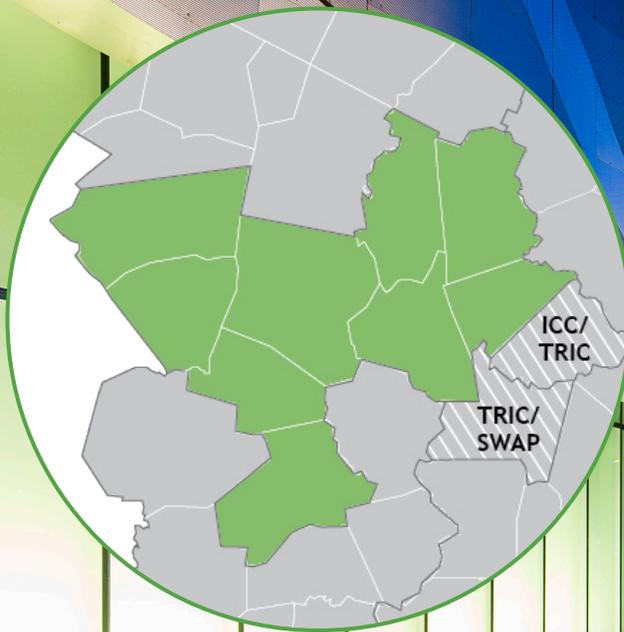


# MetroWest Regional Collaborative (MWRC)

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



Ashland • Framingham • Holliston • Marlborough • Natick • Southborough • Wayland • Wellesley • Weston

FALL 2022

Natick Mall. Photo courtesy of MOTT.

## WHAT TRANSPORTATION NEEDS DID THE MPO IDENTIFY IN MWRC 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 MWRC subregion based on MPO staff's analysis and past visits to MWRC 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 MWRC 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
S12701	MWRTA CatchConnect Microtransit Service Expansion	Community Connections	Hudson and Marlborough	2023
608889	Traffic Signal Installation at Edgell Road and Central Street	Intersection Improvements	Framingham	2023
110980	Bridge Rehabilitation, N-12-010=W-29-005, Commonwealth Avenue (Route 30) over the Charles River	Complete Streets	Newton and Weston	2024
605313	Bridge Replacement, Route 27 over Route 9, and Interchange Improvements	Major Infrastructure Program	Natick	2024
608436	Rehabilitation and Rail Crossing Improvements on Cherry Street	Complete Streets	Ashland	2024
608940	Intersection Improvements at Boston Post Road (Route 20) at Wellesley Street	Intersection Improvements	Weston	2026
608954	Reconstruction on Route 30	Complete Streets	Weston	2026

MWRC = MetroWest Regional Collaborative. TIP = Transportation Improvement Program.

## MWRC Transportation Projects in the TIP Universe of Projects

Project	Category	Municipality	Scored by the MPO
Reconstruction of Concord Street (Route 126)	Complete Streets	Holliston	No
Roundabout Construction at Salem End Road, Badger Road, and Gates Street	Intersection Improvements	Framingham	No
Intersection Improvements—Signalization of Route 20 at Highland Street	Intersection Improvements	Weston	No
Cochituate Rail Trail Extension, from MBTA Station to Mechanic Street	Bicycle and Pedestrian	Natick	No
Intersection Improvements at Route 126 and Route 135 and MBTA and CSX Railroad*	Major Infrastructure	Framingham	No

MBTA = Massachusetts Bay Transportation Authority. MWRC = MetroWest Regional Collaborative. LRTP = Long-Range Transportation Plan. MPO = metropolitan planning organization. TIP = Transportation Improvement Program.

\* The Intersection Improvements at Route 126 and Route 135 and MBTA and CSX Railroad is programmed in the MPO's LRTP, *Destination 2040*, in the FFY 2030–34 time band.



*Shoeworkers Statue, Marlborough. Photo courtesy of MOTT.*

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

- [Access to Commercial Business Districts, Phase 2 \(including a case study in Framingham\) \(FFY 2021\)](#)
- [Route 9 Corridor Study in Framingham and Natick \(FFY 2021\)](#)
- [Bicycle Network Gaps: Feasibility Evaluation \(including a study of locations in Framingham and Weston\) \(FFY 2018\)](#)
- Safety and Operations Analysis at Selected Intersections
  - Linden Street and Weston Road in Wellesley (FFY 2021)
  - Central Street and Weston Road in Wellesley (FFY 2021)
  - [Turnpike Road \(Route 9\) and Central Street/Oak Hill Road in Southborough \(FFY 2012\)](#)
  - [Union Avenue and Mount Wayte Avenue in Framingham \(FFY 2011\)](#)
  - [West Central Street \(Route 135\) and Speen Street in Natick \(FFY 2010\)](#)
- Subregional Roadway Study Location
  - [Route 20 in Marlborough \(FFY 2016\)](#)—Resulted in two Massachusetts Department of Transportation (MassDOT) funded projects
    - ◊ Resurfacing and related work on Route 20, Project # 608467, was chosen for the FFYs 2021-25 Transportation Improvement Program (TIP)
    - ◊ Improvement at Route 20 at Curtis Avenue, Project # 608566, was chosen for the FFYs 2020-24 TIP

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 and Emerging Metrics for Roadway Usage](#)

## Transportation Needs Identified through Public Engagement in the MWRC 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 green.**



### Roadway

- Arterial Improvements
  - Improve Route 27 in Natick and the Route 27/Route 9 bridge.
  - Improve access to and from Exit 13 and Speen Street, and Route 30 in Framingham and Natick.
- Complete Streets
  - Improve pedestrian, bicycle, and transit accommodations on Route 9 to make crossing the road safer. Route 9 separates neighborhoods, experiences high congestion, and has a perception as a thoroughfare only. There are eight to 10 problematic intersections that are interconnected.
  - Implement Complete Streets on Route 135 in Hopkinton, Natick, and Ashland.
  - Implement best practices for Complete Streets.
- Build infrastructure to support electric vehicles, including alternative fueling.
- **Mitigate supply chain impacts on infrastructure on local roadway networks.**
- Intersection Improvements
  - Redesign Cordaville Road in Southborough.
  - Improve intersections with safety issues and traffic light timing troubles, including Route 16/Route 126, Route 16/Route 27, and Route 16/Route 135.
- Improve Interstate 90, Exit 12 to New York Avenue in Framingham.



### Transit

- **Mitigate MetroWest Regional Transit Authority vulnerabilities.**
- Destination Access
  - Transform Interstate 90's Exit 12 intersection into a transit hub with intercity bus and first- and last-mile shuttles to employment centers (reducing traffic and parking in lots), multimodal park-and-ride options, or a rail spur.
  - Create shuttles to downtown Framingham from the Dennison power plant and the Golden Triangle.
  - Enhance reverse-commuting opportunities by increasing trains traveling to Framingham and Worcester.

- Transit Access
  - Improve access to commuter rail stations with limited parking and look into park-and-ride options.
  - Create first- and last-mile connections to the Massachusetts Bay Transportation Authority (MBTA) stations in Weston and Ashland.
  - Increase MetroWest Regional Transit Authority access and routes in Ashland.
- Transit Asset Improvements
  - Create more priority bus lanes.
  - Improve railway crossings in Ashland.
  - Improve Route 135 crossing at railroad tracks in Framingham.
  - Improve Southborough Station on the Framingham/Worcester commuter rail line.
- Rail Connectivity
  - Implement a North–South Rail link to further connect commuter rail lines and enable cross-region travel.
  - Create a north–south connection between Wellesley and Weston.
  - Create a north–south connection in Natick.
  - Create a rail connection along Route 30.
- Service Frequency
  - **Facilitate more frequent and reliable bus and train service in the subregion.**
  - Increase rail service to Boston from Wellesley and Weston.



## Pedestrian

- Pedestrian Safety
  - Implement more pedestrian infrastructure to increase pedestrian safety and access in downtown Framingham.
  - Implement a safe path connection to recreational areas and ponds in Framingham.
- Create a pedestrian-dedicated environment by encouraging temporary road closures.
- Provide public benches at Farm Pond in Framingham.
- Implement wayfinding improvements in downtown Ashland and Framingham.
- Improve Cedar Street sidewalks in Ashland.



## Bicycle

- Bicycle Facilities
  - **Build more active transportation infrastructure, including more protected bike lanes, at the local level.**
  - Paint bike lanes around schools to create easier multimodal connections for students.

- Implement bike share at MBTA stations in the MetroWest subregion.
- Shared-Use Paths
  - Create a bike trail west to Sudbury through the wildlife refuge.
  - Expand Cochituate Aqueduct Trail.
  - Expand the Upper Charles Trail in Ashland.
  - Connect Weston and Waltham through the Mass Central Rail Trail.
  - Connect the Cochituate Rail Trail with the Natick Center commuter rail station.
  - Expand the Upper Charles Trail through Sherborn from Holliston to Framingham center.



### *Land Use and Technology*

- **Minimize spatial limitations when balancing competing needs in downtown areas.**
- Shared Mobility
  - Support more carpooling options to reduce congestion.
  - Consider subsidized use of Uber and Lyft for older adults to travel to medical appointments, run errands, and participate in social activities.
- Incorporate more smart/adaptive signals to manage local versus regional traffic.



### *Parking*

- Expand parking at downtown Natick Center commuter rail station.
- Expand parking at Wellesley Square, Wellesley Hills, and Wellesley Farms commuter rail stations.
- Provide parking structure over the rail stockyard in downtown Framingham.



### *Resiliency*

- Redesign Boulder Brook culvert under Route 9.

## Study Ideas and Opportunities in the MWRC Subregion



### Roadway

- Analyze regional developments and the impact on traffic, such as the development on Route 20 in Weston/Wayland.
- Research traffic trends and impacts to create an online database for planners to use.



### Transit

- Research how to bring workers from the Inner Core to MWRC employers.



### Bicycle

- Study bike and pedestrian trail options around Route 30 and the Charles River in Weston and the Interstate 90 and Route 128 interchange.



### Land Use and Technology

- Study the potential of commercial and residential mixed-use development to reduce traffic.
- Study the reuse of downtown centers for commercial mixed-use development in Natick.
- Research the impact of navigation systems (such as Waze) on traffic, especially on side streets.
- Evaluate how to make downtowns more attractive to encourage economic development.
- Research the impact of driverless cars.



*Charles River from the Elm Banks Garden, Wellesley. Photo courtesy of MOTT.*

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

Location of Identified Need	Municipality	HSIP Crash Cluster	Intersects MPO Staff-Identified Truck Crash Cluster(s)	Intersects Massachusetts Top Crash Location(s)	Pedestrian Crash Cluster	Truck Crash Cluster	Priority Congested Location
Route 9 (Worcester Road) west of Caldor Road	Framingham	●					
Downtown Framingham (Waverly, Concord, and Hollis Streets)	Framingham				●		
Route 9 (Worcester Road) at Cochituate Road	Framingham	●		●			
Interstate 90 at Edgell Road	Framingham					●	
Route 16 and Route 126	Holliston						●
Interstate 495 at Interstate 290	Marlborough					●	
Route 9 at Interstate 95	Wellesley	●	●			●	
Route 16 and Route 9	Wellesley						●
Interstate 95 at Route 30 (north of Exit 24)	Weston	●	●				
Interstate 90 at Oak Street	Weston	●	●				
Interstate 90 at ramps to Interstate 95	Weston	●	●			●	
Interstate 90, Exits 13–14	Weston and Natick						●
US Route 20	Weston						●

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, improving pedestrian and bicycle safety, increasing connectivity of the pedestrian and bicycle network, and promoting equitable transportation to achieve this goal. Respondents 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 their support for maintaining and expanding the transit system to enable mode shift away from single-occupancy vehicles and to increase bike and pedestrian safety. Many voiced support for separated bike facilities to make it easier and safer for anyone to bike—not only experienced bicyclists. They advocated for a shift in 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 suggested 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.



Wayside Inn Country Store, Marlborough. Photo courtesy of MOTT.

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

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### Español (Spanish)

Si necesita esta información en otro idioma, por favor contacte la Boston Region MPO al 857.702.3700.

### 简体中文 (Simplified Chinese)

如果需要使用其它语言了解信息，请联系波士顿大都会规划组织 (Boston Region MPO) 《民权法案》第六章专员，电话 857.702.3700。

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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.

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Caso estas informações sejam necessárias em outro idioma, por favor, contate o MPO da Região de Boston pelo telefone 857.702.3700.

### Tiếng Việt (Vietnamese)

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 Natick Falls, Natick. Photo by @travelandwritetoday, courtesy of MOTT.



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