



DRAFT: Alternative 14 / Combined Alternative: TDM, Interstate-Local-Regional-Bus, Land Use, with Widened Turnpike from Exit 44 to 53

This Combined Alternative includes several individual alternatives that were examined separately as part of the Portland Area Mainline Study. This Combined Alternative includes the following individual alternatives:

- Alternative 2 – New/Expanded Transportation Demand Management (TDM) Programs
- Alternative 4 – Public Transportation: New or Improved Interstate Bus Service
- Alternative 5a – Public Transportation: Improved Regional Bus Service
- Alternative 5b – Public Transportation: New or Improved Local Bus Service
- Alternative 8 – Land Use
- Alternative 12 – Widen Turnpike to Six Lanes

Transportation Demand Management (TDM) programs provide tools to commuting travelers to reduce the demand for transportation, i.e., reduce the number of vehicles on the road. These tools include ride share programs, park and ride lots, and work from home opportunities.

The primary interstate bus providers in the study area are Concord Coach Lines and Greyhound. Both Concord Coach Lines and Greyhound provide interstate bus service to Boston and New York and to Lewiston/Auburn. In this alternative, the Concord and Greyhound bus systems were evaluated to determine the potential effects of practicable system improvements including increased service and additional transit infrastructure.

Regional bus providers included in this alternative are the ZOOM Bus (Biddeford-Portland) and the METRO Breez (Portland-Brunswick). In this alternative, these bus systems were evaluated to determine the potential effects of practicable system improvements including more frequent service, and implementation of a bus rapid transit type system along key corridors.

Local bus providers included in this alternative are Greater Portland METRO and City of South Portland Bus Service. In this alternative, these bus systems were evaluated to determine the potential effects of practicable system improvements including more frequent service, and implementation of a bus rapid transit type system along key corridors.

The Study Team assessed the benefits of an alternative land use pattern of growth and development that was originally identified and quantified under the Gorham East-West Corridor Study¹. Allocation of current population and employment forecasts into specific growth areas within the Portland Area Comprehensive Transportation System (PACTS) region identified in the

¹ Maine Turnpike Authority, *Gorham East-West Corridor Feasibility Study*, (HNTB, March 2010)

Gorham East-West Corridor Study². These allocations were based on a modified distribution of population and employment growth designated as the Urban and Rural form.

Roadway widening alternatives are typically construction-based alternatives that require capital investment: engineering costs, wetland mitigation, and right-of-way acquisition. The impacts of widening the Maine Turnpike from two to three general-purpose lanes in each direction from Exit 44 in Scarborough to Exit 53 in West Falmouth are included in this alternative.

This Combined Alternative was evaluated to determine the following:

- Changes to overall transit ridership.
- Change in vehicular demand on the Maine Turnpike in the Portland Area.

Findings: Widening of the Maine Turnpike to three general purpose lanes plus the traffic demand reduction was found to address the capacity constraints of the Maine Turnpike. Under projected volumes from the travel demand model, the Maine Turnpike would be under capacity in 2040 (0.89 or less). Therefore, this alternative does 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 May 31, 2018. The key findings from that matrix for this alternative are as follows:

Key Benefits: The key benefits of Alternative 14 / Combined Alternative are the following:

- An expected 32% reduction in crashes on the Maine Turnpike;
- An increase in Maine Turnpike roadway capacity;
- An expected reduction of approximately 107 vehicles during the peak hour;
- 4.0% reduction in regional vehicle miles traveled;
- 4.7% reduction in regional vehicle hours traveled;
- Increases Portland area transit ridership by an estimated 416 trips;
- A reduction of 65.9 miles of roadway in the region that are near or over capacity;
- Potential toll revenue increase; and
- Does address Portland Area Mainline Needs Assessment Study Purpose.

Key Impacts: The key impacts and challenges of Alternative 14 / Combined Alternative are the following:

- Has potential wetland impacts;
- 17 acre increase of impervious pavement in Urban Impaired Stream Watersheds; and
- Timeframe to implement is unknown. Local municipalities would need to adopt aggressive land use and zoning changes.

² Ibid.