

Metro

*Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
3rd Floor Board Room*



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Agenda - Final

Wednesday, January 18, 2017

11:00 AM

**One Gateway Plaza, Los Angeles, CA 90012,
3rd Floor, Metro Board Room**

Ad Hoc Congestion, Highway and Roads Committee

John Fasana, Chair

Ara Najarian, Vice Chair

Kathryn Barger

Jacquelyn Dupont-Walker

Janice Hahn

Carrie Bowen, non-voting member

Phillip A. Washington, Chief Executive Officer

METROPOLITAN TRANSPORTATION AUTHORITY BOARD RULES (ALSO APPLIES TO BOARD COMMITTEES)

PUBLIC INPUT

A member of the public may address the Board on agenda items, before or during the Board or Committee's consideration of the item for one (1) minute per item, or at the discretion of the Chair. A request to address the Board should be submitted in person at the meeting to the Board Secretary. Individuals requesting to speak on more than three (3) agenda items will be allowed to speak up to a maximum of three (3) minutes per meeting. For individuals requiring translation service, time allowed will be doubled.

The public may also address the Board on non-agenda items within the subject matter jurisdiction of the Board during the public comment period, which will be held at the beginning and/or end of each meeting. Each person will be allowed to speak for up to three (3) minutes per meeting and may speak no more than once during the Public Comment period. Speakers will be called according to the order in which the speaker request forms are received. Elected officials, not their staff or deputies, may be called out of order and prior to the Board's consideration of the relevant item.

In accordance with State Law (Brown Act), all matters to be acted on by the MTA Board must be posted at least 72 hours prior to the Board meeting. In case of emergency, or when a subject matter arises subsequent to the posting of the agenda, upon making certain findings, the Board may act on an item that is not on the posted agenda.

CONDUCT IN THE BOARD ROOM - The following rules pertain to conduct at Metropolitan Transportation Authority meetings:

REMOVAL FROM THE BOARD ROOM The Chair shall order removed from the Board Room any person who commits the following acts with respect to any meeting of the MTA Board:

- a. Disorderly behavior toward the Board or any member of the staff thereof, tending to interrupt the due and orderly course of said meeting.
- b. A breach of the peace, boisterous conduct or violent disturbance, tending to interrupt the due and orderly course of said meeting.
- c. Disobedience of any lawful order of the Chair, which shall include an order to be seated or to refrain from addressing the Board; and
- d. Any other unlawful interference with the due and orderly course of said meeting.

INFORMATION RELATING TO AGENDAS AND ACTIONS OF THE BOARD

Agendas for the Regular MTA Board meetings are prepared by the Board Secretary and are available prior to the meeting in the MTA Records Management Department and on the Internet. Every meeting of the MTA Board of Directors is recorded on CD's and as MP3's and can be made available for a nominal charge.

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NOTE: ACTION MAY BE TAKEN ON ANY ITEM IDENTIFIED ON THE AGENDA

CALL TO ORDER

ROLL CALL

- 5 RECEIVE introduction to Congestion, Highway and Roads Programs. [2017-0012](#)
- 6 RECEIVE report by the Caltrans District Director on Delivery of Projects on I-5. [2017-0006](#)
- 7 RECEIVE AND FILE the FY2016 Performance Report (Attachment A) for the Metro ExpressLanes. [2016-0641](#)
Attachments: [Attachment A PerformanceReport.pdf](#)
- 8 CONSIDER: [2016-0867](#)
- A. APPROVING up to \$500,000 in Measure R 20% Highway Funds for design and construction of two temporary signals for the properties at 16810 -16900 Valley View Avenue in Cities of La Mirada and Cerritos; and
- B. AUTHORIZING the Chief Executive Officer to execute the necessary agreements with Caltrans to implement the mitigation.
Attachments: [Valley View Temp Signal Picture 2.pdf](#)

(ALSO ON CONSTRUCTION COMMITTEE)

47 CONSIDER: [2016-0999](#)

- A. RECEIVING AND FILING the **Countywide ExpressLanes Strategic Plan** Executive Summary (Attachment A) full report available at http://libraryarchives.metro.net/DB_Attachments/170111_Strategic_Plan_with_Appendices.pdf , and;
- B. AUTHORIZING the CEO to initiate planning studies including a comprehensive financial plan for Tier 1 projects as outlined in Attachment B and submit those projects as a network to the California Transportation Commission to request tolling authority.

Attachments: [Attachment A-Countywide Express Lanes Strategic Plan Executive Summary](#)
[Attachment B - Tiers 1 2 and 3 Projects](#)
[Attachment C- Nov 2014 Motion #59](#)

Adjournment

Consideration of items not on the posted agenda, including: items to be presented and (if requested) referred to staff; items to be placed on the agenda for action at a future meeting of the Committee or Board; and/or items requiring immediate action because of an emergency situation or where the need to take immediate action came to the attention of the Committee subsequent to the posting of the agenda.



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Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

Board Report

File #: 2017-0012, **File Type:** Oral Report / Presentation

Agenda Number: 5

AD HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE JANUARY 18, 2017

RECEIVE introduction to Congestion, Highway and Roads Programs.

Congestion, Highway, and Roads Committee

Abdollah Ansari,
Sr. Executive Officer, Highway Program

Shahrzad Amiri,
Executive Officer, Congestion Reduction

Michael Cano,
Deputy Executive Officer, Goods Movement



Metro Highway Program



I-405 Freeway 1958



I-405 Freeway Today

America's Top Bottlenecks in 2015

11 of Top 30 are in LA County



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Source: American Highway Users Alliance

Los Angeles County Highway Facts

527 miles of freeways

382 miles of conventional highways

7.6 million vehicles registered in the County in 2015

92 million miles per day traveled in the County

76% of daily work-home trips are drive-alone

81 avg. hours/year/person stuck in traffic

45% of all Statewide delay

\$13.3 billion annual cost of congestion/delay

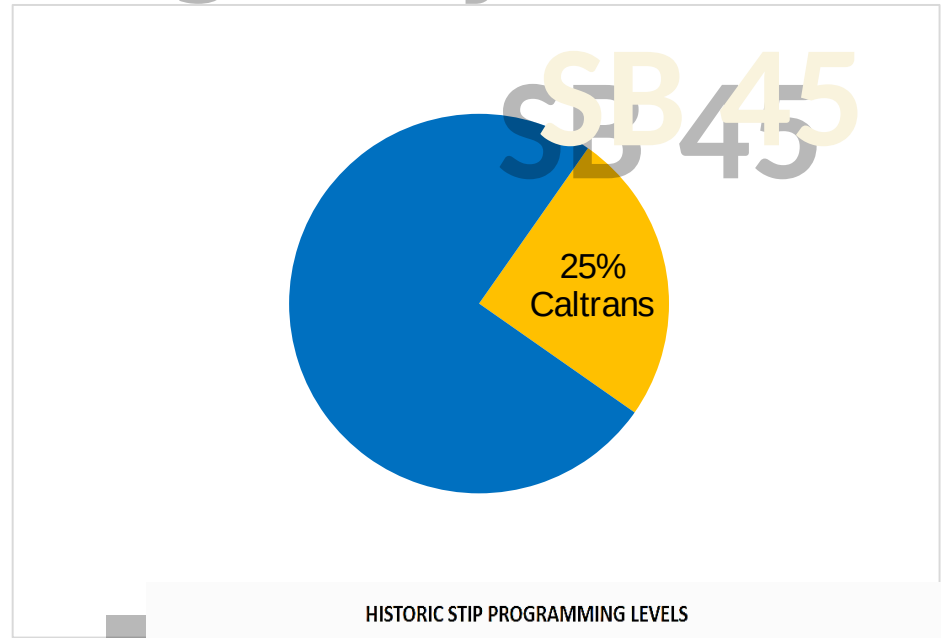
2.4 million more people in the next 40 years



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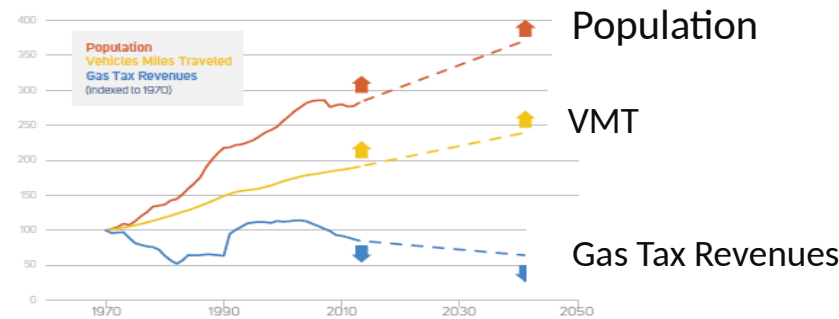
Why is Metro in Highway Business?

- Legislative Authority
 - SB 45
 - Chaptered in 1997
 - STIP funds split



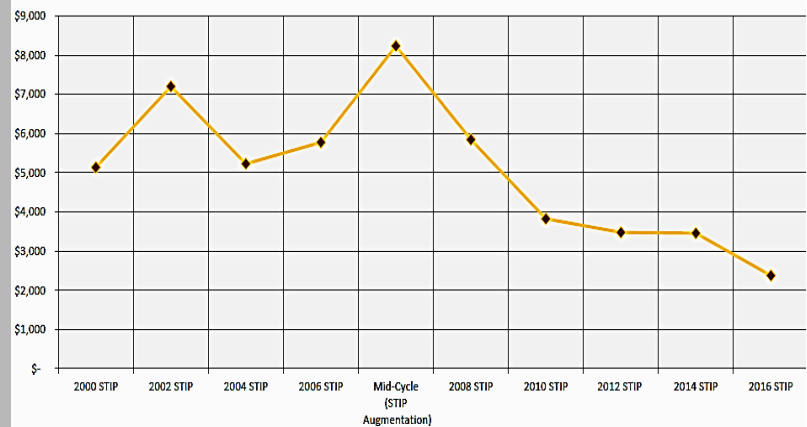
- Need for additional funds

FIGURE 3.1 CALIFORNIA POPULATION, TRAVEL AND GAS TAX REVENUE TRENDS



Source: Caltrans, California Department of Finance, California State Board of Equalization, White House Office of Management and Budget

HISTORIC STIP PROGRAMMING LEVELS



Why is Metro in Highway Business?

- Countywide Need Assessment
- Multi-agency program coordination/management
- Accelerated and cost effective project delivery

Metro's Financial Contributions to Highway Projects

Source	Commitment	Programmed to Date
Measure R	Approx. \$8 bil. (20%), \$267 mil./Yr.	~ \$ 2 bil.
Measure M	Approx. \$20.4 bil. (17%), \$500 mil+ /Yr.	
Proposition C:	Since 1990; 25% of revenue	
State	RIP, SHOPP, CMIA, TCRP, GARVEE, RIP, SLPP, Other	~ \$3.4 bil.
Federal	CMAQ, SAFETEA-LU, RSTP, ARRA, Grants, Demo. , Other	~ \$1.8 bil.
TOTAL (Since 1992)		\$7.2 bil.



Metro's Role in Highway Project Delivery

- Fair and equitable representation of all jurisdictions in the county
- Project need assessment
- Establishing guidelines for determination of project prioritization and funding eligibility under var. sales tax measures
- Programming State and Federal funds to support projects
- Funding highway capacity and operational improvements projects
- Direct management or oversight of highway operational improvement and capacity enhancement projects
- Risk assessment/management to control project cost and schedule
- Ensure timely and cost-effective project delivery by Metro, Caltrans, COGs, Consultants.



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Project Delivery and Control Plans

- ❑ On-Going Project Management/Controls
 - Get projects positioned for construction
- ❑ Operation Shovel Ready
 - Get projects positioned for construction
- ❑ Annual Program Evaluation (APE)
 - Evaluate and recalibrate project scopes, schedules, and budgets
- ❑ Program Management Plan (PMP)
 - Effectively manage delivery of a massive infrastructure program



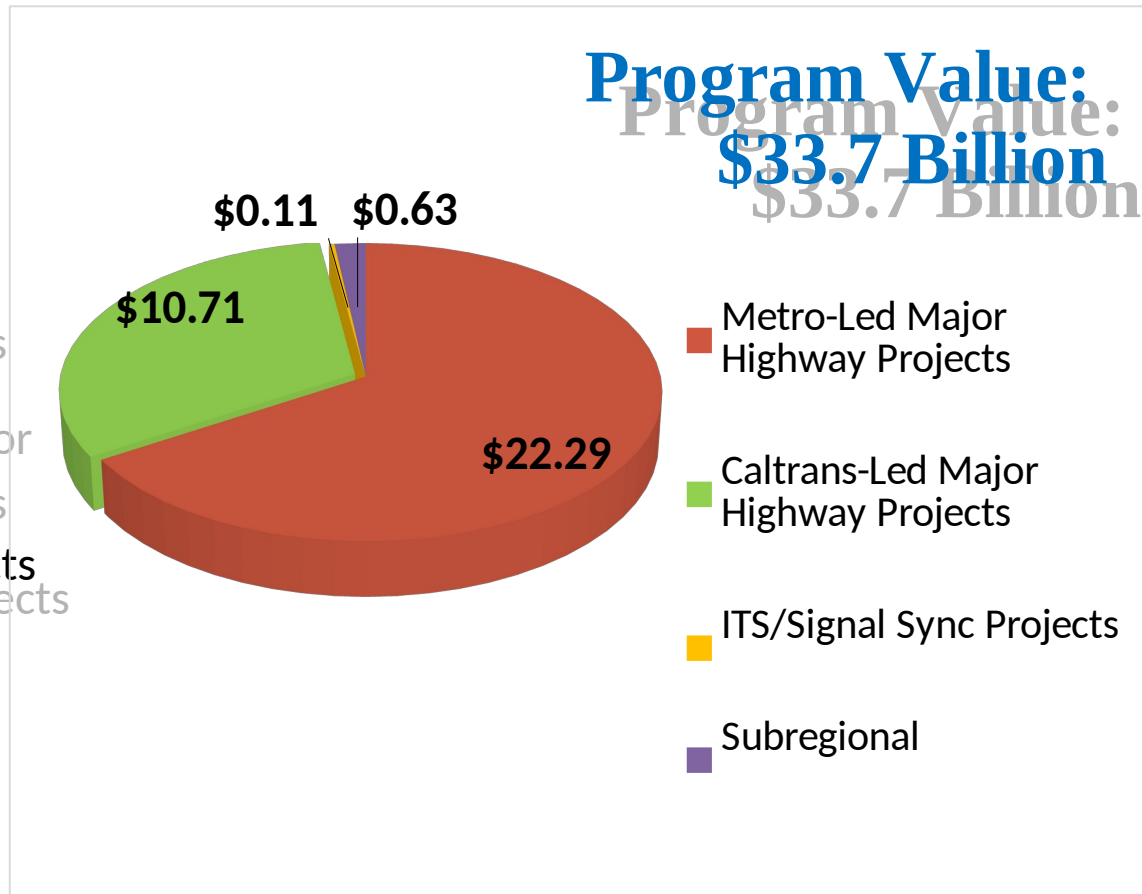
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Delivering Highway and Local Arterial Capacity and Operational Improvement Projects

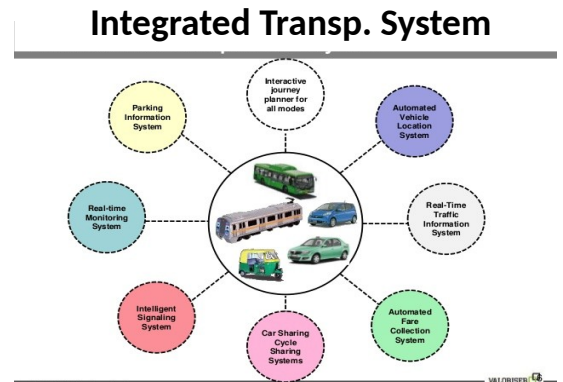
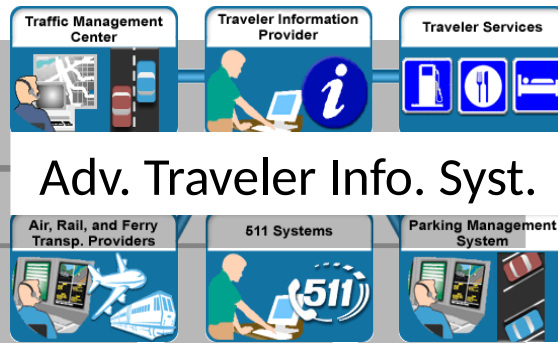
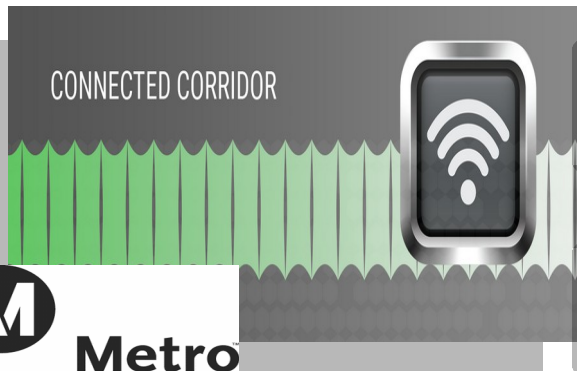
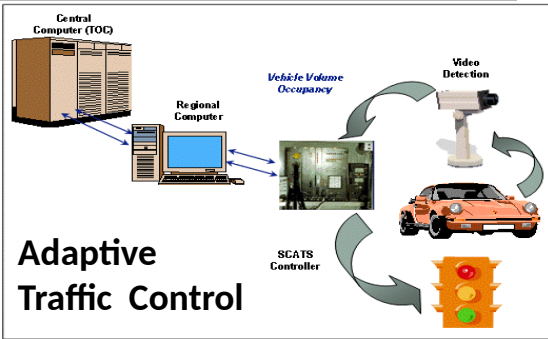
340 Projects

- 19 Metro-led Major Highway Projects
- 21 Caltrans-led Major Highway Projects
- 180 Subregional Projects
- 120 ITS/Signal Synchron. Projects

Program Value: \$33.7 Billion



Smarter Highway Projects



Congestion Reduction

ExpressLanes **Motorist Services**
Key Concepts/Objectives

Innovation

Collaboration

Public Facing Programs

**Responsible for All Facets of
Projects (Development,
Implementation, & Ongoing
Operations)**



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Metro ExpressLanes Background



- One-year demo of the 1st HOT lanes in LA County
- Converted 65 lane miles of HOV Lanes to HOT
- Program budget: \$210 CRD grant/\$80 Million match
- I-110 ExpressLanes opened 11/10/12
- I-10 ExpressLanes opened 2/23/13



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Program Requirements



- All vehicles (except buses, motorcycles, & emergency response) required to have a FasTrak® transponder
- 24/7 tolling operation
- Dynamically priced - \$0.10 to \$1.70 per mile
- I-10 - HOV 3+ Toll-free peak hours; HOV 2 off-peak
- I-110 - HOV 2+ Toll-free at all times
- SOV pay toll at all times
- \$40 to open account
- \$1 per month account maintenance fee
- Transponder can be used in multiple vehicles
- Metro's currently travel toll-free regardless of occupancy



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ExpressLanes Performance



- 652,906 transponders issued (Dec. 2016)
- 551,833 accounts opened (Dec. 2016)
- 12,612 low income assistance program accounts (Dec. 2016)
- 38.1 million trips (June 2016)
- ExpressLanes vs GP lane speeds during AM Peak (5am to 9am)
 - I-110 NB: 5.9 miles per hour faster than GP
 - I-10 WB: 6.3 miles per hour faster than GP
- Total Reinvestment of Net Toll Revenues: \$80,003,153
- FY17:
 - Strategic Plan
 - Automated Enforcement (VPDS)
 - Planning Studies



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Los Angeles County Service Authority for Freeway Emergencies (LA SAFE)



- Separate legal authority from Metro
 - Created in 1988
 - Pursuant to California Streets and Highways Code Section 2550 – 2559
 - \$7.5 million annually from \$1.00 DMV vehicle registration surcharge
- Funds motorist aid programs, including:
 - Kenneth Hahn Call Box System
 - Southern California 511 Traveler Information System
- Financially supports
 - Metro Freeway Service Patrol
 - Regional Integration of Intelligent Transportation Systems



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Metro Freeway Service Patrol

- FSP Beat Number and service area
- Freeway without FSP
- Interstate
- U.S. Highway
- State Highway

Monday - Friday 6am - 7pm*
 Saturday/Sunday 10am - 6pm*
 *Service Level (No.)



- Roving tow trucks
- Peak commuting hours, 475 freeway miles
- Service is provided free to motorists
- 300,000 assists performed each year
- 13:1 benefit to cost ratio
 - 16,253,000 gallons of fuel savings annually
 - 150,000 kg of emissions savings annually
- FY17:
 - Comprehensive vehicle monitoring /data collection system



Regional Integration of Intelligent Transportation Systems (RIITS)

- Interagency multimodal mobility program
 - Data exchange
 - Collaboration & Coordination
- Metro administrator of federally required Regional ITS Architecture
- FY17:
 - RIITS Modernization



Southern California 511

- Multi-modal, multi-regional and multi-platform traveler information system
- Provides traffic, transit, and commuter services information through the following platforms:
 - Automated phone service
 - Adaptive web-site
 - Mobile application
 - USG Video wall
- Over 180,000 monthly users
- FY17:
 - Next generation system
 - Integrate VetsGo511 service providing information tailored to the veteran and military community

The logo for Southern California 511, featuring the number '511' in white on a blue and black background.

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Metro and Goods Movement

Part of Metro's mission from the start...

“... 130051.12. (a) The Los Angeles County Metropolitan Transportation Authority shall, at a minimum, reserve to itself exclusively, all of the following powers and responsibilities:

(1) Establishment of overall goals and objectives to **achieve optimal transport service for the movement of goods** and people on a countywide basis. ...”

*Metro's Enabling Legislation
AB 152 (1992)*

...despite no direct role in operating a ship, port, freight train, truck, warehouse, container railyard, or cargo plane.



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Prior Metro Involvement in Goods Movement

- Funding partner and implementation lead for various highway projects throughout Los Angeles County
- Funding partner for Alameda Corridor-East Construction Authority (ACE)
- Regional rail overlap with freight rail corridors
- Advocate for and participate in federal/state funding opportunities
 - TCIF, FAST Act funding
- Outreach to / coordination with freight stakeholders
 - Communities, Ports, Freight Railroads, Caltrans, etc.



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Creation of Metro's Goods Movement Division

Previously various departments and divisions handled different pieces of the goods movement work at Metro

CEO Phil Washington created division within Countywide Planning to centralize and elevate goods movement efforts within Metro

- Creation of Metro Freight Working Group via board action (August 2016)

Major Initiatives Taking Place with Freight:

- **Federal:** FAST Act
 - FASTLANE grant program: \$4.5 Billion / 5 years
 - Allocation of formula funds to California: \$584 Million / 5 years
 - National Freight Strategic Plan
- **State:** California Sustainable Freight Action Plan, California Freight Mobility Plan, Formula funding guidelines, freight corridor designations
- **Regional:** Implementation of Measure M, Metro LRTP update, SCAG RTP

FASTLANE Grant Program

- \$4.5 Billion available over 5 years
- Nationally competitive application process evaluated by USDOT
- Awards made to freight and highway projects, including port and grade separation projects.
- Metro and SCAG region as a whole did not receive an award in FY 16
- Modified strategy for FY 17 to seek more partnerships with Caltrans and freight stakeholders to create joint applications for connected projects:
 - Ports of LA & Long Beach / ACE: **America's Global Freight Gateway – Southern California Rail Project**
 - Caltrans / SANBAG / RCTC / SCAG: **America's Global Freight Gateway – Southern California Highway Project**
 - Partnered with Caltrans and North County: **I-5 Truck and HOV Lanes project** in Santa Clarita



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AMERICA'S GLOBAL FREIGHT GATEWAY

SOUTHERN CALIFORNIA
HIGHWAY STRATEGY

December 15, 2016

FY-2017 FASTLANE GRANT APPLICATION



Submitted by:



partnered with:



Metro's FY 17 FASTLANE Submissions

FY 17 FASTLANE funding available: \$850 million

AMERICA'S GLOBAL FREIGHT GATEWAY

SOUTHERN CALIFORNIA RAIL PROJECT



Metro



America's Global Freight Gateway: Southern California Rail Project

- Lead Applicant: Metro
- Partners: POLA / POLB / ACE / Caltrans
- Location: Gateway Cities/San Gabriel Valley
- **Request: \$97 million**
- Total Project Cost: \$277 million

America's Global Freight Gateway: Southern California Highway Strategy

- Lead Applicant: Caltrans (Metro request)
- Partners: Metro / SANBAG / RCTC / SCAG
- Location: San Gabriel Valley / San Bernardino County / Riverside County
- **Request: \$160 million**
- Total Project Cost: \$1.5 billion

I-5 Truck and HOV Lanes Project

- Lead Applicant: Metro
- Partners: Caltrans / Santa Clarita / LA County
- Location: North L.A. County
- **Request: \$50 million**
- Total Project Cost: \$440 million



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Looking Forward - 2017

- Develop multi-agency advocacy efforts with new Administration in support of our FASTLANE applications
- Develop guidelines for Measure M funding categories featuring goods movement elements
- Create Goods Movement Strategic Plan and new Goods Movement element for upcoming Long Range Transportation Plan update
- Develop guidelines through CTC for State controlled federal formula freight funds and work with State agencies on Freight Plans and policy
- Continue outreach to stakeholders and augment Metro Freight Working Group to include more regional partners



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END



Board Report

File #: 2016-0641, **File Type:** Informational Report

Agenda Number: 7

AD HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE JANUARY 18, 2017

SUBJECT: METRO EXPRESSLANES FISCAL YEAR (FY) 2016 PERFORMANCE REPORT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE the **FY2016 Performance Report (Attachment A)** for the Metro ExpressLanes.

ISSUE

In order to monitor performance and ensure key performance goals are met, Metro ExpressLanes performance metrics are monitored on a continual basis. This report provides an update on the performance of the Metro ExpressLanes for FY 2016.

DISCUSSION

Attachment A provides a detailed summary of the program's performance for Metro's Fiscal Year 2016 (July 1, 2015 to June 30, 2016). The following are highlights of the Metro ExpressLanes performance based upon data through June 30, 2016:

- Monthly average travel speeds for the entire corridor were 11% faster than the general purpose lanes and remain above 45 miles per hour (mph) 100% of the time:
 - I-110 ExpressLanes average AM peak-period travel speeds : 52 mph
 - I-10 ExpressLanes average AM peak-period travel speeds : 55 mph
- Through FY 2016 the total number of vehicle trips approached 100 million and vehicle trips in the ExpressLanes continued to increase by 12% compared to FY 2015.
- A total of 506,031 transponders were issued from program inception through June 30, 2016 (145,459 were issued in FY 2016).
- Low Income Assistance Plan account openings increased by 51.2% from FY 2015.
- HOV only minutes increased markedly for the I-110 NB during the AM peak period.
- HOV only minutes decreased for the I-10 WB during the AM peak where HOV 3 is required for toll free travel.

110 Northbound AM Peak Period

With the continued increase in vehicle trips on the I-110 Northbound ExpressLanes, the system is

going into HOV ONLY more frequently during the northbound morning peak period. As a result, staff is monitoring the impact on travel speeds.

HOV Only Status

The ExpressLanes are operated on dynamic pricing principles designed to maintain travel speeds at or above 45mph. When vehicle travel speeds fall below 45 mph on a segment of the lanes, the lanes go into HOV Only status which means Single Occupant Vehicles are prohibited from entering the lanes at that segment to help alleviate the congestion and raise the speeds.

Due to the toll free status of HOV 2 customers and the higher number of vehicle trips on the northbound I-110 ExpressLanes; these lanes enter HOV Only status more frequently than the I-10 corridor. In FY 2016, the 110 was in HOV Only status a total of 18,370 minutes during the AM peak period. This is a 90% increase compared to FY 2015.

Average Travel Speeds

During FY 2016, a daily average of 28,419 vehicles traveled the I-110NB ExpressLanes, which is a 4% increase from the prior year. Because of this increase in volume, overall, average travel speeds during the AM peak period were 3.9% lower compared to FY 2015. This is directly related to the increase in the number of vehicles using the ExpressLanes. Staff is implementing a number of operational improvements (refining the pricing algorithm, deploying a vehicle passenger detection system, providing incentives to shift customers' travel times, etc.) to reduce the amount of time the lanes enter HOV only status.

NEXT STEPS

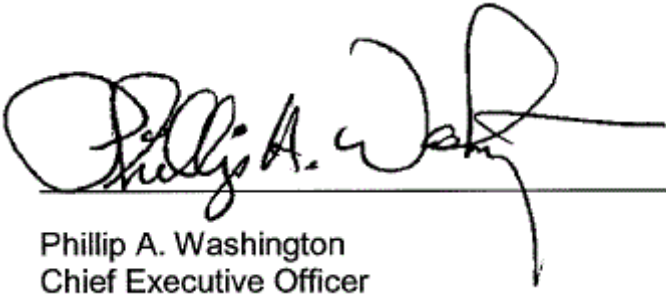
Staff will return to the Board in six months with the next performance report and will continue work on implementing the operational improvements listed in the report.

ATTACHMENTS

Attachment A - Metro ExpressLanes Performance Report: Fiscal Year 2016

Prepared by: Michel'le Davis, Principal Transportation Planner, 213.922.1222
Kathleen McCune, DEO, Congestion Reduction, 213.922.7241
Shahzad Amiri, Executive Officer, Congestion Reduction, 213.922.3061

Reviewed by: Stephanie Wiggins, Deputy CEO, 213.922-1023



Phillip A. Washington
Chief Executive Officer

METRO EXPRESSLANES

PERFORMANCE REPORT

Fiscal Year 2016 (Ending June, 30 2016)

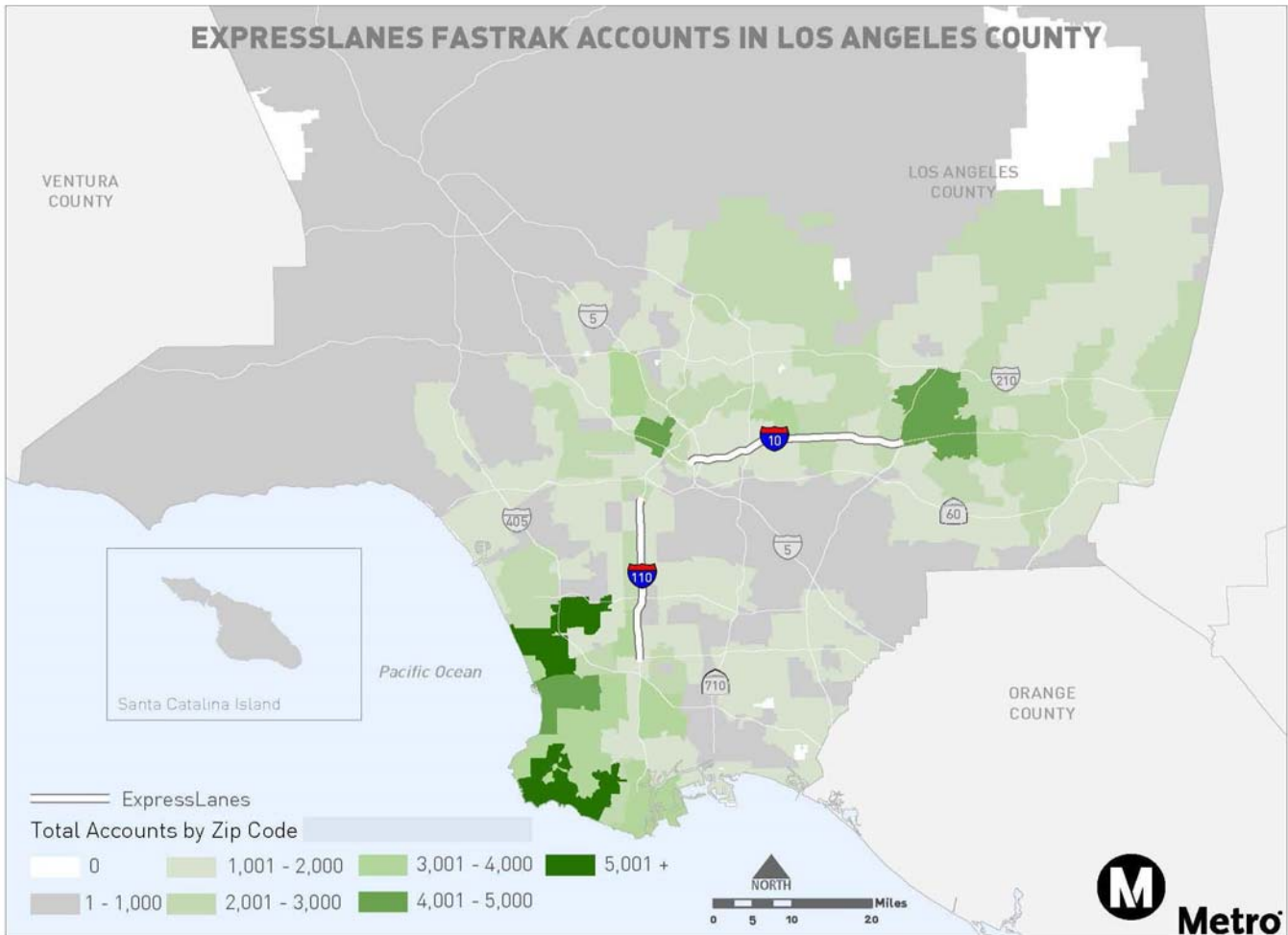
JANUARY 18, 2017



METRO EXPRESSLANES HIGHLIGHTS PROGRAM TOTALS THRU JUNE 2016



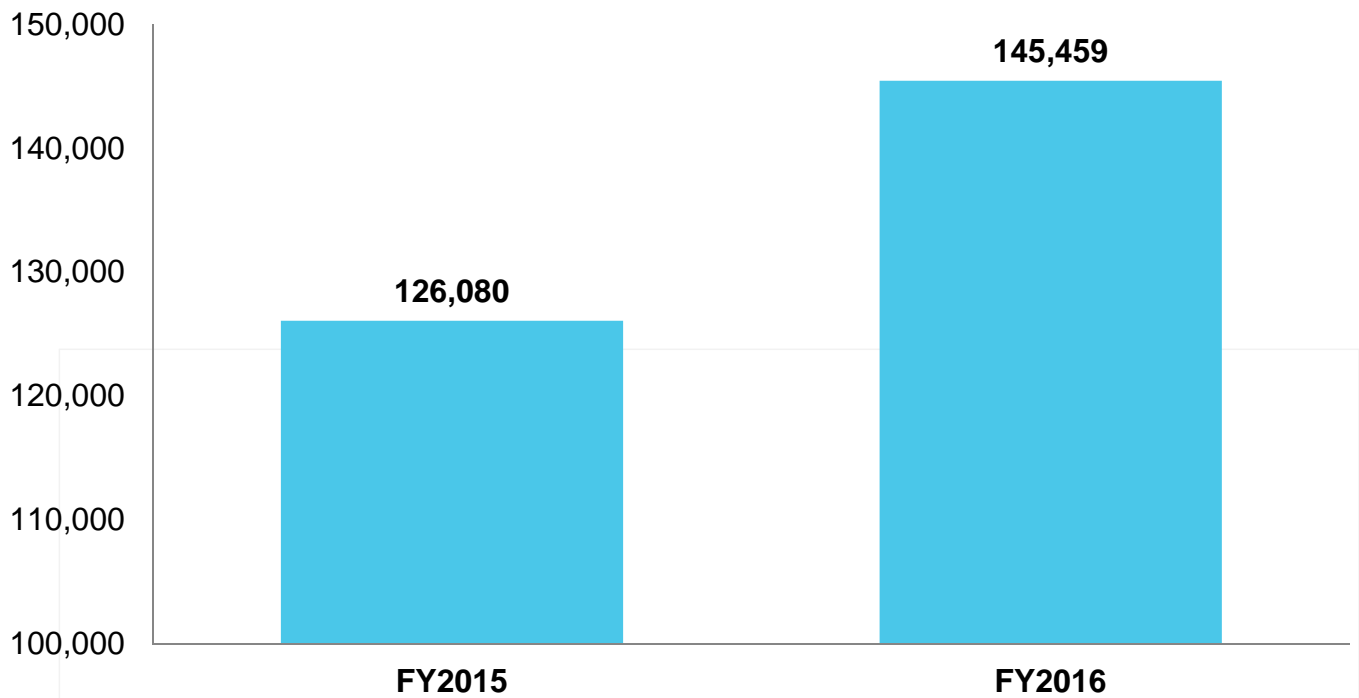
TOTAL VEHICLE TRIPS	96,629,790
	I-110 : 62,084,807 I-10 : 31,544,983
TOTAL PRELIMINARY REVENUE	\$145,372,298
	I-110 : \$91,432,390 I-10 : \$55,329,960
TOTAL ACCOUNTS OPENED	454,603
LOW-INCOME ASSISTANCE PLAN ACCOUNTS	8,882
TOTAL TRANSPONDERS ISSUED.....	506,031
SILVER LINE RIDERSHIP.....	1,257,724



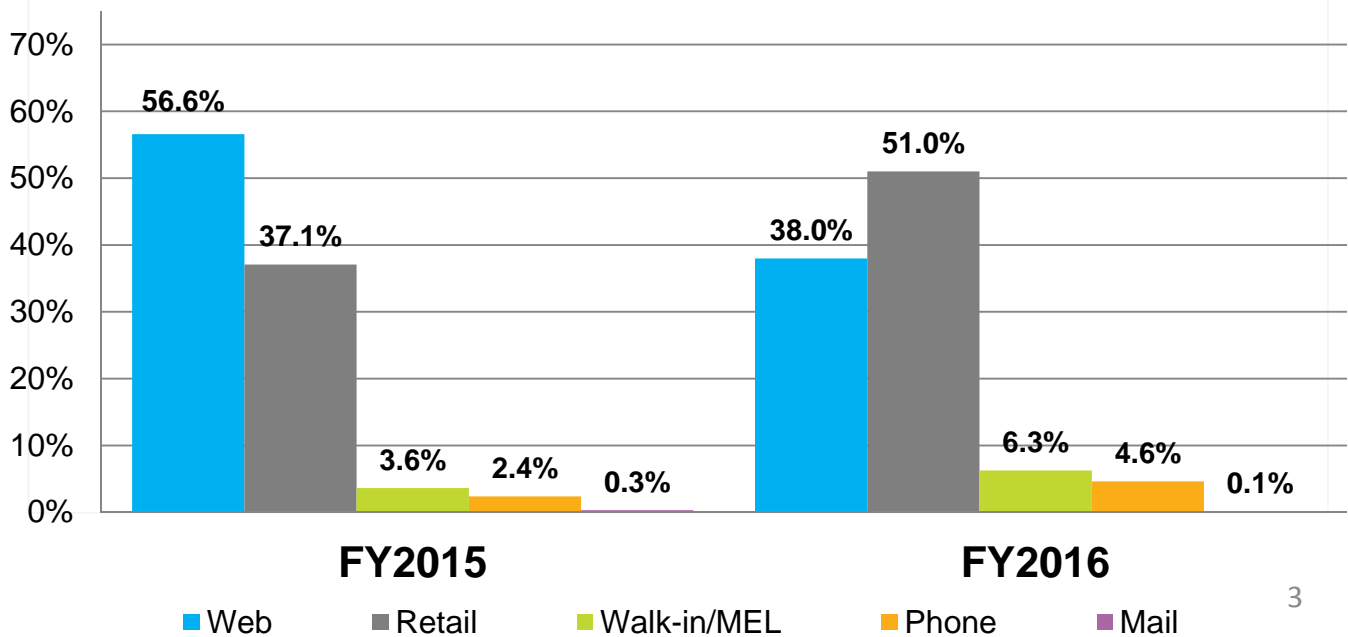
FASTRAK TRANSPONDER ADOPTION –



Newly Issued FasTrak® Transponders



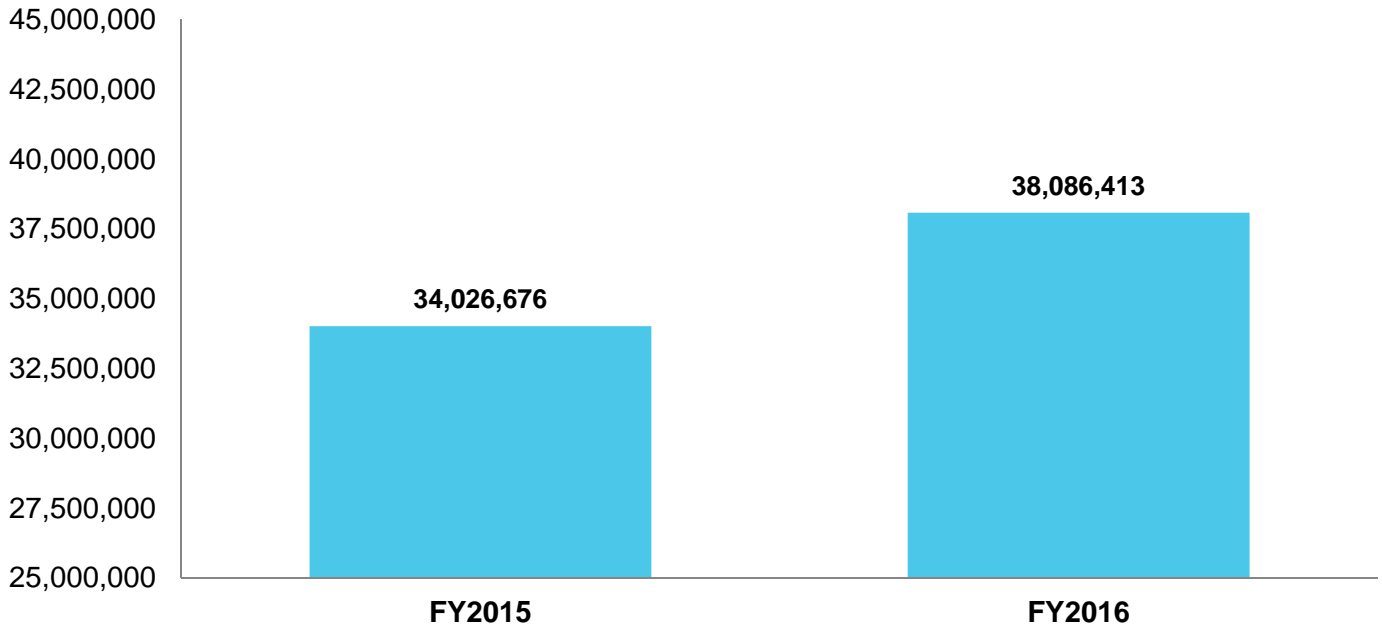
Percentage of Accounts Opened by Channel



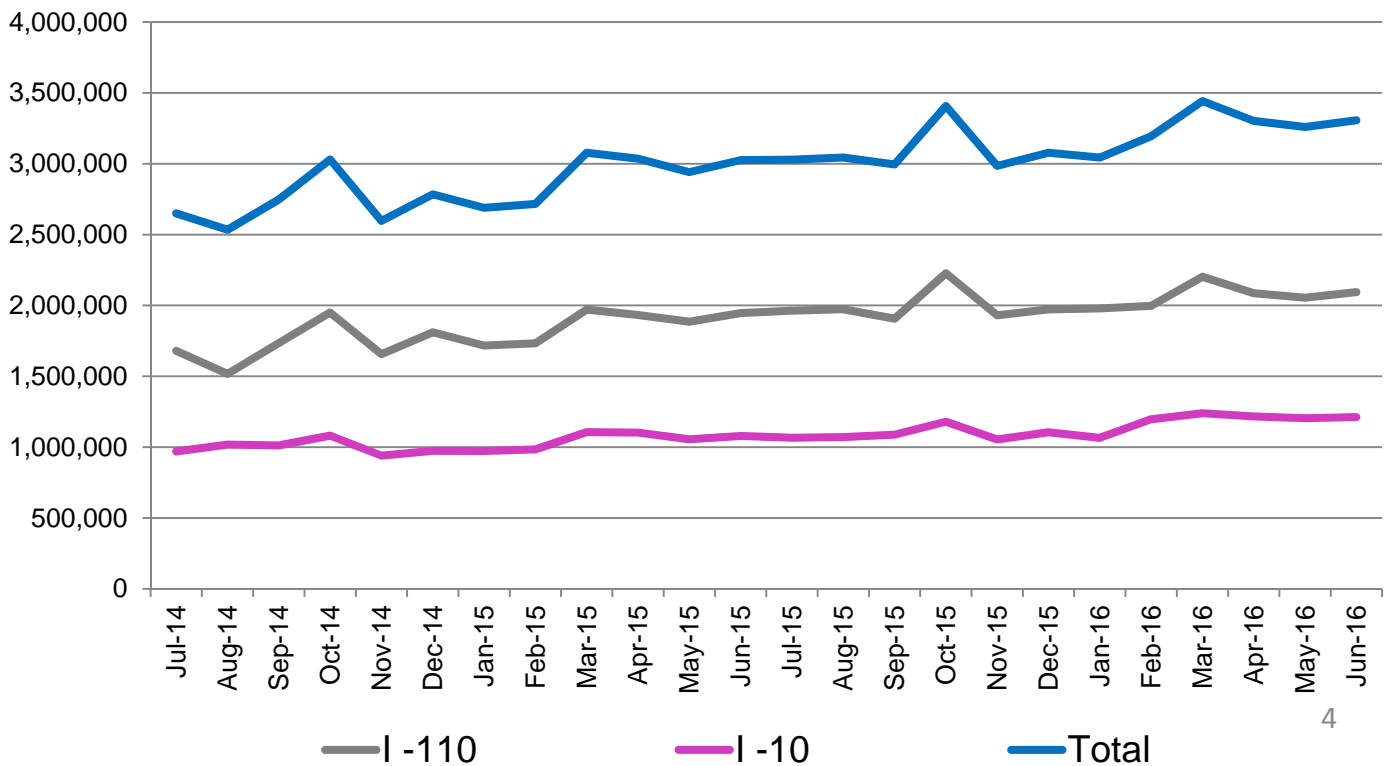
METRO EXPRESSLANES VEHICLE TRIPS



TOTAL EXPRESSLANES TRIPS BY YEAR



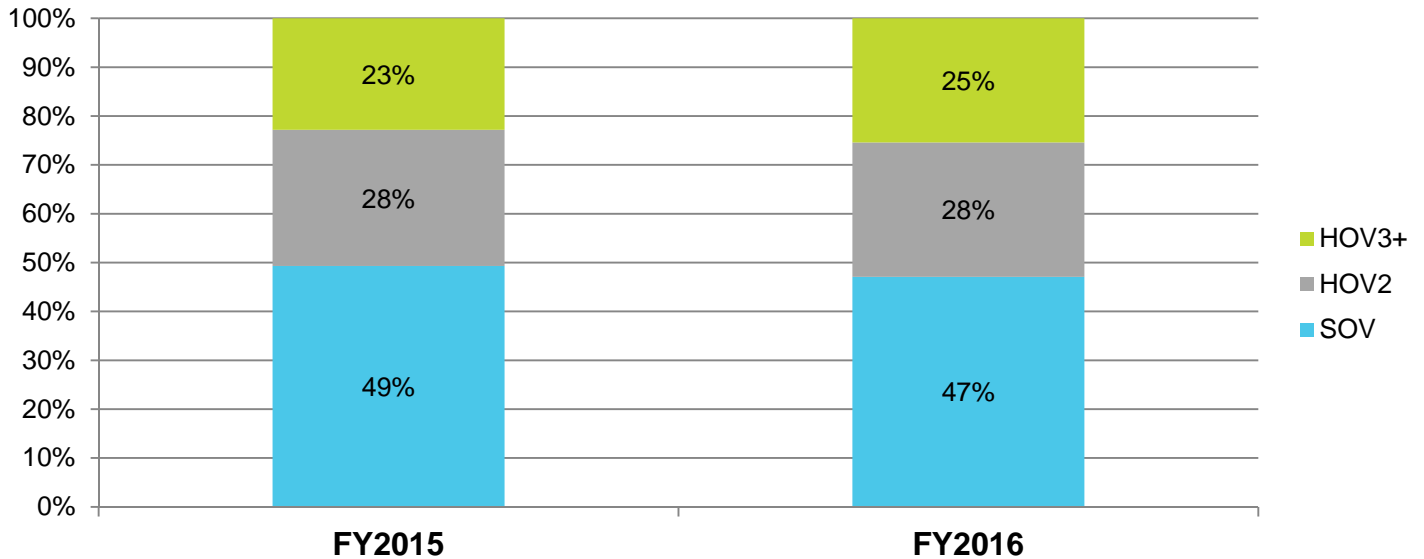
TOTAL EXPRESSLANES TRIPS BY MONTH



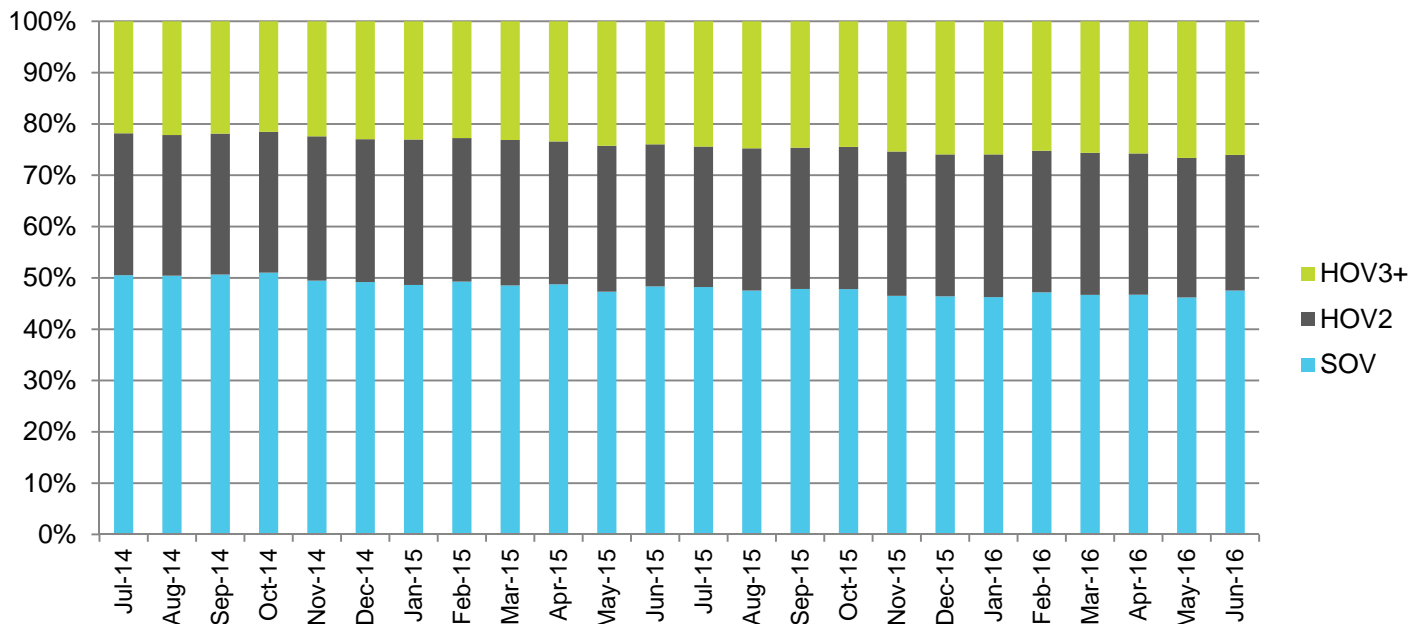
METRO EXPRESSLANES VEHICLE TRIPS Continued



TOTAL EXPRESSLANES OCCUPANCY SPLIT BY YEAR*



TOTAL EXPRESSLANES OCCUPANCY SPLIT BY MONTH



*Effective February 2014, vehicles displaying a DMV issued white or green clean air vehicle decal are toll-free. The transponder must be set to switch position 3. This mode split includes white or green decal vehicle trips which may contain single-occupant trips classified as HOV3+. Violators are counted as Single Occupant Vehicles.

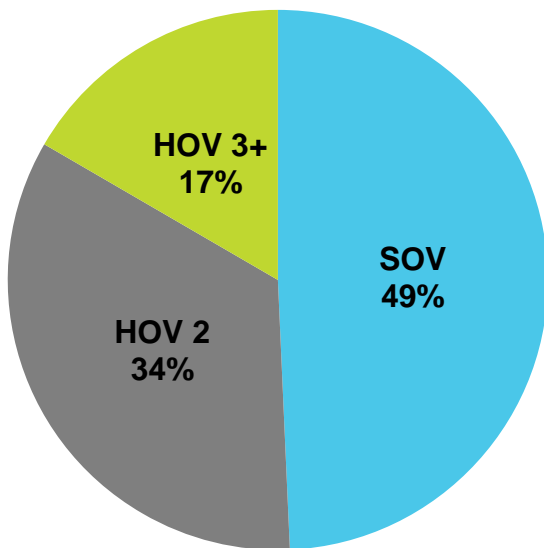
METRO EXPRESSLANES VEHICLE TRIPS Continued



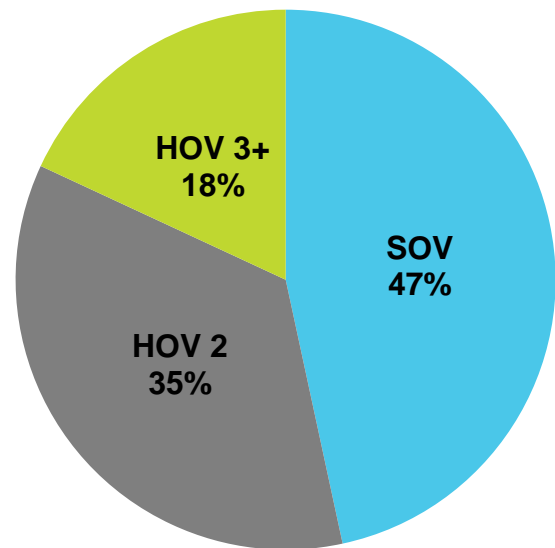
TOTAL EXPRESSLANES OCCUPANCY SPLIT BY CORRIDOR

I-110 OCCUPANCY SPLIT

FY2015

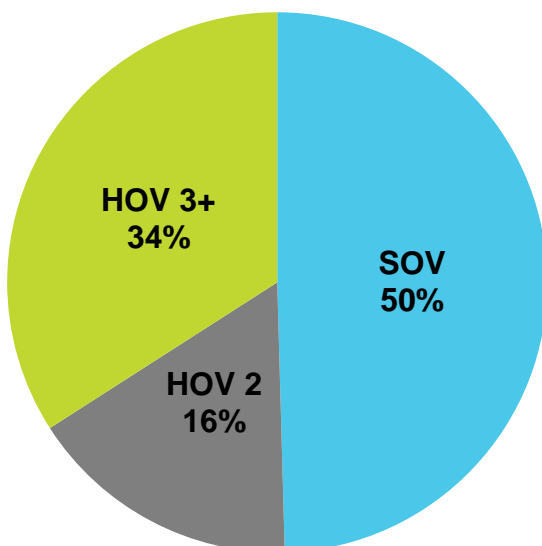


FY2016

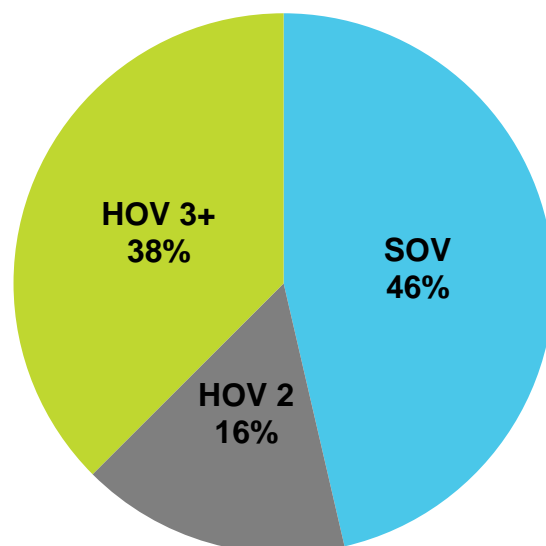


I-10 OCCUPANCY SPLIT

FY2015



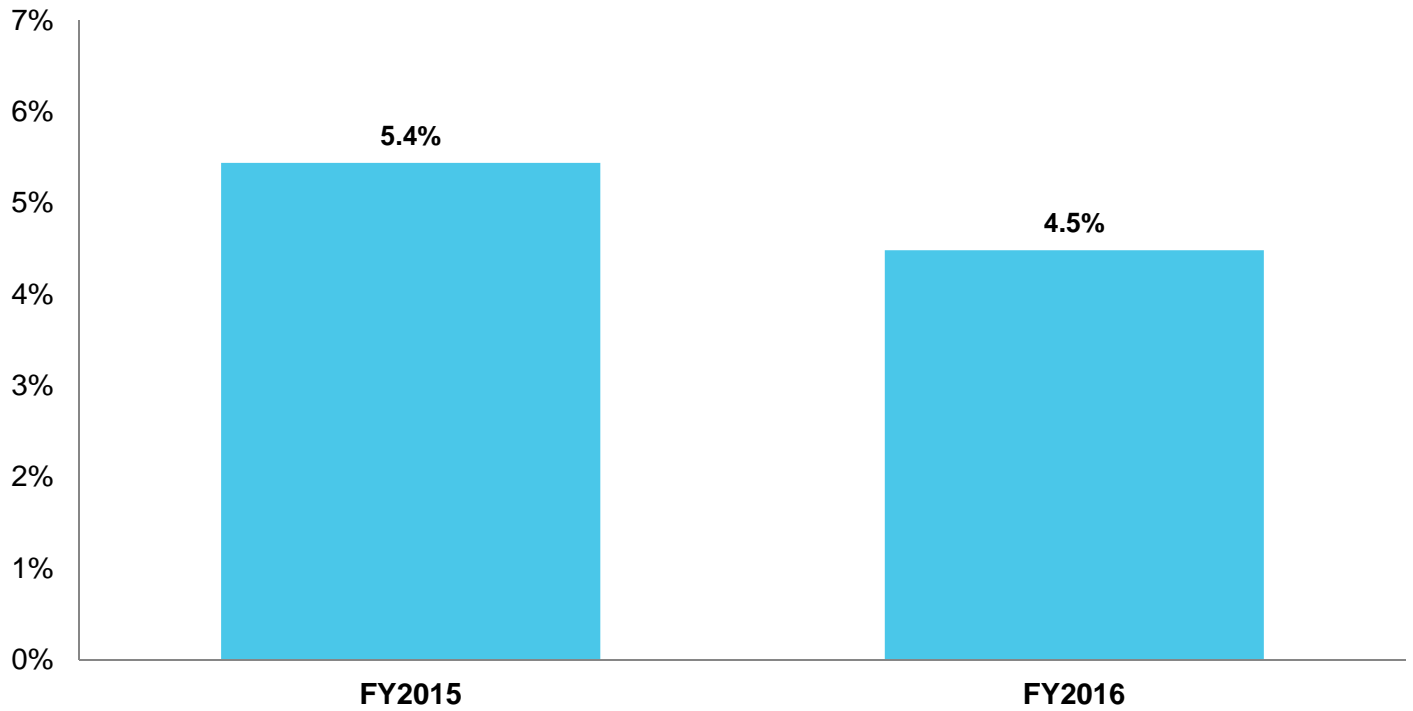
FY2016



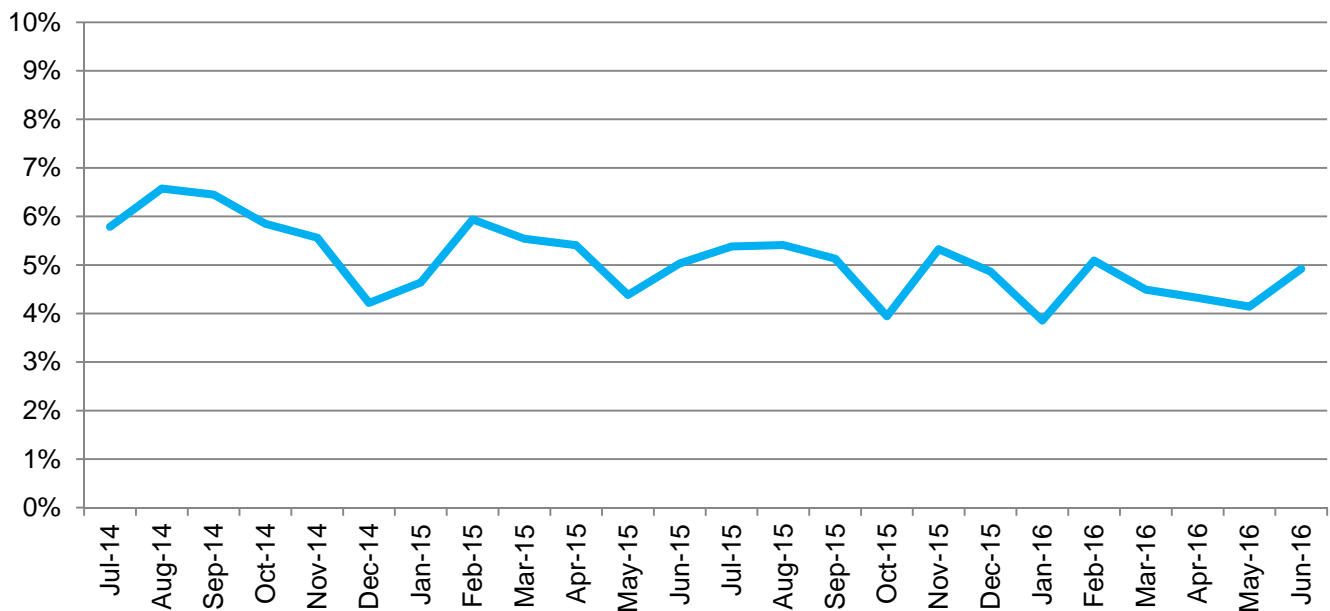
METRO EXPRESSLANES VIOLATION TRIPS



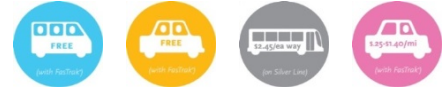
Violations as a Percentage of Total Trips by Year



Violations as a Percentage of Total Trips by Month



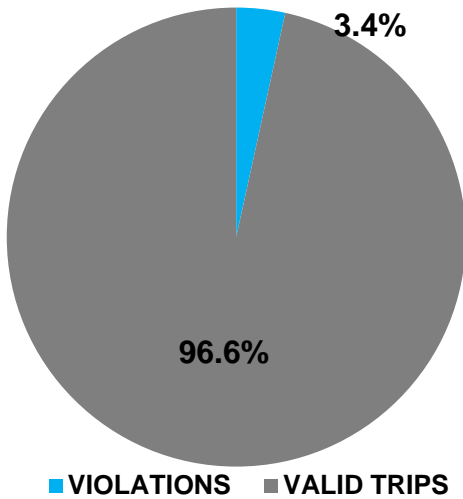
METRO EXPRESSLANES VIOLATION TRIPS Continued



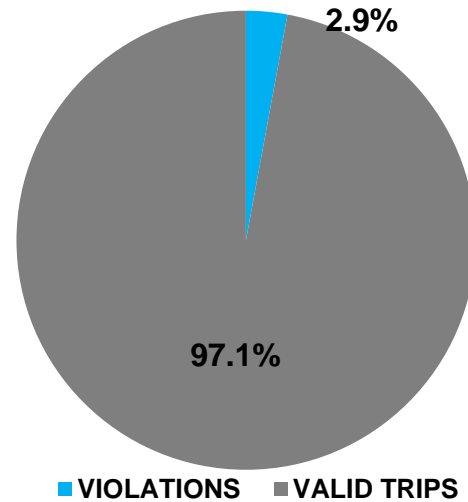
AM PEAK VIOLATIONS

Violations are least in the AM peak when usage is mostly by regular commuters.

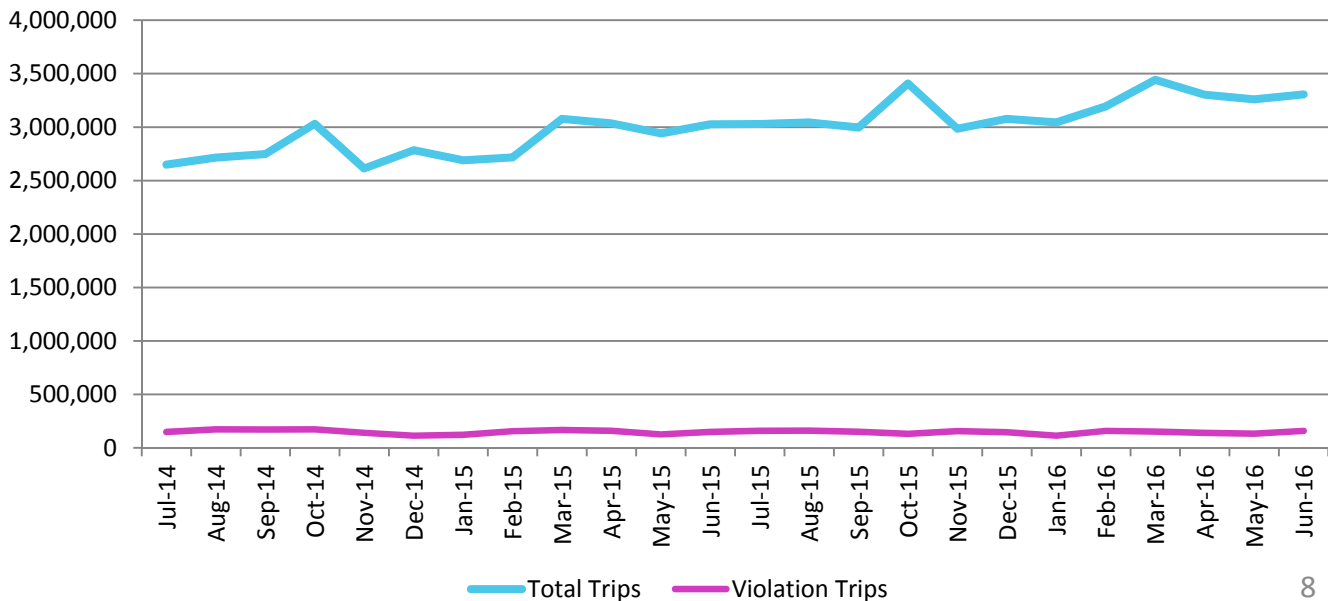
FY16: I-110 NB AM PEAK VIOLATION RATE



FY16: I-10 WB AM PEAK VIOLATION RATE



ExpressLanes Violation Trips by Month

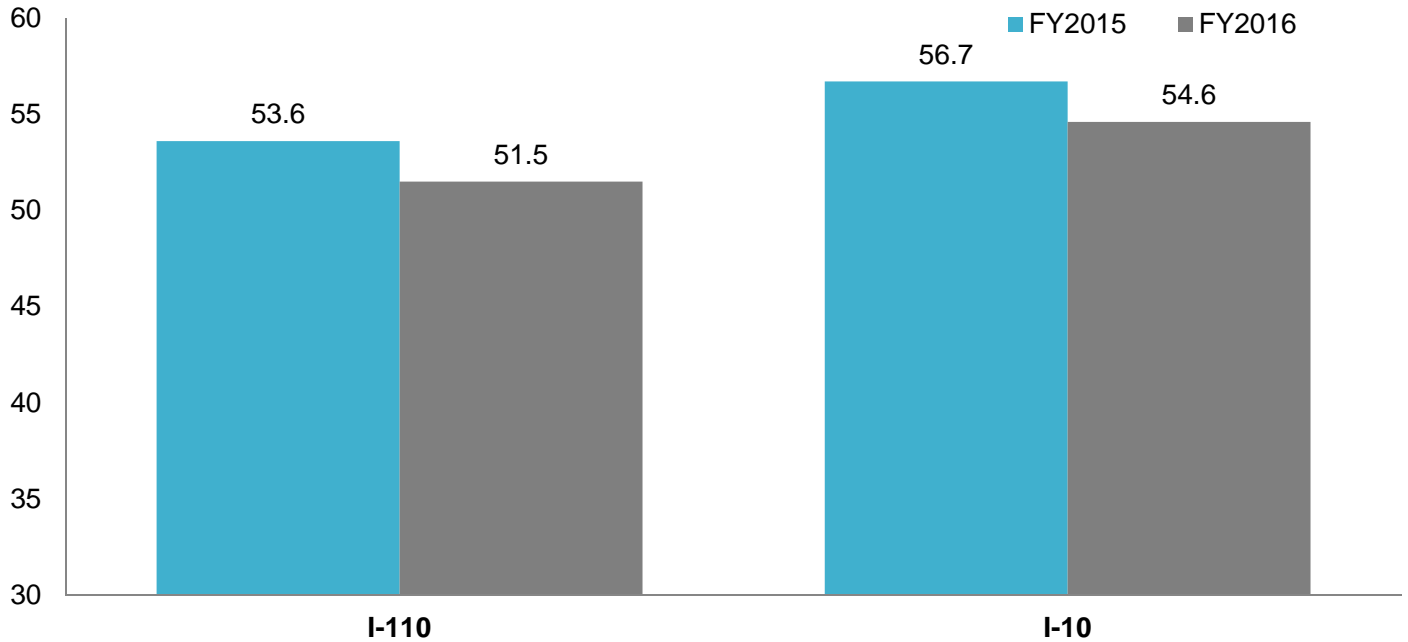


AM PEAK PERIOD (5-9AM) TRAVEL SPEEDS

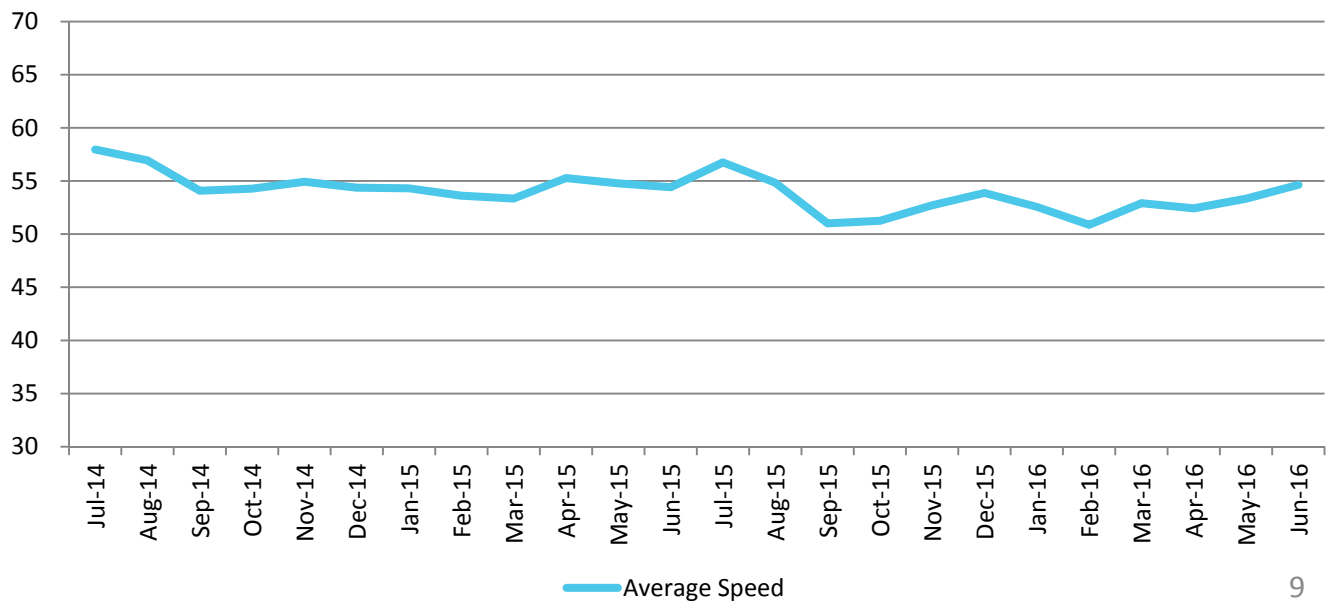


EXPRESSLANES AVERAGE TRAVEL SPEEDS- PEAK PERIOD (5AM-9AM)

Average travel speeds of a full length trip during the morning peak period (5 am to 9 am) have remained above the 45 mph goal.



AM Peak ExpressLanes Average Speed (mph) – Both I-10 & I-110 Corridors



AM PEAK HOURS (5-9AM) TRAVEL SPEEDS Continued

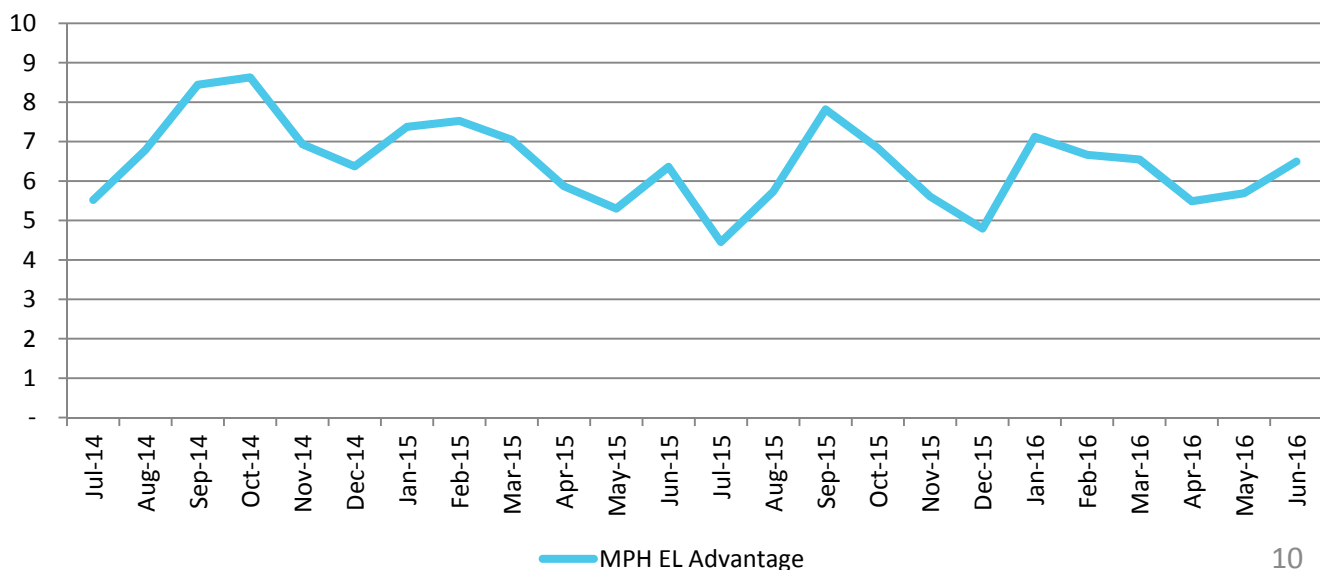


EXPRESSLANES SPEED ADVANTAGE OVER THE GENERAL PURPOSE LANES AVERAGE TRAVEL SPEEDS- AM PEAK HOURS (5-9 AM)

Average travel speeds of a trip during the morning peak period have remained above the General Lanes.

	I-110 EL Average Speed Advantage over General Purpose Lanes	I-10 EL Average Speed Advantage over General Purpose Lanes
FY15	6.9 MPH Faster	6.8 MPH Faster
FY16	5.9 MPH Faster	6.3 MPH Faster

AM PEAK EXPRESSLANES SPEED ADVANTAGE (MPH)- BOTH I-10 & I-110 CORRIDORS

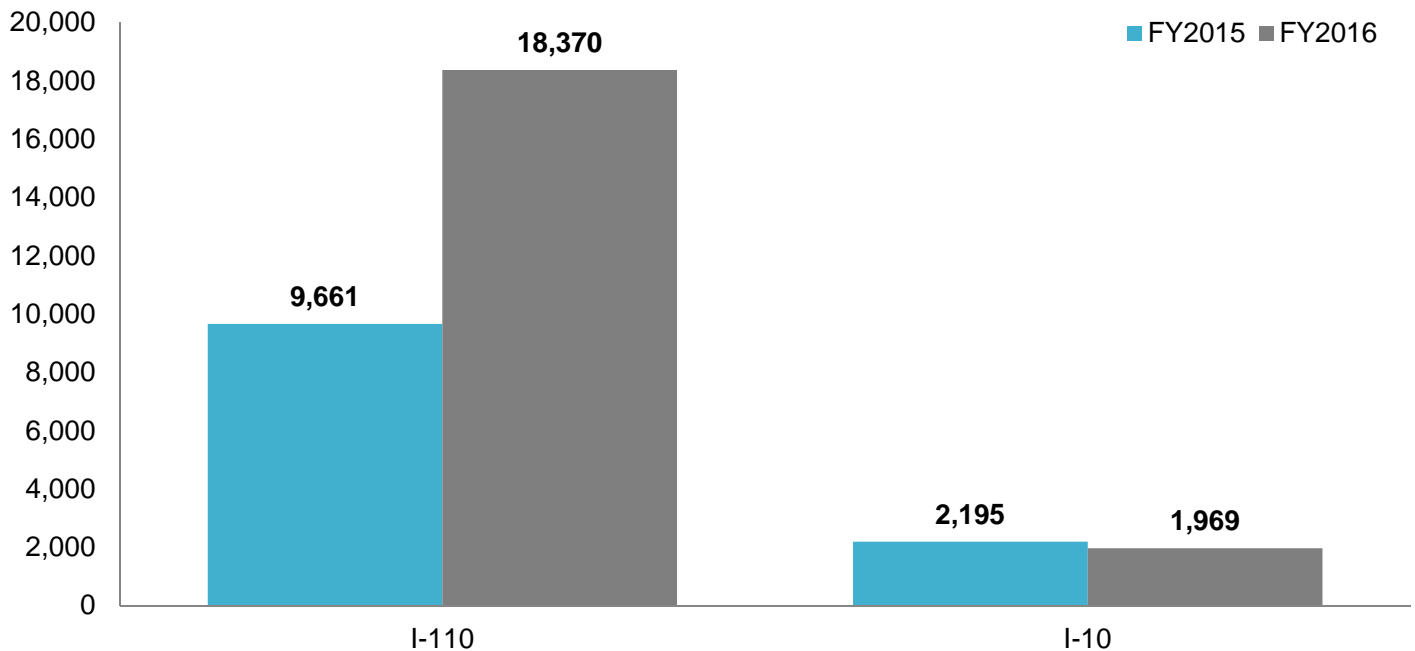


AM PEAK PERIOD (5-9AM) HOV ONLY STATUS

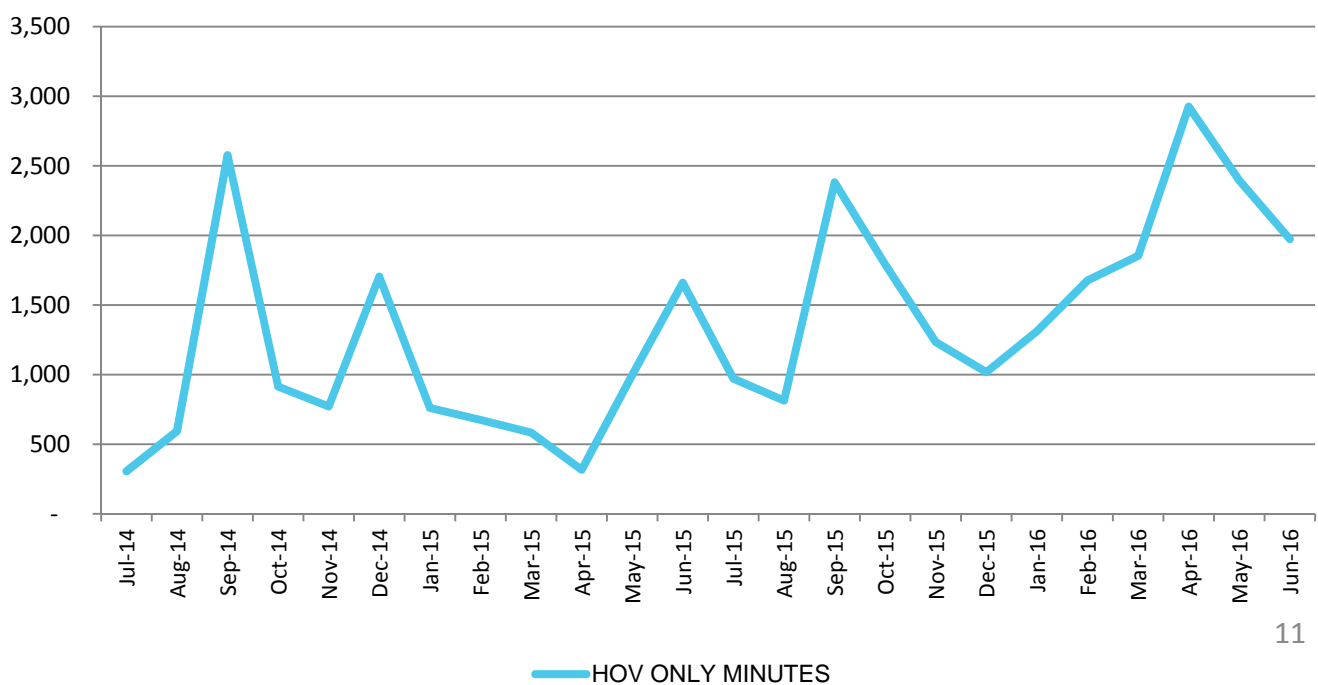


HOV ONLY STATUS- AM PEAK PERIOD (5AM-9AM)

The ExpressLanes are operated on dynamic pricing principles designed to maintain travel speeds at or above 45 mph. When vehicle travel speeds fall below 45 mph on a segment of the lanes, the lanes go into HOV only status- not allowing SOV drivers into the lanes to help alleviate some congestion. This is an indication of increasing demand, particularly on I-110.



TOTAL HOV ONLY MINUTES BY MONTH

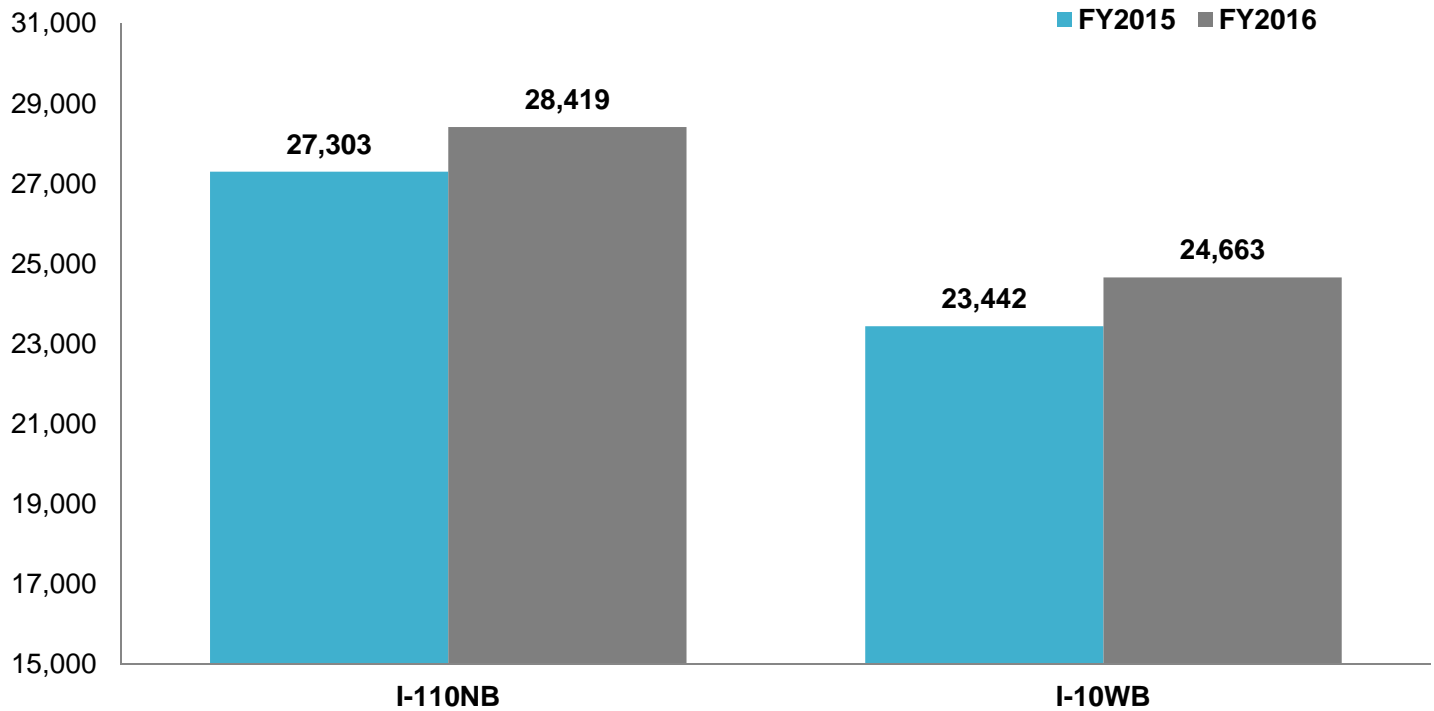


AM PEAK HOURS (5-9AM) VEHICLE VOLUMES Continued

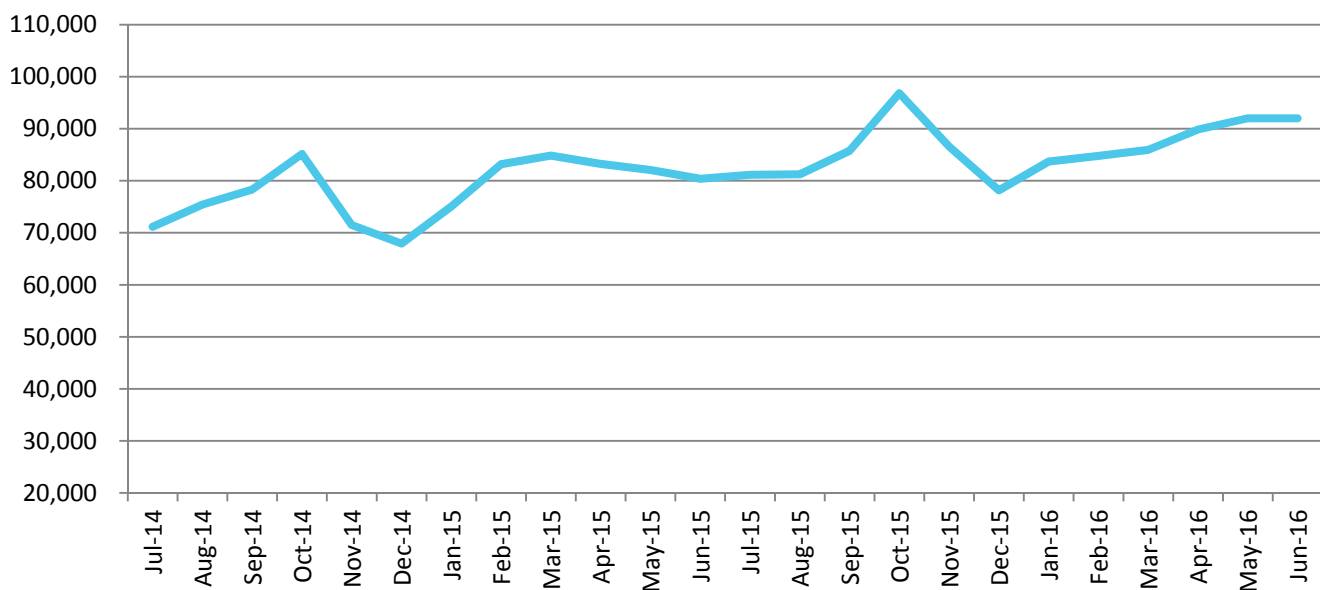


AVERAGE VEHICLE VOLUME AM PEAK HOURS (5-9 AM)

Expresslanes Average AM Peak Vehicle Volume – Peak Directions



AM PEAK AVERAGE DAILY VOLUMES- ALL EXPRESSLANES



CUSTOMER INCENTIVE PLANS

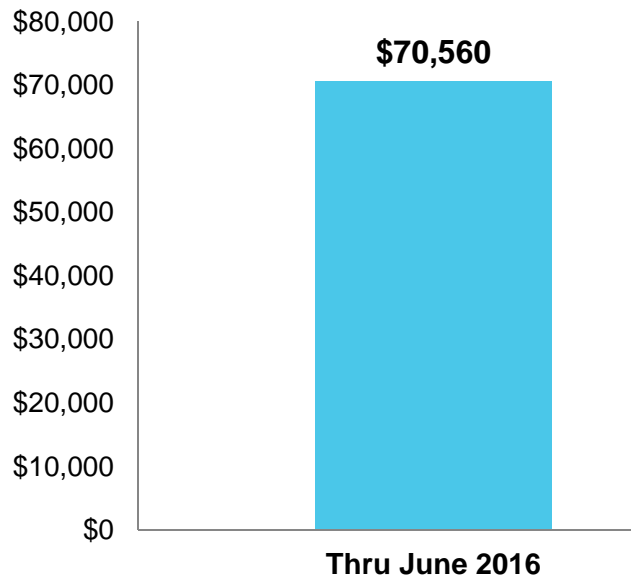


TRANSIT REWARDS

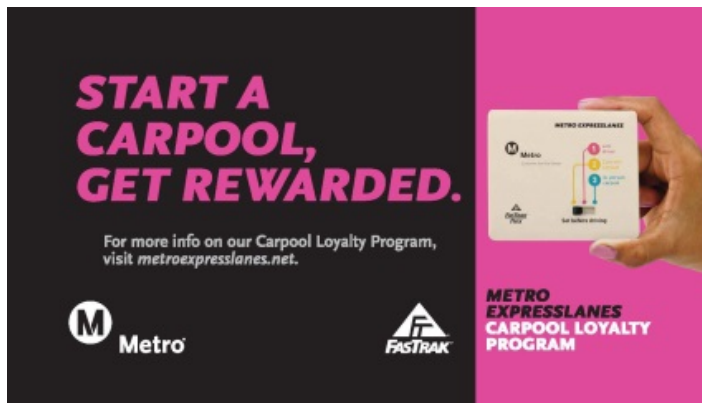
Metro offers transit riders the ability to earn toll credits by linking their TAP card to their Metro Expresslanes FasTrak account. Transit riders can earn a \$5 toll credit each time they make 16 trips.



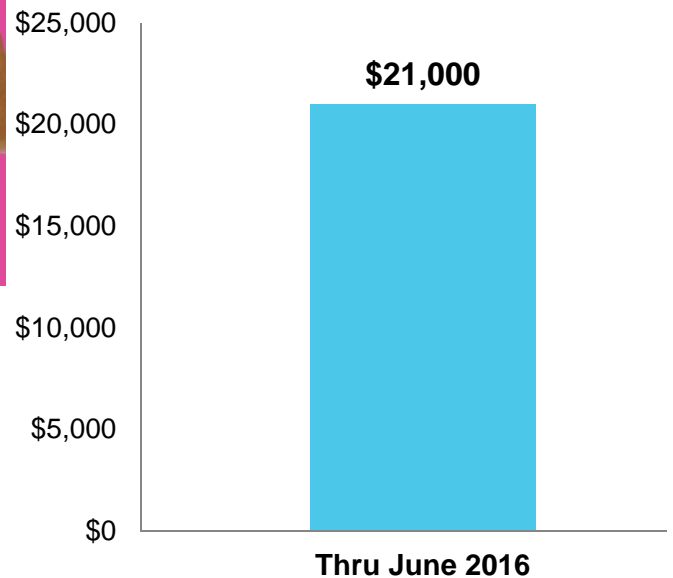
Toll Credits Issued Since Inception



CARPOOL LOYALTY



Gift Card Rewards Issued Since Inception

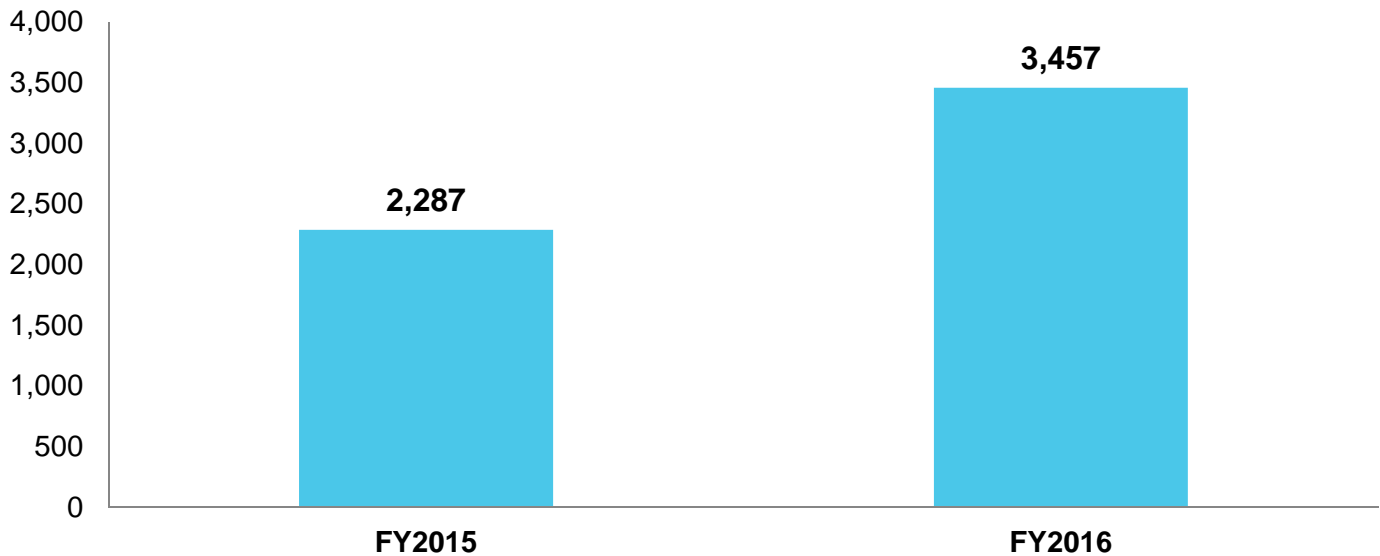


The Carpool Loyalty Program automatically enters the Metro ExpressLanes FasTrak account holder into a monthly drawing for a chance to win gift cards when they use the ExpressLanes as a carpooler.

LOW-INCOME ASSISTANCE PLAN



Newly Opened Low Income Assistance Plan Accounts



Low Income Assistance Plan Awareness & Outreach

- Outreach at different community events such as Chinese New Year Festivals and transportation workshops during January and February 2016.
- A campaign was initiated in June 2016 with radio, McDonalds television, gas station television, outdoor, and mall advertising.
- Information on the Low Income Assistance Plan is being displayed on bus cards, billboards, and online ads running June thru December 2016.
- Account openings have increased by 51% since FY2015.

LOW-INCOME ASSISTANCE PLAN

You may qualify for a discount.
Learn more at metroexpresslanes.net.

M Metro

FASTRAK

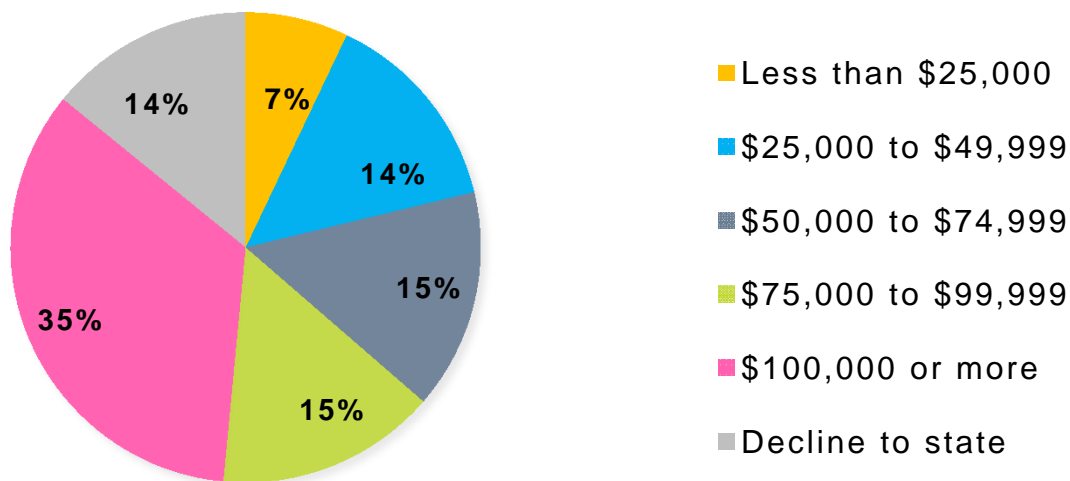
METRO EXPRESSLANES LOW-INCOME ASSISTANCE PLAN

METRO EXPRESSLANES USER PROFILE



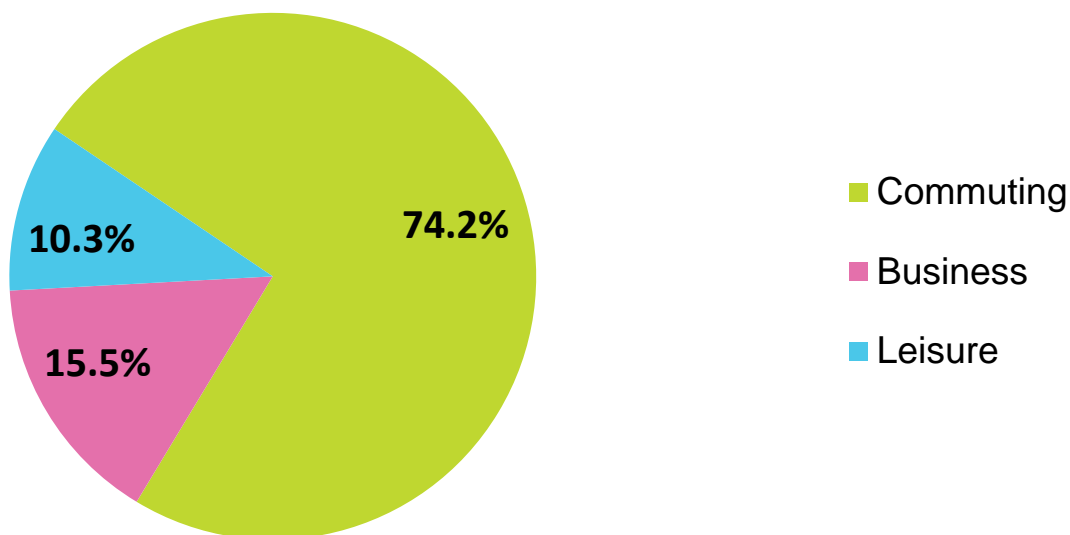
ACCOUNTS BY HOUSEHOLD INCOME

A Customer Survey conducted in August 2016 shows that the nearly half of account holders (44%) self-reported household incomes from \$35,000 to \$99,999.



TRIPS BY USAGE

The Customer Survey shows that the majority (74%) of users of the ExpressLanes were for commuting trips, followed by business (16%), and Leisure (10%) trips.

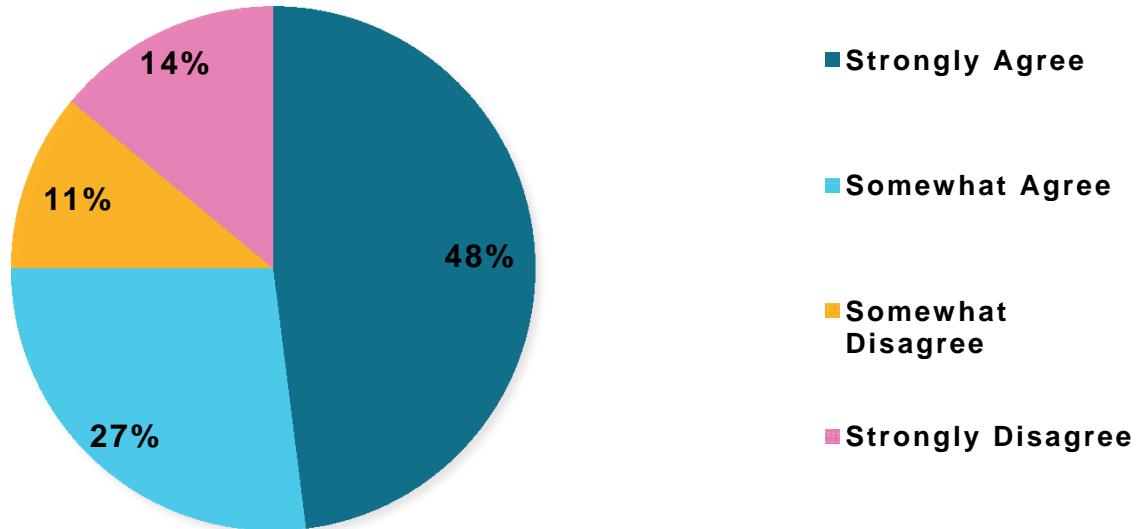


METRO EXPRESSLANES USER PROFILE Continued



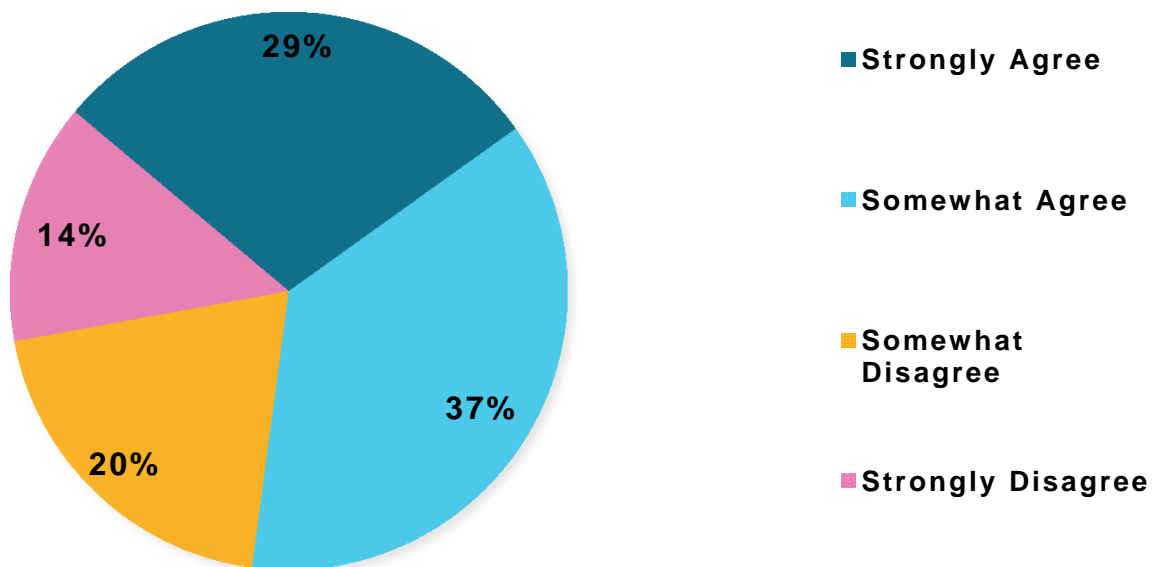
SUPPORT FOR FUTURE EXPRESSLANES

Current customers were asked how much they agree with the following statement: **I would support adding more ExpressLanes on other roadways.** 75% Agreed or Strongly Agreed.



VALUE OF MONEY SPENT ON EXPRESSLANES TRIPS

Current customers were asked how much they agree with the following statement: **The money I spend for the ExpressLanes is worth it.** 66% Agreed or Strongly Agreed.



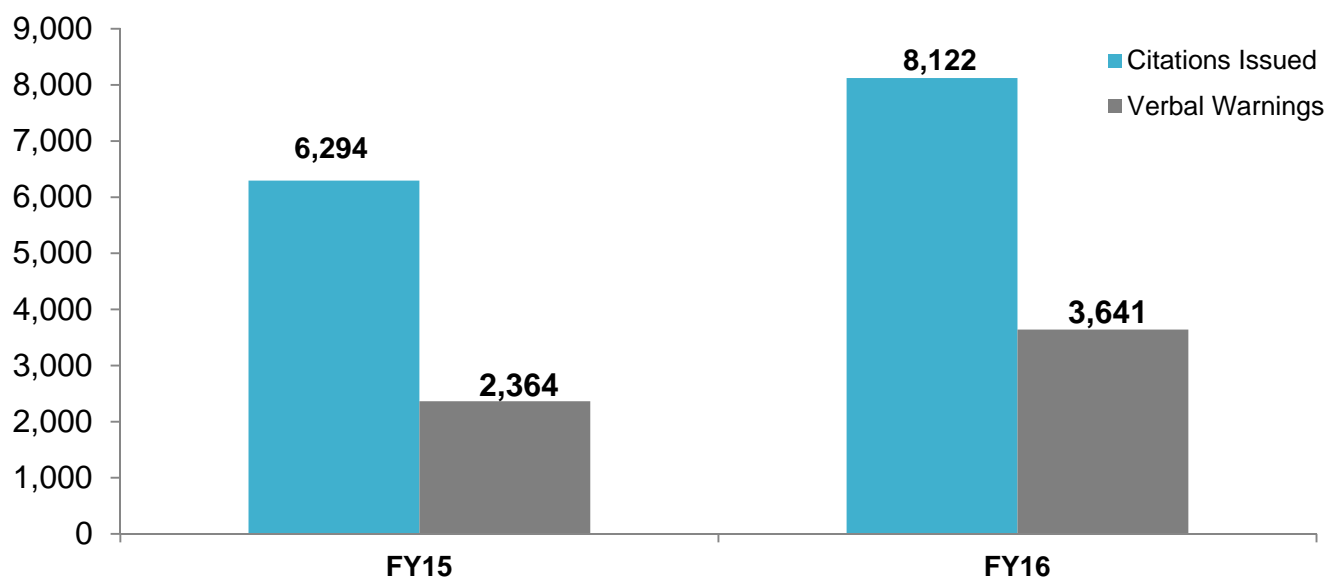
SAFETY & ENFORCEMENT CHP ACTIVITY



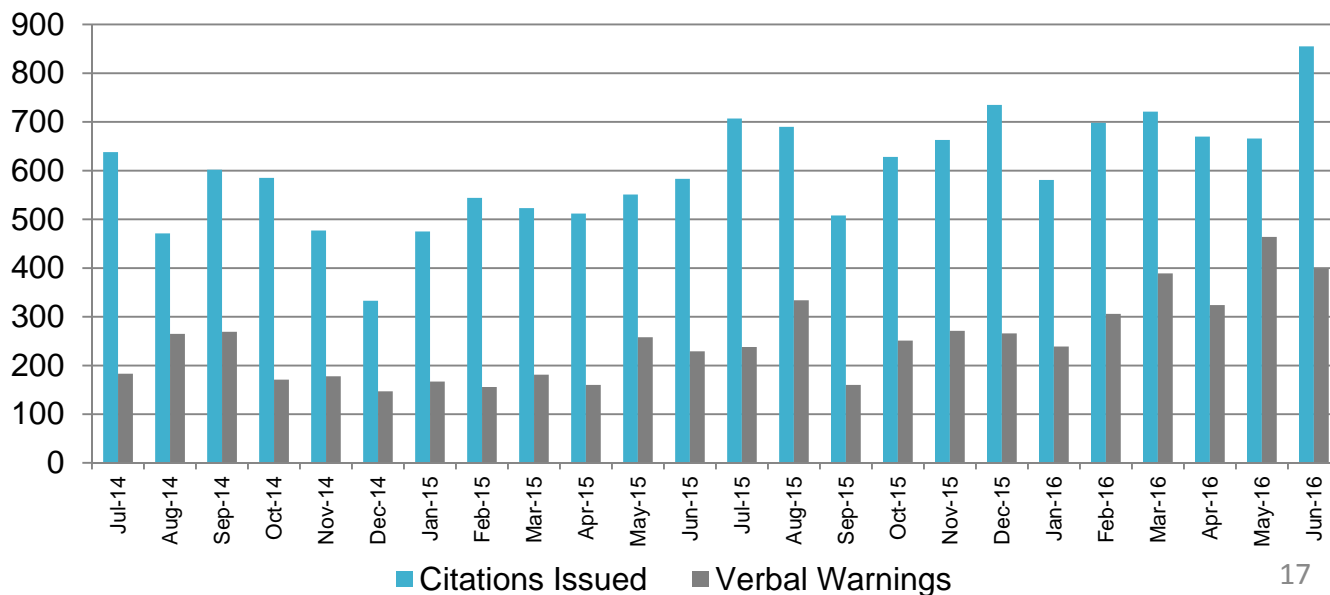
CHP ACTIVITY

CHP officers are contracted to provide additional visual enforcement. Most citations issued on the I-110 and I-10 ExpressLanes are related to toll/transponder violations. CHP issues a toll/transponder related citation when a non-exempt vehicle is seen using the facility without a transponder or the transponder switch setting does not match the observed vehicle occupancy.

CHP Citations & Verbal Warnings for Tolls & Transponders



CHP Citations & Verbal Warnings by Month



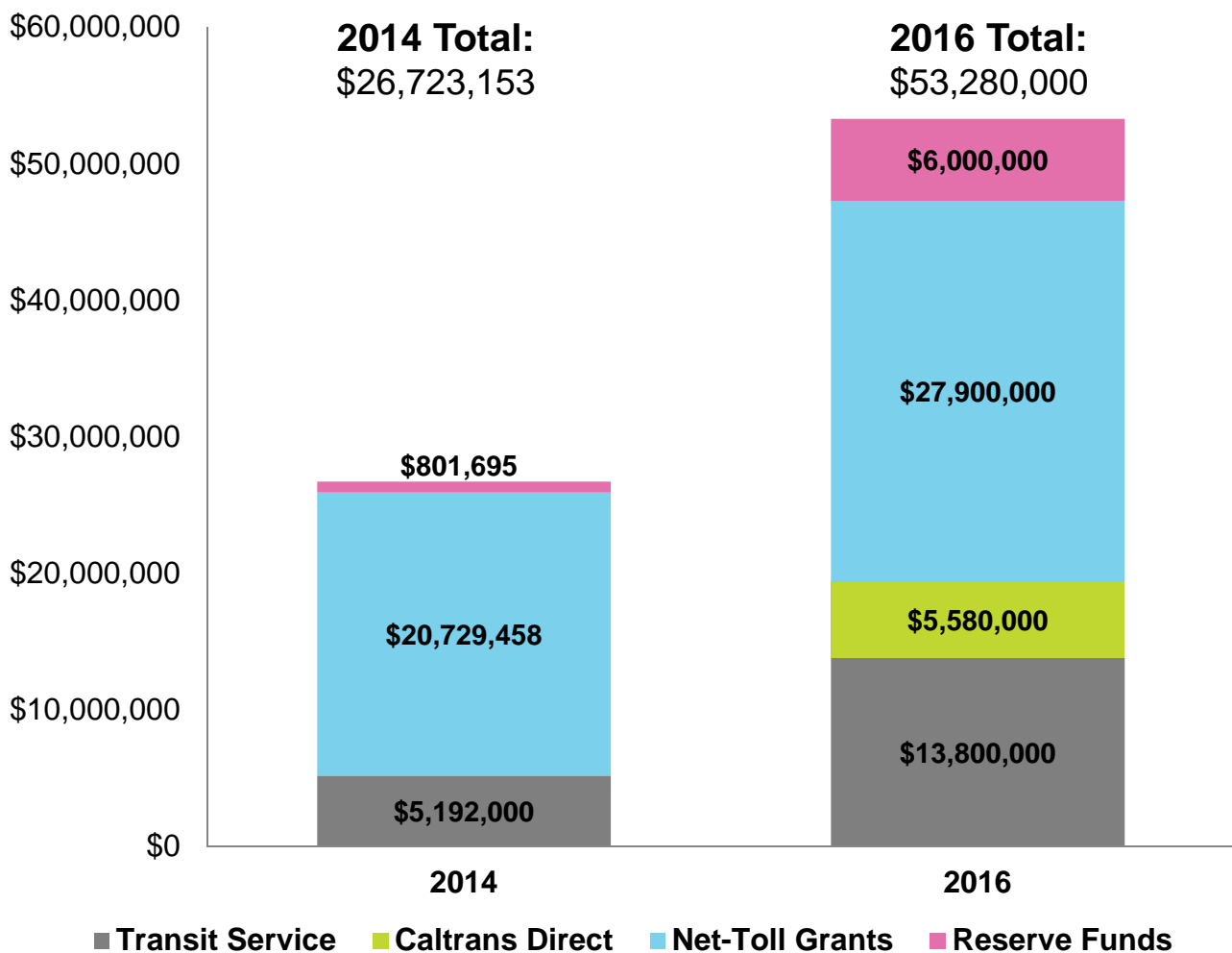
EXPRESSLANES EXPENDITURE PLAN



EXPENDITURE PLAN OVERVIEW

State law requires that net toll revenues generated by the Metro ExpressLanes be reinvested in the corridor from which they were derived. The Board approved re-investment framework for the expenditure plan has the following conditions:

1. Provide a direct benefit to reducing congestion.
2. Fund the continuation of incremental Transit Service Improvements
3. Set aside funds for Caltrans corridor improvements.
4. Funds available for Net-Toll Reinvestment Grant for projects/programs that provide direct mobility benefits to the corridor.
5. A set aside of funds to be placed in a reserve account.



NET TOLL REVENUE REINVESTMENT GRANT



PROGRAM OVERVIEW

The Metro ExpressLanes Net Toll Revenue Reinvestment Grant Program was designed to re-invest the excess toll revenue generated in the I-110 and I-10 Corridors in transportation improvements, through a series of integrated strategies. Projects were awarded funding in three categories- Highway Improvements, Transit Improvements, and Active Transportation/System Connectivity.

Metro ExpressLanes Net Toll Revenue Reinvestment Grant Funding Awarded:

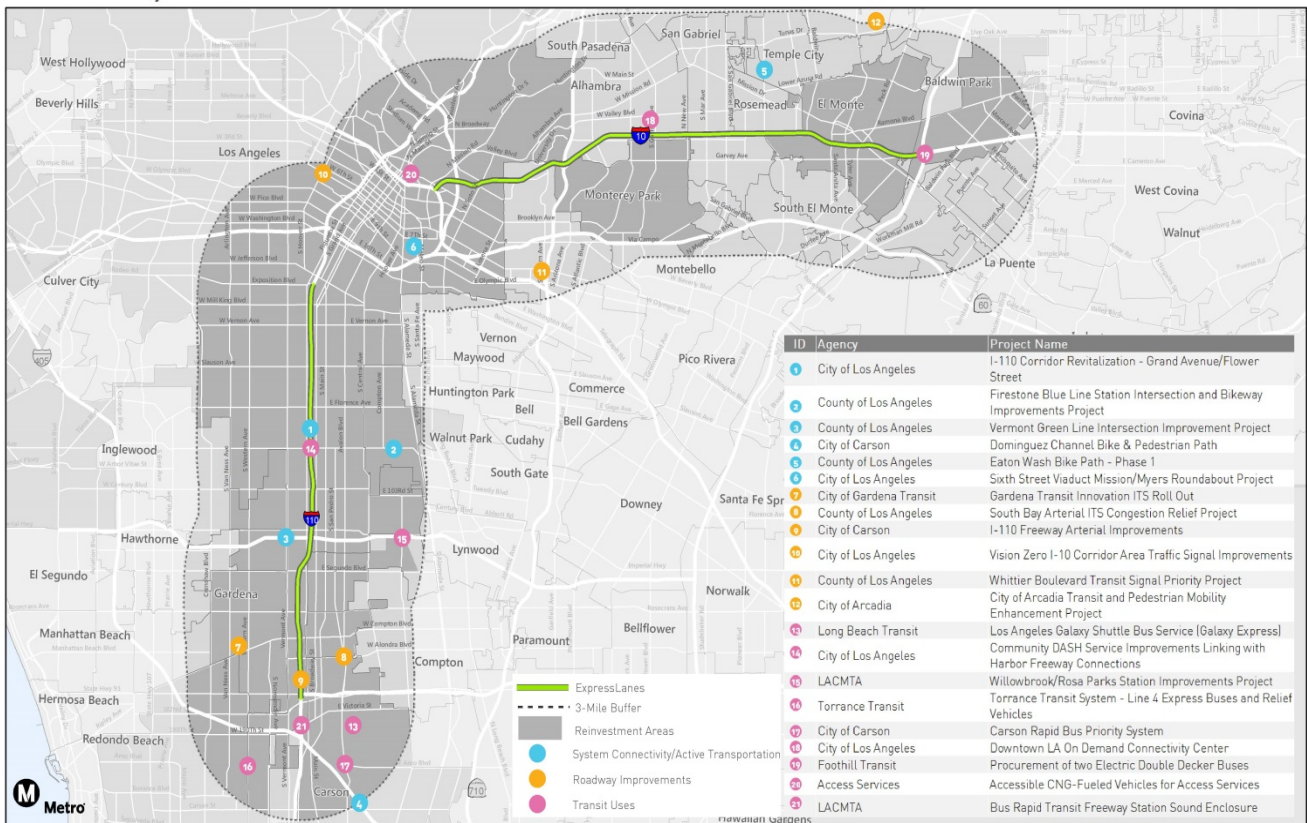
\$48,629,458

Round 1 (2014): 20,729,458
Round 2 (2016): 27,900,000

ROUND 2 PROJECTS

Metro I-110 and I-10 ExpressLanes Net Toll Revenue Reinvestment Program

Recommended Project Locations



2016 NET TOLL REVENUE REINVESTMENT GRANT I-10 PROJECTS



Transit Use Projects	Roadway Improvements Projects	System Connectivity Projects
Foothill Transit: Procurement of two Electric Double Decker Buses		
Replace 2 CNG Commuter Express buses with 2 all-electric double decker buses. One plug in charger will be included at Foothill Transit's Pomona Operations & Maintenance facility.		
Access Services: Accessible CNG-Fueled Vehicles for Access Services		
Purchase 20 alternative fueled Compressed Natural Gas (CNG) minivans to provide ADA complementary paratransit service.		
City of Los Angeles: Downtown LA On Demand Mobility Connectivity Center		
Shared mobility service that will provide intermodal connectivity to the destinations and surrounding areas around Downtown Los Angeles. Will fund a mobility connectivity center, pop-up outreach & marketing events throughout DTLA to the South Park & Exposition Park communities of Los Angeles, along the Metro Expo Line, Chinatown, Union Station, & portions of Boyle Heights.		
County of Los Angeles: Whittier Blvd Transit Signal Priority Project		
Deployment of intelligent transportation systems (ITS) infrastructure to enhance arterial operations and monitoring on Whittier Blvd between Indiana Ave. and Saybrook Ave. in East Los Angeles.		
City of Arcadia: City of Arcadia Transit and Pedestrian Mobility Enhancement Project		
Deploy innovative Connected Vehicle technology that will support next generation transit signal priority; improve intersection crossing; and communications to serve intersection operability and monitoring. The project limit consists of the shuttle route that runs along Baldwin Ave., Huntington Drive, Santa Clara St. & First Ave.		
City of Los Angeles: Vision Zero I-10 Corridor Area Traffic Signal Improvements		
Install a new traffic signal at the intersection of Mohawk St. & Sunset Blvd. Upgrade the existing signalized intersection of 8th St. & Soto St. to include left turn phasing. Upgrade 3 existing signalized intersections to include pedestrian scramble phase at 6th St. & Alvarado St., 7th St. & Alvarado St., & Wilshire Blvd & Alvarado St.		
County of Los Angeles: Eaton Wash Bike Path - Phase 1		
Design & install a 1.1 mile long Class I bike path along Eaton Wash between Longden Avenue & Rosemead Blvd in the city of Temple City; Class III bike route along Muscatel Avenue; Grade separated crossing; 6 inverted bike racks and automated counters.		
City of Los Angeles: Sixth Street Viaduct Mission/Myers Roundabout Project		
Construction of a roundabout near Mission Street and Myers Street between the 6th Street Bridge viaduct & the 7th Street Bridge viaduct.		

2016 NET TOLL REVENUE REINVESTMENT GRANT I-110 PROJECTS



■ Transit Use Projects	■ Roadway Improvements Projects	■ System Connectivity Projects
City of Los Angeles : Community DASH Service Improvements Linking with Harbor Freeway Connections		
Purchase 2 CNG fueled 35 foot buses. Re-route Dash Vermont/Main to serve the Slauson station on the Harbor Transit Way. Increase in service frequency on the Dash Vermont/Main.		
Long Beach Transit : Los Angeles Galaxy Shuttle Bus Service (Galaxy Express)		
Partner with StubHub Center to provide L.A. Galaxy “game-day” shuttle service from the Metro Del Amo Blue Line Station and adjacent off-site park and ride lots.		
City of Carson: Carson Rapid Bus Priority System		
2 Bus shelter improvements will be made at each stop along the Carson Circuit, which will include covered bus shelters, bike racks, improved lighting, wayfinding, and bike sharrows. Project will also improve transit service on game days .		
Torrance Transit:Torrance Transit System - Line 4 Express Buses and Relief Vehicles		
Increase service to expand the Line 4 Express by changing it to a bi-directional weekday service, increasing the number of revenue vehicles in use and adding Saturday service.		
LACMTA: Bus Rapid Transit Freeway Station Sound Enclosure		
Design & construct sound enclosure systems along the perimeter of the Bus Rapid Transit stations along the I-110 freeway at the Slauson Ave. and Manchester Avenue Harbor Transitway Stations.		
LACMTA: Willowbrook/Rosa Parks Station Improvements Project		
Improvements to the Southern pedestrian crossing & entrance to the Blue Line platform including ramps, stairs, canopies, and lighting.		
City of Carson: I-110 Freeway Arterial Improvements		
Implementation of intersection improvements at 10 intersections which are lacking bicycle & pedestrian amenities.		
City of Gardena Transit: Gardena Transits Innovative ITS Rollout		
Implement transit signal priority for 8.4 miles from the Harbor Gateway Transit Station to 120th Street in the city of Gardena.		
County of Los Angeles: South Bay Arterial ITS Congestion Relief Project		
Installation of wireless communications at 20 intersections along Broadway and Main Street. 9 traffic signal controllers will be upgraded along Crenshaw Blvd. In addition a CV enabled, mobile accessible pedestrian signal system, for 3 intersections along Crenshaw Blvd.		
County of Los Angeles: Vermont Green Line Intersection Improvement Project		
Pedestrian oriented safety improvements at 6 intersections along Vermont Avenue between 110th St. & 120th St.		
City of Los Angeles: I-110 Corridor Revitalization - Grand Avenue/Flower Avenue		
Planning, outreach, capital improvements for bicycle & pedestrian connectivity at various intersections between Gage Avenue & Manchester Avenue.		
County of Los Angeles: Firestone Blue Line Station Intersection and Bikeway Improvements Project		
Pedestrian improvements to 4 intersections; Firestone Blvd & Graham Ave., Florence Blvd & Holmes Ave., 87th Pl. at Compton Ave., 89th St. at Compton Ave.		
City of Carson: Dominguez Channel Bike Path Improvements		
Design & construct a 1 mile bicycle & pedestrian path from Avalon Blvd to Carson Street on the Dominguez Channel levee. A Class I bike path with signage & striping.		

OPERATIONAL IMPROVEMENTS



During the remainder of FY17 and into FY18, Metro will implement the following operational improvements to reduce congestion on the ExpressLanes.

Incentive Program:

Various incentive programs will be piloted to target heavy peak users to shift their travel to the shoulders of the peak and/or shift their travel to Metrolink.

Occupancy Detection:

ExpressLanes is determining the feasibility of installing vehicle passenger detection systems to reduce the number of customers incorrectly setting the transponder switch.

Mobile app:

ExpressLanes is in the process of developing a mobile app to address an issue with vehicles with Metal Oxide windshields. Drivers of these vehicles cannot declare their transponder switch setting via the standard transponder. The mobile app will be used by these select customers to allow them to declare their switch position.

Beacon lights:

The beacon lights will be upgraded to allow CHP to better enforce the lanes. The current beacons flash different color combinations to indicate the transponder switch setting. The upgraded beacons will be double sided and display numbers for the transponder switch setting.

Earth cam:

Three new CCTV cameras will be installed to improve real time traffic and incident monitoring.

New toll gantries:

ExpressLanes is determining the feasibility of installing four additional toll gantries to improve toll collection and violation enforcement. The toll gantries were originally included in the ExpressLanes design but were removed as part of a value engineering effort during system design review.

Minimum Occupancy:

Metro will work with Caltrans to perform a feasibility study to determine if it is necessary to increase the minimum occupancy to HOV3+ on the I-110 during peak hours.

Metro ExpressLanes FY16 Performance Report (July 1, 2015 to June 30, 2016)

January 18, 2017



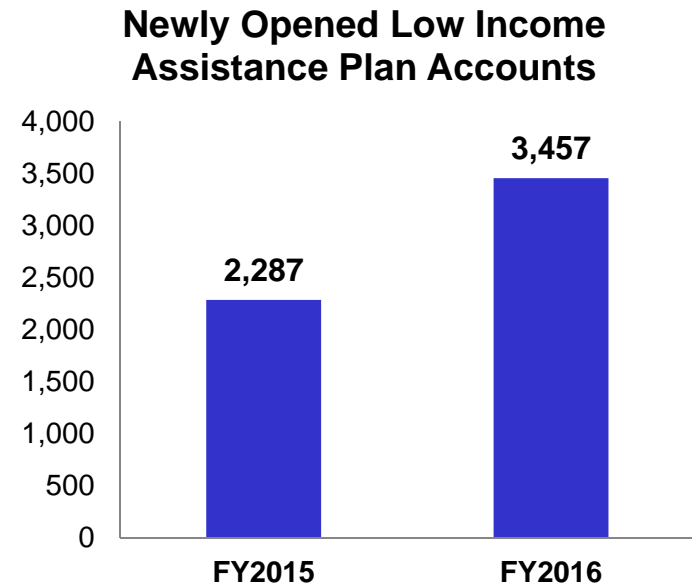
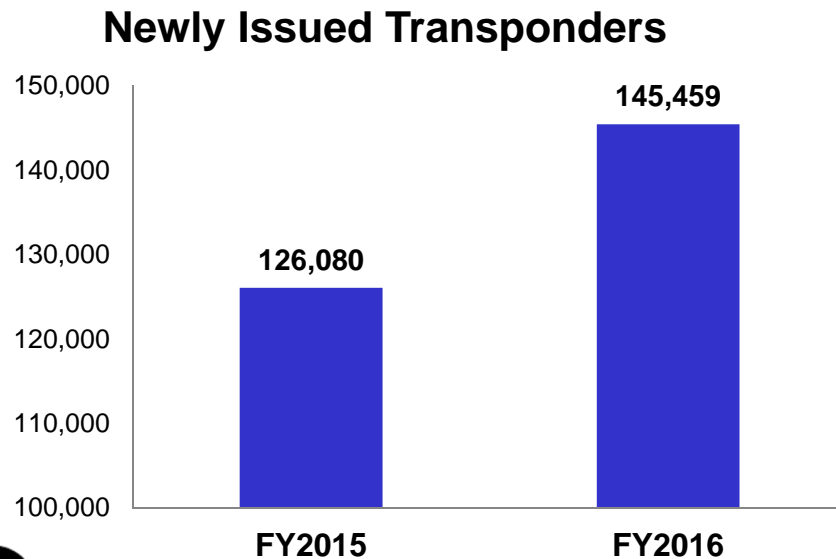
Metro

Performance Report Summary

- The report summarizes ExpressLanes performance for Fiscal Year 2016 (FY16)
- Key Findings:
 - ExpressLanes trips are steadily increasing
 - Increased congestion on the 110 Northbound during the AM Peak
 - Average corridor travel speeds in the ExpressLanes remain above 45 mph 100% of the time and are higher than the general purpose lane speeds

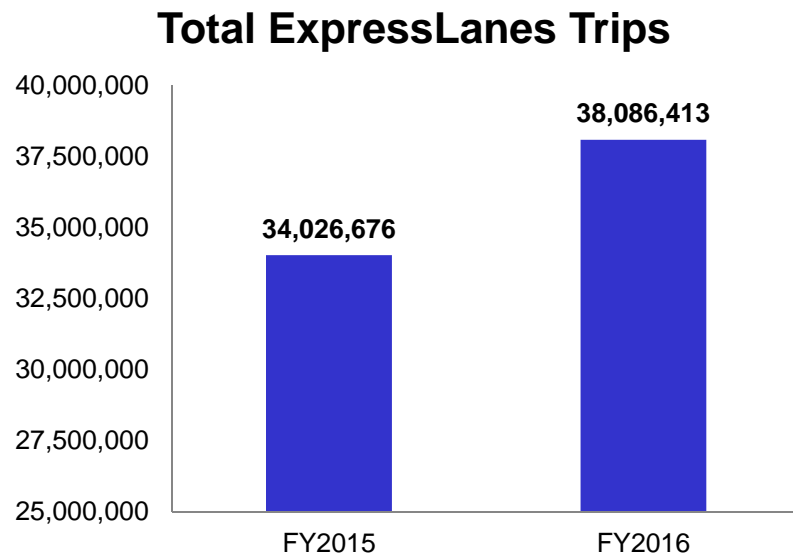
Transponders and New Accounts

- 506,031 transponders issued from inception through June 30, 2016
- 145,459 were issued in FY16, a 15% increase over FY15
- 454,603 total accounts opened since inception of the program
- Includes 8,882 Low-Income Assistance Plan accounts - 51% increase over FY15

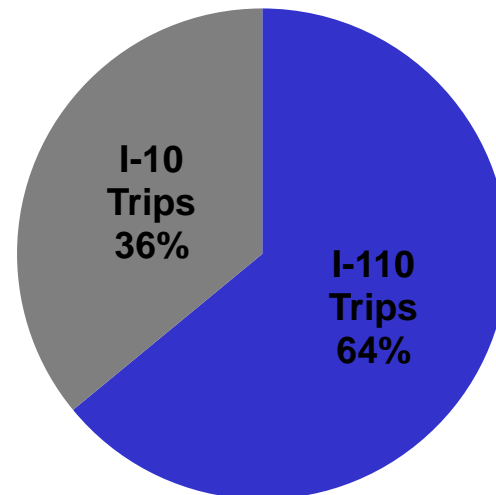


ExpressLanes Trips

- Vehicle trips are steadily increasing
- FY 16 exceeded 38 million trips
- 12% increase over FY15



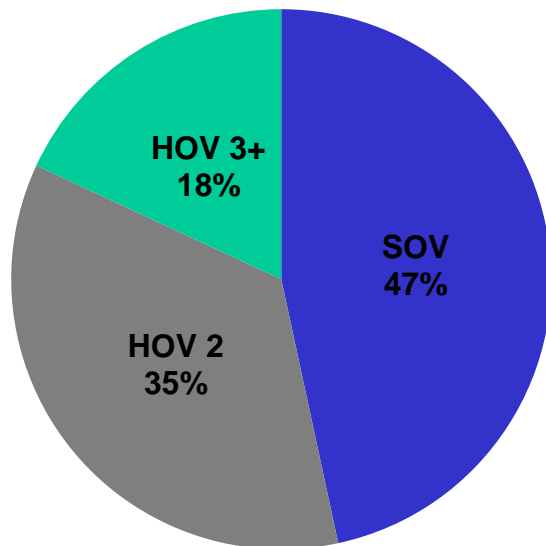
FY16 ExpressLanes Trips by Corridor



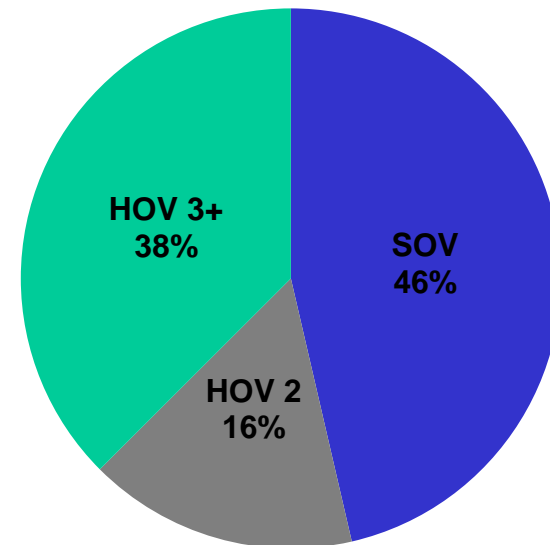
Mode Split

- Most trips in FY16 were carpool trips
- I-10 had a higher percentage of HOV3+ trips

I-110 ExpressLanes



I-10 ExpressLanes



2016 Net Toll Revenue Expenditure Plan

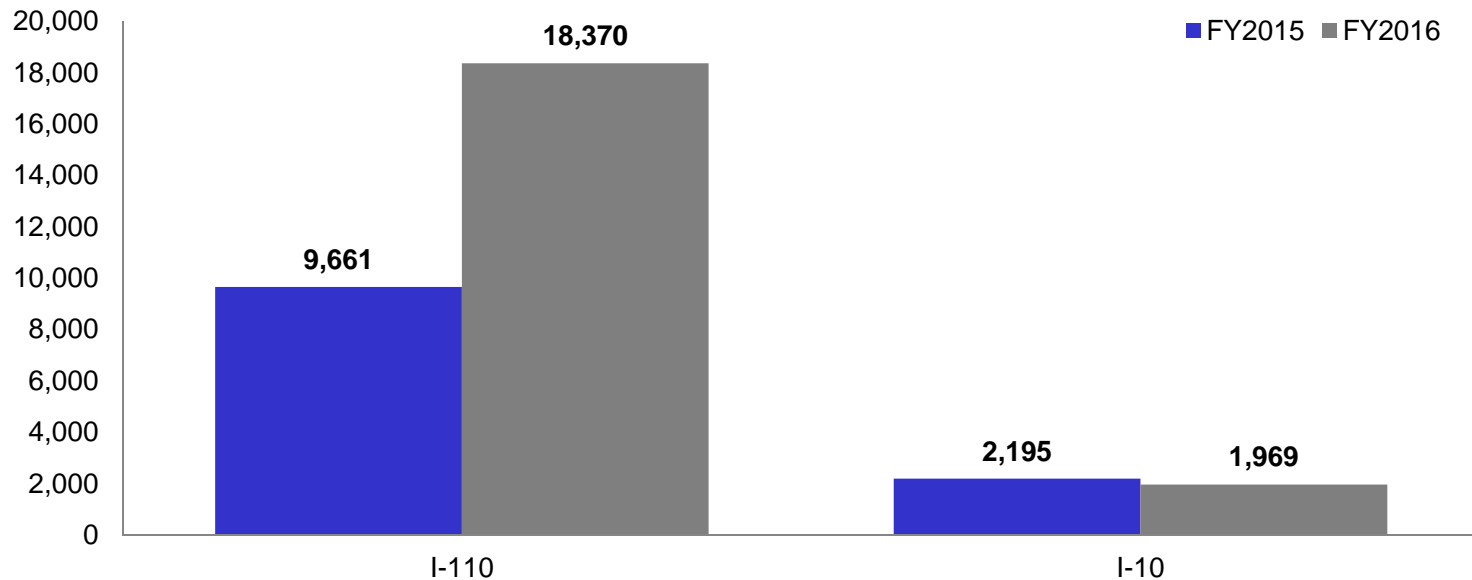
Total Programmed - \$53,280,000

- **Reserve Funds - \$6,000,000**
- **Transit Service - \$13,800,000**
- **Caltrans Direct Allocation - \$5,580,000**
- **Grant Program - \$27,900,000**

HOV Only Status

AM Peak Period (5AM – 9AM)

- To alleviate congestion, the lanes go into 'HOV Only' status when vehicle volumes increase to the point where travel speeds fall below 45 mph
- In FY16, the I-110 went into HOV Only status a total of 18,370 minutes, which is a 90% increase over FY15
- In FY 16, the HOV Only occurrences on I-10 decreased by 10.3%

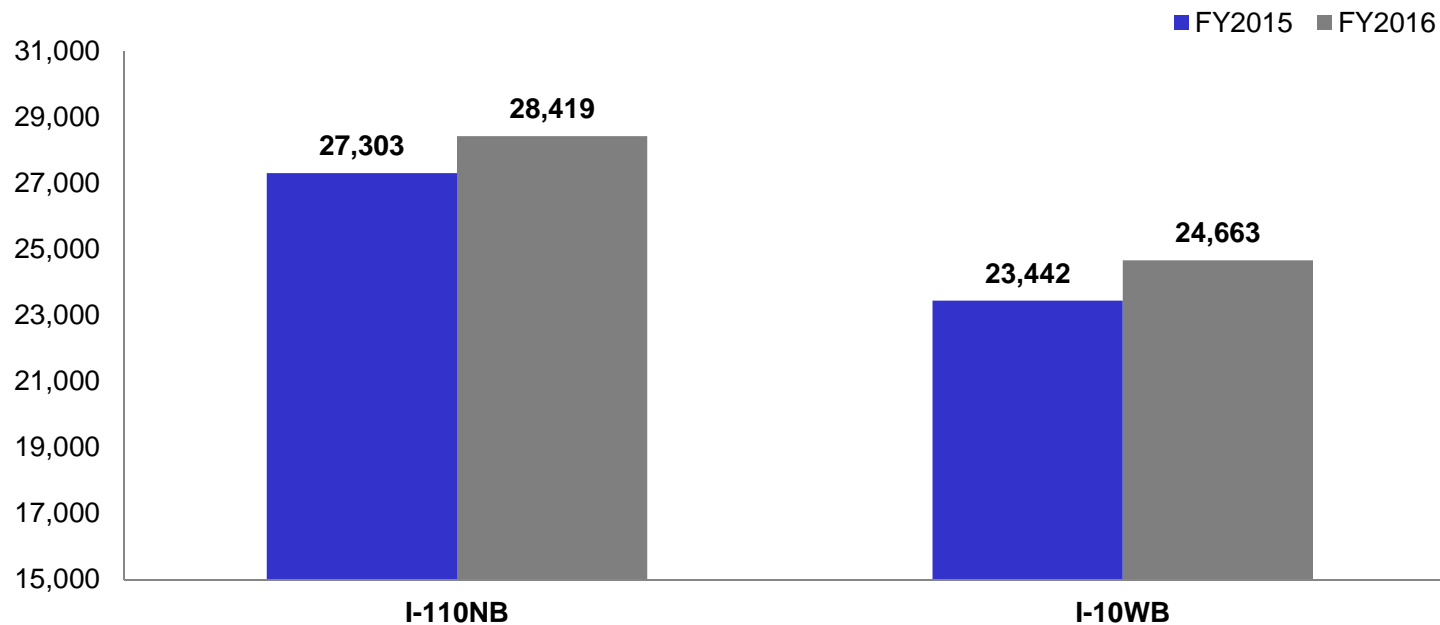


Average Daily Volumes

AM Peak Period (5AM – 9AM)

- Average daily vehicle volumes increased by 4% during the AM Peak Period in the Peak Directions (I10NB & I0WB)

ExpressLanes Average AM Peak Vehicle Volume - Peak Directions

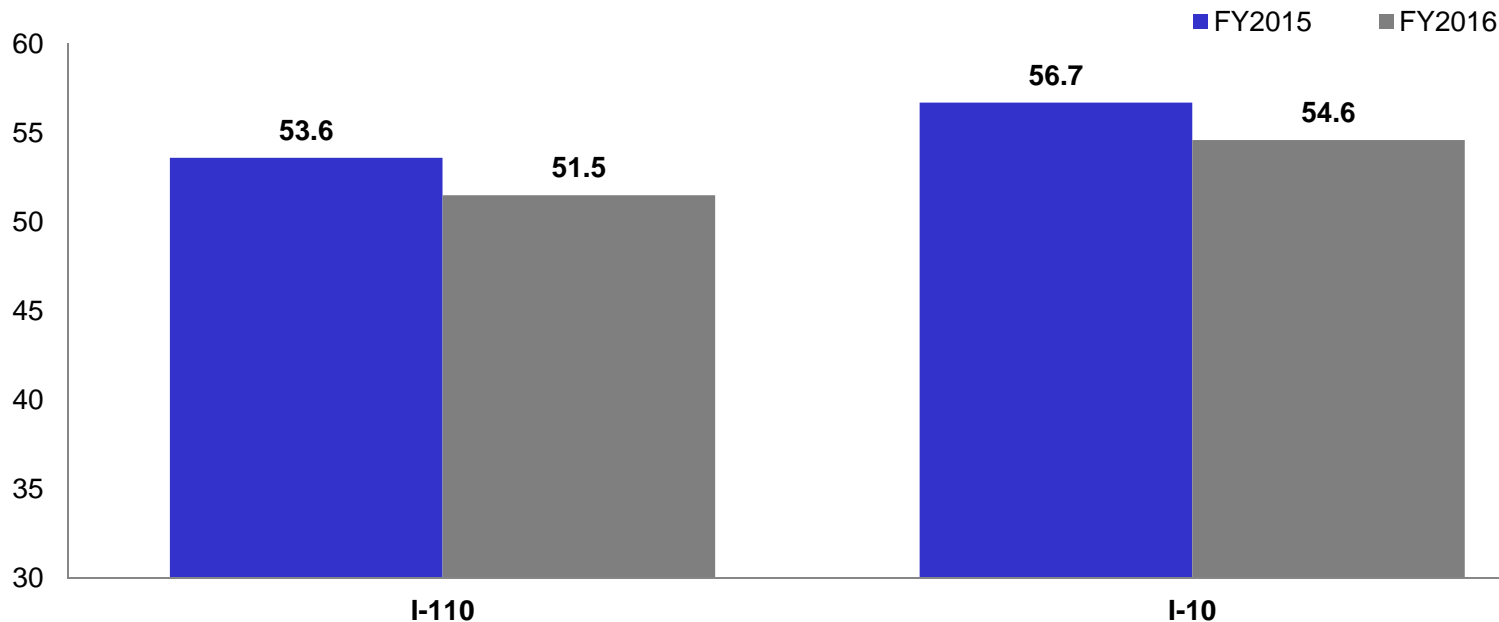


ExpressLanes Travel Speeds

AM Peak Period (5AM – 9AM)

- Average weekday AM Peak Period travel speeds decreased by 3.9% due to increased vehicle volumes (4%)

Average ExpressLanes Speeds (mph) – AM Peak Period



Next Steps

- **ExpressLanes will implement operational improvements to reduce congestion:**
 - Incentive programs will be piloted to target heavy users to shift their usage to less congested hours
 - Mobile App development to allow customers with Metal Oxide windshields to declare occupancy
 - Beacon Lights will be upgraded to aid CHP in enforcement
 - New CCTV Cameras will be installed to improve real-time traffic monitoring
 - Occupancy Detection System to reduce customers incorrectly declaring occupancy
 - New toll gantries to improve toll collection and violation enforcement
 - Work with Caltrans to determine the necessity of increasing the minimum occupancy on I-110 during peak hours



Board Report

File #: 2016-0867, **File Type:** Contract

Agenda Number: 8

**AD HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE
JANUARY 18, 2017
CONSTRUCTION COMMITTEE
JANUARY 19, 2017**

SUBJECT: CONSTRUCTION MITIGATION FOR I-5 SOUTH CAPACITY IMPROVEMENTS FROM I-605 TO ORANGE COUNTY LINE

ACTION: APPROVE MEASURE R FUNDS TO MITIGATE I-5 CONSTRUCTION

RECOMMENDATION

CONSIDER:

- A. APPROVING up to \$500,000 in **Measure R 20% Highway Funds for design and construction of two temporary signals for the properties at 16810 -16900 Valley View Avenue in Cities of La Mirada and Cerritos;** and
- B. AUTHORIZING the Chief Executive Officer to execute the necessary agreements with Caltrans to implement the mitigation.

ISSUE

The I-5 South Capacity Improvements project includes freeway widening and construction of HOV lanes and other improvements between I-605 and the Orange County Line. The State of California Department of Transportation (Caltrans) designed and is managing construction of the Projects.

Valley View (Segment 2) between Artesia Boulevard and North Fork Coyote Creek is the last segment of the I-5 South Capacity Improvements project for which a construction contract was approved on July 15, 2016. Construction on Valley View began in November, 2016 and is expected to be completed in 2022.

To mitigate traffic impacts resulting from construction as required by the project’s environmental document, Caltrans developed Traffic Management Plans (TMPs) for each construction stage. Caltrans traffic modeling suggested that the detour routes identified in the TMP would provide the needed capacity for the anticipated volumes. However after the contract was awarded, Parkway La Mirada Association expressed concerns over the ingress and egress during the construction staging around the properties at 16810 - 16900 Valley View Avenue and has requested implementation of appropriate mitigation measures to remedy the traffic impacts on their properties during construction

period.

DISCUSSION

Currently, the properties at 16810 - 16900 Valley View Avenue have three driveways without signalization. The construction staging in this area will reduce Valley View Avenue from four to two through lanes. The property owners hired a traffic consultant and provided Caltrans with the daily traffic count data of vehicles entering and leaving the properties through three driveways. Based on the data, Caltrans agreed that the lane reduction on Valley View Avenue would make the ingress and egress at the impacted properties worse during the construction period.

In order to optimize the traffic circulation at this location, installation of two temporary signals at the northerly and southerly driveways of the impacted properties is required as a mitigation measure during construction. The property owners, local businesses, Cities of La Mirada and Cerritos and Caltrans are in support of this recommendation.

DETERMINATION OF SAFETY IMPACT

There is no impact to public safety by approving this action.

FINANCIAL IMPACT

Caltrans will be reimbursed for the design and construction costs, up to \$500,000, upon completion of signal installation. Fiscal year 2017 budget will be reprioritized to absorb any or all portions of this cost within the adopted budget; no additional FY17 funds are sought through this recommendation. Since Segment 2 of the I-5 South Capacity Improvements is a multi-year project, the project manager, the cost center manager, and the Chief Program Management Officer are responsible for future year budgeting.

Impact to Budget

Segment 2 of the I-5 South Capacity Improvements, project 460337, is funded at \$631.1 million with Local Funds of \$161.1 Million, State Funds of \$350 million, and Federal Funds of \$120 million.

Funding up to \$500,000 for this work will be provided from Measure R 20% Highway Capital funds, within the I-5 Capacity Enhancement from I-605 to Orange County Line Funds (Line 27 of Measure R Expenditure Plan). This fund is not eligible for Metro bus and rail operations or capital projects.

ALTERNATIVES CONSIDERED

The Board may choose not to approve the staff's recommendation. However, this disapproval would adversely impact residents and businesses and may require broader actions by the Cities to divert pass through traffic to other corridors upon receiving citizen complaints.

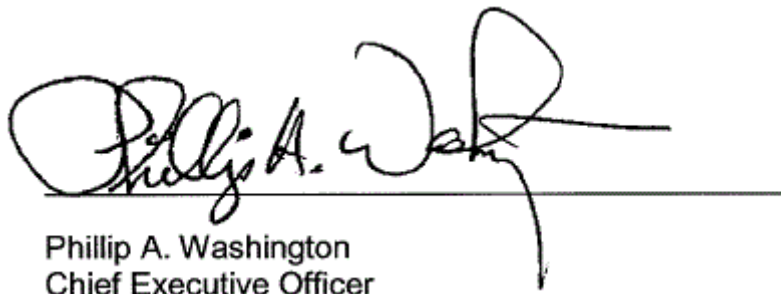
NEXT STEPS

Upon Board's approval of the recommended action, Metro staff will coordinate with Caltrans to implement the work.

Attachments: Valley View Temporary Signals Aerial Maps

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Phillip A. Washington
Chief Executive Officer



Cerritos

**Southerly Driveway
Temp. Signal**

**Northerly Driveway
Temp. Signal**

**Area Affected
by Construction**

**16810 -16900 Valley
View Ave Properties**

La Mirada





**Area Affected
by Construction**

**Northerly Driveway
Temp. Signal**

**Southerly Driveway
Temp. Signal**

**16810 - 16900 Valley
View Ave Properties**

Valley View Ave

Frostons Blvd

State Area Hwy

5

N

**Board Report**

File #: 2016-0999, **File Type:** Plan**Agenda Number:** 47

**AD HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE
JANUARY 18, 2017****SUBJECT: COUNTYWIDE EXPRESSLANES STRATEGIC PLAN****ACTION: APPROVE RECOMMENDATIONS****RECOMMENDATION**

CONSIDER:

- A. RECEIVING AND FILING the **Countywide ExpressLanes Strategic Plan** Executive Summary (Attachment A) full report available at http://libraryarchives.metro.net/DB_Attachments/170111_Strategic_Plan_with_Appendices.pdf , and;
- B. AUTHORIZING the CEO to initiate planning studies including a comprehensive financial plan for Tier 1 projects as outlined in Attachment B and submit those projects as a network to the California Transportation Commission to request tolling authority.

ISSUE

In November 2014, the Board passed Motion #59 (Attachment C) introduced by Directors Garcetti, Ridely-Thomas, Dupont-Walker and Fasana requesting development of an ExpressLanes Strategic Plan. Staff has completed the Los Angeles County Express Lanes Strategic Plan as outlined in this report.

DISCUSSION

The I-110 and I-10 ExpressLanes have experienced continued growth since their opening in November 2012 and February 2013, respectively. Since March 2013, total trips have increased by 62%. In addition, Silver Line ridership has increased from a weekday average of 10,600 in 2012 to 15,400 in 2016. Approximately 640,000 transponders have been issued to date and another 10,000-12,000 transponders are issued every month to new customers. A recent survey of regular ExpressLanes users indicates that 75% would support adding ExpressLanes to other Los Angeles County freeways.

Building on the success of the I-110 and I-10 ExpressLanes and Metro Board direction, the

Countywide ExpressLanes Strategic Plan was prepared as an extension of Southern California Association of Governments' (SCAG) Regional ExpressLanes Strategic Plan and in cooperation with Caltrans District 7. The Countywide Strategic Plan uses the same methodology as the SCAG Strategic Plan to estimate the potential mobility benefits and revenue generated by High Occupancy Toll (HOT) lane projects.

There are three components of the strategic plan analysis - corridor screening, financial feasibility, and application of qualitative data. For the corridor screening, the plan focused on conversions of High Occupancy Vehicle (HOV) lanes only. Therefore, freeways with existing, in construction, or planned HOV lanes were considered for possible conversion to ExpressLanes.

The corridor screening analysis is comprised of a two-step process. Using the SCAG travel demand model, traffic volume in 2020 and 2035 for freeways in the County were estimated. Next, the Rapid Toll Optimization Model (RapidTOM) determined the number of vehicles willing to pay to use the ExpressLanes based on available capacity in the HOT lane and a vehicle's value of time. If the toll rate is below a vehicle's value of time, then it is assumed that the vehicle will pay to use the HOT lane. The corridor screening produced three quantitative mobility criteria, which are: 1) value of travel time savings; 2) HOT lane person throughput; and 3) average peak period vehicle speeds in the general purpose lanes.

The second component is the financial feasibility calculation. This calculation projects gross revenue for various Express Lane corridors and then subtracts capital, operating, and maintenance costs to estimate net revenue. For the purposes of this analysis, net revenue assumed operation and maintenance costs similar to those incurred for the operation and maintenance of the I-110 and I-10 ExpressLanes. Construction costs were estimated at a preliminary, rough order of magnitude level. The resulting revenue/cost ratio provides a general indication of the positive or negative revenue benefit of conversion of an HOV lane to an Express Lane.

Each freeway segment was ranked 1 through 5 in the three mobility criteria and one financial feasibility calculation and a composite screening score was derived, which is the average score of the four criteria. Then, four qualitative criteria were applied to refine the results of the mobility and financial feasibility analysis. Those criteria are: connectivity with other existing and potential ExpressLanes corridors, transit benefits, funding availability, and ability to implement dual ExpressLanes (i.e. two ExpressLanes in each direction).

The result is a set of three tiers of projects. Tier 1 projects are near-term that would be constructed in the next 5-10 years. Tier 2 projects are mid-term that would be constructed within the next 15 years. Tier 3 projects are longer-term projects that would be constructed within the next 25 years. In addition to the proposed ExpressLanes facilities, HOV direct connectors are needed to improve mobility and safety by reducing weaving and merging to optimize the efficiency of the Express Lanes.

While three of the projects in the plan (I-105, I-405/Sepulveda Pass and I-110 extension to I-405) receive funding through Measure M (Attachment B), no other funding has as yet been identified for the remainder of the projects included in the plan, resulting in a significant funding shortfall. To

bridge the financial gap, staff will attempt to secure other sources of revenue including bonds, Transportation Infrastructure Financing and Innovation Act (TIFIA) loans, grants, Public Private Partnerships or similar innovative financing mechanisms and if authorized, toll revenue loans from other ExpressLanes.

In order to advance the recommended ExpressLanes network, Metro must undertake a series of steps. Staff must conduct planning studies for Tier 1 projects not currently underway (I-10 from I-605 to LA/SB county line, I-605 from I-10 to I-405, I-405 from I-10 to LA/OC line). These studies will identify the cost, right-of-way requirements of single and dual ExpressLanes, evaluate the traffic and revenue potential of the lanes and develop a preliminary concept of operations. Additionally, Staff will need to conduct a comprehensive financial plan for the Tier 1 projects. Metro is required to secure CTC approval in order to implement Express Lanes in new corridors. Therefore, upon approval by the Metro Board of Directors Metro will submit Tier 1 projects as a network to the California Transportation Commission to obtain tolling authority for those corridors. Finally, as part of the planning studies, Metro will conduct a detailed analysis to identify locations and configurations of HOV direct connectors which are critical to maximize the congestion reduction benefits of the ExpressLanes.

Board approval of the Tier 1 projects will require an evaluation of Express Lanes as an alternative in the planning of highway improvements for those corridors. This activity will be coordinated with the Highway Program.

DETERMINATION OF SAFETY IMPACT

This action will have no impact on safety.

FINANCIAL IMPACT

The studies currently underway are funded through the FY 17 budget. Since this is a multi-year program, the cost center manager and the Executive Officer, Congestion Reduction Programs will be responsible for budgeting of the cost associated with this effort in the future.

Impact to Budget

This activity will have no impact on Metro's bus and rail operating budget.

ALTERNATIVES CONSIDERED

The Board could choose to forgo the steps necessary to implement the recommended actions. This alternative is not recommended because the strategic plan development was requested by the Board as the I-110 and I-10 ExpressLanes have proven to be a success in providing a congestion relief benefit and are generating revenue for other transportation improvements.

NEXT STEPS

For the Tier 1 corridors, Metro will begin/continue the project development process, and where applicable, work with the Highway Program to incorporate evaluation of an Express Lanes alternative for related highway improvements. Staff will also develop an application for the Tier 1 projects for submittal to the CTC.

ATTACHMENTS

Attachment A - Countywide ExpressLanes Strategic Plan Executive Summary

Attachment B - Tiers 1, 2 and 3 Projects

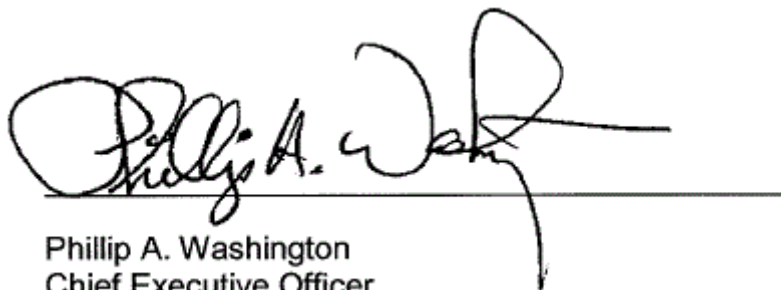
Attachment C - November 2014 Board Motion #59

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Phillip A. Washington
Chief Executive Officer



Los Angeles County
 Metropolitan Transportation Authority

Countywide ExpressLanes Strategic Plan Executive Summary

PREPARED FOR:



ONE GATEWAY PLAZA
 LOS ANGELES, CA 90012

Prepared by:



444 SOUTH FLOWER STREET, SUITE 800
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January 6, 2017

EXECUTIVE SUMMARY

This Countywide ExpressLanes Strategic Plan builds on the success of the I-110 and I-10 Congestion Reduction Demonstration pilot program (also known as ExpressLanes) by establishing a vision for Metro to deliver a system of Express Lanes for Los Angeles County using a network approach to maximize regional benefits. A countywide ExpressLanes network will create a more reliable, faster travel option that makes better use of existing vehicle capacity in carpool lanes - also known as high occupancy vehicle (HOV) lanes. The plan also aims to address the degradation in HOV lane performance already experienced on many freeway corridors in the county, and provide Express Lanes users with a seamless customer experience.

The Strategic Plan identifies the most promising Express Lane corridors and potential funding sources needed to implement the plan. The Metro Countywide ExpressLanes Strategic Plan was prepared as an extension of *Southern California Association of Governments (SCAG's) Express Travel Choices Phase II Study - Regional Express/HOT Lanes Implementation Plan and Concept of Operations*. The Metro Strategic Plan is consistent with the analysis methodology used in the SCAG study to estimate the potential mobility benefits and revenue generated by Express Lane projects. This approach ensured that the Metro Countywide ExpressLanes Strategic Plan is consistent with the SCAG regional study and minimized duplication of effort.

The Strategic Plan is intended to be updated periodically to reflect changes in project costs, revenues, economic conditions, and project priorities that will undoubtedly occur over the next 30+ years.

The primary objectives of Metro's Countywide ExpressLanes Strategic Plan are to:

- Identify and recommend potential corridors that can benefit from HOV to High Occupancy Toll (HOT) or Express Lane conversion;
- Develop a resource plan for existing and future Express Lane corridors;
- Respond to degraded HOV facilities across Los Angeles County as well as transportation needs which have outpaced traditional revenue sources;
- Provide recommendations regarding tiers of projects, phasing, planning-level costs and revenue forecasts, and a timetable for implementation;
- Provide a high-level assessment of vehicle occupancy requirements on existing and planned HOV/Express Lane facilities.

The Countywide ExpressLanes Strategic Plan screened all planned, in construction, and existing carpool lanes in Los Angeles to assess the potential benefits and costs of conversion to ExpressLanes operation. The individual corridors included in the Strategic Plan were evaluated using a two-phased screening process assessing their mobility benefits and financial feasibility.

The screening process utilized the SCAG Regional Travel Demand model and the Rapid Toll Optimization Model (RapidTOM) to quantify the mobility benefits of potential ExpressLanes based on available capacity in the HOT lanes, congestion in the general purpose lanes (GPLs),

and the value of time savings by using the HOT lanes. This analysis also provided a general indication of the financial feasibility of an Express Lane.

The corridors were ranked according to their mobility and financial feasibility score and then qualitative factors were applied including connectivity with other Express Lane corridors, transit benefits, funding availability, and the potential ability to accommodate two Express Lanes in each direction. Project segments in Tier 1 had the highest combined mobility and financial screening scores and tended to exhibit the most robust forecasts of traffic and revenue. Segments in Tiers 2 and 3 exhibited comparatively lower screening results and, as such, tended to have less robust traffic and revenue performance.

Recognizing that the implementation of a Countywide ExpressLanes network would require substantial investment and time to plan and construct, it was assumed that the individual segments comprising the network would be implemented in tiers approximately ten-years apart as follows:

- Tier 1 — near-term (within 5-10 years)
- Tier 2 — mid-term (within 15 years)
- Tier 3 — longer-term (within 25 years)

Following the identification of the three project tiers, a preliminary, high level ExpressLanes Resource Plan was prepared to estimate the cost of the strategic plan projects and identify existing and potential funding sources.

The analysis led to the recommendation to develop a 621 lane-mile Express Lane network, mostly comprised of single lane facilities but dual lane facilities are preferred where right-of-way allows. The proposed Express Lane network is shown in **Figure 1** and is made up of the existing I-110 and I-10 ExpressLanes and the Tier 1, 2, and 3 projects.

Some of the proposed ExpressLanes projects are funded through Measure M (**Table 1**). For projects without identified funding, staff will attempt to secure other sources of funding including bonds, Transportation Infrastructure Financing and Innovation Act (TIFIA) loans, grants, and net toll revenue loans from other ExpressLanes within the County if permitted.

In order to move forward with a system of Express Lanes in Los Angeles County, Metro will submit Tier 1 projects as a network to the California Transportation Commission to request tolling authority for those corridors; begin planning studies for Tier 1 projects to analyze the mobility benefits, cost, and right-of-way requirements of single and dual ExpressLanes, prepare traffic and revenue studies, develop preliminary concept of operations reports, and prepare a comprehensive financial plan. In addition, Metro will conduct a detailed analysis to identify locations and configurations of HOV direct connectors.

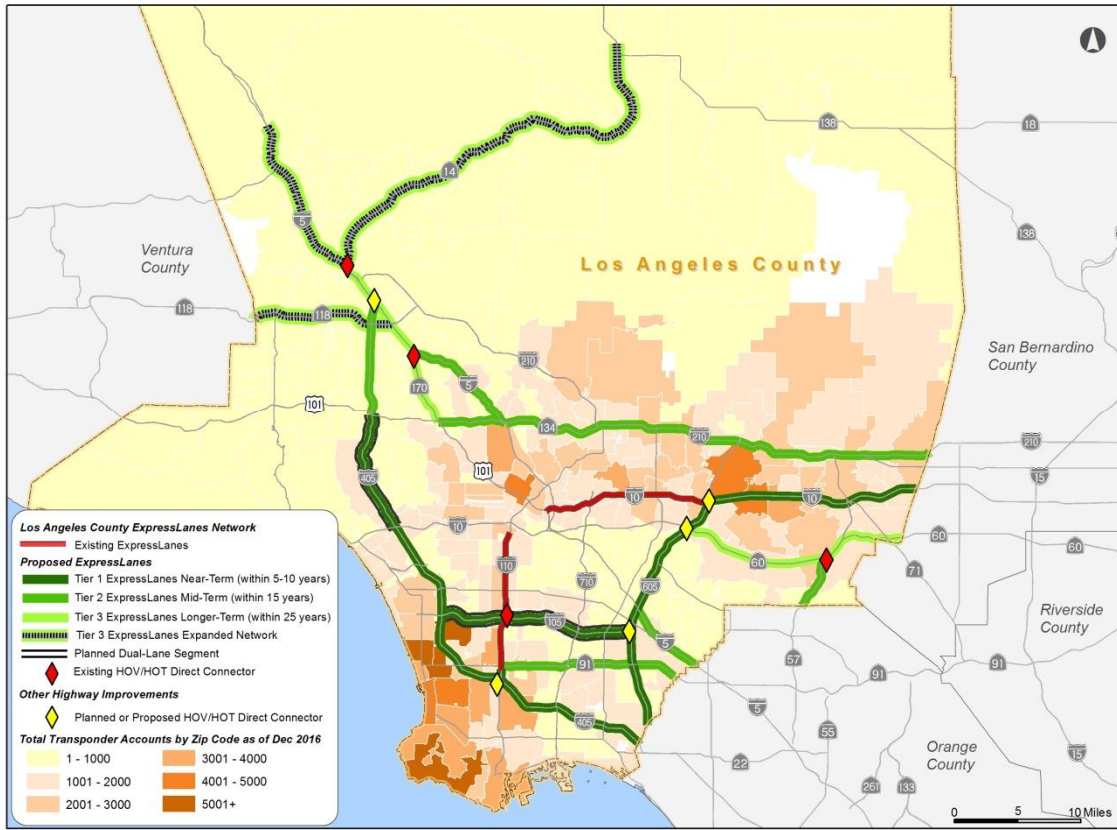


Figure 1: Los Angeles County Strategic Buildout Express Lanes Network

Table 1: Express Lane Projects Funded through Measure M

Tier 1	Measure M Funding
I-10 between I-605 & LA/SB county line	None identified*
I-105 between I-405 and I-605	\$175,000,000
I-110 ExpressLane extension south to I-405/I-110 interchange	\$51,500,000
I-405/I-110 Int. HOV Connect Ramps and Interchange Improvements	\$250,000,000
I-405 between US-101 & I-10	\$260,000,000
I-405 between I-10 and LA/OC county line	None identified*
I-605 between I-10 & LA/OC county line	None identified*
I-605/SR-60 Interchange HOV Direct Connectors	\$130,000,000
Tier 2	
I-5 between I-605 & LA/OC county line	None identified*
I-5 between SR-170 & SR-134	None identified*
SR-57 between SR-60 & LA/OC county line	None identified*
SR-91 between I-110 and LA/OC county line	None identified*
SR-134 between I-210 & SR-170	None identified*
I-405 between US-101 and I-5	None identified*
Tier 3	
I-5 between SR-170 and Parker Road	None identified*
SR-14 between Avenue P8 & I-5	None identified*
SR-60 between I-605 & LA/SB county line	None identified*
SR-118 between I-5 & LA/Ventura county line	None identified*
SR-170 between I-5 & SR-134	None identified*

* May be eligible for Measure M Highway Funds

TIER 1 PROJECTS

Metro Express Lanes Program 5-10 Year Implementation Phasing Plan (Tier 1)

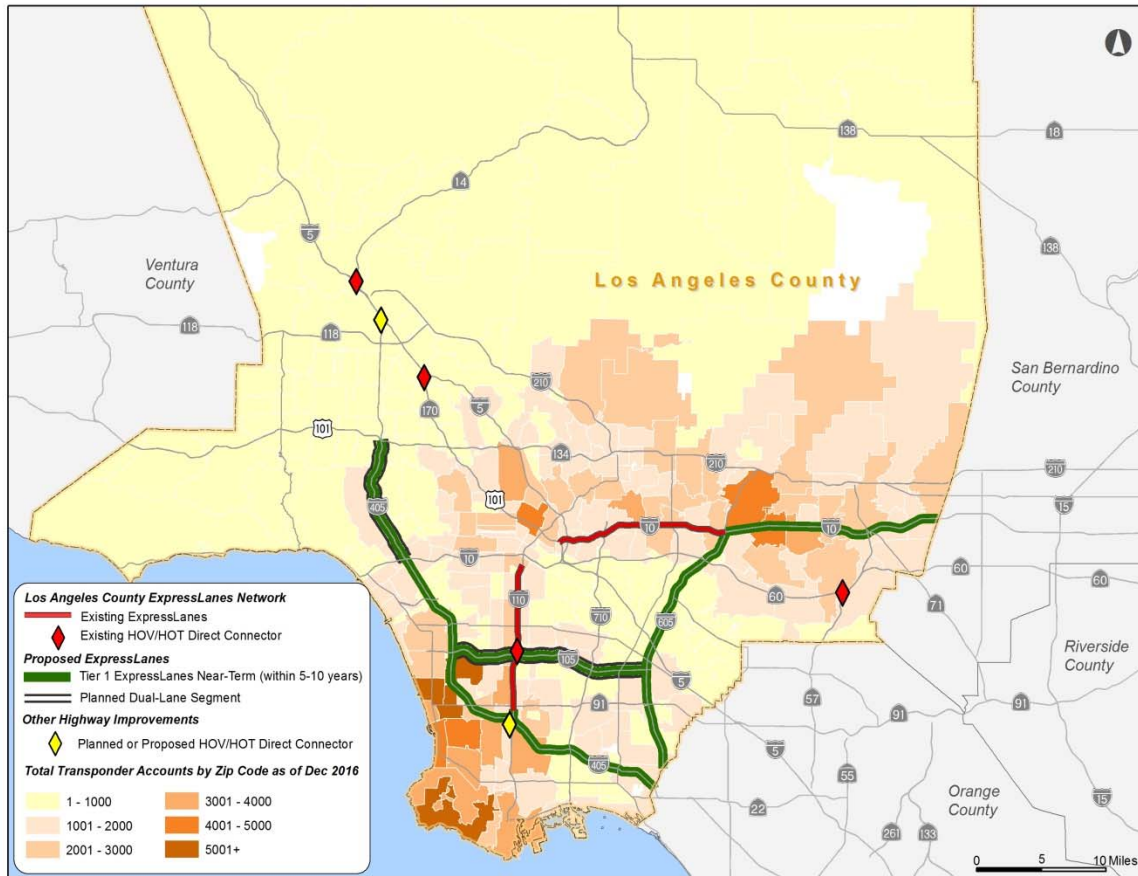
Corridor	From	To	Lane Miles	Scope	Non-Standard Cost	Full-Standard Cost
Existing Network						
I-10	Alameda St.	I-605	39.1	In operation	N/A	N/A
I-110	Harbor Gateway Transit Center	Adams Blvd.	35.3	In operation	N/A	N/A
Tier 1 Baseline Network						
I-10	I-605	LA/SB CL	34.2	Convert existing and future HOV to Single HOT in each direction	\$43M	\$196.8M
I-105	I-405	I-605	32.0	Convert existing HOV to single HOT in each direction*	\$37.4M	\$73.2M
I-110	182 nd Street	I-405	2.2	Add new HOT lanes by extending existing single HOT lanes in each direction south to I-405; construct new HOV/HOT Direct Connector at I-110/I-405	N/A	\$280.4M +\$250M (Connector)
I-405	US 101	LA/OC CL	77.6	Convert existing HOV to single HOT in each direction**	\$94.5M	\$305M
I-605	I-10	LA/OC CL	41.2	Convert existing HOV to single HOT in each direction	\$50.3M	\$249.6M
I-605/SR-60 Interchange Direct Connectors			HOV 0.1	Construct HOV direct connectors at I-605/SR-60 interchange	N/A	\$490.6
Tier 1 Total			187.3		\$225.2M	\$1,845.6M

Source: Conceptual-Level Cost Estimate Report, SCAG Express Travel Choices Phase II Study - Regional Express Lane Network, April 8, 2015

*Metro expects that dual Express Lanes can be implemented on the I-105 (I-405 to I-605); final configuration to be determined through the Project Approval/Environmental Document (PA/ED). Caltrans I-105 PSR-PDS estimated cost for dual-lanes is \$125M to \$200M.

** Metro expects that dual Express Lanes can be implemented on the I-405 (US 101 to I-10); final configuration to be determined through the Project Approval/Environmental Document (PA/ED). Prior Sepulveda Pass Corridor Systems Planning Study Supplemental Traffic and Revenue Study estimated cost for dual-lanes at \$188M.

Tier 1 Express Lanes 10-Year Plan (2017-2027)



TIER 2 PROJECTS

Metro Express Lanes Program 15-Year Implementation Phasing Plan (Tier 2)

Corridor	From	To	Lane Miles	Scope	Non-Standard Cost	Full-Standard Cost
Tier 2 Baseline Network						
I-5	I-605	LA/OC CL	12.9	Convert future HOV to single HOT in each direction	\$15.4M	\$40.5M
I-5	SR-170	SR-134	20.0	Convert future HOV to single HOT in each direction	\$23.8M	\$52.9M
SR-57	LA/OC CL	SR-60	9.6	Convert existing HOV to single HOT in each direction	\$12.1M	\$44M
SR-91	I-110	LA/OC CL	29.0	Convert existing HOV to single HOT in each direction	\$34.8M	\$475M
SR-134	SR-170	I-210	26.2	Convert existing HOV to single HOT in each direction	\$33.6M	\$1,205M
I-210	SR-134	LA/SB CL	56.2	Convert existing HOV to single HOT in each direction	\$68.7M	\$2,251.4M
I-405	I-5	US 101	17.4	Convert existing HOV to single HOT in each direction	\$22.4M	\$73.9M
Tier 2 Total			171.3		\$210.8M	\$4,142.7M

Source: Conceptual-Level Cost Estimate Report, SCAG Region Value Pricing Project—Regional Express Lane Network, April 8, 2015

Tier 2 Express Lanes 15-Year Plan (2027-2032)



TIER 3 PROJECTS

Metro Express Lanes Program 25-Year Implementation Phasing Plan (Tier 3)

Corridor	From	To	Lane Miles	Scope	Non-Standard Cost	Full-Standard Cost
Tier 3 Baseline Network						
I-5	SR-14	SR-170	17.2	Convert existing HOV to single HOT in each direction	\$17.7M	\$80.8M
SR-60	I-605	LA/SB CL	36.2	Convert existing HOV to single HOT in each direction	\$48.3M	\$217.3M
SR-170	SR-134	I-5	13.3	Convert existing HOV to single HOT in each direction	\$17M	\$57.7M
Tier 3 Expanded Network (included as sensitivity tests for possible inclusion to Tier 3 Baseline)						
I-5	SR-14	Parker Rd.	26.8	Convert future HOV to single HOT in each direction	\$95.3M	\$370.7M
SR-14	I-5	Avenue P8	71.8	Convert existing HOV to single HOT in each direction	\$37.3M	\$336.5M
SR-118	LA/VEN CL	I-5	22.8	Convert existing HOV to single HOT in each direction plus I-110/I-405 direct connectors	\$26.8M	\$92.6M
Tier 3 Total*			190.3		\$242.4M	\$1,686M

Sources: Conceptual-Level Cost Estimate Report, SCAG Region Value Pricing Project—Regional Express Lane Network, April 8, 2015

Tier 3 Express Lanes 25-Year Plan (2032-2042)



MOTION BY:

**MAYOR ERIC GARCETTI, SUPERVISOR MARK RIDLEY-THOMAS,
DIRECTOR JACQUELYN DUPONT-WALKER, & DIRECTOR JOHN FASANA**

Executive Management Committee Meeting

November 6, 2014

Item 59 – ExpressLanes Strategic Plan

Congestion Pricing is a strategy to reduce traffic congestion, improve the reliability of highway system performance, and generate new revenue which can be used to fund transportation improvements in the corridors where the revenues are generated.

In June 2007, the Los Angeles County Metropolitan Transportation Authority (MTA) Board unanimously passed a motion directing the CEO to work with Caltrans and other agencies to develop a detailed operating plan for implementing congesting pricing in Los Angeles County.

In April 2008, MTA, in partnership the Caltrans, entered into an agreement with the U.S. Department of Transportation (USDOT).

The agreement identified an award of a \$210.6 million federal grant to convert existing High Occupancy Vehicle (HOV) lanes into dynamically-priced high-occupancy toll (HOT) lanes as an initial congestion pricing pilot project, known as ExpressLanes.

MTA converted the high-occupancy vehicle lanes on portions of I-10 and I-110 in Los Angeles County to HOT lanes.

February 23, 2014 marked the successful completion of the federal grant requirement of 12 months concurrent toll operations of the MTA ExpressLanes.

Legislation was enacted in September 2014 that granted MTA the authority to conduct, administer, and operate the program indefinitely, under the same terms and conditions that governed the demonstration program.

CONTINUED

MTA ExpressLanes have proven to be effective in increasing travel speeds, reducing travel times without creating adverse impacts on the general purpose lanes.

The public has accepted tolling as a means of improving mobility. During the first year alone, drivers acquired 259,000 transponders, greatly exceeding the ExpressLanes program's goal of 100,000.

ExpressLanes on I-10 and I-110 garnered significant recognition and acceptance as well as generating toll revenues that are being reinvested in mobility improvements in the surrounding communities and are providing improvements to the regional transportation network.

It is now time to expand upon the success of the Congestion Reduction Demonstration program.

WE THEREFORE MOVE that the MTA Board direct the CEO to develop an "ExpressLanes Strategic Plan" as part of the FY15 ExpressLanes Work Plan which shall include the following:

- A. Identification and recommendations of potential corridors that can benefit from ExpressLanes conversion.
- B. Development and execution of a master cooperative agreement with Caltrans to jointly execute Project Study Report/Project Development Support (PSR/PDS), Project Approval/Environmental Document (PA/ED) and/or other technical studies for future ExpressLanes corridors.
- C. Development of a 10-year and 30-year resource plan for existing and future ExpressLanes corridors.

WE THEREFORE ALSO MOVE that the Board direct the CEO to:

- D. Report back to the MTA Board with the first update of the "ExpressLanes Strategic Plan" no later than June 2015.

###

Countywide ExpressLanes Strategic Plan

Ad Hoc Congestion, Highway, and Roads Committee
January 18, 2017



Metro

Background and Study Assumptions

- In November 2014, the Metro Board directed staff to prepare an ExpressLanes Strategic Plan
- Key Features:
 - Consistent with SCAG Regional ExpressLanes Study
 - Developed in conjunction with Caltrans District 7
 - Freeways with existing, in construction, or planned HOV (High Occupancy Vehicle) lanes were considered for conversion into ExpressLanes

Methodology

- Corridor Screening
- Financial Screening
- Refinement

Corridor Screening

- Two step process –
 - SCAG regional travel demand model used to forecast traffic volume in 2020 and 2035
 - RapidTOM (Toll Optimization Model) takes SCAG model output and calculates the number of vehicles and amount they are willing to pay to use the ExpressLanes
 - Evaluation Metrics :
 - 1) Value of travel time savings
 - 2) HOT lane person throughput
 - 3) Average peak period vehicle speeds in the general purpose lanes

Financial Screening

Two step process:

- 1) Estimate gross revenue generation for each corridor
- 2) Estimate Net revenue, calculated by subtracting projected gross revenue from construction and operations costs based on actual costs incurred on the I-10 and I-110 ExpressLanes

Composite Score

- Each corridor was ranked into quintiles (top 20%, second 20%, third 20%, fourth 20%, and fifth 20%) for the three corridor screening metrics and financial screening
- The ranks were averaged to get a composite score. For example, if a project scored in the top 20% in each criteria then the composite ranking would be in the first quintile.

Refinement

Four qualitative criteria were used to refine the results of the corridor and financial screening:

- Connectivity with other existing and potential express lane corridors;
- Transit benefits;
- Funding availability;
- Ability to provide two ExpressLanes in each direction.

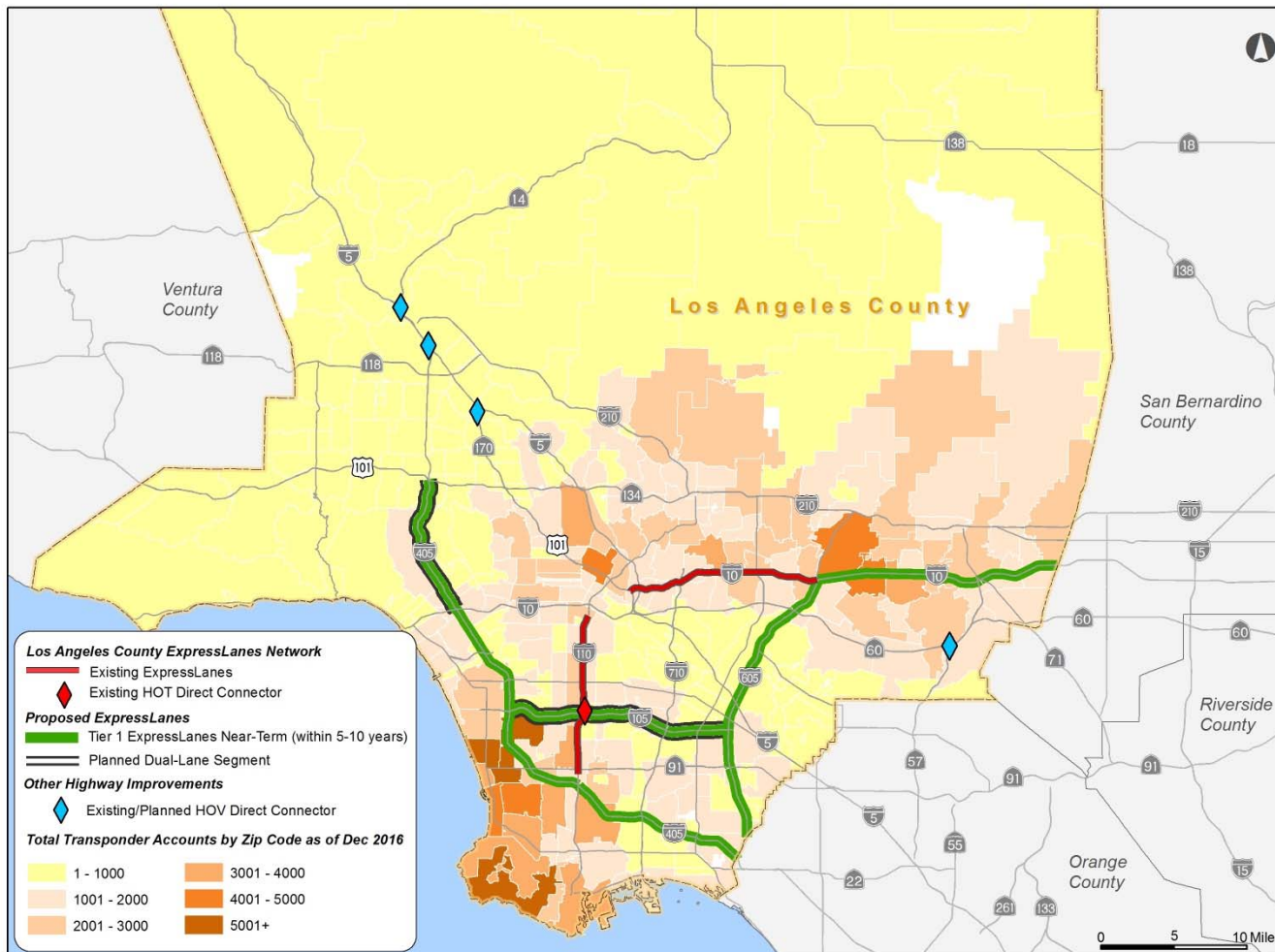
Project Tiers

- Based on the corridor financial screening metrics and the refinement criteria, projects were placed into three tiers:
 - Tier 1 – near-term (within 5-10 years)
 - Tier 2 – mid-term (within 15 years)
 - Tier 3 – longer-term (within 25 years)

Recommended Tier 1 Projects (5 to 10 Years)

Project	Measure M Funding	Funding Availability
I-405 from I-10 to US-101	\$260,000,000	2024
I-105 ExpressLanes from I-405 to I-605	\$175,000,000	2027
I-405/I-110 Int. HOV Connect Ramps and Interchange Improvements	\$250,000,000	2042
I-605/SR-60 Interchange HOV Direct Connectors	\$130,000,000	2043
I-110 ExpressLane extension south to I-405/I-110 interchange	\$51,500,000	2044
I-605 from I-10 to I-405	None	N/A
I-405 from I-10 to LA/Orange County line	None	N/A
I-10 from I-605 to LA/San Bernardino County line	None	N/A

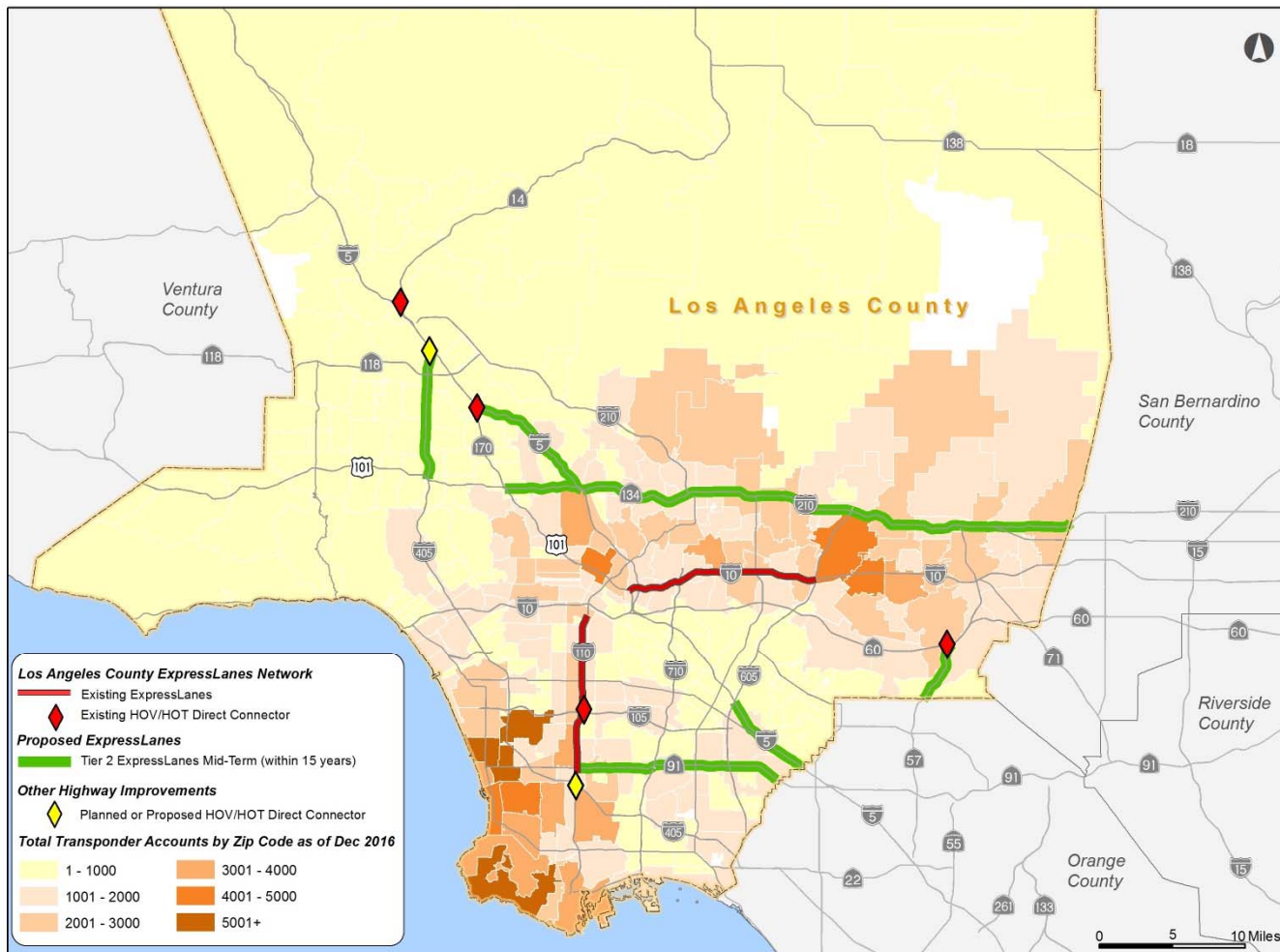
Recommended Tier 1 Projects (5 to 10 Years)



Recommended Tier 2 Projects (15 Years)

Project	Measure M Funding	Funding Availability
I-5 from I-605 to LA/Orange County line	None	N/A
I-5 from SR-134 to SR-170	None	N/A
SR-57 from SR-60 to LA/Orange County line	None	N/A
SR-91 from I-110 to LA/Orange County line	None	N/A
SR-134 from SR-170 to I-210	None	N/A
I-210 from SR-134 to LA/San Bernardino County line	None	N/A
I-405 from I-101 to I-5	None	N/A

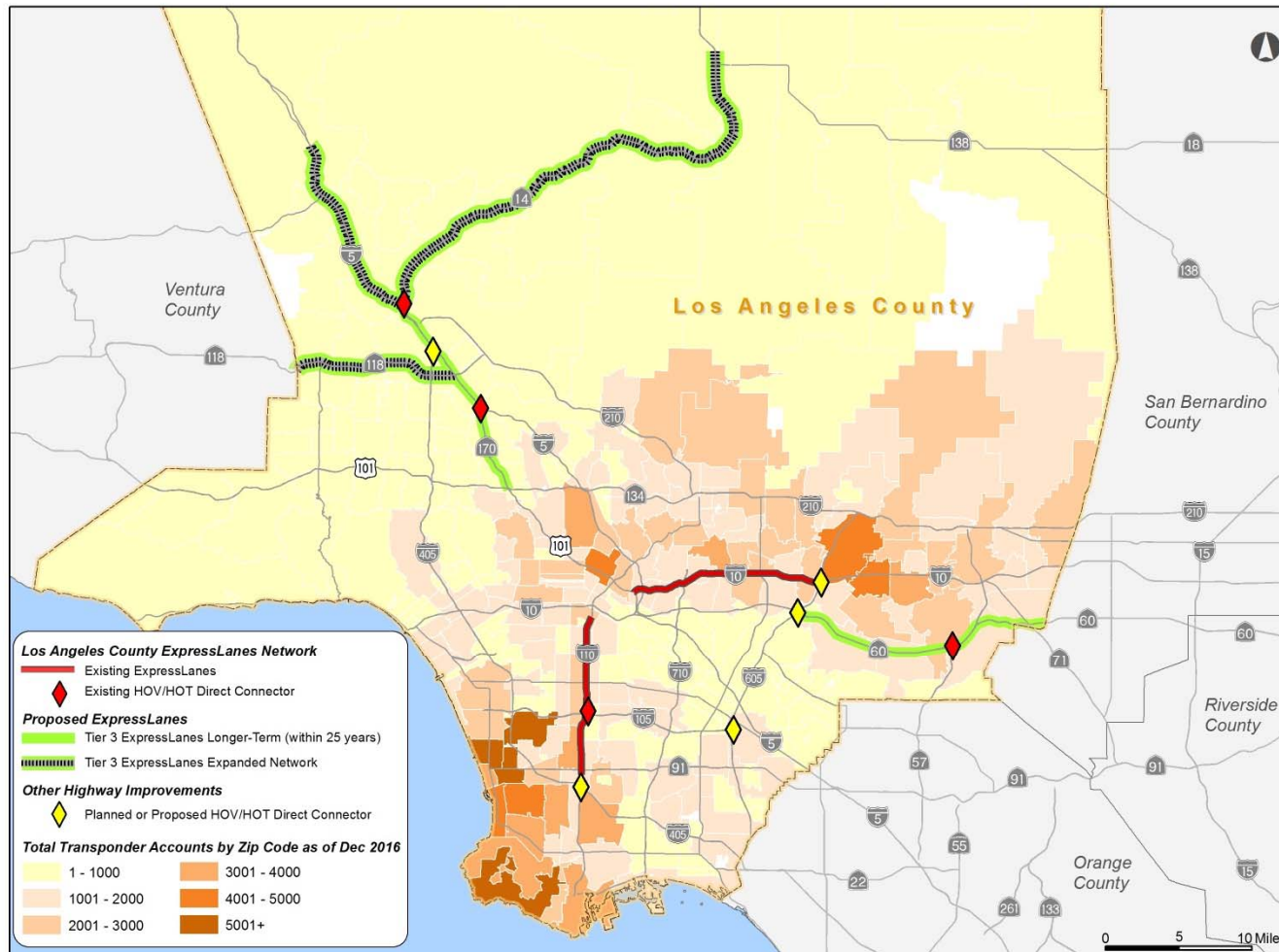
Recommended Tier 2 Projects (15 Years)



Recommended Tier 3 Projects (25+ Years)

Project	Measure M Funding	Funding Availability
I-5 from SR-170 to SR-14	None	N/A
SR-60 from I-605 to LA/San Bernardino County line	None	N/A
SR-170 from I-5 to SR-134	None	N/A
I-5 from SR-14 to Parker Road	None	N/A
SR-14 from I-5 to Avenue P8	None	N/A
SR-118 from I-5 to LA/Ventura County line	None	N/A

Recommended Tier 3 Projects (25+ Years)



Funding Options

- Measure M
- Bonding
- TIFIA loans
- Grants
- Net toll revenue loans from other ExpressLanes

Recommendations/Board Actions

Request the Board to:

- Receive and file the report; and,
- Authorize the CEO to:
 - Initiate planning studies including a comprehensive financial plan for Tier 1 projects and submit those projects as a network to the California Transportation Commission to request tolling authority