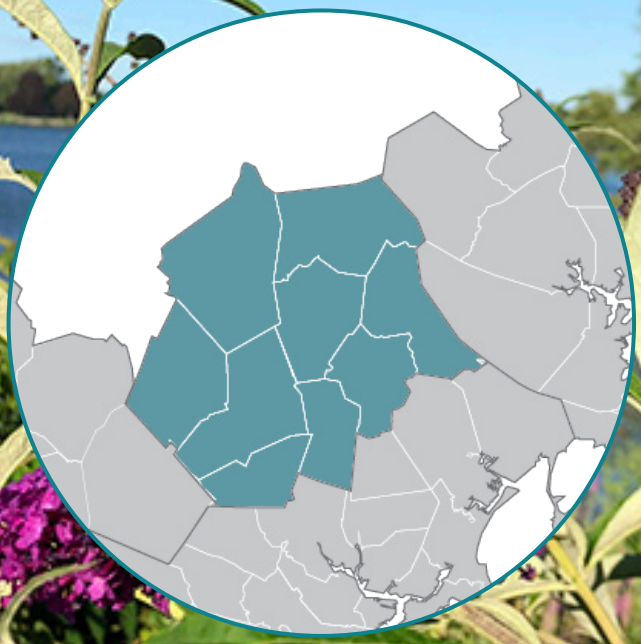
Lake Quannapowitt, Wakefield

North Suburban Planning Council (NSPC)

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



Burlington • Lynnfield • North Reading • Reading • Stoneham • Wakefield • Wilmington • Winchester • Woburn

FALL 2022

WHAT TRANSPORTATION NEEDS DID THE MPO IDENTIFY IN NSPC 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 NSPC subregion based on MPO staff's analysis and past visits to NSPC 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.

Downtown Winchester

Projects Programmed in the Federal Fiscal Years (FFYs) 2023–27 TIP in the NSPC 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
S12699	Stoneham Shuttle Service	Community Connections	Stoneham	2023
609253	Intersection Improvements at Lowell Street (Route 129) and Woburn Street	Intersection Improvements	Wilmington	2023
610662	Roadway and Intersection Improvements at Woburn Common, Route 38 (Main Street), Winn Street, Pleasant Street, and Montvale Avenue	Complete Streets	Woburn	2025
608051	Reconstruction of Route 38 (Main Street), from Route 62 to the Woburn City Line	Complete Streets	Wilmington	2025
608067	Intersection Reconstruction at Route 3 (Cambridge Road) and Bedford Road and South Bedford Street	Intersection Improvements	Woburn and Burlington	2025

NSPC = North Suburban Planning Council. TIP = Transportation Improvement Program.

NSPC Transportation Projects in the TIP Universe of Projects

Project	Category	Municipality	Scored by the MPO
Town Center Complete Streets Improvements	Complete Streets	Burlington	No
Resurfacing and Related Work on Route 3A	Complete Streets	Burlington and Billerica	No
Reconstruction of Summer Street	Complete Streets	Lynnfield	No
Reading Downtown Improvement Project	Complete Streets	Reading	No
Reconstruction of South Main Street, from Town Center to South Street	Complete Streets	Stoneham	No
Main Street Reconstruction	Complete Streets	Wakefield	Yes
Town Center Complete Streets Improvements	Complete Streets	Winchester	No
Intersection Improvements at Main Street (Route 28), Franklin Street, and Central Street	Intersection Improvements	Stoneham	No
Mystic Highlands Greenway Project	Bicycle and Pedestrian	Stoneham and Wakefield	No
Improvements at Interstate 95 (Route 128)/ Route 3 Interchange	Major Infrastructure	Burlington	No
Improvements on Interstate 95	Major Infrastructure	Reading	No

NSPC = North Suburban Planning Council. TIP = Transportation Improvement Program.

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

- Low-Cost Improvements to Express-Highway Bottleneck Locations
  - Interstate 95 northbound and southbound between Exit 57 and Exit 61 in Wakefield, Reading, and Lynnfield (FFY 2021)
  - Interstate 93 northbound between Exit 40 (Route 62) and Exit 41 (Route 125) in Wilmington (FFY 2019)
  - Interstate 93 southbound between Exit 37C (Commerce Way) and Exit 37B (Interstate 95) in Woburn and Reading (FFY 2017)
  - Interstate 93 southbound between Interstate 95 and Montvale Avenue in Woburn and Stoneham (FFY 2014)
- Safety and Operations Analysis at Selected Intersections
  - Main Street, Eaton Avenue, and Wilcox Circle in Woburn (FFY 2021)
  - Arlington Road, Pleasant Street, North Warren Street, and Warren Avenue in Woburn (FFY 2021)
  - Main Street (Route 38/129) and Church Street/Burlington Avenue (Route 62) in Wilmington (FFY 2012)
  - Lowell Street (Route 129) and Woburn Street in Wilmington (FFY 2010)
  - Main Street (Route 28) and Franklin Street in Reading (FFY 2009)

Read more studies on the Boston Region MPO's Recent Publications webpage.

Regionwide Transportation Studies

- Operating a Successful Community Shuttle Program
- Pedestrian Report Card Assessment Interactive Database
- New and Emerging Metrics for Roadway Usage

Lake Quannapowitt, Wakefield

Transportation Needs Identified through Public Engagement in the NSPC 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 teal.**

Roadway

- Regionwide Needs
  - Improve east to west connections in the subregion.
  - Fix roadway and transit bridges in the region.
- Complete Streets
  - **Implement Complete Streets in downtown Wakefield.**
  - **Work on Complete Streets redesigns in Burlington town center.**
  - Implement Complete Streets design on Route 28 in Stoneham to improve signals, improve intersections at Franklin, Main, and Central Streets, expand walking options, and improve parking.
  - Reduce cut-through traffic by supporting more multimodal transportation.
  - Implement redesign of Route 28 in North Reading and Reading to incorporate other modes besides automobiles.
  - Explore redesign of North Street in Stoneham to support multiple modes.
- Intersection Improvements
  - **Finalize the redesign of the Main Street and South Street intersection in Stoneham.**
  - **Move forward with the downtown intersection improvement project at Main and Franklin Streets in Stoneham.**
  - Redesign Route 28 (Main Street) with a focus on intersections at Washington, Hopkins, and Ash Streets, and Summer Avenue in Reading. The Massachusetts Department of Transportation (MassDOT) has started this process, but the project has since stalled.
- Traffic Calming
  - **Implement a road diet on South Main Street (Route 28) from downtown Stoneham to the intersection of North Border Road and South Street (where the Friendly's restaurant was located).**
  - **Introduce traffic calming in downtown Stoneham.**
- Work to provide better connectivity from Walkers Brook Drive to downtown Reading.
- Repair aging infrastructure in Stoneham and Woburn.

Transit

- Microtransit
  - **Expand first- and last-mile connections to alleviate traffic in Wakefield and provide microtransit service to residents and employees.**
  - Establish a shuttle service between Stoneham, Woburn, and Winchester.
  - Increase capacity of paratransit service to create a community transportation system.
- Transit Access
  - Expand transportation options to increase the number of people traveling to commuter rail stations.
  - Improve regional connections to transportation opportunities for Burlington.
  - Build the North–South Rail Link.
  - Expand public transportation north of Route 28 in Stoneham.
- Destination Access
  - Connect service from Anderson Regional Transit Center to Burlington.
  - Expand reverse-commuting opportunities to regional employment centers.
- Transit Asset Improvements
  - Improve public transportation and sidewalk infrastructure in North Reading.
  - Introduce a unified payment system for all MBTA services.
  - Electrify the commuter rail.
- Increase ridership for MBTA bus Routes 99 and 131.
- Improve consistency of transit stop announcements.

Pedestrian

- Pedestrian Connectivity
  - **Increase pedestrian infrastructure in Burlington.**
  - **Increase bicycle and pedestrian connections within the region.**
- Demographic Considerations
  - Upgrade pedestrian signals to accessible pedestrian signals.
  - Expand walking options from housing to services for older adults and youth.
  - Install pedestrian barricades around construction sites that are compliant with the Americans with Disabilities Act.
- Sidewalk Improvements
  - Improve walking conditions with better sidewalks and trees for shade.
  - Prevent dockless bicycle parking on sidewalks.
- Address pedestrian safety concerns at the Montvale Avenue and Hill Street intersection in Woburn.

Bicycle

- Shared-Use Path
  - **Move forward with the Mystic Highlands Greenway Project.**
  - Establish a multimodal path next to the MBTA tracks.
  - Incorporate "complete" greenways for all types of users.
- Bicycle Connectivity
  - **Increase bike infrastructure in Reading and take advantage of existing funding opportunities.**
  - Rebuild South Main Street in Stoneham to include a bike lane.
  - Increase bike lanes on Route 28 (South Main Street) in Reading.

Land Use and Technology

- **Improve downtown streetscape and right-of-way in Reading.**
- **Complete downtown study for public realm improvements in Winchester.**
- **Redesign Burlington Mall as a regional transit hub.**
- Increase transportation opportunities near new housing developments in Wilmington.

Parking

- Improve parking management in downtown areas.
- Increase parking for MBTA riders by creating off-site parking and providing park-and-ride shuttles to transit stations.
- Expand parking near transit stations. Parking lots are more than 85 percent in use at the following stations:
  - Haverhill Line: Greenwood, North Wilmington, Reading, Wakefield, and Wilmington Stations
  - Lowell Line: Wilmington and Winchester Stations

Resiliency

- Implement policies to make the transportation system more resilient to climate-related hazards in Stoneham and Woburn.

Study Ideas and Opportunities in the NSPC Subregion

Roadway

- Study the Interstate 93 and Interstate 95 interchange in Reading and Woburn.
- Study the Interstate 95 and Route 3 interchange in Burlington.
- Study the potential increase in through traffic to Interstate 93 in the NSPC subregion.

Transit

- **Examine density requirements for transit hubs.**
- **Explore a microtransit service for the region and future possibilities to collaborate regionally and fill the need for better east-west connections.**
- **Research a micromobility network within the subregion.**
- **Identify transportation needs of private stakeholders in Stoneham and the ability to contribute funds to a potential microtransit program.**
- **Evaluate the need for a regional transportation management association (TMA) to create cross-municipality mobility options.**
- **Study the feasibility of coordinated shuttle systems between and within communities in Winchester.**
- Study the lack of transit access and reliability in relation to medium income populations and property values.
- Examine possible scenarios for transit-oriented development as housing costs increase in the Inner Core.
- Explore public and private partnerships to help increase transportation options.

Pedestrian

- **Examine the need for targeted outreach for community leaders on Complete Streets and the role of the MPO in supporting transportation projects.**

Land Use and Technology

- Develop a transportation plan for the redevelopment of the former Kraft Foods site in Woburn.

Parking

- Study parking opportunities at Wedgemere and Winchester Center Stations.

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	Truck Crash Cluster	Priority Congested Location
Interstate 95 at Route 3	Burlington	●	●				
Middlesex Turnpike at Interstate 95	Burlington	●	●			●	
Route 3A	Burlington	●					●
Route 1 at Route 129	Lynnfield	●	●	●			
Interstate 93 at Interstate 95	Reading Woburn	●	●			●	●
Interstate 93 (northbound) at ramp to Interstate 95	Stoneham	●					
Route 38/129	Wilmington	●					●
Interstate 93 at Montvale Avenue	Woburn Stoneham	●	●				
Interstate 95 (northbound) at ramp to Washington Street	Woburn	●					
Main Street, Downtown Woburn	Woburn				●		

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.

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 called 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 focused more on improving overall safety rather than the maintenance and improvement of specific elements of the roadway. However, when asked about maintaining the existing transit system, many picked it as 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 increasing safety for people who walk and bike. 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 maximize mobility for all using the most efficient means possible. They also emphasized climate resiliency and safety to enhance access to jobs and services.

King's Dining & Entertainment, Lynnfield. Photo by Darlene Foley, courtesy of MOTT.

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 (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 the Interstate 90 and Interstate 95 interchange in Weston and the Interstate 95 and 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, such as positive train control and rapid transit vehicle upgrades.
- Monitor advancements in autonomous vehicle (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 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.

Old Meeting House 1714, Lynnfield. Photo by Darlene Foley, courtesy of MOTT.

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

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To request special accommodations, or if you need this information in another language, contact the MPO at 857.702.3700 (voice), 617.570.9193 (TTY) or civilrights@ctps.org (please allow 14 days).

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.

繁體中文 (Traditional Chinese)

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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)

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.

Downtown Winchester

North Suburban Planning Council (NSPC)

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