

### **Board Report**

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

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 <a href="http://libraryarchives.metro.net/DB\_Attachments/170111\_Strategic\_Plan\_with\_Appendices.pdf">http://libraryarchives.metro.net/DB\_Attachments/170111\_Strategic\_Plan\_with\_Appendices.pdf</a>, 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**

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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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**Los Angeles County** 

**Metropolitan Transportation Authority** 

# Countywide ExpressLanes Strategic Plan Executive Summary



PREPARED FOR:



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Prepared by:



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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.

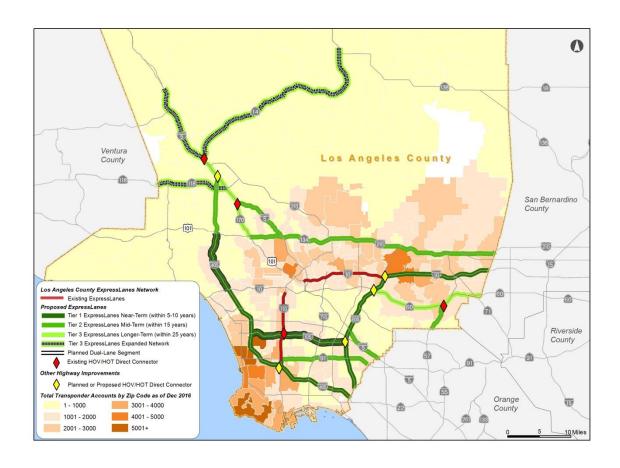


Figure 1: Los Angeles County Strategic Buildout Express Lanes Network

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	None identified*
line	
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	None identified*
line	
SR-91 between I-110 and LA/OC county	None identified*
line	
SR-134 between I-210 & SR-170	None identified*
3K-134 between1-210 & 3K-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*
1-5 between 5K-170 and Larker Road	None identified*
SR-14 between Avenue P8 & I-5	
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*

<sup>\*</sup> May be eligible for Measure M Highway Funds

### TIER 1 PROJECTS

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

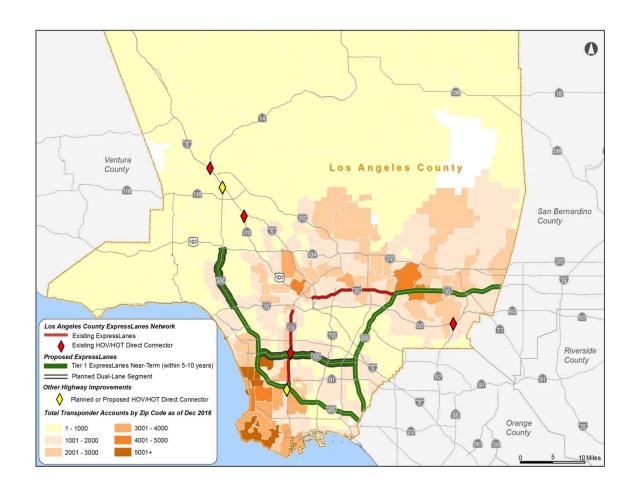
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G 11	Б	T.	Lane	G.	Standard	Full-Standard
Corridor	From	То	Miles	Scope	Cost	Cost
Existing 1						
I-10	Alameda St.	I-605	39.1	In operation	N/A	N/A
I-110	Harbor Gateway Transit Center	Adams Blvd.	35.3	In operation	N/A	N/A
Tier 1 Ba	seline Netw	ork				
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 <sup>nd</sup> 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- Direct Co	60 Intercha nnectors	nge HOV	0.1	Construct HOV direct connectors at I-605/SR-60 interchange	N/A	\$490.6
Tier 1 To	tal		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

<sup>\*</sup>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.

<sup>\*\*</sup> 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)



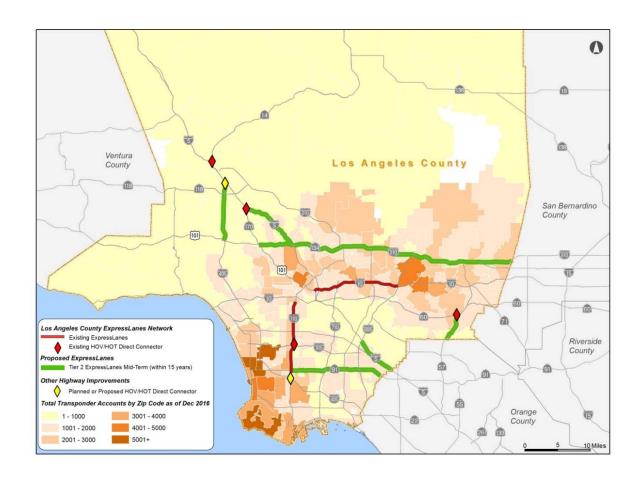
### **TIER 2 PROJECTS**

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

Corridor	From	То	Lane Miles	Scope	Non- Standard Cost	Full- Standard Cost
Tier 2 Bas	eline Netw	vork				
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 Tota	al		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)



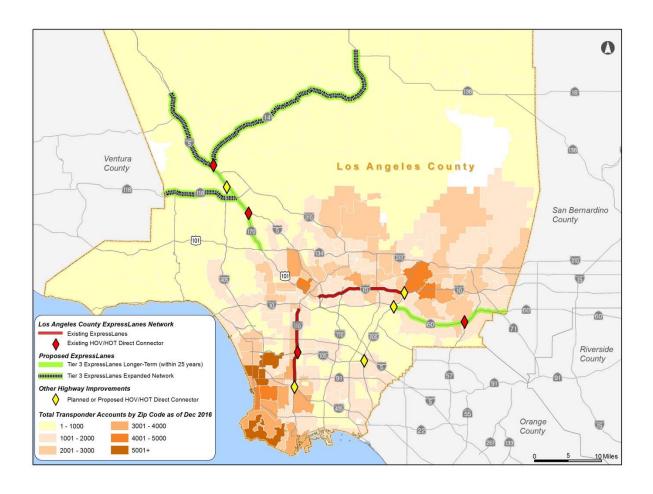
### **TIER 3 PROJECTS**

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

Corridor	From	То	Lane Miles	Scope	Non- Standard Cost	Full-Standard Cost
Tier 3 Bas	eline Netwo	rk				
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 Exp	anded Netv	vork (inclu	led as sens	sitivity tests for possible inclusion to	Tier 3 Baseli	ne)
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 Tot	al*	•	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



# **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)

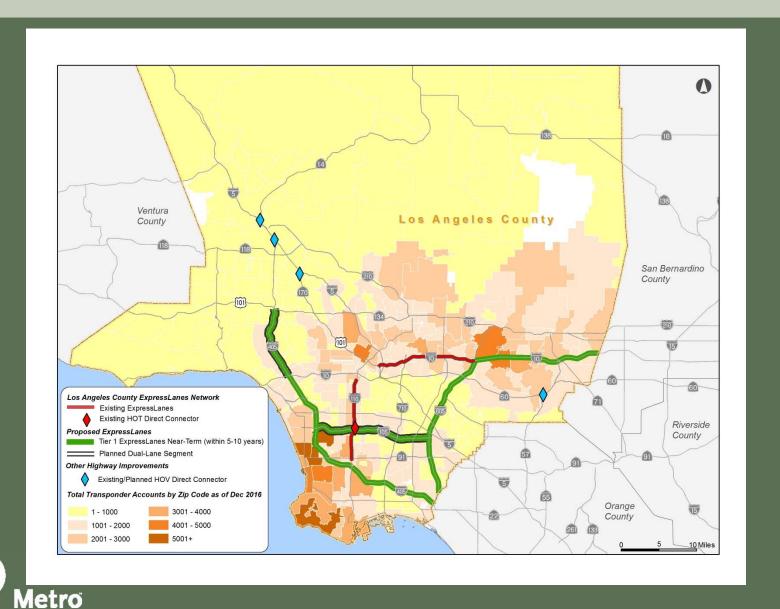


# Recommended Tier 1 Projects (5 to 10 Years)

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)

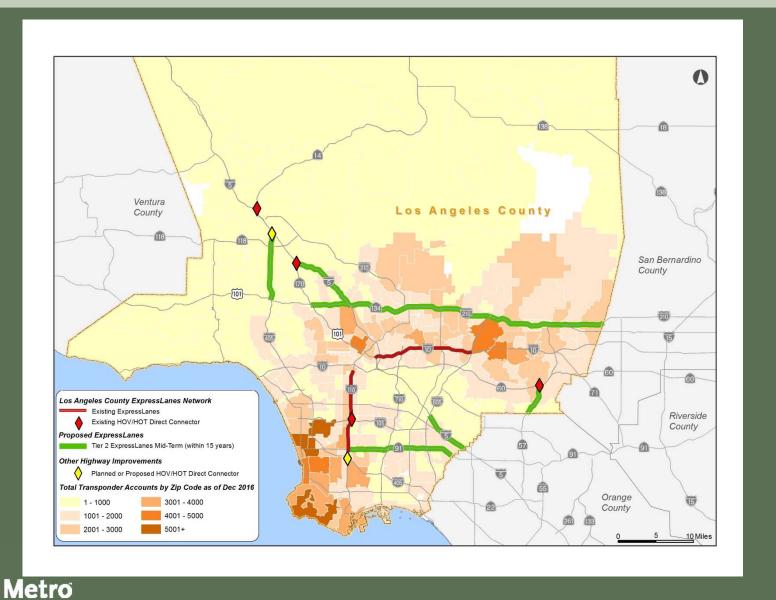


# Recommended Tier 2 Projects (15 Years)

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)

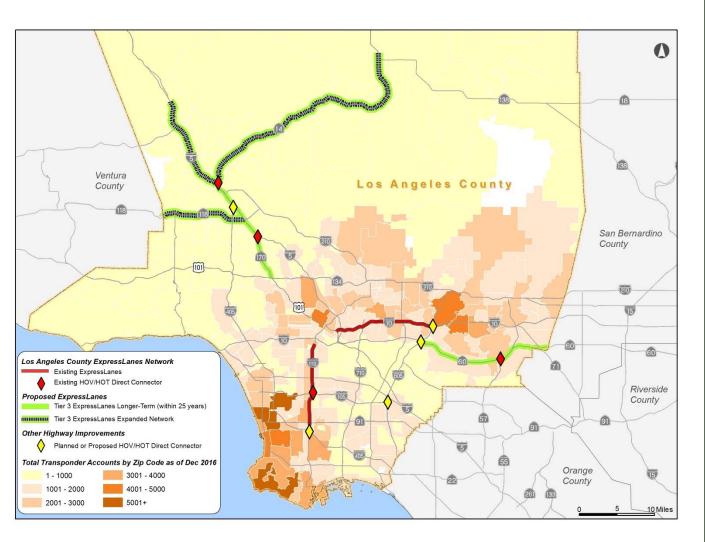


# Recommended Tier 3 Projects (25+ Years)

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

