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Metropolitan Transportation
Authority
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Los Angeles, CA

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AD HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE
JANUARY 16, 2019

SUBJECT: I-10 AND I-110 METRO EXPRESSLANES "PAY-AS-YOU-USE" MODEL

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

APPROVING a one-year pilot of the "Pay-as-You-Use" model.

ISSUE

At the April 26, 2018 Board meeting, Motion 42 by Director Hahn amended by Director Dupont-Walker (see Attachment A) was approved directing staff to report back on:

- The current performance of the ExpressLanes
- A comparison of the Metro ExpressLanes system to other major congestion-pricing toll systems in the country, with emphasis on those that exhibit demographic similarities to Metro's ExpressLanes; and
- The viability of Metro ExpressLanes implementing a "Pay-as-You-Use" model eliminating the requirement of a transponder.

BACKGROUND

The Metro ExpressLanes program is designed to provide users with a safe, reliable, predictable trip. To facilitate traffic management, revenue collection, and enforcement of the ExpressLanes, a requirement that all vehicles have a properly mounted FasTrak Flex transponder was included in the current Toll Policy.

Those who travel the ExpressLanes without a transponder are sent a notice of toll evasion inclusive of the toll and an initial $25 penalty. If they select to open an account, the $25 penalty is waived and they are charged the toll only. If they do not open an account and fail to make payment within a month, an additional $30 penalty accrues. Metro ExpressLanes penalty process and fees are consistent with other express lanes operators in California. On average, 47% of violations are paid on the first notice, 20% are paid on the second notice, and 31% are paid on the DMV Hold, with 1.5% not paid.

This motion is requesting staff to revisit this policy.

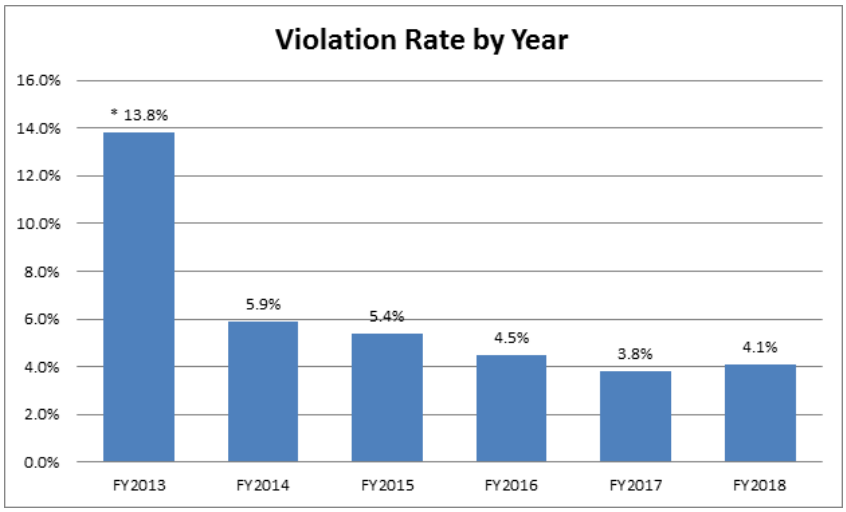
DISCUSSION

Current Performance of the Metro ExpressLanes

In FY 2018, ExpressLanes users took over 42 million vehicle trips on the I-10 and I-110 ExpressLanes; reflecting a 2% increase from FY17 and bringing the 5 year total to over 195 million vehicle trips. Metro ExpressLanes has issued 872,966 FasTrak transponders from inception through FY18, with over 150,000 transponders issued in FY18, a 21% increase from FY17. Approximately 44% of users on both corridors were SOV for FY18, but I-10 had 41% HOV3+ compared to 23% HOV3+ on the I-110. The number of HOV only minutes decreased for both corridors: approximately 6% on I-110 and 14% on I-10.

ExpressLanes users were able to save an average of 13 minutes during the AM commute and 7 minutes in the PM compared to the general purpose Lanes. In FY18 HOV2/3+ increased to 56% from 53% in FY17.

4.1% of all ExpressLanes trips are violation trips made by those without a FasTrak account. Overall, this percentage has decreased as the program has matured as indicated in the chart below.



* FY13 violation rate is for the first 7 months.

The annual customer survey based on 81,748 responses indicated that 89% of Metro ExpressLanes users are satisfied with their speed of travel while 90% are satisfied with time saved relative to toll paid. Respondents were very aware (93.37%) of the FasTrak requirements. 58.50% of our survey respondents knew about the HOV requirements. 57.51% knew that the FasTrak Flex was the switchable transponder. The 2018 Metro ExpressLanes Performance report is included as Attachment B.

Comparison of the Metro ExpressLanes System to Other Major Congestion-Pricing Toll Systems in the Country

Throughout the US, there are various toll roads and express lanes which operate under different

objectives, business rules, and pricing mechanisms.

- **Toll roads** are built to provide highway capacity to address congestion and to provide motorists with an option for relatively congestion free travel when needed most. With toll roads, motorists are given the option to pay a toll to access these lanes on a given trip regardless of vehicle occupancy. Tolls can vary by time of day or based on actual traffic conditions and are collected electronically via a transponder, license plate readers, or at toll booths. The following are a list of toll roads in Southern California.

    - SR 73 (The Toll Roads)
    - SR 133 (The Toll Roads)
    - SR 241 (The Toll Roads)
    - SR 261 (The Toll Roads)
    - SR 125 (SANDAG)

- **Express lanes** optimize lane utilization by selling the extra capacity not being used by carpools and transit vehicles to lower occupancy vehicles. Express lanes are specifically designated highway lanes that typically allow drivers to choose to pay a toll to use the lanes with other users such as carpools, motorcycles, buses, and vanpools that travel free. The benefits of express lanes are that they offer more choices to solo drivers and encourage carpooling. Express lanes often rely on dynamic pricing which helps manage the flow of traffic in which tolls are continually adjusted according to traffic conditions. The tolls are higher when there is more traffic in the express lane, and lower when the traffic is lighter. The following are a list of express lanes in Southern California.

    - I-10 (Metro)
    - I-110 (Metro)
    - I-15 (San Diego)
    - SR-91 (OCTA)
    - SR-91 (RCTC)

Demographics Comparisons

Based on an analysis of demographic data associated with each of the 13 major metropolitan regions in the country that have express lanes, the most similar regions to Los Angeles with respect to race and income distributions are listed below in descending order of similarity.

Race Distribution:

Rank	City, State	"Pay-as-You-Use" Offered	HOV Discount Offered for "Pay-as-You-Use"	Surcharge of Fee for "Pay-as-You-Use"
1	Seattle, WA	Yes	No	$2
2	Minneapolis and St. Paul, MN	No	N/A	N/A
3	Austin, TX	Yes	No	$1

Income Distribution:

Rank	City, State	"Pay-as-You-Use" Offered	HOV Discount Offered for "Pay-as-You-Use"	Surcharge of Fee for "Pay-as-You-Use"
1	Houston, TX	No	N/A	N/A
2	Denver, CO	Yes	No	$5-10
3	Baltimore, MD	No	N/A	N/A

Altogether, these six regions contain a total of 18 express lanes. Additional details regarding the data sources, methodology, and findings are available in Attachment C: Demographic Analysis of Express Lane Regions.

Operational Comparison With Other Systems

Metro staff compiled operational data across all express lane facilities in the United States and across all toll road facilities in California to characterize industry practice. The summary chart is presented in Attachment D: Comparison Chart.

Of the 43 express lane facilities in the United States, 14 or 33% offer "Pay-as-You-Use" options to those who pay the full toll with none providing an HOV or any other discount for "Pay-as-You-Use" access. Furthermore, every facility that allows "Pay-as-You-Use" access imposes a surcharge or fee ranging between $1 and $10 for that option. While 36 of the 43 facilities or 84% offer some form of toll discount to HOVs, every one of these facilities requires that the user be an account holder with a transponder to be eligible to receive the discount.

When further focusing specifically on the 18 express lane facilities in the six regions that were found to be most similar to Metro ExpressLanes with respect to demographic characteristics, similar trends are revealed. Specifically, 7 out of 18 facilities (39%) offer a "Pay-as-You-Use" option. Of these 7 facilities, none offer an HOV discount to "Pay-as-You-Use" drivers, and all impose a surcharge or fee for "Pay-as-You-Use" access ($1 to $10). For account holders, 15 out of 18 facilities (83%) offer some form of discount to HOVs.

For further comparison and insight, of the 13 toll facilities in California, 6 or 46% offer a "Pay-as-You-

Use" option with none offering an HOV discount to "Pay-as-You-Use" drivers, and all impose a surcharge or fee for "Pay-as-You-Use" access. While 8 of the 13 (or 62%) of the facilities offer some form of toll discount to HOVs, they also require either that the HOVs be existing account holders, or require that the HOVs pay at staffed toll booths.

Note also that out of all the 55 express lanes and toll road agencies surveyed, Metro ExpressLanes was found to be the only agency to offer a Low-Income Assistance Plan to accommodate the specific needs of disadvantaged segments of the population. Furthermore, the Metro ExpressLanes Low Income Assistance Plan relies on account-based designations for qualifying members, and would be infeasible to implement through a plate-based tolling approach for non-account holders.

Viability of "Pay-as-You-Use" Model

Current System Requirements

The Metro ExpressLanes issuance of switchable transponders allows customers an easy means by which to declare the number of people in the vehicle enabling HOV/carpools to use the ExpressLanes toll free. These declarations are enforced through a combination of California Highway Patrol (CHP), a FasTrak transponder, and an automated license plate camera system.

"Pay-as-You-Use" Model

The "Pay-as-You-Use" model would allow drivers to use the Metro ExpressLanes without a FasTrak transponder. Tolls would be assessed based on license plates. The registered owner of the vehicle on file with the Department of Motor Vehicles would be responsible for the toll payments. Customers would receive an invoice for their Metro ExpressLanes trip and would have the option to pay on the website, over the phone or at a customer service center. Any unpaid invoices would incur penalties for delinquency. With the "Pay-as-You-Use" model, customers would not be able to access other express lane or FasTrak facilities throughout the State unless the facility supports this model.

The table below captures the potential structure of a "Pay-as-You-Use" model if implemented at Metro:

	FasTrak Flex Account	"Pay-as-You-Use" Model
Transponder Required	Yes	No
Can drive throughout California FasTrak corridors	Yes	No
Option to pay with credit card	Yes	Yes
Option to pay cash	Yes	Yes
Account maintenance fee	Yes, $1 a month	No
Additional surcharge for each Metro ExpressLanes trip	No	Yes

Program Limitations with "Pay-as-You-Use" model

Under the proposed scenario, "Pay-as-You-Use" customers would be charged the toll and an applicable surcharge. The use of a mobile application was evaluated and found to be infeasible as a method for offering HOV discounts to "Pay-as-You-Use" customers for the following reasons:

1. A mobile app would require user authentication to access the system, and this would require that the user be an existing account holder.
2. Roadside CHP enforcement of occupancy declaration would not be possible, as the system would not be able to read a given vehicle's license plate quickly enough to identify it in real time (for CHP enforcement purposes) as it drove by.

Some agencies allow for drivers to pay online up to 4 or 5 days after they drive the lanes by entering license plate information. Generally, these agencies operate a full toll road or a bridge and rely on time of day pricing or set toll rates. Express lanes facilities typically do not have this option as the toll rates are calculated dynamically based on distance traveled requiring data from multiple gantries to be compiled into one trip that is then charged to a customer.

With transponder-based transactions, the trips can be calculated and posted to a customer account within the next day. However, with plate based express lane transactions it can take between 5-10 days to post a trip with the toll amount. This is due to the need for DMV determination of vehicle ownership as well as the manual image review process in which people view and key in license plates each time a plate is not readable by the automated system. Without this information, the system will not know how much and whom to charge.

Staff is not recommending the option of mobile app or pay within 5 days for the "Pay-as-You-Use" model, consistent with all other express lanes that utilize this model.

ExpressLanes Usage Considerations

To evaluate the potential operational impacts of the proposed “Pay-as-You-Use” model on the ExpressLanes, staff conducted a literature review of other agencies’ experiences with similar types of transitions. For additional insight, staff also performed its own original research and analysis of the impacts of such a policy change on the TCA Toll Roads when a “Pay-as-You-Use” model was implemented in early 2014. The results gathered from both the literature review and from the independent analysis were inconclusive with respect to the effects of a “Pay-as-You-Use” pricing model on trip volumes due to limited availability of past studies/data, and the presence of several variables that could not be controlled for in the data sets that did exist.

In the case of the TCA Toll Roads, for example, the implementation of its “Pay-as-You-Use” pricing model coincided with the decommissioning of all cash booths and the economic recession, which made it impossible to isolate the effect of the “Pay-as-You-Use” pricing strategy using the operational data that was available. Staff performed a preliminary internal qualitative assessment of the potential impacts associated with this policy change and anticipates an increase in ExpressLanes volume as a result of employing a “Pay-as-You-Use” model due to the removal of a potential barrier to entry for non-customers, although the magnitude of this increase cannot be estimated from the available data. Consequently, staff is recommending analysis of the results of the pilot to more accurately determine impacts.

Financial Considerations

The “Pay-as-You-Use” model may introduce some revenue leakage with a variety of causes. Industry standards have shown that transitioning to this model may increase revenue leakage because transaction volume increases while the rate of non-payment stays the same. Transponder based transactions hold an advantage over license plate based in processing costs and efficiency. It is estimated that license plate based tolling costs 3 times more to process when adding mailing costs, image/trip processing, revenue leakage, and customer service time.

Based on these factors, tolling operators who offer “Pay-as-You-Use” model charge an additional fee.

The “Pay-as-You-Use” model may lead to a reduction in violations fees or may lead to increased usage of the corridors and income from tolls plus fees. The pilot would enable evaluation of this potential impact on the I-10 and I-110 project.

2018 Customer Survey

To supplement efforts to develop a response to the Board motion, staff included a question related to the “Pay-as-You-Use” model in the 2018 customer survey. Please note that the survey was limited to current account holders. Approximately 45% of the respondents indicated that they would not be interested in a program that would allow use of ExpressLanes without transponders at a $1 to $2 surcharge. 66% and 77% of respondents indicated that they would not be interested in using the ExpressLanes without a transponder with a surcharge of $3 to $4 and $5 to $7 respectively. The expectation is that the customers who were surveyed would remain as customers and continue to use transponders as they were mostly not in favor of this model. However, this model does not

directly impact customers but is intended to enable those who are not registered customers with transponders to use the ExpressLanes without incurring a penalty.

Findings

The following summarizes the findings of the “Pay-as-You-Use” model.

1. This method allows customers to use the ExpressLanes without any advance interaction with the toll agency addressing the needs of visitors and infrequent users;
2. From a system perspective, the pay as you use model can be integrated into the current and new back office systems;
3. There is a potential increase in ExpressLanes volumes as a result of employing this model;
4. All users regardless of the number of occupants will have to pay a toll at all times (CAVs and HOVs) consistent with all other express lanes operators;
5. The Low-Income Assistance Plan can only be applied to account holders;
6. Billing process will not be as fast and efficient for “Pay-as-You-Use” as that for account holders;
7. An additional surcharge will be added to each transaction to supplement the additional staffing expense due to manual image review and transaction/mailing processing. All “Pay-as-You-Use” operators charge this surcharge;
8. The “Pay-as-You-Use” model will require changes to the existing signage and a regional outreach campaign;
9. This model may lead to revenue leakage or may lead to increased usage of the corridors and income from tolls plus fees which will be determined as part of the pilot.

Pilot of the “Pay-as-You-Use” Model

Given the potential and challenges of implementing this model and the inconclusive findings regarding impacts on congestion and revenue, staff recommends implementation of a one year limited pilot to enable assessment of the impacts with minimal changes to the system, signage, and marketing until after an evaluation is completed. Staff anticipates program impacts as summarized in the findings listed above. The pilot is expected to go-live within 9 months of board approval.

The pilot of this model will include the following:

Process Changes

The first notice will be issued to the registered owner of the vehicle with an option to pay the toll and a $4 surcharge within 20 days and a $25 penalty if paid between the 20th and 30th day. If the amount due is not paid within 30 days, an additional notice including an additional $30 penalty will be sent. If an additional 60 days has passed without payment, a DMV registration hold will be placed on the vehicle. The analysis for the $4 surcharge can be found in Attachment E.

Additionally, the following steps will be implemented prior to deployment.

- CHP will be notified that drivers without transponder should not be pulled over and cited.
- Limited campaign educating users that they can use the lanes without transponders.

System & Customer Service Changes

- The website will be modified to provide new information regarding the changes to this model.
- Transaction processing, and notice procedures will be updated to reflect the process above.
- Modifications will be made to customer communications, account statements, and other correspondence documents.
- Changes to the signage on the corridor will be completed by covering over the “ONLY” portion of the “FASTRAK ONLY” sign.

To accelerate implementation of the pilot and evaluate the results of this policy prior to full implementation, the following will be postponed.

- Regional education campaign to inform commuters about this policy change;
- New signage and upgrades to existing signage.

Following the 12 month pilot, a before and after evaluation will be developed to determine the impacts associated with this policy change and whether full implementation is warranted.

Required Operational Changes for Full Deployment after Pilot Evaluation

This model would require system and process modifications. There would be impacts to the back office system, roadside, and customer service procedures.

- **Back office system changes include:**
    - The website and Interactive Voice Response (IVR) telephone systems require modifications to provide new information and call trees regarding the changes to this model.
    - Transaction processing, violation notice procedures, and invoice generation will need to be modified.
- **Customer service changes include:**
    - Modifications would have to be made to customer communications, account statements, and other correspondence documents.
    - A regional education campaign to inform commuters about this policy change must be

undertaken.

- **Roadside changes include:**
    - Changes to lane enforcement routines and procedures would need to be communicated to CHP.
    - At the lane level, roadside signs would require new messages to communicate the new pricing model and requirements to motorists. For example, all FasTrak Only signs will need to be replaced. New signs need to be installed to communicate that motorists can use the lanes under the "Pay-as-You-Use" model. These new signs are not part of the standard Federal Manual on Uniform Traffic Control Devices for Streets and Highways signage, which will require approval from Caltrans and potentially from Federal Highway Administration which could take up to eighteen months.

The rough order of magnitude cost impact associated with full deployment is estimated at approximately $6.6 million.

FINANCIAL IMPACT

Funding for implementation of the pilot is anticipated to be approximately $750,000 and is available in the FY19 budget in cost center 2220. Because this is a multi-year program, the cost center manager and the Executive Officer of the Congestion Reduction Department Programs will be responsible for budgeting for future years.

Impact to Budget

The funding for this action will come from toll revenues generated from the Metro ExpressLanes operations. No other funds were considered for this activity. This funding is not eligible for bus/rail operating and capital expenses.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Response to this Motion aligns with Strategic Goal 1: Provide high-quality mobility options that enable people to spend less time traveling. ExpressLanes provide drivers with the option of a more reliable trip while improving the overall operational efficiency of the freeway network.

ALTERNATIVES CONSIDERED

The Board may choose not to move forward with this recommendation. If no action is taken, the current noticing structure will remain. This alternative is not recommended since piloting the "Pay-as-You-Use" model will enable us to evaluate this alternative payment method.

NEXT STEPS

If the Board directs staff to implement a "Pay-as-You-Use" model, a detailed plan, cost estimate,

necessary resources, and schedule will be developed for the pilot; staff will return to the Board as necessary regarding progress toward implementation.

Staff will continue to monitor the performance of the corridor and will address alternative payment models as part of a larger Metro ExpressLanes policy review as necessary unless otherwise directed by the Board

ATTACHMENTS

Attachment A - Board Motion 42
Attachment B - FY18 Performance Report
Attachment C - Demographic Analysis of Express Lane Regions
Attachment D - Comparison Chart
Attachment E - Surcharge Assumptions and Costs

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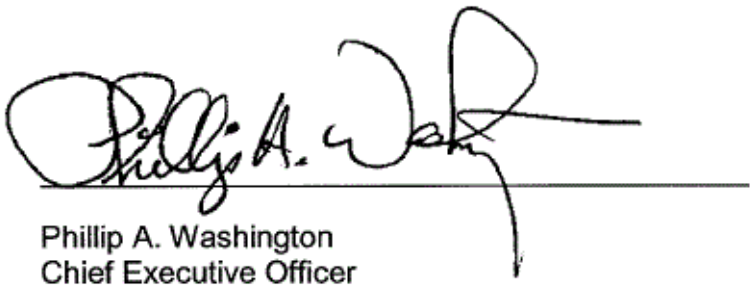

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