

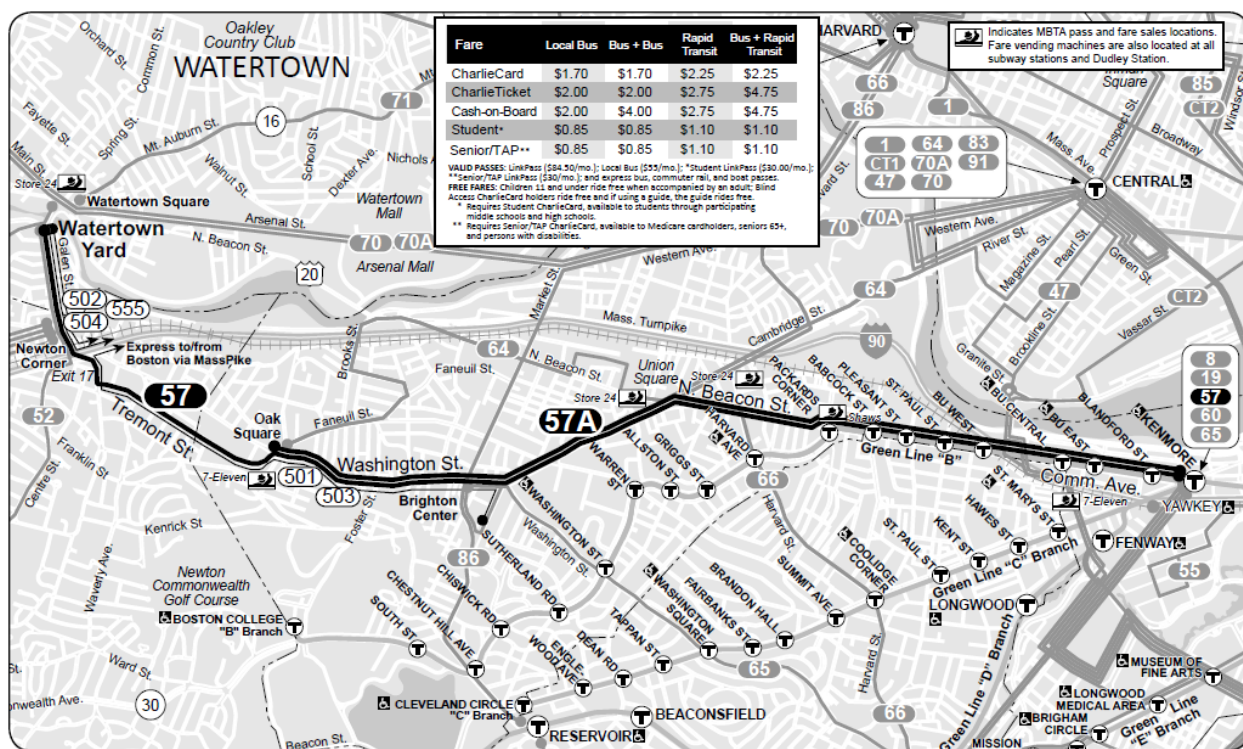
# Route 57/57A

## Watertown Yard or Oak Square – Kenmore Station

### Route Overview

Route 57/57A Watertown Yard or Oak Square – Kenmore Station is a Key Bus route that operates between Watertown Yard and Kenmore Station (see Figure 1). Service operates primarily via Tremont Street, Washington Street, North Beacon Street, and Commonwealth Avenue. Some trips, labeled at Route 57A, are short-turns that operate between Oak Square and Kenmore Station.

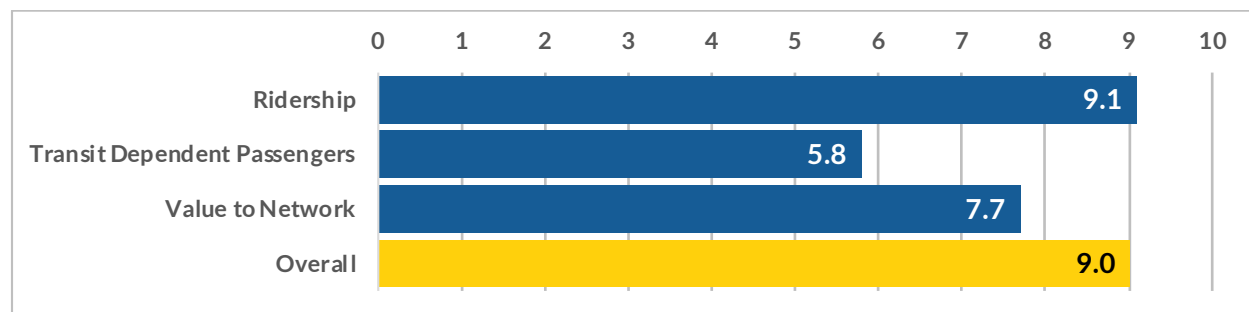
Figure 1 | Service Map



### Network Importance

Route 57/57A is a very important route in the MBTA network (see Figure 2). On a relative scale of 0 to 10, the route rates 9.1 in terms of ridership, 5.8 in terms of transit dependent ridership, and 7.7 in terms of its value to the network (which reflects the number of people who are uniquely served, the number of jobs and other important destinations, and the number of transferring passengers). Its overall score, which gives a 70% weight to overall ridership and a 15% weight to both other measures, is 9.0.

Figure 2 | Relative Importance within MBTA Bus Network (on a scale of 0 to 10)



## Service Overview

### Schedule

Route 57 provides frequent service for most of the day every day of the week. On weekdays, it operates from 5:05 AM to 1:10 AM with the following service frequencies (see Table 1 and Table 2):

- Excluding school trips, every 10 to 30 minutes from the beginning of service through 6:30 AM inbound and 7:30 AM outbound, with all service operating between Watertown Yard and Kenmore Station.
- Every 10 to 11 minutes between Watertown Yard and Kenmore Station and every three to seven minutes between Oak Square and Kenmore Station through approximately 8:45 AM. During this period, with one exception, Watertown Yard (Route 57) and Oak Square (Route 57A) trips alternate.
- Excluding school trips, every nine to 10 minutes between Watertown Yard and Kenmore Station through approximately 4:00 PM.
- Every 11 to 12 minutes between Watertown Yard and Kenmore Station and every four to seven minutes between Oak Square and Kenmore Station through approximately 6:30 PM. During this period, Watertown Yard (Route 57) and Oak Square (Route 57A) trips alternate.
- Every 10 to 13 minutes between Watertown Yard and Kenmore Station through approximately 10:30 PM.
- Every 10 to 37 minutes from 10:00 PM to the end of service at 1:17 AM.

On Saturdays, service operates from 5:05 AM to 12:55 AM, every nine to 20 minutes throughout the day, with the longer service frequencies very early and very late. On Sundays, service operates from 6:00 AM to 1:10 AM, every 15 to 25 minutes throughout the day, also with longer service frequencies very early and very late.

Route 57/57A exceeds the MBTA span of service and frequency standards for Key Bus routes on all days.

**Table 1 | Route 57 Schedule Statistics**

SERVICEDAY	SPAN OF SERVICE	FREQUENCY (RANGE)	FREQUENCY (AVERAGE)	DAILY TRIPS (INBOUND/OUTBOUND)
<b>Monday-Friday</b>	<b>4:33 AM to 1:10 AM</b>			<b>106/109</b>
Sunrise	4:33 AM to 5:59 AM	15 - 25	19	3/2
Early AM	6:00 AM to 6:59 AM	4 - 15	8	8/4
AM Peak	7:00 AM to 8:59 AM	10 - 13	11	11/12
Midday Base	9:00 AM to 1:29 PM	10 - 13	10	27/27
Midday School	1:30 PM to 3:59 PM	4 - 11	9	17/19
PM Peak	4:00 PM to 6:29 PM	10 - 12	11	13/13
Evening	6:30 PM to 9:59 PM	10 - 13	12	18/21
Late Evening	10:00 PM to 11:59 PM	13 - 20	19	7/7
Night	12:00 AM to 1:10 AM	20	20	2/4
<b>Saturday</b>	<b>4:33 AM to 1:21 AM</b>	<b>9 - 20</b>	<b>11</b>	<b>103/102</b>
<b>Sunday</b>	<b>6:00 AM to 1:32 AM</b>	<b>15 - 25</b>	<b>17</b>	<b>68/68</b>

*Note: Span of service reflects the time the first bus begins service until the time the last bus finishes service.*

**Table 2 | Route 57A Schedule Statistics**

SERVICEDAY	SPAN OF SERVICE	FREQUENCY (RANGE)	FREQUENCY (AVERAGE)	DAILY TRIPS (INBOUND/OUTBOUND)
<b>Monday-Friday</b>	<b>6:42 AM to 9:30 AM</b> <b>4:06 PM to 7:06 PM</b>			<b>14/6</b> <b>9/14</b>
Sunrise	-	-	-	-
Early AM	6:42 AM to 6:59 AM	1 trip	1 trip	1/0
AM Peak	7:00 AM to 8:59 AM	5 - 23	10	12/6
Midday Base	9:00 AM to 9:30 AM	1 trip	1 trip	1/0
Midday School	-	-	-	-
PM Peak	4:06 PM to 6:29 PM	11 - 12	12	9/13
Evening	6:30 PM to 7:06 PM	1 trip	1 trip	0/1
Late Evening	-	-	-	-
Night	-	-	-	-
<b>Saturday</b>	-	-	-	-
<b>Sunday</b>	-	-	-	-

*Note: Span of service reflects the time the first bus begins service until the time the last bus finishes service.*

## Service Patterns

The predominant service provided by Route 57/57A is Route 57 service that operates the full length of the route between Watertown Yard and Kenmore Station (Pattern 57.0). These trips operate throughout the day on weekdays and provide all service on Saturdays and Sundays. On weekdays during peak periods and the shoulders of the peaks, the full length Route 57 trips are supplemented with Route 57A trips that provide short-turn

service between Oak Square and Kenmore Station (Pattern 957.0). When Route 57A trips operate, they alternate with the full length trips (see Table 3 and Table 4).

There are also six trips that operate differently:

- The first inbound trip at 4:33 AM continues from Kenmore Station to downtown Boston (Pattern 57.4).
- Two inbound trips at 6:19 AM and 6:30 AM operate from Oak Square to Union Square in Allston (Pattern 57.5). These trips switch to a Route 66, providing direct service to Madison Park and Boston Latin Academy. Since the development of this document, these trips are being replaced with new Route 66 service patterns.
- Two outbound afternoon trips at 2:15 PM and 2:25 PM operate from Boston Latin School in the Longwood Medical Area to Watertown Yard (Pattern 57.8). These trips do not serve Kenmore Station.
- One outbound trip at 2:27 PM operates from Union Square in Allston to Watertown Yard operated as a through trip from Boston Latin Academy via Route 66 (Pattern 57.2).

**Table 3 | Route 57 Service Patterns**

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS PER WKD	TRIPS PER SAT	TRIPS PER SUN
<b>INBOUND</b>				<b>106</b>	<b>103</b>	<b>68</b>
57.0	Watertown Yard	Kenmore Station	Regular Route 57 service	103	103	68
57.4	Watertown Yard	Downtown Boston	First trip to downtown before rapid transit opens	1	-	-
57.5	Oak Square	Union Square Allston	AM school trips to serve Boston Latin Academy and Madison Park	2	-	-
<b>OUTBOUND</b>				<b>109</b>	<b>102</b>	<b>68</b>
57.0	Kenmore Station	Watertown Yard	Regular Route 57 service	106	102	68
57.2	Union Square Allston	Watertown Yard	PM school trip from Boston Latin Academy	1	-	-
57.8	Boston Latin School	Watertown Yard	PM school trips	2	-	-

**Table 4 | Route 57A Service Patterns**

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS PER WKD	TRIPS PER SAT	TRIPS PER SUN
<b>INBOUND</b>				<b>24</b>	<b>-</b>	<b>-</b>
957.0	Oak Square	Kenmore Station	Route 57A service	24	-	-
<b>OUTBOUND</b>				<b>24</b>	<b>-</b>	<b>-</b>
957.0	Kenmore Station	Oak Square	Route 57A service	24	-	-

## Ridership

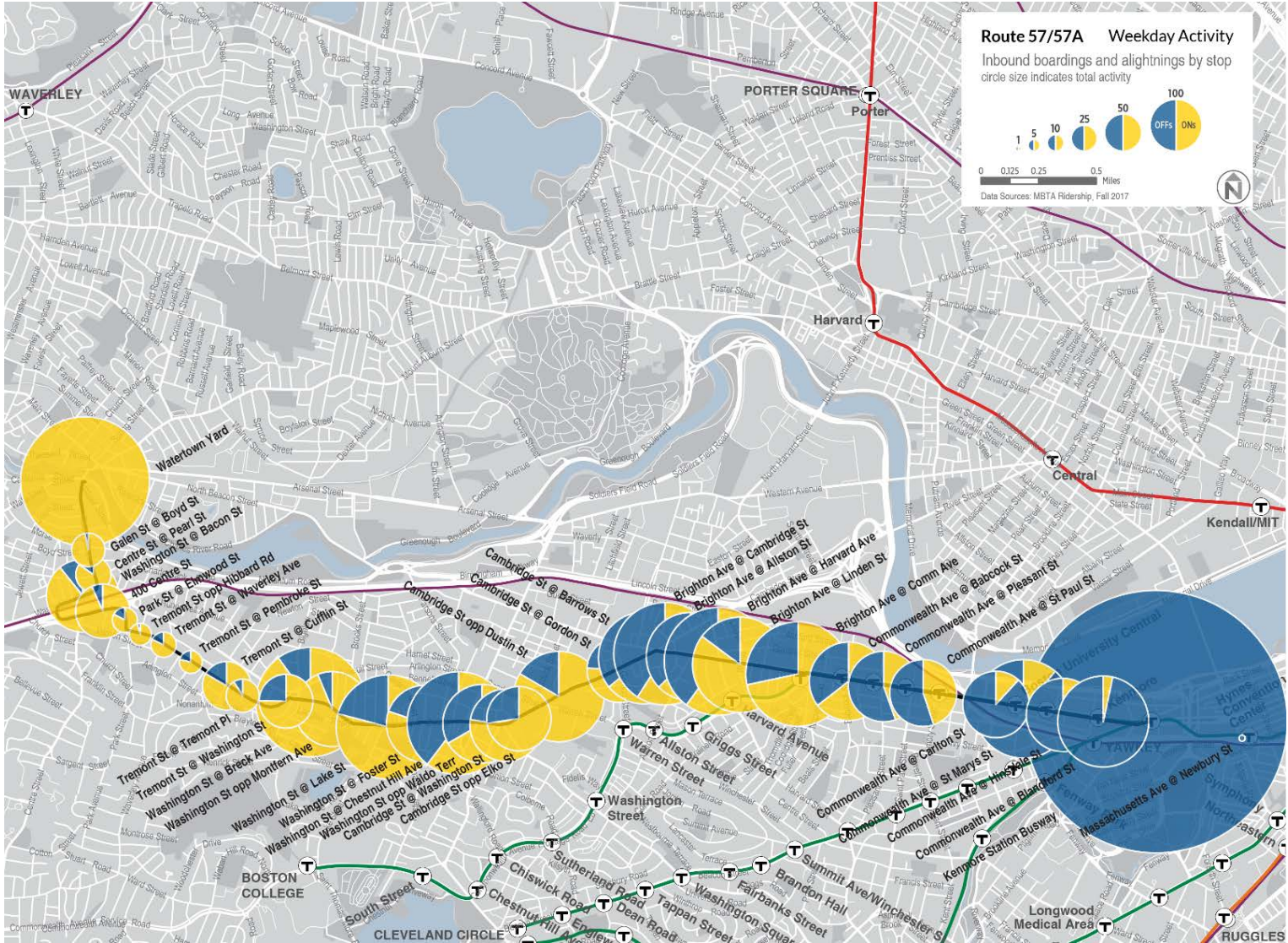
Route 57/57A carries approximately 10,560 passengers on weekdays, 6,070 on Saturdays, and 4,390 on Sundays. It is the MBTA’s seventh highest ridership bus route on weekdays, the eighth highest on Saturdays, and ninth highest on Sundays.

### Ridership by Stop

The largest numbers of Route 57/57A passengers travel to and from Kenmore Station. On weekday inbound trips (see Figure 3):

- 620 passengers board at Watertown Yard.
- 80 passengers board and 10 alight at the two stops along Galen Street and Centre Street between Watertown Yard and Newton Corner.
- 280 passengers board and 30 alight at the two stops in Newton Corner.
- 180 passengers board and 30 alight at the six stops along Tremont Street between Newton Corner and Oak Square.
- 480 passengers board and 70 alight at the two stops in Oak Square.
- 1,500 passengers board and 420 alight at the six stops along Washington Street between Oak Square and Union Square, Allston.
- 840 passengers board and 450 alight at the five stops along Cambridge Street between Washington Street and Brighton Avenue.
- 1,250 passengers board and 600 alight at the five stops along Brighton Avenue between Cambridge Street and Commonwealth Avenue.
- 150 passengers board and 80 alight at Commonwealth Avenue and Babcock Street, which is the first transfer location with the Green Line B Branch.
- 250 passengers board and 1,140 alight at the six stops along Commonwealth Avenue between Babcock Street and Kenmore Station. These alightings account for 22% of all inbound passengers.
- 2,560 passengers, or 49% of all inbound passengers, alight at Kenmore Station.

Figure 3 | Weekday Inbound Ridership by Stop Map



Outbound ridership patterns are essentially the inverse of inbound patterns. Weekend patterns are also similar but with lower passenger volumes and with less activity along Commonwealth Avenue in the vicinity of Boston University.

### Ridership by Trip

Route 57's ridership per trip is generally highest inbound in the AM and outbound in the PM. However, it is strong through the day in both directions and with a significant amount of reverse commute ridership. On weekday inbound trips (see Figure 4 and Figure 5):

- Ridership is highest between 6:30 AM and 10:30 AM, when most Route 57 trips carry over 60 passengers (and one carries over 90) and most Route 57A trips carry 45 to 70 passengers. Most Route trips during this period on both Routes 57 and 57A have maximum loads that are very close to or exceed loading standards.
- Ridership between 10:30 AM and 2:30 PM is lower and generally between 40 and 50 passengers per trip.
- From 2:30 PM to about 4:30 PM, ridership increases to close to 60 passengers per trip, but maximum loads are all below capacity.
- After 4:30 PM, ridership per trip begins to decline to around 35 at 7:00 PM, and then decreases more steadily to fewer than five passengers on the last trip.

On weekday outbound trips (see Figure 6 and Figure 7):

- AM ridership is highest between 6:30 AM and 8:30 AM, with the heaviest trips carrying over 50 passengers.
- Ridership per trip declines significantly between 8:30 AM and 12:30 PM, when most trips carry fewer than 30 passengers.
- After 12:30 PM, ridership per trip begins to increase again, to around 50 passengers per trip around 2:00 PM and over 60 by 3:30 PM.
- Ridership then stays high between 3:30 PM and 6:30 PM, with Route 57 trips carrying nearly 90 passengers per trip, and Route 57A carrying 45 to 70. Nearly all Route 57 trips and some Route 57A trips during this period have maximum loads that are at or above loading standards.
- Between 7:00 PM and 10:30 PM, ridership on most trips is over 50 passengers.
- Ridership steadily declines to fewer than 10 passengers on the last trip at 1:10 AM.

Figure 4 | Route 57 Weekday Ridership by Trip: Inbound

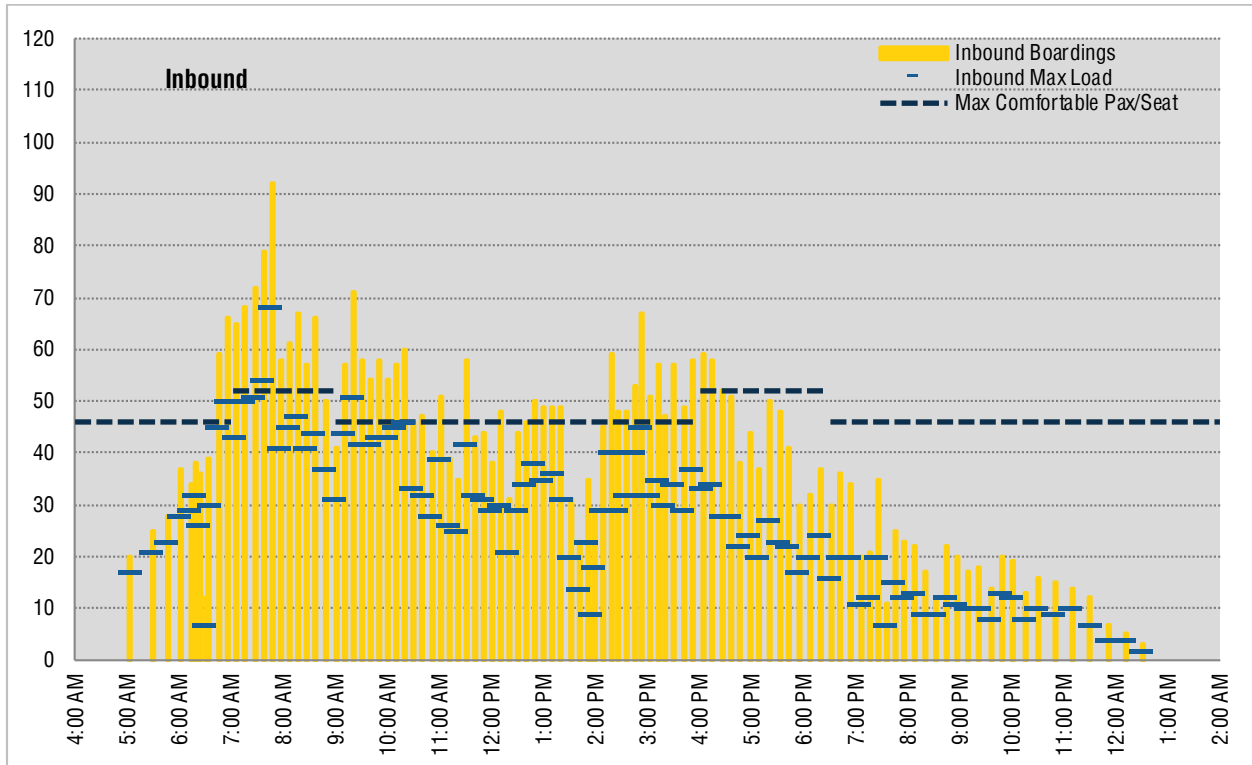


Figure 5 | Route 57A Weekday Ridership by Trip: Inbound

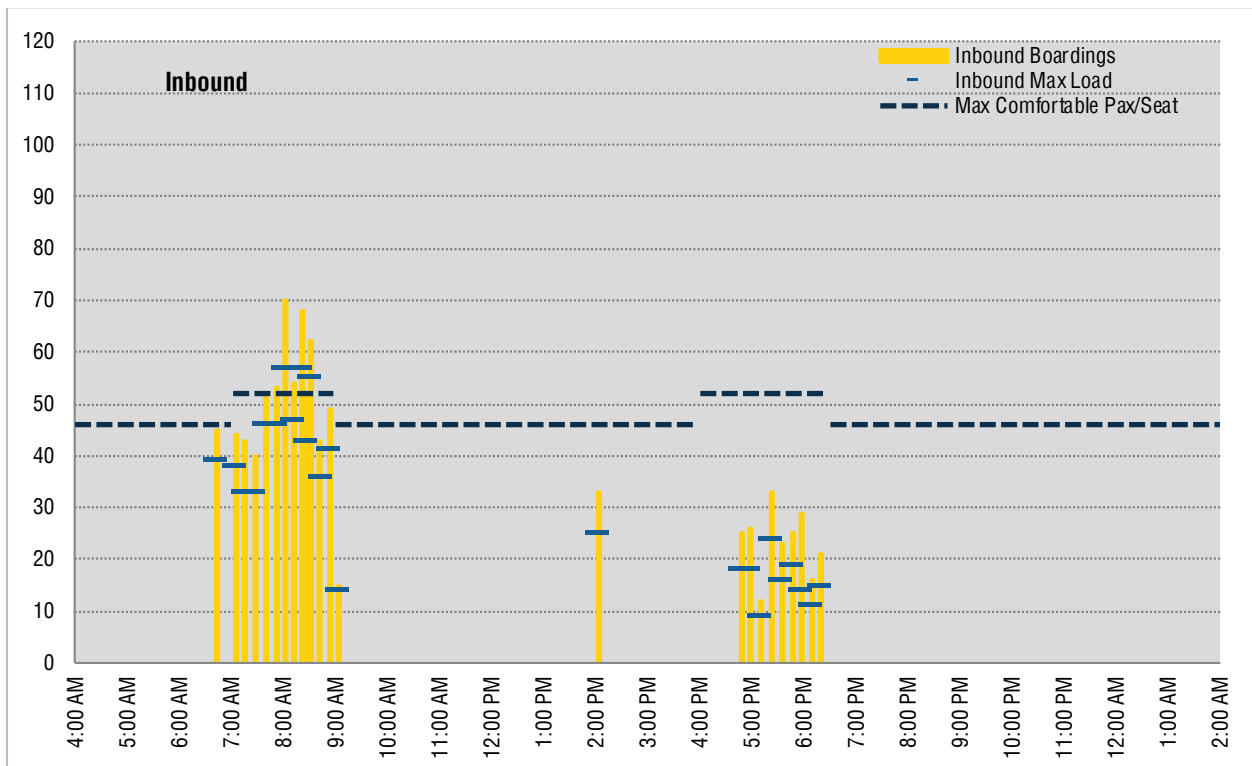




Figure 6 | Route 57 Weekday Ridership by Trip: Outbound

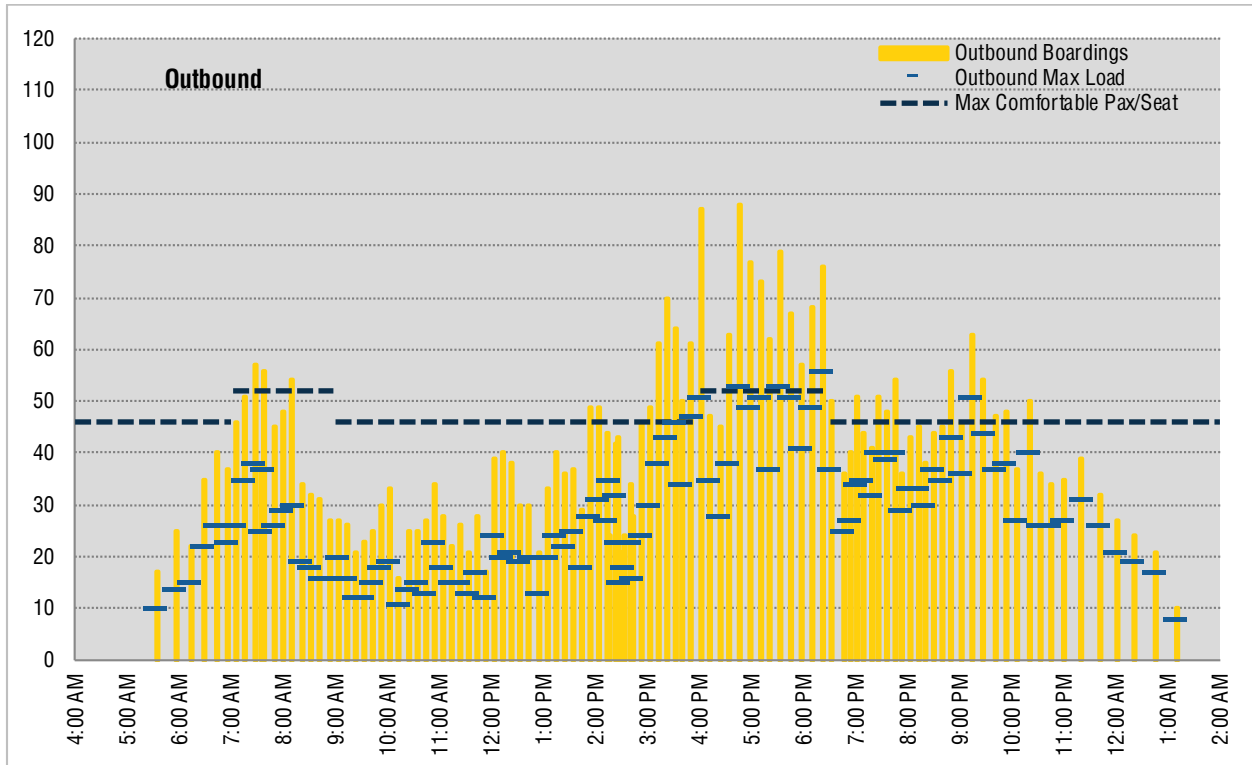
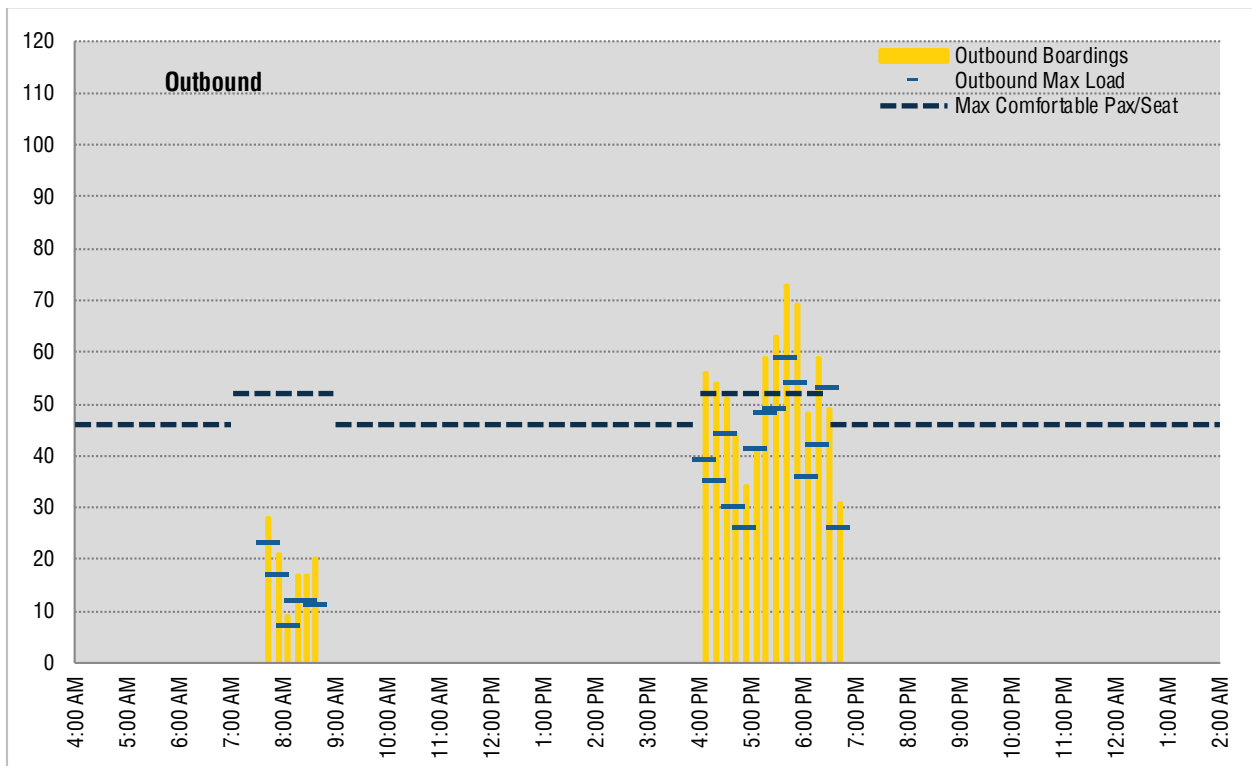


Figure 7 | Route 57A Weekday Ridership by Trip: Outbound



On Saturdays, inbound ridership is highest between 8:00 AM and 7:00 PM, when most trips carry 35 to over 50 passengers (see Figure 8). Outbound ridership is highest between 2:30 PM and 11:30 PM, when most trips carry 30 to 50 passengers (see Figure 9).

Figure 8 | Route 57 Saturday Ridership by Trip: Inbound

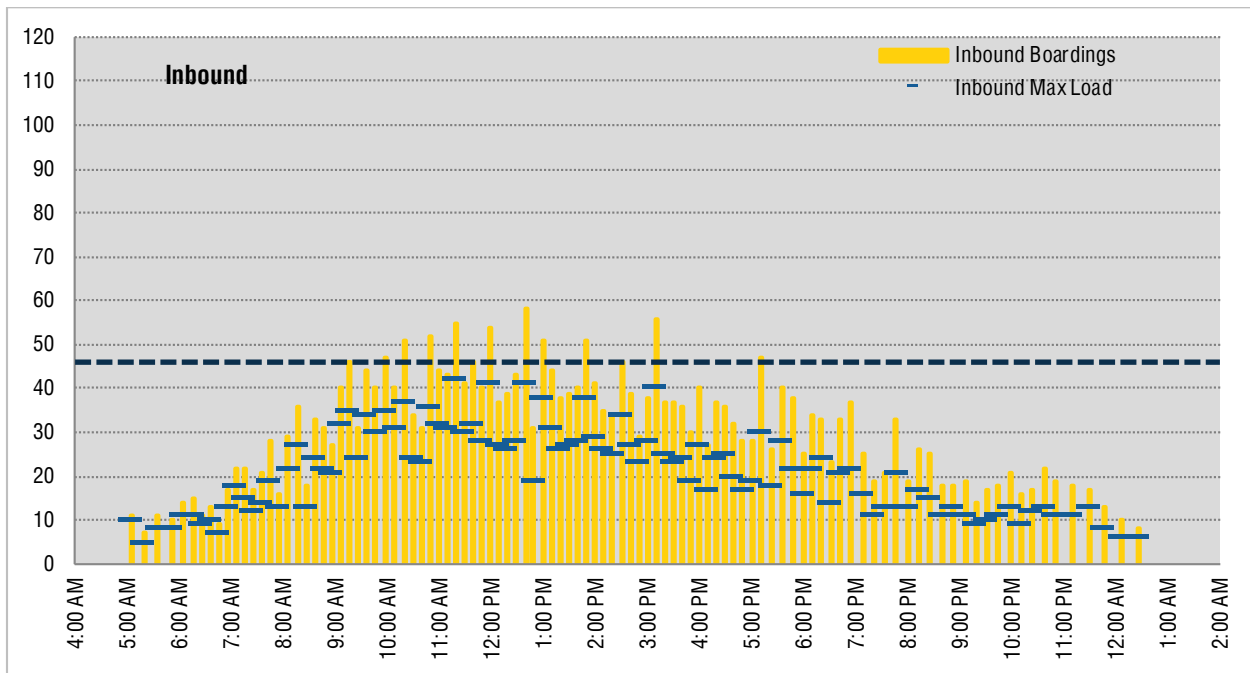
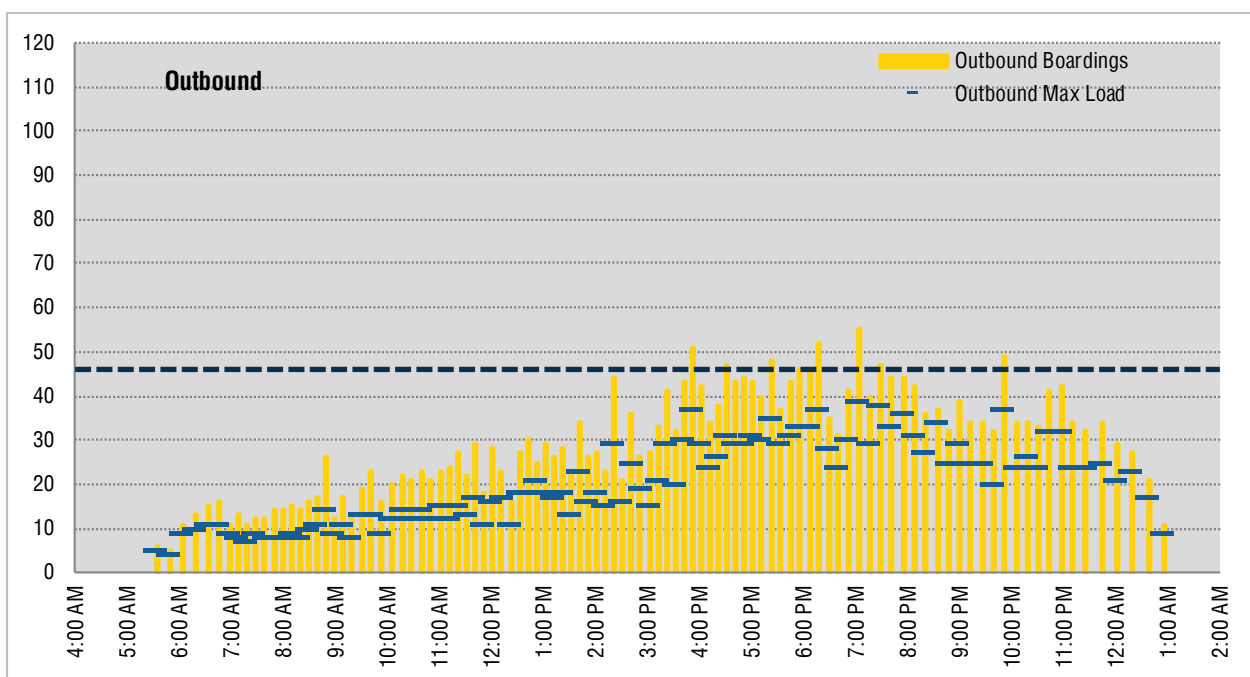


Figure 9 | Route 57 Saturday Ridership by Trip: Outbound



Sunday ridership per trip patterns generally mirror Saturday. Inbound ridership is highest between 8:00 AM and 5:30 PM, when most trips carry 30 to over 50 passengers (see Figure 10). Outbound ridership is highest between 4:00 PM and 11:00 PM, when most trips carry 40 to 50 passengers (see Figure 11).

Figure 10 | Route 57 Sunday Ridership by Trip: Inbound

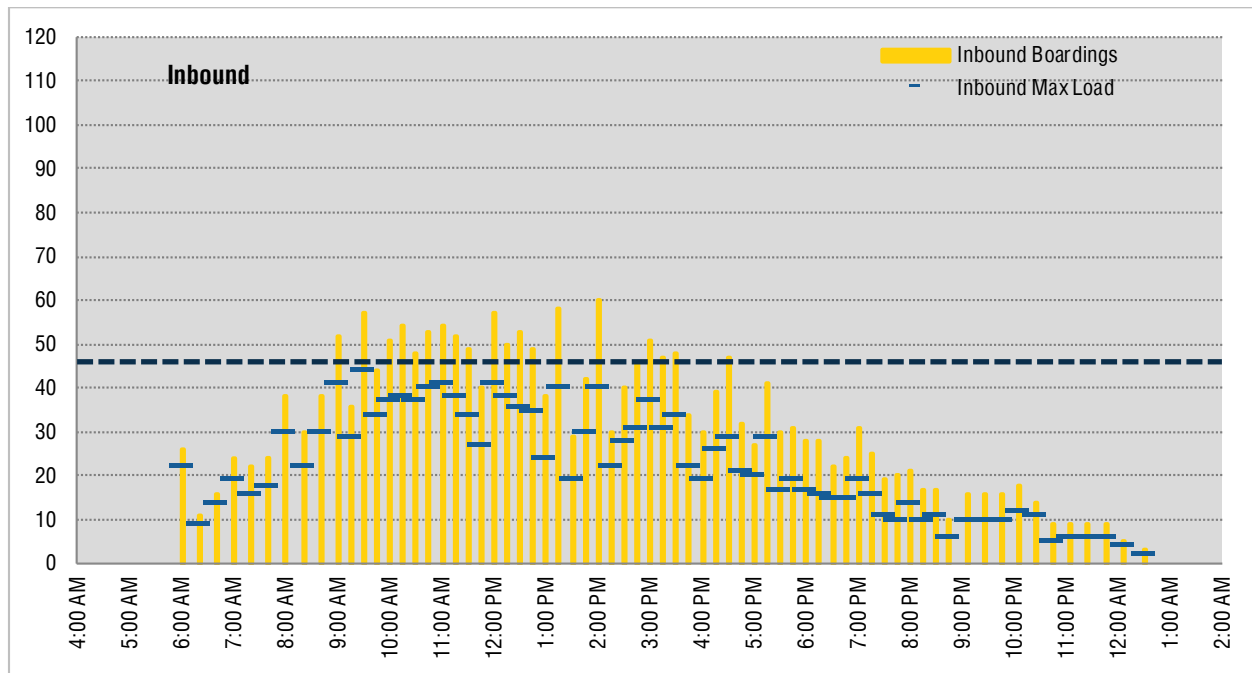
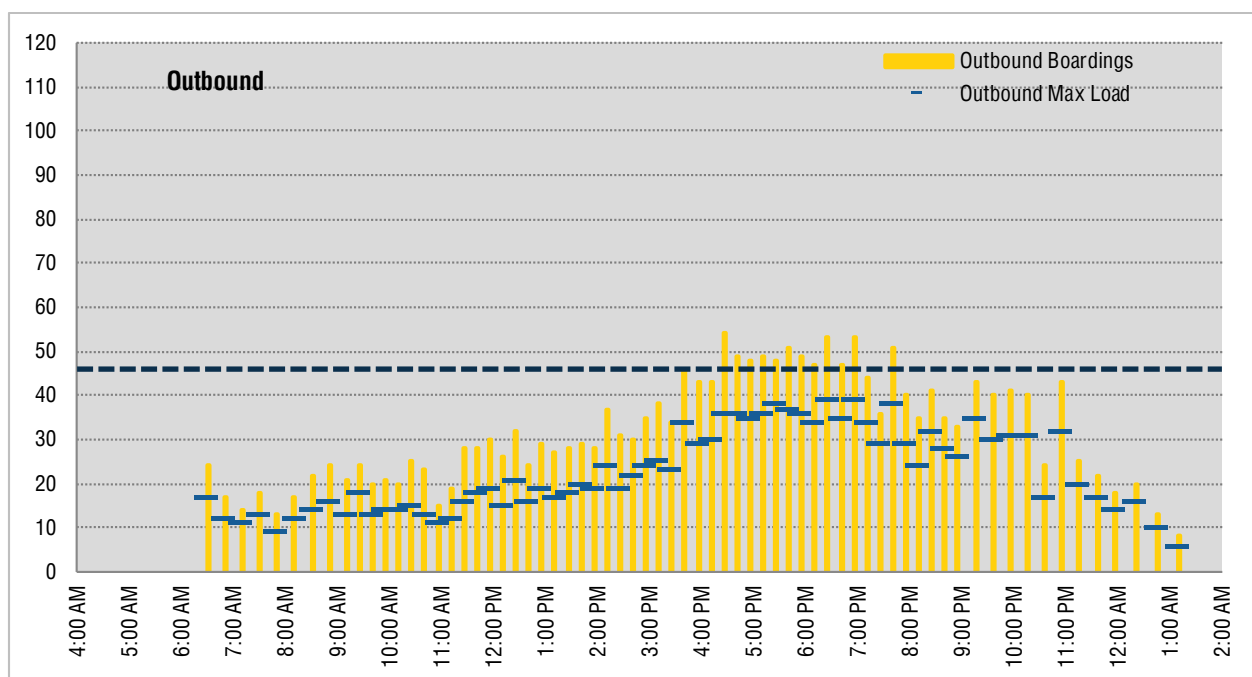


Figure 11 | Route 57 Sunday Ridership by Trip: Outbound



## Passenger Comfort

The MBTA desires that passengers travel in relatively comfortable conditions. At the same time, the MBTA's definition of comfort reflects the very high volume environment in which the MBTA operates, and that some passengers may have to stand for a portion of their trip. More specifically, at least 92% of passengers' travel times should be in comfortable conditions, and ideally, at least 96% of travel times should be in comfortable conditions. Comfortable conditions are considered to be 140% or less of seated capacity during high volume periods and 125% or less during other periods.

On Route 57/57A, 86.6% of passenger minutes are in comfortable conditions, which is below the minimum standard of 92% (see Table 5). This is largely due to overcrowded trips in the AM and PM peaks and dropped trips (see below).

Table 5 | Passenger Time Spent Traveling in Comfortable Conditions

	WEEKDAYS	SATURDAYS	SUNDAYS
<b>Minimum Standard</b>	92%	92%	92%
<b>Target</b>	96%	96%	96%
<b>Actual</b>	86.6%	96.7%	94.1%

## Reliability and Speed

### Reliability

Route 57/57A's overall reliability is 75% on weekdays, 75% on Saturdays, and 81% on Sundays (see Table 6). These levels meet the minimum standard of 75% for Key Bus routes for weekdays and Saturdays, but are below the target of 80%. Reliability on Sundays exceed the target. Dropped trips are an issue, with 2.9% of trips dropped in the fall of 2017. With crowded trips in the AM and PM peaks, dropped trips in the peaks result in overcrowding on the following trips.

Table 6 | Reliability

SERVICE DAY	ORIGIN/MID-ROUTE ON-TIME PERFORMANCE	DESTINATION ON-TIME PERFORMANCE	OVERALL RELIABILITY	DROPPED TRIPS
<b>Monday-Friday</b>	75%	80%	75%	2.9%
<b>Saturday</b>	74%	84%	75%	-
<b>Sunday</b>	80%	96%	81%	-

### Running Times

From the start of service until approximately 8:00 AM, on inbound trips, actual running times are up to seven minutes longer than scheduled (see Figure 12 and Figure 13).

Between 8:00 AM and 5:00 PM, actual times are up to six minutes faster. After 5:00 PM, actual times are once again longer, and up to eight minutes longer on inbound trips.

Figure 12 | Scheduled & Median Travel Time by Trip: Route 57/57A Inbound

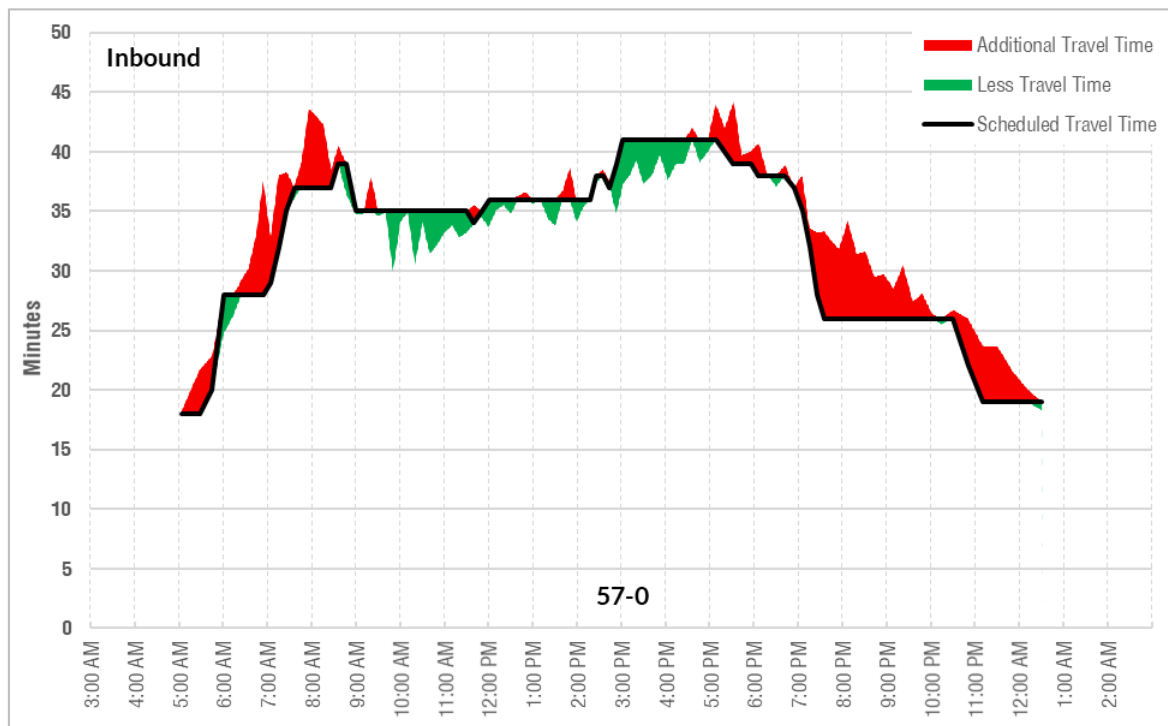
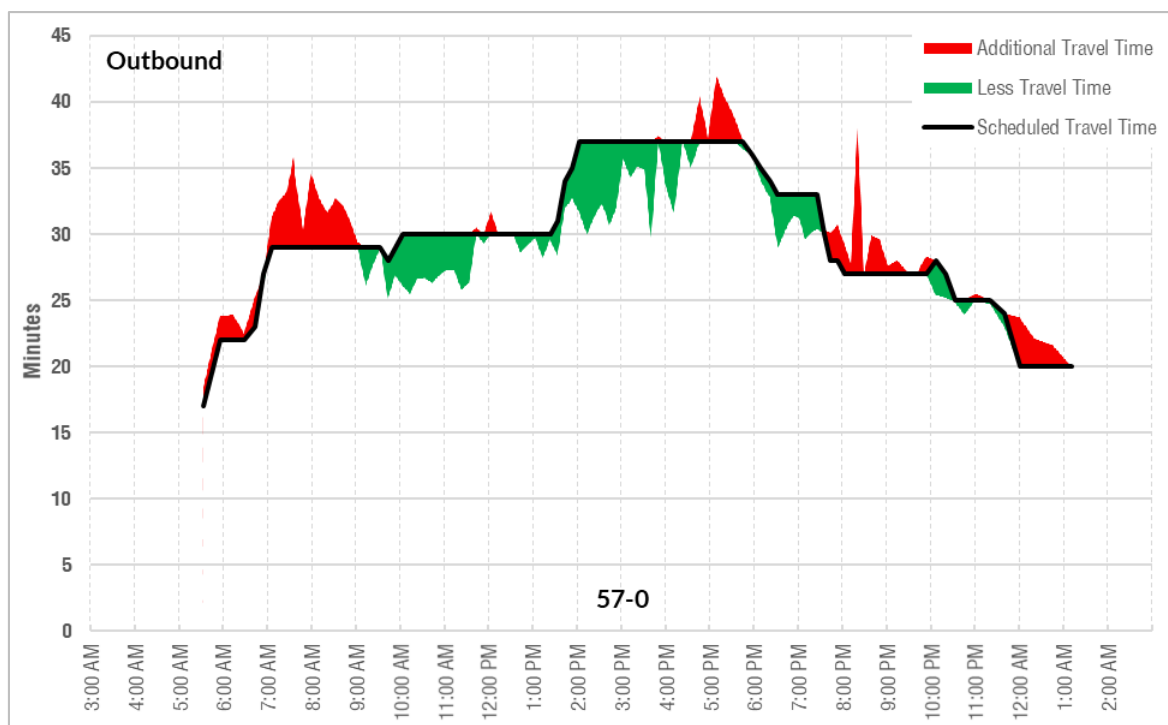


Figure 13 | Scheduled & Median Travel Time by Trip: Route 57/57A Outbound



## Stop Spacing

Route 57/57A has an average of nearly seven stops per mile, which is at the high end of the MBTA's guideline of four to seven stops per mile for Key Bus routes. Areas with particularly closely spaced stops include:

- Park Street at Elmwood Street is 550 feet from Tremont Street opposite Hibbard Road.
- Tremont Street at Tremont Place is 430 feet from Tremont Street at Cufflin Street.
- Cambridge Street at Washington Street is 320 feet from Cambridge Street opposite Elko Street.

Stop consolidation could make service faster while still providing convenient access.

## Summary

Route 57/57A is one of the MBTA's highest ridership routes and provides direct, frequent and relatively reliable service to transit-oriented neighborhoods between Watertown Square and Kenmore Square. Challenges with Route 57/57A include overcrowding and below target reliability.