

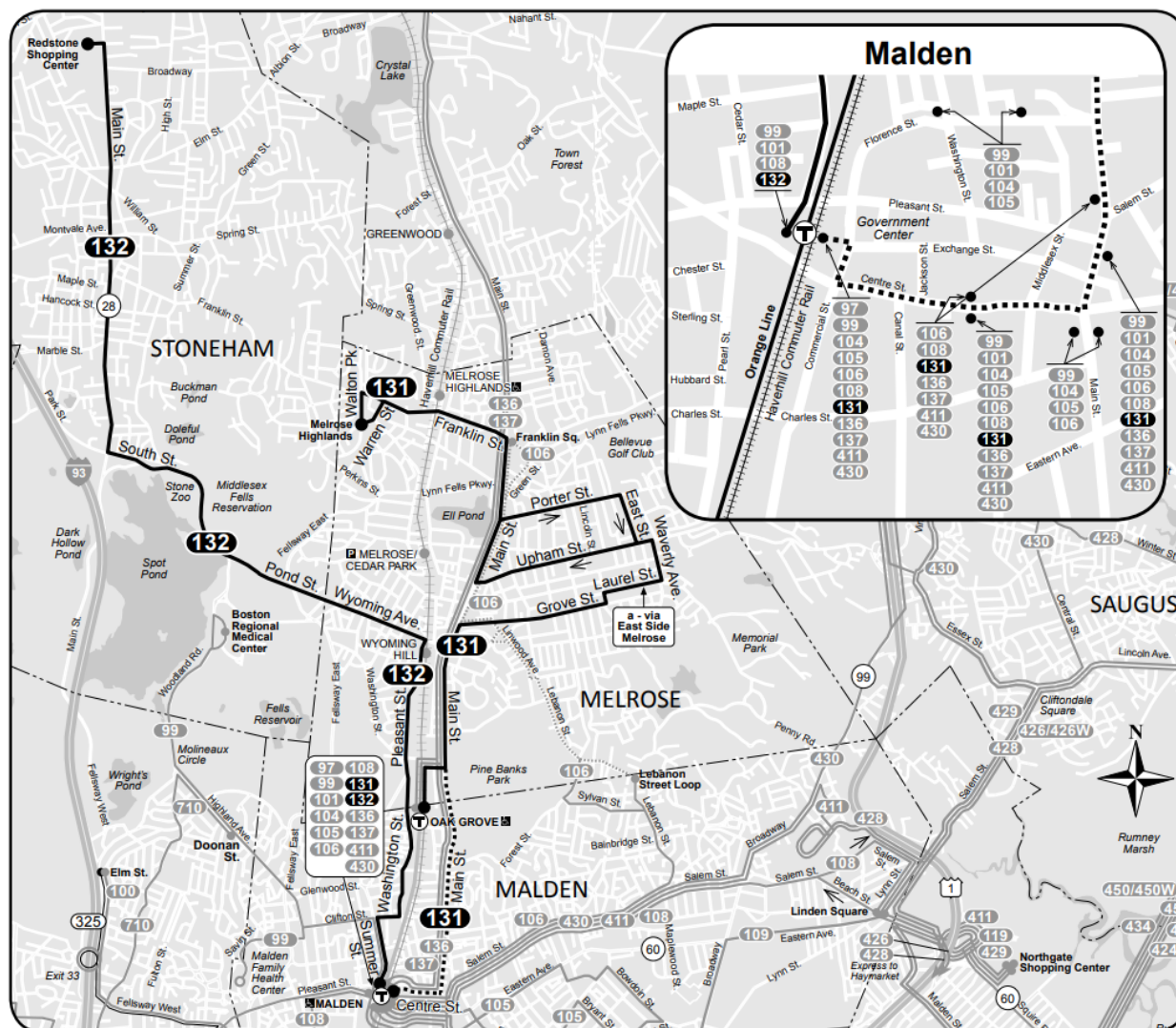
# Route 132

## Redstone Shopping Center – Malden Center

### Route Overview

Route 132 Redstone Shopping Center – Malden Center provides service between the Redstone Shopping Center in Stoneham and Malden Center Station via Oak Grove Station (see Figure 1). Its primary function is to connect residential areas in Stoneham, Melrose, and Malden with the Orange Line.

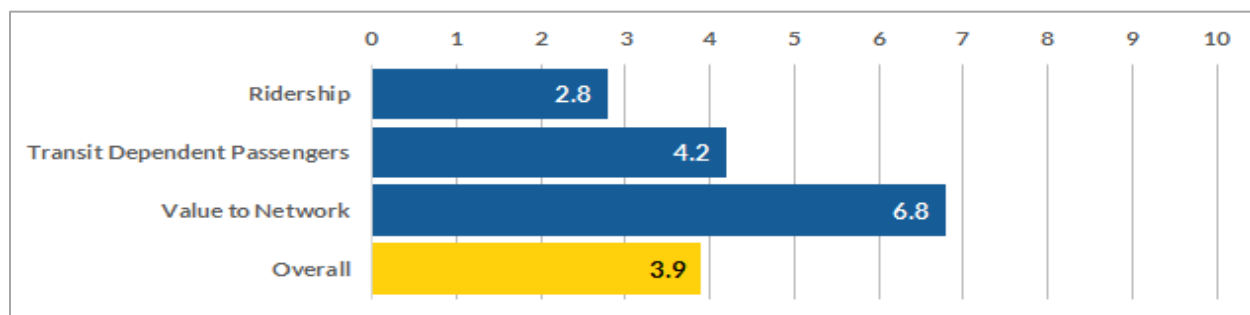
Figure 1 | Service Map



## Network Value

Route 132 has a relatively low importance within the MBTA bus network (see Figure 2). However, many of the riders on Route 132 are unique in the system. On a relative scale of 0 to 10, the route rates 2.8 in terms of ridership, 4.2 in terms of transit dependent ridership, and 6.8 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% weighting to overall ridership and a 15% weight to both other measures, is 3.9.

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



## Service Overview

### Schedule

On weekdays, service operates from 5:30 AM to 11:49 PM, with irregular frequencies (see Table 1). In the AM peak, frequencies range from 20 to 30 minutes, and in the PM peak, they range from 30 to 55 minutes. Midday frequencies range from 50 to 60 minutes and evening frequencies range from 35 to 60 minutes.

On Saturdays, service operates from 8:00 AM to 7:49 PM, with regular hourly headways except for the last inbound and outbound trips at 7:30 PM which depart 90 minutes after the previous trips. There is no Sunday service.

Route 132 mostly, but not completely, meets the MBTA's level of service standards:

- Days of Service: Route 132 exceeds the days of service standard that specifies that only weekday service must be provided in low-density areas.
- Span of Service: Route 132 exceeds the MBTA's minimum span of service standards for both weekdays and Saturdays.
- Service Frequencies: On weekdays, Route 132 fails to meet the minimum weekday peak period service frequencies of every 30 minutes, but meets the midday and evening frequency standard of every 60 minutes. On Saturdays, the route meets the 60 minute standard throughout the day except for a 90 minute gap before the last inbound and outbound Saturday trips.

Table 1 | Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (RANGE)	FREQUENCY (AVERAGE)	DAILY TRIPS (INBOUND/OUTBOUND)
<b>Monday-Friday</b>	<b>5:30 AM to 11:49 PM</b>			<b>24/22</b>
Sunrise	5:30 AM to 5:59 AM	1 trip	1 trip	0/1
Early AM	6:00 AM to 6:59 AM	20 – 30	25	3/2
AM Peak	7:00 AM to 8:59 AM	20 – 30	26	4/2
Midday Base	9:00 AM to 1:29 PM	30 – 60	60	5/4
Midday School	1:30 PM to 3:59 PM	45 – 60	50	3/3
PM Peak	4:00 PM to 6:29 PM	30 – 55	48	3/5
Evening	6:30 PM to 9:59 PM	35 – 60	54	4/3
Late Evening	10:00 PM to 11:49 PM	60	60	2/2
Night	-	-	-	-
<b>Saturday</b>	<b>8:00 AM to 7:49 PM</b>	<b>60</b>	<b>60</b>	<b>12/11</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

Route 132 primarily operates along Main Street, Wyoming Avenue, Pleasant Street, and Washington Street (as shown in Figure 1). North of Wyoming Avenue, it serves largely low-density single-family residential neighborhoods. The middle of the route’s alignment serves a mix of single-family and multifamily residential neighborhoods. The southern end serves higher-density mixed-use neighborhoods.

Route 132 operates without any pattern variants and all service operates along the same alignment.

Table 2 | Service Patterns

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS per WKD	TRIPS per SAT	TRIPS per SUN
<b>INBOUND</b>				<b>24</b>	<b>12</b>	<b>-</b>
132.0	Redstone Shopping Center	Malden Center	Primary pattern	24	12	-
<b>OUTBOUND</b>				<b>22</b>	<b>11</b>	<b>-</b>
132.0	Malden Center	Redstone Shopping Center	Primary pattern	22	11	-

## Ridership

Route 132 serves 1,030 riders per weekday and 300 on Saturdays.

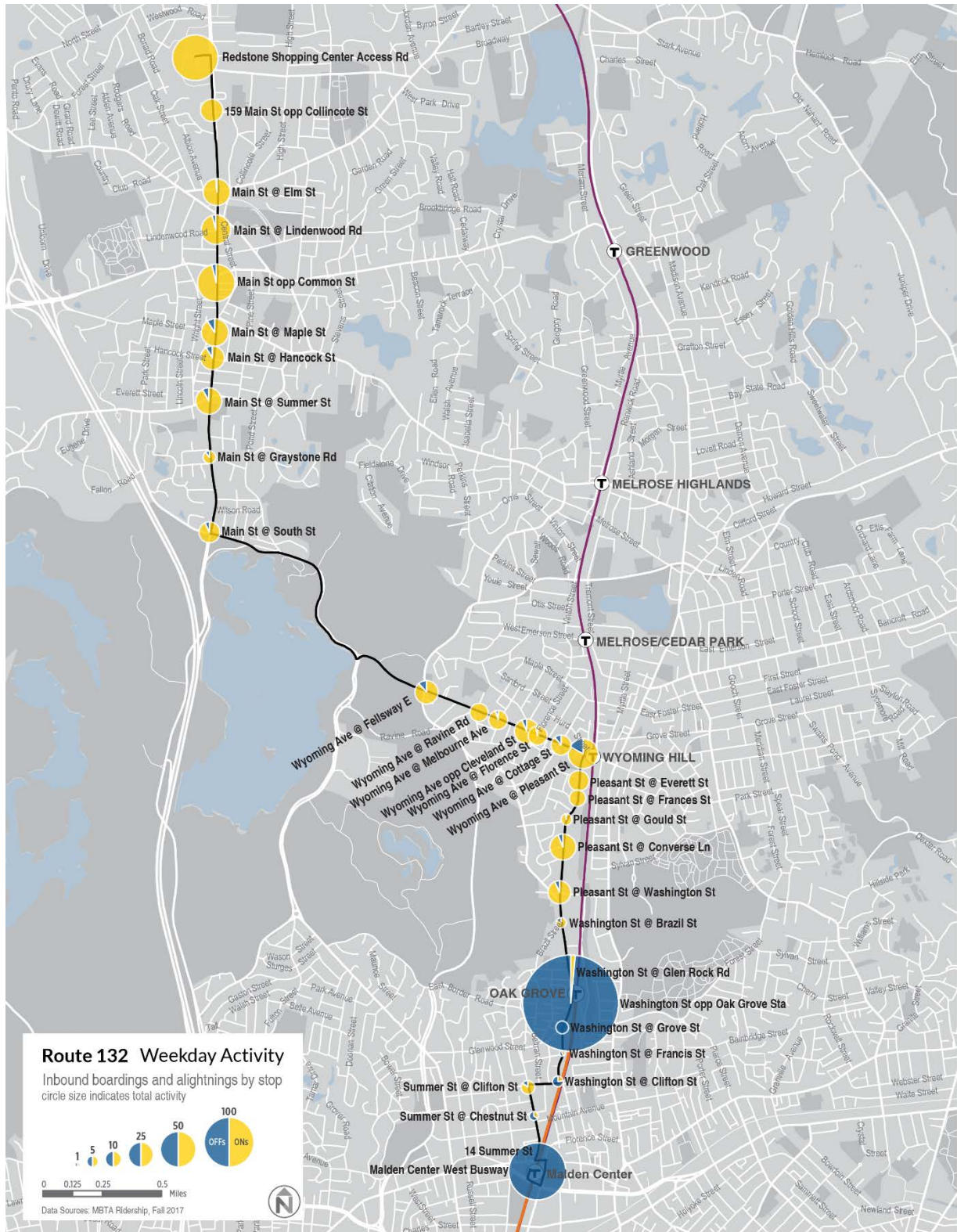
### Ridership by Stop

Route 132 largely connects those who live in residential areas along the route with the Orange Line at Oak Grove Station, and to a lesser extent with Malden Center and Malden Center Station. On weekday inbound trips (see Figure 3):

- North of Oak Grove Station, nearly all ridership activity consists of boardings.
- 80 passengers board at Redstone Shopping Center.
  - 233 passengers board and 10 alight at the nine stops along Stoneham's Main Street corridor. The most popular stop on this corridor is at Common Street, near Stoneham Town Common.
  - 120 passengers board and 10 alight at the seven stops on Wyoming Avenue.
  - 80 passengers board and less than five alight at the five stop on Pleasant Avenue.
- 370 passengers, or 68% of all inbound passengers, alight at Oak Grove Station. This is, by far, the largest alighting stop on the route.
- Very few passengers board or alight between Oak Grove and Malden Center – only 10 boardings and 10 alightings at six stops.
- 130 passengers, or 23% of all inbound passengers, alight at Malden Center Station,



Figure 3 | Weekday Inbound Ridership by Stop Map



## Ridership by Trip

As described above, the majority of Route 132 passengers board or alight at either Oak Grove Station or Malden Center Station. Route 132 is notable for its very low passenger turnover on trips in both directions, as the typical maximum passenger load is nearly equal to the number of typical passenger boardings for trips throughout the day. On weekday inbound trips (see Figure 4):

- The first trip at 6:00 AM carries 32 passengers, which may indicate demand for an earlier start of service.
- Ridership quickly increases to 40 and 65 passengers per trip throughout the AM peak. Route 132's 6:55 AM and 8:00 AM inbound trips experience passenger crowding, with average onboard loads of 62 and 53 riders, respectively. This crowding indicates the need for increased service during the AM peak.
- Ridership declines to typical loads of between 15 and 30 passengers per trip throughout the midday periods.
- During the PM peak, ridership declines further to average loads of eight to 20 riders per trip.
- After 7:00 PM, all trips carry average loads of fewer than 10 passengers, declining to a low of two riders on the 11:30 PM trip.

On weekday outbound trips (see Figure 5):

- Trips in the early morning have average loads of fewer than five riders per trip.
- During the AM peak and through the midday periods, most trips serve loads of between 10 and 25 riders.
- Ridership increases rapidly between 3:00 PM and the start of the PM peak, when loads of 35 to 50 passengers are typical. The 5:20 PM and 6:20 PM trips experience relatively high passenger loads of 48 and 37 riders, respectively, but on average do not have crowding issues.
- Ridership declines after the PM Peak to typical loads of between 10 and 25 riders through the end of service.

On Saturdays, inbound ridership is typically low throughout the day, with most trips serving loads of between 10 and 20 passengers (see Figure 6). Outbound ridership is slightly lower, with most trips handling loads of eight to 15 passengers (see Figure 7).

Figure 4 | Weekday Ridership by Trip: Inbound

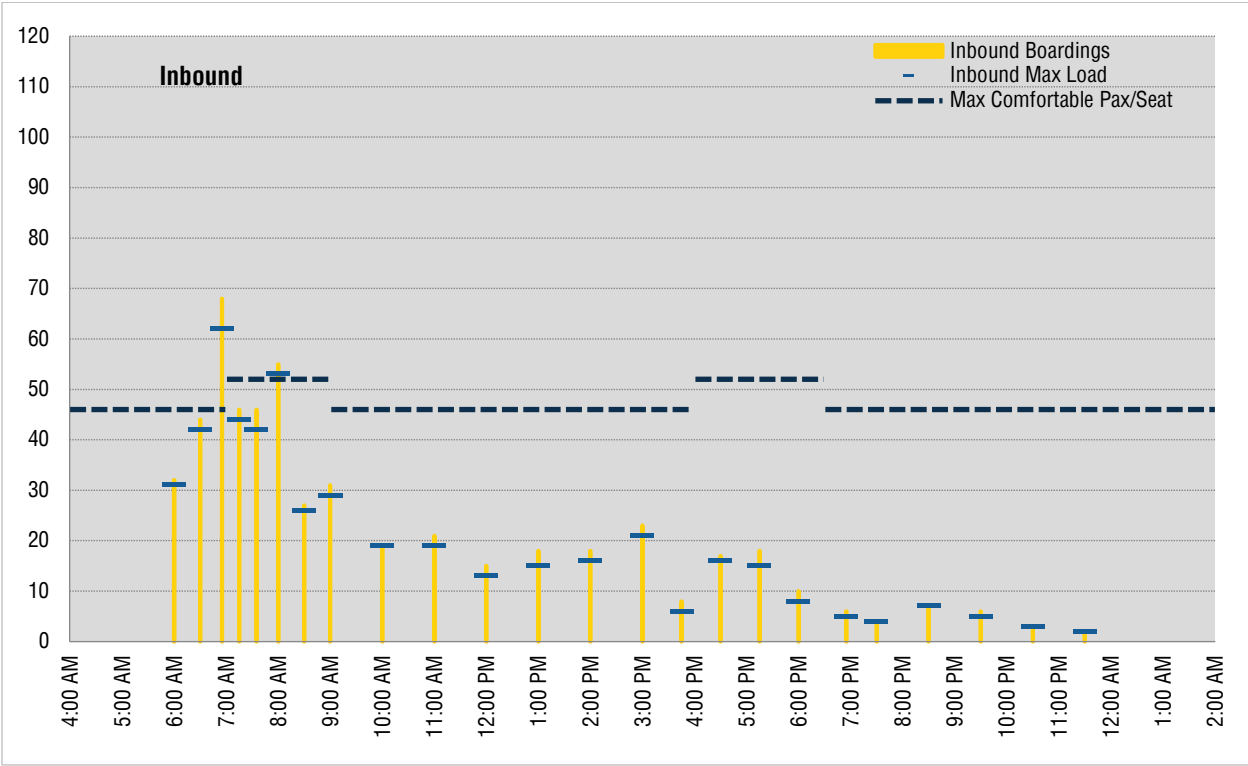


Figure 5 | Weekday Ridership by Trip: Outbound

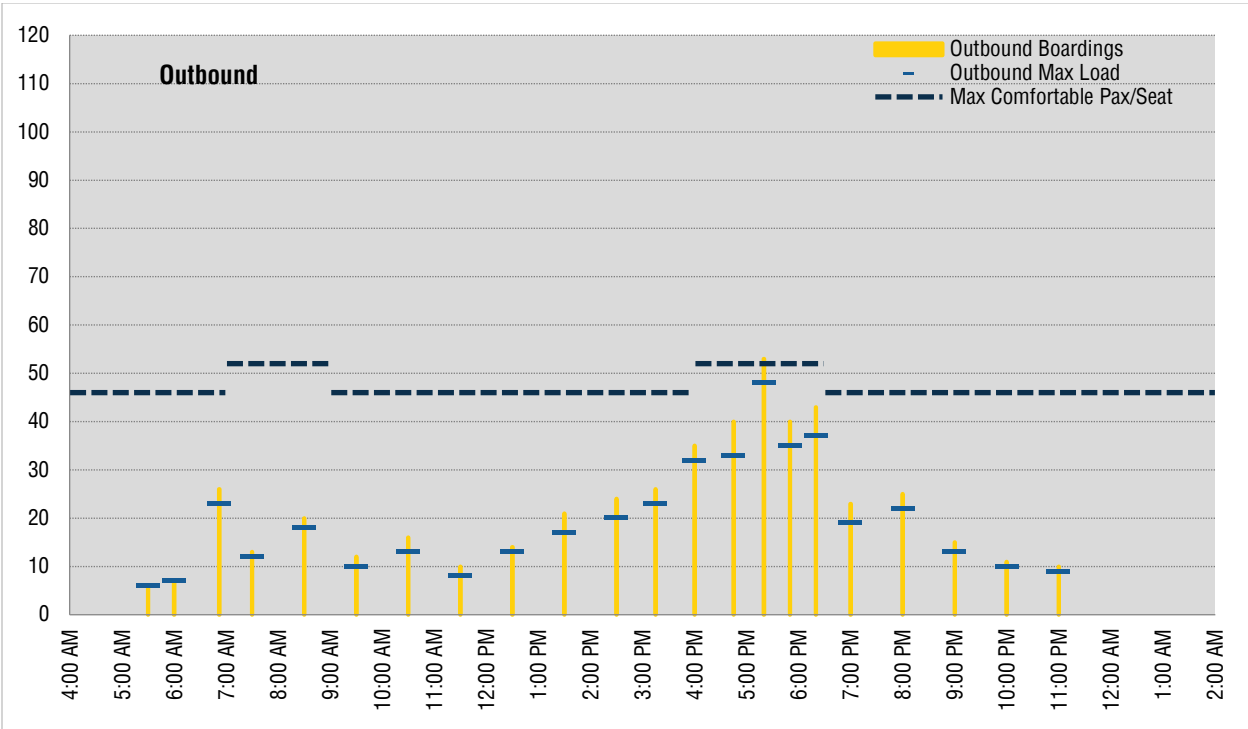


Figure 6 | Saturday Ridership by Trip: Inbound

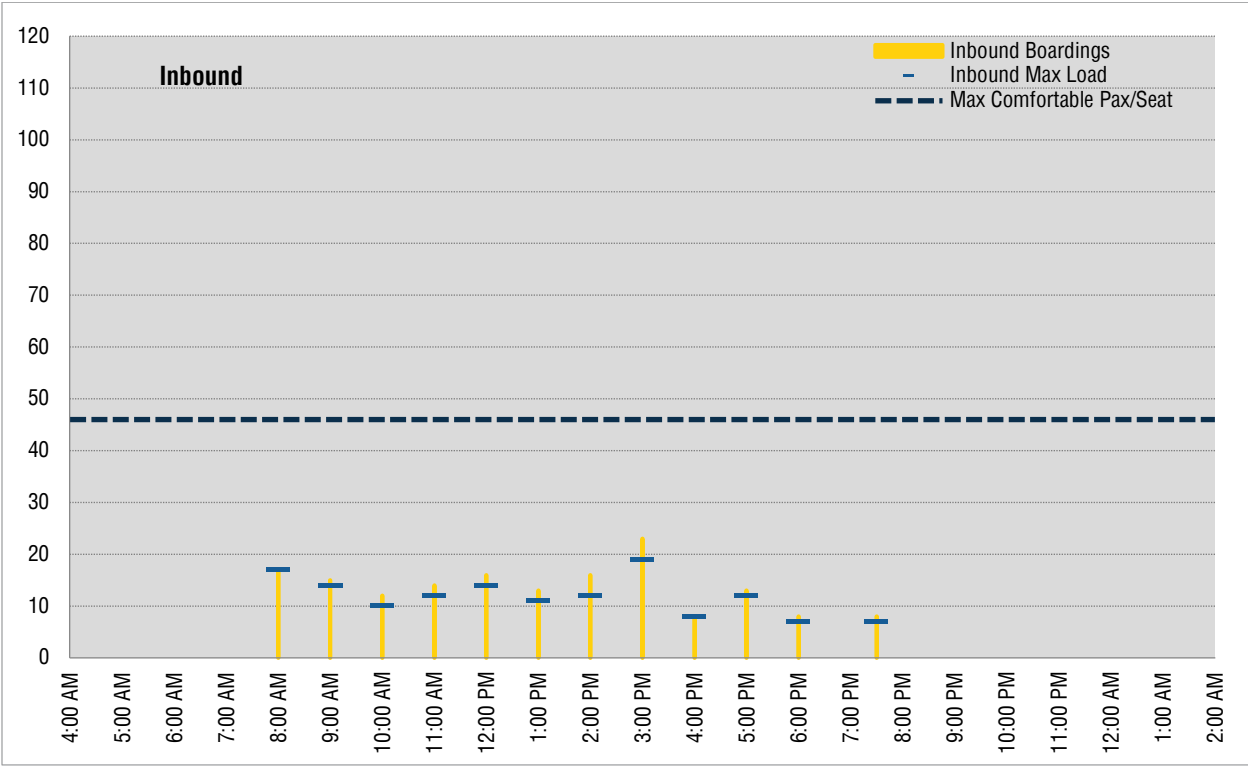
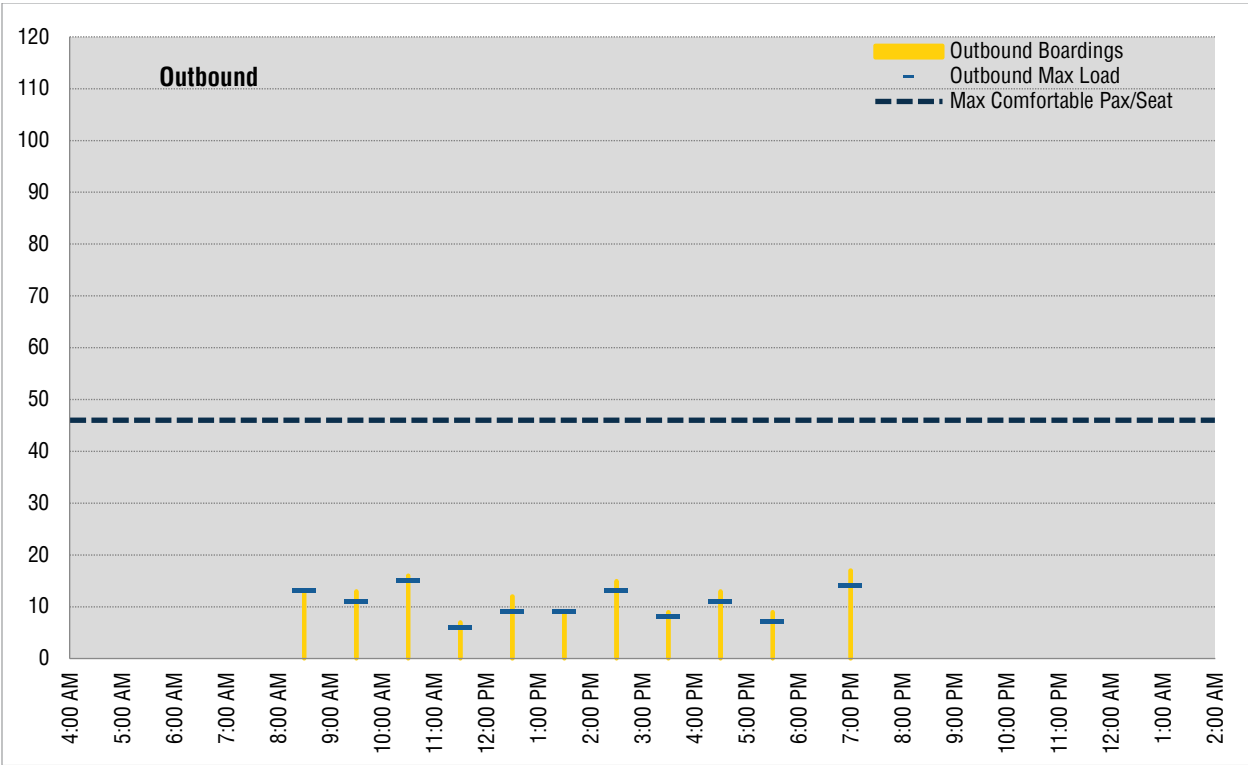


Figure 7 | Saturday Ridership by Trip: Outbound





## 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 132, 96% of passenger minutes are in comfortable conditions, which meets the target of 96% (see Table 3).

Table 3 | 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>	96%	100%	-

## Reliability and Speed

### Reliability

Route 132's weekday reliability is 70%, which meets the minimum standard of 70% (see Table 4). Saturday reliability of 56% falls well below the minimum standard.

Table 4 | Reliability

SERVICE DAY	ORIGIN/MID-ROUTE ON-TIME PERFORMANCE	DESTINATION ON-TIME PERFORMANCE	OVERALL RELIABILITY	DROPPED TRIPS
<b>Monday-Friday</b>	72%	61%	70%	0.1%
<b>Saturday</b>	56%	56%	56%	-
<b>Sunday</b>	-	-	-	-

### Running Times

Route 132's on-time performance issues are largely related to running times that are longer than scheduled times, especially in the morning and afternoon (see Figure 8 and Figure 9). The 6:00 AM inbound trip, for instance, typically exceeds the scheduled running time by about 12 minutes, and the 8:00 AM inbound trip exceeds scheduled running time by about six minutes.. During the mid-day school periods, between about 1:30 PM and 4:00 PM, Route 132 typically operates on-time, with actual running times falling just below scheduled running times. During the evening, and particularly after 7:00 PM, Route 132's on-time performance worsens again, with actual running times exceeding scheduled running times by between six and eight minutes.

Figure 8 | Scheduled & Median Travel Time by Trip: Inbound

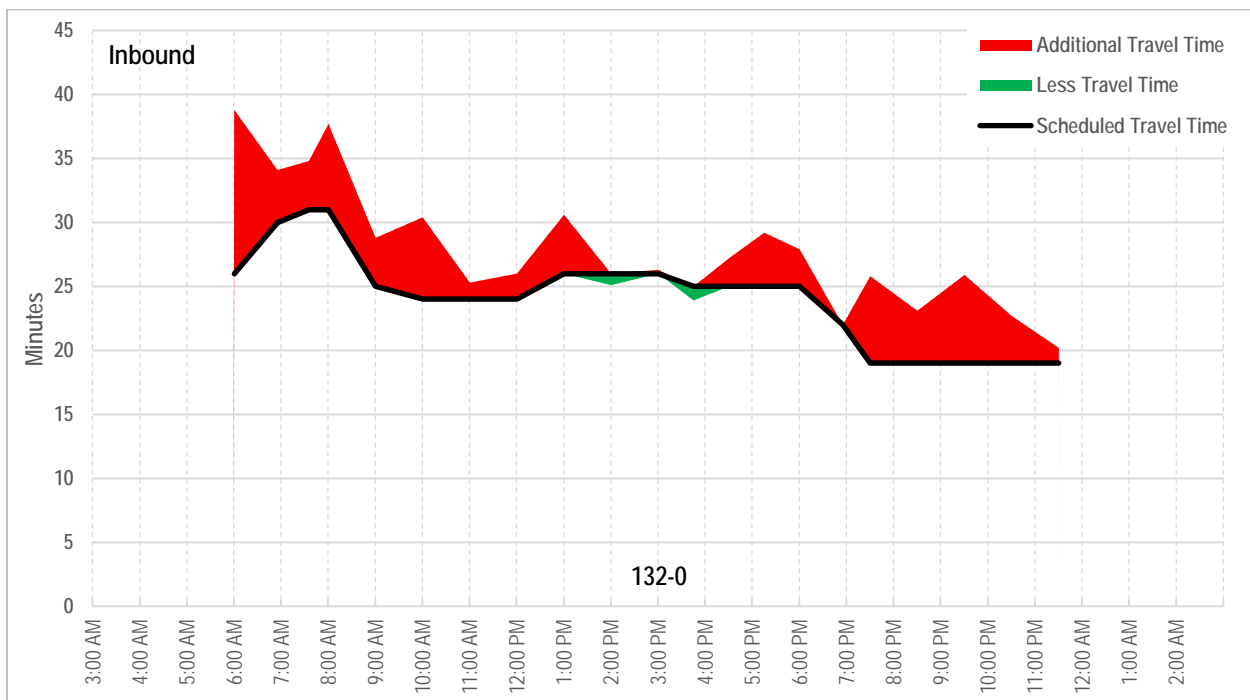
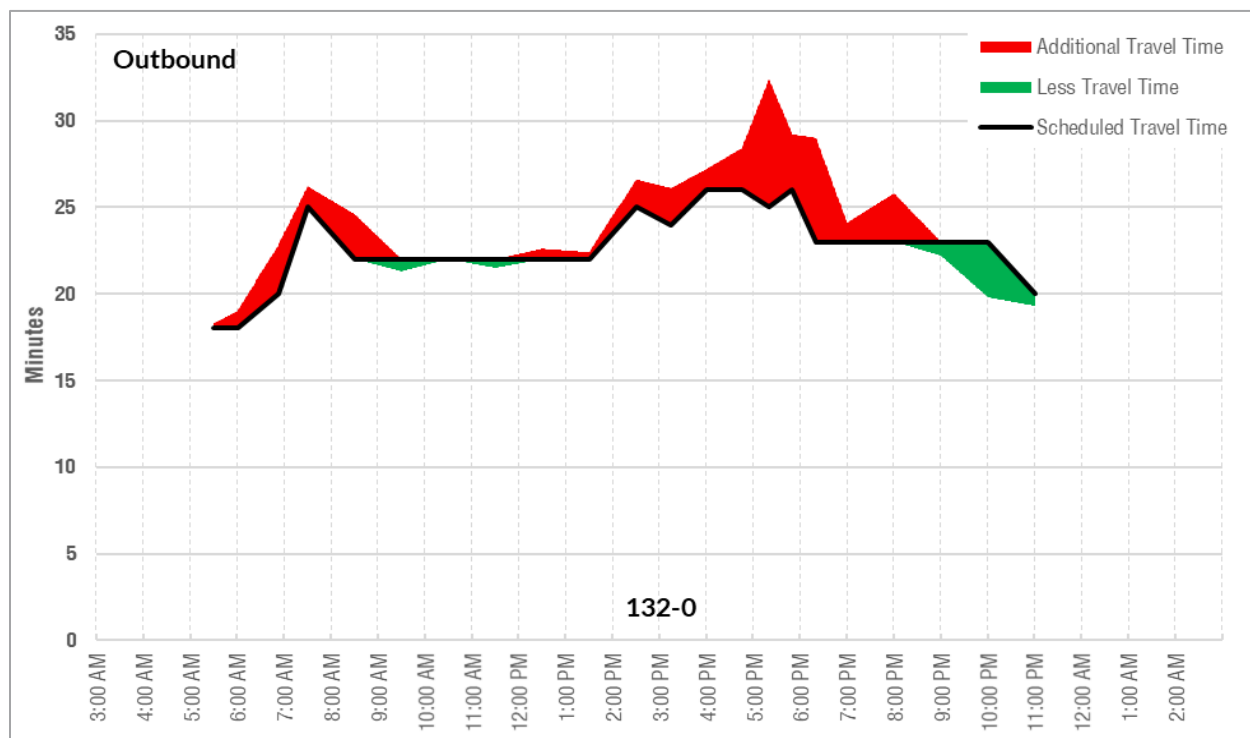


Figure 9 | Scheduled & Median Travel Time by Trip: Outbound



## Stop Spacing

Route 132 has an average of 5.4 stops per mile. However, this average spacing includes a 1.25 segment with no stops, and when this is considered, stop spacing is 6.6 stops per mile, which is more than the MBTA standard of four to five in suburban areas. This equates to a stop every 800 feet, or about a three minute walk between stops. Several stops are closer than 500 feet apart and some areas are as close as 200 feet apart. Consolidating the most closely spaced stop pairs would bring Routes 132 in line with the MBTA's stop spacing standards would reduce travel times and improve on-time performance.

## Summary

Route 132 is primarily a feeder route, connecting residential areas in Stoneham, Melrose, and Malden with the Orange Line. Ridership is heavily oriented toward AM inbound and PM outbound trips, indicating that most riders are commuters. Ridership at other times and on off-peak direction trips is moderate to low.