



TECHNICAL MEMORANDUM

DATE: December 17, 2020
TO: Congestion Management Committee
FROM: Ryan Hicks, MPO Staff
RE: 2017–18 Inventory of Park-and-Ride Lots at MBTA Facilities

1 INTRODUCTION

The primary purpose of this memorandum is to present the results from the 2017–18 inventory of park-and-ride lots serving Massachusetts Bay Transportation Authority (MBTA) facilities. Comparisons with the 2006, 2010, and 2012–13 inventories are also included in this memorandum.

In the spring and fall seasons between April 2017 and November 2018, Boston Region Metropolitan Planning Organization (MPO) staff inventoried MBTA, private, and town-operated parking facilities at 152 locations comprising 121 commuter rail stations, 27 rapid transit stations, two ferry terminals, and two express bus origin locations.¹ Appendix A contains parking utilization rates for all of the parking lots that were inventoried. Information about parking fees and several maps that display inventoried data are found in Appendices B, C, D, and E.

This memorandum has seven main sections and five appendices. The main sections of this memorandum are:

1. Introduction
2. Background
3. Inventory Results: Parking Utilization
4. Major Regional Park-and-Ride Lots
5. Inventory Results: Amenities
6. Conclusion
7. Next Steps

Civil Rights, nondiscrimination, and accessibility information is on the last page.

¹ Please note that some of the stations that were surveyed are located outside of the Boston Region MPO area.

2 BACKGROUND

This monitoring effort of the park-and-ride lots is part of the Congestion Management Process (CMP), which is an ongoing task of the Boston Region MPO. The CMP is a multimodal program that monitors highways, arterials, high-occupancy vehicle facilities, park-and-ride facilities, bicycle, and pedestrian facilities. As part of the CMP, data are collected on a periodic basis. Planners and decision makers can refer to these data to identify needs, and to prioritize transportation projects and program funds.

Parking utilization is defined in this memorandum as the percentage of nonaccessible spaces that do not require a permit, which are occupied by the end of the MBTA-defined AM peak period.^{2,3} Parking utilization rates can assess the surplus or deficiencies of parking capacity and indicate how commuters can be impacted by changes, such as MBTA fare price changes, parking fee changes, parking lot construction, the addition or removal of parking spaces, or the opening or closure of stations. When parking utilization data are available on the web, commuters can make informed decisions on travel in the most efficient way possible.

MPO staff last collected park-and-ride data from October 2012 to June 2013.⁴ The MPO completed previous park-and-ride monitoring efforts in 2009–10, 2005–06, 2002, and 2000.

3 Data Collection

The park-and-ride lots were inventoried by performing a one-time observation during the morning peak period of a typical weekday from April 2017 to November 2018. A typical weekday is defined as a Tuesday, Wednesday, Thursday, or Friday. Holidays were not included in this definition.^{5,6}

² Accessible parking spaces are defined in this memorandum as parking spaces that are specifically designated to provide people with disabilities better access to MBTA facilities by automobile. Refer to Section 7.2 for more information.

³ The last peak-period commuter rail train typically begins its inbound trip before 9:00 AM and arrives at either North Station or South Station by 9:50 AM. The last peak-period rapid transit, bus or ferry vehicle typically begins its inbound trip before 9:00 AM.

⁴ Boston Region MPO memorandum titled *2012–13 Inventory of Park-and-Ride Lots at MBTA Facilities*, available online at https://www.ctps.org/data/pdf/programs/cmp/Park_and_Ride.pdf (accessed March 23, 2020).

⁵ If unusual circumstances occurred during the day of observation, such as delays in MBTA service, inclement weather, construction, major events, holidays, and traffic incidents, the survey of that parking lot was conducted on a different day.

For the purpose of this study, MPO staff developed a data collection form (Appendix C). The form contains information about each parking lot, including the parking lot ownership, parking cost and restrictions, number of parking spaces, and number of parked vehicles. This information is summarized in Appendix A. The data collectors were instructed to visit each lot immediately after the last inbound peak-period trip. The time of the last inbound train, express bus, or ferry varied by station. After the last AM peak-period train, ferry, or express bus departed the station, the data collector inventoried each parking lot that was used for a given station or express bus origin location. A separate form was completed for each parking lot, as many stations have several nearby parking lots.

The lots inventoried included all MBTA-owned, privately owned, and town lots at all commuter rail, rapid transit, and commuter ferry stations, and at all express bus origin locations. Lots serving only commuters who used non-MBTA transportation were not inventoried.⁷ The locations of these lots were ascertained from past inventories, information provided on the MBTA's website (www.mbta.com), and from field visits performed by MBTA staff.

All of the parking spaces referred to in this memorandum, unless otherwise indicated, were nonaccessible, non-permit parking spaces, and the total capacity and utilization rates were calculated for each station. Section 7.2 provides data on the availability of accessible parking along each transit line. Many stations have permit-only lots in addition to public lots. Most permit-parking lots are either municipally or privately owned, and use is restricted to permit holders. In many cases, a local residency is required to obtain a permit. Because the focus of this memorandum is on the availability of parking to the general public at MBTA park-and-ride lots, the permit-only and resident-only parking spaces were excluded from the totals and utilization percentages for all modes of transit. However, Section 7.3 provides a discussion on these permit-only and resident-only parking spaces, which were included in the data collection.

⁶ All public and private lots near MBTA stations were included in the analysis of this memorandum; the parking capacities of the MBTA stations that are listed in this memorandum may differ from the capacities that are displayed on the MBTA's website.

⁷ Some MBTA stations also serve independent transportation entities, such as Logan Express or Amtrak. These stations sometimes have designated overnight parking lots for those services. These lots were excluded from the inventories reflected in this memorandum.

4 Factors Impacting MBTA Parking Lot Utilization

There were MBTA parking lot changes since the previous park-and-ride data collection effort that could impact capacity and utilization. These include changes to the number of parking spaces, in MBTA parking fees, MBTA service changes, the economy, ridesharing, bikesharing, popularity of public transportation, land use pattern changes, station parking lot construction, and conversions of public parking to permit-only parking.

Changes in Parking Capacity: 2012-13 and 2017-18 Inventories

Since the 2012–13 inventory, changes were made to parking capacity at MBTA lots. One of the changes was a net increase of 1,583 public, non-permit parking spaces near all MBTA stations. This was the result of an additional 4,658 spaces, and the removal of 3,075 spaces at MBTA stations. Included in this increase was a total of 701 spaces that were added at the new Assembly and Wachusett stations, both of which opened since the 2012–13 inventory was conducted. The parking capacity and use of the new Wachusett and Assembly stations were included in the current 2017–18 inventory analysis. The additional parking spaces associated with the new stations contribute to the perception that the overall use of the MBTA parking system has decreased.

The Littleton, North Leominster, Plymouth, Beverly Depot and Salem commuter rail stations have all experienced construction that added parking capacity since the 2012–13 inventory was collected. Additionally, capacity changed at several stations due to factors, such as the inclusion of an existing parking facility into the inventory for the first time (Haverhill, Route 128), and the structural change of nearby parking lots (Mansfield).

Lechmere, Walpole, Wellington, and North Quincy stations experienced a reduction of parking spaces due to the reconfiguring or closing of nearby parking lots. Additionally, parking capacity reduction occurred along the ferry system, due to the permanent closure of a MBTA ferry terminal (Quincy/Fore River Ferry Terminal) or conversion of public parking to permit-only parking (Hull).

Table 1 shows the MBTA stations with significant changes (either the addition or subtraction of 150 parking spaces, or a change in capacity of at least 50 percent at a station) in the current inventory, compared to the parking capacity in the 2012–13 inventory.

Table 1
Stations with Significant Changes in the Number of Parking Spaces
between the 2012–13 and 2017–18 Inventories

Station Name	Transit Line	Mode	Total Public Parking Spaces: 2012–13	Total Public Parking Spaces: 2017–18	Change in Total Spaces
Four Corners/Geneva	Fairmount	Commuter rail	0	3	3
Talbot Ave (1B side)	Fairmount	Commuter rail	0	1	1
Uphams Corner	Fairmount	Commuter rail	0	2	2
Ayer	Fitchburg	Commuter rail	52	83	31
Littleton	Fitchburg	Commuter rail	52	220	168
North Leominster	Fitchburg	Commuter rail	0	436	436
Wachusett	Fitchburg	Commuter rail	0	351	351
Waltham	Fitchburg	Commuter rail	48	86	38
Walpole	Franklin	Commuter rail	677	479	-198
Haverhill	Haverhill	Commuter rail	153	544	391
Plymouth	Kingston/Plymouth	Commuter rail	92	332	240
Wedgemere	Lowell	Commuter rail	31	119	88
West Medford	Lowell	Commuter rail	20	0	-20
Beverly Depot	Newburyport/Rockport	Commuter rail	40	483	443
Salem	Newburyport/Rockport	Commuter rail	449	765	316
Mansfield	Providence/Stoughton	Commuter rail	365	667	302
Route 128	Providence/Stoughton	Commuter rail	2,008	2,528	520
Hull	Ferry	Ferry	236	0	-236
Quincy/Fore River	Ferry	Ferry	370	0	-370
Lechmere	Green Line	Green Line	369	0	-369
Assembly	Orange Line	Orange Line	0	350	350
Wellington	Orange Line	Orange Line	2,409	2,183	-226
North Quincy	Red Line	Red Line	1,512	1,173	-339

Source: 2017–18 Boston Region MPO Park-and-Ride Inventory.

MBTA Parking Fare Changes

Daily parking fees changed at 84 MBTA stations since the 2012–13 inventory. These MBTA stations are listed in Table 2. For the current inventory, most commuter rail stations charged \$2.00 to \$6.00 per day, and parking fees ranged from \$4.00 to \$7.00 at most of the rapid transit stations.

In addition to the changes in parking fees at MBTA stations (between the 2012–13 and 2017–18 inventories), the MBTA also adjusted the prices of several park-and-ride lots near MBTA stations during the collection of the 2017–18 park-and-

ride data.⁸ These were market-based adjustments to encourage commuters to park at underutilized stations. According to the MBTA's website, these changes included

- reduced weekday parking rates at parking lots that have more available spaces;
- increased weekday parking rates at parking lots that have less available spaces; and
- updated monthly parking rates to reflect the new weekday rates.

In some cases, the MBTA park-and-ride lots were observed either before or after the parking price changes had taken effect (The date of observation is stated in Tables A-1, A-2, A-3 and A-4 in Appendix A). As a result, several stations had different parking prices than what was stated at the time of the 2017–18 inventory. Tables 2 and 3 provide the changes in parking fees from the 2012–13 inventory to the 2017–18 inventory, and the current parking fees at the time of this memorandum.

⁸ MBTA, "MBTA Parking Prices Update," Available online at <https://www.mbta.com/projects/parking-prices-update> (accessed March 24, 2020).

Table 2
MBTA Stations with Parking Fare Changes—Commuter Rail
2017–18

Station	Rail Line	Minimum Parking Fee at Time of 2012–13 Inventory	Minimum Parking Fee at Time of 2017–18 Inventory	Fee Change Between the 2012 and 2018 Inventories	Current Parking Fee (2020) ⁹
Fairmount	Fairmount	\$4.00	\$4.50	\$0.50	\$4.00
Readville	Fairmount	\$4.00	\$4.50	\$0.50	\$2.00
Belmont	Fitchburg	\$3.00	\$5.00	\$2.00	\$5.00
Brandeis/Roberts	Fitchburg	\$4.00	\$4.50	\$0.50	\$4.00
Fitchburg	Fitchburg	\$3.00	\$4.00	\$1.00	\$3.00
Kendal Green	Fitchburg	\$0.00	\$4.00	\$4.00	\$4.00
Littleton	Fitchburg	\$4.00	\$4.50	\$0.50	\$6.00
South Acton	Fitchburg	\$2.50	\$5.00	\$2.50	\$5.00
West Concord	Fitchburg	\$4.00	\$4.50	\$0.50	\$5.00
Ashland	Framingham/Worcester	\$4.00	\$4.50	\$0.50	\$4.00
Auburndale	Framingham/Worcester	\$0.00	\$4.50	\$4.50	\$6.00
Grafton	Framingham/Worcester	\$4.00	\$4.50	\$0.50	\$4.00
Newtonville	Framingham/Worcester	\$5.00	\$4.50	-\$0.50	\$4.50
Southborough	Framingham/Worcester	\$4.00	\$4.50	\$0.50	\$6.00
Wellesley Hills	Framingham/Worcester	\$0.00	\$0.00	\$0.00	\$6.00
Wellesley Farms	Framingham/Worcester	\$4.50	\$6.00	\$1.50	\$6.00
Wellesley Square	Framingham/Worcester	\$4.50	\$6.00	\$1.50	\$6.00
West Natick	Framingham/Worcester	\$4.00	\$4.50	\$0.50	\$6.00
West Newton	Framingham/Worcester	\$4.00	\$4.00	\$0.00	\$4.00
Westborough	Framingham/Worcester	\$4.00	\$4.50	\$0.50	\$6.00
Worcester	Framingham/Worcester	\$3.00	\$3.00	\$0.00	\$4.00
Dedham Corp Center	Franklin	\$4.00	\$4.50	\$0.50	\$2.00
Forge Park	Franklin	\$4.00	\$4.50	\$0.50	\$4.00
Franklin	Franklin	\$4.00	\$4.00	\$0.00	\$6.00
Islington	Franklin	\$4.00	\$4.50	\$0.50	\$4.00
Norwood Central	Franklin	\$4.00	\$4.50	\$0.50	\$4.00
Norwood Depot	Franklin	\$4.00	\$4.50	\$0.50	\$2.00
Walpole	Franklin	\$3.00	\$4.50	\$1.50	\$4.00
Cohasset	Greenbush	\$4.00	\$2.00	-\$2.00	\$0.00
East Weymouth	Greenbush	\$4.00	\$6.00	\$2.00	\$6.00
Greenbush	Greenbush	\$4.00	\$2.00	-\$2.00	\$2.00
Nantasket Junction	Greenbush	\$4.00	\$2.00	-\$2.00	\$2.00
North Scituate	Greenbush	\$4.00	\$2.00	-\$2.00	\$4.00
Bradford	Haverhill	\$4.00	\$4.50	\$0.50	\$2.00
Haverhill	Haverhill	\$4.00	\$4.00	\$0.00	\$2.00
Lawrence	Haverhill	\$3.50	\$4.00	\$0.50	\$4.00
Melrose Highland	Haverhill	\$3.00	\$3.00	\$0.00	\$2.00
Reading	Haverhill	\$4.00	\$6.00	\$2.00	\$6.00
Wakefield	Haverhill	\$4.00	\$4.50	\$0.50	\$6.00
Halifax	Kingston/Plymouth	\$4.00	\$4.50	\$0.50	\$2.00
Plymouth	Kingston/Plymouth	\$4.00	\$2.00	-\$2.00	\$2.00
South Weymouth	Kingston/Plymouth	\$4.00	\$2.00	-\$2.00	\$2.00
Whitman	Kingston/Plymouth	\$4.00	\$6.00	\$2.00	\$6.00
Anderson/Woburn	Lowell	\$4.00	\$4.00	\$0.00	\$8.00
Lowell	Lowell	\$5.00	\$7.00	\$2.00	\$8.00
Wedgemere	Lowell	\$0.00	\$5.00	\$5.00	\$5.00
West Medford	Lowell	\$0.00	\$5.00	\$5.00	\$5.00
Brockton	Middleborough/ Lakeville	\$3.00	\$4.00	\$1.00	\$4.00
Campello	Middleborough/ Lakeville	\$4.00	\$2.00	-\$2.00	\$2.00
Bellevue	Needham	\$4.00	\$4.50	\$0.50	\$4.00
Hersey	Needham	\$4.00	\$4.50	\$0.50	\$4.00

⁹ On September 1, 2018, the MBTA changed the parking fees for several of the MBTA operated parking lots to consummate with demand. The prices of these lots either increased, decreased or stayed the same after this date.

Station	Rail Line	Minimum Parking Fee at Time of 2012–13 Inventory	Minimum Parking Fee at Time of 2017–18 Inventory	Fee change Between the 2012 and 2018 Inventories	Current Parking Fee (2020)
Highland	Needham	\$4.00	\$4.50	\$0.50	\$4.50
Needham Heights	Needham	\$4.00	\$4.50	\$0.50	\$4.00
Needham Junction	Needham	\$4.00	\$6.00	\$2.00	\$6.00
Roslindale Village	Needham	\$4.00	\$4.50	\$0.50	\$4.00
West Roxbury	Needham	\$4.00	\$4.50	\$0.50	\$6.00
Beverly Depot	Newburyport/Rockport	\$0.00	\$5.00	\$5.00	\$2.00
Gloucester	Newburyport/Rockport	\$4.00	\$4.50	\$0.50	\$2.00
Hamilton/Wenham	Newburyport/Rockport	\$4.00	\$4.50	\$0.50	\$4.00
Lynn	Newburyport/Rockport	\$4.00	\$4.00	\$0.00	\$2.00
Montserrat	Newburyport/Rockport	\$4.00	\$4.50	\$0.50	\$4.00
Newburyport	Newburyport/Rockport	\$4.00	\$4.50	\$0.50	\$4.00
North Beverly	Newburyport/Rockport	\$4.00	\$4.50	\$0.50	\$4.00
Rowley	Newburyport/Rockport	\$4.00	\$4.50	\$0.50	\$2.00
Salem	Newburyport/Rockport	\$4.00	\$4.00	\$0.00	\$5.00
Swampscott	Newburyport/Rockport	\$4.00	\$6.00	\$2.00	\$6.00
West Gloucester	Newburyport/Rockport	\$4.00	\$4.50	\$0.50	\$2.00
Canton Center	Providence/Stoughton	\$4.00	\$4.50	\$0.50	\$4.00
Hyde Park	Providence/Stoughton	\$4.00	\$4.50	\$0.50	\$4.00
Providence	Providence/Stoughton	\$9.00	\$15.00	\$6.00	\$15.00
South Attleboro	Providence/Stoughton	\$3.00	\$6.00	\$3.00	\$6.00
TF Green Airport	Providence/Stoughton	\$6.75	\$5.00	-\$1.75	\$5.00
Wickford Junction	Providence/Stoughton	\$4.00	\$0.00	-\$4.00	\$0.00

MBTA = Massachusetts Bay Transportation Authority.
 Source: MBTA, 2017–18 Boston Region MPO Park-and-Ride Inventory.

Table 3
MBTA Stations with Parking Fare Changes—Rapid Transit
2017–18

Station	Rail Line	Minimum Parking Fee at Time of 2012–13 Inventory	Minimum Parking Fee at time of 2017–18 Inventory	Fee Change Between the 2012 and 2018 Inventories	Current Parking Fee (2020) ¹⁰
Wonderland	Blue Line	\$5.00	\$5.00	\$0.00	\$7.00
Maverick	Blue Line	\$7.00	\$12.00	\$5.00	\$12.00
Hingham	Ferry F2	\$4.00	\$2.00	-\$2.00	\$2.00
Forest Hills	Orange Line	\$6.00	\$6.00	\$0.00	\$9.00
Malden	Orange Line	\$6.00	\$6.00	\$0.00	\$7.50
Oak Grove	Orange Line	\$6.00	\$6.00	\$0.00	\$9.00
Sullivan Square	Orange Line	\$4.00	\$5.00	\$1.00	\$9.00
Alewife	Red Line	\$7.00	\$7.00	\$0.00	\$9.00
Braintree	Red Line	\$7.00	\$7.00	\$0.00	\$9.00
Mattapan	Red Line	\$4.00	\$4.00	\$0.00	\$2.00
Quincy Adams	Red Line	\$4.50	\$7.00	\$2.50	\$9.00

MBTA = Massachusetts Bay Transportation Authority.
 Source: MBTA, 2017–18 Boston Region MPO Park-and-Ride Inventory.

¹⁰ On September 1, 2018, the MBTA changed the parking fees for several of the MBTA operated parking lots to consummate with demand. The prices of these lots either increased, decreased or stayed the same after this date.

Changes in MBTA Boarding Fares

There were several MBTA boarding fare changes in the period of time between the 2012–13 and 2017–18 inventories. The latest fares available before the 2017–18 park-and-ride inventory commenced are displayed in Appendix E. The notable fare changes are described as follows:

- Rapid transit fees increased from \$2.00 to \$2.25 per ride (\$2.75 if paying by CharlieTicket or cash).
- The outer express buses that serves Bus Route 354, which stops at the Montvale Avenue park-and-ride lot in Woburn, increased from \$5.00 to \$5.25 per ride (\$7.00 if paying by CharlieTicket or cash).
- Commuter rail monthly passes experienced increases of \$14.50 to \$53.25 per month, depending on the zone of travel. Single rides increased by \$0.25 to \$1.50, depending on the zone of travel.
- Commuter ferry monthly passes increased from \$262.00 to \$308.00 per month. Single ride passes experienced increases of \$0.50 to \$2.50 per trip, depending on the route.

MBTA Service Changes between 2012 and 2017¹¹

New Stations/Service Expansions

The MBTA has opened several new stations since the 2012–13 inventory including Talbot Avenue, Four Corners/Geneva Avenue and Newmarket on the Fairmount Line, Wachusett Station on the Fitchburg Line, Boston Landing on the Framingham/Worcester Line, and Assembly Station on the Orange Line.

Service Improvements

Between 2012 and 2018, most commuter rail lines either maintained the same number of trains or added trains during the AM peak period. Notable changes include the Providence Line adding two peak-period trains and the Worcester Line adding four peak-period trains. The only line that had less trains traveling in the AM peak period in 2018 was the Lowell Line.

Additionally, positive train control systems were installed on the Newburyport/Rockport, Lowell, Haverhill, Franklin and Worcester Lines in 2017–18 to prevent collisions and improve reliability. The Beverly drawbridge was also replaced on Newburyport/Rockport Line. On the rapid transit system, the Orange Line headway was increased from five minutes to six minutes.

¹¹ Jonathan Belcher, Central Transportation Planning Staff, “Changes to Transit Service in the MBTA District: 1964-2020,” <http://www.transithistory.org/roster/MBTARouteHistory.pdf> (accessed on March 24, 2020).

The Economy

The United States economy went through a recession that began in 2007. Although the Boston region was not one of the hardest hit regions, the impact of the recession was evident. An economic recession generally results in a decrease in daily commuting to the central business district or at various commercial activity centers. When fewer people commute to work, the result is a drop in utilization of all transportation facilities. Since this economic decline, the economy has steadily recovered. This trend is reflected the 2009–10 and 2012–13 inventories, and is even more evident in the 2017–18 inventory.

Ridesharing

Ridesharing has transformed from a being a niche travel option for early adopters to becoming a major mode of travel in the region since the 2012–13 inventories were conducted. In 2018, over 50 million transportation network company (TNC) trips began in Boston and Cambridge alone.¹² Many MBTA riders do not live within walking distance to an MBTA station. Therefore, many commuters have difficulty commuting from the station to residences. Ridesharing can provide MBTA riders access from residences to transit stations. However, ridesharing is not a complete solution to first- and last-mile commutes, as ridesharing can potentially increase single-occupancy travel, and could have a negative impact on traffic conditions. There are reports that transit trips are eliminated altogether in favor of TNC trips.¹³

Bikesharing

Both dock and dockless bikesharing became popular after the 2012–13 inventory, especially in Boston and the inner-ring suburbs. This mode of transportation has the potential to help solve the last-mile connection between MBTA stations and commuter residences, while not increasing motor vehicular traffic. This commuting method could also help increase transit ridership while potentially reducing parking utilization at crowded parking lots near MBTA stations, since bikesharing is often cheaper than parking at these lots.

Change in Popularity of Public Transportation

In recent years, transit ridership has declined in many major cities in the United States, including Boston. Between 2014 and 2018, the MBTA bus system and all MBTA subway lines experienced declines in ridership, except for the Blue Line.

¹² Commonwealth of Massachusetts, “2018 Data Report—Rideshare in Massachusetts,” available online at <https://tnc.sites.digital.mass.gov/> (accessed March 24, 2020).

¹³ Mass Transit Magazine, “It’s time for transit agencies to (actually) double down on rider focus,” available online at <https://www.masstransitmag.com/technology/passenger-info/article/21085554/its-time-for-transit-agencies-to-actually-double-down-on-rider-focus> (accessed March 24, 2020).

Possible causes of ridership decline include competition between ridesharing services, lower gas prices, and urban sprawl.¹⁴ Commuter rail ridership declined by 6.7 percent since the last inventory was collected.^{15,16} The decrease in ridership on the commuter rail can be attributed to the fare increases that were imposed during this time period. Fare increases can be especially burdensome for low-income riders.¹⁷ Other causes of this decrease in ridership could include train delays and overall reliability of the MBTA transit system, which has experienced severe issues related to weather in recent years.

Change in Land Use Patterns (forced sprawl, transit-oriented development)

Over the last few years, the central core of the Boston region has maintained its population level though migration and has remained a vibrant region, however; some residents have moved further from the central core. This could explain the drop in ridership on the subway system, while the commuter rail ridership has remained relatively consistent.

Conversely, many suburban areas have attempted to change the land use patterns to make communities more attractive to younger people. One of the biggest trends is the implementation of transit-oriented development (TOD), which is the process of upzoning and encouraging high-density development near existing transit stations. TODs often provide commuters in suburban areas more opportunities to live within walking distance to a transit station, which can eliminate the need for a private vehicle to complete a trip.

Station Parking Lot Construction

Several MBTA station platforms, elevators, ramps, and other access points were under construction for the 2017–18 inventory. Appendix A provides information about specific stations under construction. Construction at MBTA stations can prompt commuters to use other MBTA stations to complete a trip, which may have resulted in an increase in parking utilization at nearby stations. This is

¹⁴ Adam Vaccaro, Boston Globe, “MBTA Subway Ridership is Dropping...except on the Blue Line” <https://www.bostonglobe.com/metro/2018/11/28/mbta-subway-ridership-dropping-except-blue-line/qXThqCoRCCeuAkhXI0El1L/story.html> (accessed on March 24, 2020).

¹⁵ Federal Transit Administration, “Massachusetts Bay Transportation Authority 2018 Annual Agency Profile,” available online at <https://www.transit.dot.gov/ntd/transit-agency-profiles/massachusetts-bay-transportation-authority> (accessed March 24, 2020).

¹⁶ Federal Transit Administration, “Massachusetts Bay Transportation Authority 2013 Annual Agency Profile,” available online at <https://www.transit.dot.gov/ntd/transit-agency-profiles/massachusetts-bay-transportation-authority> (accessed March 24, 2020).

¹⁷ Ben Berke, Enterprise News, “Report: high commuter rail fares holding back growth in Brockton,” available online at <https://www.enterpriseneews.com/news/20190911/report-high-commuter-rail-fares-holding-back-growth-in-brockton> (accessed March 24, 2020).

especially true if the construction temporarily causes a station to cease to be Americans with Disabilities Act (also known as ADA)-accessible.

Construction in the parking lots near MBTA stations may also temporarily reduce parking capacity, which can make it appear that parking utilization has increased. Another effect of parking lot construction is the resulting confusion of commuters on where parking is permitted and how much it costs. If resources permit, stations that were under construction at the time of the inventory may be recounted at a later date after the construction is complete.

Conversion of Public Parking to Permit Parking

The permitted usage of municipally and privately-owned parking lots near some MBTA stations has changed since the 2012–13 inventory for various reasons. Public lots allow any commuter to park in the lot with a parking fee. Permit-only parking lots allow only commuters who have a parking pass from a municipality or other entity to park at a specified location.¹⁸ Permit parking is generally not included in the analysis performed for this memorandum, as the memorandum focuses on parking availability for the general public. However, the locations of permit-only and resident-only parking near MBTA stations are discussed in Section 7.3.

¹⁸ Since the 2012–13 inventory was collected, 42 parking spaces were converted to permit-only spaces at Reading Station, 26 spaces were converted to permit-only spaces at West Medford, and 74 spaces were converted to permit-only spaces at Stoughton Station.

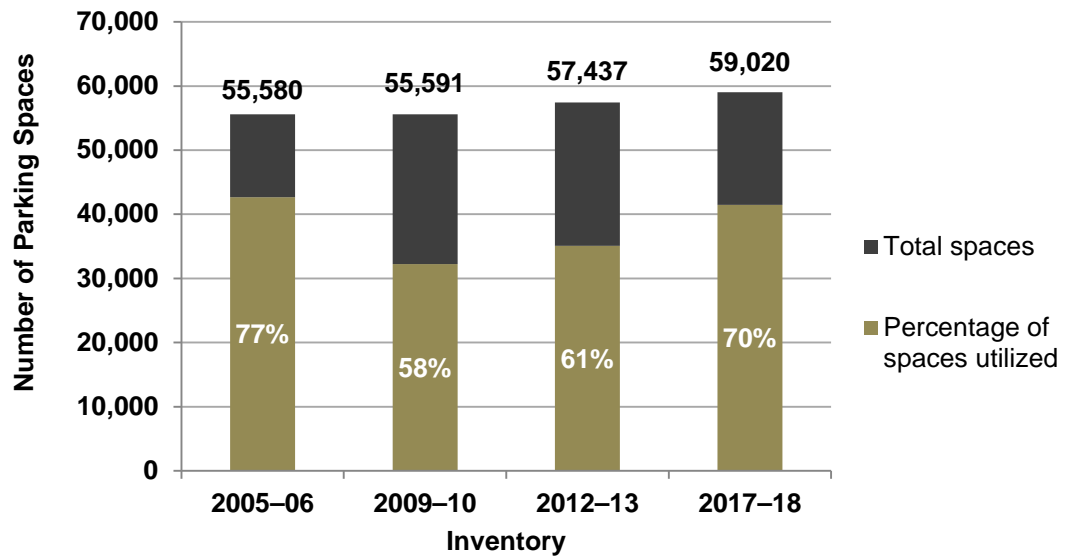
5 INVENTORY RESULTS: PARKING UTILIZATION

An analysis of the inventory results indicated a total net increase of about 1,583 parking spaces in the MBTA park-and-ride system from the 2012–13 inventory to the 2017–18 inventory. On a typical weekday morning, 70 percent of all parking spaces for all transit modes in the MBTA system were used. As shown in Figure 1, there was a nine percent increase in utilization from the 2012–13 survey to the 2017–18 survey, but a seven percent decrease in the utilization rate from the 2005–06 inventory due to a net increase in the number of parking spaces. Major changes that have affected the utilization include the opening of the Wachusett and Assembly stations, the closure of parking lots near Lechmere Station and Quincy/Fore River Ferry Terminal, and the inclusion of several parking facilities near stations, which were not included in the previous inventories.

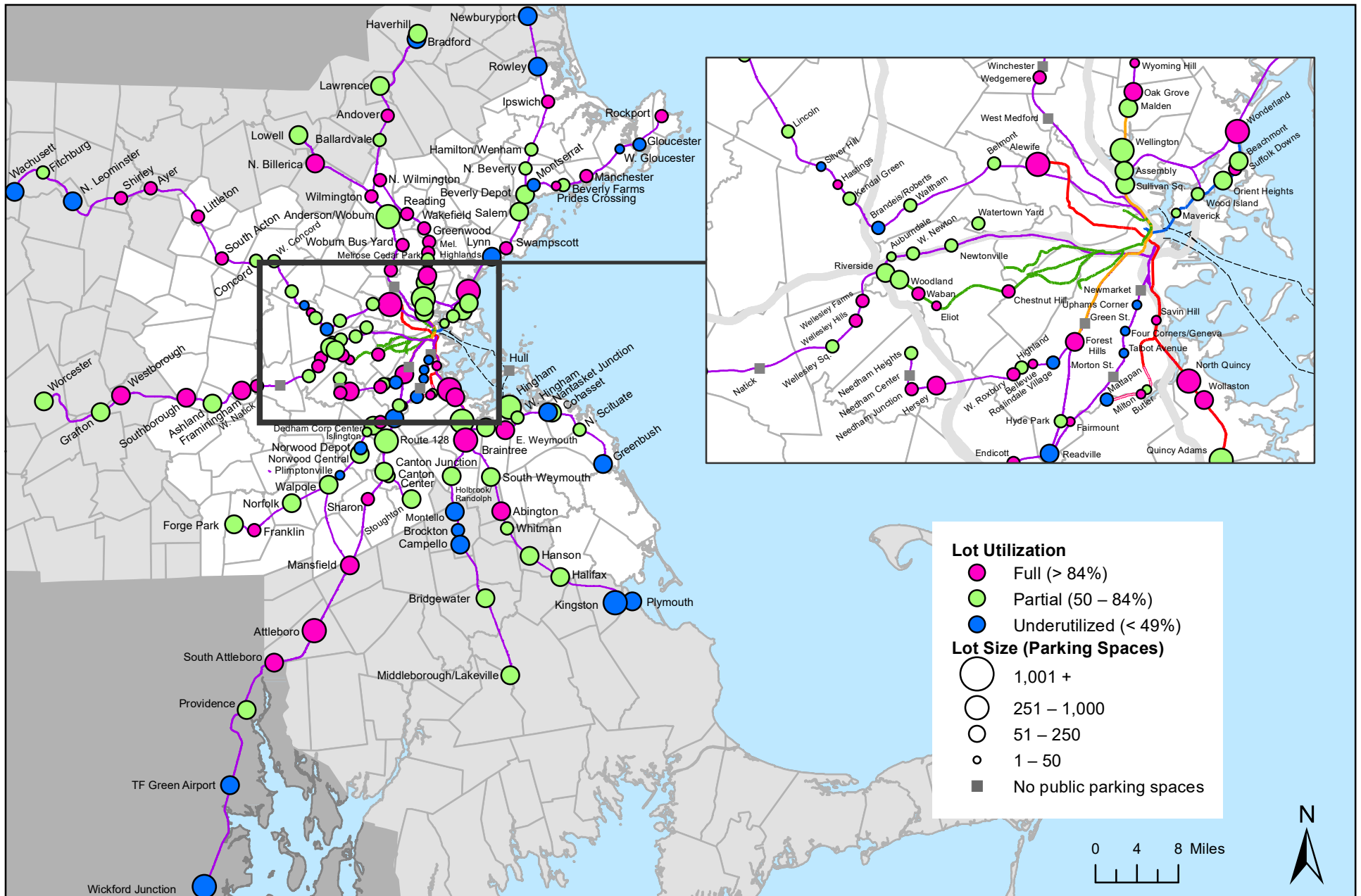
The breakdown of parking utilization rates across the different transit modes was 64 percent utilization for the commuter rail system, 85 percent utilization for the rapid transit system, 78 percent utilization for express bus, and 65 percent utilization for commuter ferry.¹⁹ Figure 2 shows the parking capacity and utilization for each individual station that was collected for the 2017–18 inventory. For a graphical comparison of the parking utilization difference between the 2012–13 and 2017–18 inventories by individual station, refer to Figure B-1 in Appendix B.

¹⁹ Some stations with parking serve both commuter rail and rapid transit. To avoid confusion, these stations are all categorized as rapid transit in this inventory.

Figure 1
Utilization at Park-and-Ride Lots near MBTA Stations: 2005–06, 2009–10, 2012–13, and 2017–18 Inventories



MBTA = Massachusetts Bay Transportation Authority.
 Source: 2017–18 Boston Region MPO Park-and-Ride Inventory.



BOSTON
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FIGURE 2
Park-and-Ride Lot Capacity and Utilization,
2017–18 Inventory

*Congestion
Management
Process*

5.1 Commuter Rail

Table 4 shows the 2017–18 commuter rail park-and-ride utilization by line.

**Table 4
Commuter Rail Parking Inventory and Percent of Parking Utilization at
Park-and-Ride Lots near MBTA Stations, 2017–18**

Commuter Rail Line	Number of Parking Spaces	Percent Utilization
Fitchburg Line	2,283	60%
Haverhill Line*	2,332	64%
Lowell Line	2,939	76%
Newburyport/Rockport Line*	4,362	47%
<i>North Side Total</i>	<i>11,916</i>	<i>60%</i>
Fairmount Line	381	40%
Framingham/Worcester Line	3,841	82%
Franklin Line	3,562	69%
Greenbush Line*	2,906	47%
Kingston/Plymouth Line*	3,372	56%
Middleborough/Lakeville Line	2,778	51%
Needham Line	933	81%
Providence/Stoughton Line*	9,143	71%
<i>South Side Total</i>	<i>26,916</i>	<i>65%</i>
Grand Total	38,832	64%

*The parking lots near the Beverly Farms, Haverhill, Mansfield, Nantasket Junction, Plymouth, and Rockport stations were under construction at the time of the 2017–18 survey. The parking utilization and capacity may have been temporarily affected as a result.
 MBTA = Massachusetts Bay Transportation Authority.
 Source: 2017–18 Boston Region MPO Park-and-Ride Inventory.

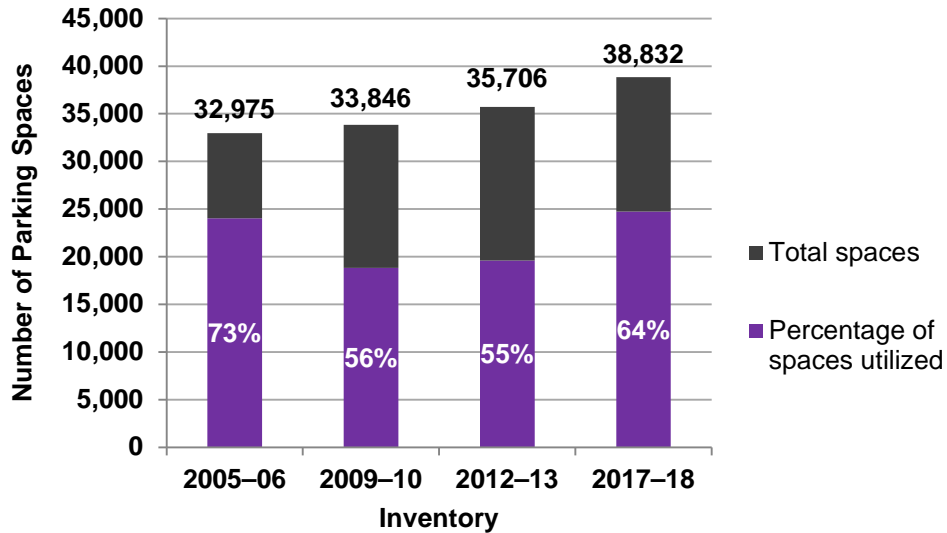
Commuter Rail Comparison of Current and Previous Inventories

More parking spaces at commuter rail stations were filled during the AM peak period of the 2017–18 parking inventory than were filled during the 2012–13 inventory. However, in the 2017–18 inventory, parking utilization was lower than its peak in 2005–06, and the increase of total parking capacity went from 32,975 to 38,832 spaces.

Of the 12 commuter rail lines surveyed in the 2017–18 inventory, every line experienced an increase in utilization since the 2012–13 inventory, except the Fitchburg Line, which stayed the same. The utilization on the Fitchburg Line remained the same despite experiencing an increase of 918 parking spaces since 2012–13, including 351 spaces at the newly-opened Wachusett Station. Figure 3 shows the utilization of the commuter rail system for the past four inventories. For detailed information, such as parking lot capacity, utilization, and

ownership at every commuter rail station, refer to Tables A-1 and A-2 in Appendix A.

Figure 3
MBTA Commuter Rail Park-and-Ride Utilization:
2005–06, 2009–10, 2012–13, and 2017–18 Inventories



MBTA = Massachusetts Bay Transportation Authority.
 Source: 2017–18 Boston Region MPO Park-and-Ride Inventory.

Fitchburg Line

On the Fitchburg Line, 60 percent of all parking spaces were utilized during the AM peak period. This represented a decrease of one percent from the 2012–13 inventory. The utilization remained the same despite an increase of 918 parking spaces, including 351 spaces at the newly-opened Wachusett Station. At the 16 stations that routinely provide parking on this line, Ayer, Hastings, Littleton, Shirley, and South Acton were filled during the AM peak period. Ayer and Littleton were 100 percent filled at the time of observation. South Acton, Shirley, and Hastings were 96 percent, 88 percent, and 86 percent filled, respectively. Wachusett Station, which opened in 2016, had a utilization of 24 percent. There were 71 accessible spaces available along the Fitchburg Line, of which 15 percent were utilized.

Haverhill Line²⁰

During the AM peak period, 64 percent of the 2,332 parking spaces available for public use were filled. This represented an increase of seven percent from the previous inventory. At the 12 stations on the Haverhill Line that have parking lots, Andover, Greenwood, Melrose Highlands, North Wilmington, Reading, Wakefield, and Wyoming Hill were filled during the AM peak period. While there

²⁰ The parking lot near Haverhill Station was under construction at the time of the observation.

were an additional 311 spaces at Reading Station and 26 spaces at Bradford Station, these spaces were only available to residents of these respective communities. There were 56 accessible parking spaces near stations along the Haverhill Line, and 21 percent of those spaces were utilized.

Lowell Line

Out of the 2,939 parking spaces near stations on the Lowell Line, 76 percent were utilized. This represented an increase of 10 percent on the Lowell Line from the previous inventory. Of the five stations on the Lowell Line that have parking, North Billerica, Wedgemere, and Wilmington stations were filled during the AM peak period. The Lowell line had 64 accessible spaces near its stations, and 17 percent of those spaces were utilized.

Newburyport/Rockport Line²¹

There were 4,362 parking spaces available for public use on the Newburyport/Rockport Line; 47 percent of those parking spaces were in use during the AM peak period, which represented a one percent increase from the previous inventory. Of the 16 stations on the line that have parking lots, Ipswich, Manchester, Prides Crossing, Rockport and Swampscott were filled during the AM peak period. Additionally, there were 131 permit-only parking spaces at Beverly Depot, and an additional 15 permit-only parking spaces at Swampscott. All of the resident-only parking spaces were utilized during the AM peak period. The Newburyport/Rockport Line had 107 accessible spaces near its stations, and 21 percent of those spaces were utilized.

Fairmount Line

There were a total of seven stations on the Fairmount Line, and five of these stations had parking nearby.²² Three new stations (Four Corners/Geneva, Newmarket and Talbot Avenue) were built along the Fairmount Line since the 2012–13 inventory was conducted, and both Four Corners/Geneva and Talbot Avenue stations had parking spaces near them. There were 381 parking spaces located near the Fairmount Line, and 40 percent of those parking spaces were utilized during the AM peak period. This represented an increase of five percent from the previous inventory. There were no permit-only parking spaces on this line. The Fairmount Line had 25 accessible parking spaces, and eight percent of those spaces were utilized.

²¹ Parking lots near Beverly Farms and Rockport stations were under construction at the time of the observation.

²² Readville Station is served by both the Fairmount Line and the Franklin Line. To avoid confusion, Readville data were counted as Fairmount Line data for all of the quantitative analyses for this memorandum.

Framingham/Worcester Line

Out of the 13 stations on the Framingham/Worcester Line that had parking, Wellesley Hills, Wellesley Square and Wellesley Farms lots were filled entirely during the AM peak period. Additionally, the Framingham, Southborough, and Westborough lots were 93 percent, 96 percent, and 98 percent utilized, respectively. Of the 3,841 parking spaces on this line, 82 percent were filled during the AM peak period, which represented an increase of 19 percent from the previous inventory. There were permit-only lots at Framingham and Natick stations that had 408 and 139 spaces, respectively. The Framingham lot had 31 percent utilization, and the Natick lot had 52 percent utilization. There were 99 accessible parking spaces along the Framingham/Worcester Line, 24 percent of which were utilized.

Franklin Line

There were a total of 3,562 parking spaces available along the Franklin Line, 69 percent of which were filled.²³ This represented an increase of 13 percent from the previous inventory. Of the 10 stations on the Franklin Line, Endicott was the only station that was completely filled during the AM peak period. Additionally, Franklin Station experienced 90 percent utilization during the AM peak period. In addition to the public spaces, there were 60 permit-only spaces at Franklin Station, which was 63 percent utilized during the AM peak period. The Franklin Line had 66 accessible spaces, with nine percent of the spaces utilized during the AM peak period.

*Greenbush Line*²⁴

At the seven stations on the Greenbush Line, no lots were completely filled during the AM peak period. East Weymouth had the highest utilization along the Greenbush line at 93 percent. There were 2,906 parking spaces available for public use, 47 percent of which were filled during the AM peak period. This represented a three percent increase from the previous inventory. The parking lots along the Greenbush Line had 76 accessible parking spaces, 18 percent of which were utilized.

*Kingston/Plymouth Line*²⁵

At the seven stations on the Kingston/Plymouth Line that have parking, no parking lots were completely filled. However, Abington had 89 percent parking utilization. There were 3,372 parking spaces available for public use on this line, 56 percent of which were filled during the AM peak period. This represented a 12

²³ These totals exclude Readville Station (see the previous footnote).

²⁴ The parking lot near Nantasket Junction was under construction at the time of the observation.

²⁵ One parking lot near Plymouth Station was under construction at the time of the observation.

percent increase from the previous inventory. There were an additional 171 permit-parking spaces at Kingston Station, and 198 permit-parking spaces at Abington Station, which were at 49 percent and 43 percent utilization, respectively. There were 73 accessible parking space along the Kingston/Plymouth Line, of which seven percent were utilized.

Middleborough/Lakeville Line

At the six stations on the Middleborough/Lakeville Line that have parking, no lots were filled during the AM peak period. There were 2,778 parking spaces available for public use, and 51 percent were filled during the AM peak period. This represented an increase of seven percent from the previous inventory. There were no permit-only or resident-only parking spaces on the Middleborough/Lakeville Line. There were 68 accessible parking spaces along the Middleborough/Lakeville Line, and the utilization for the accessible parking spaces was 10 percent.

Needham Line

There were 933 parking spaces available for public use, 81 percent of which were filled during the AM peak period. This represented a 16 percent increase from the previous inventory. Of the eight stations on the Needham Line, both the Hersey and Bellevue stations were 100 percent utilized in the AM peak period. Additionally, the Needham Junction and West Roxbury stations experienced 93 percent and 92 percent utilization, respectively. There were 21 accessible parking spaces along the Needham Line, 19 percent of which were utilized.

Providence/Stoughton Line^{26,27}

There were a total of 9,143 parking spaces available for public use on the Providence/Stoughton Line, 71 percent of which were filled during the AM peak period. This represented a 10 percent increase from the previous inventory. An additional 1,210 parking spaces on the line were designated for resident-only parking; 73 percent of those were in use during the AM peak period. Of the 12 stations on the Providence/Stoughton Line that had parking, no lots were filled completely during the AM peak period. However, the Mansfield, Attleboro, Sharon and South Attleboro stations had utilization of 99 percent, 98 percent, 95 percent, and 88 percent, respectively. There were 174 accessible parking spaces along the line, 20 percent of which were utilized.

²⁶ There were 533 overnight parking spaces at the Route 128 MBTA station that were previously excluded from inventories included in the current inventory for the first time.

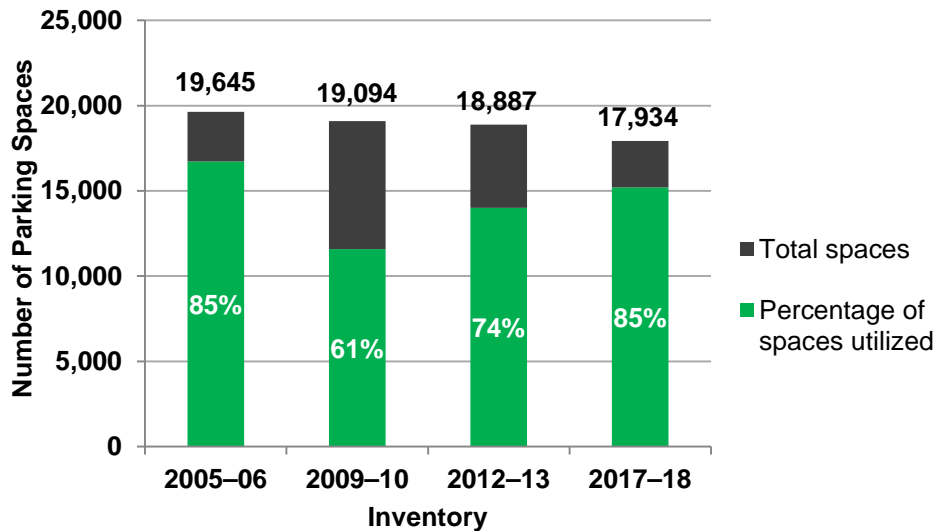
²⁷ Some of the lots near the Mansfield Station were under construction at the time of the observation.

5.2 Rapid Transit

Rapid Transit—Comparison of Previous Inventories

All four rapid transit lines experienced an increase in park-and-ride utilization between the 2012–13 and 2017–18 inventories. The total parking utilization for the rapid transit lines increased to 85 percent from 74 percent in 2012–13. In the 2017–18 inventory, six stations were completely filled during the AM peak period, while in 2012–13 only three stations were completely filled during the AM peak period. In 2009–10, no rapid transit station filled during the AM peak period. Figure 4 shows the utilization of the rapid transit system for the past four inventories. For detailed information, such as parking lot capacity, utilization, and ownership at every rapid transit station, refer to Table A-3 in Appendix A.

Figure 4
MBTA Rapid Transit Park-and-Ride Utilization:
2005–06, 2009–10, 2012–13, and 2017–18 Inventories



MBTA = Massachusetts Bay Transportation Authority.
 Source: 2017–18 Boston Region MPO Park-and-Ride Inventory.

Table 5 shows the percent of parking utilization by rapid transit line.

**Table 5
Rapid Transit Parking Inventory and Percent Utilization at Park-and-Ride
Lots near MBTA Stations, 2017–18**

Rapid Transit Line	Number of Parking Spaces	Percent Utilization
Blue Line	3,288	84%
Green Line	1,679	74%
Orange Line*	5,031	81%
Red Line and Mattapan High-Speed Line*	7,936	90%
Total	17,934	85%

*The parking lots near Alewife and Forest Hills were under construction at the time of the 2017–18 survey. The parking utilization and capacity may have been temporarily affected as a result.
MBTA = Massachusetts Bay Transportation Authority.
Source: 2017–18 Boston Region MPO Park-and-Ride Inventory.

Blue Line

For the current inventory, the Blue Line had six stations that provided parking. No lots were completely filled during the AM peak period. Eighty-four percent of the 3,288 spaces were utilized during the AM peak period, which represented a 19 percent increase from the 2012–13 inventory. However, Suffolk Downs and Wonderland stations had 90 percent and 88 percent utilization, respectively. There was no permit-only parking on this line. There were 58 accessible parking spaces near the Blue Line stations, 48 percent of which were utilized.

Green Line

The Green Line had 1,679 spaces, 74 percent of which were in use during the AM peak period. This represented an 18 percent increase from the 2012–13 inventory. Five Green Line stations had parking, and Chestnut Hill, Eliot and Waban were completely filled during the AM peak period. A parking lot near Lechmere Station, which had 369 spaces in the previous inventory, was removed in 2018. There were 39 accessible parking spaces near the Green Line stations; the utilization rate for those spaces was 21 percent.

Orange Line²⁸

The Orange Line had 5,031 spaces, 81 percent of which were in use during the AM peak period. This represented an increase of eight percent from the previous inventory. Six stations on the Orange Line had public parking lots, none of which were completely filled. However, public parking at Forest Hills and Oak Grove

²⁸ One of the parking lots near Forest Hills Station was under construction at the time of observation.

stations had 98 percent and 96 percent utilization, respectively. Oak Grove had 106 permit-only parking spaces, of which 79 spaces were in use. There were 84 permit-only spaces near Green Street Station, of which 49 spaces were in use. There were 86 accessible parking spaces along the Orange Line; 41 percent of those spaces were utilized. Assembly Station, which opened in September 2014, provided 350 parking spaces, with 84 percent utilization during the AM peak period.

*Red Line and Mattapan High-Speed Line*²⁹

The Red Line and Mattapan High-Speed Line together had nine stations with parking lots. Of the 7,936 parking spaces available for the public, 90 percent were filled during the AM peak period. This represented a seven percent increase from the 2012–13 inventory. The Alewife, Milton, and Wollaston parking lots were all filled to capacity during the AM peak period. The parking lots near the Red Line and Mattapan High-Speed provided 118 accessible parking spaces. The utilization of these spaces was 48 percent.

5.3 Commuter Ferry

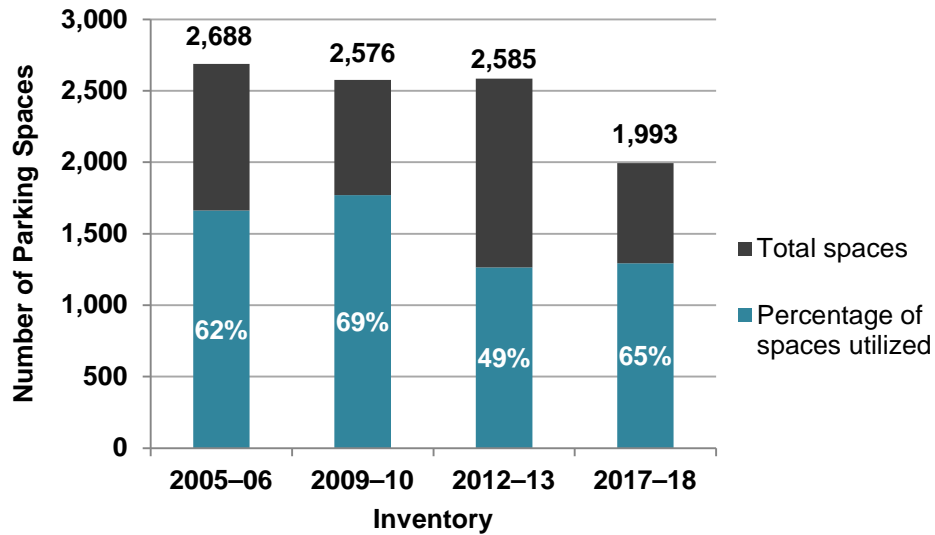
Commuter Ferry—Comparison of Previous Inventories

As shown in Figure 5, parking utilization increased at commuter ferry terminals from 62 percent in 2005–06 to 69 percent in 2009–10, and decreased to 49 percent in 2012–13. In the current inventory, parking utilization increased to 65 percent. This was the result of a decrease in parking capacity; the closure of the Quincy/Fore River Ferry Terminal, and the conversion to permit-only parking in Hull.

For the current inventory, Hingham was the only commuter ferry terminal that offered non-permit parking. Hingham had 1,993 parking spaces, 65 percent that were utilized during the AM peak period. Hingham had 36 accessible parking spaces; 25 percent that were utilized during the AM peak period.

²⁹ Section 2B of the Alewife parking garage was under construction at the time of the observation.

**Figure 5
MBTA Commuter Ferry Park-and-Ride Utilization:
2005–06, 2009–10, 2012–13, and 2017–18 Inventories**



MBTA = Massachusetts Bay Transportation Authority.
Source: 2017–18 Boston Region MPO Park-and-Ride Inventory.

5.4 Express Bus

During the current inventory, there were two express bus parking lots surveyed, the Watertown Bus Lot and the Woburn Bus Lot. The Watertown Bus Lot was served by the 52, 57, 502, and 504 MBTA buses, and had 194 parking spaces. The Woburn Bus Lot was served by the 354 MBTA bus, and had 67 parking spaces. The express bus parking lots were 77 percent filled during the current inventory. This represented a decrease from the 84 percent utilization that was observed during the 2012–13 inventory. The Woburn Bus Lot at Montvale Avenue was 99 percent filled during the AM peak period in the current inventory. There were a total of two accessible parking spaces at the express bus lots, zero of which were filled during the AM peak period.

5.5 Effects on Parking Utilization after Parking Fee Changes

Table 6 shows how parking utilization at stations may have been influenced by parking fee changes between the 2012–13 and 2017–18 inventories. Commuter rail stations that experienced a parking fee decrease since the previous inventory had an increase in utilization of 5.1 percent. Stations that had increases or no changes in parking fees had an increase in utilization of 9.3 percent. This disparity might be a result of the MBTA adjusting the parking fees based on parking demand at each station over time. Additionally, rapid transit stations that experienced an increase in parking fees had an increase in utilization of 2.4

percent, compared to change in utilization of 15 percent for stations that did not have a change in parking fees. For all modes, parking utilization increased 5.8 percent for stations that experienced parking fee decreases, compared to an 8.3 percent increase for stations with a parking fee increase, and 10 percent for stations that did not have a change in parking fees.

**Table 6
Breakdown of Change in Parking Utilization per Station between the 2012–13 and 2017–18 Inventories by Mode and Parking Fee Changes**

Mode	Change in Utilization at Stations with Parking Fee Increase	Change in Utilization at Stations with Parking Fee Decrease	Change in Utilization at Stations Without Parking Fee Change	Change in Utilization by Mode
Commuter rail	9.2%	5.1%	9.3%	8.9%
Rapid transit	2.4%	N/A	15.0%	10.0%
Ferry	N/A	13.0%	N/A	13.0%
Bus	N/A	N/A	-5.0%	-5.0%
All modes	8.3%	5.8%	10.0%	8.9%

N/A = not applicable.
Source: 2012–13 and 2017–18 Boston Region MPO Park-and-Ride Inventory.

6 MAJOR REGIONAL PARK-AND-RIDE LOTS

6.1 Major Regional Park-and-Ride Lots

There are several parking garages and lots serving the MBTA system that are located strategically throughout the MBTA service area to attract a large number of users from many communities. For the purposes of this analysis, all major regional park-and-ride lots are defined as having at least 500 parking spaces. These facilities are typically located at the end of a commuter rail or transit line, or near highways or at major roadway interchanges, and generally have greater capacity than most other stations. These lots include the facilities at Braintree and the Anderson Regional Transportation Center, which are near Route 3 and Interstate 93, respectively. Other stations with such facilities are Route 128 and the South Attleboro stations, which are located directly off of Interstate 95, and the Alewife Station, which is located directly off of Route 2.

These parking facilities have the ability to serve many users due to the convenient location and size, and the facilities supply more than 67 percent of all parking spaces near MBTA transportation facilities, including express bus lots and commuter ferry terminals. Table 7 provides the regional park-and-ride lots serving the MBTA system. Of these lots, Salem, Providence, Malden Center, and Lawrence experienced the biggest decline in utilization between the 2012–13 and 2017–18 inventories. Ashland, Haverhill, Attleboro, Wickford Junction, Wonderland, Riverside, and Woodland stations all experienced parking lot utilization increases of more than 20 percent.

Table 7 does not include accessible parking. The totals also omit 850 permit-only parking spaces, including 106 at Oak Grove, 423 at Mansfield, 150 at Attleboro and 171 at Kingston. Overall, 68 percent of these permit-only spaces were used during the AM peak period.

Table 7
Major Regional Parking Garages and Lots near MBTA Stations: 2017–18
Capacity and Utilization

Station Name	Transit Line	Number of Parking Spaces	Percent Utilization
Ashland	Framingham/Worcester	678	81%
Worcester	Framingham/Worcester	615	69%
Forge Park	Franklin	703	55%
Norfolk	Franklin	619	82%
Norwood Central	Franklin	791	73%
Greenbush	Greenbush	978	23%
Haverhill	Haverhill	544	50%
Lawrence	Haverhill	745	60%
Kingston	Kingston/Plymouth	1,008	48%
South Weymouth	Kingston/Plymouth	623	67%
Anderson/Woburn	Lowell	1,200	70%
Lowell	Lowell	866	69%
North Billerica	Lowell	563	92%
Campello	Middleborough/Lakeville	541	31%
Middleborough/Lakeville	Middleborough/Lakeville	756	60%
Lynn	Newburyport/Rockport	965	28%
Newburyport	Newburyport/Rockport	865	40%
Salem	Newburyport/Rockport	765	56%
Attleboro	Providence/Stoughton	1,036	98%
Canton Junction	Providence/Stoughton	925	78%
Mansfield	Providence/Stoughton	667	99%
Providence	Providence/Stoughton	669	72%
Route 128	Providence/Stoughton	2,528	71%
South Attleboro	Providence/Stoughton	779	88%
TF Green	Providence/Stoughton	591	10%
Wickford Junction	Providence/Stoughton	1,077	29%
<i>Commuter Rail Total</i>		<i>22,097</i>	<i>62%</i>
Wonderland	Blue Line	2,248	88%
Riverside	Green Line	959	69%
Woodland	Green Line	548	76%
Malden Center	Orange Line	828	73%
Oak Grove	Orange Line	682	96%
Sullivan Square	Orange Line	569	71%
Wellington	Orange Line	2,183	78%
Alewife	Red Line	2,439	100%
Braintree	Red Line	1,177	97%
North Quincy	Red Line	1,173	97%
Quincy Adam	Red Line	2,319	77%
Wollaston	Red Line	524	100%
<i>Rapid Transit Total</i>		<i>15,649</i>	<i>86%</i>
Hingham	Ferry	1,993	65%
<i>Commuter Ferry Total</i>		<i>1,993</i>	<i>65%</i>
All Regional Stations	Grand Total	39,739	71%

*The station was under construction at the time of the survey.

MBTA = Massachusetts Bay Transportation Authority.

Source: 2017–18 Boston Region MPO Park-and-Ride Inventory.

7 INVENTORY RESULTS: AMENITIES

The tables in Appendix D summarize the amenities at MBTA stations that have parking lots. This information pertaining to accessible platforms and ramps, along with the absence or presence of benches, bicycle racks, and shelters, was collected as part of this inventory.

7.1 Accessible Platforms

Out of the 121 commuter rail stations inventoried, 95 had fully raised or “mini-high” accessible platforms. All of the stations included in this inventory on the Middleborough/Lakeville, Plymouth/Kingston, Fairmount, Greenbush and Needham lines had accessible platforms.

Out of the 27 rapid transit stations inventoried, 24 had accessible platforms, including all of the stations on the Red, Orange, and Blue lines. Three of the inventoried Green Line stations did not have accessible platforms. Hingham and the express bus lots had accessible sidewalk ramps, and all of the buses were low-level, kneeling buses. Table 8 lists the stations that lack accessible platforms.

Table 8
Stations Without Accessible Platforms:
2017–18 Inventory

Station Name	Transit Line	Transit Mode
Concord	Fitchburg/South Action Line	Commuter Rail
Ayer	Fitchburg/South Action Line	Commuter Rail
Belmont	Fitchburg/South Action Line	Commuter Rail
Hastings	Fitchburg/South Action Line	Commuter Rail
Kendal Green	Fitchburg/South Action Line	Commuter Rail
Lincoln	Fitchburg/South Action Line	Commuter Rail
Shirley	Fitchburg/South Action Line	Commuter Rail
Silver Hill	Fitchburg/South Action Line	Commuter Rail
Auburndale	Framingham/Worcester Line	Commuter Rail
Natick	Framingham/Worcester Line	Commuter Rail
Newtonville	Framingham/Worcester Line	Commuter Rail
Wellesley Farms	Framingham/Worcester Line	Commuter Rail
Wellesley Hills	Framingham/Worcester Line	Commuter Rail
Wellesley Square	Framingham/Worcester Line	Commuter Rail
West Newton	Framingham/Worcester Line	Commuter Rail
Endicott	Franklin Line	Commuter Rail
Franklin	Franklin Line	Commuter Rail
Islington	Franklin Line	Commuter Rail
Plimptonville	Franklin Line	Commuter Rail
Walpole	Franklin Line	Commuter Rail
Greenwood	Haverhill Line	Commuter Rail
Melrose Cedar Park	Haverhill Line	Commuter Rail
Wakefield	Haverhill Line	Commuter Rail
Wyoming Hill	Haverhill Line	Commuter Rail
West Medford	Lowell Line	Commuter Rail
Winchester	Lowell Line	Commuter Rail
Prides Crossing	Newburyport/Rockport Line	Commuter Rail
Chestnut Hill	Green Line	Rapid Transit
Eliot	Green Line	Rapid Transit
Waban	Green Line	Rapid Transit

Source: 2017–18 Boston Region MPO Park-and-Ride Inventory.

7.2 Accessible Parking

Accessible parking spaces are defined in this memorandum as parking spaces that are specifically designated to provide people with disabilities better access to MBTA facilities by automobile. These parking spaces can be identified by surveyors from signs, which include the international symbol of accessibility. A special permit needs to be obtained before a commuter can park in an accessible parking space.

Out of the MBTA stations surveyed for the current 2017–18 inventory, 90 percent provided at least one public accessible parking space. At the time of the inventory, 1,239 accessible parking spaces were located near MBTA stations, with 24 percent of those spaces utilized. The utilization rate for accessible parking spaces had increased three percent since the 2012–13 inventory, despite a two percent increase in accessible parking capacity. Rapid transit had more than double the utilization rate of all other modes, at 43 percent in the current inventory. Table 9 shows the utilization rates of accessible parking spaces by transit line.

Table 9
Accessible Parking near MBTA Stations by Transit Line:
2017–18 Capacity and Utilization

Transit Line	Accessible Parking Spaces	Accessible Parking Space Utilization
Fairmount	25	8%
Fitchburg	71	21%
Framingham/Worcester	99	24%
Franklin	66	9%
Greenbush*	76	18%
Haverhill*	56	21%
Kingston/Plymouth*	73	7%
Lowell	64	17%
Middleborough/Lakeville	68	10%
Needham	21	19%
Newburyport/Rockport*	107	21%
Providence/Stoughton*	174	20%
<i>Commuter Rail Total</i>	<i>900</i>	<i>17%</i>
Blue Line	58	48%
Green Line	39	21%
Orange Line*	86	41%
Red Line*	118	48%
<i>Rapid Transit Total</i>	<i>301</i>	<i>43%</i>
<i>Commuter Ferry Total</i>	<i>36</i>	<i>25%</i>
<i>Bus Total</i>	<i>2</i>	<i>0%</i>
Total Accessible Spaces	1,239	24%

*The parking lots near the Beverly Farms, Haverhill, Mansfield, Nantasket Junction, Plymouth, Rockport, Alewife and Forest Hills stations were under construction at the time of the 2017–18 survey. The parking utilization and capacity may have been temporarily affected as a result.

MBTA = Massachusetts Bay Transportation Authority.

Source: 2017–18 Boston Region MPO Park-and-Ride Inventory.

7.3 Permit-Only and Resident-Only Parking

Permit-only and resident-only parking spots are generally reserved for commuters who either purchase a permit for a certain period of time (for example, yearly or monthly) or commuters who are residents of the local municipality in which the MBTA station (commuter rail or rapid transit) is located. While the main purpose of this memorandum is to show the parking utilization rates for the general public, permit-only and resident-only parking remains a commuter option for MBTA users, so it is included in the analysis.

Table 10 displays the locations of the permit-only and resident-only parking lots near MBTA stations. In the current inventory, there were 3,681 permitted or resident-only parking spaces near MBTA stations, 3,322 parking spaces near commuter rail stations, 190 parking spaces near rapid transit stations, and 169 parking spaces near ferry terminals. The total utilization rate for the lots was 69 percent. Permit parking along the Haverhill Line, Lowell Line, and the Hull Ferry Terminal had the highest rates of permit-parking utilization.

Table 10
Permit-Only and Resident-Only Parking Spaces near MBTA Stations:
2017–18 Inventory Capacity and Utilization

Station Name	Transit Line	Permit-Only and Resident- Only Parking Spaces	Permit-Only and Resident- Only Parking Space Utilization
Belmont	Fitchburg	9	33%
West Concord	Fitchburg	57	58%
Lincoln	Fitchburg	54	100%
South Acton	Fitchburg	322	73%
Framingham	Framingham/Worcester	408	31%
Natick	Framingham/Worcester	83	52%
Franklin	Franklin	60	63%
Bradford	Haverhill	26	65%
Reading	Haverhill	311	94%
Abington	Kingston/Plymouth	198	43%
Kingston	Kingston/Plymouth	171	49%
Wedgemere	Lowell	32	75%
West Medford	Lowell	71	90%
Winchester	Lowell	164	82%
Beverly Depot	Newburyport/Rockport	131	100%
Swampscott	Newburyport/Rockport	15	100%
Attleboro	Providence/Stoughton	150	51%
Mansfield*	Providence/Stoughton	423	80%
Sharon	Providence/Stoughton	500	81%
Stoughton	Providence/Stoughton	137	49%
<i>Commuter Rail Total</i>		3,322	68%
Green Street	Orange Line	84	58%
Oak Grove	Orange Line	106	75%
<i>Rapid Transit Total</i>		190	67%
<i>Commuter Ferry Total</i>		169	94%
Total Permit Parking Spaces		3,681	69%

*Parking lots at Mansfield Station were under construction at the time of the survey. The parking utilization and parking capacity may have been temporarily affected as a result.

MBTA = Massachusetts Bay Transportation Authority.

Source: 2017–18 Boston Region MPO Park-and-Ride Inventory.

7.4 Bicycle Racks and Cages

The MPO staff last collected bicycle parking data from the spring and fall of April 2017 to November 2018, and from an earlier inventory conducted in 2012–13 on bicycle parking facilities' capacity and utilization for all MBTA stations.³⁰ The inventory included 143 rapid transit stations, 129 commuter rail stations, six commuter ferry terminals, and two major bus stops. Of the 280 stations included in the bicycle inventory, 86 percent had bicycle racks. This included 114 of the 143 rapid transit stations, 120 of the 129 commuter rail stations, five of the six ferry terminals, and one of the two major bus stops. The MBTA stations that either currently had or will have bike ports or bicycle cages are listed in Appendix D.

The station with the highest bike parking capacity was Alewife with 494 spaces. Between the previous bicycle parking inventory in 2012–13, and the current 2017–18 bicycle parking inventory, there was a 6 percent increase in the number of parked bicycles, and a 20 percent increase in the number of bicycle parking spaces. Table 11 shows the percentages of bicycle rack utilization by mode and line throughout the system. Figures B-3 and B-4 in Appendix B are maps of the bicycle parking capacity and utilization by station.

³⁰ Hiral Gandhi, Boston Region Metropolitan Planning Organization titled "2012 Inventory of Bicycle Parking Spaces and Number of Parked Bicycles at MBTA Stations," available online at https://www.ctps.org/data/pdf/programs/cmp/Inventory_of_Bicycle_Parking.pdf (accessed March 25, 2020).

**Table 11
Bicycle Parking Capacity and Utilization at Park-and-Ride Stations near
MBTA Stations, 2017–18**

Transit Line	Bicycle Parking Spaces	Percent Utilization
Newburyport/Rockport	383	29%
Haverhill	216	20%
Lowell	161	30%
Fitchburg	383	22%
Framingham/Worcester	247	30%
Needham	91	20%
Franklin	162	23%
Fairmount	143	1%
Providence/Stoughton	348	43%
Middleborough/Lakeville	147	6%
Kingston/Plymouth	98	16%
Greenbush	98	20%
<i>Commuter Rail Total</i>	<i>2,429</i>	<i>25%</i>
Red Line	1,875	55%
Mattapan High-Speed Line	99	3%
Blue Line	512	30%
Orange Line	1,074	36%
Green Line	1,117	31%
Silver Line Washington Street	194	13%
Silver Line Waterfront	202	35%
Silver Line SL3	47	26%
<i>Rapid Transit Total</i>	<i>4,783</i>	<i>40%</i>
<i>Commuter Ferry Total</i>	<i>62</i>	<i>29%</i>
<i>Bus Total</i>	<i>12</i>	<i>8%</i>
Grand Total	7,286	35%

Note: Bicycles and racks are counted more than once at stations that serve more than one transit line. In those cases, each bicycle and each rack is counted once for each line. However, in each of the totals for that station, these spaces are counted only once.

MBTA = Massachusetts Bay Transportation Authority.

Source: 2017–18 Boston Region MPO Park-and-Ride Inventory.

7.5 Shelters

Most of the MBTA stations with park-and-ride lots have shelters. In the current inventory, a shelter was defined as any structure that provides some protection from the weather. The structure could be a roof over a platform, a completely enclosed station, or a stand-alone structure with a roof and walls. The locations that do not have a shelter include the Hastings, Lincoln, and Plimptonville stations, and the Hingham Ferry Terminal. All rapid transit stations, parking lots for MBTA bus service, and the Hull Ferry Terminal had shelters on the inbound

side. Certain stations, such as Alewife and Braintree, had shelters on both the inbound and outbound sides.

8 CONCLUSION

In summary, the data from the 2017–18 park-and-ride inventory analysis provided the following suggestions and conclusions.

8.1 General Conclusions

Park-and-ride utilization has increased from 61 percent to 70 percent since the previous parking inventory in 2012–13. However, there was a net increase of 1,583 parking spaces from the previous inventory. To compare by transit mode, commuter rail park-and-ride lots increased by 3,126 spaces, rapid transit park-and-ride lots decreased by 953 spaces, and commuter ferry park-and-ride lots decreased by 592 spaces.

Although more spaces were added since the previous inventory, more park-and-ride lots at MBTA stations were filled in the current inventory than in the 2012–13 inventory. This is consistent with the nationwide trend of more commuters traveling by public transportation, which can be attributed to the improvement of the economy since the recession in 2007.

In the current inventory, 37 percent of the stations surveyed had parking lots that filled to 85 percent or more of lot capacity. Park-and-ride lots at 19 percent of the stations surveyed were less than half-utilized at the end of the AM peak period. Of the 53 lots that filled to 85 percent or more of lot capacity, 36 were smaller lots (with 250 spaces or fewer); by contrast, larger lots (with 1,000 spaces or more) were 96 percent utilized, on average.

8.2 Commuter Rail

Overall, commuter rail utilization increased along with an increase in parking spaces near commuter rail stations. However, the data also showed that utilization declined at certain stations, notably Providence, Malden Center, and Quincy Adams stations.

There was at least one station on every MBTA commuter rail line where 45 percent or more of parking was available on a typical weekday morning, with the exception of the Lowell and Framingham/Worcester lines, where there was at least one station that had 30 percent available parking on a typical weekday morning.

Major commuter garages and facilities, located near major highways, provided more than 67 percent of the MBTA system's parking capacity. There were several park-and-ride lots at commuter rail stations that experienced significant increases, such as the 44 percent increase in utilization at the Ashland Station. Additionally, there were decreases in parking utilization, such as the 10 percent decrease in utilization at the Lawrence station.

8.3 Rapid Transit

Parking utilization continued to increase at park-and-ride lots near rapid transit stations, despite the increase in parking fees at most parking lots. Additionally, there were 953 less parking spaces in the current inventory, compared to the 2012–13 inventory. The reduction in parking spaces was due in large part to the closure of the parking lot near Lechmere. The Red Line had the highest utilization of all of the rapid transit lines at 90 percent, which was an increase of 7 percent from the 2012–13 inventory.

8.4 Commuter Ferry

Currently, the only commuter ferry terminal that had parking nearby was Hingham. This terminal experienced an increase in parking utilization, possibly due to the closure of the Quincy/Fore River Ferry Terminal. The Quincy/Fore River Ferry Terminal is approximately 2.5 miles away from the Hingham Ferry Terminal, so it is very plausible that many commuters shifted to the Hingham Ferry Terminal when the Quincy/Fore River Ferry Terminal closed.

8.5 Express Bus

The parking utilization at express bus lots decreased from the 2012–13 parking inventory. A possible reason for this could be due to the decline in bus ridership in recent years.

8.6 Major Regional Park-and-Ride Lots

The Salem and Providence park-and-ride lots experienced the biggest decline in utilization among commuter rail stations from the 2012–13 inventory to the current 2017–18 inventory. The Salem and Providence parking lots experienced a 17 percent and 14 percent decline in utilization, respectively. The decrease in utilization at the Salem Station parking facility was due to construction during the 2012–13 inventory, when parking capacity was temporarily decreased. The Ashland and Attleboro stations experienced parking utilization increases of 44 percent and 31 percent since the 2012–13 inventory, respectively. The increase in parking at the Ashland commuter rail stop could be evidence of the population growth of the MetroWest region in recent years.

The Woodland and Riverside park-and-ride lots experienced parking lot utilization increases of 33 percent and 29 percent, respectively. The Malden Center parking lot experienced a decline of 11 percent since the 2012–13 inventory.

8.7 Amenity Conclusions

The overall utilization of accessible parking spaces has increased since the 2012–13 inventory. Both the Red Line and the Blue Line had the highest utilization rate for accessible parking spaces at 48 percent.

Permit-only and resident-only parking located along the Haverhill Line, Lowell Line, and Hingham Ferry Terminal had the highest utilization. All three of these lines had utilization of 83 percent or higher.

The number of bicycles parked and bicycle spaces at MBTA stations increased from the 2012–13 bicycle parking inventory to the 2017–18 bicycle parking inventory. However, the bicycle parking utilization decreased during that same time period due to the increase in bicycle parking.

9.0 NEXT STEPS

9.1 Park-and-Ride Dashboard

The Boston Region MPO is always exploring ways to better communicate findings to commuters in the Boston region, as this information can be vital for improving long-term planning for parking capacity at MBTA stations. As part of this effort, an interactive dashboard has been created for the Boston Region MPO website, which will allow commuters and regional planners to view parking information at all MBTA stations.

This dashboard includes information contained in this memorandum and provides a sample of the parking conditions at every parking lot near MBTA stations, including parking capacity, parking utilization, and the location of park-and-ride lots near each transit station.

9.2 Bicycle Parking Monitoring

In addition to surveying MBTA station parking, the Boston Region MPO also surveys bicycle parking at every MBTA station. A summary of the results of the bicycle parking survey is in Section 7.4. There is also a separate detailed memorandum that analyzes the bicycle parking capacity and utilization for the MBTA network that will be posted to the Boston Region MPO website in the near future.

9.3 Origin-Destination Analysis

While the Boston Region MPO was surveying stations for automobile and bicycle access, the MPO was able to collect vehicle license plate data for many of the stations that were surveyed. The MPO is exploring the possibility of using these data to conduct an origin-destination analysis for the surveyed parking lots. This origin-destination analysis will be useful for the CMP and the travel demand modeling because it provides the travel patterns of commuters. These data can also inform planners and engineers of problem areas on the roadway network leading to transit stations.

Appendix A: Parking Utilization: Comprehensive Results of 2017–18 Inventory

Appendix B: Maps of Park-and-Ride Lots and Bicycle Parking

Appendix C: Park-and-Ride Lot Survey Form 2017–18

Appendix D: Amenities: Comprehensive Results of Inventory

Appendix E: MBTA Fare Increase: State Fiscal Year 2017

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Title VI Specialist
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Boston, MA 02116
civilrights@ctps.org
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617.570.9193 (TTY)

APPENDIX A

PARKING UTILIZATION: COMPREHENSIVE RESULTS OF 2017-18 INVENTORY

Table A-1
North Side Commuter Rail: Inventory of MBTA Park-and-Ride Lots,
Nonaccessible Spaces, 2017–18

Station	Commuter Rail Line	Lot Ownership	Date of Observation	Parking Spaces	Occupied Parking Spaces at Time of Last AM Peak-Period Inbound Train	Percent Parking Space Utilization	Parking Fee
Ayer	Fitchburg	Private	9/26/2017	19	19	100%	\$0.00
Ayer	Fitchburg	Town	9/26/2017	64	64	100%	\$0.00
Belmont	Fitchburg	Town	9/15/2017	119	80	67%	\$5.00
Belmont	Fitchburg	Town	9/15/2017	9	3	33%	permit only
Brandeis/Roberts	Fitchburg	MBTA	10/4/2017	23	15	65%	\$4.50
Brandeis/Roberts	Fitchburg	Private	10/4/2017	53	15	28%	\$4.50
Concord	Fitchburg	Private	9/15/2017	57	33	58%	permit only
Concord	Fitchburg	Town	9/15/2017	85	63	74%	\$0.00
Fitchburg	Fitchburg	MART	12/19/2018	240	135	56%	\$4.00
Hastings	Fitchburg	Town	10/4/2017	7	6	86%	\$0.00
Kendal Green	Fitchburg	Private	10/6/2017	52	41	79%	\$4.00
Lincoln	Fitchburg	Private	10/25/2017	20	18	90%	\$0.00
Lincoln	Fitchburg	Town	10/25/2017	100	83	83%	\$3.00
Lincoln	Fitchburg	Town	10/25/2017	54	54	100%	permit only
Littleton	Fitchburg	MBTA	9/27/2017	220	220	100%	\$4.50
North Leominster	Fitchburg	MART	9/19/2018	436	130	30%	\$3.00
Shirley	Fitchburg	Town	9/19/2018	113	100	88%	\$0.00
Silver Hill	Fitchburg	Town	9/26/2017	8	1	13%	\$0.00
South Acton	Fitchburg	Town	12/19/2018	110	106	96%	\$5.00
South Acton	Fitchburg	Town	12/19/2018	322	235	73%	permit only
Wachusett	Fitchburg	MART	9/27/2017	351	85	24%	\$3.00
Waltham	Fitchburg	Town	9/14/2018	86	64	74%	\$2.00
West Concord	Fitchburg	Town	10/5/2017	177	136	77%	\$4.50

Station	Commuter Rail Line	Lot Ownership	Date of Observation	Parking Spaces	Occupied Parking Spaces at Time of Last AM Peak-Period Inbound Train	Percent Parking Space Utilization	Parking Fee
Andover	Haverhill	MBTA	6/6/2018	145	145	100%	\$4.00
Ballardvale	Haverhill	MBTA	6/8/2018	118	93	79%	\$4.00
Bradford	Haverhill	MBTA	10/17/2017	291	99	34%	\$4.50
Bradford	Haverhill	Private	10/17/2017	26	17	65%	permit only
Greenwood	Haverhill	Private	10/3/2017	6	6	100%	\$0.00
Greenwood	Haverhill	Town	10/4/2017	76	66	87%	\$2.00
Haverhill ^a	Haverhill	MBTA	10/11/2017	544	270	50%	\$4.00
Lawrence	Haverhill	MVRTA	6/12/2018	745	450	60%	\$4.00
Melrose Cedar Park	Haverhill	Town	6/8/2018	79	40	51%	\$3.00
Melrose Highland	Haverhill	MBTA	10/3/2017	65	63	97%	\$3.00
North Wilmington	Haverhill	Private	6/12/2018	50	48	96%	\$0.00
Reading	Haverhill	MBTA	9/13/2018	71	64	90%	\$6.00
Reading	Haverhill	Town	9/13/2018	311	292	94%	permit only
Wakefield	Haverhill	MBTA	9/28/2017	110	109	99%	\$4.50
Wyoming Hill	Haverhill	Town	9/13/2018	32	28	88%	\$3.00
Anderson/Woburn	Lowell	MBTA	11/01/2017	1200	841	70%	\$4.00
Lowell	Lowell	LRTA	10/31/2017	866	597	69%	\$7.00
North Billerica	Lowell	LRTA	6/6/2018	563	520	92%	\$4.00
Wedgemere	Lowell	MBTA	9/14/2018	119	112	94%	\$1.00
Wedgemere	Lowell	On-Street	9/14/2018	32	24	75%	permit only
West Medford	Lowell	MBTA	9/14/2018	26	24	92%	permit only
West Medford	Lowell	Town	9/14/2018	45	40	89%	permit only
Wilmington	Lowell	MBTA	6/8/2018	191	164	86%	\$4.00
Winchester	Lowell	Town	9/14/2018	164	134	82%	permit only

Station	Commuter Rail Line	Lot	Date of	Parking	Occupied	Percent	Parking
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		Ownership	Observation	Spaces	Parking Spaces at Time of Last AM Peak-Period Inbound Train	Parking Space Utilization	Fee
Beverly Depot	Newburyport/Rockport	MBTA	11/02/2017	483	302	63%	\$5.00
Beverly Depot	Newburyport/Rockport	Private	11/02/2017	131	131	100%	permit only
Beverly Farms ^b	Newburyport/Rockport	Town	10/04/2017	60	30	50%	\$0.00
Gloucester	Newburyport/Rockport	MBTA	10/26/2017	96	18	19%	\$4.50
Hamilton/Wenham	Newburyport/Rockport	MBTA	10/27/2017	188	109	58%	\$4.50
Ipswich	Newburyport/Rockport	On-Street	6/7/2018	18	18	100%	\$0.00
Ipswich	Newburyport/Rockport	Town	6/7/2018	128	128	100%	\$0.00
Lynn	Newburyport/Rockport	MBTA	11/2/2017	965	270	28%	\$4.00
Manchester	Newburyport/Rockport	Town	11/02/2017	72	72	100%	\$0.00
Montserrat	Newburyport/Rockport	MBTA	10/4/2017	112	45	40%	\$4.50
Newburyport	Newburyport/Rockport	MBTA	10/17/2017	865	343	40%	\$4.50
North Beverly	Newburyport/Rockport	MBTA	11/01/2017	82	54	66%	\$4.50
Prides Crossing	Newburyport/Rockport	Town	9/22/2017	8	7	88%	\$0.00
Rockport ^c	Newburyport/Rockport	Town	10/26/2017	80	68	85%	\$0.00
Rowley	Newburyport/Rockport	MBTA	10/31/2017	275	40	15%	\$4.50
Salem	Newburyport/Rockport	MBTA	11/03/2017	700	366	52%	\$4.50
Salem	Newburyport/Rockport	Town	11/03/2017	65	64	98%	\$4.00
Swampscott	Newburyport/Rockport	MBTA	11/30/2018	123	108	88%	\$6.00
Swampscott	Newburyport/Rockport	Town	11/30/2018	15	15	100%	permit only
West Gloucester	Newburyport/Rockport	MBTA	10/27/2017	42	8	19%	\$4.50

^aParking lot near Haverhill was under construction at the time of survey.

^bParking lot near Beverly Farms was under construction at the time of survey.

^cParking lot near Rockport was under construction at the time of survey.

LRTA = Lowell Regional Transit Authority. MART= Montachusett Regional Transit Authority. MBTA = Massachusetts Bay Transportation Authority. MVRTA= Merrimack Valley Regional Transit Authority.

**Table A-2
South Side Commuter Rail: Inventory of MBTA Park-and-Ride Lots,
Nonaccessible Spaces, 2017–18**

Station	Commuter Rail Line	Lot Ownership	Date of Observation	Parking Spaces	Occupied Parking Spaces at Time of Last AM Peak-Period Inbound Train	Percent Parking Space Utilization	Parking Fee
Fairmount	Fairmount	MBTA	11/1/2017	37	32	86%	\$4.50
Four Corners/Geneva Ave.	Fairmount	MBTA	9/21/2018	3	0	0%	\$0.00
Morton Street	Fairmount	MBTA	10/18/2017	0	0	0%	\$0.00
Newmarket	Fairmount	Town	9/21/2018	0	0	0%	\$0.00
Readville	Fairmount	MBTA	9/27/2017	338	121	36%	\$4.50
Talbot Ave	Fairmount	MBTA	9/21/2018	1	0	0%	\$0.00
Uphams Corner	Fairmount	MBTA	9/21/2018	2	0	0%	\$0.00
Ashland	Framingham/Worcester	MBTA	10/25/2017	678	548	81%	\$4.50
Auburndale	Framingham/Worcester	MBTA	10/18/2017	33	31	94%	\$4.50
Auburndale	Framingham/Worcester	On-Street	10/18/2017	12	0	0%	\$0.00
Framingham	Framingham/Worcester	MBTA	9/26/2018	276	276	100%	\$4.00
Framingham	Framingham/Worcester	Private	9/26/2018	119	85	71%	permit only
Framingham	Framingham/Worcester	Town	9/26/2018	65	40	62%	\$5.00
Framingham	Framingham/Worcester	Town	9/26/2018	289	42	15%	permit only
Grafton	Framingham/Worcester	MBTA	10/18/2017	379	257	68%	\$4.50
Natick	Framingham/Worcester	Town	10/6/2017	83	43	52%	permit only
Newtonville	Framingham/Worcester	MBTA	9/27/2017	80	68	85%	\$4.50
Newtonville	Framingham/Worcester	Town	9/27/2017	49	20	41%	\$4.50
Southborough	Framingham/Worcester	MBTA	10/19/2017	364	351	96%	\$4.50
Wellesley Farms	Framingham/Worcester	Town	10/12/2017	192	192	100%	\$6.00
Wellesley Hills	Framingham/Worcester	On-Street	10/12/2017	17	17	100%	\$0.00
Wellesley Hills	Framingham/Worcester	Town	10/12/2017	50	50	100%	\$0.00
Wellesley Square	Framingham/Worcester	Town	10/6/2017	222	138	62%	\$6.00

Station	Commuter Rail Line	Lot Ownership	Date of Observation	Parking Spaces	Occupied Parking Spaces at Time of Last AM Peak-Period Inbound Train	Percent Parking Space Utilization	Parking Fee
West Natick	Framingham/Worcester	MBTA	10/4/2017	172	172	100%	\$4.50
West Newton	Framingham/Worcester	MBTA	11/1/2017	197	123	62%	\$4.00
Westborough	Framingham/Worcester	MBTA	10/19/2017	440	430	98%	\$4.50
Worcester	Framingham/Worcester	MBTA	10/18/2017	534	344	64%	\$4.50
Worcester	Framingham/Worcester	Town	10/18/2017	81	81	100%	\$3.00
Dedham Corp Center	Franklin	MBTA	9/29/2017	486	262	54%	\$4.50
Endicott	Franklin	Town	9/21/2017	53	53	100%	\$0.00
Forge Park	Franklin	MBTA	10/20/2017	703	384	55%	\$4.50
Franklin	Franklin	MBTA	10/20/2017	180	168	93%	\$4.50
Franklin	Franklin	Private	10/20/2017	60	38	63%	permit only
Islington	Franklin	MBTA	10/10/2017	32	23	72%	\$4.50
Norfolk	Franklin	MBTA	6/13/2018	619	506	82%	\$4.00
Norwood Central	Franklin	MBTA	9/22/2017	767	557	73%	\$4.50
Norwood Central	Franklin	Private	9/22/2017	24	18	75%	\$0.00
Norwood Depot	Franklin	MBTA	9/22/2017	214	86	40%	\$4.50
Plimptonville	Franklin	Town	9/29/2017	5	1	20%	\$0.00
Walpole	Franklin	MBTA	9/21/2017	382	382	100%	\$4.50
Walpole	Franklin	Private	9/21/2017	97	0	0%	\$0.00
Cohasset	Greenbush	MBTA	9/21/2018	377	214	57%	\$2.00
East Weymouth	Greenbush	MBTA	9/26/2018	327	305	93%	\$6.00
Greenbush	Greenbush	MBTA	9/20/2018	978	229	23%	\$2.00
Nantasket Junction ^a	Greenbush	MBTA	9/21/2018	481	98	20%	\$2.00
North Scituate	Greenbush	MBTA	9/20/2018	242	173	71%	\$2.00
West Hingham	Greenbush	MBTA	9/26/2018	224	156	70%	\$4.00
Weymouth Landing/E. Braintree	Greenbush	MBTA	6/8/2018	277	180	65%	\$4.00

Station	Commuter Rail Line	Lot	Date of	Parking	Occupied Parking	Percent	Parking Fee
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		Ownership	Observation	Spaces	Spaces at Time of Last AM Peak-Period Inbound Train	Parking Space Utilization	
Abington	Kingston/Plymouth	MBTA	9/27/2018	395	353	89%	\$4.00
Abington	Kingston/Plymouth	Private	9/27/2018	198	86	43%	permit only
Halifax	Kingston/Plymouth	MBTA	10/19/2017	402	212	53%	\$4.50
Hanson	Kingston/Plymouth	MBTA	9/27/2018	420	266	63%	\$4.00
Kingston	Kingston/Plymouth	MBTA	9/20/2018	1008	479	48%	\$4.00
Kingston	Kingston/Plymouth	Private	9/20/2018	171	84	49%	permit only
Plymouth	Kingston/Plymouth	MBTA	9/20/2018	92	0	0%	\$2.00
Plymouth ^b	Kingston/Plymouth	Town	9/20/2018	240	36	15%	\$0.00
South Weymouth	Kingston/Plymouth	MBTA	9/27/2018	623	415	67%	\$2.00
Whitman	Kingston/Plymouth	MBTA	9/27/2018	192	130	68%	\$6.00
Bridgewater	Middleborough/Lakeville	MBTA	9/21/2018	489	301	62%	\$4.00
Brockton	Middleborough/Lakeville	BAT	9/28/2018	245	108	44%	\$4.00
Campello	Middleborough/Lakeville	MBTA	9/21/2018	541	168	31%	\$2.00
Holbrook/Randolph	Middleborough/Lakeville	MBTA	9/28/2018	348	231	66%	\$4.00
Middleborough/Lakeville	Middleborough/Lakeville	MBTA	11/30/2018	756	457	60%	\$4.00
Montello	Middleborough/Lakeville	MBTA	9/28/2018	399	153	38%	\$4.00
Bellevue	Needham	MBTA	9/27/2017	35	35	100%	\$4.50
Hersey	Needham	MBTA	10/24/2017	309	308	100%	\$4.50
Highland	Needham	MBTA	11/2/2017	169	115	68%	\$4.50
Needham Center	Needham	Town	10/26/2017	0	0	0%	permit only
Needham Heights	Needham	MBTA	10/26/2017	96	63	66%	\$4.50
Needham Junction	Needham	MBTA	9/26/2018	125	116	93%	\$6.00
Roslindale Village	Needham	MBTA	10/10/2017	139	63	45%	\$4.50
West Roxbury	Needham	MBTA	11/2/2017	60	55	92%	\$4.50

Station	Commuter Rail Line	Lot	Date of	Parking	Occupied Parking	Percent	Parking Fee
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		Ownership	Observation	Spaces	Spaces at Time of Last AM Peak-Period Inbound Train	Parking Space Utilization	
Attleboro	Providence/Stoughton	GATRA	9/19/2018	779	769	99%	\$4.00
Attleboro	Providence/Stoughton	Private	9/19/2018	257	250	97%	\$3.00
Attleboro	Providence/Stoughton	Town	9/19/2018	150	77	51%	permit only
Canton Center	Providence/Stoughton	MBTA	9/29/2017	211	160	76%	\$4.50
Canton Junction	Providence/Stoughton	MBTA	10/17/2017	751	611	81%	\$4.50
Canton Junction	Providence/Stoughton	Private	10/17/2017	174	113	65%	\$3.00
Hyde Park	Providence/Stoughton	MBTA	9/21/2017	117	81	69%	\$4.50
Mansfield	Providence/Stoughton	MBTA	6/13/2018	267	266	100%	\$4.00
Mansfield ^c	Providence/Stoughton	Private	6/13/2018	190	188	99%	\$7.00
Mansfield	Providence/Stoughton	Private	6/13/2018	350	266	76%	permit only
Mansfield	Providence/Stoughton	Town	6/13/2018	210	209	100%	\$4.00
Mansfield	Providence/Stoughton	Town	6/13/2018	73	72	99%	permit only
Providence	Providence/Stoughton	MBTA	9/27/2018	340	333	98%	\$15.00
Providence	Providence/Stoughton	Private	9/27/2018	329	148	45%	\$18.00
Route 128	Providence/Stoughton	MBTA	10/11/2017	2528	1804	71%	\$7.00
Sharon	Providence/Stoughton	Town	10/20/2017	227	216	95%	\$4.00
Sharon	Providence/Stoughton	Town	10/20/2017	500	404	81%	permit only
South Attleboro	Providence/Stoughton	MBTA	9/12/2018	566	559	99%	\$6.00
South Attleboro	Providence/Stoughton	Private	9/12/2018	213	126	59%	\$0.00
Stoughton	Providence/Stoughton	MBTA	9/14/2018	316	249	79%	\$4.00
Stoughton	Providence/Stoughton	Private	9/14/2018	74	46	62%	permit only
Stoughton	Providence/Stoughton	Town	9/14/2018	63	21	33%	permit only
TF Green	Providence/Stoughton	Private	9/14/2018	591	58	10%	\$5.00
Wickford Junction	Providence/Stoughton	Private	9/14/2018	1077	311	29%	\$0.00

^aParking lot near Nantasket Junction was under construction at the time of survey.

^bParking lot near Plymouth was under construction at the time of survey.

^cParking lot near Mansfield was under construction at the time of survey.

GATRA = Greater Attleboro Taunton Regional Transit Authority. MBTA = Massachusetts Bay Transportation Authority.

Table A-3
Rapid Transit: Inventory of MBTA Park-and-Ride Lots,
Nonaccessible Spaces, 2017–18

Station	Commuter Rail Line	Lot Ownership	Date of Observation	Parking Spaces	Occupied Parking Spaces at Time of Last AM Peak-Period Inbound Train	Percent Parking Space Utilization	Parking Fee
Beachmont	Blue Line	MBTA	5/17/2017	410	289	70%	\$5.00
Maverick	Blue Line	Private	4/13/2018	30	20	67%	\$12.00
Orient Heights	Blue Line	MBTA	5/17/2017	403	303	75%	\$5.00
Suffolk Downs	Blue Line	MBTA	4/13/2018	104	94	90%	\$5.00
Wonderland	Blue Line	MBTA	5/16/2017	135	132	98%	\$5.00
Wonderland	Blue Line	Private	5/16/2017	2113	1847	87%	\$5.00
Wood Island	Blue Line	Private	5/17/2017	93	69	74%	\$5.00
Chestnut Hill	Green Line	MBTA	3/29/2018	69	69	100%	\$6.00
Eliot	Green Line	MBTA	3/29/2018	49	49	100%	\$6.00
Lechmere	Green Line	Private	5/17/2017	0	0	0%	\$0.00
Riverside	Green Line	MBTA	3/29/2018	959	660	69%	\$6.00
Waban	Green Line	MBTA	3/29/2018	54	54	100%	\$6.00
Woodland	Green Line	MBTA	3/29/2018	548	416	76%	\$6.00
Assembly	Orange Line	Private	4/5/2018	350	294	84%	\$8.00
Forest Hills ^a	Orange Line	Private	5/09/2017	419	411	98%	\$6.00
Green Street	Orange Line	Private	5/09/2017	84	49	58%	permit only
Malden Center	Orange Line	MBTA	5/24/2017	189	187	99%	\$6.00
Malden Center	Orange Line	Private	5/24/2017	639	416	65%	\$0.00
Oak Grove	Orange Line	MBTA	4/11/2018	682	655	96%	\$6.00
Oak Grove	Orange Line	Private	4/11/2018	106	79	75%	permit only
Sullivan Square	Orange Line	MBTA	5/02/2017	227	219	96%	\$6.00
Sullivan Square	Orange Line	Private	5/02/2017	342	186	54%	\$5.00
Wellington	Orange Line	MBTA	4/10/2018	235	224	95%	\$6.00
Wellington	Orange Line	MBTA	4/24/2018	1071	1068	100%	\$6.00
Wellington	Orange Line	Private	4/10/2018	165	160	97%	\$6.00
Wellington	Orange Line	Private	4/24/2018	712	251	35%	\$5.00

Station	Commuter Rail Line	Lot Ownership	Date of Observation	Parking Spaces	Occupied Parking Spaces at Time of Last AM-Peak-Period Inbound Train	Percent Parking Space Utilization	Parking Fee
Alewife ^b	Red Line	MBTA	5/09/2017	2439	2432	100%	\$7.00
Braintree	Red Line	MBTA	4/28/2017	1177	1142	97%	\$7.00
Butler	Red Line	MBTA	5/11/2017	44	36	82%	\$4.00
Mattapan	Red Line	MBTA	5/10/2017	209	31	15%	\$4.00
Milton	Red Line	MBTA	5/10/2017	35	35	100%	\$4.00
North Quincy	Red Line	MBTA	3/28/2018	1173	1140	97%	\$5.00
Quincy Adam	Red Line	MBTA	4/28/2017	2319	1784	77%	\$7.00
Savin Hill	Red Line	MBTA	5/03/2017	16	14	88%	\$5.00
Wollaston ^c	Red Line	MBTA	5/03/2017	524	523	100%	\$5.00

^aParking lot near Forest Hills was under construction at the time of survey.

^bParking lot near Alewife (section 2B) was under construction at the time of survey.

^cWollaston station was under construction beginning on January 8, 2018 (after station was surveyed).

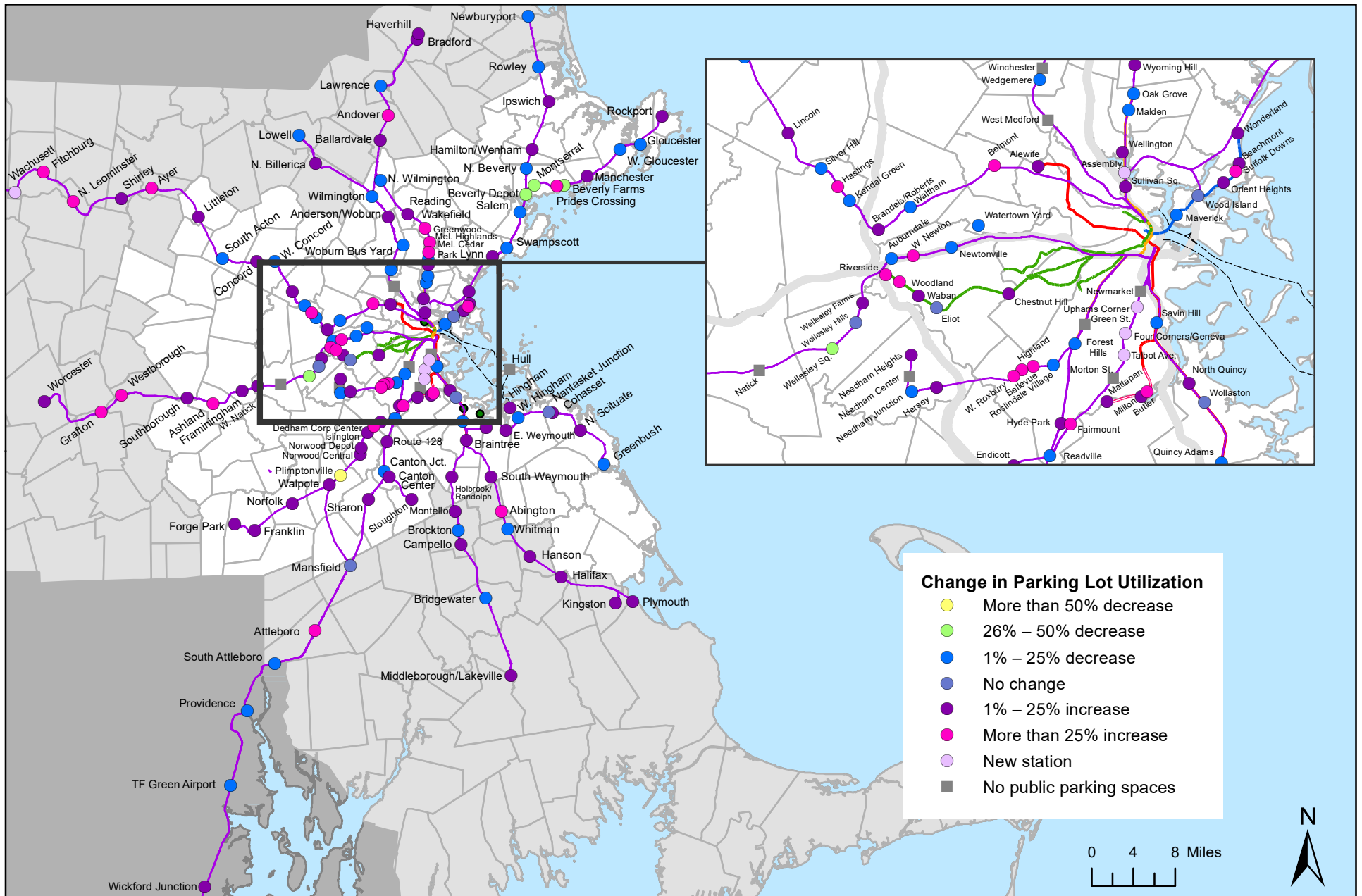
MBTA = Massachusetts Bay Transportation Authority.

**Table A-4
Commuter Ferry and Express Bus:
Amenity Inventory of MBTA Commuter Park-and-Ride Lots,
2017–18**

Station	Line	Lot Ownership	Date of Observation	Parking Spaces	Occupied Parking Spaces at Time of Last AM Peak-Period Inbound Train	Percent Parking Space Utilization	Parking Fee
Hingham	Hingham Shipyard to Rowes Wharf	MBTA	9/21/2018	1993	1294	65%	\$2.00
Hull	Pemberton Point, Hull to Long Wharf, Boston	Town	9/21/2018	169	159	94%	permit only
Watertown Yard	Route 345/345 Express Bus	MBTA	5/3/2018	194	135	70%	\$5.00
Woburn Bus Yard	Route 345/345 Express Bus	Private	9/13/2018	67	66	99%	\$0.00

MBTA = Massachusetts Bay Transportation Authority.

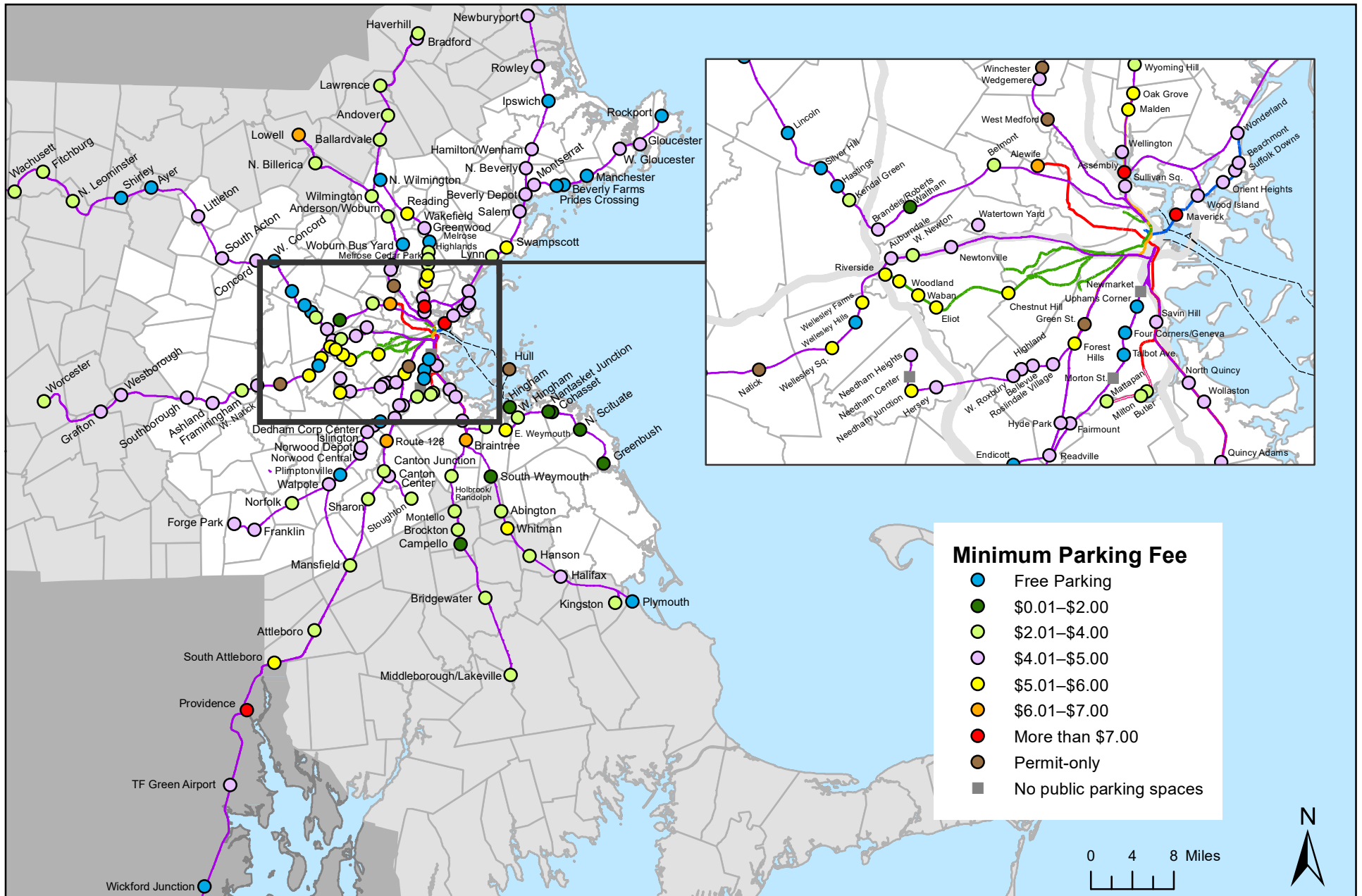
APPENDIX B
MAPS OF PARK-AND-RIDE LOTS AND BICYCLE PARKING



BOSTON
REGION
MPO

FIGURE B-1
Change in Park-and-Ride Rates,
2012–13 Inventory and 2017–18 Inventory

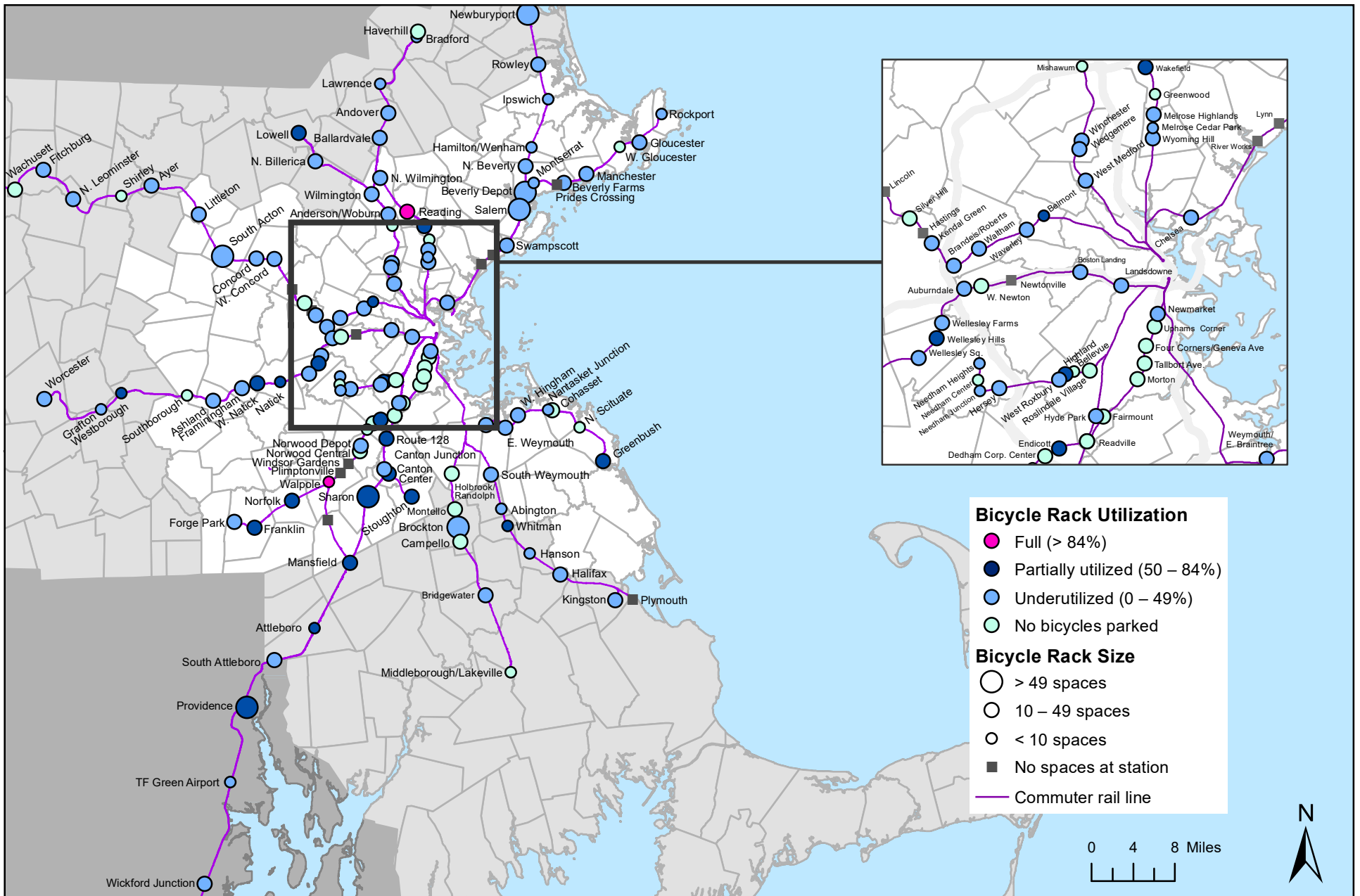
*Congestion
Management
Process*



BOSTON
REGION
MPO

FIGURE B-2
Minimum Parking Fees for MBTA Stations,
2017–18 Inventory

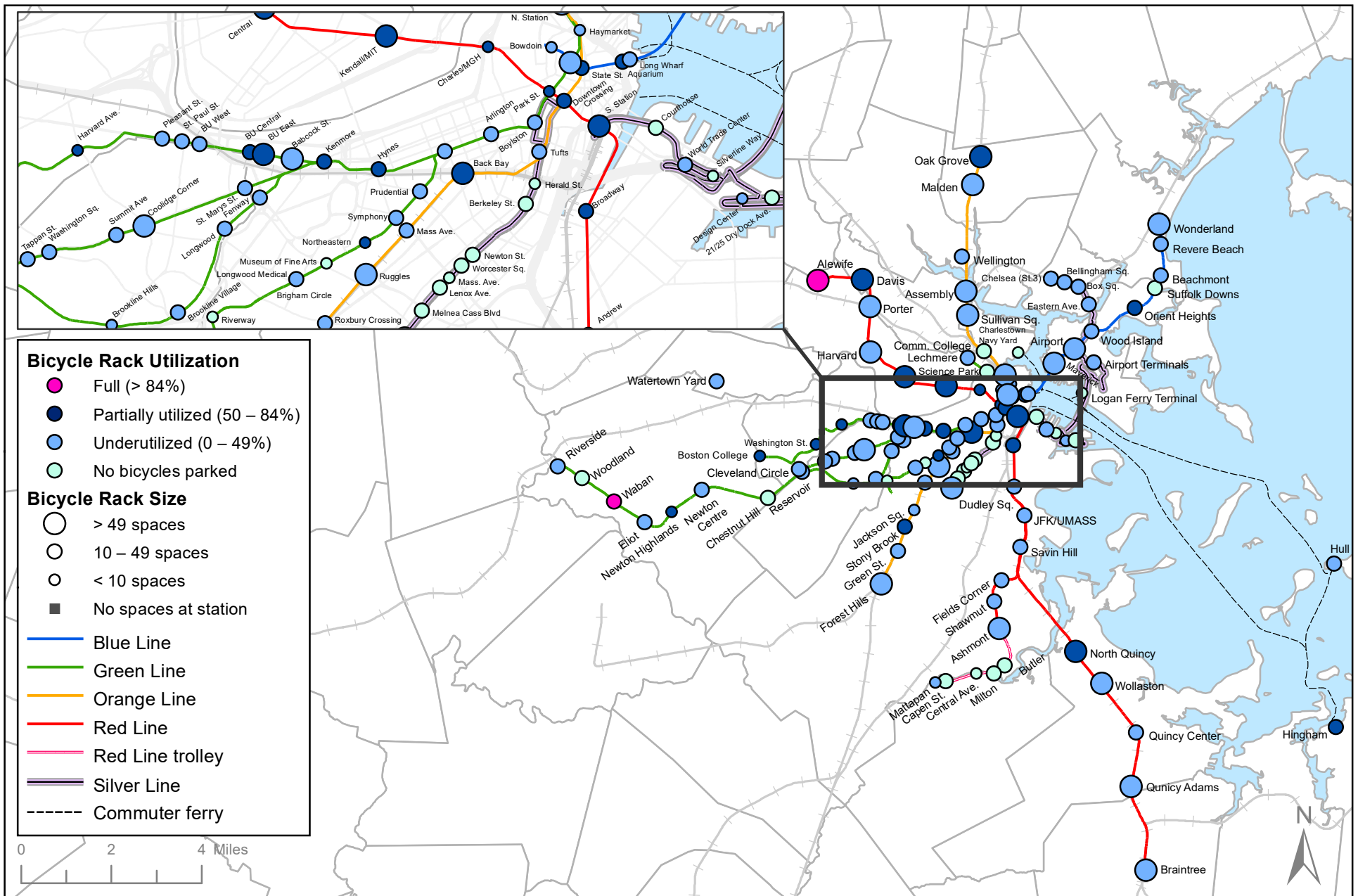
*Congestion
Management
Process*



BOSTON
REGION
MPO

FIGURE B-3
Bicycle Parking Capacity and Utilization for Commuter Rail Stations,
2017–18 Inventory

*Congestion
Management
Process*



BOSTON
REGION
MPO

FIGURE B-4
Bicycle Parking Capacity and Utilization for Rapid Transit Stations, Express Bus Stops, and Ferry Terminals,
2017–18 Inventory

*Congestion
Management
Process*

APPENDIX C
PARK-AND-RIDE LOT SURVEY FORM 2017-18

Park and Ride Lot Survey: 2017/2018

Station Name: _____ Rail Line: _____

Data Collector's Name: _____ Date: _____ Day of the Week: _____

Address/Directions to Station Parking Lot: _____

Parking Lot Number and Name: _____

Weather: _____ Time Data Collection Started: _____

Information to Collect:

of Parking Spaces (non-HP): _____ # of Used/ Occupied Parking Spaces (non-HP): _____

of HP Parking Spaces: _____ # of Used/ Occupied HP Parking Spaces: _____

Time Lot Fills Up (non-HP): _____ A.M. # of Parked Cars Not in Marked Spaces: _____

Time of Last A.M. Peak Period Train: _____ A.M. Lot ownership type? *MBTA On-Street Private Town*

Parking Fee (\$): _____ Method of Parking Fee Collection: *Meter Attendant Money Box Permit Other:* _____

Is there a bike rack? *Yes No* What condition is the bike rack in? *Good Fair Poor*

What type of bike rack is it? *Inverted U Ribbon Single Bike Post Dish Rack Other:* _____

How many bicycle parking spaces are there? _____ How many bicycles are parked there? _____

Are there bikes parked at locations other than the bike rack? Where? _____

Are there any bike trails/paths leading to the station? Name of path? _____

What condition is the bike trail in? *Good Fair Poor*

Are there sidewalks leading to the station? *Yes No* Are there crosswalks leading to the station? *Yes No*

What condition are the sidewalks in? *Good Fair Poor* What condition are the crosswalks in? *Good Fair Poor*

At what locations are sidewalks missing? _____

At what locations are crosswalks missing? _____

If there is a signalized intersection that pedestrians use to access the station, does it have a working pedestrian indication? *Yes No*

Which number bus routes, if any, connect to this station? _____

What kind of platform is at the station? *Raised fully accessible Mini-high platform Other:* _____

Are there accessible ramps and/or elevators at the station? *Yes No*

Describe possible accessibility concerns (i.e. missing ramps, etc.) _____

Are there benches at the station platform? *Yes No*

If 'yes', what side of the platform? *Inbound Outbound Both*

Are there shelters at this station platform? *Yes No*

If 'yes', what side of the platform? *Inbound Outbound Both*

If 'yes', what kind of shelters are they? *Fully Enclosed Roof & Walls Roof Only Other*

Additional Comments: _____

Use other side of form for additional comments:

APPENDIX D
AMENITIES: COMPREHENSIVE RESULTS OF INVENTORY

**Table D-1
North Side Commuter Rail:
Amenity Inventory of MBTA Commuter Rail Park-and-Ride Lots, 2017–18**

Station	Commuter Rail Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage(PP) or Port(BP) Proposed or Installed
Ayer	Fitchburg	Inverted-U	Not accessible	No	Inbound	Inbound	Roof and Walls	N/A
Belmont	Fitchburg	Inverted-U	Not accessible	No	Both	Inbound	Roof and Walls	N/A
Brandeis/ Roberts	Fitchburg	Inverted-U	Mini-high	Yes	Both	Both	Fully Enclosed	N/A
Concord	Fitchburg	Inverted-U	Not accessible	Yes	Both	Both	Roof and Walls	N/A
Fitchburg	Fitchburg	Single Dish	Mini-high	Yes	Both	Both	Roof and Walls	N/A
Hastings	Fitchburg	None	Not accessible	No	None	None	N/A	N/A
Kendal Green	Fitchburg	Triangle	Not accessible	No	Outbound	Outbound	Roof only	N/A
Lincoln	Fitchburg	None	Not accessible	No	Outbound	None	N/A	N/A
Littleton	Fitchburg	Triangle	Raised fully accessible	Yes	Both	Both	Roof only	N/A

Station	Commuter Rail Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage(PP) or Port(BP) Proposed or Installed
North Leominster	Fitchburg	Single Dish	Raised fully accessible	Yes	Both	Both	Roof and Walls	N/A
Shirley	Fitchburg	Single Dish	Not accessible	No	Inbound	Inbound	N/A	N/A
Silver Hill	Fitchburg	Triangle	Not accessible	No	Both	Both	Roof and Walls	N/A
South Acton	Fitchburg	Ribbon	Raised fully accessible	Yes	Both	Both	Roof only	N/A
Wachusett	Fitchburg	Triangle	Raised fully accessible	Yes	Inbound	Inbound	Roof and Walls	N/A
Waltham	Fitchburg	Inverted-U	Mini-high	Yes	Outbound	Outbound	Fully Enclosed	BP
West Concord	Fitchburg	Inverted-U; Triangle	Mini-high	Yes	Both	Both	Roof only	N/A
Andover	Haverhill	Ribbon; Inverted-U	Raised fully accessible	Yes	Both	Both	Roof and Walls	BP
Ballardvale	Haverhill	Single Dish	Mini-high	Yes	Both	Both	Roof and Walls	N/A
Bradford	Haverhill	Ribbon	Mini-high	Yes	Both	Both	Roof only	N/A

Station	Commuter Rail Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage(PP) or Port(BP) Proposed or Installed
Greenwood	Haverhill	Ribbon	Not accessible	No	Inbound	Inbound	Roof and Walls	N/A
Haverhill	Haverhill	Ribbon; Inverted-U	Mini-high	Yes	Both	Both	Roof only	BP
Lawrence	Haverhill	Double Loop	Raised fully accessible	Yes	Both	Both	Fully Enclosed	N/A
Melrose Cedar Park	Haverhill	Single Dish	Not accessible	No	Both	Both	Roof only	N/A
Melrose Highland	Haverhill	Triangle	Mini-high	Yes	Both	Both	Roof only	N/A
North Wilmington	Haverhill	Single Dish	Mini-high	Yes	Both	Both	Roof and Walls	N/A
Reading	Haverhill	Single Dish; Triangle	Mini-high	Yes	Inbound	Inbound	Roof and Walls	N/A
Wakefield	Haverhill	Single Dish; Ribbon	Not accessible	No	Inbound	Inbound	Roof only	N/A
Wyoming Hill	Haverhill	Inverted-U; Triangle	Not accessible	No	Both	Both	Roof only	BP
Anderson/Woburn	Lowell	Inverted-U	Raised fully accessible	Yes	Both	Both	Fully Enclosed	N/A

Station	Commuter Rail Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage(PP) or Port(BP) Proposed or Installed
Lowell	Lowell	Single Dish; Ribbon	Mini-high	Yes	Both	Both	Fully Enclosed	N/A
North Billerica	Lowell	Ribbon; Inverted-U	Mini-high	Yes	Both	Both	Fully Enclosed	BP
Wedgemere	Lowell	Single Dish	Raised fully accessible	Yes	Both	Both	Roof only	N/A
West Medford	Lowell	Triangle	Not accessible	No	Both	Inbound	Roof and Walls	N/A
Wilmington	Lowell	Ribbon	Mini-high	Yes	Both	Both	Roof only	N/A
Winchester	Lowell	Single Dish	Not accessible	Yes	Both	Both	Roof only	N/A
Beverly Depot	Newburyport/ Rockport	Single Dish	Mini-high	Yes	Both	Both	Roof only	PP
Beverly Farms	Newburyport/ Rockport	Triangle	Mini-high	Yes	Inbound	Inbound	Roof only	N/A
Gloucester	Newburyport/ Rockport	Inverted-U	Mini-high	Yes	Both	Both	Roof and Walls	N/A
Hamilton/ Wenham	Newburyport/ Rockport	Ribbon	Mini-high	Yes	Both	Both	Roof only	N/A

Station	Commuter Rail Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage(PP) or Port(BP) Proposed or Installed
Ipswich	Newburyport/ Rockport	Ribbon	Mini-high	Yes	Both	Both	Roof and Walls	N/A
Lynn	Newburyport/ Rockport	None	Raised fully accessible	Yes	Both	Both	Roof and Walls	N/A
Manchester	Newburyport/ Rockport	Triangle	Mini-high	Yes	Both	Both	Roof and Walls	N/A
Montserrat	Newburyport/ Rockport	Ribbon	Mini-high	No	Inbound	Inbound	Roof and Walls	N/A
Newburyport	Newburyport/ Rockport	Ribbon; Triangle	Raised fully accessible	Yes	Both	Both	Roof only	N/A
North Beverly	Newburyport/ Rockport	Triangle	Mini-high	Yes	Inbound	Inbound	Roof and Walls	N/A
Prides Crossing	Newburyport/ Rockport	None	Not accessible	No	Outbound	Outbound	Roof only	N/A
Rockport	Newburyport/ Rockport	Ribbon	Mini-high	No	Both	Both	Roof only	N/A
Rowley	Newburyport/ Rockport	Ribbon	Raised fully accessible	Yes	Both	Both	Roof only	N/A

Station	Commuter Rail Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage(PP) or Port(BP) Proposed or Installed
Salem	Newburyport/ Rockport	Ribbon; Triangle	Mini-high	Yes	Both	Both	Fully Enclosed	BP
Swampscott	Newburyport/ Rockport	Triangle	Mini-high	Yes	Both	Both	Roof only	N/A
West Gloucester	Newburyport/ Rockport	Ribbon	Mini-high	Yes	Inbound	Inbound	Roof only	N/A

BP = bicycle port. MBTA = Massachusetts Bay Transportation Authority. N/A = not available. PP = pedal-and-park.

Table D-2
South Side Commuter Rail:
Amenity Inventory of MBTA Commuter Park-and-Ride Lots, 2017–18

Station	Commuter Rail Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage (PP) or Port (BP) Proposed or Installed
Fairmount	Fairmount	Ribbon; Inverted-U	Raised fully accessible	Yes	Both	Both	Roof Only	BP
Four Corners/ Geneva Ave	Fairmount	Inverted-U; Triangle	Raised fully accessible	Yes	Both	Both	Roof and Walls	N/A
Morton Street	Fairmount	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof and Walls	BP
Newmarket	Fairmount	Triangle	Raised fully accessible	Yes	Both	Both	Roof and Walls	N/A
Readville	Fairmount	Inverted-U	Mini-high	Yes	Both	Both	Roof Only	N/A
Talbot Ave	Fairmount	Triangle	Raised fully accessible	Yes	Both	Both	Roof and Walls	N/A
Uphams Corner	Fairmount	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof and Walls	N/A
Ashland	Framingham/ Worcester	Inverted-U; Triangle	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Auburndale	Framingham/ Worcester	Double Dish	Not accessible	No	Both	Both	Roof and Walls	N/A
Framingham	Framingham/ Worcester	Single Dish; Ribbon; Triangle	Raised fully accessible	Yes	Both	Both	Roof and Walls	N/A

Station	Commuter Rail Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage (PP) or Port (BP) Proposed or Installed
Grafton	Framingham/ Worcester	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Natick	Framingham/ Worcester	Inverted-U; Single Loop	Not accessible	No	Both	Inbound	Roof Only	N/A
Newtonville	Framingham/ Worcester	None	Not accessible	No	Both	Both	Roof and Walls	N/A
Southborough	Framingham/ Worcester	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Wellesley Farms	Framingham/ Worcester	Double Dish	Not accessible	No	Both	Inbound	Roof and Walls	N/A
Wellesley Hills	Framingham/ Worcester	Inverted-U	Not accessible	No	Inbound	Inbound	Roof and Walls	BP
Wellesley Square	Framingham/ Worcester	Inverted-U	Not accessible	No	Both	Both	Roof and Walls	BP
West Natick	Framingham/ Worcester	Single Dish; Inverted-U; Triangle	Mini-high	Yes	Both	Inbound	Roof Only	N/A
West Newton	Framingham/ Worcester	Double Dish	Not accessible	No	Both	Both	Roof and Walls	N/A
Westborough	Framingham/ Worcester	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof Only	N/A

Station	Commuter Rail Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage (PP) or Port (BP) Proposed or Installed
Worcester	Framingham/ Worcester	Inverted-U	Raised fully accessible	Yes	Inbound	Inbound	Fully Enclosed	BP
Dedham Corp Center	Franklin	Single Dish	Mini-high	Yes	Both	Inbound	Roof Only	N/A
Endicott	Franklin	Triangle	Not accessible	Yes	Both	Inbound	Roof Only	N/A
Forge Park	Franklin	Inverted-U	Raised fully accessible	Yes	Inbound	Inbound	Fully Enclosed	N/A
Franklin	Franklin	Inverted-U; Triangle	Not accessible	No	Both	Both	Fully Enclosed	N/A
Islington	Franklin	Inverted-U	Not accessible	No	Inbound	Inbound	Roof Only	N/A
Norfolk	Franklin	Ribbon; Inverted-U	Mini-high	Yes	Both	Both	Roof Only	N/A
Norwood Central	Franklin	Inverted-U	Mini-high	Yes	Both	Both	Roof and Walls	N/A
Norwood Depot	Franklin	Triangle	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Plimptonville	Franklin	None	Not accessible	No	None	None	None	N/A

Station	Commuter Rail Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage (PP) or Port (BP) Proposed or Installed
Walpole	Franklin	Triangle	Not accessible	No	Both	Both	Fully Enclosed	N/A
Cohasset	Greenbush	Ribbon; Triangle	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
East Weymouth	Greenbush	Ribbon; Triangle	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Greenbush	Greenbush	Ribbon; Triangle	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Nantasket Junction	Greenbush	Ribbon	Raised fully accessible	No	Both	Both	Roof Only	N/A
North Scituate	Greenbush	Ribbon	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
West Hingham	Greenbush	Ribbon; Inverted-U	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Weymouth Landing/ East Braintree	Greenbush	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof and Walls	N/A
Abington	Kingston/ Plymouth	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Halifax	Kingston/ Plymouth	Inverted-U; Triangle	Raised fully accessible	Yes	Both	Both	Roof Only	N/A

Station	Commuter Rail Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage (PP) or Port (BP) Proposed or Installed
Hanson	Kingston/ Plymouth	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Kingston	Kingston/ Plymouth	Single Dish	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Plymouth	Kingston/ Plymouth	None	Raised fully accessible	Yes	Both	Both	Roof and Walls	N/A
South Weymouth	Kingston/ Plymouth	Inverted-U	Raised fully accessible	No	Both	Both	Roof Only	BP
Whitman	Kingston/ Plymouth	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Bridgewater	Middleborough/ Lakeville	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof and Walls	N/A
Brockton	Middleborough/ Lakeville	Inverted-U; Double Loop; Single Loop	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Campello	Middleborough/ Lakeville	Ribbon; Inverted-U	Mini-high	Yes	Both	Both	Roof Only	N/A
Holbrook/ Randolph	Middleborough/ Lakeville	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof and Walls	BP
Middleborough/ Lakeville	Middleborough/ Lakeville	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof Only	N/A

Station	Commuter Rail Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage (PP) or Port (BP) Proposed or Installed
Montello	Middleborough/ Lakeville	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof Only	BP
Bellevue	Needham	Ribbon	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Hersey	Needham	Single Dish; Ribbon; Inverted-U	Mini-high	Yes	Both	Both	Roof Only	BP
Highland	Needham	Inverted-U	Mini-high	Yes	Both	Both	Roof Only	BP
Needham Center	Needham	Ribbon	Mini-high	Yes	Both	Both	Roof Only	N/A
Needham Heights	Needham	Ribbon	Mini-high	Yes	Both	Both	Roof Only	N/A
Needham Junction	Needham	Ribbon	Mini-high	Yes	Both	Both	Fully Enclosed	N/A
Roslindale Village	Needham	Triangle	Mini-high	Yes	Both	Both	Roof Only	N/A
West Roxbury	Needham	Inverted-U	Mini-high	Yes	Both	Both	Roof Only	BP
Attleboro	Providence/ Stoughton	Ribbon	Raised fully accessible	Yes	Both	Both	Fully Enclosed	N/A

Station	Commuter Rail Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage (PP) or Port (BP) Proposed or Installed
Canton Center	Providence/Stoughton	Triangle	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Canton Junction	Providence/Stoughton	Single Dish; Triangle	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Hyde Park	Providence/Stoughton	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Mansfield	Providence/Stoughton	Triangle	Mini-high	Yes	Both	Inbound	Fully Enclosed	N/A
Providence	Providence/Stoughton	Single Loop	Raised fully accessible	Yes	Both	Both	Fully Enclosed	N/A
Route 128	Providence/Stoughton	Double Dish	Raised fully accessible	Yes	Both	Both	Fully Enclosed	N/A
Sharon	Providence/Stoughton	Single Dish; Ribbon; Inverted-U Triangle	Not accessible	Yes	Both	Both	Roof and Walls	N/A
South Attleboro	Providence/Stoughton	Single Dish	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Stoughton	Providence/Stoughton	Single Dish; Inverted-U	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
TF Green	Providence/Stoughton	Double Dish	Raised fully accessible	Yes	Both	Both	Fully Enclosed	N/A
Wickford Junction	Providence/Stoughton	Inverted-U	Raised fully accessible	Yes	Inbound	Both	Fully Enclosed	N/A

BP =bicycle port. MBTA = Massachusetts Bay Transportation Authority. N/A = not available. PP = pedal-and-park.

**Table D-3
Rapid Transit: Amenity Inventory of MBTA Commuter Park-and-Ride Lots, 2017–18**

Station	Rapid Transit Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage (PP) or Port (BP) Proposed or Installed
Beachmont	Blue Line	Ribbon	Raised fully accessible	Yes	Both	Both	Roof and Walls	N/A
Maverick	Blue Line	Inverted-U; Single Loop	Raised fully accessible	Yes	Both	Both	Fully Enclosed	BP
Orient Heights	Blue Line	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof and Walls	BP
Suffolk Downs	Blue Line	Ribbon; Inverted-U	Raised fully accessible	Yes	Both	Both	Roof and Walls	BP
Wonderland	Blue Line	Triangle	Raised fully accessible	Yes	Inbound	Both	Roof and Walls	PP
Wood Island	Blue Line	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof and Walls	BP
Chestnut Hill	Green Line	Inverted-U	Not accessible	No	Both	Inbound	Fully Enclosed	BP
Eliot	Green Line	Ribbon; Inverted-U	Not accessible	No	Both	Inbound	Fully Enclosed	BP
Lechmere	Green Line	Single Loop	Other	Yes	Outbound	Both	Roof and Walls	N/A
Riverside	Green Line	Ribbon; Inverted-U	Other	Yes	Both	Both	Roof Only	BP

Station	Rapid Transit Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage (PP) or Port (BP) Proposed or Installed
Waban	Green Line	Inverted-U	Not accessible	No	Both	Inbound	Fully Enclosed	BP
Woodland	Green Line	Ribbon	Raised fully accessible	Yes	Both	Inbound	Fully Enclosed	N/A
Assembly	Orange Line	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof and Walls	N/A
Forest Hills	Orange Line	Single Dish; Ribbon; Inverted-U	Raised fully accessible	Yes	Both	Both	Fully Enclosed	PP, BP
Green Street	Orange Line	Inverted-U; Triangle	Raised fully accessible	Yes	Both	Both	Fully Enclosed	BP
Malden Center	Orange Line	Ribbon; Inverted-U	Raised fully accessible	Yes	Both	Both	Roof and Walls	PP
Oak Grove	Orange Line	Ribbon	Raised fully accessible	Yes	Both	Both	Fully Enclosed	PP
Sullivan Square	Orange Line	Ribbon; Inverted-U; Triangle	Raised fully accessible	Yes	Both	Both	Fully Enclosed	N/A
Wellington	Orange Line	Ribbon; Inverted-U	Raised fully accessible	Yes	Both	Both	Fully Enclosed	BP
Alewife	Red Line	Inverted-U; Triangle	Raised fully accessible	Yes	Both	Both	Fully Enclosed	PP

Station	Rapid Transit Line	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage (PP) or Port (BP) Proposed or Installed
Braintree	Red Line	Inverted-U	Raised fully accessible	Yes	Both	Both	Roof Only	PP
Butler	Red Line	Triangle	Other	Yes	Both	Both	Roof Only	N/A
Mattapan	Red Line	Inverted-U	Other	Yes	Both	Both	Fully Enclosed	N/A
Milton	Red Line	Ribbon; Triangle	Other	Yes	Both	Both	Roof Only	N/A
North Quincy	Red Line	Ribbon; Inverted-U; Triangle	Raised fully accessible	Yes	Both	Both	Roof and Walls	BP
Quincy Adam	Red Line	Inverted-U	Raised fully accessible	Yes	Both	Both	Fully Enclosed	N/A
Savin Hill	Red Line	Triangle	Raised fully accessible	Yes	Both	Both	Roof Only	N/A
Wollaston	Red Line	None	Raised fully accessible	Yes	Both	Both	Roof and Walls	PP

BP =bicycle port. MBTA = Massachusetts Bay Transportation Authority. N/A = not available. PP = pedal-and-park.

**Table D-4
Commuter Ferry and Express Bus:
Amenity Inventory of MBTA Commuter Park-and-Ride Lots, 2017–18**

Station	Transit Mode	Bike Rack at Station (Type)	Station Platform Type	Accessible Ramps and/or Elevators	Benches at Station (side[s] of platform)	Shelters at Station (side[s] of platform)	Shelter Type(s)	Bicycle Cage (PP) or Port (BP) Proposed or Installed
Watertown Yard	Bus	Ribbon; Triangle	Other	No	Both	Both	Roof and Walls	N/A
Woburn Bus Yard	Bus	None	Other	No	Both	Both	Roof and Walls	N/A
Hingham	Ferry	Inverted-U	Raised, fully accessible	Yes	Both	None	None	N/A
Hull	Ferry	Inverted-U	Other	No	Both	Both	Roof Only	N/A

BP = bicycle port. MBTA = Massachusetts Bay Transportation Authority. N/A = not available. PP = pedal-and-park.

APPENDIX E
MBTA FARE INCREASE: STATE FISCAL YEAR 2017

**Table E-1
MBTA Fare Increase—Single Rides, State Fiscal Year 2017**

Fare Category	Rate	SFY 2013 Price	SFY 2017 Price	Percent Increase	Fare Increase
Local Bus	Adult	\$1.50	\$1.70	13%	\$0.20
RT	Adult	\$2.00	\$2.25	13%	\$0.25
Bus and RT*	Adult	\$2.00	\$2.25	13%	\$0.25
Inner Express	Adult	\$3.50	\$4.00	14%	\$0.50
Outer Express	Adult	\$5.00	\$5.25	5%	\$0.25
Local Bus	Senior	\$0.75	\$0.85	13%	\$0.10
RT	Senior	\$1.00	\$1.10	10%	\$0.10
Bus and RT*	Senior	\$1.00	\$1.10	10%	\$0.10
Local Bus	Student	\$0.75	\$0.85	13%	\$0.10
RT	Student	\$1.00	\$1.10	10%	\$0.10
Bus and RT*	Student	\$1.00	\$1.10	10%	\$0.10
Local Bus	CharlieTicket—Adult	\$2.00	\$2.00	0%	\$0.00
RT	CharlieTicket—Adult	\$2.50	\$2.75	10%	\$0.25
Bus and RT	CharlieTicket—Adult	\$4.50	\$4.75	6%	\$0.25
Inner Express	CharlieTicket—Adult	\$4.50	\$5.00	11%	\$0.50
Outer Express	CharlieTicket—Adult	\$6.50	\$7.00	8%	\$0.50
Inner Express—Reduced	CharlieTicket—Adult	N/A	\$2.50	N/A	N/A
Outer Express—Reduced	CharlieTicket—Adult	N/A	\$3.50	N/A	N/A
Zone 1A	Commuter Rail	\$2.00	\$2.25	13%	\$0.25
Zone 1	Commuter Rail	\$5.50	\$6.25	14%	\$0.75
Zone 2	Commuter Rail	\$6.00	\$6.75	13%	\$0.75
Zone 3	Commuter Rail	\$6.75	\$7.50	11%	\$0.75
Zone 4	Commuter Rail	\$7.25	\$8.25	14%	\$1.00
Zone 5	Commuter Rail	\$8.00	\$9.25	16%	\$1.25
Zone 6	Commuter Rail	\$8.75	\$10.00	14%	\$1.25
Zone 7	Commuter Rail	\$9.25	\$10.50	14%	\$1.25
Zone 8	Commuter Rail	\$10.00	\$11.50	15%	\$1.50
Zone 9	Commuter Rail	\$10.50	\$12.00	14%	\$1.50
Zone 10	Commuter Rail	\$11.00	\$12.50	14%	\$1.50
InterZone 1	Commuter Rail	\$2.50	\$2.75	10%	\$0.25
InterZone 2	Commuter Rail	\$3.00	\$3.25	8%	\$0.25
InterZone 3	Commuter Rail	\$3.25	\$3.50	8%	\$0.25
InterZone 4	Commuter Rail	\$3.50	\$4.00	14%	\$0.50
InterZone 5	Commuter Rail	\$4.00	\$4.50	13%	\$0.50
InterZone 6	Commuter Rail	\$4.50	\$5.00	11%	\$0.50
InterZone 7	Commuter Rail	\$5.00	\$5.50	10%	\$0.50
InterZone 8	Commuter Rail	\$5.50	\$6.00	9%	\$0.50
InterZone 9	Commuter Rail	\$6.00	\$6.50	8%	\$0.50
InterZone 10	Commuter Rail	N/A	\$7.00	N/A	N/A
F1	Ferry	\$8.00	\$9.25	16%	\$1.25
F2: Boston	Ferry	\$8.00	\$9.25	16%	\$1.25
F2: Logan	Ferry	\$16.00	\$18.50	16%	\$2.50
Inner Harbor	Ferry	\$3.00	\$3.50	17%	\$0.50
ADA Territory	THE RIDE	\$4.00	\$3.15	-21%	-\$0.85
Premium Territory	THE RIDE	\$5.00	\$5.25	5%	\$0.25

ADA = Americans with Disabilities Act. N/A = not available. RT = rapid transit. SFY=State Fiscal Year.

**Table E-2
MBTA Fare Increase—Passes, State Fiscal Year 2017**

Transit Mode	MBTA Pass	SFY 2013 Price	SFY 2017 Price	Percent Increase	Fare Increase
Bus/Rapid Transit	Local Bus	\$48.00	\$55.00	15%	\$7.00
Bus/Rapid Transit	LinkPass	\$70.00	\$84.50	21%	\$14.50
Bus/Rapid Transit	Senior/TAP	\$28.00	\$30.00	7%	\$2.00
Bus/Rapid Transit	Student Monthly LinkPass	N/A	\$30.00	N/A	N/A
Bus/Rapid Transit	1-Day	\$11.00	\$12.00	9%	\$1.00
Bus/Rapid Transit	7-Day	\$18.00	\$21.25	18%	\$3.25
Bus/Rapid Transit	Inner Express	\$110.00	\$128.00	16%	\$18.00
Bus/Rapid Transit	Outer Express	\$160.00	\$168.00	5%	\$8.00
Commuter Rail	Zone 1A	\$70.00	\$84.50	21%	\$14.50
Commuter Rail	Zone 1	\$173.00	\$200.25	16%	\$27.25
Commuter Rail	Zone 2	\$189.00	\$217.75	15%	\$28.75
Commuter Rail	Zone 3	\$212.00	\$244.25	15%	\$32.25
Commuter Rail	Zone 4	\$228.00	\$263.00	15%	\$35.00
Commuter Rail	Zone 5	\$252.00	\$291.50	16%	\$39.50
Commuter Rail	Zone 6	\$275.00	\$318.00	16%	\$43.00
Commuter Rail	Zone 7	\$291.00	\$336.50	16%	\$45.50
Commuter Rail	Zone 8	\$314.00	\$363.00	16%	\$49.00
Commuter Rail	Zone 9	\$329.00	\$379.50	15%	\$50.50
Commuter Rail	Zone 10	\$345.00	\$398.25	15%	\$53.25
Commuter Rail	InterZone 1	\$82.00	\$90.25	10%	\$8.25
Commuter Rail	InterZone 2	\$100.00	\$110.25	10%	\$10.25
Commuter Rail	InterZone 3	\$109.00	\$119.75	10%	\$10.75
Commuter Rail	InterZone 4	\$118.00	\$130.25	10%	\$12.25
Commuter Rail	InterZone 5	\$134.00	\$148.00	10%	\$14.00
Commuter Rail	InterZone 6	\$151.00	\$167.00	11%	\$16.00
Commuter Rail	InterZone 7	\$167.00	\$183.75	10%	\$16.75
Commuter Rail	InterZone 8	\$184.00	\$202.75	10%	\$18.75
Commuter Rail	InterZone 9	\$201.00	\$221.50	10%	\$20.50
Commuter Rail	InterZone 10	N/A	\$240.50	N/A	N/A
Ferry	Commuter Ferry	\$262.00	\$308.00	18%	\$46.00

N/A = not available . SFY= State Fiscal Year. TAP = Transportation Access Pass.