

**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

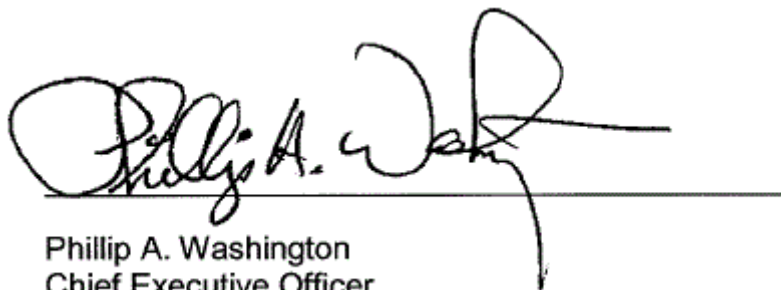
Attachment C - November 2014 Board Motion #59

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