



## Portland Area Mainline Needs Assessment



DRAFT

# Alternative 4 – Public Transportation: New or Improved Interstate Bus Service

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## 4.1 Overview

The primary interstate bus providers in the study area are Concord Coach Lines and Greyhound. Both Concord and Greyhound provide service to Boston and New York (to the south) and to Lewiston/Auburn (to the north). The Lewiston/Auburn bus service is identified in this alternative as an Interstate Bus because the bus providers operate interstate routes. In this alternative, the Concord and Greyhound bus systems will be evaluated to determine the potential effects of practicable system improvements including increased service and additional transit infrastructure on:

- Overall interstate transit ridership; and
- Change in vehicular demand on the Maine Turnpike in the Portland Area.

## 4.2 Key Assumptions

This alternative involves evaluating existing interstate bus service and working with key staff to determine practicable improvements to service. Descriptions of the key assumptions and methods follow.

### 4.2.1 Trips to Boston and New York

Concord Coach Lines currently provides 16 runs between Portland and Boston/New York City beginning between 2:45 AM and 4:30 AM and ending at 10:30 PM daily. Parking is available in Portland at the Transportation Center for \$5/day, and tickets range from \$40 round trip from Portland to Boston up to \$150 round trip from Portland to New York City. Trip lengths are comparable with driving by car, and amenities include wi-fi, power outlets and luggage storage.

Greyhound currently provides up to two round trips daily between Portland and Boston. Fares are comparable with Concord Coach Line fares. These buses originate north of Portland with stops in Bangor, Augusta, and Lewiston.

Since Concord Coach Lines provides the majority of the interstate trips in the region, future interstate bus expansion was focused on this provider. Future plans would increase this total to 20 runs<sup>1</sup> between Portland and Boston/New York City, one of which would occur during peak vehicular demand periods.

### 4.2.2 Trips to Lewiston/Auburn

Concord Coach Line currently provides six runs between Lewiston/Auburn and Portland each day, running between 5 AM and 11 PM each day. Free parking is available at the Exit 75 Transportation Center. The Concord service between Portland and Lewiston/Auburn is a new service, and existing ridership numbers were not provided by Concord Coach Lines. Therefore, the number of additional passengers traveling from Lewiston/Auburn to Portland was estimated based on information in the MaineDOT 2011 Intercity Feasibility Study<sup>2</sup>.

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<sup>1</sup> Dana Knapp, meeting, 14 February 2018, Portland Transportation Center

<sup>2</sup> Maine Department of Transportation, Portland to Lewiston/Auburn & Montreal Intercity Passenger Rail Feasibility Study (MaineDOT, August 2011)

Greyhound provides limited service between Portland and Lewiston/Auburn (1 to 2 trips per day). Fares are comparable with Concord Coach Lines.

#### 4.2.3 Transit Infrastructure

It was assumed that interstate bus service would grow unconstrained and not be limited by infrastructure deficits such as inadequate parking or transit connections. One key constraint that was assumed to be addressed as part of this alternative was additional parking at the Portland Transportation Center. Parking is generally at capacity at the Portland Transportation Center. Parking will need to be sizably extended in the future to accommodate additional transit demand identified in this alternative, either through surface lot or parking structure.

#### 4.2.4 Estimate of Increased Interstate Bus Ridership

Potential increases in inter bus ridership were estimated using two methods – estimating passengers from Concord Coach Line plans for increasing service, and estimating passengers from information in the 2011 Interstate Feasibility Study for ridership from the Lewiston/Auburn area to Portland and points south.

Concord Coach Lines currently anticipates future plans to add one new bus trip during the peak periods. If the additional vehicle was a 54-person passenger bus (consistent with the current Concord buses), that would yield a maximum of 54 additional passengers on an interstate bus during the peak hour. It is estimated based on population data that 36 of these users, or 66%, could be removed from the Turnpike.

The 2011 Intercity Feasibility Study estimated that approximately 46,000 trips per year could use transit to commute from the Lewiston/ Auburn area to Portland and points south. To convert these trips to peak hour ridership, it was assumed that the route would operate only on week days and that the peak hour represents 25% of the daily trips, or 46 passenger trips.

Using American Commuting Survey data from the US Census<sup>3</sup>, this results in an estimated four peak hour vehicles that would be removed from the Maine Turnpike between Exits 44 and 53. This is due to the vast majority of trips being destined to/from Portland Transportation Center, resulting in minimal trip reductions on the Maine Turnpike.

#### 4.3 Capital and Operating Costs

The capital costs to add an additional Portland to Boston peak period bus trip for two peak periods was estimated to be approximately \$0.6 million in 2017 dollars. No additional capital cost was identified for Portland to Lewiston/Auburn as Concord Coach Lines did not indicate any plans for expansion.

With these additional Portland to Boston bus trips, the additional operating and maintenance costs for this alternative would be \$0.75 million per year.

#### 4.4 Findings

The estimated number of vehicles that could be reduced from the peak hour traffic on the Maine Turnpike in the Portland area with new and expanded interstate bus service is 40. With this reduction, the volume

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<sup>3</sup> <https://www.census.gov/data/tables/time-series/demo/commuting/commuting-flows.html>

to capacity ratio would still be greater than one in 2040 (1.36). Therefore, this alternative does not address identified capacity issues on the Maine Turnpike.

This alternative was evaluated against several Measures of Effectiveness (MOEs) which are summarized in the Alternatives Evaluation Matrix, dated April 12, 2018. The key findings from that matrix for this alternative are as follows:

#### 4.4.1 Key Benefits

The key benefits of Alternative 4 – Interstate Bus are the following:

- 0.1% reduction in regional vehicle miles traveled (-0.1%);
- Increases Portland area transit ridership by an estimated 100 trips;
- Reduces NOx (-0.1%) and HC (-0.1%), improving air quality;
- No legal or policy obstacles to implementation;
- Can be implemented in a short timeframe; and
- Has a Benefit/Cost ratio of 5.8.

#### 4.4.2 Key Impacts

The key impacts and challenges of Alternative 4 – Interstate Bus are the following:

- Has potential wetland impacts; and
- Has a volume to capacity ratio (v/c) that is still greater than one (1.36) on the Maine Turnpike.