

# North Shore Task Force (NSTF)

Identifying Transportation Needs, Construction Projects,  
and Studies in Your Subregion



Winter 2020



Beverly • Danvers • Essex • Gloucester • Hamilton • Ipswich • Manchester-by-the-Sea • Marblehead • Middleton • Nahant • Peabody • Rockport • Salem • Swampscott • Topsfield • Wenham

## WHAT TRANSPORTATION NEEDS DID THE MPO IDENTIFY IN NSTF COMMUNITIES?

The Boston Region Metropolitan Planning Organization (MPO) conducted an assessment of transportation needs in the Boston region to inform the MPO’s current Long-Range Transportation Plan (LRTP), *Destination 2040*, adopted in August 2019. The MPO staff identified existing transportation conditions and made projections of future conditions and demand on the system. MPO staff also reached out to various subregional groups to discuss transportation needs and opportunities to improve transportation in the subregional communities. The resulting LRTP Needs Assessment serves as a tool for planning the region’s future transportation network, and for prioritizing the MPO’s limited funding for transportation projects and studies.

The tables that follow highlight some of the transportation needs identified in the NSTF subregion based on MPO analysis, and the lists below highlight needs identified from past visits to NSTF communities for the Needs Assessment. For more information, please refer to the *Destination 2040* Needs Assessment report and interactive applications on our website: [bostonmpo.org/lrtp](http://bostonmpo.org/lrtp).

### Transportation Needs Identified in the *Destination 2040* Needs Assessment

Location of Identified Need	Municipality	MassDOT-Identified HSIP Crash Cluster (all modes)	Intersects MPO Staff-Identified Truck Crash Cluster(s)	Intersects Massachusetts Top Crash Location(s)	MassDOT Pedestrian Crash Cluster	MPO Staff-Identified Priority Congested Location
Route 62 (Elliot Street) near Route 128	Danvers	●	●			
Route 1 (Newburyport Turnpike) at Route 1 Connector	Peabody	●	●	●		
Downtown Salem (Washington, New Derby, and Lafayette Streets, and surrounding streets)	Salem				●	
Route 128, Exit 26	Peabody					●

*Note: MassDOT-identified HSIP crash clusters, MPO staff-identified truck crash clusters, and MassDOT Top Crash Locations were identified using crash data collected from 2013–15. Pedestrian crash clusters were identified using data on crashes involving pedestrians collected from 2006–15. More information on these locations is available in the Safety Chapter of the Destination 2040 Needs Assessment report, while the Capacity Management and Mobility chapter of that report provides details about MPO staff-identified Priority Congested locations.*

*HSIP = Highway Safety Improvement Program. MassDOT = Massachusetts Department of Transportation. MPO = metropolitan planning organization.*

## Projects Programmed in the 2020–24 TIP in the North Shore Task Force Subregion

TIP Identification Number	Project	Category	Municipality	Federal Fiscal Year Programmed
608933	Rehabilitation of Central Street	Complete Streets	Peabody	2023
608348	Rehabilitation of Bridge Street	Complete Streets	Beverly	2023
608347	Intersections Improvements at Three Locations	Intersection Improvements	Beverly	2020
605743	Resurfacing and Related Work on Central and South Main Street	Complete Streets	Ipswich	2023
608146	Intersection Improvements to Village Street at Village/Vine/ Cross Streets	Intersection Improvements	Marblehead	2021
609211	Independence Greenway Extension	Bicycle/Pedestrian Connections	Peabody	2024

*TIP = Transportation Improvement Program.*

## Transportation Studies Conducted in the NSTF Region through the Unified Planning Work Program

- Safety and Operations Analysis at Selected Intersections:
  - Route 1A and Cherry Street/Monument Street/Arbor Street in Wenham (federal fiscal year [FFY] 2018)
  - Route 114 (Andover Street) and Esquire Drive/Violet Road in Peabody (FFY 2016)
  - Poplar Street (Route 62) and Locust Street (Route 35) in Danvers (FFY 2009)
- Addressing Priority Corridors from LRTP Needs Assessment
  - Route 1A in Marblehead, Swampscott, and Salem (FFY 2016)—Resulted in MassDOT Project #607761 Intersection and signal improvements at Route 1A (Paradise Road) at Swampscott Mall, programmed in FFY 2021
- Subregional Roadway Study Locations
  - Route 127/127A in Gloucester and Rockport (FFY 2013)

## **Transportation Needs Identified through Outreach in the NSTF Region**

### ***Roadway***

- Create Complete Streets on Congress and Lafayette Streets in Salem
- Improve accessibility of street network
- Address severe peak hour congestion on Route 62 (east/west corridor)
- Upgrade the nineteenth century bridges over the Saugus River by Riverworks
- Address grade crossings in Chelsea to increase speed along the corridor

### ***Transit***

- Design Beverly depot as a mobility hub
- Provide more service to North Shore Community College (NSCC)
- Implement universal access—one card, one application
- Improve transit to NSCC Danvers campus
- Provide last-mile link between employees and employers with a specific focus on Cherry Hill Manufacturing employees from Lynn, and connections to the commuter rail at the Beverly Depot
- Support commuters traveling at off-peak commuting hours who do not have access to cars and cannot work from home
- Provide last-mile connections to destinations in the subregions by using excess commuter rail capacity
- Add Blue Line options to Lynn or Salem

### ***Bicycle***

- Add more bike sharing infrastructure to transportation improvement projects
- Add connections to Lynnfield's shared-use path (Wakefield Lynnfield Rail Trail)
- Create bike path over Route 1
- Connect Swampscott North Strand bike path to Lynn
- Connect Peabody bikeway into downtown and connect to Salem Depot over Route 1. Add link to the Border to Boston Trail
- Expand regional bike network to promote mode shift, including a connection to Peabody and Beverly
- Add a second ferry to Salem, Marblehead, and Beverly for tourism and connections to work
- Support the North-South rail link: Increase frequency; expand service; add new stops; increase efficiency
- Facilitate connections to the Blue Line in Revere and the Silver Line in Chelsea

## ***Parking***

- Expand parking near transit stations. Transit park-and-ride lots are more than 85 percent in use at the following stations:
  - Newburyport/Rockport Line: Swampscott, Beverly Depot, and Manchester
  - Haverhill Line: North Wilmington
  - Lowell Line: Wilmington
- Suggest designated Uber and Lyft drop-off and pick-up areas with queuing

## ***Land Use and Technology***

- Provide more transportation access to younger workers who are living outside of the city (due to high rents) and using public transportation to get to work
- Improve transportation technology compatibility
- Create easy and predictable switching between various transportation modes

## ***Resiliency***

- Install alternative corridor for Apple Street with resiliency against storms
- Expand resilient transportation infrastructure for climate adaptation

## **Study Ideas and Opportunities in the NSTF Region**

### ***Roadway***

- Study Route 133 corridor in Essex
- Study Route 114 Connector from Salem or Beverly, and analyze where people with low incomes live and work
- Study the effects of autonomous vehicles (AVs); for example, the potential for increased traffic from individual ownership and more information on how quickly AVs will arrive in suburban and rural areas
- Research the potential for AV parking without congestion increases
- Study mobility and access to Route 128 from the Cummings properties

### ***Transit***

- Create a comprehensive transit study along corridors in Peabody, Salem, and Danvers, similar to the Peabody Trolley study
- Study intra-region and reverse commuting on the commuter rail
- Support making Beverly Depot a mobility hub for bikesharing, Uber, and car sharing in an organized way
- Explore connectivity between Peabody and Salem Depot, North Shore Mall, and business parks
- Conduct a linear corridor study of Newburyport/Rockport Line
- Support connectivity to hospitals, especially for patients, visitors, and employees without cars

## ***Equity***

- Explore accessible taxis, Uber, and expansion of Council on Aging van hours
- Explore how to provide more accessible transportation for those who cannot transfer into a vehicle

## ***Land Use and Technology***

- Study opportunities to increase employment close to the commuter rail or encourage employers to relocate
- Explore the redevelopment of downtown Beverly with transit
- Develop a database for transportation projects as one quick resource (including local priorities)

# **SELECTED FINDINGS FROM BOSTON MPO'S REGION-WIDE NEEDS ASSESSMENT**

## **Safety Needs**

- Identify fatal and serious roadway crash factors and countermeasures. Consider capital investment, education, enforcement, and other approaches to improve safety
- Address the Massachusetts Department of Transportation (MassDOT)-identified Top 200 high crash intersections in the Boston region (66 total), such as those on Route 9 in Framingham, Route 107 in Lynn and Salem, and Route 16 in Chelsea, Everett, and Medford
- Improve pedestrian connections at intersections, especially in top-ranking pedestrian crash cluster locations, including those in downtown areas in Chelsea, Lynn, Quincy, Boston, and Framingham
- Expand well-maintained and connected sidewalk and bicycle networks
- Develop separated shared-use paths for pedestrians and bicyclists
- Address top-ranking bicycle crash cluster locations, including those in Boston, Cambridge, and Somerville
- Modernize obsolete interchanges, such as Interstate 90 and Interstate 95 interchange in Weston and the Interstate 95 Middlesex Turnpike interchange in Burlington, to reduce truck crashes
- Incorporate Complete Streets design and traffic calming principles in roadway projects
- Identify strategies to manage roadway user priority, parking, and curb space
- Identify and invest in priority transit state of good repair and modernization projects. For instance, positive train control and rapid transit vehicle upgrades
- Monitor advancements in AV technology and analyze the safety impacts of AV deployments, particularly in the Boston region

## System Preservation and Modernization Needs

- Maximize the number of bridges in the region considered to be in good condition and minimize the number of bridges considered to be in poor condition
- Monitor the MassDOT Pavement Management program
- Identify the location of sidewalks and their condition, specifically sidewalks around transit stations
- Support investments that improve the accessibility of transit stations, bus stops, and paratransit services
- Support investments that upgrade transit fleets, facilities, and systems to provide more efficient, reliable, and sustainable service
- Support climate vulnerability assessments and invest in projects and programs resulting from these processes
- Improve connections between intermodal facilities and the regional road network
- Improve resiliency of the region's transportation system to prepare for existing or future extreme conditions, such as sea level rise and flooding

## Capacity Management and Mobility Needs

- Reduce congestion on expressways, interchanges and arterials
- Reduce congestion at bottleneck locations on the regional roadway network
- Continue to monitor car sharing as it is poorly integrated with other modes and not accessible in all areas
- Continue to monitor Transit Demand Management (TDM) services
- Research strategies for TDM as relatively few municipalities in the Boston region have TDM ordinances
- Reduce congestion on regional roadways to facilitate the movement of freight
- Reduce conflicts between automobiles and delivery trucks that are competing for curb space
- Improve access to transit service that runs frequently, and increase capacity at park-and-ride lots that are at or approaching capacity
- Improve the reliability of bus service as bus speeds are projected to decline due to increased congestion. The introduction of more dedicated bus lanes could be a potential solution
- Address increased transit delays resulting from the system's aging rapid transit infrastructure
- Address crowding on rapid transit lines and bus routes. According to a 2040 no-build scenario, crowding is projected to increase to unacceptable levels in some locations
- Address the need for sufficient Massachusetts Bay Transportation Authority (MBTA) garage space to fully modernize and expand the fleet

- Examine off-peak and reverse commute options between suburban areas and the Boston Central Business District as the commuter rail mostly serves peak-period travel
- Identify challenges to making first- and last-mile connections, which are major barriers to transit usage
- Expand pedestrian and bicycle infrastructure so that residential areas and employment locations are close to facilitates that are conducive to regular use
- Connect the disjointed elements of the bicycle network to create a cohesive network
- Create a comprehensive inventory of existing sidewalk data, including sidewalk coverage and condition

## **Clean Air and Sustainable Community Needs**

- Reduce carbon dioxide emissions from MPO-funded transportation projects and programs to help meet the requirements of the Global Warming Solutions Act, particularly projects that help to reduce vehicle-miles traveled
- Prioritize transportation projects that meet the Green Communities certification and assist municipalities in meeting or maintaining these certifications
- Provide data and assistance to municipalities in developing their greenhouse gas inventories and energy reduction plans
- Reduce volatile organic compounds, nitrogen oxides, carbon monoxide, and particulate matter emissions from MPO-funded transportation projects and programs (particularly those that help to reduce vehicle-miles traveled) to help maintain the air quality standards in the region
- Identify projects and programs that can meet criteria established to protect wetlands, cultural resources, open space, and wildlife
- Ensure that infrastructure to reduce storm water pollution and impacts from natural hazard events (for example, flooding or winter storms) is incorporated in project design

## **Transportation Equity Needs**

- Address the lack of transit service for transportation equity (TE) populations compared to service available to non-TE populations
- Increase reliability of rapid transit and bus service for populations whose only option is transit
- Address inadequate access to safe bicycle facilities for elderly and youth populations
- Increase docked bikeshare facilities in the Inner Core for some communities with a high share of low-income or minority populations
- Increase off-road active transportation routes in communities with a high share of TE populations that live near congested roadways
- Improve coordination of schedules, routes, and services between towns and the MBTA and other regional transit authorities



- Expand transit service (late night, early morning, and reverse commute) between job-rich centers, such as Longwood Medical Area, the Seaport, suburban job centers, and underserved neighborhoods
- Provide new transit service between low-income suburban residential communities and suburban job centers
- Consider building transit-oriented developments that provide affordable housing near transit hubs and employment centers to meet the needs of TE populations
- Improve sidewalks and street crossings, especially around schools, so that they are safe for children and elderly adults
- Document potential exposure of TE populations to climate change impacts and determine how the ability to access transportation may be affected

### **Economic Vitality Needs**

- Administer infrastructure improvements to support growth in the priority development areas, including improving equitable access to employment and housing via public transit, walking, and biking options
- Arrange better commuter rail scheduling including more frequent, reliable off-peak, late-night, and weekend service to support reverse commuting, especially for service workers
- Coordinate with regional transit authorities to address the needs of customers who travel between different regional transit authority service areas
- Provide funding sources to connect regional transit authority services



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