



I-580 Express Lane Policy Committee Meeting Minutes Monday, March 13, 2017, 10:00 a.m.

3.1

1111 Broadway, Suite 800, Oakland, CA 94607 • PH: (510) 208-7400 • www.AlamedaCTC.org

1. Roll Call

A roll call was conducted. All members were present with the exception of Commissioner Kaplan and Commissioner Miley.

Commissioner Biddle was present as an alternate for Commissioner Haubert.

Subsequent to the roll call:

Commissioner Kaplan arrived during item 4.1

2. Public Comment

There were no public comments.

3. Consent Calendar

3.1. Approve the February 13, 2017 I-580 Express Lane PC Meeting Minutes

Commissioner Biddle moved to approve the Consent Calendar. Commissioner Thorne seconded the motion. The motion passed with the following votes:

Yes: Marchand, Haggerty, Biddle, Thorne, Valle

No: None

Abstain: None

Absent: Miley, Kaplan

4. Regular Matters

4.1. Status update on the operation of I-580 Express Lanes

Liz Rutman provided an update on the operation of I-580 Express Lanes for the month of January 2017. She shared information on the corridor performance specifically average daily trips, express lane transaction breakdowns and speed/density data locations. Liz also covered speed and density heat maps, average daily toll rates and gross revenue that included toll violation penalties. She concluded by covering a first year retrospective for both the westbound and eastbound directions.

Commissioner Haggerty wanted a graphic displaying the usage of the lane when the toll increased to the maximum toll rate as well as the duration of the increase. Liz stated that staff would consider a way to display clearer information to substantiate the data in the presentation.

Commissioner Kaplan asked if "average assessed toll" included non-toll payers. Liz stated that "zero" toll payers are not included in the average.

Commissioner Haggerty wanted to know how California Highway Patrol (CHP) officers are able to determine if someone is a Fastrak user who is being billed by license plate and wanted to know if we are charged an extra fee from BATA to process those payments. Liz stated that there is no way for a CHP officer to know if

someone is driving with no transponder but has a license plate linked to a Fastrak account. She stated that there are only two ways to pay by license plate: one way is via a Golden Gate Bridge license plate account, and the other is having an active Fastrak account with a linked license plate number. She noted that the process is automated so there is no extra cost incurred from BATA to process these types of transactions.

Commissioner Kaplan asked how the agency deals with CHP officers pulling over people who have license plates linked to Fastrak accounts. Art stated that we invite CHP to come to the meetings quarterly and could present information on enforcing this issue. He also noted that Alameda CTC follows rules set by the Metropolitan Transportation Commission for toll collections as well as state statutes.

This item was for information only.

5. Committee Member Reports

Art stated that the BART to Warm Springs Station Opening Ceremony was taking place on March 24, 2017. He also noted that a memo regarding Ethics Training for Commissioners and Alternates was included in their folders.

6. Staff Reports

There were no staff reports.

7. Adjournment/ Next Meeting

The next meeting is:

Date/Time: Monday, April 10, 2017 at 10:00 a.m.

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

Attested by:



Vanessa Lee, Clerk of the Commission



DATE: April 3, 2017

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

RECOMMENDATION: Receive a status update on the operation of I-580 Express Lanes

Summary

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

The February 2017 operations report indicates that the new express lane facility continues to provide travel time savings and travel reliability throughout the day. Express lane users experienced average speeds of 3 to 27 mph greater than the average speeds in the general purpose lanes, along with lesser average lane densities than the general purpose lanes, in the most congested segments of the corridor.

Background

The I-580 Corridor 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 19 and 22, 2016 in the eastbound and westbound directions, respectively. See Attachment A for express lane operation limits. 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 carpool, 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.

February 2017 Operations Update: Over 560,000 express lane trips were recorded during operational hours in February, an average of approximately 28,100 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.

Table 1. Express Lane Trips by Type and Direction for February 2017

Trip Classification		Percent of Trips
By Type	HOV-eligible with FasTrak flex tag	38%
	SOV with FasTrak standard or flex tag	41%
	No valid toll tag	21%
By Direction	Westbound	44%
	Eastbound	56%

Express lane users generally 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 at four locations in each of the westbound and eastbound directions during respective commute hours for February. This table provides an overall snapshot of the express lane benefits for the month.

Attachment B presents the speed and density heat maps for the I-580 corridor during revenue hours for the six-month period from September 2016 to February 2017. 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. From September through February, the average speeds in the westbound express lane ranged from 50 to 70 mph during the morning commute hours (5 am to 11 am) with lower speeds occurring between Isabel Avenue and Santa Rita Road; average speeds throughout the rest of the day exceeded 70 mph. The express lane operated at LOS C or better at all times, with LOS C occurring only for a short period of time in the middle of the corridor (Isabel Avenue to Santa Rita Road). By comparison, the general purpose lanes experienced speeds as low as 35 mph and LOS D throughout several sections of the corridor. During the evening commute, the westbound lanes experiences a small period of reverse-commute congestion between

San Ramon Road and Hacienda Road from 5 pm to 6 pm, though the express lane continues to operate at LOS B or better during this time.

Table 2. Speed Differentials and Level of Service for February 2017

Direction	I-580 in the Vicinity of	Speed Differential Range (mph)	Average Speed Differential (mph)	Average Express Lane LOS	Average General Purpose Lane LOS
Westbound Morning Commute: 5 am – 11 am	North First Street	4 - 8	5	A	C
	North Livermore Ave	2 - 6	3	A	C
	Fallon Road	3 - 10	7	B	C
	Santa Rita Road	7 - 15	11	B	C
Eastbound Evening Commute: 2 pm – 7 pm	Hacienda Road	16 - 27	22	C	E
	Airway Blvd	8 – 12	10	B	C
	North First Street	3 – 9	6	A	C
	Vasco Road	7 - 23	14	B	C

In the eastbound direction, average express lane speeds from September 2016 through February 2017 ranged from 20 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 small sections of degraded LOS at the western end of the express lanes between 3 pm and 5 pm and at the eastern terminus between 4 pm and 6 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 LOS F at the western end of the corridor, and speeds and LOS similar to the express lanes but for longer periods of time at the eastern end of the corridor, 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, for February 2017. In the eastbound direction, the maximum toll of \$9.00 was reached 12 of 20 days compared to just 1 day in January. This is due to a change in the toll rate plan made on February 8, 2017. The primary goal of express lane is to provide speed and travel time reliability to HOV-eligible users, allowing SOVs to pay a toll to use the lanes when such use would not diminish those benefits. Managing the usage by SOVs is achieved by manipulation of the toll rates, which are dynamically priced, rising and falling with congestion. In an effort to improve the traffic flow in the first segment of the eastbound express lane between Hacienda Road and Fallon Road, which is a single express lane buffer-separated from the

general purpose lanes, the eastbound toll rate pricing plan was adjusted to increase the price to enter the express lane at the start of the buffered segment. The net effect was a reduction in total express lane trips starting at the entrance by over 3 percent, all of which were SOVs. Attachment C presents a comparison of the eastbound speed and density heat maps for the two weeks prior to the change (January 25 – February 7) and two weeks after the rate plan adjustment had been introduced and users had an opportunity to adapt to the changes (February 15 – February 28). These heat maps show a significant improvement to the performance of the express lane within the initial segment: average speeds over 45 mph and an average LOS D or better. While the price to enter the express lane system at Hacienda Road increases to \$9.00 on most days, the toll to enter immediately after the buffered section and at the start of the two-lane section near Fallon Road is typically \$5.50 or less.

Table 3. Toll Rate Data for February 2017

Direction	Maximum Posted Toll (Travel Entire Corridor)	Average Assessed ¹ Toll (All Toll Trips)
Westbound	\$9.25 (1 of 20 days)	\$1.94
Eastbound	\$9.00 (12 of 20 days)	\$2.92

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.

From February 2016 through February 2017, the I-580 Express Lanes have recorded over 7.6 million total trips. Total gross revenues received include over \$8.9 million in toll revenues and \$1.7 million in violation penalties. Fiscal Year 2016-17 gross toll revenues received through February 2017 total nearly \$6.0 million.

Last month the express lanes received significant media attention related to the release of the data charting the performance of the lanes over their first year. A media availability event was held on the corridor on March 16, 2017 to release the one-year data. It garnered coverage from Bay Area television, radio and print media. Additionally, a public education advertising campaign was launched to continue to increase awareness of the express lanes, promote the benefits and proper use of the facility, and encourage the public to obtain FasTrak® and FasTrak® Flex toll tags. The campaign messages encourage carpooling on the corridor and emphasize that carpools require a properly mounted FasTrak Flex toll tag and that FasTrak accounts are required of all users of the express lanes. The campaign, which runs through April, includes announcements during traffic radio reports, social media ads, outdoor bus ads on LAVTA and RTD buses, and gas station pump-top video advertisements. The ads target I-580 commuters in Alameda and San Joaquin Counties.

Fiscal Impact: There is no fiscal impact.

Attachments

- A. I-580 Corridor Express Lane Location Map
- B. I-580 Corridor Heat Maps September 2016 – February 2017
- C. I-580 Corridor Heat Maps Before and After Rate Plan Adjustment

Staff Contact

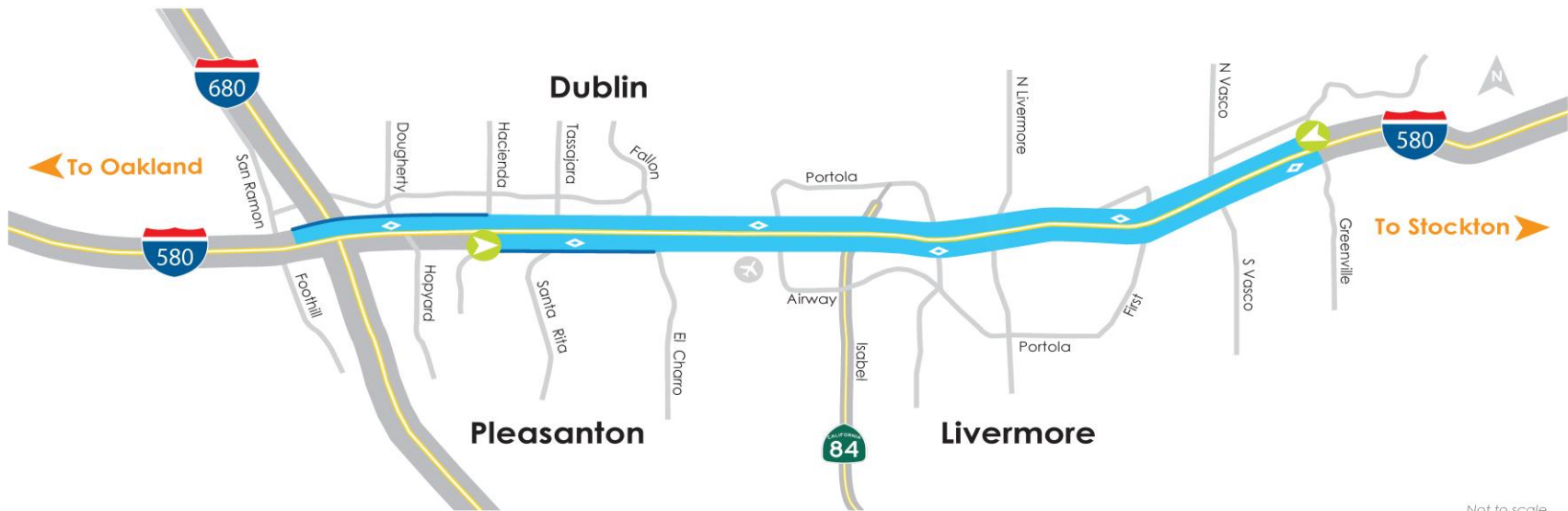
[Liz Rutman](#), Express Lanes Operation and Maintenance Manager

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I-580 Express Lanes Project Location Map

4.1A



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

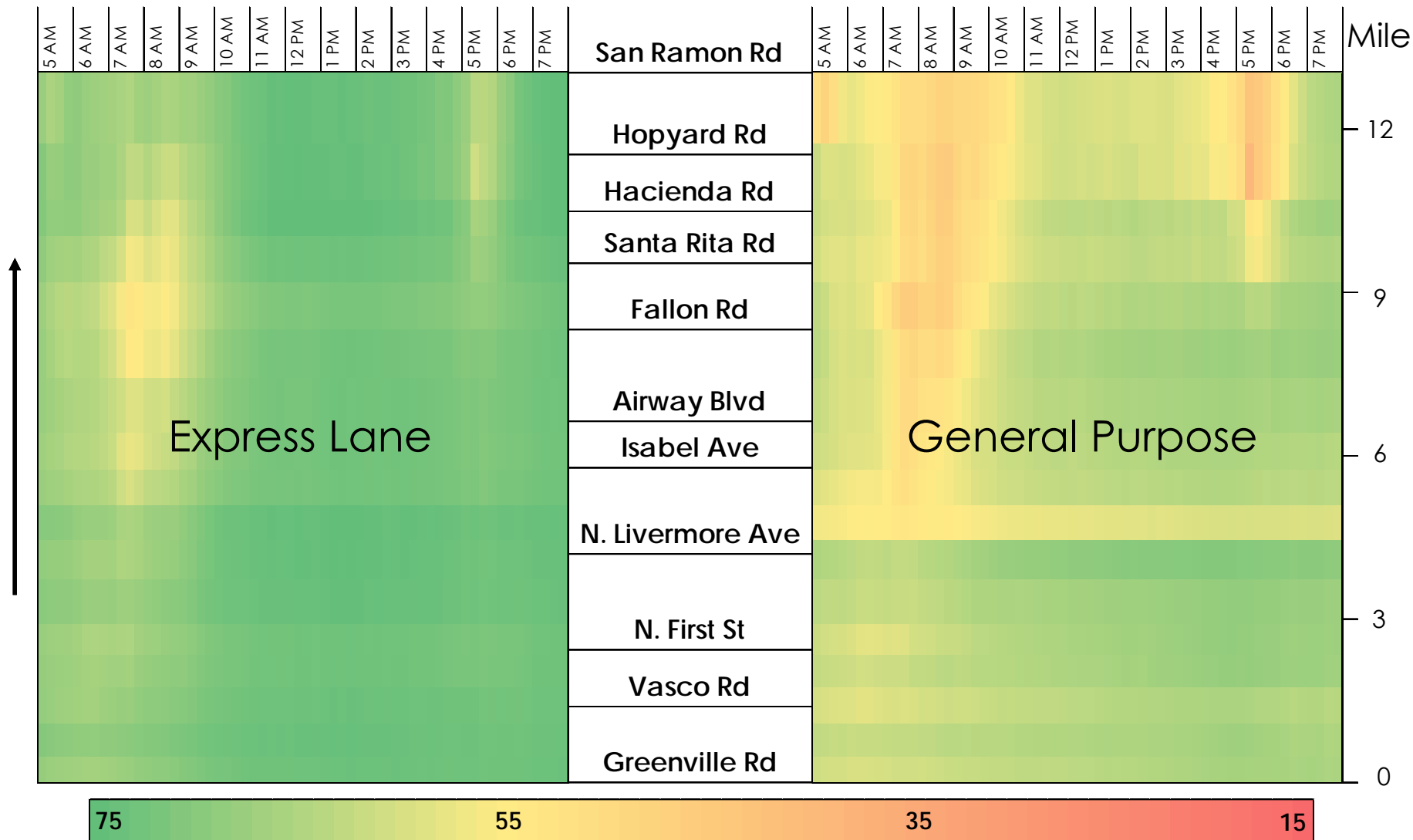
No entry/exit from westbound express lane from Hacienda to end.

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

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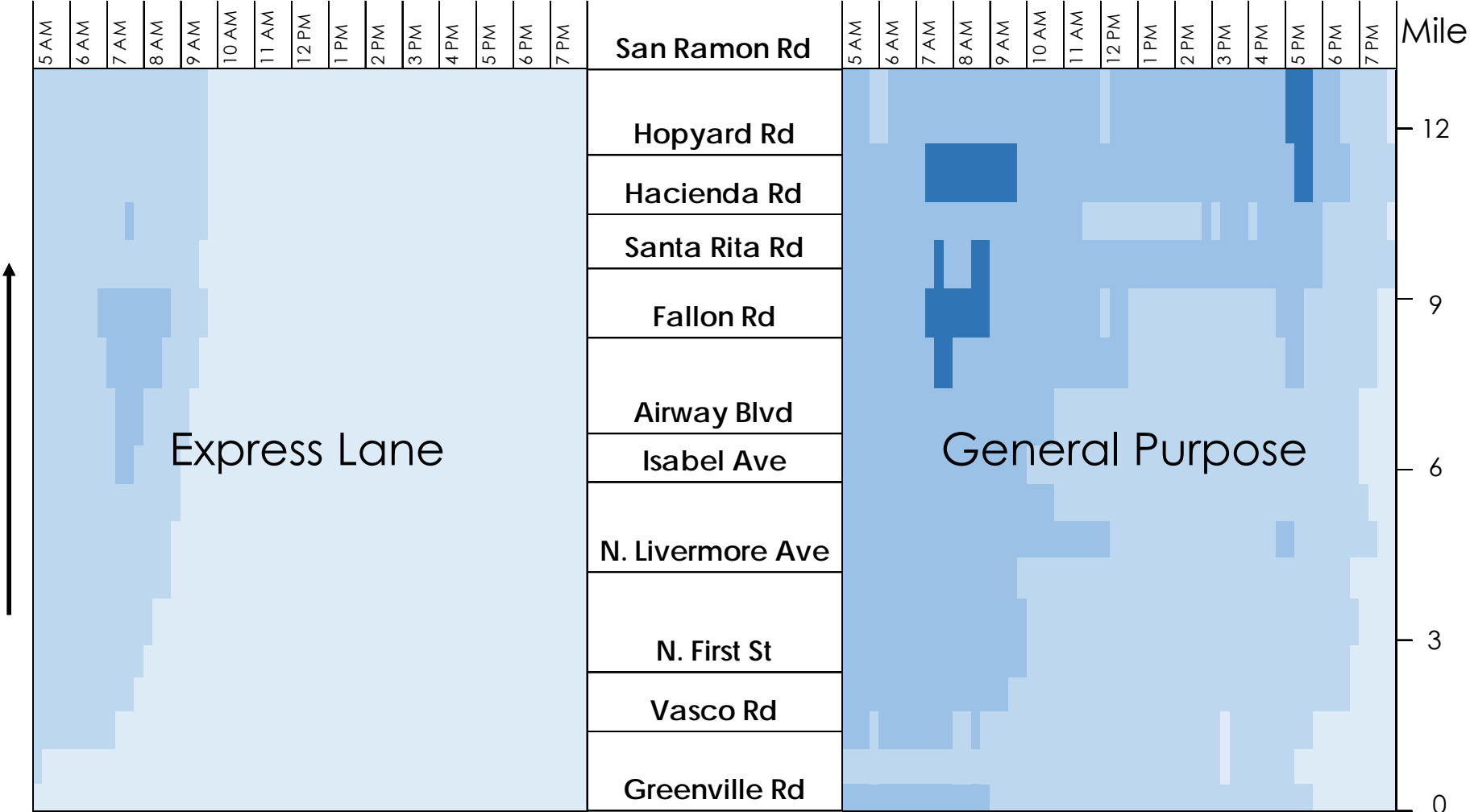
Westbound I-580 Corridor Speed Heat Maps

Monday-Friday, September 2016 – February 2017



Westbound I-580 Corridor Density Heat Maps

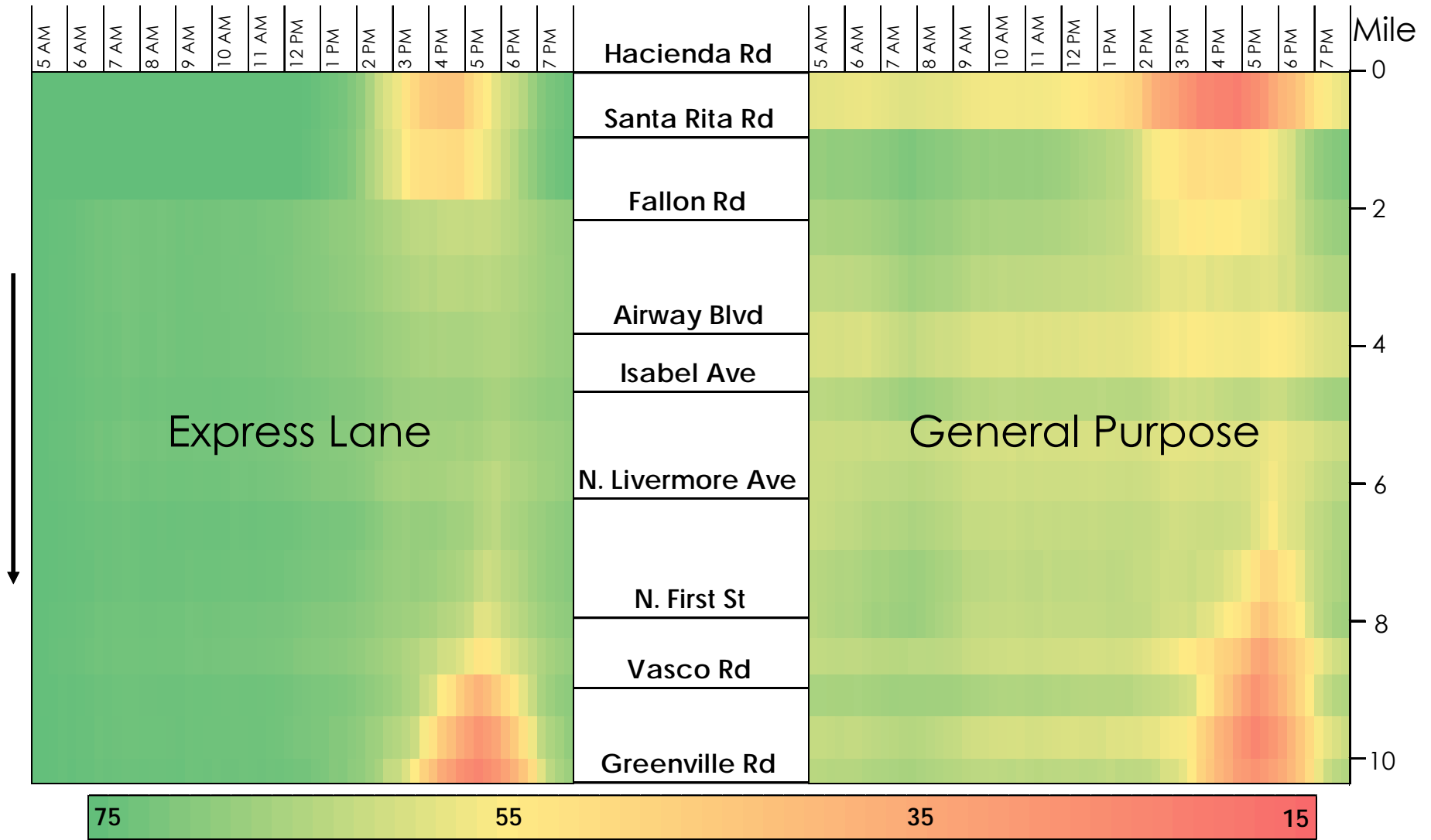
Monday-Friday, September 2016 – February 2017



LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
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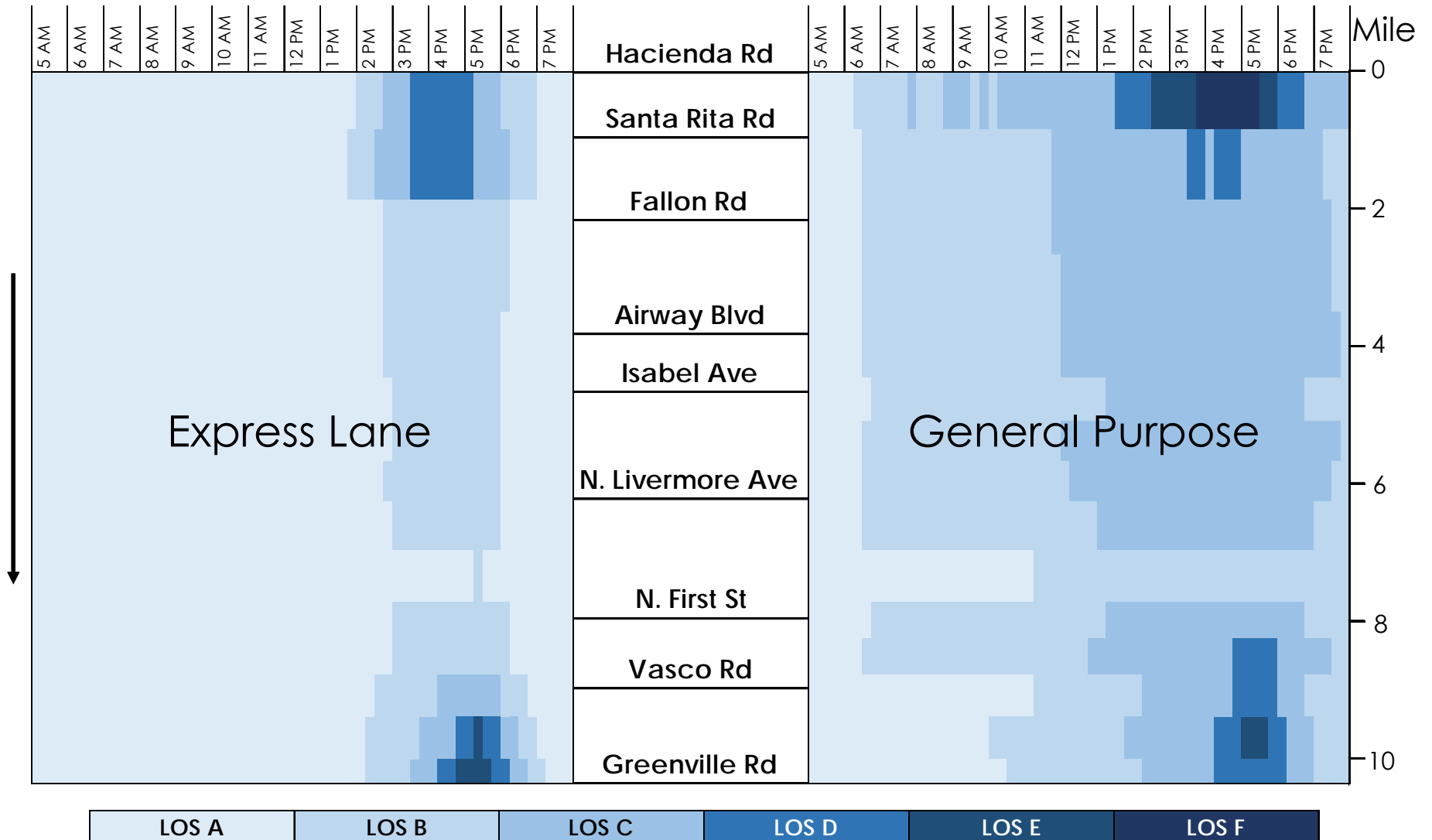
Eastbound I-580 Corridor Speed Heat Maps

Monday-Friday, September 2016 – February 2017



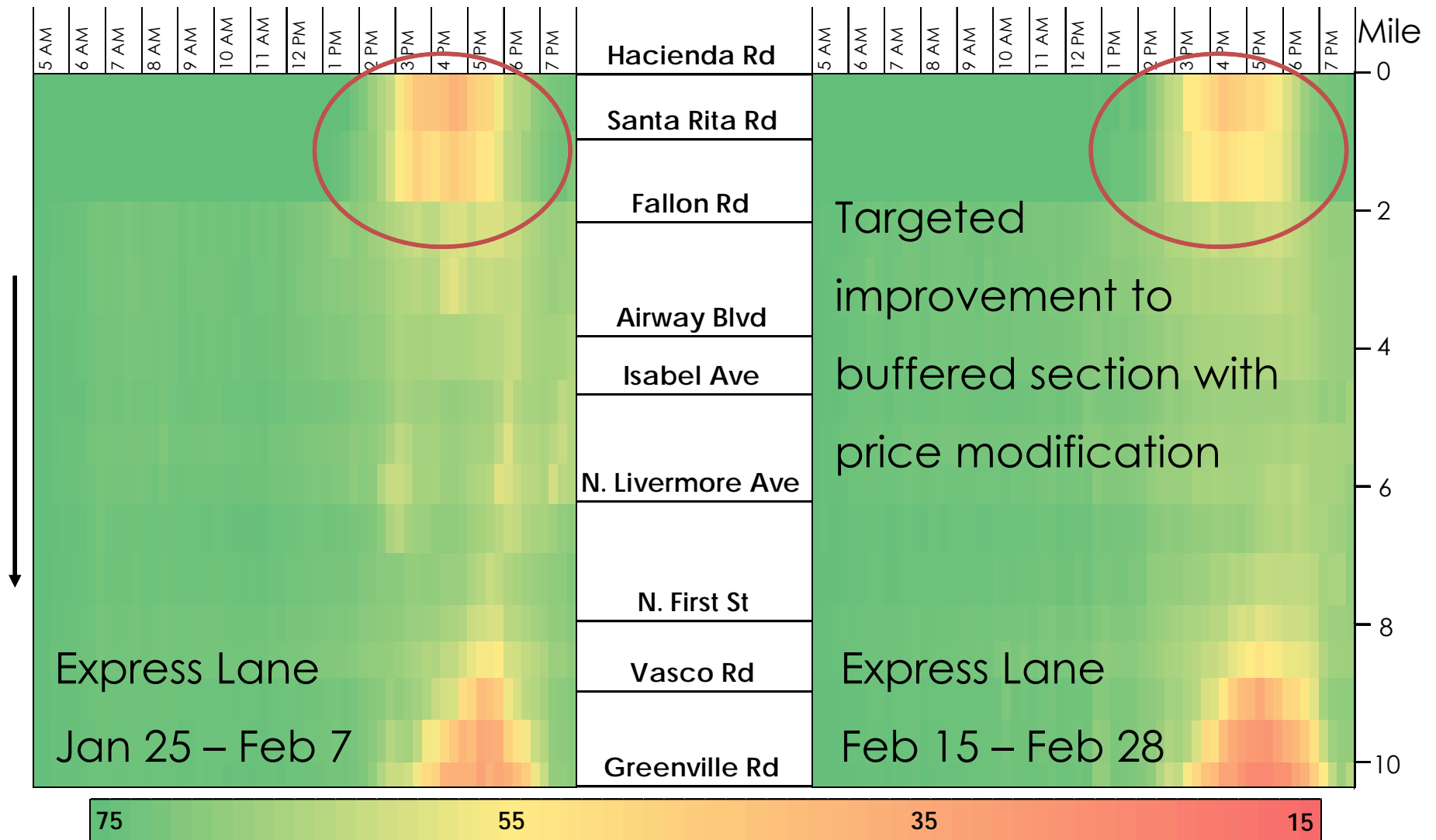
Eastbound I-580 Corridor Density Heat Maps

Monday-Friday, September 2016 – February 2017



Eastbound I-580 Corridor Speed Heat Maps

Monday-Friday, Toll Rate Plan Modification on Feb 8



Eastbound I-580 Corridor Density Heat Maps

Monday-Friday, Toll Rate Plan Modification on Feb 8

