



I-580 Express Lane Policy Committee Meeting Agenda Monday, May 14, 2018, 10:00 a.m.

Committee Chair:	Nate Miley, Alameda County, District 4	Executive Director:	Arthur L. Dao
Vice Chair:	David Haubert, City of Dublin	Staff Liaison:	Elizabeth Rutman
Members:	Scott Haggerty, John Marchand, Jerry Thorne	Clerk of the Commission:	Vanessa Lee
Ex-Officio:	Richard Valle, Pauline Cutter		

1. Call to Order/Pledge of Allegiance

2. Roll Call

3. Public Comment

4. Consent Calendar

Page/Action

4.1. [Approve April 9, 2018 I-580 Express Lane PC Meeting Minutes](#) 1 A

5. Regular Matters

5.1. [Express Lanes Toll Revenue Forecasting \(PN 1486002\): Approve Release of Request For Proposal \(RFP\) for I-580 Toll System Integrator and RFP for Express Lane System Manager/Program Support and Authorize negotiations with top ranked firms](#) 5 A

5.2. [I-580 Express Lanes: Monthly Operations Status Update](#) 7 I

6. Committee Member Reports

7. Staff Reports

8. Adjournment

Next Meeting: Monday, June 11, 2018

Notes:

- All items on the agenda are subject to action and/or change by the Commission.
- To comment on an item not on the agenda (3-minute limit), submit a speaker card to the clerk.
- Call 510.208.7450 (Voice) or 1.800.855.7100 (TTY) five days in advance to request a sign-language interpreter.
- If information is needed in another language, contact 510.208.7400. Hard copies available only by request.
- Call 510.208.7400 48 hours in advance to request accommodation or assistance at this meeting.
- Meeting agendas and staff reports are available on the [website calendar](#).
- Alameda CTC is located near 12th St. Oakland City Center BART station and AC Transit bus lines. [Directions and parking information](#) are available online.



Alameda CTC Schedule of Upcoming Meetings:

Commission Chair
Supervisor Richard Valle, District 2

Commission Vice Chair
Mayor Pauline Cutter,
City of San Leandro

AC Transit
Board President Elsa Ortiz

Alameda County
Supervisor Scott Haggerty, District 1
Supervisor Wilma Chan, District 3
Supervisor Nate Miley, District 4
Supervisor Keith Carson, District 5

BART
Director Rebecca Saltzman

City of Alameda
Mayor Trish Spencer

City of Albany
Councilmember Peter Maass

City of Berkeley
Mayor Jesse Arreguin

City of Dublin
Mayor David Haubert

City of Emeryville
Mayor John Bauters

City of Fremont
Mayor Lily Mei

City of Hayward
Mayor Barbara Halliday

City of Livermore
Mayor John Marchand

City of Newark
Councilmember Luis Freitas

City of Oakland
Councilmember At-Large
Rebecca Kaplan
Councilmember Dan Kalb

City of Piedmont
Vice Mayor Teddy Gray King

City of Pleasanton
Mayor Jerry Thorne

City of Union City
Mayor Carol Dutra-Vernaci

Executive Director
Arthur L. Dao

Description	Date	Time
Alameda County Technical Advisory Committee (ACTAC)	June 7, 2018	1:30 p.m.
Finance and Administration Committee (FAC)	June 11, 2018	8:30 a.m.
I-680 Sunol Smart Carpool Lane Joint Powers Authority (I-680 JPA)		9:30 a.m.
I-580 Express Lane Policy Committee (I-580 PC)		10:00 a.m.
Planning, Policy and Legislation Committee (PPLC)		10:30 a.m.
Programs and Projects Committee (PPC)		12:00 p.m.
Independent Watchdog Committee (IWC)	July 9, 2018	5:30 p.m.
Paratransit Technical Advisory Committee (ParaTAC)	September 11, 2018	9:30 a.m.
Alameda CTC Commission Meeting	May 24, 2018	2:00 p.m.
Paratransit Advisory and Planning Committee (PAPCO)	May 21, 2018	1:30 p.m.
Bicycle and Pedestrian Community Advisory Committee (BPAC)	June 28, 2018	5:30 p.m.

All meetings are held at Alameda CTC offices located at 1111 Broadway, Suite 800, Oakland, CA 94607. Meeting materials, directions and parking information are all available on the [Alameda CTC website](http://www.AlamedaCTC.org).



I-580 Express Lane Policy Committee
Meeting Minutes
Monday, April 9, 2018, 10:00 a.m.

4.1

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1. Call to Order/Pledge of Allegiance

2. Roll Call

A roll call was conducted. All members were present with the exception of Commissioner Valle.

3. Public Comment

There were no public comments.

4. Consent Calendar

4.1. Approve the March 12, 2018 I-580 Express Lane PC meeting minutes.

Commissioner Haggerty moved to approve this item. Commissioner Marchand seconded the motion. The motion passed with the following votes:

Yes: Miley, Haubert, Haggerty, Marchand, Thorne, Cutter
No: None
Abstain: None
Absent: Valle

5. Regular Matters

5.1. I-580 Express Lanes (PN 1373.002): Approve Amendment No. 2 to Service Agreement 15R390000 with the California Highway Patrol to extend the term of the agreement for two additional years and an additional budget of \$800,000 for a total not-to exceed amount of \$1,806,000

Liz Rutman recommended that the Commission approve Amendment No. 2 to Service Agreement 15R390000 with the California Highway Patrol to extend the term of the agreement for two additional years and an additional budget of \$800,000 for a total not-to exceed amount of \$1,806,000. She noted that adjustments to the staffing plan were made beginning in January 2018. These changes have increased staffing and enabled CHP to fill the shifts more consistently, significantly increasing the patrol hours devoted to the express lane corridor. The fiscal impact for approving this item is \$800,000 of toll-revenue funds, which will be included in the I-580 Express Lanes Operating Budgets adopted for FY2018-19 and FY2019-20.

Commissioner Haggerty encouraged the CHP to issue more citations and less verbal warnings. He then moved to approve this item. Commissioner Thorne seconded the motion. The motion passed with the following vote:

Yes: Miley, Haubert, Haggerty, Marchand, Thorne, Cutter
No: None
Abstain: None
Absent: Valle

5.2. Interstate 580 Express Lanes Expenditure Plan for the Fiscal Years 2016-17 through 2035-36

Liz Rutman recommended that the Commission approve the Interstate 580 Express Lanes Expenditure Plan for the Fiscal Years 2016-17 through 2035-36. Ms. Rutman stated that the Expenditure Plan incorporates Alameda CTC's goals and standards for the Express Lanes program, the project I-580 Express Lanes operating and non-operating expenditures, and the projected revenues, for the next twenty years. She stated that updates to the Expenditure Plan are expected to be prepared biennially, and funding will then be programmed in future expenditure plan documents as the anticipated year that net revenues will be available for investment in the I-580 corridor becomes more clear.

Commissioner Haggerty asked if it would be more cost effective to get a \$20-million insurance policy as opposed to holding the \$20-million in reserve. Mr. Dao stated that the reserve policy is based on best practices, and Steve Mattas, legal counsel, noted that there are items in the reserve that are contractual obligations that would thus not be insurable under that proposed scenario.

Commissioner Haggerty wanted to know if staff had looked at other toll reserve amounts put in place but other toll operators in California. Mr. Mattas and Ms. Rutman noted that staff had not researched other agencies toll reserves but could look into best practices across the state.

Commissioner Haggerty asked for more information on the Measure B loan repayment mentioned in the expenditure plan. Mr. Dao stated that in 2010 the Commission approved a \$38-million loan from the Measure B program in order to fund the project shortfall.

Commissioner Haggerty moved to approve this item. Commissioner Marchand seconded the motion. The motion passed with the following vote:

Yes: Miley, Haubert, Haggerty, Marchand, Thorne, Cutter
No: None
Abstain: None
Absent: Valle

5.3. I-580 Express Lanes: Monthly Operations Status Update

Ashley Tam presented the I-580 Express Lanes monthly operations update for the month of February. The update covered average trips by month; user trip breakdown; corridor speed and density heat maps for both directions of travel; and historical toll rates. She concluded by reviewing estimated gross toll revenues versus approved fiscal year operating budget.

Commissioner Haubert wanted to know roughly the duration of time that the system reaches the max toll. Ms. Tam noted that staff could include that information in the next report.

This item was for information only.

6. Committee Member Reports

There were no committee reports.

6. Staff Reports

Art Dao noted that the I-680 Northbound Express Lane groundbreaking will take place on April 19, 2018.

7. Adjournment/ Next Meeting

The next meeting is:

Date/Time: Monday, May 14, 2018 at 10:00a.m.

Location: Alameda CTC Offices, 1111 Broadway, Suite 800, Oakland, CA 94607

Attested by:



Vanessa Lee, Clerk of the Commission

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DATE: May 7, 2018

TO: I-580 Express Lane Policy Committee

FROM: Liz Rutman, Director of Express Lanes Implementation and Operations

SUBJECT: Express Lanes Toll Revenue Forecasting (PN 1486002): Approve Release of Request For Proposal (RFP) for I-580 Toll System Integrator and RFP for Express Lane System Manager/Program Support and Authorize negotiations with top ranked firms

Recommendation

It is recommended that the Commission approve the release of a request for proposals (RFP) for Professional Services to develop toll revenue forecasts for the I-580 Express Lanes and I-680 Sunol Express Lanes and authorize the Executive Director to negotiate with the top ranked firms.

Summary

The Alameda CTC operates and maintains both the I-580 Express Lanes and the I-680 Sunol Express Lane, the latter on behalf of the Sunol Smart Carpool Lane Joint Powers Authority (Sunol JPA). Toll revenue forecasts were most recently prepared in 2013 for the I-580 Express Lanes and for the Northbound I-680 Sunol Express Lane. The I-580 Express Lanes have been in operation for more than two years and the revenues have exceeded those reflected in the forecasts. Actual usage data indicates that there is a need to update forecasted toll revenues for both corridors.

Background

Preliminary Traffic and Revenue (T&R) forecasts for the I-580 Express Lanes were prepared in 2005 for the eastbound direction and in 2009 for the westbound direction. In 2013, forecasts were revised for both directions to account for impacts associated with the economic recession and the change in operational configuration, from limited, to near-continuous access. Several forecasts were generated based on different operational assumptions, including implementation of both HOV2+ and HOV3+ policies. The I-580 Express Lanes currently operate as an HOV2+ facility: vehicles detected with a FasTrak® Flex tag in either an HOV2 or HOV3+ setting are granted toll-free use of the facility at all times.

The 2013 study of the I-580 Express Lanes, which assumed an opening year of 2015, forecasted revenues for 2017 under an HOV2+ policy of just under \$3 million. Although the express lanes did not open until early 2016, in fiscal year 2016-17, which was the I-580 Express Lanes' first full fiscal year of operations, the gross toll revenue exceeded \$10 million. A review of the 2013 T&R forecast in comparison to actual data from the I-580 Express Lanes' toll system shows that the projected usage by HOV/HOV-eligible vehicles that enjoy free travel in the express lanes was significantly different. The T&R study projected that 2015 usage by HOV/HOV-eligible vehicles would be 55% in the eastbound direction and 86% in the westbound direction, and continued to increase each year. However, current data shows that approximately 44% of eastbound and 47% of westbound users are HOV/HOV-eligible. This inaccurate projection is considered the leading cause of the low revenue projections in the 2013 forecast.

Similarly, a T&R study for the northbound I-680 Sunol Express Lane currently under construction was last prepared in 2013 and projected a 77% usage by HOV2+ vehicles. Based on current I-580 data, usage of HOV2+ vehicles on the I-680 was likely overstated in the 2013 T&R study; therefore, correspondingly, it is expected that the revenue forecast was underestimated.

The I-580 Toll Revenue Expenditure Plan approved last month used current toll revenues escalated at 3% per year as a basis for the plan. However, given that the previous forecasts have been invalidated, staff does not feel that these projections can be relied upon. At this time, staff is seeking a more comprehensive, 20-year forecast utilizing more recent data and information. The model calibration is expected to be more extensive than previous efforts since it will utilize actual operating data and information, which will help to ensure a more accurate forecast. Once the I-580 Express Lanes' forecast is completed, the consultant will apply the same usage assumptions to the future I-680 Express Lanes to configure and develop T&R forecasts for that corridor.

Staff recommends that the Commission approve the release of an RFP for Professional Services to develop toll revenue forecasts for the I-580 Express Lanes and I-680 Sunol Express Lanes and authorize the Executive Director to negotiate with the top ranked firms.

Fiscal Impact: There is no fiscal impact associated with the requested action.



Memorandum

5.2

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DATE: May 7, 2018

TO: I-580 Express Lane Policy Committee

FROM: Liz Rutman, Director of Express Lanes Implementation and Operations

SUBJECT: I-580 Express Lanes (PN 1373.002): Monthly Operation Update

Recommendation

This item is to provide the Commission with an update on the operation of the I-580 Express Lanes. This item is for information only.

Summary

The Alameda CTC is the project sponsor of the I-580 Express Lanes, located in the Tri-Valley corridor through the cities of Dublin, Pleasanton, and Livermore, which opened to traffic on February 19th and 22nd of 2016. See Attachment A for express lane operation limits.

The March 2018 operations report indicates that the express lane facility continues to provide travel time savings and travel reliability throughout the day. Express lane users typically experienced higher speeds and lesser average lane densities than the general purpose lanes, resulting in a more comfortable drive and travel time savings for express lane users.

Background

The I-580 Express Lanes, extending from Hacienda Drive to Greenville Road in the eastbound direction and from Greenville Road to San Ramon Road/Foothill Road in the westbound direction, were opened to traffic on February 19th and 22nd of 2016 in the eastbound and westbound directions, respectively. Motorists using the I-580 Express Lanes facility benefit from travel time savings and travel reliability as the express lanes optimize the corridor capacity by providing a new choice to drivers. Single occupancy vehicles (SOVs) may choose to pay a toll and travel within the express lanes, while carpools, clean-air vehicles, motorcycles, and transit vehicles enjoy the benefits of toll-free travel in the express lanes.

An All Electronic Toll (AET) collection method has been employed to collect tolls. Toll rates are calculated based on real-time traffic conditions (speed and volume) in express and general purposes lanes and can change as frequently as every three minutes. California Highway Patrol (CHP) officers provide enforcement services and the California Department of Transportation (Caltrans) provides roadway maintenance services through reimbursable service agreements.

March 2018 Operations Update:

Nearly 700,000 express lane trips were recorded during operational hours in March, an average of approximately 31,800 daily trips. Table 1 presents the breakdown of trips based on toll classification and direction of travel. Pursuant to the Commission-adopted "Ordinance for Administration of Tolls and Enforcement of Toll Violations for the I-580 Express Lanes," if a vehicle uses the express lanes without a valid FasTrak® toll tag then the license plate read by the Electronic Tolling System is used to either assess a toll either by means of an existing FasTrak account to which the license plate is registered or by issuing a notice of toll evasion violation to the registered vehicle owner. Approximately 65 percent of all trips by users without a toll tag are assessed tolls via FasTrak account.

Table 1. Express Lane Trips by Type and Direction

Trip Classification		Percent of Trips ¹
		March
By Type	HOV-eligible with FasTrak flex tag	45%
	SOV with FasTrak standard or flex tag	37%
	No valid toll tag in vehicle	18%
By Direction	Westbound	45%
	Eastbound	55%

1. Excludes "trips" by users that had no toll tag and either no license plate or one that could not be read by the Electronic Tolling System with sufficient accuracy that a toll could be assessed.

Express lane users typically experience higher speeds and lesser lane densities than the general purpose lanes. Lane density is measured by the number of vehicles per mile per lane and reported as Level of Service (LOS). LOS is a measure of freeway performance based on vehicle maneuverability and driver comfort levels, graded on a scale of A (best) through F (worst). Table 2 summarizes the average speed differentials and LOS comparison between the express and general purpose lanes at four locations in each of the westbound and eastbound directions during respective commute hours for March. This table provides an overall snapshot of the express lane benefits for the month during commute hours.

Attachment B presents the speed and density heat maps for the I-580 corridor during revenue hours for the six-month period from October 2017 – March 2018. These heat maps

are a graphical representation of the overall condition of the corridor, showing the average speeds and densities along the express lane corridor and throughout the day for both the express and general purpose lanes, and are used to evaluate whether the express lane is meeting both federal and state performance standards. During these six months, the average speeds at each traffic sensor location in the westbound express lane ranged from 55 to 70 mph during the morning commute hours (5 am to 11 am) with the lower speeds occurring between Isabel Avenue and Hacienda Road. The express lane operated at LOS C or better at most times, with a short one-hour period of LOS D experienced near Fallon Road and Isabel Ave in the morning commutes. By comparison, the general purpose lanes experienced average speeds as low as 40 mph and LOS D throughout longer sections of the corridor. During the evening commute, a small period of westbound reverse-commute congestion between Hacienda Road and San Ramon Road is observed from 3 pm to 6 pm, though the express lane continued to operate at LOS B or better during this time. Outside of the commute hours, westbound express lane users experience average speeds of 70 mph or higher and average LOS A.

Table 2. Speed Differentials and Level of Service

	Direction	I-580 in the Vicinity of	Speed Differential Range (mph)	Average Speed Differential (mph)	Average Express Lane LOS	Average General Purpose Lane LOS
March	Westbound Morning Commute: 5 am – 11 am	North First Street	4 - 7	5	B	C
		North Livermore Ave	1 - 5	3	B	C
		Fallon Road	2 - 10	6	C	D
		Santa Rita Road	13 - 19	15	B	D
	Eastbound Evening Commute: 2 pm – 7 pm	Hacienda Drive	16 – 26	22	D	F
		Airway Blvd	7 – 11	8	B	D
		North Livermore Ave	5 – 10	7	B	C
		North First Street	5 - 17	10	B	D

In the eastbound direction, average express lane speeds from October 2017 through March 2018 ranged from 25 to 70 mph during the evening commute hours (2 pm – 7 pm) with the lowest speeds occurring at the eastern terminus of the express lanes, between Vasco Road and Greenville Road. Average express lane speeds throughout the rest of the day exceeded 70 mph. Most of the express lane corridor operates at LOS C or better during the evening commute hours, with limited sections of degraded LOS at the western end of the express lanes between 3 pm and 6 pm and at the eastern terminus between 3 pm and 7 pm. The express lanes averaged LOS B or better throughout the rest of the day in all locations. By comparison, the general purpose lanes experienced lower speeds and degraded levels of services for longer periods of time than the express lane during the evening commute hours.

Table 3 presents the maximum posted toll rates to travel the entire corridor in each direction, along with the average toll assessed to non-HOV users.

Table 3. Toll Rate Data

Month	Direction	Maximum Posted Toll (Travel Entire Corridor)	Average Assessed ¹ Toll (All Toll Trips)
March	Westbound	\$12.50 (1 of 22 days)	\$2.48
	Eastbound	\$9.50 (19 of 22 days)	\$3.37

¹ Assessed toll is the toll rate applied to non-toll-free trips and reflects potential revenue generated by the trip. Not all potential revenue results in actual revenue received.

During Fiscal Year 2017-18, the I-580 Express Lanes have recorded nearly 6.05 million total trips. Total gross revenues received include \$8.80 million in toll revenues and \$2.61 million in violation fees and penalties.

Staff is coordinating education and outreach with partner agencies including CCTA, MTC, 511 Contra Costa as well as local CMAs to promote consistent messaging and accessible information about the I-580, I-680 Sunol, and the I-680 Contra Costa County express lanes, which opened on October 9, 2017.

Fiscal Impact: There is no fiscal impact associated with the requested action.

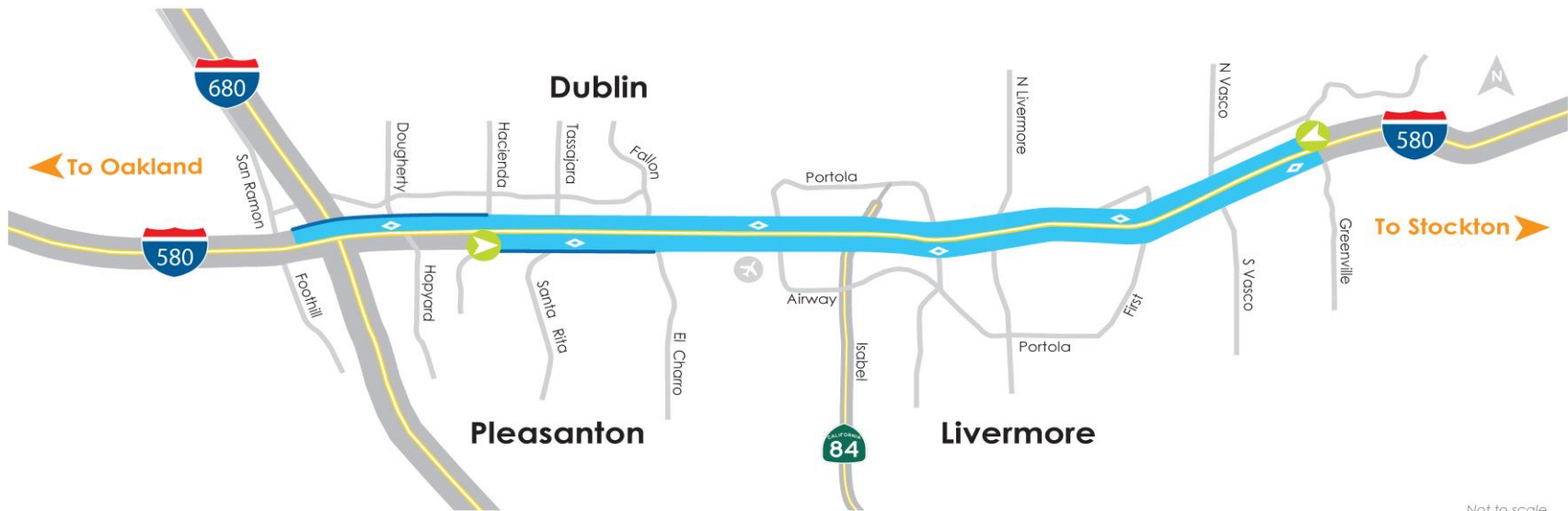
Attachments:

- A. I-580 Express Lanes Location Map
- B. I-580 Corridor Express Lanes Heat Maps October 2017 – March 2018



I-580 Express Lanes Project Location Map

5.2A



Not to scale



Two Eastbound Express Lanes

Lanes begin at Hacienda

No entry/exit from eastbound express lanes from Hacienda to Fallon / El Charro.

Please note: For access to Santa Rita Road, do not enter express lanes.



One Westbound Express Lane

Lane begins at Greenville

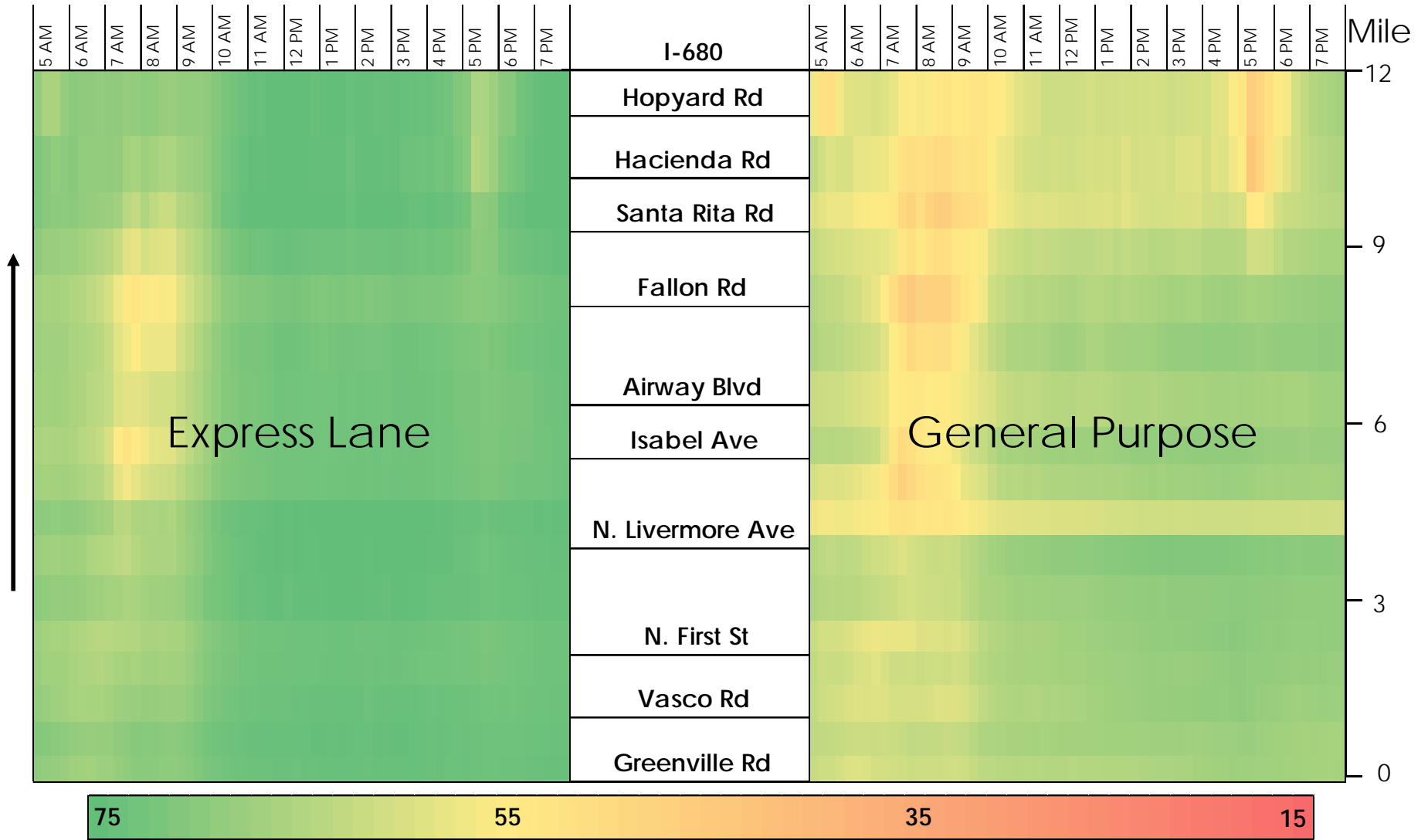
No entry/exit from westbound express lane from Hacienda to end.

Please note: For access to I-680 or Dougherty, exit express lane before Hacienda.

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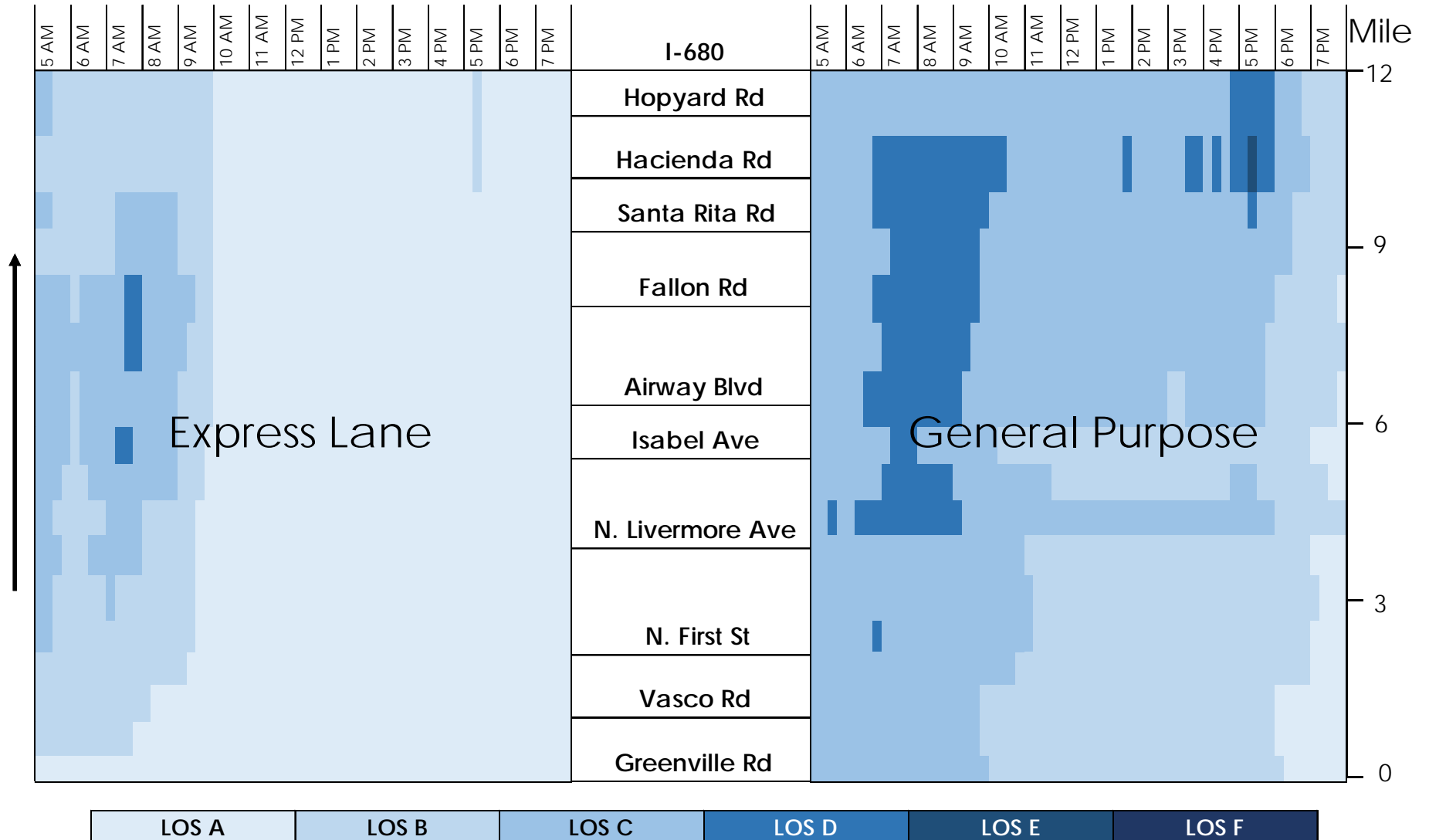
Westbound I-580 Corridor Speed Heat Maps

Monday-Friday, October 2017 – March 2018



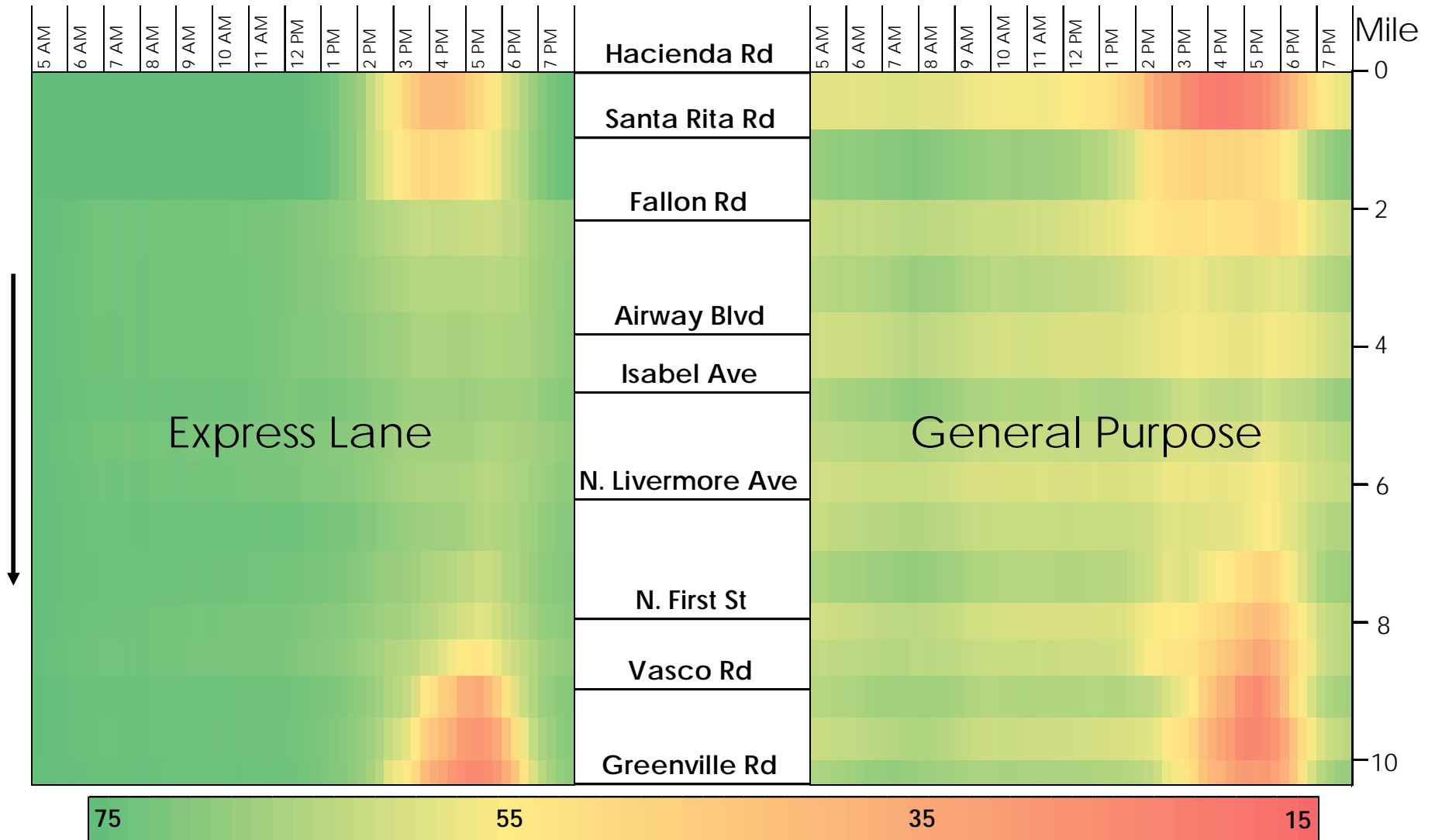
Westbound I-580 Corridor Density Heat Maps

Monday-Friday, October 2017 – March 2018



Eastbound I-580 Corridor Speed Heat Maps

Monday-Friday, October 2017 – March 2018



Eastbound I-580 Corridor Density Heat Maps

Monday-Friday, October 2017 – March 2018

