



**DATE:** April 20, 2016  
**TO:** Transportation Commission  
HPTE Board of Directors  
**FROM:** David Spector, High Performance Transportation Enterprise Director  
**SUBJECT:** Operations and Maintenance Cost Sharing On Managed Lanes

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Purpose: Provide additional information regarding the allocation of shared operation and maintenance expenses between CDOT and HPTE on corridors where there are both managed and general purpose lanes.

Action: Information and Discussion only. No formal action is being requested.

Key Policy Considerations: Understand how CDOT and HPTE staff determined that using the Average Annual Daily Traffic (AADT) metric is the most fair and accurate method of allocating O&M costs on shared corridors.

Background:

In March 2016, HPTE held a joint workshop with the TC and HPTE Board of Directors regarding the split of operations and maintenance (O&M) costs between CDOT and HPTE on corridors where there are both managed and general purpose lanes. While no action was requested, the intent of the workshop was to facilitate a high-level policy discussion on the topic and provide transparency regarding the decision making process. During the workshop additional questions for discussion were raised including:

- Does HPTE or CDOT have responsibility for the O&M expenses attributed to High Occupancy Vehicles (HOV) who use managed lanes?
- How does the discussion regarding Operations and Maintenance costs relate to current and future project Intra-Agency Agreements (IAA) between CDOT and HPTE?
- How does applying the pro-rata share to both Average Daily Traffic (ADT) and Lane Mile translate into examples using current O&M data?

This month, staff is providing additional details and information to respond to these questions and ensure that the TC and HPTE Board are comfortable with the methodology for allocating costs on current and future corridors where there are managed lanes.

Shared Corridor Methodologies: As discussed last month, CDOT and HPTE have considered different alternatives for how to allocate certain O&M costs that should be shared on Express Lane corridors. Some O&M costs are HPTE only costs, some O&M costs are CDOT only costs, and some O&M costs are shared. HPTE and CDOT staff recommend using the ADT method to appropriately allocate costs that fall into the shared-cost category. See Attachment A: Operations and Maintenance Cost Sharing on Managed Lane Corridors presentation for examples of the types of O&M activities that are responsibilities of HPTE, CDOT and those activities that are shared. The attachment also walks through examples of a lane mile and ADT calculation using historical maintenance data and Average Annual Daily Traffic.

The AADT method was selected because it is the **most fair and accurate:**

- Can be applied equitably to the variety of shared corridors types (with or without HOV)
- Reflects the increase in O&M costs as traffic increases—HPTE's share will increase as traffic increases—as opposed to a flat rate cost that does not account for increased wear and tear on the express lane
- Aligns cost curve to toll revenue curve (as traffic and O&M expenses increase, toll revenues increase)
- Decreases risk of a TC backup loan
- Most supportable allocation of costs under legal (TABOR) and accounting rules

Impact of HOV: Under the ADT methodology, HOV vehicles are allocated as a CDOT cost, while tolled vehicles are an HPTE cost. When HOV increases from 2+ to 3+ on January 1, 2017, the number of HOV vehicles in the lanes, and therefore CDOT's costs, will decrease.

Designating a corridor as HOV falls under the purview of the TC. The HPTE Board can make recommendations about HOV designations, but ultimately it is the TC who oversees the HOV program as a policy matter. While HOV and managed lanes both contribute to the goal of congestion mitigation and provide options to travelers, HOV users are allowed to utilize managed lanes for free which is contradictory to the mission of HPTE, which is to impose user fees (tolls) for the privilege of using a surface transportation infrastructure. When HOV users travel for free, the O&M cost of those vehicles is shifted from the user to CDOT. From this perspective, HOV supports the policy goals of TC and CDOT.

Based on the lead role that the TC plays in setting HOV policy, HPTE and CDOT staff recommend allocating O&M costs attributed to HOV vehicles traveling in managed lanes to CDOT. Currently, HOV vehicles, when allowed, make up about 25% of traffic in ExpressLanes. That number is expected to decrease when HOV transitions from 2+ to 3+ on January 1, 2017.

#### Relationship between O&M costs and Project IAAs

IAAs between CDOT and HPTE document the substantive terms of how CDOT and HPTE work together and allocate rights and responsibilities on shared corridors. These could include terms relating to the commercial loan, process for requesting a back-up TC loan, terms governing shared operations, etc. IAAs also document how the O&M costs are allocated.

#### Commission Options/Decision Matrix

1. Staff Recommendation: Understand the methodology, and support staff's determination to allocate shared O&M costs based on ADT. Current PPSL and I-25 N Segment 3 IAAs remain as is previously approved, without the need for lender consents or approvals.
2. Reject the ADT methodology: Understand, but reject the ADT methodology. Direct staff to reconsider using land mile methodology. Obtain consent of Bank of America Merrill Lynch to revise IAA and loan agreement on I-25 North and PPSL to reflect lane mile methodology.

#### Attachments:

Attachment A: Operations and Maintenance Cost Sharing on Managed Lane Corridors presentation



Attachment A:

## Operations and Maintenance Cost Sharing On Managed Lane Corridors

April 20, 2016

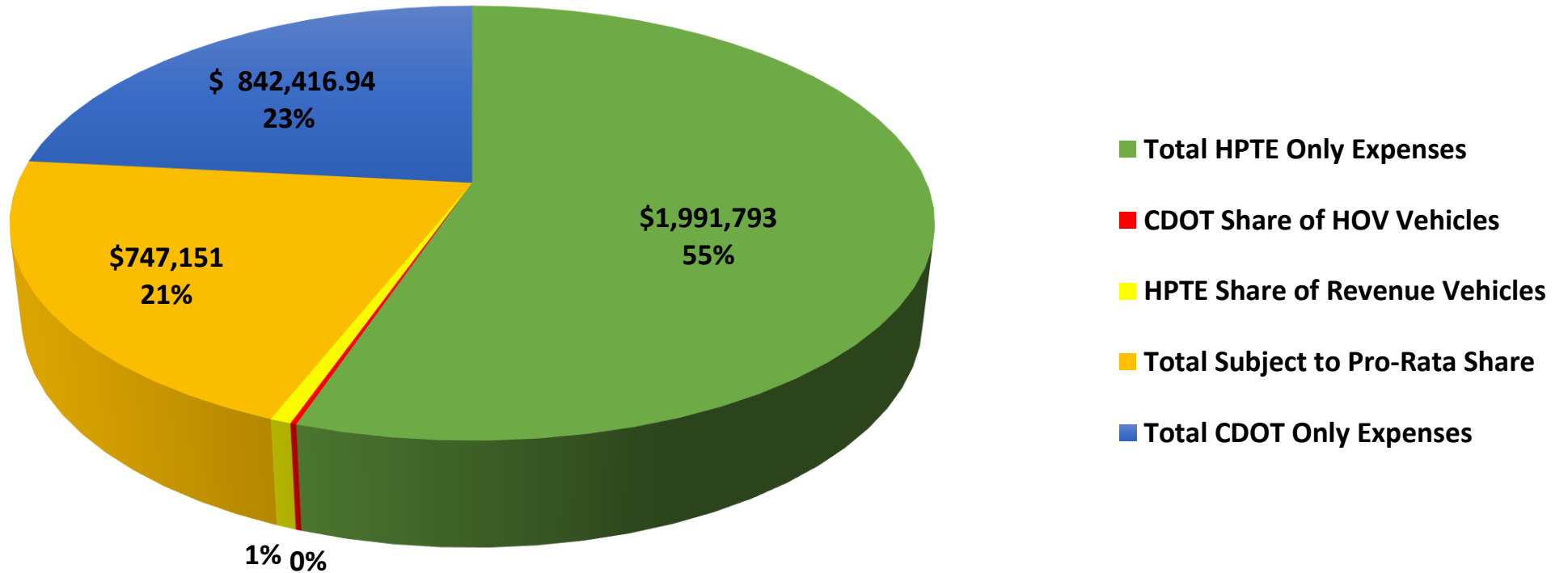


## Breakdown of Operation and Maintenance Responsibilities

HPTE Only-Expenses	CDOT Only-Expenses	Subject to the Pro-Rata Allocation
Toll collection & processing	Repair and replacement of guardrails	Snow and ice removal
Level one & two maintenance of toll equipment (e.g. cleaning of cameras)	Repair and replacement of light fixtures	Lane striping, lane sweeping/cleaning
Contracts with State Patrol for toll evasion enforcement	Contracts with State Patrol for safety enforcement	Trash removal
Any signage specifically related to the managed lanes (e.g. toll rates, entrance and exit information)	Any general traffic signage or variable message signs (VMS)	Pothole filling, crack sealing, pavement resurfacing and any additional pavement maintenance on the entire corridor
CDOT staff time dedicated to monitoring traffic flows determining opening/closing times, setting variable toll rates and general administrative costs		Other operations and maintenance expenses CDOT and HPTE agree in good faith are most fairly allocated utilizing the pro-rata method
Other corridor items specific to managed lanes (e.g. sweeping/cleaning to open the PPSL)		

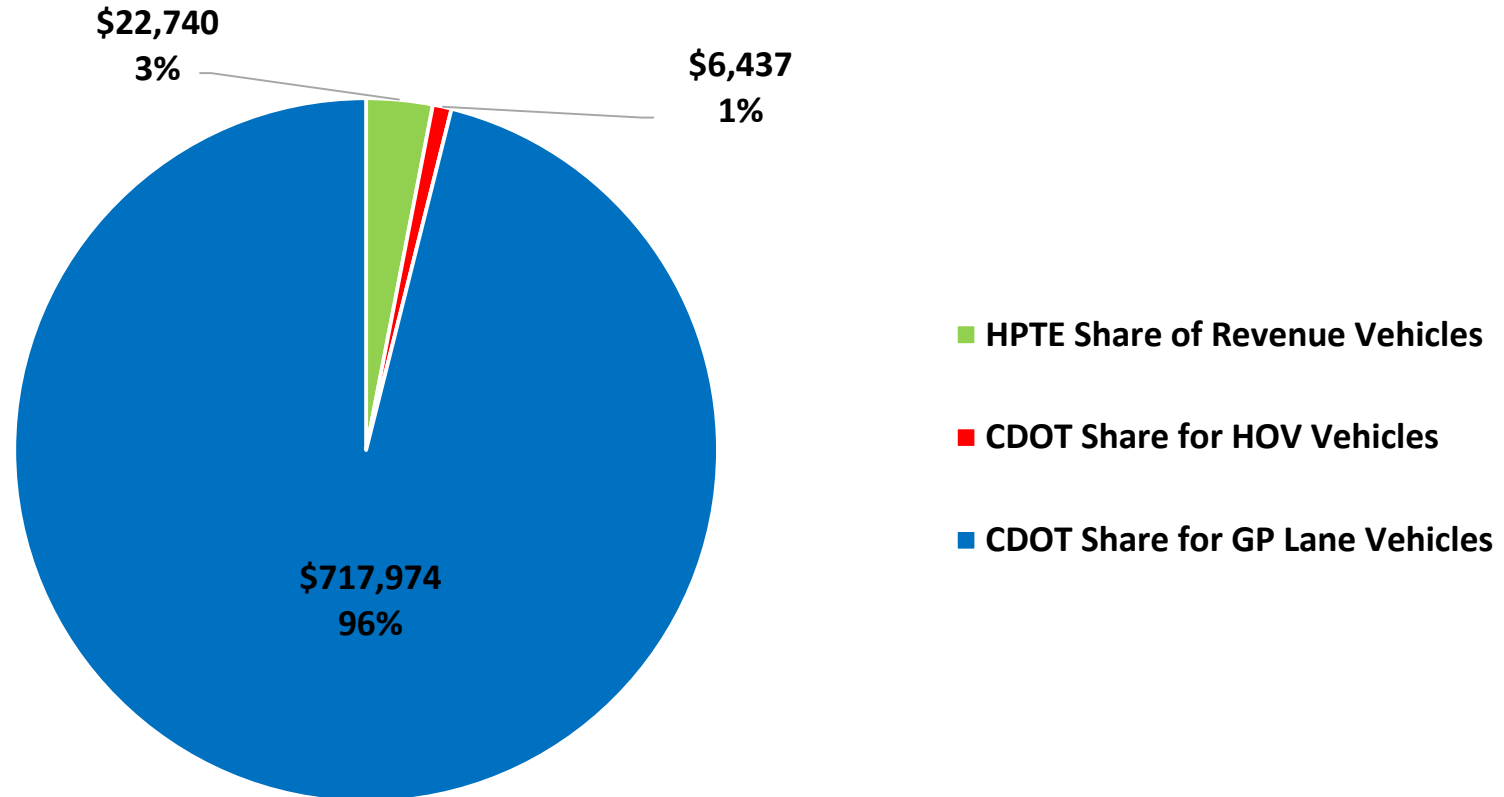
## Overall Split of Operation and Maintenance Responsibilities

O&M Expenses on I-25 North Segment 2 (US36 to 120<sup>th</sup> Ave.)



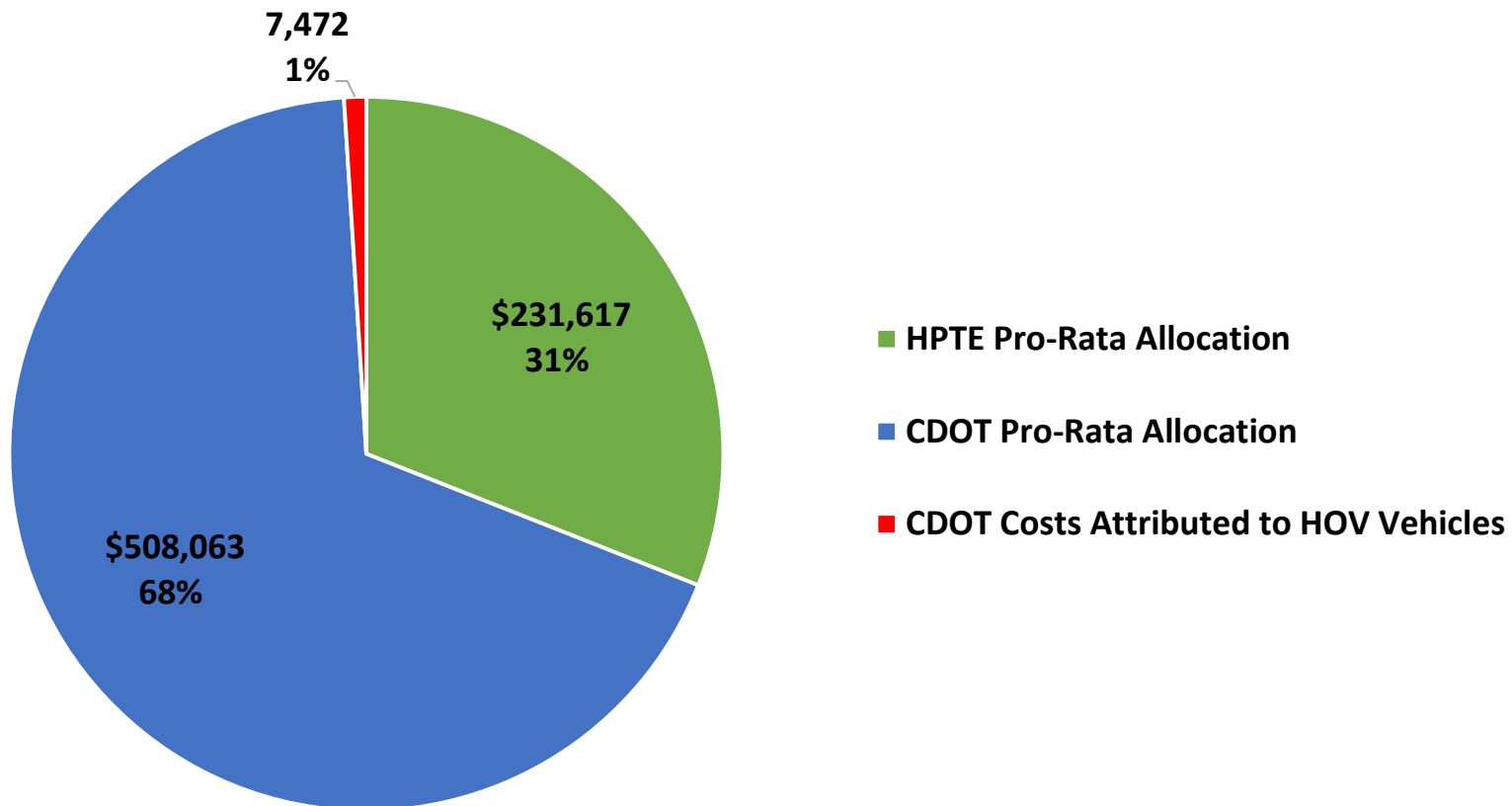
## Current Average Daily Traffic Calculation for Shared Expenses

Total Expenses Subject to Pro-Rata Allocation on I-25 North Segment 2 (\$747,151)



## Example of Lane Mile Calculation for Shared Expenses

Total Expenses Subject to Pro-Rata Allocation on I-25 North Segment 2 (\$747,151)





## Summary of Key Points for Using ADT Methodology

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- **Most Accurate for Determining Split of Costs.**

Based on the information above, it was determined that ADT would be the most accurate method for CDOT and HPTE to fairly determine how to share O&M costs. It is also the methodology that is flexible enough to account for the differences and variety in managed lane corridors.

- **Safeguards HPTE's Enterprise Status.**

Payments by CDOT on behalf of HPTE for O&M obligations that fall within HPTE's sole area of responsibility, particularly those related to tolling infrastructure, could be considered a grant. Therefore, it is important for HPTE to pay its proportionate share of O&M on managed lane projects.

- **Supported by Standard Accounting Practices.**

As the owner of the managed lane asset, HPTE must be responsible for the operations and maintenance of that asset.