



DATE: December 23, 2015
TO: Transit & Intermodal Committee of the Transportation Commission
High Performance Transportation Enterprise Board of Directors
FROM: Mark Imhoff, Director, Division of Transit & Rail
SUBJECT: Transit / Bustang Pilot Program Test of I-70 PPSL

Purpose

To describe a pilot program, using Bustang buses, to test the applicability of and collect data for evaluation of transit bus use of the I-70 Mountain Express Lane (Peak Period Shoulder Lanes).

Action

This information is presented to the T&I Committee and to the HPTE Board. No action is necessary.

Background

The Mountain Express Lane has been implemented within the context of the I-70 Mountain Corridor Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) allowing operational improvements. CDOT's Bustang bus service has simultaneously been implemented within the same context, as well as fulfilling the intent to connect Colorado's largest transit agencies. The I-70 Mountain Express Lane required debt financing for construction and therefore has the financial objective of collecting toll revenues to repay HPTE's \$25 Million commercial loan by December 15, 2024.

Operating rules for the I-70 Mountain Express Lane have been implemented for safety allowing vehicles and up to 25 feet or less in length to use the lane. This rule allows most passenger cars and many of the smaller ski/airport shuttles to operate in the lane.

Vehicles longer than 25 feet are not currently allowed. Larger buses, such as those used by Bustang, Greyhound, and many ski-related charter operations use larger buses, called over-the-road (OTR) coaches, have 3 axles and are usually 40-45 feet in length.

The FEIS, the ROD, and anticipated corridor growth make transit (aka public transportation) an important consideration for the corridor. So CDOT and HPTE staff will be implementing a pilot program, of up to two years, and using Bustang buses, and buses owned by Bustang's contract operator, Ace Express, access to the I-70 PPSL to better understand the operational effects of larger buses in the peak period shoulder lanes. The purpose of the pilot is to test the applicability of and collect data for evaluation of transit bus use of the I-70 Mountain Express Lane.

Details

The 2-axle and 25-foot maximum operating rules were implemented in response to the template of I-70 Mountain Express Lane having a 1-foot inside shoulder and an 11-foot lane. The adjacent general purpose lane is separated from express lane by an 8-inch wide stripe. An important issue to note is that public transit, school, & shuttle buses that are 2-axle and less than 25 feet in length can operate in the lane while vehicles owned by the same entities that do not meet these requirements cannot.

For the traveling public, the policy question relates to the ability to maximize the number of vehicles moving through the corridor during peak congestion. The implementation of tolls and congestion pricing is a traffic

demand management tool utilized to maximize throughput in the corridor. However, the traveling public may support the idea of transit and shuttle buses as providing options and being able to take more cars off the road. The public may even support buses traveling in the express lane to provide a travel time incentive to use the buses. The traveling public's support of the concept may falter if travel time reliability degrades the experience for persons who are paying the toll to travel in the express lane.

Since the Bustang West Route started on July 13, 2015, the launch has surpassed all expectations in ridership, load factor and farebox recovery. Strong public comment triggered the Transportation Commission's Transit and Intermodal Committee to approve seven day a week service. Strong ridership averaged over 60% load factors during the first three weeks of weekend operation. Load factors of 75% during Thanksgiving week resulted in instances of that required extra buses for overload situations. The seven-day-a-week service means Bustang buses are now traveling on weekend days when the express lane will be active.

The current schedules for the Bustang have the buses passing eastbound through the 13-mile stretch of I-70 in Clear Creek County at approximately 10:30 AM each day. The I-70 Mountain Express Lane activation, based on traffic flows, is typically expected to occur after 11:00 AM on most weekend days. Typically, the Bustang would not pass through the corridor at a time that the express lane would be active. The current schedules for the Bustang have only one round trip per day. A second round-trip is expected to be implemented by fall 2016.

CDOT & HPTE staff, from a variety of divisions and units, will conduct the pilot program over a period of up to two years, beginning in February 2016. The pilot program will collect and report information to the HPTE Board for consideration and for purposes of developing a policy. The pilot program will do the following:

- HPTE, Region 1, and TSM&O will monitor overall traffic operation, consistent with HPTE goals, for generalized traffic flow, traffic safety, and revenue collection with the normal 2-axle, 25-foot maximum rules in place.
- Bustang / Ace Express Buses will cooperate with the traffic operations center (TOC) to run initial tests during off-peak times when the lane is not active.
- Bustang / Ace Express buses will subsequently be tested, during active express lane operations. The initial testing will be during the initial hour and final hours of express lane operation. Secondary testing will occur during the 4-6 PM peak return to Denver. The intent is to begin with a single bus only and conduct multiple-bus tests later.
- Observations will be made and data collected regarding traffic flow (i.e. speeds, density), traffic safety (i.e. "shying" and/or vehicle passing), bus operational safety (i.e. ride-alongs with HPTE, Region 1, TSM&O staff, and others), and seasonality (i.e. winter & summer peak times).
- Data will also be collected in the adjacent general purpose lanes to document the volumes of existing buses (i.e. airport shuttle, ski shuttle, charter, limo, etc.) by time of day, to document the potential "range" (bus volumes, bus share of total volumes) of vehicles to which a future policy may apply.

Bustang buses have undergone prior efforts to assure that this pilot program can be implemented safely. In March 2014, TSM&O conducted a "Bus on Shoulder" test on I-70 between Herman Gulch and Idaho Springs using donated Greyhound Buses. The over-the-road coaches in that test were using a 10-foot wide outside shoulder. Bustang buses have successfully been operating in the I-70 Mountain corridor during construction where lane widths were restricted by temporary barriers to 12 feet lanes with no shoulders. This is equivalent to the express lane operating environment which has 11-foot lanes with a 1-foot inside shoulder.

Bustang operators have very high training requirements that are well above the typical training for shuttle, intercity, and other carriers. The minimum for other carriers is a commercial driver's license (CDL). Professional bus drivers (i.e. Greyhound) normally require 100-hours of training. Bustang requires 156 hours of training, including 68 classroom hours, 40 hours of behind-the-wheel training in non-revenue, and 48 hours of in-revenue training with an instructor present. Bustang / Ace Express drivers' training has included communication protocols with CDOT safety & maintenance staff, including use of CDOT radio channels.

The Pilot Program would consist of Bustang Drivers receiving an additional minimum of 16 hours non-revenue service during off peak express lane(as long as FHWA approves, and this does not “count” against CDOT’s allowable number of express lane operating days) attended by Ace Express Safety manager, DTR Bus Operations staff, Region 1-TSMO Safety, CDOT Division of Transportation Safety and Colorado State Patrol. The back of the bus would be equipped with signage indicating a “test bus.” A road test would be conducted for those successfully driving 16 hours to qualify drivers to operate in the express lane during high demand.