110 EXPRESSLANES PERFORMANCE UPDATE, AS OF 2/28/13

NOTE: The data contained in this report is preliminary, based upon 3 ½ months of operation, and is subject to change. The official performance evaluation report, which is based upon 12 months of operation, will serve as the formal certification of data.





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Background

The Los Angeles County area is among the most congested in the nation. A pioneer in the development of High Occupancy Vehicle (HOV) lanes, California's solution to traffic congestion has itself become a casualty of overuse. In 1995, Caltrans opened the Harbor Transitway on the Harbor Freeway (SR-110), featuring 8 miles of two carpool lanes, with five transit stations located in the median of the freeway, and 3 miles of a single carpool lane. Over time, the Transitway approached heavier use during the morning peak period but the rest of the day had plenty of capacity available. And parallel transit service on the Transitway had low ridership.

In 2008, the federal government provided an opportunity to build a High Occupancy Toll (HOT) lane system in LA County with the Congestion Reduction Demonstration grant award of significant federal funding (\$210.6 million). The Los Angeles County Metropolitan Transportation Authority (Metro) and Caltrans partnered on LA county's first ever HOT lanes, branded as ExpressLanes, that opened on November 10, 2012.

The ExpressLanes project allows solo drivers who pay an electronic toll to travel in 11 miles of converted carpool lanes on the 110. Carpools, vanpools, buses and motorcycles travel toll-free. To date, travel speeds have operated above the goal of 45 mph 100% of the time during the peak period. Further, the lanes are offering drivers an attractive choice – 40% of its users are paying the toll.

Partnership and Team

This is one of 10 State authorized design-build projects per SB4. The project delivery involved countless moving parts and required intensive coordination among multiple agencies, the contractor, elected officials and their constituencies. More than 480 stakeholder briefings, including 10 public hearings, have taken place about the project. In addition to being a pioneering congestion-relief effort, Metro ExpressLanes is a testament to multi-faceted cooperation and partnership.

The ExpressLanes project was built by Atkinson Contractors, LP under contract to Metro. The contractor was competitively selected to design-build-operate-and-maintain the ExpressLanes project. The Atkinson team included AECOM for design and Xerox for tolling integration and operations.

Tolling Authority and 12-month Pilot Evaluation

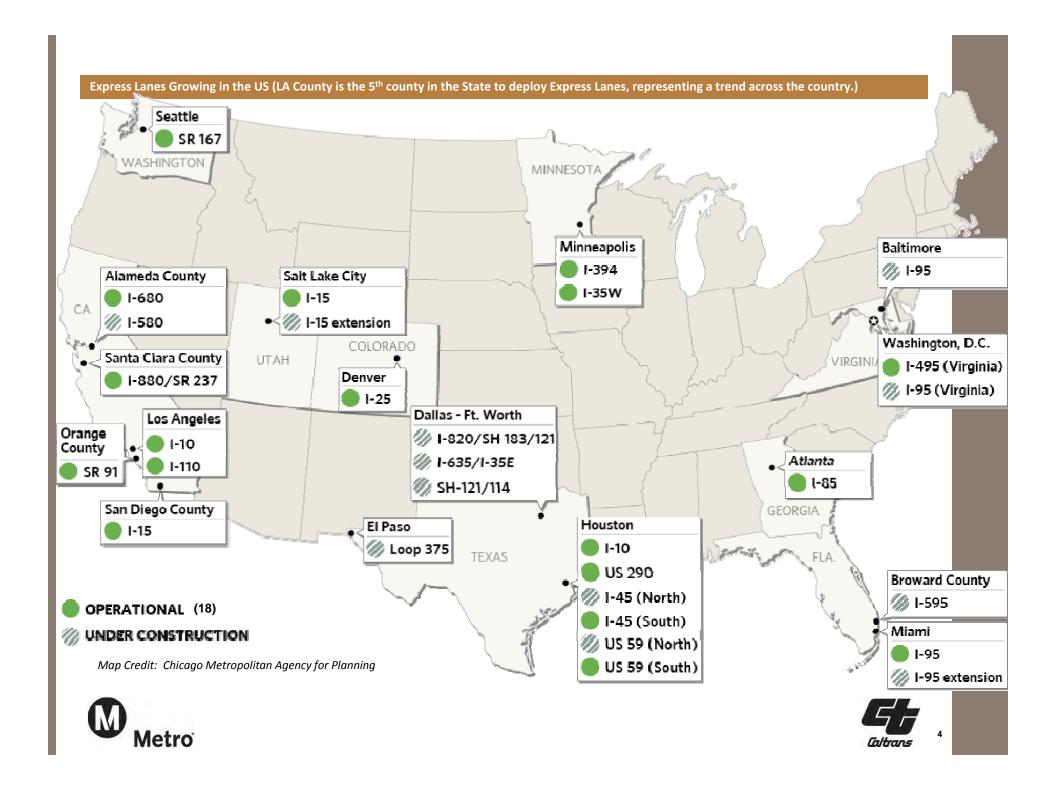
Metro obtained legislative authority in 2008 with Senate Bill 1422 (Ridley-Thomas) which authorizes Metro, in cooperation with Caltrans, to undertake the conversion of HOV lanes to HOT lanes on the 110 between Adams Blvd and the 91 freeway.

The federal grant requires formal evaluation of the pilot based upon 12 months of data collection. State law also requires a performance report documenting the results of the one-year demonstration period to the Legislature by December 2014 on key areas such as:

- Travel time savings in Express Lanes and General Purpose Lanes
- Mode Shift to Carpool & Transit
- Access for Low Income Commuters
- Reduction in Greenhouse Gas Emissions







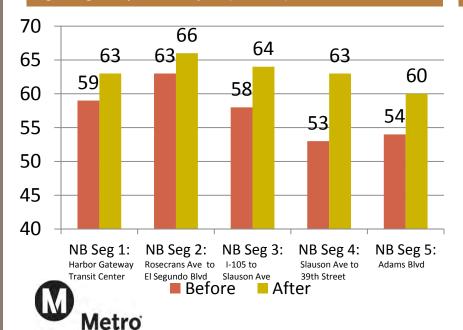
- Travel speeds **above 45 mph 100% of the time** during peak period. This exceeds the FHWA requirement of above 45 mph 90% of the time during peak period. Northbound peak hour (7am-8am) travel speeds average 10 mph higher than before "opening" November 10, 2012.
- Average Work Week Trips have increased 23% from 39,820 to 49,017. Current volume is now at 96% of the before "opening" volume of 50,000. Metro anticipates meeting the before "opening" volume by June 2013 (three months earlier than original forecasts).
- Transit on-time performance improves for the Metro Silver Line BRT. 15 new vanpools have been formed by the Metro ExpressLanes.
- Offering a Choice: HOV2+ (toll-free)= 60% /SOV (toll-payer) = 40%. Average toll during the Northbound AM peak period is \$5.25 for an 11 mile one-way trip. Average weekday toll for the same trip is \$3.44.
- The number of FasTrak® transponders issued is 105,431. FasTrak deployment continues to grow by more than 15,000 transponders per month as more people become familiar with the features and benefits of the program. 83% of customers would recommend 110 ExpressLanes to friends and family.
- \$40 M Transit investment: 47 new clean fuel buses, lighting & security improvements at the Harbor Transitway stations; new bus stops at Manchester & Slauson Stations, noise barrier at 37th St., and 16 new bike lockers.
- Other operational improvements include a widened Adams Blvd off-ramp and an added new lane on Adams Blvd that have reduced traffic delays. A new pedestrian bridge on Adams Blvd provides direct connection to the new Expo Line 23rd/Flower St Station.



65 64 66 64 64 65 64 64 65 64 63 64 65 62 62 62 60 60 ■ NB AM Peak 55 ■ NB PM Peak 50 SB AM Peak ■ SB PM Peak 45 FHWA goal 40 Nov 12-30 Feb-13 Dec-12 Jan-13

Fig 1. 110 Peak Period ExpressLanes Average Travel Speeds (MPH): AM Peak Period is 5am to 9am (M-F) and PM Peak Period is 4pm-7pm (M-F)

Fig 2. Avg NB ExpressLanes Speed (7am-8am) Feb 1 - Feb 28, 2013



The FHWA standard travel speed goal is above 45 mph 90% of the time during the peak period. The **110 ExpressLanes** exceeds the goal with travel speeds above 45 mph 100% of the time during the peak period in both directions of travel (Fig 1 above).

The period of 7am to 8am is the most congested peak hour of the weekday. The most congested segment of the 110 corridor is Northbound (NB) between Slauson Avenue and 39th Street. Further, travel speeds in this segment have improved since "opening" (Fig 2).

NOTE: All of the traffic statistics (i.e. speed and volume) in this report are comprised of data collected individually, but in cooperation, between Metro and Caltrans District 7.

Fig 3. Avg ExpressLanes Work Week Trips Continue to Grow – a 23% increase from 1st week of operations to the work week of Feb 26, 2013.

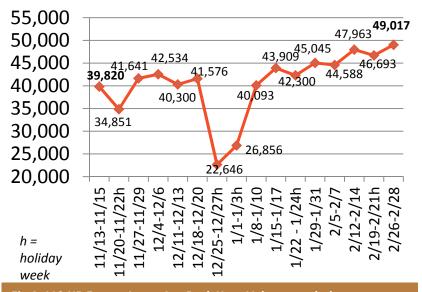
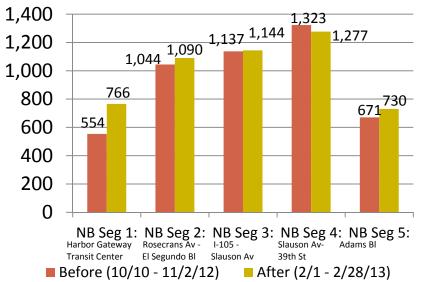


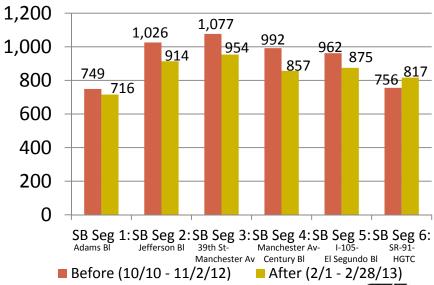
Fig 4. 110 NB ExpressLanes Avg Peak Hour Volumes: vphpl (7am -8am)



Although we have experienced an expected drop in volume from pre-opening (average of 50,000 trips) due to increased enforcement and the introduction of the FasTrak requirement, we have observed a steady increase in volumes during each consecutive work week (Tuesday through Thursday) for the period, with the exception of the traditional downturn experienced during major holiday work weeks (Fig 3).

As a baseline, we closely monitor the AM northbound (NB) peak hour and PM southbound (SB) peak hour vehicles per hour per lane (vphpl) in each of the toll segments during the work week. Traffic volumes in the most congested period of the day, AM NB now meet or exceed pre-opening volumes (Fig 4). The SB PM peak has a slightly lower overall flow in the PM compared to the AM is due in part to congestion on the 110 in the vicinity of the I-10 near the start of the SB ExpressLanes. Currently, volumes are at 96% of pre-opening levels (Fig 5).

Fig 5. 110 SB ExpressLanes Avg Peak Hour Volumes: vphpl (5pm-6pm)





Caltrans

Fig 6. Average Speeds – General Purpose (GP) Lanes (110 Northbound)							
Period	Dec 2011	Dec 2012 (1st Full	Jan	Feb			
	(Pre-Opening)	Month Post Opening)	2013	2013			
GP Lanes in All S	egments						
AM Peak	51.9	47.3	46.9	47.2			
5am – 9am	mph	mph	mph	mph			
AM Peak Hr	40.6	38.3	36.6	37.0			
7am-8am	mph	mph	mph	mph			
GP Lanes in NB S	GP Lanes in NB Segment 4 at Gage Ave (most congested location)						
AM Peak	38.2	28.4	30.1	29.6			
5am – 9am	mph	mph	mph	mph			
AM Peak Hr	21.5	16.0	15.7	15.4			
7am-8am	mph	mph	mph	mph			

Fig 8. Average Daily Traffic in the ExpressLanes at Slauson (in both directions)





Fig 7. Average Speeds – General Purpose Lanes (110 Southbound)						
Period	Dec 2011	Dec 2012 (1st Full	Jan	Feb		
	(Pre-Opening)	Month Post Opening)	2013	2013		
GP Lanes in All S	egments					
PM Peak	47.8	41.0	44.2	43.3		
4pm – 7pm	mph	mph	mph	mph		
PM Peak Hr	44.5	38.9	42.6	41.8		
5pm-6pm	mph	mph	mph	mph		
GP Lanes in SB S	GP Lanes in SB Segment 3 at Exposition Blvd (most congested location)					
PM Peak	17.2	12.6	13.6	13.6		
4pm – 7pm	mph	mph	mph	mph		
PM Peak Hr	14.7	11.8	12.5	12.7		
4pm-7pm	mph	mph	mph	mph		

Summary

As expected, average GP lane speeds have declined in both directions since "opening". As more traffic moves in to the ExpressLanes, we expect that GP lane speeds will continue to improve, including in the most congested locations, during the peak period (Fig 6 and 7). ExpressLanes opened November 2012 mid-month so the first *complete* month of data is provided for December 2012 and is shown to illustrate comparable data to "before opening" within the same period and subsequent months "since opening". Monthly comparisons of "before" and "after" periods will be available as part of the formal 12 month evaluation.

Average Daily Traffic (ADT) is the average number of vehicles in both directions passing a specific point in a 24-hour period. This is different from the total number of trips because not all trips pass through a specific point. For example, one trip may go from I-105 to Adams which means it passes through the Slauson segment but another trip may only travel between I-105 and Manchester. Similar to the GP lane speeds, ADT is improving within ExpressLanes during the period (Fig 8). Over time, the ExpressLanes are expected to re-distribute traffic to benefit both ExpressLanes and general purpose lane users.

Moreover, declining GP speeds and ADT from 2011 to 2012 prior to the ExpressLanes opening are based in part, on a broader pre-existing trend. The opening of the ExpressLanes does not appear to have affected this trend. The aforementioned formal evaluation will provide a comprehensive data comparison beyond the preliminary three months contained herein.

Transit Buses funded by the Congestion Reduction Demo (CRD) grant

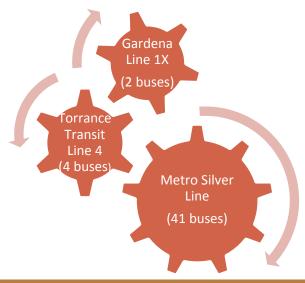


Fig 10. 110 Harbor Transitway Silver Line HTW Boardings

Stations	July 2011 *	Oct 2012	Feb 2013	% since July 2011	% since opening
37 th Street/USC	113	197	164	+45%	(17%)
Slauson	131	232	243	+85%	+5%
Manchester	185	327	376	+103%	+15%
I-105/Green Line	503	832	923	+83%	+11%
Rosecrans	129	184	221	+71%	+20%
Harbor Gateway Transit Center	1,196	1,836	1,859	+55%	+1%

*41 clean fuel buses were purchased with the CRD grant to operate on the Metro ExpressLanes. The buses increased the frequency of Silver Line service so that it now functions as BRT. The BRT service began July 2011.



Fig 9. Harbor Transitway (HTW) Ridership Statistics*

Ridership	Oct 12	Nov 12	Dec 12	Jan 13	Feb 13
Silver Line (HTW)	5,259	5,641	5,025	5,158	5,514
Torrance Line 4**	N/A	121	147	150	178
Gardena Line 2***	3,852	3,605	3,173	3,952	3,745

On-Time Performance

Silver Line **** 68.90%	71.90%	74.70%	77.10%	77.50%

^{*}Statistics do not include LADOT Commuter Express 438/448, or OCTA routes

Summary

Providing high-quality transit service is the key to meeting the **ExpressLanes goal of moving more people – not more vehicles**. While ridership is rebounding from the holiday downturn, the on-time performance for the Silver Line BRT has improved (Fig 9). The majority of Harbor Transitway Stations, served by the Silver Line BRT, continue to experience increase in usage during the reporting period (Fig 10).

1st of its kind in the country Metro also offers transit riders the ability to earn toll credits through linking their TAP card as part of the TAP Rewards Plan. To date, **2,034 accounts have enrolled in the TAP Rewards Plan**. \$250 in toll credits have been earned by 50 accounts.

15 new vanpools have been formed for the 110 ExpressLanes. The goal during the 12 month pilot period is 50 new vanpools. Metro ExpressLanes has added 16 new Bike Lockers at the Harbor Gateway Transit Center. 50% were occupied as of February 28, 2013.

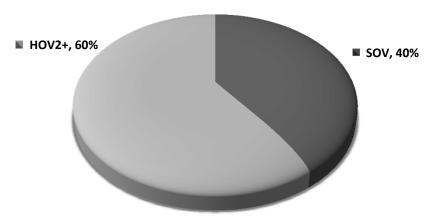


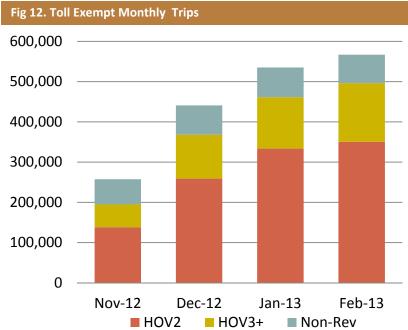
^{**}Line 4 began service on November 18, 2012

^{***}AM and PM Peak ridership only

^{****}For the entire BRT route from the Harbor Gateway Transit Center (HGTC) to the El Monte Station

Fig 11. Carpool (HOV2+) and Solo Driver (SOV) Usage





As expected, the majority of ExpressLane users are vehicles with two or more people that travel toll-free 24 hours a day/7 days a week (Fig 11). Toll exempt trips include carpools, vanpools, motorcycles, buses, and emergency vehicles. The transponder includes a switch setting of 1-2-3+. "3+" is the designation for vanpools, motorcycles, and carpools with three or more people. Transit and registered emergency vehicles are categorized as "non-revenue" trips (Fig 12). As part of the goal of the ExpressLanes, a mode shift from SOV to an increase in ridesharing (i.e carpool or vanpool) and transit use is anticipated long term. Beyond the toll-exempt status, a new incentive is the Carpool Loyalty Program. 80 customers have won gift cards through the Carpool Loyalty Program since "opening".

For solo drivers, the tolls are dynamically priced and updated every 5 minutes based on real-time traffic conditions in the ExpressLanes *only*. In addition, peak period tolls for an 11-mile trip on the 110 ExpressLanes must be at least 1.5 times the Metro Bus Rapid Transit (BRT) fare of \$2.45 (Fig 13).

Overall, operations and maintenance cost for the facility are approximately \$2.9 million for the period, excluding start-up costs. At the conclusion of the demonstration period, net toll revenues will be reinvested in the corridor.

Fig 13. Posted Toll						
Period	Nov 2012	Dec 2012	Jan 2013	Feb 2013		
Tolls below assume an 11 mile one-way trip						
NB Avg AM Peak Toll	\$5.40	\$5.57	\$5.33	\$5.25		
NB Max AM Peak Toll	\$10.85	\$10.55	\$10.10	\$8.00		
NB Avg Weekday Toll	\$3.67	\$3.66	\$3.45	\$3.44		
SB Avg PM Peak Toll	\$4.65	\$4.79	\$4.59	\$4.73		
SB Max PM Peak Toll	\$8.10	\$7.50	\$7.05	\$7.45		
SB Avg Weekday Toll	\$3.38	\$3.41	\$3.37	\$3.33		
Fiscal year 2013					Total	
Gross Toll Revenue (in 000s)	\$526	\$783	\$945	\$971	\$3,225	





Fig 14. Cumulative Issuance of FasTrak ®Transponders

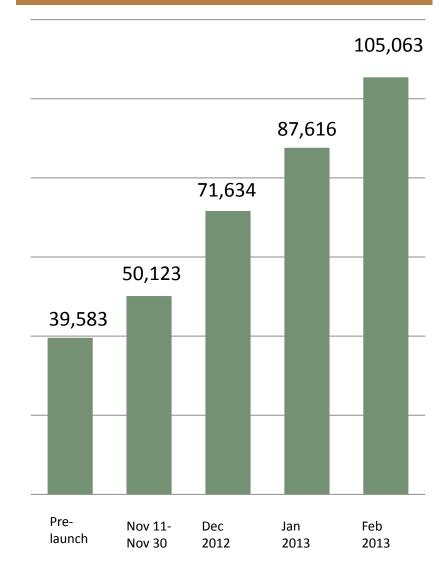
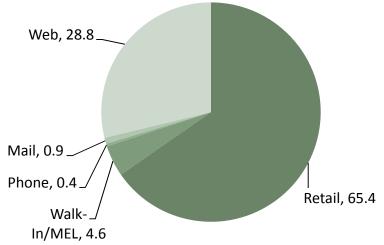


Fig 15. Percentage of Accounts Opened By Channel



Transponder adoption is consistently strong. The opening of the 10 ExpressLanes on February 23, 2013 also contributes to the increase in FasTrak transponders issued during the period (Fig 14). FasTrak transponders are readily available for commuters through six different channels. The majority of our customers sign-up for a FasTrak offered at more than 150 locations through one of the participating retail outlets – Albertsons, Costco, and the Auto Club (Fig 15).

Metro has developed a first of its kind Equity Plan, offering a one-time \$25 toll credit for low income commuters. The monthly account maintenance fee is also automatically waived for customers enrolled in the Equity Plan. As of February 28, 2013, \$52,150 in toll credits have been issued to 2,086 LA County households enrolled in the Equity Plan.





Greatest Benefits are Time Savings & Solo Driver Access

110 ExpressLanes Customer	Time-Savings Benefit	Solo Driver Access Benefit
Total Users	74.6%	20.6%
Carpoolers	73.3%	24.4%
Solo Drivers	78.6%	14.3%
Vanpoolers	75.0%	0.0%
Source: January 2013 110 Expres	ssLanes Frequent User Survey	

Strong User Satisfaction for the 110 ExpressLanes

Source: January 2013 110 ExpressLanes Frequent User Survey

110 ExpressLanes Customer	Excellent Rating	Good Rating
Total Users	60.3%	22.2%
Carpoolers	67.7%	17.8%
Solo Drivers	50.0%	28.6%
Vanpoolers	25.0%	50.0%

Willing to Recommend 110 ExpressLanes to Friends & Family

110 ExpressLanes Customer	Yes	Maybe
Total Users	82.5%	9.5%
Carpoolers	84.4%	6.7%
Solo Drivers	78.6%	14.3%
Vanpoolers	75.0%	25.0%
Source: January 2013 110 ExpressLan	es Frequent User Survey	

10 Testimonials for the 110

"Used FasTrak for the 1st time. Normal Long Beach to @AAASoCal headquarters trip: 65 minutes, today: 38! Thanks @expresslanes!" – 11/13/12

"@ExpressLanes travel time in to LAX reduced by 15 minutes. Wish I could stay on 105 all the way... "- 11/13/12

"Loooooved driving to work today using @ExpressLanes!!! Waited forever for this!! My commute was a nightmare!" – 11/14/12

"Love the LA express lane program, which is the only way to deliver reliable travel times across the region."—11/19/12

"Metro @ExpressLanes and #PreCheck = Me getting to LAX and gate at record time. I'm gonna like this!"—11/26/12

"Metro @ExpressLanes work! \$2.25 to cut down 30 minutes of traffic, my GPS traffic tracker was all like "WHAAAAT HOW?" – 11/30/12

"Here is where @expresslanes pays off: slow traffic on #The110 mixed flow lanes N of 105, #transit bus (Silver Line) is going 55mph!" – 1/9/13

"I luv the fast track on the 110fwy.. my commute was 45mins to 1 hr.. now 15 to 20 minutes.. stress free from that traffic" -1/15/13

"I was just telling my carpool buddy yesterday that the FT lanes are the "best thing ever." Please, add Fastrak the 91 between 110 and Yorba Linda, and also the 405 between 110 and 101! 105 from the LAX area out to 110 would be nice too." – 1/29/13

"If it wasn't for the transponder today, I'd be late to work. First time using it today and I loved it. I don't know how much my monthly bill will be but the less traffic I'm in, the less tense I am. So it's worth it." – 2/4/13



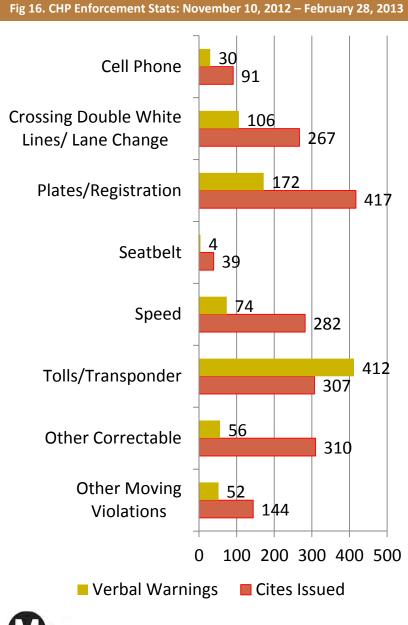


Fig 17. CHP Tolls/Transponder Activity by Month

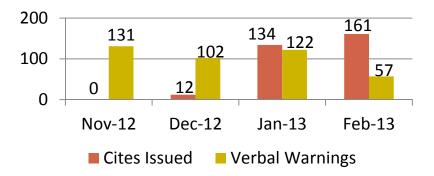


Fig 18. Incident Management					
	Nov 12	Dec 12	Jan 13	Feb 13	
Avg blockage duration in the peak period	4.2 minutes	1.2 minutes	7.4 minutes	3.9 minutes	
Avg blockage duration for the day	7.0 minutes	16.5 minutes	18.1 minutes	19.6 minutes	
# of times CHP diverted traffic to/from (SigAlert)	2	3	3	4	
Amount of toll reversal issued to customers	\$207.70	\$424.15	\$226.60	\$1,137.15	

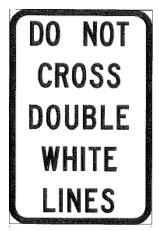
CHP officers are contracted to provide additional visual enforcement. During the period, **the majority of citations issued (22%) were related to license plates/expired registration** (Fig 16). A toll related citation is issued when a non-exempt vehicle is visually seen using the facility without a transponder (Fig 17). A 60-day grace period was in effect through January 10th. Of more than 1.9 million trips since the conclusion of the grace period, 7% received notices for an average toll amount of \$1.39.

The incident management strategies provide for the clearance of incidents in and adjacent to the ExpressLanes. If a SigAlert affects traffic conditions, a toll credit or reversal is made to a customer's account (Fig 18).

Fig 19. Performance Improvement Measures

- ❖ Increased signage on the facility to respond to customer feedback. More than 19 new signs were installed in January 2013. The additional signage has improved commuter understanding of the safety issues regarding lane changes and the FasTrak requirement for carpools (Fig 20).
- ❖ Increased training of call center staff to improve customer service support, including reduced call wait times.
- Upgraded software to automatically identify standard issued license plates for motorcycles, thus eliminating the need for motorcycles to open a FasTrak account.
- ❖ Initiated targeted outreach along the corridor to faith-based organizations to ensure commuters are aware of the Equity Plan and the Carpool Loyalty Program.
- ❖ Based upon customer feedback, text notification of account activity such as "low balance", mobile app, and e-newsletter will be introduced this Spring.

Fig 20. Additional Signage



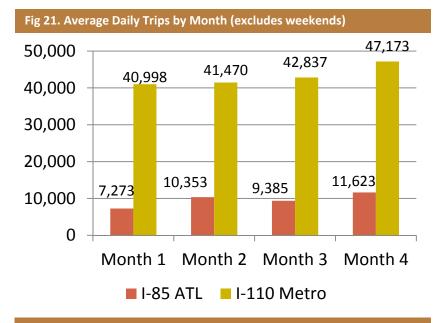


Summary

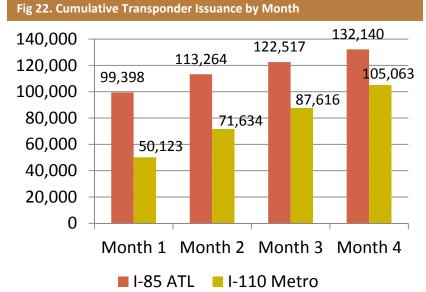
Success will be measured over the course of the year. Commuters will need time to learn how to take advantage of all of the 110 ExpressLane transportation options. Continuing education and operational changes, as appropriate, will help ensure the project meets its objectives (Fig 19).







Statewide Comparison		
Facility	Yr Opening	Miles
SR-91, Orange County	1995	10 (2 lanes in both directions)
I-15, San Diego	1996	20 (1 lane in each direction)
I-680, Alameda County	2010	14 (1 lane only)
SR-237, Santa Clara	2012	4 (1 lane in each direction)
I-110, LA County	2012	11 (2 lanes in both directions for 8 miles)



With 18 Express Lanes in operation throughout the US, no two are exactly alike due to the vast number of possibilities of physical configuration, toll rates, operational policies and transit components. However, the Metro ExpressLanes are similar to the Atlanta (I-85) and Miami (I-95) Express Lanes in that they are converted HOV lanes to Express Lanes with a registration requirement for all users, including carpools. Atlanta's ExpressLanes opened in October 2011 and while the I-85 operates one Express Lane in each direction, a benchmark of performance is illustrated (Fig 21 & 22).

Within California, the Metro ExpressLanes are similar in operation to the 91 ExpressLanes in Orange County which also are registered lanes for carpools.

NOTE: A formal data evaluation of the performance of the 110 ExpressLanes will be comprised of the complete data reporting period (i.e.12 months) to analyze the impact of changing behavior.





110 ExpressLanes (Adams Blvd to 91 Freeway) For more info: metroexpresslanes.net	
Myth	Fact
Metro ExpressLanes only benefit wealthy commuters.	 All commuters, regardless of income, benefit from Metro ExpressLanes. Funding from the project expands & improves transit options. Metro ExpressLanes includes an Equity Plan for low income commuters.
Metro ExpressLanes discourage carpooling	 Metro ExpressLanes reward carpools. Carpools with FasTrak travel toll-free. Carpool requirements do not change; the transponder reduces lane violators. Carpools are automatically enrolled in the Carpool Loyalty Program with a chance to win gift cards.
Everyone has to pay a toll to use Metro ExpressLanes	Carpools, vanpools, buses, and motorcycles always travel toll-free in the ExpressLanes. Solo drivers pay to travel on the 110 ExpressLanes.
Metro ExpressLanes toll revenues do not benefit the community.	 Net toll revenues are reinvested in the corridor where generated, in transit and carpool lane improvements. All benefits (additional buses, transit improvements) will remain in place – even if Metro decide not to continue with the ExpressLanes after the conclusion of the pilot.
Everyone has to pay a \$3 monthly fee to have a FasTrak transponder.	 The \$3 monthly account maintenance fee can be waived by: Taking four one-way trips per month on any of the project's options, including bus, vanpool, carpool, and/or transit. Enrolling in the Equity Plan automatically waives the \$3 fee.
Buses must have FasTrak transponders to use the Metro ExpressLanes.	 All buses (public & private) are exempt from the FasTrak transponder requirement. All buses travel toll-free on the Metro ExpressLanes. The only requirement is that the bus company provide their license plate information to Metro.
Motorcycles must have transponders to use the Metro ExpressLanes.	Because of a software update, as of February 21, 2013, motorcycles no longer need a FasTrak transponder to use the Metro ExpressLanes. • Those who have opened motorcycle-only accounts have been notified by email and will be issued a complete refund when they close their account and return the transponder.
Metro ExpressLanes only benefit drivers.	 Transit users benefit too! The ExpressLanes project provides: 47 new clean fuel buses. This means more frequent bus service on the 110. Security & lighting improvements at the Harbor Transitway stations.
Metro ExpressLanes slow down traffic in the former HOV lanes.	The ExpressLanes are engineered to help ensure traffic flows at 45 miles per hour or faster in the ExpressLanes.
Metro ExpressLanes cause traffic jams for mixed flow lanes.	This is typical for the ramp-up period since violators & non-registered carpools have been pushed into the lanes. Over time, the ExpressLanes re-distributes traffic, improving mixed flow lanes.