



Date: November 17, 2021
To: High-Performance Transportation Enterprise Board
From: Kelly Brown, HPTE Tolling Operations Manager
Subject: Request for Approval of Proposed Initial Westbound I-70 Mountain Express Lane Toll Rates

Purpose

This memorandum presents a request from HPTE staff that the High-Performance Transportation Enterprise (HPTE) Board of Directors approve the proposed initial toll rates for the Westbound (WB) I-70 Mountain Express Lane.

Action

Staff presented to the Board at the October 15, 2021, Board Meeting the supporting documentation for the initial proposed toll rates for the Westbound I-70 Mountain Express Lane. The materials from the October 15, 2021, Board meeting summarizing the analysis used to recommend the toll rates for Westbound I-70 Mountain Express Lane is attached to this Board Memo are attached as Attachment A.

The following tolling operations policies apply to the Westbound I-70 Mountain Express Lane:

- There is no HOV discount on the Westbound I-70 Mountain Express Lane
- There is no discount for Motorcycles and a transponder is required to receive the AVI toll rate
- Vehicles with three or more axles are prohibited
- One toll is paid for the entire Westbound I-70 Mountain Express Lane, no matter how many times the vehicle passes toll gantries within a four (4) hour period
- The tolling regime is Time-of-Day (TOD) pricing

Recommended New Rates

Staff is recommending the establishment of an open toll rate range for the Westbound I-70 Mountain Express Lane, similar to the one used by the Eastbound I-70 Mountain Express Lane. Under this approach, the Board is asked to approve the minimum and maximum ExpressToll transponder and License Plate Toll (LPT) rates shown in Table 1 below.

Board Options and Recommendations

1. Approve Resolution #370 (**staff recommendation**) adopting the proposed initial toll rates for the Westbound I-70 Mountain Express Lane which would go into effect when the Express Lane opens for tolling, currently anticipated to be early 2022. *Note: The date that the Westbound I-70 Mountain Express Lane opens for tolling is subject to change pending any changes to the TCS Integration Testing (TCSIT) schedule.*
2. Deny the request. The HPTE staff will review the Board's feedback and return to the HPTE Board with new proposed initial toll rates for the Westbound I-70 Mountain Express Lane.

Next Steps

1. If adopted, HPTE staff will implement the approved initial toll rates for the Westbound I-70 Mountain Express Lane on the Go Live date, currently anticipated to be early 2022. *Note: The date that the Westbound I-70 Mountain Express Lane opens for tolling is subject to change pending any changes to the TCS Integration Testing (TCSIT) schedule.*
2. HPTE staff will continue the Public Outreach process.
3. If the Board does not adopt the proposed initial toll rates for the Westbound I-70 Mountain Express Lane, the HPTE staff will review the Board's feedback and return to the HPTE Board in January 2022 with new proposed initial toll rates for the Westbound I-70 Mountain Express Lane.

Attachments

1. Attachment A: 2021-10-20 WB MEXL Toll Rates Setting Memo FINAL
2. Attachment B: Resolution #370 Approving initial toll rate range for the Westbound I-70 Mountain Express Lane

Table 1: ExpressToll Transponder and LPT Toll Rates

ExpressToll Transponder Rate	Calculated LPT Rate
\$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



Attachment A:

2021-10-20 WB MEXL Toll Rates Setting Memo FINAL



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

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

ExpressToll Transponder Rate	Calculated LPT Rate
\$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

Attachment B

Resolution #370: Approving Initial Toll Rates Range for
the Westbound I-70 Mountain Express Lane