



Date: October 20, 2021  
To: High Performance Transportation Enterprise Board  
From: Kelly Brown, HPTE Tolling Operations Manager  
Subject: I-70 Mountain Express Lane WB Toll Rate Ranges

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#### Purpose

The purpose of this memorandum is to summarize HPTE staff's planned approach for Time-of-Day (TOD) toll rates for the Westbound (WB) I-70 Mountain Express Lane.

#### Action

This item is for discussion and for approval during the November 17, 2021, Board meeting.

#### Background

I-70 WB Mountain Express Lane opened on July 30, 2021 with tolls waived and has been since undergoing toll equipment testing. Tolling is expected to commence in early 2022. Tolling in the WB Mountain Express Lane will occur in two phases; at the first phase, tolling will be based on Time-of-Day (TOD) toll rates and at the second phase, by the end of 2022, toll rates will be based on a dynamic pricing algorithm. Before implementing the dynamic pricing algorithm, in early 2022, HPTE staff will recommend amending the HPTE toll rate setting and adjustment policy to include provisions for dynamic pricing. For this analysis, several sources of data were used including six years of data on the eastbound (EB) PPSL, stated preference surveys on statewide Colorado corridors, the most recent stated preference survey on the WB Mountain Express Lane (2021), traffic reports, and the I-70 EB PPSL toll rate setting memorandum (2015).

#### Details

HPTE staff recommends setting a base toll rate sufficient to cover toll collection costs, but low enough to attract initial customers to the toll lane, even when traffic in the general-purpose lanes is relatively light and the corridor is free flowing. Given the unique travel characteristics of the I-70 Mountain Corridor, traffic volumes can increase by 200 percent to 300 percent over a period of two to three hours. As a result, operations will require a high level of flexibility to adjust toll rates, as an increased toll rate is the sole mechanism available to better ensure a reliable through-trip for the toll-paying customer.

To allow for this flexibility, staff is recommending the establishment of an open toll rate range, like the EB PPSL. Under this approach, the Board will be asked to approve minimum and maximum transponder and License Plate Toll (LPT) rates. The toll would be subject to adjustment by I-70 WB Mountain Express Lane operations to maintain target operational speeds for traffic. Real-time travel speeds will be monitored by operations staff. The specific toll rate ranges to be recommended by staff suggests a toll rate range from a minimum toll of \$7.00 at initial opening to a maximum toll of \$30.00 (at transponder rate). The HPTE has established guidelines for calculating an LPT rate. Based upon these guidelines it is recommended that the LPT rate be set at the transponder rate in effect plus a surcharge that covers additional LPT processing costs and LPT leakage (See Table 1 below).

**Table 1: Transponder and LPT Toll Rates**

<b>ExpressToll Transponder Rate</b>	<b>Calculated LPT Rate</b>
\$7.00	\$13.08
\$8.00	\$14.67
\$9.00	\$16.25
\$10.00	\$17.83
\$11.00	\$19.42
\$12.00	\$21.00
\$13.00	\$22.58
\$14.00	\$24.17
\$15.00	\$25.75
\$16.00	\$27.33
\$17.00	\$28.92
\$18.00	\$30.50
\$19.00	\$32.08
\$20.00	\$33.67
\$21.00	\$35.25
\$22.00	\$36.83
\$23.00	\$38.42
\$24.00	\$40.00
\$25.00	\$41.58
\$26.00	\$43.17
\$27.00	\$44.75
\$28.00	\$46.33
\$29.00	\$47.92
\$30.00	\$49.50