

# South West Area Advisory Planning Committee (SWAP)

Transportation Needs, Construction Projects,  
and Studies in Your Subregion



Golden Pond Gazebo, Hopkinton

Bellingham • Dover • Franklin • Hopkinton • Medway • Milford • Millis • Norfolk • Sherborn • Wrentham

FALL 2022

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

The Boston Region Metropolitan Planning Organization (MPO) conducted an assessment of transportation needs in the Boston region to inform the MPO's Long-Range Transportation Plan (LRTP), Destination 2040. 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 prioritizing the MPO's limited funding for transportation projects and studies.

The information that follows highlights some of the transportation needs identified in the SWAP subregion based on MPO staff's analysis and past visits to SWAP communities. This information has been updated since fall of 2020 with comments that MPO staff heard during public engagement in fall 2021. Project and study information was also updated.

## Projects Programmed in the Federal Fiscal Years (FFYs) 2023–27 TIP in the SWAP Subregion

TIP Identification Number	Project	Category	Municipality	Fiscal Year Programmed
S12124	Community Connections Program	Community Connections	Regionwide	2024
S12113	Transit Modernization Program	Transit Modernization	Regionwide	2025
603739	Construction of Interstate 495/Route 1A Ramps	Complete Streets	Wrentham	2024
608045	Rehabilitation on Route 16, from Route 109 to Beaver Street	Complete Streets	Milford	2026

TIP = Transportation Improvement Program.

## SWAP Transportation Projects in the TIP Universe of Projects

Project	Category	Municipality	Scored by the MPO
South Main Street (Route 126)—Elm Street to Douglas Drive Reconstruction	Complete Streets	Bellingham	No
Resurfacing and Intersection Improvements on Route 140, from Beaver Street to Interstate 495 Ramps	Complete Streets	Franklin	No
Improvements on Route 109 West of Highland Street	Complete Streets	Medway	No
Resurfacing and Related Work on Route 16	Complete Streets	Milford	No
Town Center Improvements	Complete Streets	Millis	No
Resurfacing and Related Work on Route 1	Complete Streets	Wrentham	No
Traffic Signalization at Trotter Drive and Route 109	Intersection Improvements	Medway	No

(cont.)

Project	Category	Municipality	Scored by the MPO
Intersection Improvements at Route 16 and Maple Street	Intersection Improvements	Sherborn	No
Intersection Improvements on Route 1A at North and Winter Street	Intersection Improvements	Wrentham	Yes
Intersection Improvements at Randall Road and Route 1A	Intersection Improvements	Wrentham	No
Intersection Improvements at Route 1A and Route 140	Intersection Improvements	Wrentham	No
Southern New England Trunk Trail (SNETT) Extension, from Grove Street to Franklin Town Center	Bicycle and Pedestrian	Franklin	No
Campus Trail Connector, Shared Use Trail Construction	Bicycle and Pedestrian	Hopkinton	No
Metacomet Greenway	Bicycle and Pedestrian	Norfolk, Walpole, and Wrentham	No
Upper Charles River Trail Extension to Framingham City Line	Bicycle and Pedestrian	Sherborn	No
Ramp Construction and Relocation, Interstate 495 at Route 126 (Hartford Avenue)	Major Infrastructure	Bellingham	No
Interstate 495 North Slip Ramp Improvements at Route 1A	Major Infrastructure	Wrentham	No

TIP = Transportation Improvement Program.

## Transportation Studies Conducted in the SWAP Subregion through the Unified Planning Work Program (UPWP)

- [Route 1A Subregional Roadway Study in Wrentham \(FFY 2017\)](#)
- [SWAP Regional Public Transit Feasibility Study \(FFY 2014\)](#)
- [Route 140 Priority Corridor Study in Franklin \(FFY 2014\)](#)
- Safety and Operations Analysis at Selected Intersections
  - [Hartford Avenue \(Route 126\) in Bellingham \(FFY 2018\)](#)
  - [Medway Road \(Route 109\) in Milford \(FFY 2014\)](#)
  - Prospect Street in Milford (FFY 2010)

Read more studies on the [Boston Region MPO's Recent Publications webpage](#).

## Regionwide Transportation Studies

- [How to Operate a Successful Community Shuttle](#)
- [Pedestrian Report Card Assessment Interactive Database](#)
- [New Emerging Metrics](#)



*Millis Niagara No. 1 Firehouse*

## Transportation Needs Identified through Public Engagement in the SWAP Subregion

The comments below include transportation needs identified during the development of the LRTP Needs Assessment and new comments heard during the MPO's public engagement activities in fall 2021. **The new comments are in red.**



### Roadway

- Regionwide Needs
  - **Streamline and clarify the process to update and improve state-owned roadways.**
  - **Implement Complete Streets in Norfolk and Sherborn.**
  - Improve gateways to towns and corridors for residents and industrial development to access Interstate 495.
- Arterial Improvements
  - **Continue improvements on Route 109 towards Milford.**
  - Build on the study of the Route 1 and 1A corridors, particularly focusing on the intersections of Route 1A and Route 140.
  - Reconstruct Route 109 from west of Maine Village to the Milford town line.
  - Improve the Route 115 corridor.
  - Apply Complete Streets upgrades and condition improvements to the Route 126 corridor in Bellingham, including curb and sidewalk reconstruction for Americans with Disabilities Act compliance and intersection improvements at Douglas Drive, Elm Street, Pulaski Boulevard, and Maple Street.
- Congestion Mitigation
  - **Alleviate traffic at Route 140 and West Central Street in Franklin.**
  - Reduce peak congestion across the subregion and improve options for all modes.
  - Improve the Route 16 corridor and reduce congestion.
  - Reduce congestion in Sherborn Center.
  - Reduce congestion at Forge Park in Franklin.
- Intersection Improvements
  - **Implement safety measures at high-crash intersections in Sherborn's town center.**
  - **Implement traffic signalization at Trotter Drive and Route 109 in Medway.**
  - **Improve the Route 1 and Route 140 intersection in downtown Wrentham.**
  - Improve the intersection of Route 16 and Route 27 near the entrance to the middle school in Sherborn.
  - Implement capacity and safety improvements at Route 140 and Route 126 intersections.

- Improve the intersection at Route 109 and Interstate 495 at Beaver Street in Milford.
- Improve the design of the intersection by the Medway Town Hall.
- Reconstruct the Route 126 and Interstate 495 interchange.



## Transit

- Regionwide Needs
  - **Increase funding and access to bus transit in the subregion.**
  - Increase connectivity between SWAP municipalities and Boston.
- Test dial-a-ride service before implementing fixed-route service.
- Employ incentives to encourage mode shift.
- Transit Asset Improvements
  - **Upgrade the commuter rail station in Norfolk town center.**
  - Make Franklin/Dean College Station wheelchair accessible.
  - Install bus stops on the Franklin bus route since potential passengers are reluctant to wave down buses.
  - Implement reliable commuter rail services for Franklin Station and extend the double track to Norfolk Station and Forge Park Station.
  - Implement new shuttle technology to increase use of service.
- New Services
  - Add train services from Medfield to Framingham, Walpole, and Attleboro.
  - Increase transit service in the Franklin area to accommodate passengers who need to travel to Boston late in the afternoon and at night.
  - Coordinate increased commuter rail frequency in SWAP to support developing more housing in central business districts.
  - Expand shuttle service and replicate the CrossTown Connect model.
  - Enhance first- and last-mile connections to transit and Interstate 495 to reduce congestion in Bellingham.
- Partnerships
  - Explore public and private partnerships for transportation options.
  - Partner with Dean College to expand shuttle services.
  - Partner with Councils on Aging to coordinate shuttle services.
  - Coordinate shuttle programs in Franklin, Bellingham, Milford, and Wrentham collectively rather than individually running the programs.



## Pedestrian

- Regionwide Needs
  - Improve sidewalk system throughout the subregion. The sidewalk system is disjointed and in poor condition, resulting in wheelchair users being forced to use the breakdown lane.
- **Perform a pedestrian audit in downtown and around schools in Wrentham.**
- Shared-Use Paths
  - **Extend the Southern New England Trunkline Trail from Grove Street to Franklin town center.**
  - **Move forward with the Metacomet Greenway Project.**
  - **Evaluate Upper Charles Trail in Sherborn for extension north into Framingham.**
- Sidewalk Connectivity
  - **Increase sidewalk coverage in Sherborn.**
  - Expand first- and last-mile connections to transit stations in Bellingham. Currently, there are limited sidewalk connections and poor sidewalk conditions.



## Land Use and Technology

- **Update bylaws to adapt to an influx of e-commerce.**
- **Anticipate long-term plans for state-owned land taken by eminent domain in Wrentham.**
- Development Impact Mitigations
  - Anticipate possible development projects with downtown rezoning in Wrentham.
  - Anticipate future development, particularly with housing impacts, and build supportive transportation options.
  - Increase scoring criteria to improve economic development and unlock development in suburbs.
- Downtown Revitalization
  - Anticipate tradeoffs in town centers (such as increasing congestion) while still supporting the vibrancy of downtowns.
  - Support Wrentham downtown revitalization by eliminating the zoning that restricts bus shelters and setbacks.
- Support emerging technologies, such as autonomous vehicles, and expand supportive infrastructure.



## Parking

- Expand parking and shuttle services. Park-and-ride options could include church parking lots when they are not in use.
- Provide more parking opportunities at Franklin and Forge Park Stations, as they are at capacity.



- Expand park-and-ride options near Interstate 495 to support carpooling.



### *Resiliency*

- Improve storm water drainage in Bellingham.
- Address storm water flooding problems in Sherborn.

## Study Ideas and Opportunities in the SWAP Subregion



### *Roadway*

- **Study safety conditions on the Route 1 Corridor in Wrentham.**
- **Create an inventory of roadway funding programs, including new programs under the Infrastructure Investment and Jobs Act.**
- Increase the number of UPWP studies in the SWAP subregion.
- Conduct a field inventory of culverts and bridges in Sherborn.
- Analyze the increase in truck traffic in downtown Bellingham due to warehouse development, and research how to mitigate congestion and safety issues.
- Investigate the impact of development on small roads.
- Study the Route 109 corridor from Medway through Millis and Westwood, which is highly congested due to Route 128 traffic.



### *Transit*

- Examine and improve the Franklin commuter rail line schedule.
- Analyze the costs versus the benefits for first- and last-mile options to incentivize high functioning and innovative options.
- Study bus options for service from Bellingham to Milford.
- Study how to improve the success of regional transit authorities.



### *Pedestrian*

- **Conduct a feasibility study of a rail trail between Medway and Millis.**



### *Bicycle*

- Study rail trail feasibility in abandoned right-of-way to help implement multiuse trails for congestion reduction.



### *Land Use and Technology*

- Explore how investments in housing and transportation infrastructure can work together to make better use of land.

## 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)	Truck Crash Cluster	Priority Congested Location
Route 126 (Hartford Avenue) at Deerfield Lane	Bellingham	●		●		
Interstate 90 near Wood Street	Hopkinton				●	
Route 85 (Cedar Street) at Fortune Boulevard	Milford	●	●	●		
Route 16/27	Sherborn					●
Route 1A at Premium Outlets Boulevard	Wrentham	●	●	●		

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. US = United States.

## **FINDINGS FROM THE BOSTON REGION MPO'S REGIONWIDE SURVEY ON TRANSPORTATION PRIORITIES FOR TIP CRITERIA**

### **Clean Air/Sustainable Communities**

Participants advocated for dramatically reducing emissions and pollution and recommended improving pedestrian and bicycle safety, increasing pedestrian and bike connectivity, and promoting equitable transportation mobility to achieve this goal. They also called for stronger assessments on air pollution and for addressing the disproportionate health effects on low-income and minority communities living near high-emission roadways. They also voiced support for projects that reduce the number of personal vehicles on the road and for enhancing tree canopy coverage and green space. Additionally, participants advocated for smart growth, transit-oriented development, supporting active transportation, and prioritizing non-car modes.

### **Safety**

Participants primarily focused on improving pedestrian and bike safety through expanding pedestrian and bike infrastructure, bringing sidewalks up to Americans with Disabilities Act accessibility standards, increasing connectivity to transit, and reducing auto speeds to prevent accidents. Participants voiced support for maintaining and expanding the transit system to increase mode shift away from single-occupancy vehicles and to increase bike and pedestrian safety. Many also voiced support for separated bike facilities to make it easier and safer for anyone to bike—not only experienced bicyclists. They advocated for shifting of spending to focus on Vision Zero projects, improving dangerous crossings, installing light-up crosswalks, and fixing poorly timed lights and poorly painted crosswalks. They also advocated for safe and convenient walkable routes to access jobs, services, and schools. Many advocated for prioritizing areas that primarily serve equity populations, fixing broken sidewalks, and reducing conflicts between pedestrians crossing the street and turning vehicles.

### **System Preservation and Modernization**

Participants were asked about maintaining and improving existing sidewalks, roads, and bridges. Many responded by focusing on improving overall safety rather than the maintenance and improvement of specific elements of roadways. When asked about maintaining the existing transit system, many said it was their top priority. Participants advocated for making the transit system reliable, functional, clean, safe, and dependable to increase ridership and reduce congestion. They advocated for transit expansion and prioritizing dedicated bus lanes. They supported investing in maintenance of the transit system and voiced support for equitable transportation mobility. Creating connections to jobs and services through transit options was also identified as important as was implementing more multimodal infrastructure.

## Capacity Management and Mobility

Many participants advocated for creating new connections in the bike network and enhancing connections to the transit system. Participants voiced support for more separated shared-use paths to increase bike usage. They saw increased bike infrastructure as a tool to reduce emissions, reduce congestion, and promote public health by enhancing exercise and recreation options. Many respondents highlighted the idea of implementing more dedicated bus lanes as a way to increase reliability, enhance access to jobs and services, increase equity in the transit system, and reduce emissions. Participants said that dedicated bus lanes have a high impact for less investment and can be more flexible to meet community needs. Bus frequency and reliability can increase ridership and reduce the number of single-occupancy vehicles on the road. Bus lanes can also be combined with bike lanes, which increase mobility options for residents. To reduce congestion, participants called for more parking at commuter rail stations, enhancing walking options to commuter rail stations, and increased safety for walking and biking. They advocated for prioritizing person throughput rather than vehicle throughput. To reduce congestion and conflicts with pedestrians and bicyclists, participants suggested implementing curb allocation policies for trucks and delivery vehicles.

## Transportation Equity

Transportation equity was one of the most selected priorities in both the online survey and focus groups. To promote more equitable transportation mobility, participants supported many of the other priorities mentioned previously with a focus on directing resources to those most overburdened by transportation emissions and underserved by a lack of adequate transportation options. They called for enhancing transportation opportunities to jobs, food stores, educational institutions, services, and locations where there are civic engagement opportunities. They advocated for safer connections to transit options and increased transit reliability. Expanding and fixing sidewalk infrastructure was also frequently mentioned. Many suggested prioritizing projects near affordable housing, supporting transit-oriented development, and incorporating more public health criteria in project evaluations.

## Economic Vitality

To increase economic vitality, participants called for more transportation access to jobs, services, and small businesses with increased transit, bicycle, and pedestrian infrastructure. Expanding the transit system was frequently mentioned as well as incorporating greater consideration for affordable housing and inclusionary zoning. Participants also advocated for supporting projects that serve multiple municipalities and maximizing mobility for all using the most efficient means possible. They also emphasized the need for climate resiliency and safety to enhance access to jobs and services.

# SELECTED FINDINGS FROM THE BOSTON REGION MPO'S REGIONWIDE 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 MassDOT-identified Top 200 high crash intersections in the Boston region (a total of 66), 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 the downtown areas of 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 the Interstate 90 and Interstate 95 interchange in Weston and the interchange of Interstate 95 and the Middlesex Turnpike 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, such as positive train control and rapid transit vehicle upgrades.
- Monitor advancements in autonomous vehicle technology and analyze the safety impacts of autonomous vehicle 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 planning scenario, crowding is projected to increase to unacceptable levels in some locations.
- Address the need for sufficient 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 facilities 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/Sustainable Community Needs

- Reduce carbon dioxide emissions by means of MPO-funded transportation projects and programs that help meet the requirements of the Global Warming Solutions Act, particularly by supporting 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 for developing municipal greenhouse gas inventories and energy reduction plans.
- Reduce volatile organic compounds, nitrogen oxides, carbon monoxide, and particulate matter emissions by means of MPO-funded transportation projects and programs (particularly those that help to reduce vehicle-miles traveled) and 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 project designs incorporate infrastructure to reduce storm water pollution and provide resilience in the event of natural hazard events (for example, flooding or winter storms).

## 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 bike-share facilities in the Inner Core for 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 service) between job-rich centers, such as Longwood Medical Area and the Seaport in Boston, suburban job centers, and underserved neighborhoods.
- Provide new transit service between low-income residential communities in the suburbs 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 their ability to access transportation may be affected.

## Economic Vitality Needs

- Administer infrastructure improvements to support growth in the priority development areas, including by improving equitable access to employment and housing via public transit, walking, and biking options.
- Arrange better commuter rail schedules to include more frequent and reliable off-peak, late-night, and weekend service and 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.

*Dean College, Franklin*





## **WELCOME. BEM VINDA. BIENVENIDO. AKEYI. 欢迎. 歡迎.**

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### **Kreyòl Ayisyen (Haitian Creole)**

Si yon moun vle genyen enfòmasyon sa yo nan yon lòt lang, tanpri kontakte Espesyalis Boston Region MPO Title VI la nan nimewo 857.702.3700.

### **Português (Portuguese)**

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Nếu quý vị cần thông tin này bằng một ngôn ngữ khác, vui lòng liên lạc Boston Region MPO theo số 857.702.3700.



**South West Area Advisory Planning Committee (SWAP)**  
Identifying Transportation Needs, Construction Projects,  
and Studies in Your Subregion