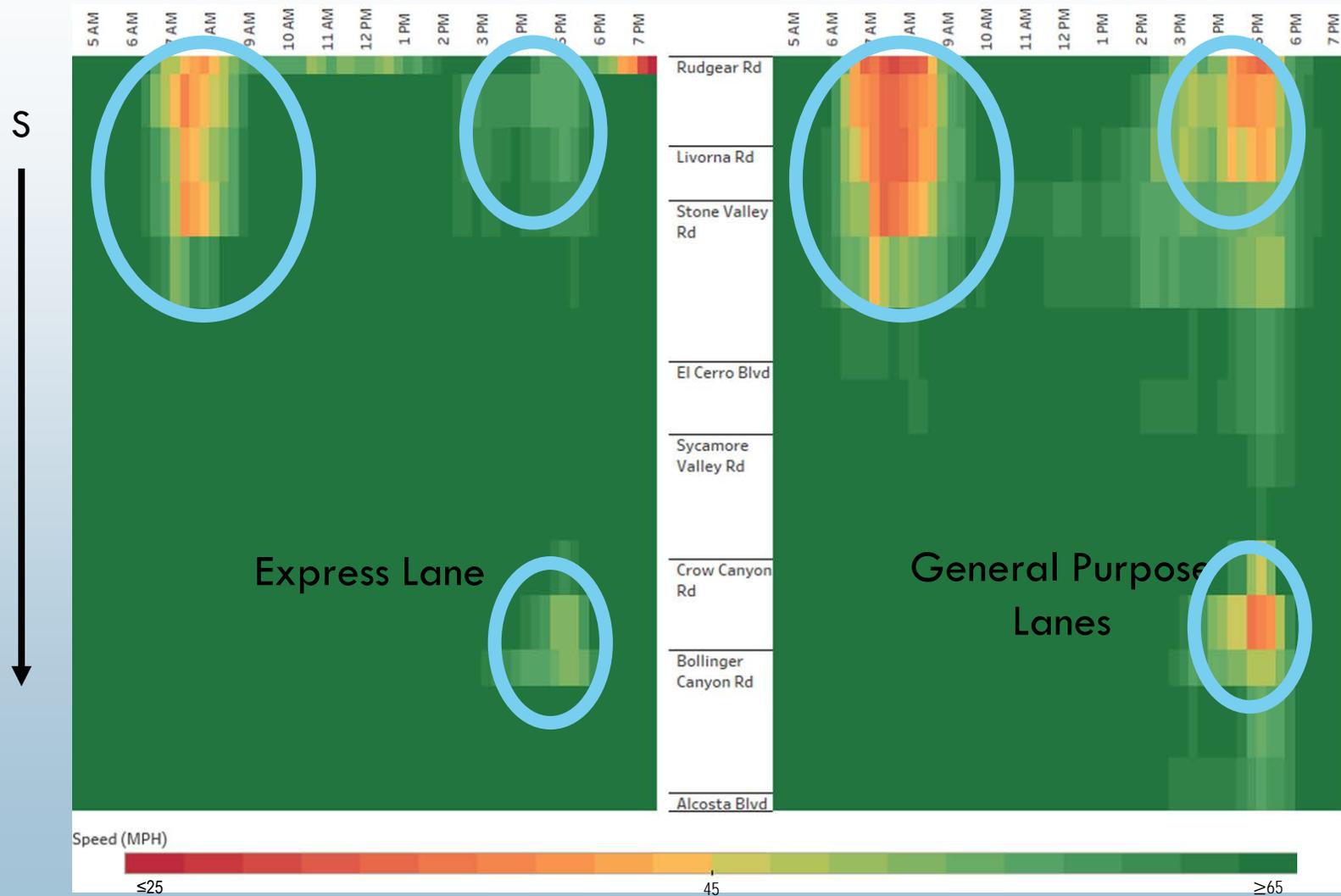
(November 1 – November 30)



The same congestion patterns were present in November with somewhat slower peak period speeds in the a.m. in the express lane. This may be due to several factors including increased travel, weather, shorter days and the time change in November.

Southbound Corridor Speeds

(December 1 – December 31)

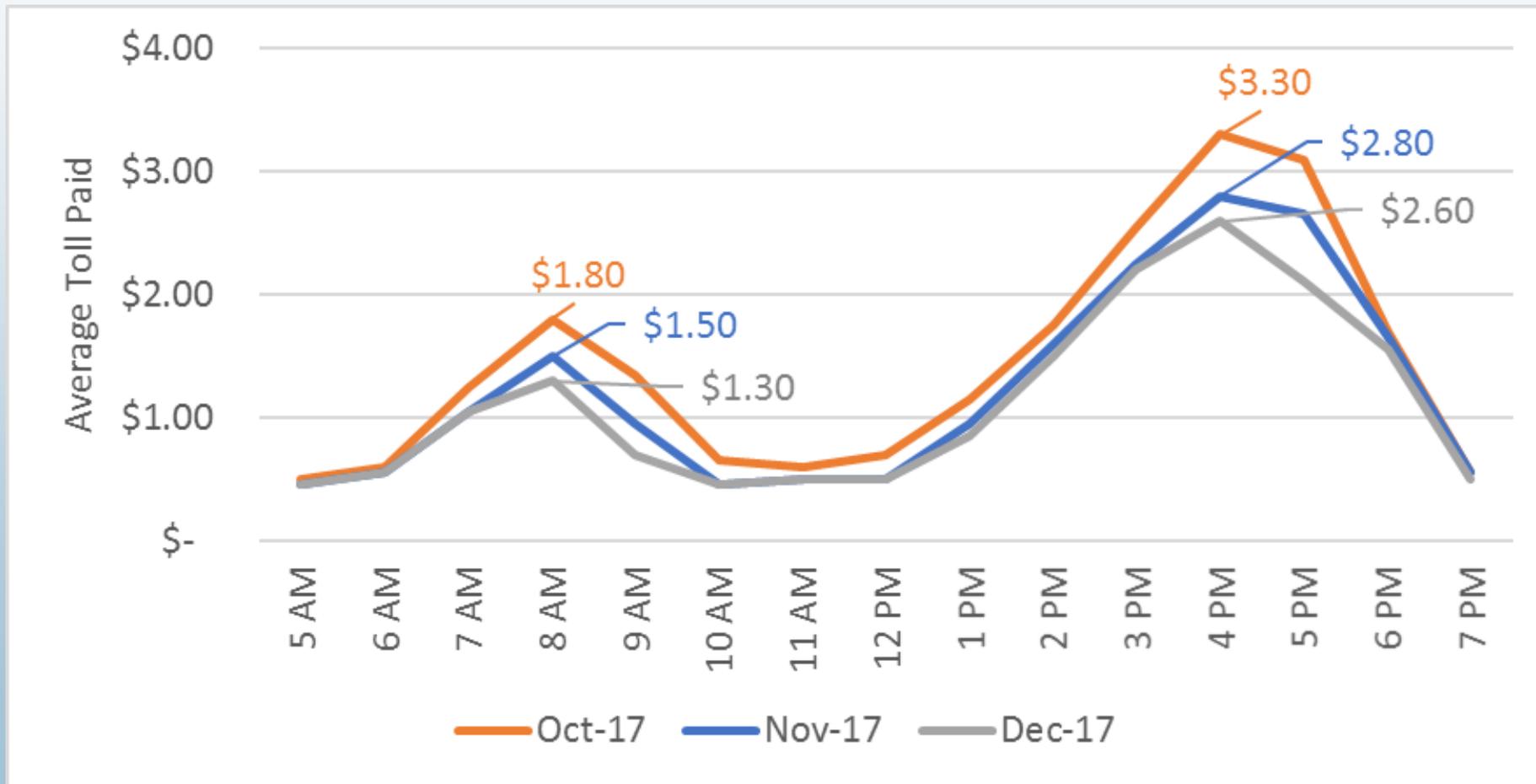


Average speeds in the general purpose lanes and the express lane increased in December. This is reflected by less red shading in the circled areas.

Northbound Tolls

(October 12 – December 31)

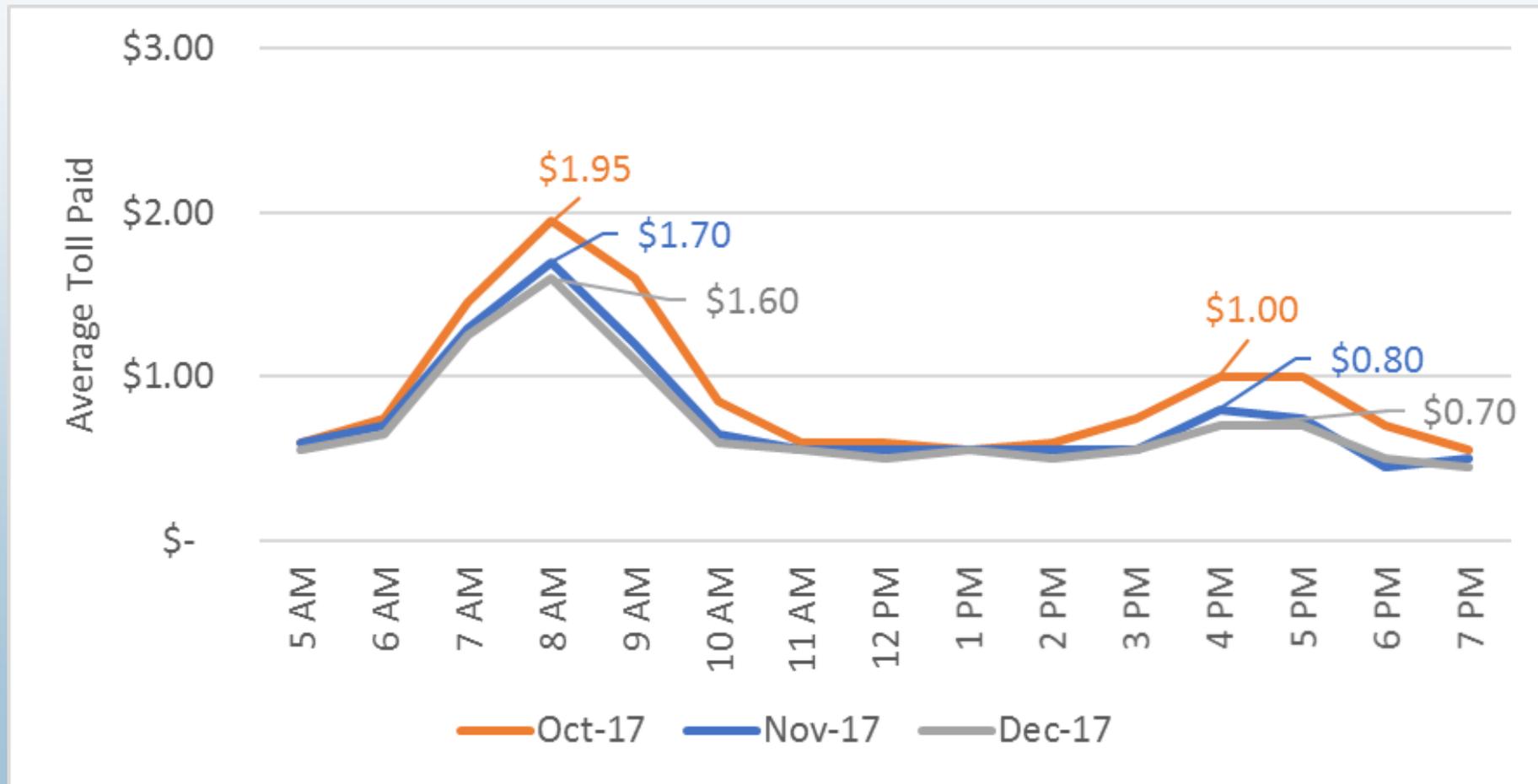
The graph below shows the average toll paid by time of day for the northbound direction. The highest toll posted to travel the entire corridor was \$6.25.



Southbound Tolls

(October 12 – December 31)

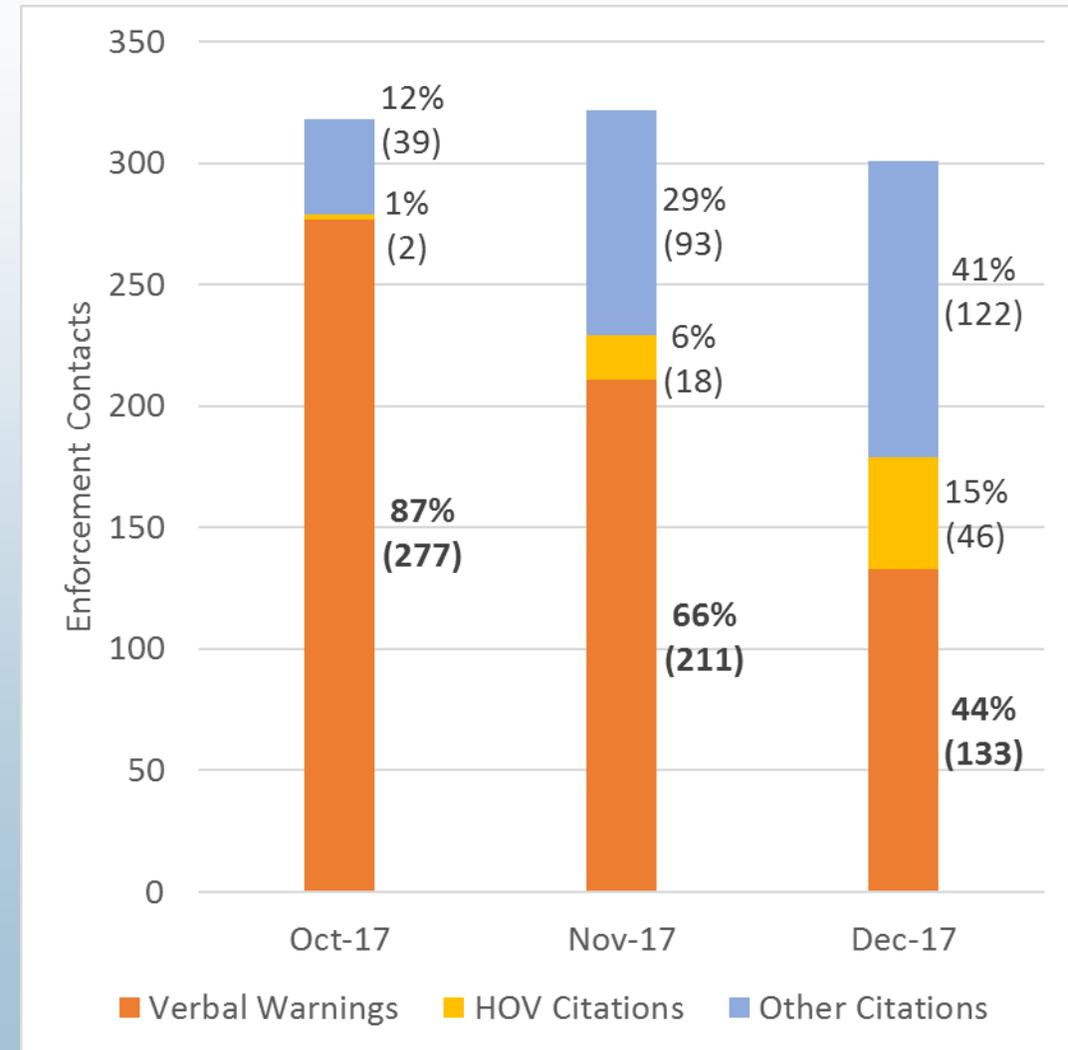
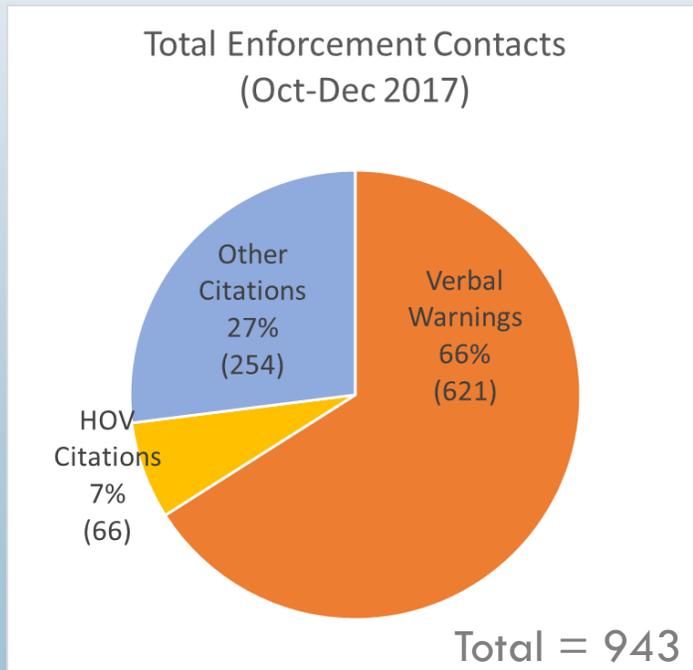
The graph below shows the average toll paid by time of day for the southbound direction. The highest toll posted to travel the entire corridor was \$4.50.



CHP Enforcement

(October 9 – December 31)

- The number of HOV citations increased and the number of verbal warnings decreased from October to December.



For more information, go to: mtc.ca.gov/express-lanes

