



**B**

**SPEED,  
RELIABILITY, AND  
ACCESS REPORT**

*Route 57*

*Transit Priority Corridor*



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[Cover image source: Nelson\Nygaard](#)



# 1. ABOUT THE ROUTE 57 TRANSIT PRIORITY CORRIDOR

## I. PROJECT SUMMARY

The Boston Transportation Department's (BTD's) Route 57 Transit Priority Corridor (TPC) program will improve speed, reliability, and access to transit on Route 57, which is the fifth-highest ridership bus route in the Massachusetts Bay Transportation Authority (MBTA) system. Route 57 plays an important role in Boston's transit network, providing a frequent local bus connection among Watertown, Newton, Brookline, and the Boston neighborhoods of Allston, Brighton, and Fenway.

The TPC program is a new initiative by the BTD Transit Team that improves speed, reliability, and access on critical bus corridors within the City of Boston. This initiative will upgrade transit and related infrastructure on select bus corridors by adding bus lanes, transit signal priority, and bus-stop improvements. This initiative may also include improving pedestrian access to transit by upgrading curb ramps and repairing sidewalks. Implementing these improvements will help the City of Boston meet its mobility, safety, access, equity, and emission-reduction goals.



[A full Route 57 bus traveling eastbound with people standing inside. Image source: Nelson \ Nygaard.](#)

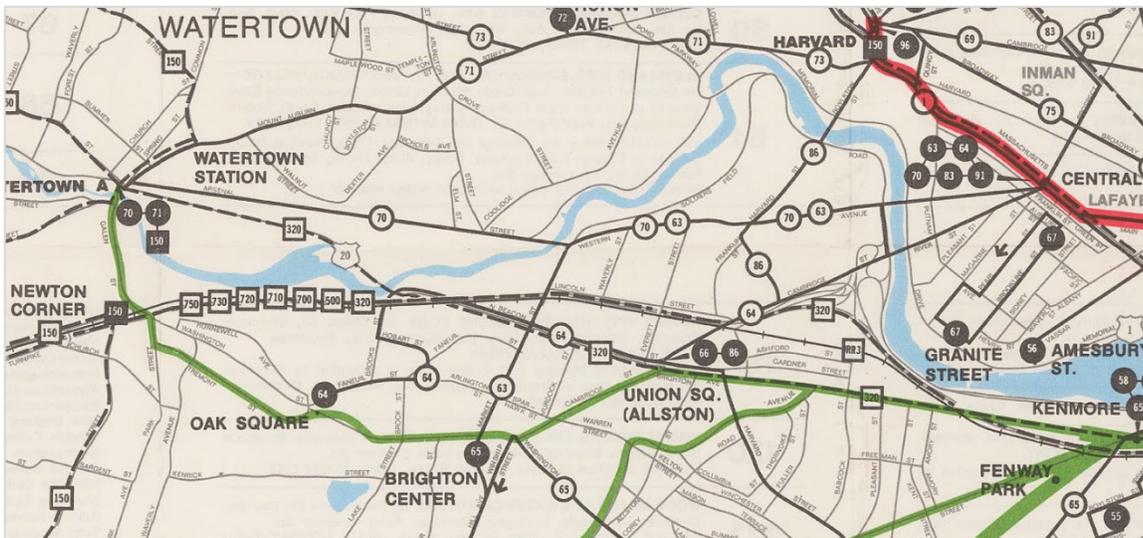
The TPC initiative for the Route 57 corridor will be conducted in two phases. An initial ‘quick-build’ phase will make changes which are simpler and faster to implement, such as adding flex-posts and changing pavement markings. A second phase of this initiative will involve longer-term improvements that require more significant changes such as new traffic-signal equipment and moving curblines.

## II. PROJECT GOALS AND BACKGROUND

The City of Boston Transportation Department’s Route 57 TPC goals are:

- **Accessibility:** We want to ensure all bus riders can wait comfortably at their bus stops and board the bus safely. This includes accessibility for people with disabilities.
- **Reliability:** We will look at infrastructure and signal improvements to help buses run on schedule.
- **Time Savings:** We will study where the buses are currently experiencing delays along their routes and explore solutions to save time for bus riders.

The Route 57 corridor was once served by the MBTA Green Line A Branch, with streetcars operating between Kenmore Station and Watertown Yard along almost the same alignment as the current Route 57 bus, which replaced rail service in 1969.<sup>1</sup>



[1967 MBTA system map showing Green Line A Branch. Map digitized by Wardmaps.](#)

Today, Route 57 is the fifth-highest ridership bus route in the MBTA system and serves a diversity of residents, land uses, and activity centers. Riders on the corridor experience several transit deficiencies including delays, poor reliability, problems accessing transit, and crowded vehicles.

Several recent planning efforts have recommended improvements to the Route 57 corridor, including adding dedicated bus infrastructure. Four of these key efforts and their recommendations are summarized in the following section.

### **Allston-Brighton Mobility Plan**

The Allston-Brighton Mobility Plan was developed by the Boston Planning & Development Agency (BPDA) and adopted by the BPDA Board in May 2021.<sup>2</sup> The multimodal plan was created in response to rapid growth currently occurring and projected to occur in Allston and Brighton.

The plan included robust community engagement over the course of three years, with four open houses, six workshops, and consultation with 10 civic groups. There were over 300 event attendees and over 1,600 comments received. After considering public input, the final plan included several recommendations:

- A pilot of peak-hour, peak-direction bus lanes on Washington and Cambridge streets from Parsons Street to Union Square.
- Permanent bus lanes from Oak Square to Union Square, if the pilot is successful.
- Specific bus-stop and accessibility improvements along the corridor.

In October 2021, as a follow-up to Allston-Brighton Mobility Plan recommendations, the Metropolitan Area Planning Council and the Boston Region Metropolitan Planning Organization's Central Transportation Planning Staff conducted a parking turnover and curb occupancy study along Washington and Cambridge streets between Oak Square and Union Square. That study concluded that an eastbound a.m. peak and a westbound p.m. peak bus/bike lane could be created by converting one existing parking lane; existing parking demand would be met during peak times with off-street parking lots and side streets.<sup>3</sup>

### **Go Boston 2030**

GoBoston 2030 is the City of Boston's comprehensive transportation plan. Completed in 2017, the plan involved a two-year, city-wide public process that worked closely with communities to recommend transportation interventions and 15-year targets for long-term improvements to Boston's transportation system.<sup>4</sup>

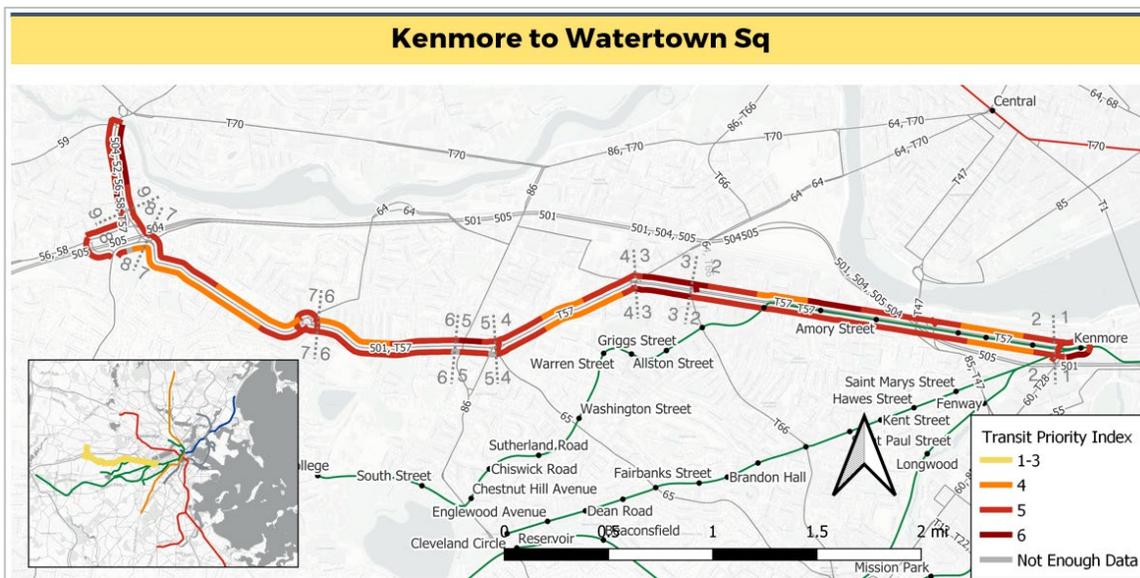


The plan received comments from thousands of members of the public and made two key recommendations for the Route 57 corridor:

- Install rapid-bus infrastructure and lanes on the Route 57 alignment from Oak Square to Commonwealth Avenue.
- Provide general reliability improvements on Route 57.

### MBTA Transit Priority Needs Assessment

As part of the MBTA’s Bus Network Redesign, the MBTA conducted an assessment in 2022 to identify places where transit priority treatments will most benefit future reliability.<sup>5</sup> Corridor segments were scored from 1 to 6 for level of potential improvement warranted, using criteria for frequency, travel-time savings, and passenger experience. All segments in the Kenmore to Watertown Square corridor scored between 4 and 6, indicating high benefit from transit priority. Segments of Galen Street in Watertown, Brighton Center, Union Square, Commonwealth Avenue, and Kenmore Square scored 6.



[Map showing high need for transit priority on the Route 57 corridor. Source: MBTA. December 12, 2022. Draft BNRD Transit Priority Needs Assessment. p. 51.](#)

### Allston-Brighton Health Collaborative Mobility Audits

The Allston-Brighton Health Collaborative (ABHC) conducted a series of mobility audits in 2022 to better understand access and mobility issues in Oak Square,



**Brighton Center, and Union Square. Key findings and recommendations from these audits are:**

#### **Oak Square<sup>6</sup>**

- **Add crosswalks with ramps and stripe existing crosswalks along Faneuil Street to prevent cars from blocking access.**
- **Consider redesigning Oak Square to operate as a modern roundabout to shorten crossing distances and reduce vehicle-pedestrian conflicts.**
- **Add bike parking throughout the Oak Square area to meet demand.**
- **Evaluate parking to limit double-parking and intersection blocking throughout.**

#### **Brighton Center<sup>7</sup>**

- **Improve visibility and signaling for crosswalks at Academy Hill Road and Chestnut Hill Avenue.**
- **Add new curb ramps and stripe crosswalk across Argus and Baldwin places to comply with the Americans with Disabilities Act (ADA).**
- **Repair curb ramps and repave crosswalks across Washington Street to improve access for pedestrians and mobility-device users.**
- **Consider removing Market Street slip lane to improve safety for all road users.**

#### **Union Square<sup>8</sup>**

- **Improve pedestrian signal timing and consider a scramble crossing for better pedestrian circulation.**
- **Examine traffic flows from Brighton Avenue and Cambridge Street to N Beacon and Washington streets to reduce congestion.**
- **Consider placemaking designs for park at firehouse to better use open space.**
- **Significantly improve Everett Street intersections for pedestrians and cyclists.**
- **Provide safer cycling infrastructure, especially for turning at Brighton Avenue.**

1. Belcher, Jonathan. *Changes to Transit Service in the MBTA District*. p. 219. January 23, 2023. <<http://roster.transithistory.org/MBTARouteHistory.pdf>>

2. Boston Planning & Development Agency. *Allston-Brighton Mobility Plan*. May 5, 2021. <<http://www.bostonplans.org/getattachment/67876652-47cf-4450-8725-6ab782be31e5>>

3. Boston Planning & Development Agency. *Allston-Brighton Mobility Plan Implementation Progress Report*, p. 5. November 2022. <<https://www.bostonplans.org/getattachment/a56068d2-2319-4c6b-bb5b-8d3d0b13144c>>



4. Boston Transportation Department. GoBoston 2030. October 28, 2021.

<<https://www.boston.gov/departments/transportation/go-boston-2030>>

5. MBTA. Draft BNRD Transit Priority Needs Assessment. p. 51. December 12, 2022.

6. Allston-Brighton Health Collaborative. Oak Square Mobility Audit. June 25, 2022.

<[https://docs.google.com/presentation/d/1p-Zwx0JknuAt0ZMBTgfLskjo\\_xcg5wr6X5wiYN2fBzE/edit#slide=id.g13aa1415a93\\_0\\_5](https://docs.google.com/presentation/d/1p-Zwx0JknuAt0ZMBTgfLskjo_xcg5wr6X5wiYN2fBzE/edit#slide=id.g13aa1415a93_0_5)>

7. Allston-Brighton Health Collaborative. Brighton Center Mobility Audit. April 14, 2022.

<[https://docs.google.com/presentation/d/1PaLBLpUWpkwBvNv1djEHIA9YhPXX0t\\_8Af\\_3SzQ5FmU/edit#slide=id.g12285e775cf\\_0\\_6](https://docs.google.com/presentation/d/1PaLBLpUWpkwBvNv1djEHIA9YhPXX0t_8Af_3SzQ5FmU/edit#slide=id.g12285e775cf_0_6)>

8. Allston-Brighton Health Collaborative. Union Square Mobility Audit. October 29, 2022.

<[https://docs.google.com/presentation/d/1mzKM\\_pXYv9iJC-PKOqoykfdSnXgHS2Zia-h5BdYsSIQ/edit#slide=id.g197c4de68ed\\_1\\_77](https://docs.google.com/presentation/d/1mzKM_pXYv9iJC-PKOqoykfdSnXgHS2Zia-h5BdYsSIQ/edit#slide=id.g197c4de68ed_1_77)>



## 2. EXISTING ROUTE 57 SERVICE

### I. EXISTING SERVICE

Route 57 Watertown Yard - Kenmore Station is an MBTA bus route operating through Watertown, Newton, and the Boston neighborhoods of Brighton, Allston, and Fenway. The route has a straight and direct alignment (except for the inbound portion of the route over I-90), primarily operating on Galen Street, Tremont Street, Washington Street, Cambridge Street, Brighton Avenue, and Commonwealth Avenue. Major activity centers along the Route 57 corridor include Watertown Square, Newton Corner, Oak Square, Brighton Center, Union Square, Packard's Corner, and Kenmore Square. Major destinations served by the route include One Newton Place, Oak Square YMCA, St. Elizabeth's Medical Center, Brighton High School, Saint Joseph Preparatory High School, Agganis Arena, and other Boston University sites.

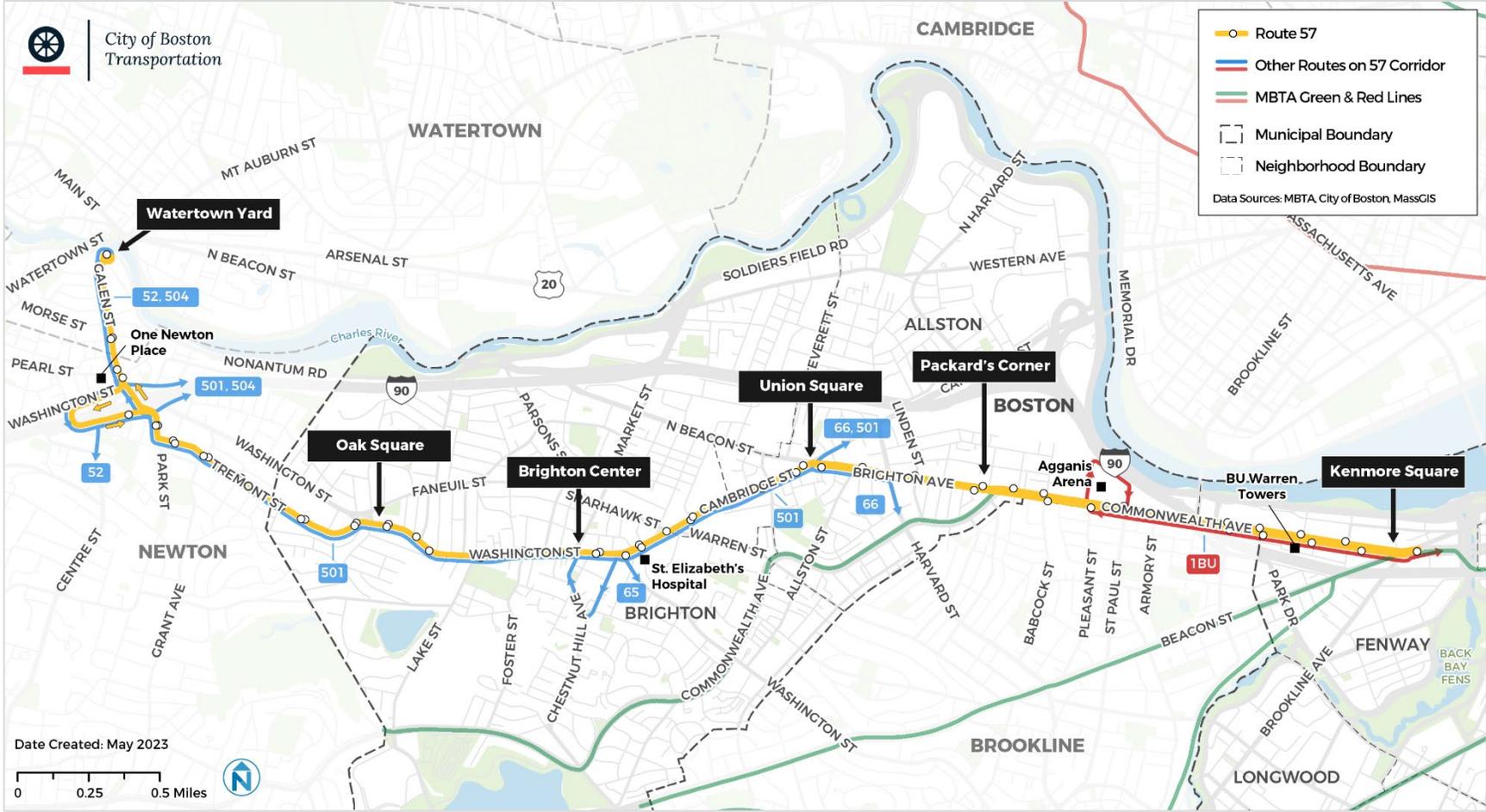
Other routes also serve portions of the Route 57 corridor and operate using the same transit infrastructure:

- 52 Dedham Mall - Watertown Yard
  - Operates through Newton Corner and on Galen Street in Watertown.
- 65 Brighton Center - Kenmore Station
  - Originates in Brighton Center.
- 66 Harvard Square - Nubian Station
  - Operates on Brighton Avenue in Allston.
- 501 Brighton Center - Federal Street & Franklin Street
  - Operates on Cambridge and Washington streets in Brighton and Allston, and on Tremont Street in Newton and Brighton.
- 504 Watertown Yard - Federal Street & Franklin Street
  - Operates through Newton Corner and on Galen Street in Watertown.
- Boston University Shuttle (BUS)
  - Operates on Commonwealth Avenue in Allston and Fenway.

The MBTA's Bus Network Redesign is planning changes to Route 57 and other routes that are important transfers on the Route 57 corridor. These changes will not impact the alignments of Route 57 or transfer points for routes 66 and 86 (important transfer routes), however. Changes proposed under BNRD are described in the 'Future Planned Changes' section of this report.



Figure 1: Route 57 Corridor and Alignment



The MBTA designates Route 57 as a Key Bus Route, meaning it has significant importance to the transit system. The route runs frequently with a long span of service. Route 57 operates five patterns but the primary route pattern between Kenmore and Watertown Yard is the vast majority of service, with the other patterns completing one trip each per day. The 57A route pattern, operating as a short turn from Kenmore to Oak Square, previously made more trips but has been cut back. This study focuses on the primary Route 57 pattern; descriptive statistics for this pattern are in Figure 2.

*Figure 2: Route 57 Service Overview*

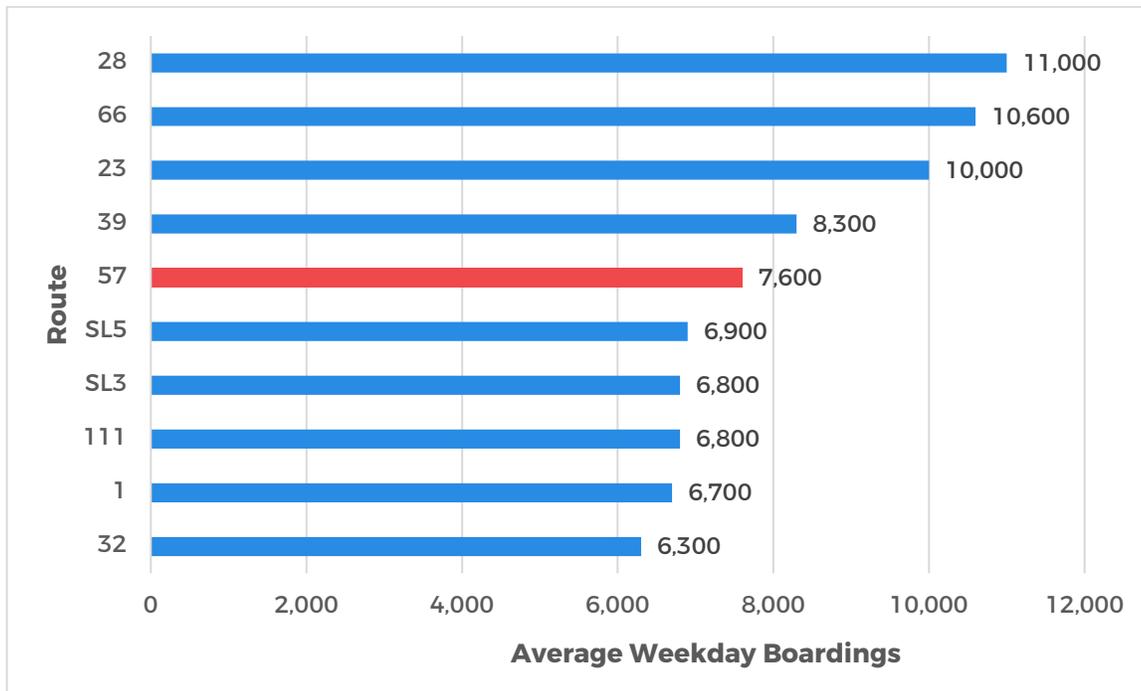
Day Type	Span of Service	Headway Range	Average Headways		
			AM Peak	Midday	PM Peak
Weekday	5:02 AM - 1:10 AM	5-25 mins	6 mins	8 mins	6 mins
Saturday	5:05 AM - 1:11 AM	7-18 mins	10 mins all day		
Sunday	6:00 AM - 1:12 AM	12-20 mins	15 mins all day		
Direction of Travel		Route Length	Number of Stops		
Inbound		5.7 miles	33		
Outbound		5.5 miles	31		
<b>Total</b>		<b>11.2 miles</b>	<b>64</b>		

Route 57 operates considerably more service on weekdays and Saturdays than on Sundays; there are 130 inbound and 132 outbound trips each weekday, 110 inbound and 109 outbound trips on Saturday, and 75 trips each direction on Sunday.

## II. EXISTING RIDERSHIP

As the fifth-highest ridership bus route in the MBTA system, Route 57 provides about 7,600 average weekday, 5,100 average Saturday, and 3,900 average Sunday passenger trips.

Figure 3: Top 10 Highest-Ridership Bus Routes in MBTA System, Fall 2022 Avg. Weekday Boardings



Note: Ridership data in this report were provided by the MBTA and represent average boardings, alightings, and load from the fall 2022 MBTA rating period, which was from August 28 through December 17, 2022. BUS ridership data were not included in this study.

## Ridership by Stop

Stop-level ridership is helpful for understanding where infrastructure to facilitate safe and efficient boarding and alighting is needed, where delay may occur due to long dwell times, and where people want to travel to and from. This section of the report looks at stop-level boardings and alightings for all routes with primary patterns that serve stops on the Route 57 corridor, as well as Route 57 alone.

In general, ridership is consistently high at stops along the Route 57 corridor (75% of stops have 25 or more average daily weekday boardings), except for the lower-density residential parts of Newton Corner south of I-90, where ridership is low. Parts of the corridor where especially high numbers of people board and alight on an average weekday are:

- Watertown Yard:  
688 boardings, 776 alightings
- One Newton Place:  
252 boardings, 175 alightings
- Oak Square:  
454 boardings, 562 alightings
- Brighton Center:  
620 boardings, 541 alightings
- Union Square:  
952 boardings, 702 alightings
- Kenmore Square:  
1,442 boardings, 1,632 alightings

Boarding and alighting patterns suggest many riders live in Brighton and points west, and use the bus to access destinations on Commonwealth Avenue, although many people use the corridor for other trips.

Express routes 501 and 504 operate on parts of the Route 57 corridor. Key stops for express bus ridership are Watertown Yard, served by Route 504, and Washington St @ Bacon St (One Newton Place), served by routes 501 and 504 (with connecting service to routes 52, 57, 553, 554, 556, and 558). Cambridge St @ Dustin St (St. Elizabeth's Medical Center) and Tremont St @ Washington St (Oak Square) are also important express bus stops.



Figure 4: Route 57 Corridor, All Routes, Eastbound Ridership by Stop, Fall 2022

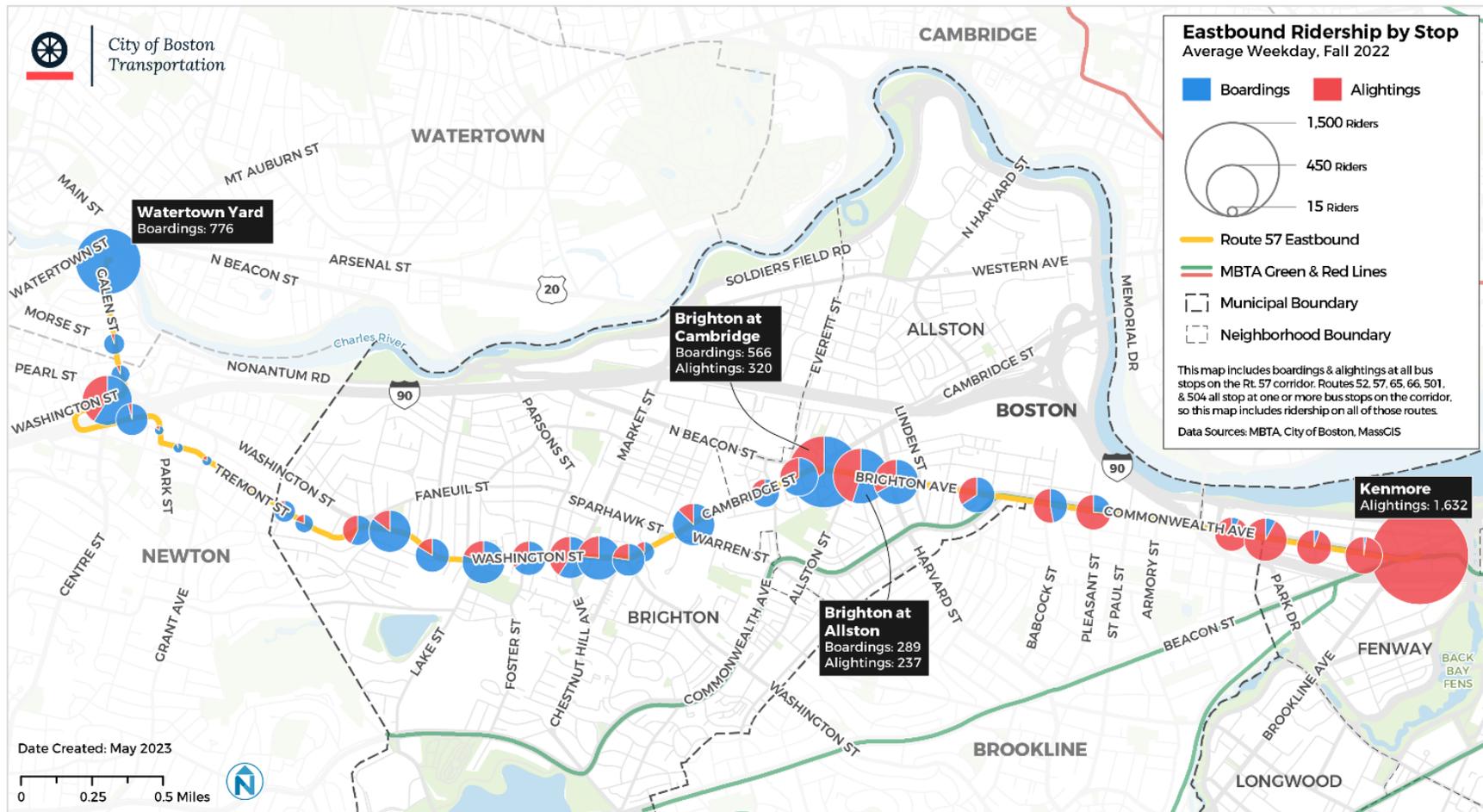


Figure 5: Route 57 Only Eastbound Ridership by Stop, Fall 2022

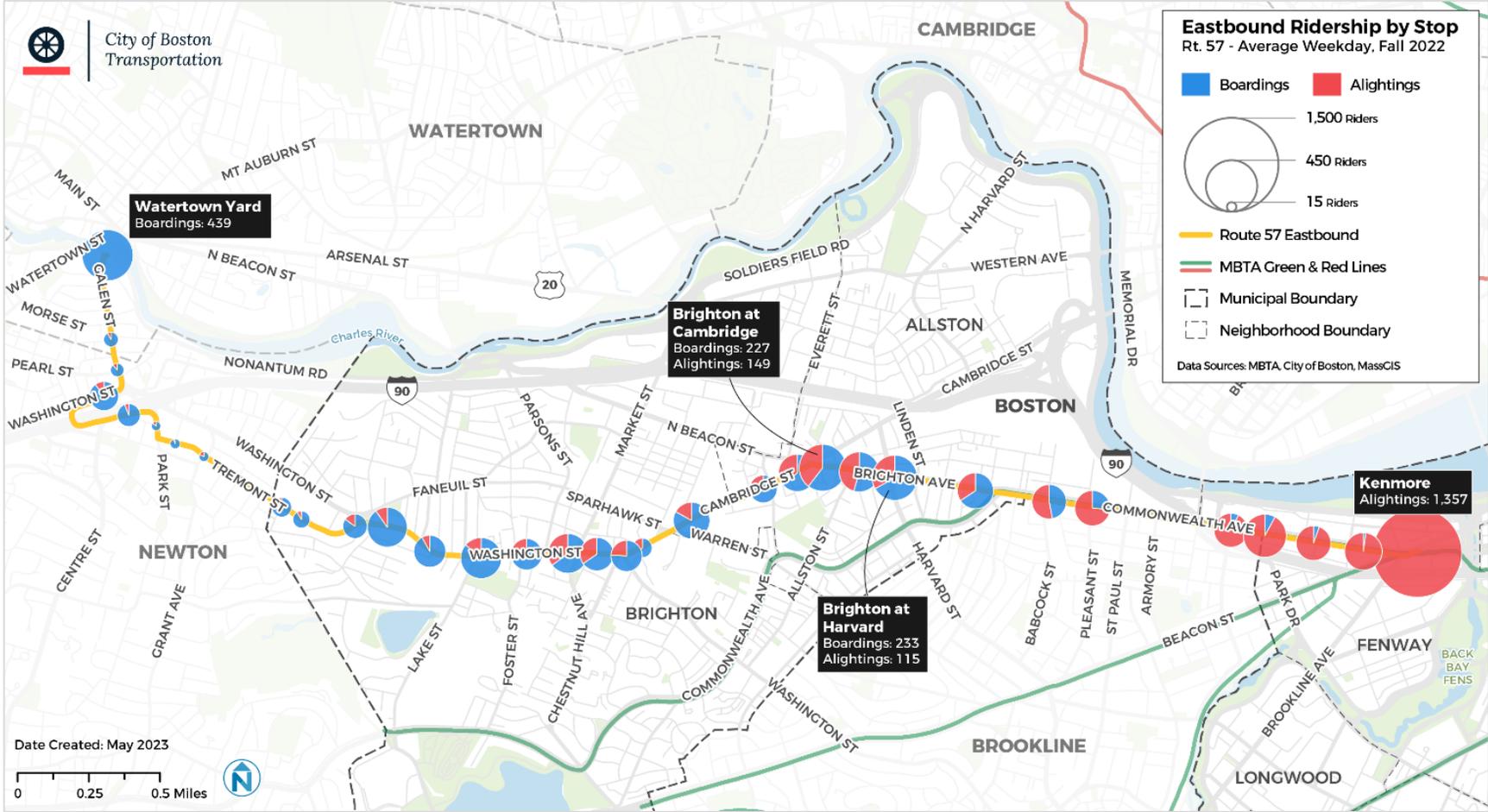


Figure 6: Route 57 Corridor, All Routes, Westbound Ridership by Stop, Fall 2022

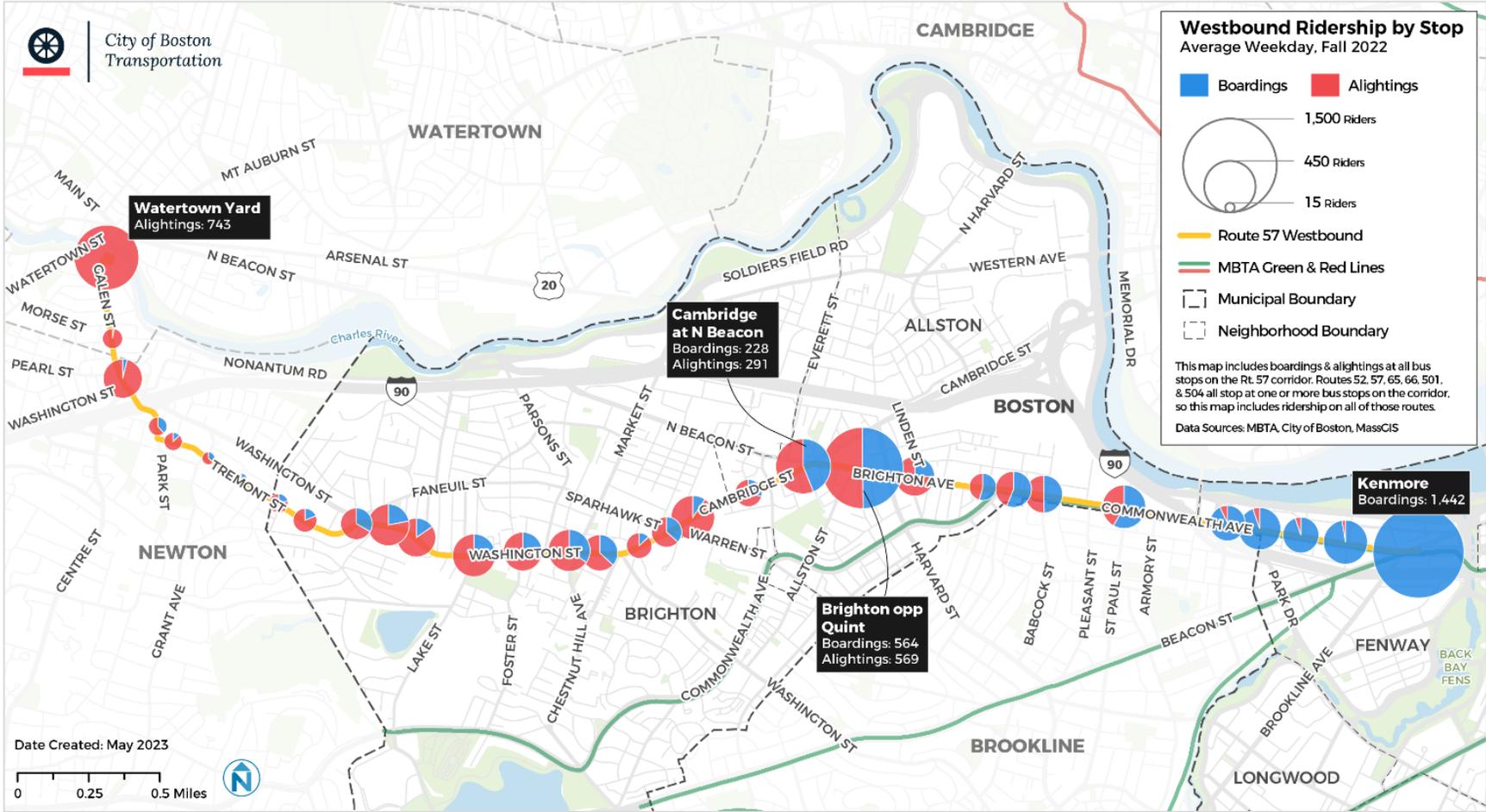
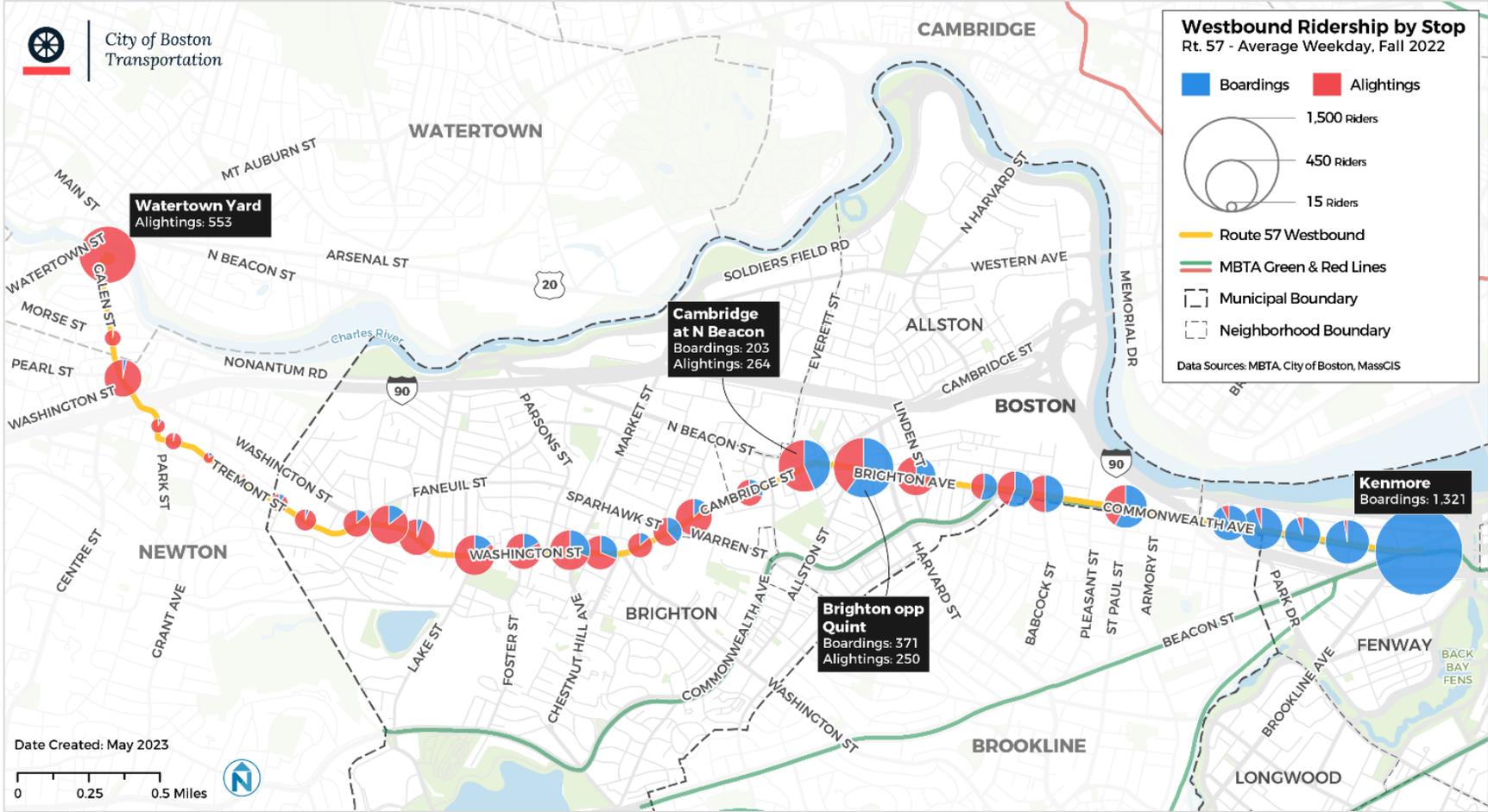


Figure 7: Route 57 Only Westbound Ridership by Stop, Fall 2022

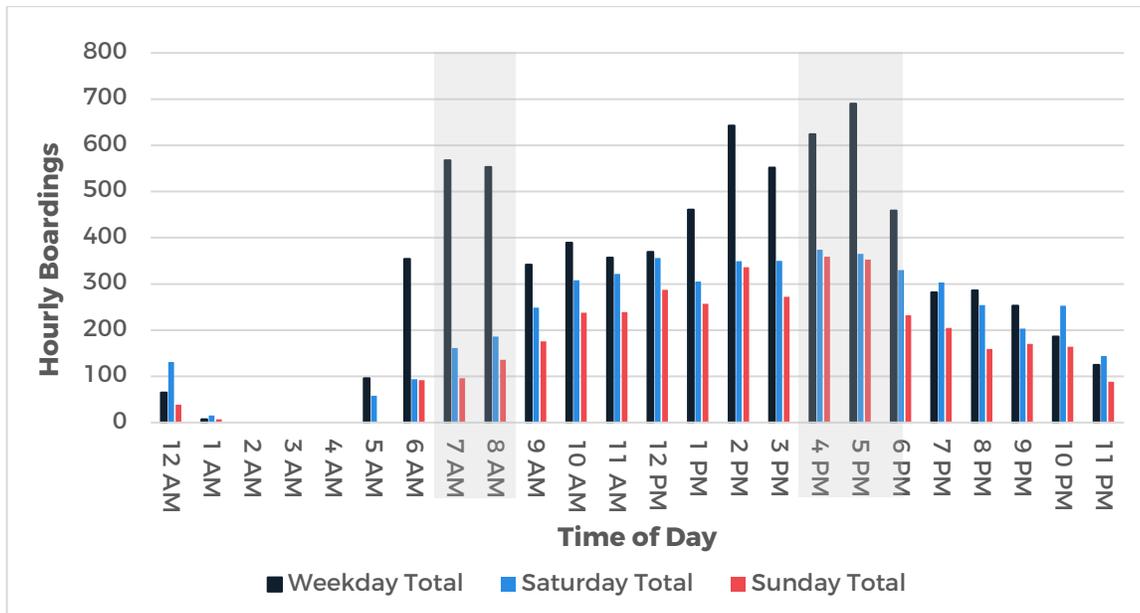


## Ridership by Trip

Trip-level ridership shows when there is demand for service and helps identify when speed and reliability improvements could benefit the most riders. On Route 57, there are clear weekday peaks in ridership; about 24% of weekday riders board from 6:00 a.m. to 9:00 a.m., and 39% of riders board from 2:00 p.m. to 6:00 p.m.

There is considerably less peak-period ridership on weekends, although mid-day and late-night weekend ridership is close to—and sometimes exceeds—weekday ridership.

Figure 8: Route 57 Average Daily Boardings by Hour by Day Type, Fall 2022



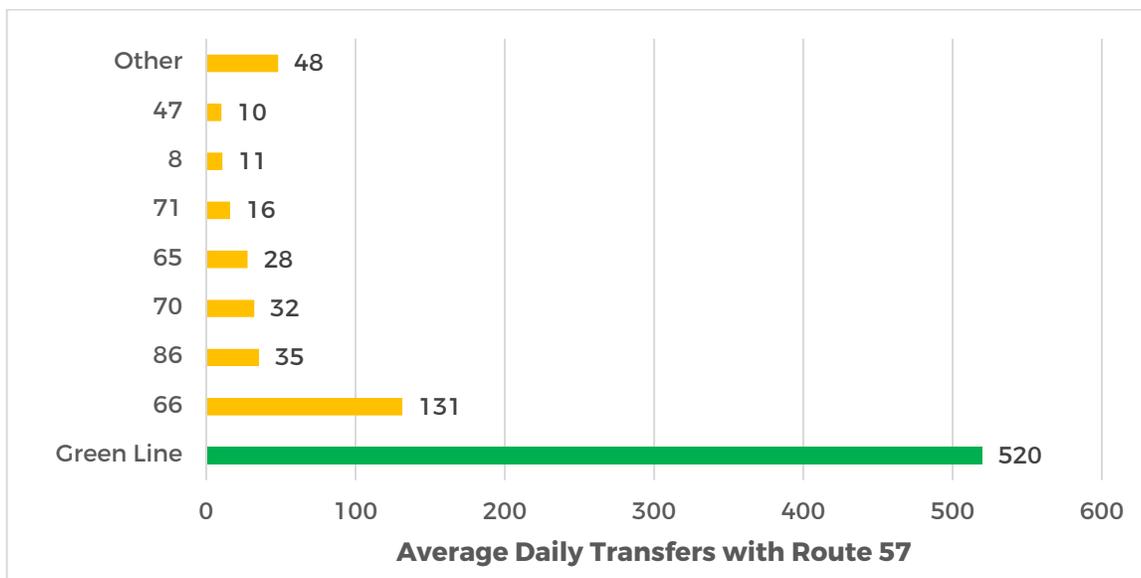
Notes: Shaded boxes indicate MBTA peak periods of 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:30 p.m. The top of the hour represents the hourly period following. For example, boardings assigned to 6:00 a.m. are all boardings that occur from 6:00 a.m. through 6:59 a.m.

### III. EXISTING TRANSIT CONNECTIONS

Understanding the most important transfers on the Route 57 corridor helps to determine where infrastructure facilitating these transfers should exist, and where coordinated route alignments and transit priority measures should be considered to ensure transfers are seamless, with as little impact on speed and reliability, as possible.

About 12% of all Route 57 average daily boardings involve a transfer. The vast majority of these transfers are to and from the Green Line, with most of the transfers occurring at Kenmore Station where there is a covered stairway and escalator/elevator connecting the Green Line to the busway. The other major transfer connection is with Route 66 in Union Square, and with a few other routes, shown in Figure 9.

Figure 9: Average Daily Transfers to and from Route 57



Source: MBTA data from November 2022.

The maps in Figure 10 and Figure 11 show where these transfers occur, as well as the key routes riders transfer to and from (Green Line and Route 66).

Figure 10: Route 57 Eastbound Transfers by Stop, November 2022

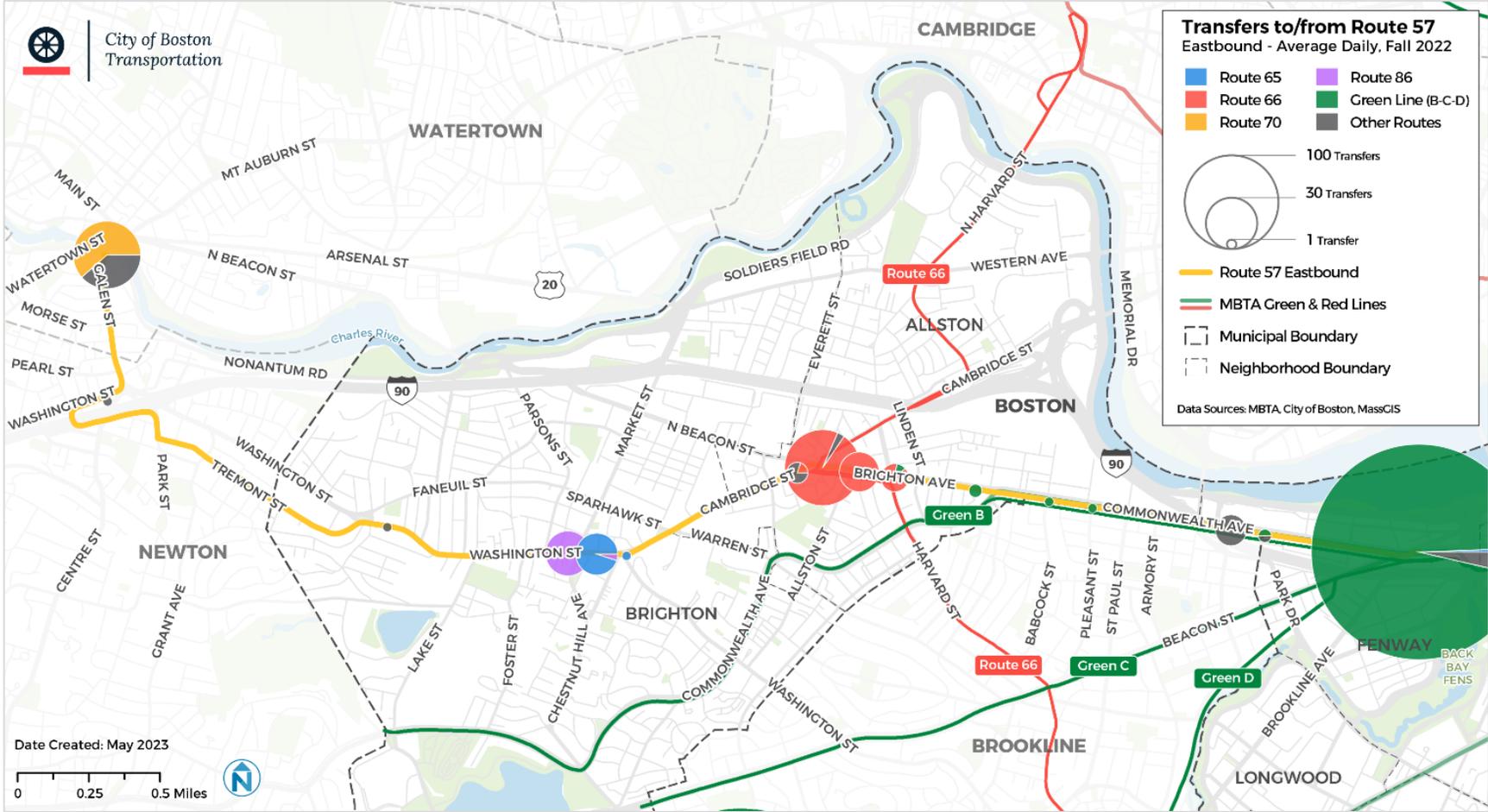
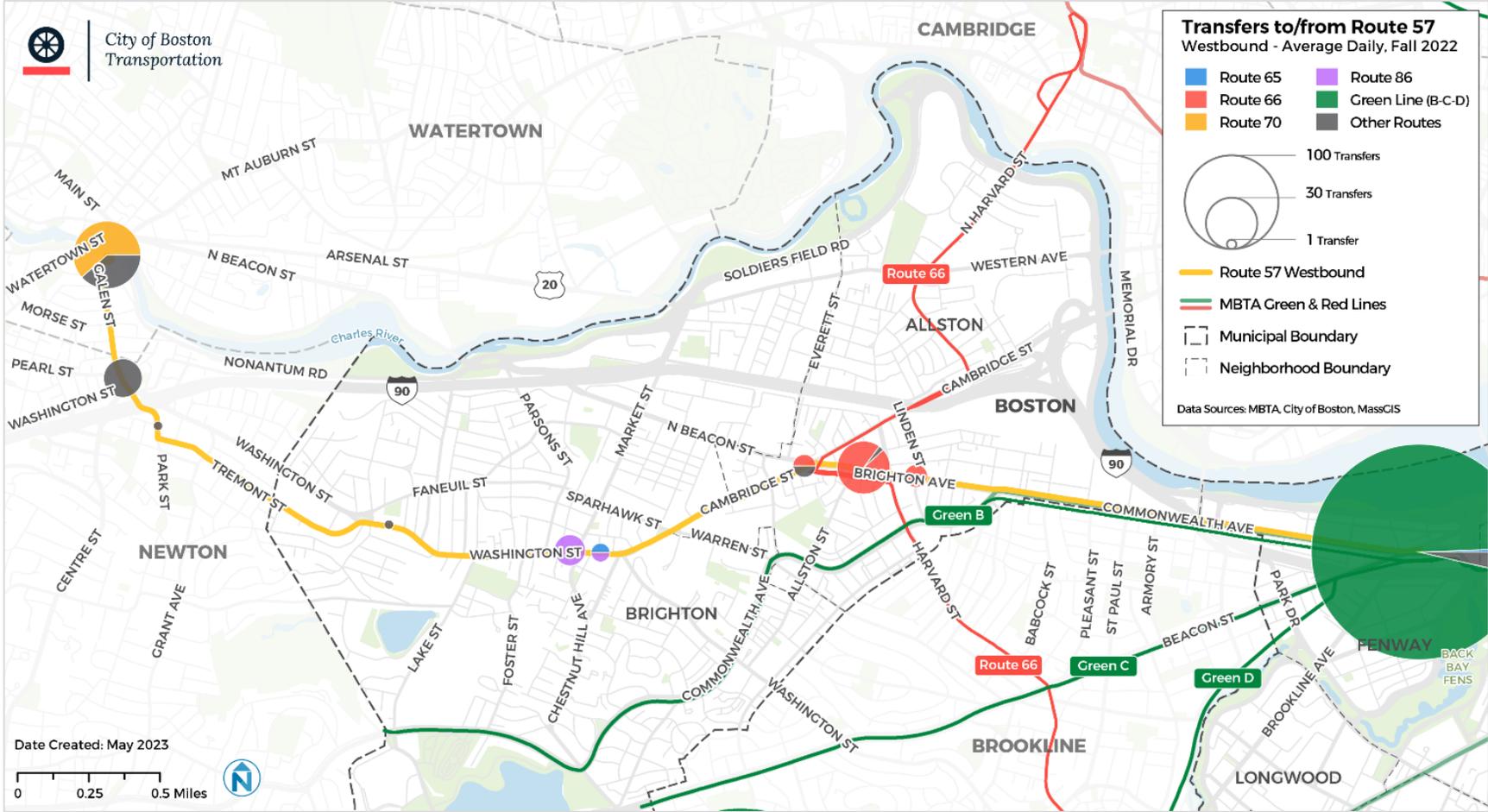


Figure 11: Route 57 Westbound Transfers by Stop, November 2022



#### IV. RECENT CHANGES

Knowing where recent changes have been made to transit and access-to-transit infrastructure is important context for how municipalities and the MBTA are improving service, and also where the public has recently experienced change and may be more or less open to additional change. There have been several major transit-related changes on the Route 57 corridor in recent years.

##### Commonwealth Avenue Phase 2A Redesign

By 2020, most of the Commonwealth Avenue Phase 2A project to add separated bike lanes, ADA-accessible Green Line stations, and floating bus stops was complete.<sup>9</sup> The addition of floating bus stops was one of the most impactful changes for Route 57, as it created a large, accessible, and dedicated space for people to board and alight the bus. Separating bus zones at floating islands may also have reduced the amount of time it takes the bus to merge into and out of the travel lane at stops.



[A person biking in a protected bicycle lane next to a floating bus stop on Commonwealth Avenue eastbound. Image source: Nelson\Nygaard.](#)

## Brighton Avenue Bus Lanes

In 2019, the City of Boston installed shared bus/bike lanes on Brighton Avenue between Union Square and Packard’s Corner.<sup>10</sup> The goal of this project was to increase bus speed and reliability, and increase actual and perceived safety for people biking, with an overarching vision of increasing bicycle and bus mode share. Anecdotal evidence, including interviews with MBTA bus operators, suggests the bus lanes work well when not occupied by double-parked vehicles. However, double-parking is a serious problem at certain times of day, especially in the p.m. peak.



[A Route 57 bus using the bus/bike lane on Brighton Avenue. Image source: MBTA.](#)

## Oak Square Traffic & Safety Improvements

In 2021, the City of Boston identified improvements to Oak Square to increase pedestrian and bicycle visibility, and reduce turning speeds.<sup>11</sup> The City implemented these improvements by adding green-painted bicycle lanes leading up to and in the Oak Square traffic circle, along with flexible bollard curb extensions. The bicycle lanes provide highly visible space for people biking.

## Plan for Accessible Transit Infrastructure

The MBTA's Plan for Accessible Transit Infrastructure (PATI) identified bus stops throughout the MBTA's bus network that need accessibility upgrades so all people—including those with disabilities—can access both the bus stop and the bus at the stop. Since PATI was launched, three stops on Commonwealth Avenue identified as 'critical' have been upgraded to satisfy accessibility requirements: 933, 956, and 958. Stops 915 (Washington Street @ Langley Rd) and 977 (Washington Street @ Oak Square Ave) are currently being upgraded.

## V. PLANNED FUTURE CHANGES

The Route 57 corridor is the subject of several ongoing studies and implementation projects, with changes planned for the near- and long-term future. Parking and curb use, roadway channelization, transit priority, and active transportation projects will change the corridor in the near and distant future. Descriptions of some of these projects are included in this section.

### Bus Network Redesign

The MBTA Bus Network Redesign will transform bus service in Greater Boston with more high-frequency routes and all-day service across the service area. Simplified routes with better connections will also help the MBTA bus network more equitably serve transit-dependent riders.<sup>12</sup> Changes related to the Route 57 corridor are:

- **Route 57 (becomes T57)**
  - Service every 15 minutes or better from 5:00 a.m. to 1:00 a.m., seven days per week.
  - No alignment change.
- **Route 56**
  - New route: alignment from Waltham to Newtonville, Newton Corner, and Watertown Yard via Washington and Galen streets.
  - Service every 60 minutes or better from 6:00 a.m. to 7:00 p.m.; every 90 minutes or better from 7:00 p.m. to 10:00 p.m.; seven days per week.
- **Route 58**
  - New route: alignment from Waltham to West Newton, Newtonville, Newton Corner, and Watertown Yard via Washington and Galen streets.
  - Service every 60 minutes or better from 6:00 a.m. to 7:00 p.m.; every 90 minutes or better from 7:00 p.m. to 10:00 p.m.; seven days per week.



- **Route 66 (becomes T66)**
  - Service every 15 minutes or better from 5:00 a.m. to 1:00 a.m.; seven days per week
  - No alignment change in Route 57 corridor.
- **Route 86**
  - Service every 30 minutes or better from 5:00 a.m. to 10:00 p.m.; every 45 mins or better from 10:00 p.m. to 1:00 a.m.; seven days per week.
  - No alignment change in Route 57 corridor.

### **Kenmore Square Projects**

Two ongoing projects are planning changes to Kenmore Square:

- The MBTA is leading an effort to redesign Kenmore Station, with extended subway platforms, a new eastern headhouse, and an expanded busway with additional bus bays.
- Concurrently, the BPDA is completing the Fenway-Kenmore Transportation Action Plan, which seeks to create a more efficient multimodal network for the Kenmore Square area, including by exploring bus lanes on Brookline Avenue connecting Kenmore with the Longwood Medical Area.

Additionally, at least five real-estate development projects are currently planned, permitted, or in construction in Kenmore Square. These projects will increase density and transit demand by adding 1.6 million square feet of development to the area.

### **Commonwealth Avenue Active Transportation Project**

As a continuation of the Commonwealth Avenue Phase 2A Redesign, the City of Boston is working closely with Boston University (BU) to implement separated bike lanes on Commonwealth Avenue between University Road/Carlton Street and Beacon Street/Massachusetts Avenue. The project will improve safety and the bicycling experience for the 1,000 to 2,000 people who ride on the corridor daily.<sup>13</sup>

### **Commonwealth Avenue Bus Lanes**

The MBTA is planning to work with the City of Boston to implement side-running bus lanes on Commonwealth Avenue between Kenmore Square and Packard's Corner. These lanes are planned to enter design in 2023 and may be constructed in 2023 or 2024.



## **Brighton Avenue TSP Pilot**

The MBTA and City of Boston are launching a transit signal priority (TSP) pilot in mid-June 2023 on Brighton Avenue for routes 57 and 66 at three intersections:

- Brighton Avenue at Allston Street
- Brighton Avenue at Harvard Avenue
- Brighton Avenue at Linden Street

The purpose of the pilot is to test a new TSP system. If the pilot is successful, the MBTA and City of Boston may expand this approach to TSP elsewhere in the bus network.

## **Brighton Avenue Curb Regulation Changes**

BTD's New Mobility team surveyed parking turnover and curb occupancy along Brighton Avenue between Harvard Avenue and Linden Street in November 2022. The Department is currently drafting recommendations for changes to curbside parking regulations, including adding short-term parking to reduce double-parking in bus lanes.<sup>14</sup> Curb regulation changes may be made before the end of 2023.

## **North Beacon Street Active Transportation Improvements**

The BTD Active Transportation team is planning to add protected bike lanes to North Beacon Street in 2023 or 2024. These planned changes will likely involve removing parking on North Beacon Street west of Cambridge Street, and re-channelizing North Beacon Street so that it has one eastbound and one westbound general-purpose travel lane, along with eastbound and westbound protected bicycle lanes.

## **75 Tremont Street Bus-Stop and Crossing Changes**

As part of a real-estate development at 75 Tremont Street in Brighton, the City of Boston and the MBTA plan to relocate bus stops 910 (Tremont St @ Tremont Pl) and 981 (Tremont St opp Tremont Pl) approximately 100 feet to the east and west of their respective current locations. The City also plans to improve the stops with ADA-compliant landing pads, new sidewalks, at least one shelter, a longer eastbound bus zone, and a safer crosswalk with concrete median island.<sup>15</sup>



## **Newton Corner Improvements Project**

The Massachusetts Department of Transportation (MassDOT) led a road safety audit in May 2020 to identify potential deficiencies and possible improvement opportunities for the ramps and roadway systems at I-90 Exit 17 in Newton Corner. Some key takeaways for transit from the draft audit were:

- Consider a transit contraflow lane in the long term.
- Consider bus lanes and signals at the following locations:
  - Washington Street westbound (north of I-90) corridor
  - Washington Street eastbound (east of Centre Street)
- Consider constructing median islands to better serve transit riders.
- Implement TSP or exclusive transit signals.
- Improve transit circulation by relocating or consolidating bus stops.

The study is currently drafting concepts for short- and medium-term safety and mobility improvements in Newton Corner, with a focus on pedestrian and bike connections. Public outreach with draft concepts is expected to occur in summer of 2023 and final recommendations are expected in late 2023.<sup>16</sup> This project is outside the City of Boston's jurisdiction and so improvements will likely be completed by MassDOT and/or City of Newton.

## **99 Galen Street Bus Lane and Turnaround**

As part of a real-estate development at 99 Galen Street in Watertown, the developer, in coordination with the City of Watertown, is planning to replace the Galen Street northbound parking lane in front of the development with an approximately 500-foot bus lane. This lane will improve speed and reliability for riders on buses serving Watertown Yard. Enforcing no stopping in the bus lane will be important for ensuring the lane operates as intended.

In addition, the development is helping to support a new bus turnaround and bus stops that will allow buses to avoid entering Watertown Yard and to instead turn around using Water Street.

## **VI. OPERATOR EXISTING CONDITIONS REPORTING**

Interviewing bus operators is a valuable way to gather feedback on what works and does not work on a bus corridor. To collect operator reports on existing conditions, the project team conducted drop-in interviews with operators at MBTA's Cabot Yard



break room in April 2023, interviewing MBTA employees that operate routes 57, 501, and others. Key findings from the interviews are:

### **Speed and Reliability**

- Operators reported that the Brighton Avenue bus lanes are frequently used for double-parking, especially by e-hailing and food delivery services. This causes bus operators to board and alight passengers in the road, which is especially difficult for riders using wheelchairs or other mobility devices.
- Operators complained about stop failure occurring at several bus stops in commercial areas due to bus stops being used as loading zones by trucks. This was reported as especially true in Brighton Center.
- Operators noted excessive congestion throughout the corridor, causing the route to run late. Backup areas included Newton Corner at I-90, Brighton Center, Union Square, Brighton Avenue generally, and at the BU Bridge.
- Operators reported that there is not enough space for buses to lay over in the Kenmore Station busway.

### **Access**

- Operators noted that floating bus stops with bike lanes between the sidewalk and the bus stop were sometimes dangerous for people boarding and alighting buses, as they are not always prepared for fast-moving bicycles and scooters in the bike lanes.

### **Scheduling**

- Nearly all interviewed operators reported that current Route 57 scheduling was too aggressive, and they are often unable to meet timepoints or have time for a bathroom break in-between runs. Operators requested additional time in the schedule and more recovery time, especially to allow for bathroom breaks.

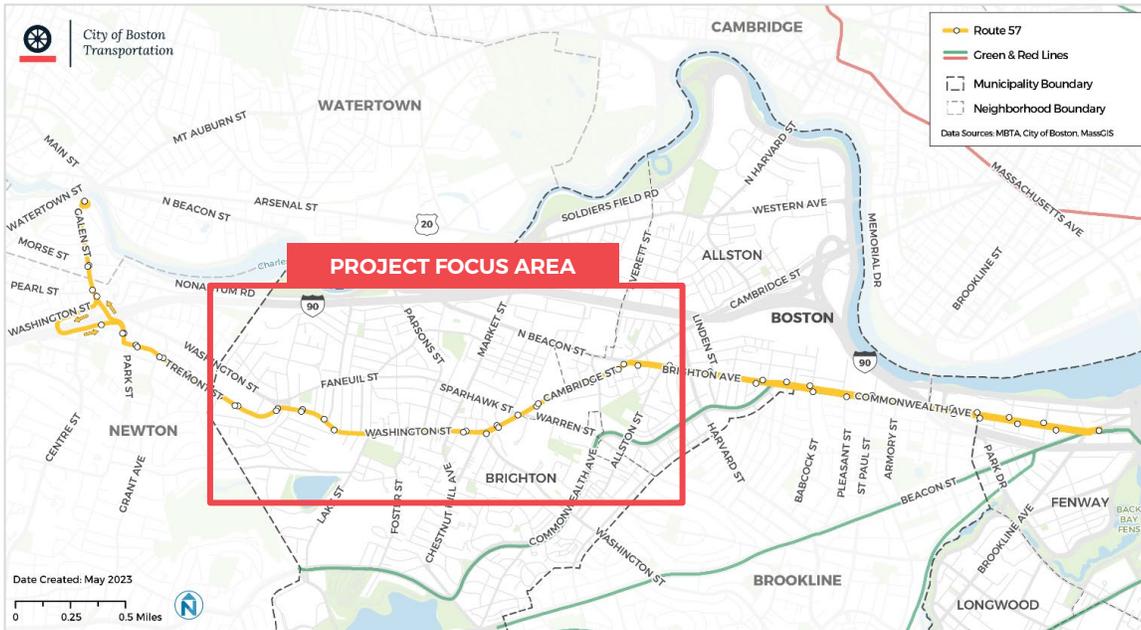


[Collecting Route 57 operator feedback At Cabot Yard. Image source: MBTA.](#)

## VII. PROJECT FOCUS AREA

The first phase of this TPC effort focuses on the section of the Route 57 alignment between Union Square and the Boston/Newton city line. This focus area is based on the projects identified in GoBoston 2030 and the Allston-Brighton Mobility Plan. Although transit improvements may be warranted along the entire length of Route 57, the first phase of this TPC effort will use a quick-build approach targeted to the project focus area. Improvement recommendations for other parts of the corridor may be made in this report, but are not the focus of quick-build improvements. Improvement recommendations that are outside the scope of what is possible in a quick-build project may also be recommended for longer-term implementation.

**Figure 12: Route 57 Project Focus Area**



9. City of Boston Transportation Department. May 15, 2023. Commonwealth Ave Phase 2A.

<<https://www.boston.gov/departments/transportation/commonwealth-ave-phase-2a>>

10. City of Boston Transportation Department. Brighton Avenue Curb Extensions. May 15, 2023.

<<https://www.boston.gov/brighton-avenue-curb-extensions>>

11. Kittelson & Associates. Brighton: Oak Sq at YMCA Installation Guide for Site #18. September 2021.

12. MBTA. Bus Network Redesign. Accessed June 16, 2023. <<https://www.mbta.com/projects/bus-network-redesign>>

13. City of Boston Transportation Department. Commonwealth Avenue (BU East) Bike Lanes. May 16, 2023.

<<https://www.boston.gov/departments/transportation/commonwealth-avenue-bu-east-bike-lanes>>

14. Boston Planning & Development Agency. Allston-Brighton Mobility Plan Implementation Progress Report. November 2022.

<<https://www.bostonplans.org/getattachment/a56068d2-2319-4c6b-bb5b-8d3d0b13144c>>

15. Boston Planning & Development Agency. Board Approved Memo on 75 Tremont Street, Brighton. March 16, 2023.

<<https://bpda.app.box.com/s/2auwan2zyklyr2zcd41ebxufy8tsat>>

16. Massachusetts Department of Transportation. Newton Corner Improvement Project. May 8, 2023.

<<https://www.mass.gov/lists/meeting-materials-and-documents-newton-corner-improvements-project>>

# 3. ACCESS TO TRANSIT

## I. EXISTING ACCESS TO TRANSIT

Transit riders on the Route 57 corridor face varying challenges to accessing bus service safely and comfortably. Much of the current infrastructure and facilities require upgrades to provide safe and accessible connections for all. Locations within the corridor especially suited for enhancements are detailed in this section.

### Kenmore Station

At Kenmore Station, there is a strong desire line for a mid-block crossing between the bus platform on the north side of eastbound Commonwealth Avenue to the sidewalk and pedestrian realm on the south side, but there is currently no crosswalk. Many people cross the street without a crosswalk here, as shown by the formerly grassy median which has been trodden to dirt.



[Two people walk across Commonwealth Avenue after alighting Route 57. A formal crossing would serve this desire line and reduce the risk of cars hitting pedestrians. Image source: Nelson \Nygaard.](#)

In addition, there is no crossing on the south end of Kenmore Street between eastbound and westbound Commonwealth Avenue, connecting the busway area with the Kenmore Block plaza to the east. Existing crosswalks in this area are also in variable condition, with some in poor condition.

## Brighton Avenue

On an average weekday, there are about 3,500 boardings and alightings on Brighton Avenue between Union Square and Packard's Corner. This section of the corridor generally has narrow sidewalks and so lacks critical bus-stop amenities including shelters. Illegal parking in bus zones and the bus lanes also poses access issues, as operators report having to make a high number of in-lane stops for boarding and alighting, which is especially challenging for people with disabilities. Bus-stop bumpouts and more robust traffic enforcement may mitigate some of these issues.

## Oak Square

Accessing bus stops around Oak Square can be a challenge. As identified in the Allston-Brighton Health Collaborative mobility audit, residential streets that connect Faneuil Street to Washington Street lack curb ramps and striped crossings at the northern ends of Brackett Street, Montfern Avenue, Oak Square Avenue, Fairbanks Street, and Turner Street. Additionally, there is currently a large gap between crosswalks along Washington Street, with about 1,200 feet between the YMCA crossing and Fairbanks Street. The City of Boston is in the process of adding a crossing at Oak Square Avenue to improve this situation.

Oak Square itself is designed primarily for auto movement. Redesigning the square to prioritize public space and/or active transportation and transit would likely improve non-auto mobility and reduce auto pollution in the immediate area. The simplest way to accomplish this would be to eliminate auto access to certain streets and reclaim space from autos.

## Newton Corner and Brighton Bus-Stop Spacing

Bus-stop spacing along the Route 57 corridor largely complies with MBTA bus-stop spacing guidelines<sup>17</sup>, which call for stops on key bus routes to be spaced about 700 to 1,300 feet apart. The section of the corridor between I-90 and Oak Square, however, has stops that are spaced too closely together, reducing speed and reliability by causing buses to stop often. In Brighton, for instance, eastbound stops 909 and 910 are spaced about 420 feet apart. In Newton, westbound stops 985, 986, and 987, as well as eastbound stops 904, 905, and 906 are spaced about 500 feet apart.

A 2020 bus-stop cluster analysis conducted as part of the Plan for Accessible Transit Infrastructure (PATI) recommended stop pair 905/986 be eliminated.<sup>18</sup> This would improve speed and reliability on the bus, reduce maintenance requirements, and impact relatively few riders. There are only 23 average weekday boardings combined



at the two stops, and walk distance to the nearest stop for those riders would increase by only about 500 feet.

### **Newton Corner I-90 Overpass**

For people walking and biking in the I-90 overpass area of Newton Corner, crossing roadways can be uncomfortable or unsafe. Some of the connecting roads in the I-90 overpass area are five lanes wide and used by drivers that have recently exited the highway, leading to excessive speeds. Bicycle and pedestrian improvements that allow people to access bus stops in this area more safely and comfortably are needed. In addition, sidewalks near bus stops in this area are in variable condition, with some in poor condition.

## **II. EXISTING BUS-STOP AMENITIES**

Bus-stop amenities make riding transit safer and more comfortable, especially in Boston where rain, snow, and extreme temperatures are common. One of the most important amenities for safety and comfort is a shelter, which protects people from precipitation, wind, and direct sunlight. Other important amenities include benches and trash barrels. This section of the report is not a comprehensive audit of every bus stop on the Route 57 corridor. Instead, it highlights bus-stop amenity issues that could be mitigated as part of the Route 57 TPC process.

### **Shelters**

Ensuring high-ridership bus stops have shelters is critically important for riders. The MBTA Bus Stop Planning and Design Guide outlines the process for determining if a bus stop warrants a shelter. All stops with more than 70 average weekday boardings are automatically eligible for shelters, while stops with 25 to 70 boardings can become eligible through other factors.<sup>17</sup> There are 15 stops on the Route 57 corridor which meet or exceed the 70 average weekday boarding threshold, but do not have shelters.

Figure 13: Stops Eligible for Shelters

Direction	Stop Name	Boardings	Bench Presence
WB	Commonwealth Ave @ St Mary's St	291	None
EB	Brighton Ave @ Allston St	289	Bench only
EB	Washington St @ Breck Ave	259	Bench only
EB	Washington St opp Waldo Terr	254	Bench only
EB	Brighton Ave @ Harvard Ave	233	None
WB	Cambridge St @ N Beacon St	228	Bench only
EB	Washington St @ Chestnut Hill Ave	179	None
EB	Washington St @ Langley Rd	165	Bench only
EB	Cambridge St @ Barrows St	159	None
EB	Brighton Ave @ Commonwealth Ave	146	None
EB	Washington St @ Foster St	133	None
EB	Cambridge St @ Gordon St	109	Bench only
WB	Washington St @ Market St	104	None
WB	Washington St @ Waldo Terr	83	Bench only
EB	Galen St @ Boyd St	71	None



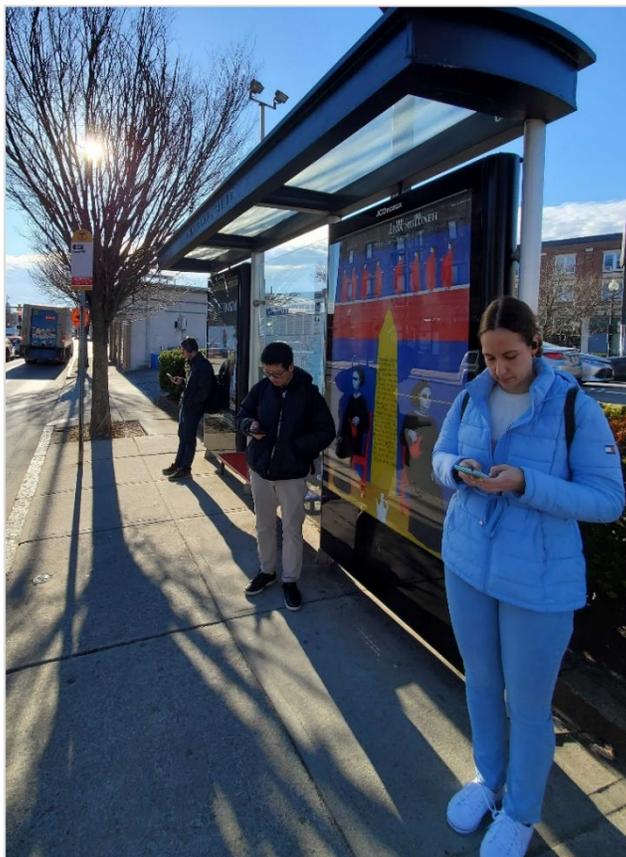
[Passengers in Oak Square boarding an eastbound Route 57 bus. This bus stop, which averages about 250 weekday boardings, does not have a shelter. Image source: Nelson\Nygaard.](#)

Figure 14: Route 57 Eastbound Boardings and Amenities by Stop





Where full-size shelters cannot fit in the existing sidewalk right-of-way, the MBTA should consider using smaller, 'sideless' shelters, similar to the example at N Beacon @ Cambridge St served by Route 64. Although there are some drawbacks to this shelter type, they provide at least some valuable protection from the elements for riders and represent a visible commitment to transit from the City of Boston and the MBTA.



[At right: MBTA bus riders waiting at a small bus shelter on a narrow sidewalk. Image source: Nelson\Nygaard.](#)

## **Bluebikes**

Including Bluebike bike-share stations at high-ridership bus stops can improve access to transit. Most of the highest-ridership bus stops on the Route 57 corridor (stops with over 250 average weekday boardings) have Bluebike stations within 500 feet (about a two-minute walk), but a few do not:

- Brighton Ave opp Quint Ave (WB)
- Brighton Ave @ Allston St (EB)
- Cambridge St opp Dustin St (EB)
- Washington St opp Waldo Terr (EB)

Adding Bluebike stations at these stops could improve access to transit for existing riders and increase ridership by making transit accessible to people who aren't currently riding.

## Commonwealth Ave @ St Mary's St (Westbound)

This is the busiest bus stop in the BU area without a shelter or other amenities, seeing almost 300 average weekday boardings. The sidewalk at this stop is occupied by a large granite-bound planter, leaving only a very narrow area at the edge of curb for people to board and alight the bus, and the area is not easily accessible to people using many mobility devices, including walkers or wheelchairs. Riders waiting for the bus must either stand back from the street and risk not being seen by the bus operator, or stand on an approximately three-foot unsheltered strip of sidewalk at the curb. There are no amenities at the stop, though there are benches nearby.



[A barren planter occupies most of the bus-stop waiting area. Riders waiting to board must stand either uncomfortably close to the road or far away from the stop, where they risk the bus not seeing or stopping for them. There are no amenities at this stop. Image source: Nelson\Nygaard.](#)

## Watertown Yard

The passenger waiting area at Watertown Yard lacks the enhanced amenities that a high-boarding terminal station or busway warrants, such as a large shelter or canopy, major wayfinding installations, and shielding from the noise and pollution of the nearby intersection. There are two regular bus shelters and a few magazine stands. The concrete and asphalt underfoot are deteriorated. Improving amenities at this bus station would make riding safer and more comfortable for the approximately 700 average daily riders using the stop, and would likely encourage additional ridership.



[People waiting for a bus at Watertown Yard. The stop does not have a large waiting area or other amenities, and the concrete and asphalt are deteriorated. Image source: Nelson \ Nygaard.](#)

New shelters and passenger waiting areas are planned nearby as part of the 99 Galen Street development.

### III. SAFETY

The City of Boston is committed to a Vision Zero policy of eliminating fatal and serious traffic crashes by 2030. As part of this Vision Zero policy, City planning and roadway design efforts—such as the Route 57 Transit Priority Corridor—look at traffic safety data to ensure plans account for high-crash locations and safety improvements can be made where needed.

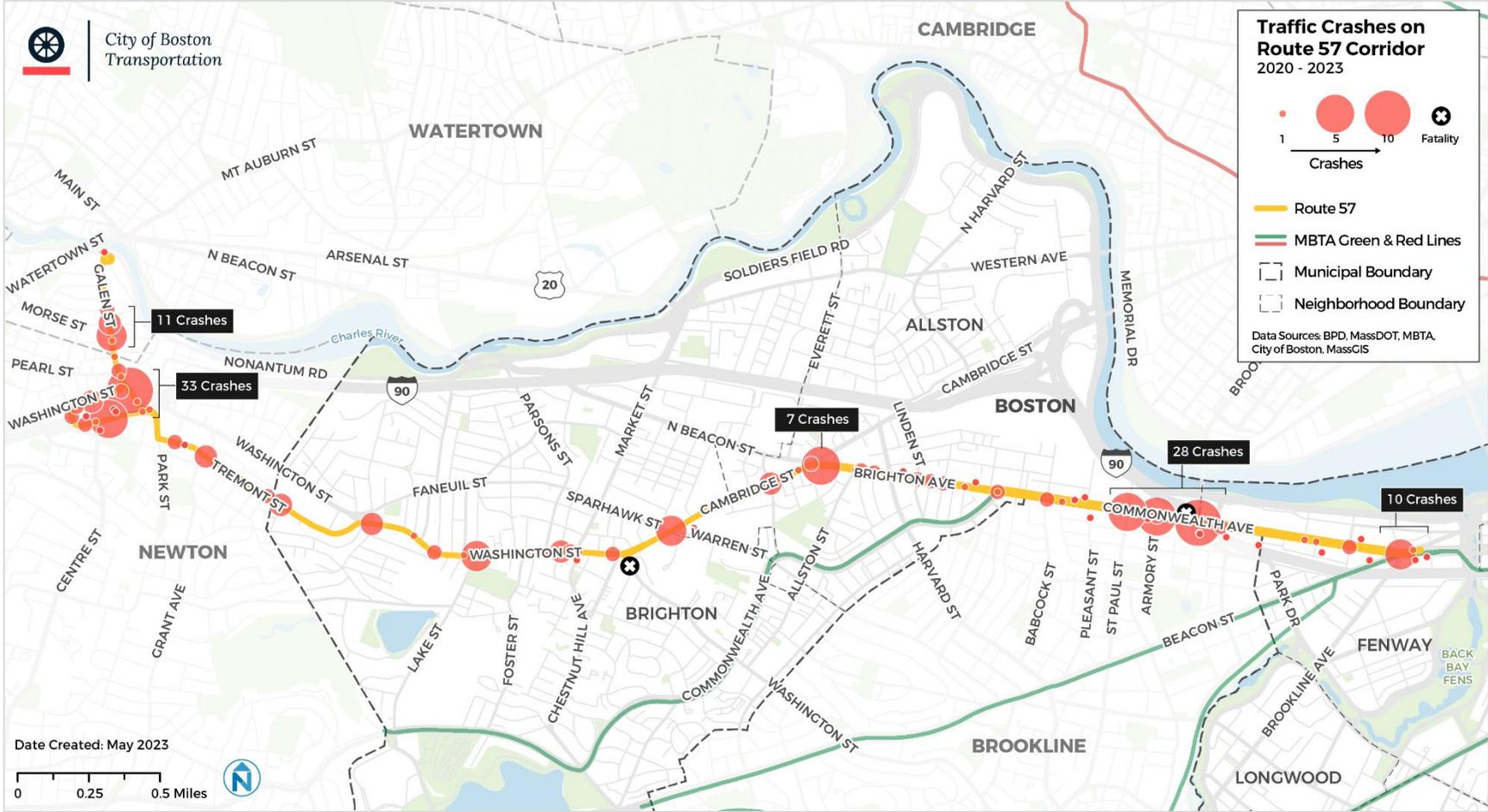
Figure 16 shows high-crash locations on the Route 57 corridor, along with fatal-crash locations.

**The highest concentration of crashes along the Route 57 corridor is in Newton Corner. Other places along the corridor where crashes are concentrated are:**

- **Brighton Center, especially just west of Market Street on Washington Street.**
- **Union Square, especially at the Cambridge Street/Brighton Avenue intersection and on Brighton Avenue between Cambridge Street and Packard's Corner.**
- **Commonwealth Avenue between St. Paul Street and the BU Bridge.**
- **Kenmore Square.**



Figure 16: Traffic Crashes on Route 57 Corridor, January 2020 to May 2023



Data for these crashes are from the City of Boston Vision Zero crash records<sup>19</sup>, MassDOT Interactive Mapping Portal for Analysis and Crash Tracking (IMPACT)<sup>20</sup>, and Boston Police Department records. Both datasets included data from January 2020 to May 2023 for crashes that occurred within 250 feet of the Route 57 corridor. Vision Zero data include all crashes that required a public-safety response, which may involve injuries or fatalities. Boston Police Department data include other crashes such as those reported after-the-fact, including hit-and-runs to parked vehicles.

A review of MBTA incident data shows several bus/auto crashes occurring at the Brighton Ave @ Linden St stop (stop 962)—more so than at other stops with similar service levels and ridership. These crashes were largely related to bus/auto conflict accessing or in the bus zone. In addition, Route 57 incident data show a relatively high concentration of crashes involving buses and auto on Brighton Avenue and on Commonwealth Avenue west of the BU Bridge.

17. Massachusetts Bay Transportation Authority. Bus Stop Planning & Design Guide. April 1, 2018. <<https://cdn.mbta.com/sites/default/files/engineering/001-design-standards-and-guidelines/2018-04-01-bus-stop-planning-and-design-guide.pdf>>

18. WSP. PATI Cluster Results Memo. p. 1. February 2020.

19. City of Boston. Vision Zero Crash Records. Last modified May 5, 2019. <<https://data.boston.gov/dataset/vision-zero-crash-records>>

20. Massachusetts Department of Transportation. Interactive Mapping Portal for Analysis and Crash Tracking. May 2023. <<https://apps.impact.dot.state.ma.us/cdp/home>>



## 4. DELAY, SPEED, AND RELIABILITY

The analysis conducted in this chapter is the core of the Route 57 TPC project. This chapter identifies places with unreliable travel times and unnecessary delay for bus riders, and it forms the basis of recommendations for speed and reliability improvements to the Route 57 corridor.

### I. METHODS AND SEGMENTS

Data used for this analysis are from the MBTA's automatic passenger counter (APC) system, which records the time bus doors open and close and can be used to calculate dwell time at a bus stop, as well as the runtime between bus stops. Data were provided to the study team by the MBTA for Route 57 during the MBTA's fall 2022 rating period of August 28 through December 17, 2022. When presented at a time-period level, the following time periods are used:

- AM Peak: 7:00 a.m. to 9:00 a.m.
- Midday: 9:00 a.m. to 4:00 p.m.
- PM Peak: 4:00 p.m. to 6:30 p.m.
- Early/Late: All other times

Delay is calculated as the difference between an unconstrained travel time (i.e., the shortest recorded run time) and an actual travel time. For example, if a bus travels from Kenmore Square to the BU Bridge in two minutes at 1:00 a.m. when there is no traffic, but takes five minutes to travel that distance at 7:00 a.m. when there is traffic, the delay at 7:00 a.m. is three minutes (five minus two).

To make the analysis easier to understand and consume, the Route 57 corridor was split into five segments. The segments are:

1. Watertown Yard to Cufflin Street (Watertown and Newton)
2. Cufflin Street to Foster Street (Brighton)
3. Foster Street to Brighton Avenue (Brighton and Allston)
4. Brighton Avenue to Saint Paul Street (Allston)
5. Saint Paul Street to Kenmore Station (Allston and Fenway)

**Figure 17: Route 57 Speed and Reliability Analysis Segments**



## II. DELAY

Understanding where riders experience delay is the first step in identifying ways to mitigate problems. This section of the report identifies those places and times. Key delay findings are:

- Delay is most severe during peak hours, especially the p.m. peak.
- Delay is most severe in the Brighton Center and Union Square areas, although it is also considerable on Commonwealth Avenue west of the BU Bridge.
- On an average weekday, riders on the Route 57 corridor experience a total of over 600 hours of delay.

The maps on later pages of this report are the easiest way to see delay, speed, and reliability data. Average runtime, dwell time, speed, delay, and passenger-delay descriptive statistics are also documented for reference in following tables.

Figure 18: Segment 1 – Watertown Yard to Cufflin Street

Segment 1	Outbound				Inbound			
	AM	Midday	PM	Early/Late	AM	Midday	PM	Early/Late
Median Running Time (min.)	5.6	5.1	6.0	4.2	6.1	5.8	6.7	5.1
Median Dwell Time (min.)	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1
Number of Stops	7				9			
Median Speed (MPH)	12.4	13.7	11.7	16.8	14.6	15.6	13.5	17.9
Median Delay (min.)	2.0	1.5	2.4	0.5	1.6	1.3	2.2	0.5
90th Percentile Delay (min.)	5.7	3.7	4.9	1.4	3.7	2.9	5.2	1.5
Daily Passenger Delay (min.)	897				690			

Figure 19: Segment 2 – Cufflin Street to Foster Street

Segment 2	Outbound				Inbound			
	AM	Midday	PM	Early/Late	AM	Midday	PM	Early/Late
Median Running Time (min.)	3.4	3.3	3.9	3.3	4.6	4.0	4.6	3.2
Median Dwell Time (min.)	0.3	0.4	0.7	0.6	0.7	0.4	0.2	0.1
Number of Stops	6				6			
Median Speed (MPH)	14.9	15.1	12.0	14.2	10.5	12.9	11.5	17.1
Median Delay (min.)	1.0	0.9	1.5	0.9	2.1	1.5	2.1	0.7
90th Percentile Delay (min.)	1.9	1.7	2.6	1.4	4.8	3.0	4.9	1.6
Daily Passenger Delay (min.)	1,426				1,650			



Figure 20: Segment 3 – Foster Street to Brighton Avenue

Segment 3	Outbound				Inbound			
	AM	Midday	PM	Early/Late	AM	Midday	PM	Early/Late
Median Running Time (min.)	6.8	6.8	7.7	5.9	8.0	7.2	8.0	5.5
Median Dwell Time (min.)	1.1	0.8	1.3	1.0	1.1	0.9	0.6	0.2
Number of Stops	8				8			
Median Speed (MPH)	10.1	10.5	8.8	11.6	7.4	8.3	7.8	11.8
Median Delay (min.)	2.5	2.5	3.4	1.6	4.5	3.7	4.4	2.0
90th Percentile Delay (min.)	5.9	5.1	7.9	3.9	8.3	6.9	8.4	4.3
Daily Passenger Delay (min.)	4,743				5,798			

Figure 21: Segment 4 – Brighton Avenue to Saint Paul Street

Segment 4	Outbound				Inbound			
	AM	Midday	PM	Early/Late	AM	Midday	PM	Early/Late
Median Running Time (min.)	3.4	3.6	4.3	3.6	5.6	6.2	7.1	5.4
Median Dwell Time (min.)	0.2	0.4	0.8	0.5	0.8	0.9	0.7	0.3
Number of Stops	4				5			
Median Speed (MPH)	11.4	10.1	7.9	9.8	9.4	8.5	7.7	10.4
Median Delay (min.)	1.3	1.5	2.2	1.5	2.3	2.9	3.8	2.2
90th Percentile Delay (min.)	1.8	2.2	3.4	2.3	3.5	3.5	4.3	3.0
Daily Passenger Delay (min.)	3,804				5,943			



Figure 22: Segment 5 - Saint Paul Street to Kenmore Station

Segment 5	Outbound				Inbound			
	AM	Midday	PM	Early/Late	AM	Midday	PM	Early/Late
Median Running Time (min.)	6.1	7.3	8.6	6.9	6.1	6.0	6.6	5.3
Median Dwell Time (min.)	0.1	0.5	0.9	0.7	0.7	0.7	0.6	0.0
Number of Stops	6				5			
Median Speed (MPH)	13.6	10.7	8.8	11.1	10.3	10.3	9.7	13.1
Median Delay (min.)	1.2	2.4	3.7	2.0	2.1	2.0	2.6	1.3
90th Percentile Delay (min.)	2.3	4.2	6.2	3.5	3.1	2.8	3.7	1.6
Daily Passenger Delay (min.)	4,799				3,405			



In general, delay is most severe at peak hours, although it persists throughout the day. Figure 23 shows delay by segment by time period, highlighting the increased delay during the daytime hours on most segments, as well as the most chronic delay occurring in Segment 3 (roughly the Brighton Center/Union Square portion of the corridor).

Figure 23: 90th Percentile Delay by Segment by Time Period, Fall 2022

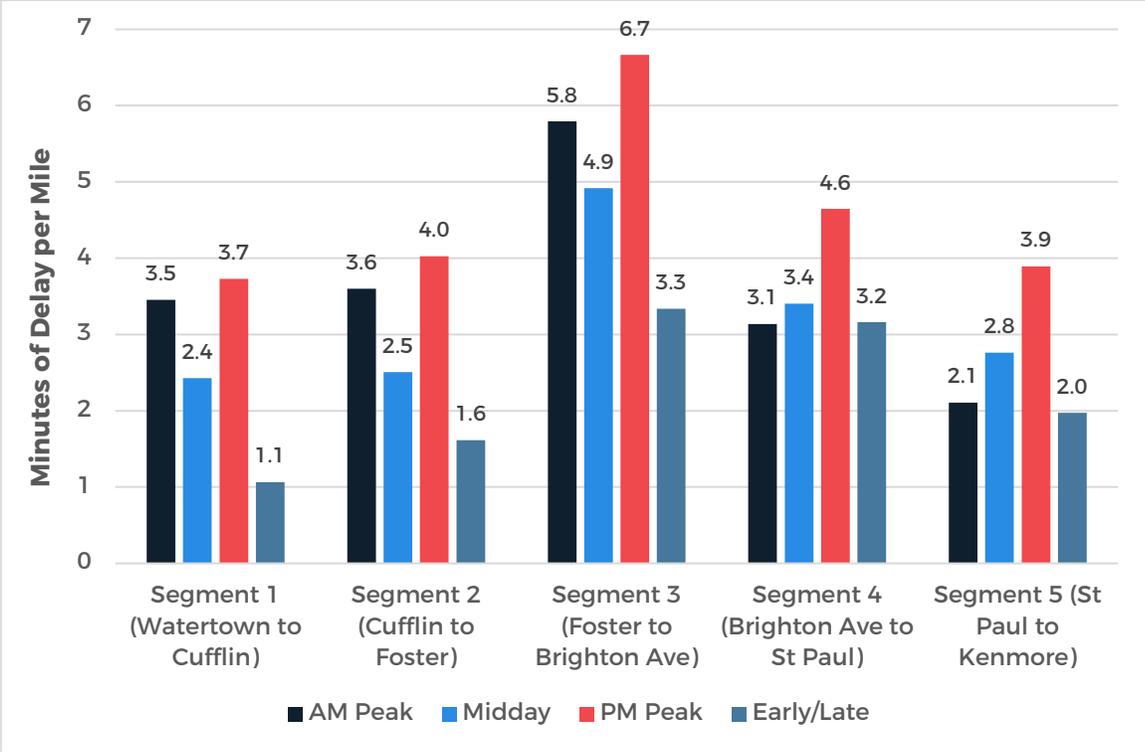
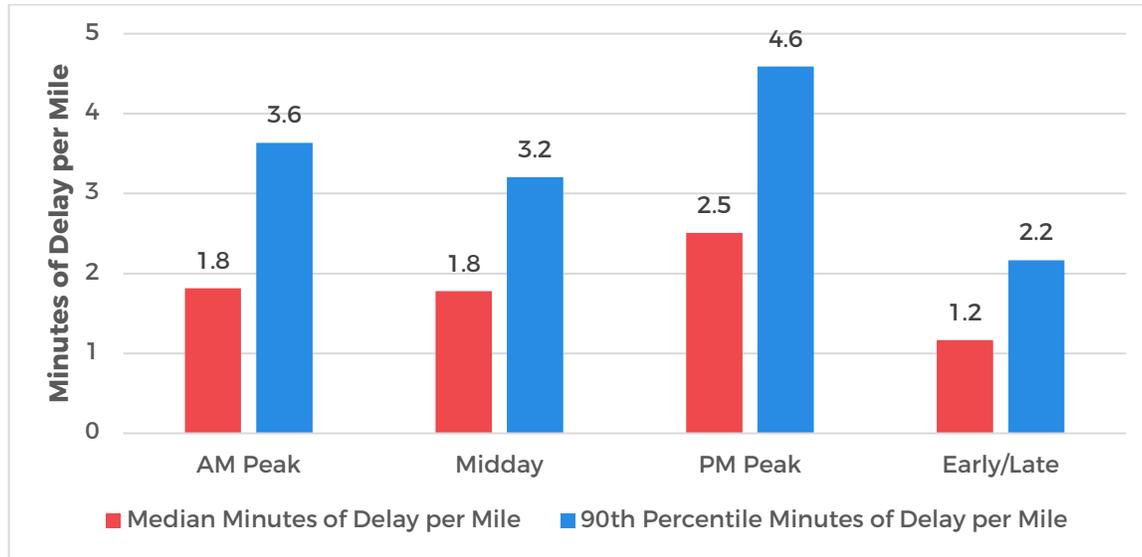


Figure 24 shows the overall delay occurring on the corridor throughout the day, highlighting that median (i.e., typical) delay on Route 57 is typically as impactful during the mid-day period as it is during the a.m. peak. Delay is highest in the p.m. peak, with 90<sup>th</sup> percentile at nearly five minutes a mile.

Figure 24: Route 57 Delay per Mile by Time Period, Fall 2022



### Passenger Delay

Passenger delay is calculated by multiplying the onboard load (also recorded by the MBTA’s APC system) by delay. Figure 25 shows delay on a per-mile basis to highlight where the effect of delay is most intense.

In general, there are high levels of passenger delay between Oak Square and Kenmore Square, with some delay also occurring west of Oak Square. Delay is most severe in the Brighton Center and Union Square areas. On an average weekday, there is a total of about 600 hours of passenger delay on the corridor.

Brighton Avenue exhibits significant passenger delay, despite having side-running bus lanes in both directions. Much of this delay is likely attributable to double-parking that occurs in the bus lanes, rendering them ineffective.

Figure 25: Average Weekday Passenger Delay, Fall 2022



### III. SPEED AND RELIABILITY

Speed and reliability are two of the most important aspects of bus service. Fast buses get people where they need to go quickly and are competitive in terms of travel time with other transportation. Reliable service picks riders up and drops them off when they expect it, meaning the service can be relied on for getting to work, appointments, and events on time.

This section of the report looks at speed and reliability of each stop-to-stop segment of the Route 57 corridor to help identify where improvements are needed. Speed is measured as the time it takes a bus to travel a segment, including dwell time at the first stop on the segment. Reliability is measured as a ratio of the 90<sup>th</sup> percentile runtime plus dwell time to the median runtime plus dwell time. This shows where travel times are the most variable, making bus service unreliable for riders.

Key takeaways from the speed and reliability analysis are:

- Speeds on the corridor are lowest between Lake Street in Oak Square and Harvard Avenue in Union Square.
- Reliability is poorest on Galen Street in Watertown and Newton, on Park Street in Newton, in Oak Square, on Washington Street west of Brighton Center, on Washington and Cambridge streets near St. Elizabeth's Medical Center, on Brighton Avenue near Union Square and at Packard's Corner, and on Commonwealth Avenue westbound near Granby Street.
- Hotspots on the corridor with the most significant combined speed and reliability issues are:
  - Washington Street between Lake Street and Brighton Center
  - Cambridge Street near St. Elizabeth's Medical Center
  - The Cambridge Street/Brighton Avenue intersection

Other significant speed and reliability findings are described at the segment level in the sections following.

#### Segment 1: Watertown Yard to Cufflin Street

- Segment 1 generally has moderate to poor transit speeds and relatively poor reliability west of Park Street in Newton. This is likely caused primarily by I-90-related traffic. West of Park Street, speed and reliability are generally good.
- Places with major opportunities for speed and reliability improvements are Galen Street and the Washington Street/Park Street/Tremont Street connection.



### **Segment 2: Cufflin Street to Foster Street**

- Speeds in this segment are relatively good, except for the Oak Square area and Washington Street east of Fairbanks Street. Eastbound speeds on Washington Avenue, east of Lake Street, are particularly slow. This may be caused by traffic backing up attempting to take a left turn from Washington Avenue onto Parsons Street and other side streets.
- Reliability is an issue in this segment in Oak Square, especially eastbound. Reliability is also poor on Washington Street east of Fairbanks Street throughout the day.

### **Segment 3: Foster Street to Brighton Avenue**

- Riders on Segment 3 suffer from some of the most impactful speed and reliability issues on the corridor.
- Speeds are low on most of Segment 3 west of Dustin Street and in Union Square, with speeds in some areas averaging only four to five miles per hour throughout the day—nearly walking speed.
- Speeds are also extremely slow in Union Square, where buses travel, on average, only five miles per hour.
- Reliability is an issue in this segment, especially near St. Elizabeth’s Medical Center westbound, and in Union Square from Cordon Street to Brighton Avenue in the eastbound direction.

### **Segment 4: Brighton Avenue to Saint Paul Street**

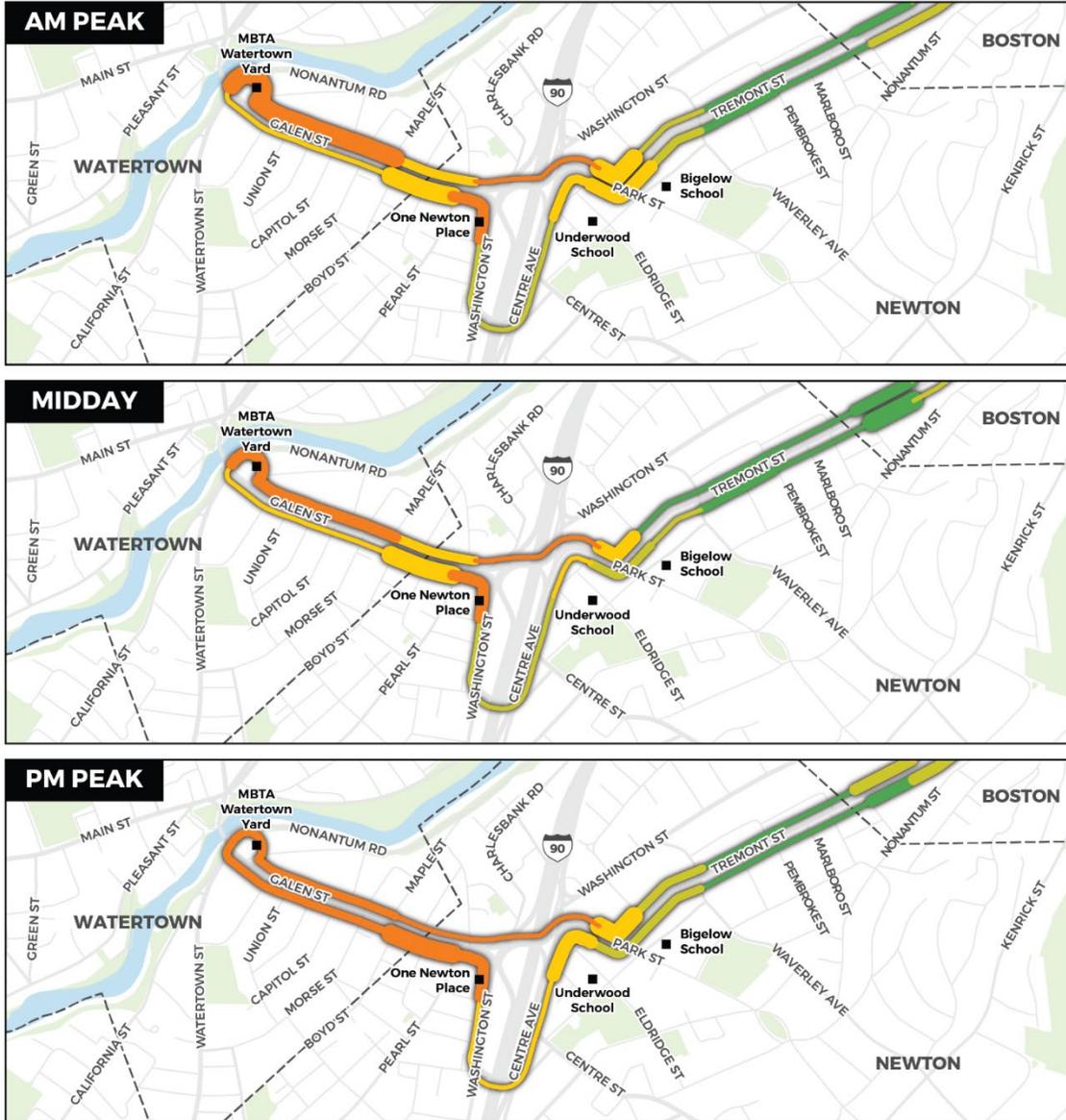
- Slow bus speeds are an issue on Segment 4 in the Union Square area all day. Outside of Union Square, speeds are considerably lower in the mid-day and p.m. peak; a.m. peak westbound speeds are good.
- Reliability is an issue in the Union Square area throughout the day but is less problematic elsewhere on the corridor in the mid-day and p.m. peaks; the a.m. peak has lower levels of reliability both eastbound and westbound.

### **Segment 5: Saint Paul Street to Kenmore Square**

- Speeds are lowest on Segment 5 in the p.m. peak, especially approaching the Kenmore Station busway and on Commonwealth Avenue outbound. In the a.m. peak and mid-day, speeds are higher, with some good westbound Commonwealth Avenue a.m. peak speeds.
- Service is generally slow but reliable eastbound from Pleasant Street to Saint Mary’s Street all day.

- The least reliable part of the segment is westbound from Silber Way to University Road.

Figure 26: Route 57 Speed and Reliability, Fall 2022, Segment 1



**Speed and Reliability** Average Weekday, Fall 2022

**Speed (color)**

- <7 mph
- 7 - 11 mph
- 11 - 15 mph
- 15 - 20 mph
- >20 mph

**Reliability (thickness)**

- Most Reliable
- ↓
- Least Reliable

Municipal Boundary

City of Boston  
Transportation

Data Sources: MBTA, City of Boston, MassGIS  
Date Created: May 2023

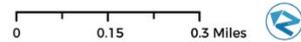
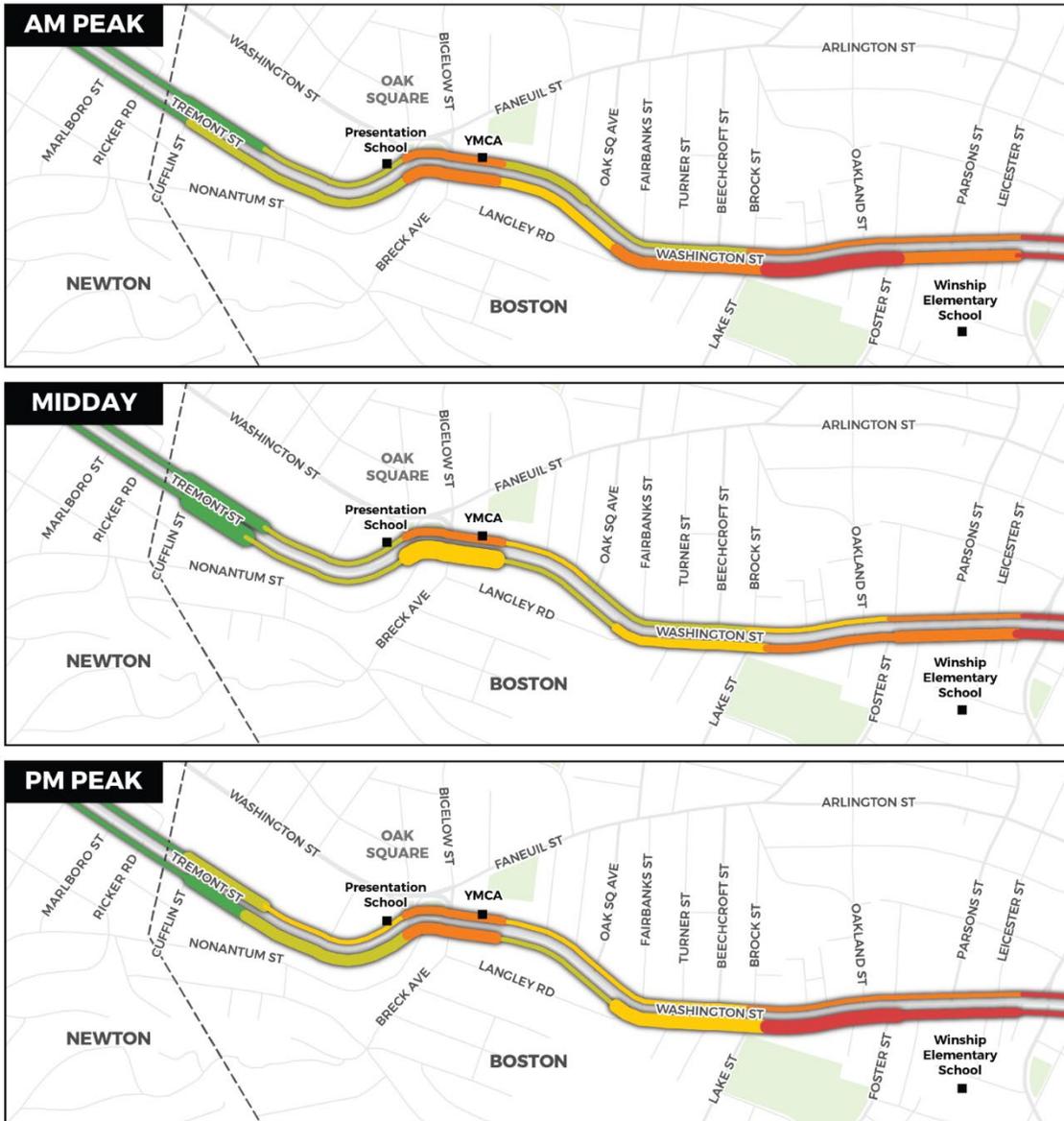


Figure 27: Route 57 Speed and Reliability, Fall 2022, Segment 2



**Speed and Reliability** Average Weekday, Fall 2022

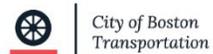
**Speed (color)**

- < 7 mph
- 7 - 11 mph
- 11 - 15 mph
- 15 - 20 mph
- > 20 mph

**Reliability (thickness)**

- Most Reliable
- ↑
- ↓
- Least Reliable

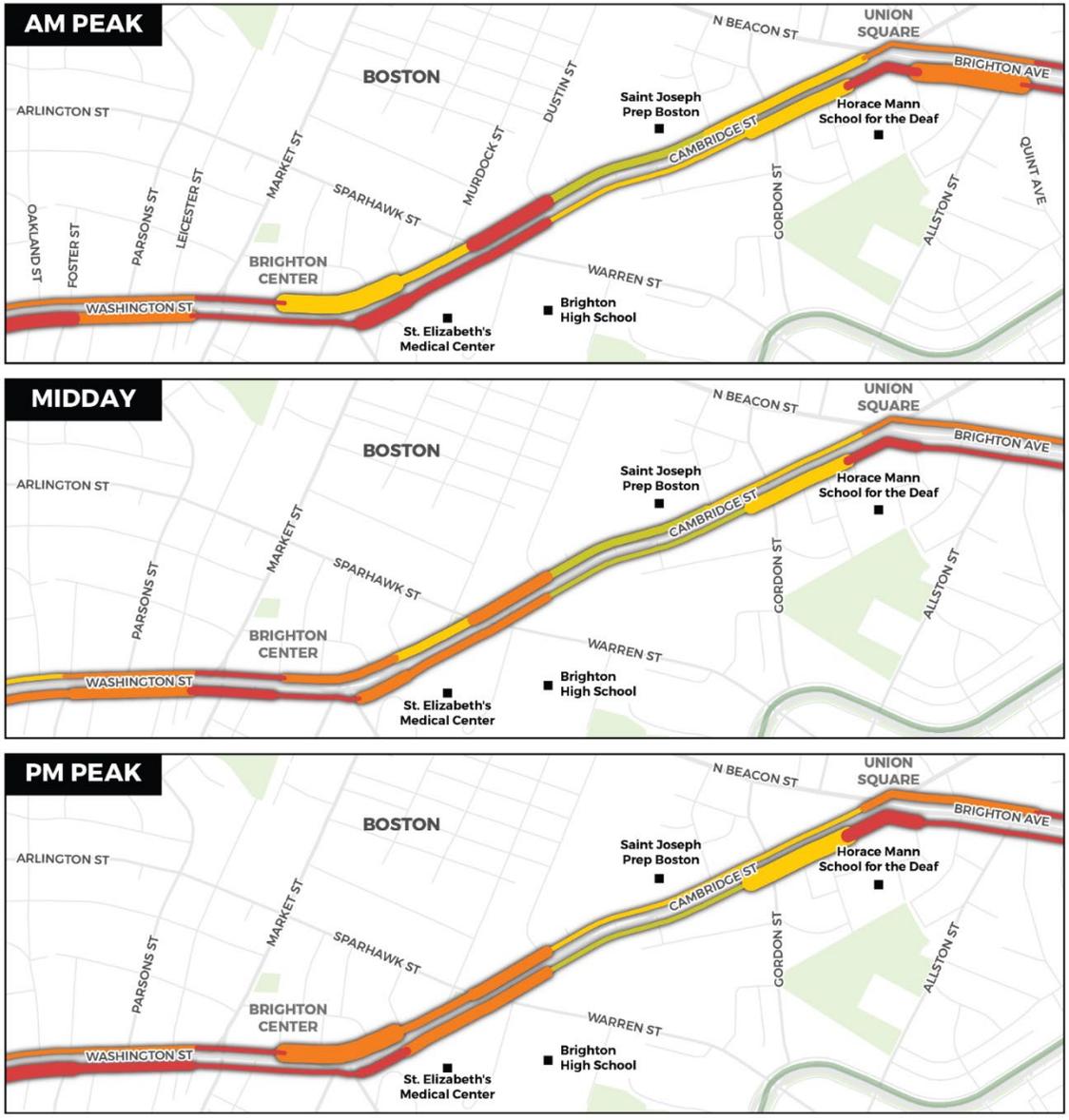
Municipal Boundary



Data Sources: MBTA, City of Boston, MassGIS  
Date Created: May 2023



Figure 28: Route 57 Speed and Reliability, Fall 2022, Segment 3



**Speed and Reliability** Average Weekday, Fall 2022

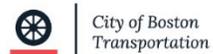
**Speed (color)**

- < 7 mph
- 7 - 11 mph
- 11 - 15 mph
- 15 - 20 mph
- > 20 mph

**Reliability (thickness)**

- Most Reliable
- ↑
- ↓
- Least Reliable

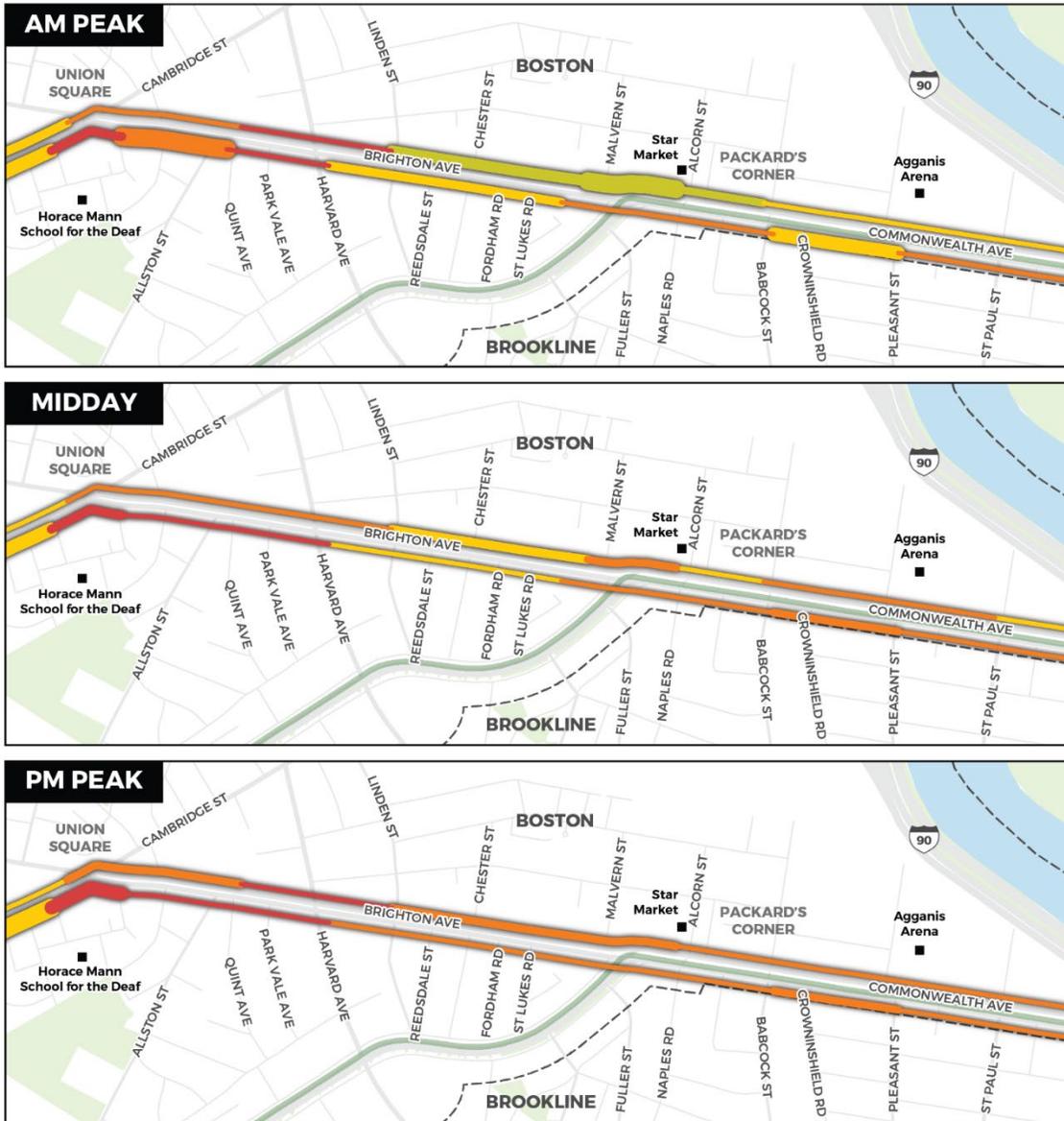
— MBTA Green Line



Data Sources: MBTA, City of Boston, MassGIS  
Date Created: May 2023



Figure 29: Route 57 Speed and Reliability, Fall 2022, Segment 4



**Speed and Reliability** Average Weekday, Fall 2022

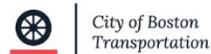
**Speed (color)**

- < 7 mph
- 7 - 11 mph
- 11 - 15 mph
- 15 - 20 mph
- > 20 mph

**Reliability (thickness)**

- Most Reliable
- ↑
- ↓
- Least Reliable

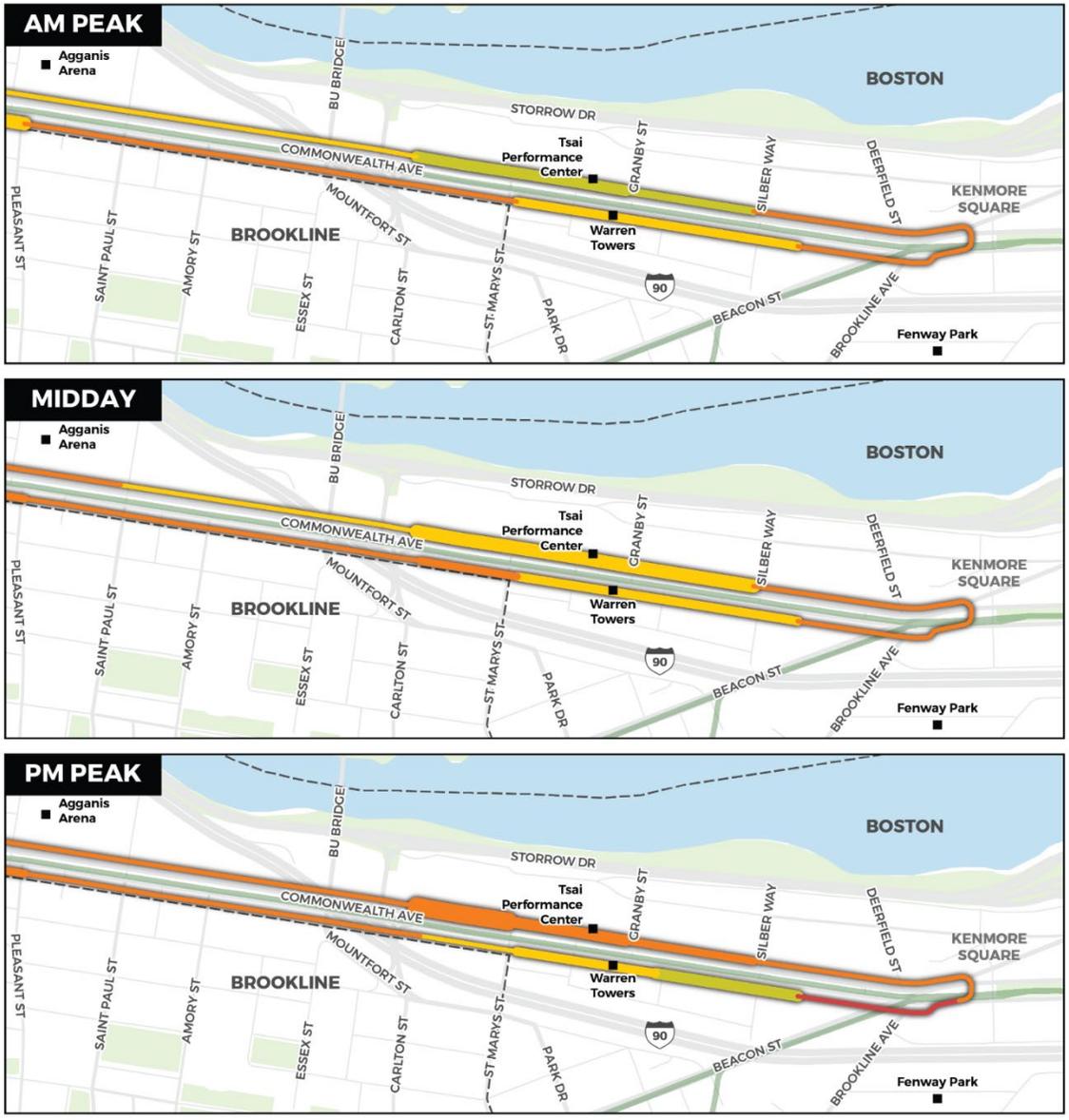
- Municipal Boundary
- MBTA Green Line



Data Sources: MBTA, City of Boston, MassGIS  
Date Created: May 2023



Figure 30: Route 57 Speed and Reliability, Fall 2022, Segment 5



**Speed and Reliability** Average Weekday, Fall 2022

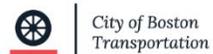
**Speed (color)**

- < 7 mph
- 7 - 11 mph
- 11 - 15 mph
- 15 - 20 mph
- > 20 mph

**Reliability (thickness)**

- Most Reliable
- ↑
- ↓
- Least Reliable

- Municipal Boundary
- MBTA Green Line



Data Sources: MBTA, City of Boston, MassGIS  
Date Created: May 2023



# 5. NEEDS SUMMARY

This chapter of the report synthesizes findings from the project background, existing service, access to transit, and speed and reliability chapters into a concise segment-level needs summary. Needs highlighted in this section represent findings based on analysis conducted in this study only, and strive to take into account other planned and ongoing changes to roadways, private developments, and MBTA service (as described in Chapter 2, Section V).

Needs in this chapter are identified such that addressing the needs will support Route 57 Transit Priority Corridor goals to improve accessibility and reliability, and to reduce travel times for current and future bus riders on the Route 57 corridor.

## I. WATERTOWN YARD TO CUFFLIN STREET

- The Watertown Yard passenger waiting area could be improved.
  - The bus-stop configuration planned as part of the 99 Galen Street development may provide some improvements but care should be taken to ensure there is sufficient passenger waiting space, protection from the elements, and supportive infrastructure, such as concrete bus zone.
  - Pedestrian access to Watertown Yard could be considerably improved through changes to crossing distances, crosswalks, sidewalks, curb ramps, and signal timing. This would make getting to and from Watertown Yard easier, safer, and more pleasant, and likely lead to increased ridership.
- Speed and reliability on Galen Street could be improved with bus lanes.
  - The 99 Galen Street development bus lane will help, but southbound and longer northbound bus lanes would have added benefit.
- Pedestrian access to transit in the Newton Corner area is challenging near the I-90 overpass/interchange, and traffic crashes are more concentrated here than anywhere else on the Route 57 corridor.
  - Any access and safety improvements that can be made here as part of the Newton Corner Improvements Project—or other efforts—will benefit existing riders and likely increase bus ridership.
- Bus-stop spacing from Park Street to Tremont Place is closer than standard, which decreases speed and reliability.

- Consider eliminating stops 905 and 986, per previous recommendations, to improve speed and reliability.

## II. CUFFLIN STREET TO FOSTER STREET

- Bus-stop spacing in the Cufflin Street/Tremont Place portion of the corridor is closer than standard.
  - Consolidating stops here would improve speed and reliability with little to no impact to riders. This was also recommended in PATI.
  - Consolidation could occur as part of bus-stop changes planned for the 75 Tremont Street development.
- Tremont Street eastbound from Tremont Place to Washington Street provides relatively unreliable transit service, especially during peak hours.
  - Peak-hour bus lanes would improve reliability.
- Speed and reliability on Washington Street from Oak Square can be considerably improved, especially in the eastbound direction.
  - Bus lanes on Washington Street would have considerable benefit, especially during peak hours. This was recommended in the Allston-Brighton Mobility Plan.
- Bus-stop amenities in Oak Square could be improved.
  - Eastbound stop 913, which sees about 250 average weekday boardings, does not have a shelter (MBTA standard considers stops with 70 daily boardings eligible for shelter) and the pavement is badly deteriorated.
  - Stop 9780 could be moved to the far side of the crosswalk to better match MBTA bus-stop placement guidelines.

## III. FOSTER STREET TO BRIGHTON AVENUE

- This segment has the most severe transit delay on the corridor.
  - Bus lanes and queue jumps along nearly all the corridor, in both directions, would have considerable benefit for riders. This is consistent with recommendations from the Allston-Brighton Mobility Plan.
- The Market Street to Washington Street southbound slip lane provides auto capacity at the expense of public open space, while impeding access to transit by requiring an additional pedestrian crossing for many riders.
  - Eliminating the slip lane, as was done on a pilot basis in the past, would improve access to transit and could reclaim roadway as public open

space. This is recommended by the ABHC Brighton Center Mobility Audit.

- The Washington Street/Henshaw Street/Winship Street/Cambridge Street/Wirt Street intersection is complex and involves many general-purpose traffic turning movements.
  - Limiting turning movements at the intersection would improve general-purpose traffic flow and improve transit speed and reliability.
- Bus stops on Cambridge Street by St. Elizabeth’s Medical Center are spaced more closely than standard which reduces speed and reliability.
  - Consolidating both east- and westbound stops could be accomplished with minimal impact to riders, as some stops are within 350 of one another.
- Cambridge Street near St. Elizabeth’s Medical Center has some of the most severe speed and reliability issues on the corridor.
  - Bus lanes here would have tremendous benefit for riders. Both the Allston-Brighton Mobility Plan and Go Boston 2030 recommend bus lanes through this segment.

#### **IV. BRIGHTON AVENUE TO SAINT PAUL STREET**

- Bus speed and reliability could be improved on Brighton Avenue, especially in peak hours and between Harvard Avenue and Cambridge Street.
  - Providing transit priority and giving buses more dedicated right-of-way could eliminate a considerable amount of delay.
- Existing bus lanes on Brighton Avenue are frequently occupied by double-parked vehicles; this limits the bus-lane benefits.
  - Planned curb reprogramming may help with this issue. Improved enforcement would also help the bus lanes function as intended.
  - A center-running busway design on Brighton Avenue would likely have the most benefit for transit and should be pursued in the long-term.
- Many bus stops on Brighton Avenue between Union Square and Packard’s Corner do not have sufficient bus-stop amenities—especially shelters.
  - The City of Boston and MBTA could install shelters and consider a long-term implementation of bus-stop bumpouts, which would expand the waiting area for passengers and make ADA-accessible landing pads easier to install. This would also allow buses to stop in-lane, reducing delay caused by merging into and out of general-purpose traffic.
  - In the short-term, the City and MBTA could pilot bus-stop bumpouts using temporary plastic boarding islands.

## V. SAINT PAUL STREET TO KENMORE SQUARE

- Recent changes to Commonwealth Avenue have improved bus service, but speed and reliability issues persist; slow speeds are more of an issue in the eastbound direction, while reliability is more of an issue westbound.
  - Bus lanes on Commonwealth Avenue would improve transit service. This is consistent with changes being planned by MBTA and the City of Boston.
- Bus-stop waiting area, shelter, and amenity improvements like those made during the Commonwealth Avenue Phase 2A Redesign could benefit several bus stops east of the BU Bridge.
  - Floating bus stops with protected bike lanes behind them would make biking safer on the corridor by reducing bicycle interactions with all vehicles, including buses.
  - Operator concerns regarding the safety of bus passengers entering and exiting bike-lane adjacent floating bus stops are noted and speak to the importance of designing this type of island to reduce the risk of conflict between active transportation users.
- Pedestrian access to the Kenmore Station busway could be improved by adding pedestrian crosswalks to serve existing desire lines, and improved maintenance/replacement of existing crossings is warranted.



[Kenmore Station busway diagram showing needed pedestrian crossings. Image source: Nearmap, March 30, 2023.](#)