

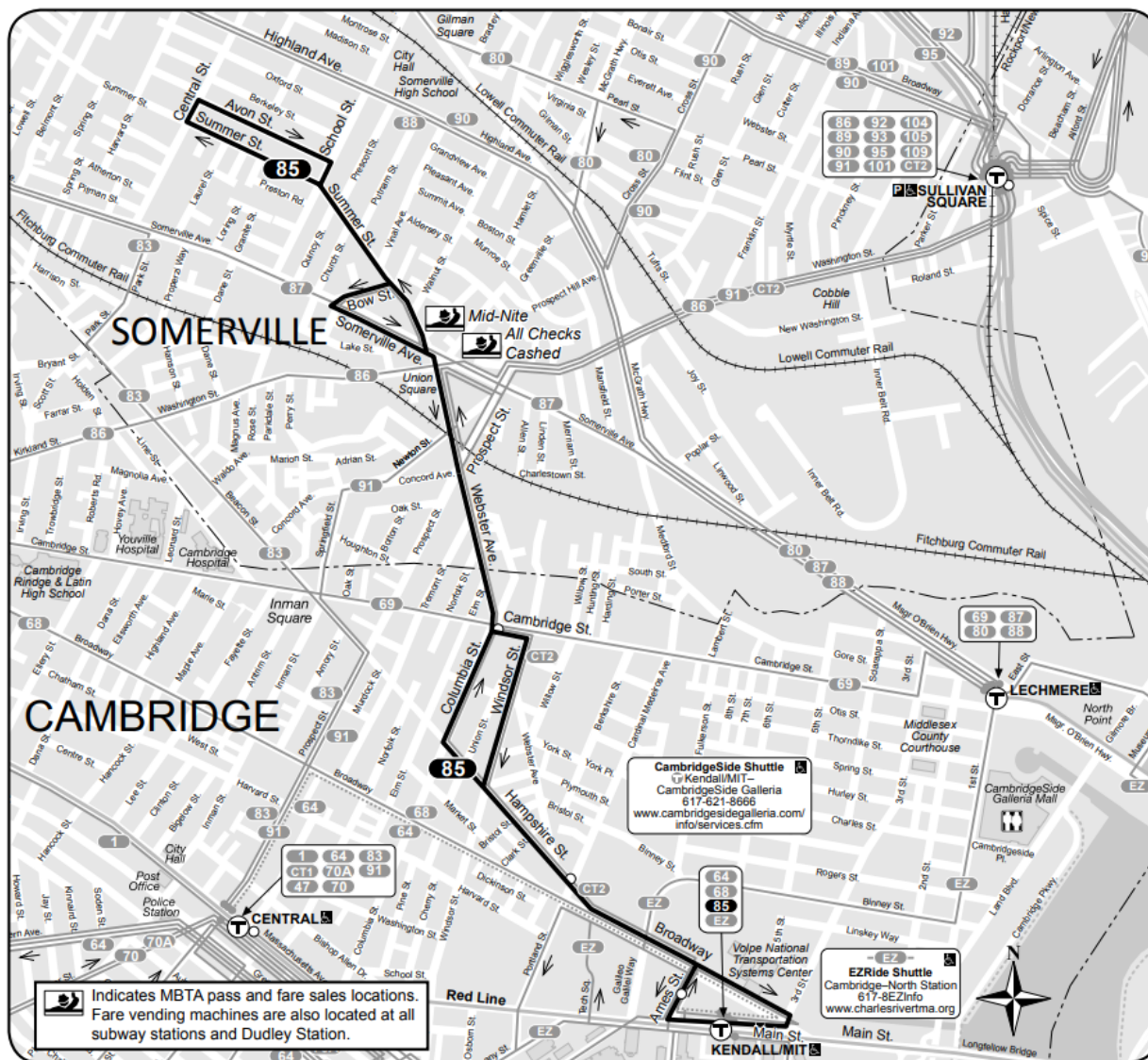
Route 85

Spring Hill – Kendall/MIT Station

Route Overview

Route 85 Spring Hill – Kendall/MIT Station is a Local weekday-only bus route operating between Spring Hill in Somerville and Kendall Square via Union Square (see Figure 1). Most of Route 85's alignment overlaps Route CT2 Sullivan Station – Ruggles Station. Route 85's only unique service area is the top of Spring Hill.

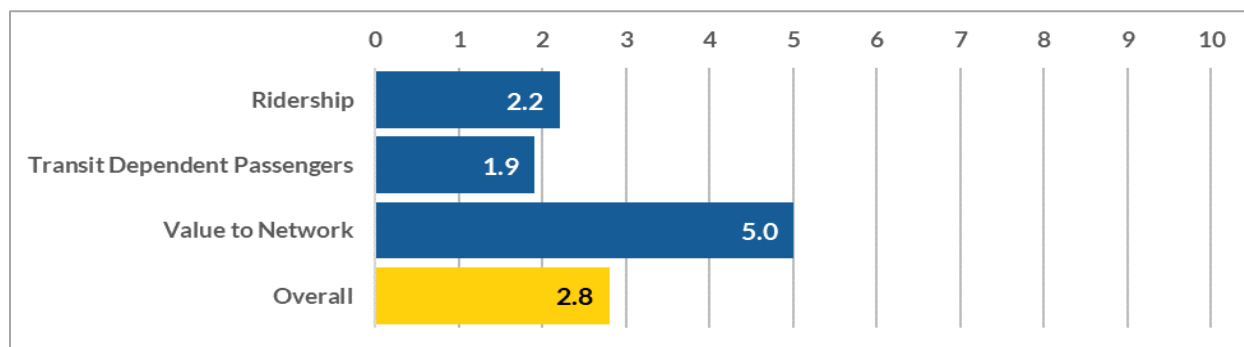
Figure 1 | Service Map



Network Importance

Route 85 is of relatively low importance to the network overall (see Figure 2). On a relative scale of 0 to 10, the route rates 2.2 in terms of ridership, 1.9 in terms of transit dependent ridership, and 5.0 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 2.8.

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



Service Patterns

Schedule

Route 85 operates on weekdays from 5:45 AM until 7:58 PM with infrequent service throughout the day (see Table 1). No weekend service is provided.

Table 1 | Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (RANGE)	FREQUENCY (AVERAGE)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	5:45 AM to 7:58 PM			23/22
Sunrise	5:45 AM to 5:59 AM	30	30	1/-
Early AM	6:00 AM to 6:59 AM	30 – 35	33	2/2
AM Peak	7:00 AM to 8:59 AM	25 – 40	31	4/3
Midday Base	9:00 AM to 1:29 PM	35 – 40	39	7/7
Midday School	1:30 PM to 3:59 PM	40	40	3/4
PM Peak	4:00 PM to 6:29 PM	40 – 45	41	4/4
Evening	6:30 PM to 7:58 PM	40	40	2/2
Late Evening	-	-	-	-
Night	-	-	-	-
Saturday	-	-	-	-
Sunday	-	-	-	-

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

Service is most frequent during the morning:

- Every 30 minutes on average from the beginning of service until 8:20 AM.
- The 8:45 AM trip occurs 25 minutes later.
- Service decreases to every 35 to 45 minutes on average through the end of service.

Route 85 does not meet weekday standards for service frequency. It also does not operate on weekends, which is the standard for Local bus routes serving dense urban neighborhoods.

Service Patterns

Route 85 operates one service pattern for all inbound and outbound trips on weekdays, differing only when one-way roads restrict service (see Table 2). Service does not run on weekends.

- Inbound trips run from Avon Street at Central Street along Avon Street, Summer Street, Bow Street, Somerville Avenue, Webster Avenue, Windsor Street, Hampshire Street, Broadway, Ames Street, and Main Street to Kendall/MIT Station.
- Outbound buses run on Main Street at Kendall/MIT Station, Broadway, Hampshire Street, Columbia Street, Webster Avenue, Bow Street, and Summer Street.

Table 2 | Service Patterns

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS PER WKD	TRIPS PER SAT	TRIPS PER SUN
INBOUND				23	-	-
85.0	Avon Street at Central Street	Main Street at Kendall Station	Primary service pattern	23	-	-
OUTBOUND				22	-	-
85.0	Main Street at Kendall Station	Avon Street at Central Street	Primary service pattern	22	-	-

Ridership

Route 85 averages just 643 passengers per weekday, or 14 passengers per trip, which is very low in comparison to most MBTA Local bus routes. Ridership is high on multiple peak trips.

Ridership by Stop

Route 85 has very low ridership overall, with most passengers boarding on Spring Hill and alighting at Kendall/MIT Station (see Figure 3). Three stops serve more than 50

passengers per day, while the 11 other stops on the route average 17 or fewer boardings or alightings daily. On weekday inbound trips:

- The first stop at Avon Street at Central Street attracts 138 boardings, or 38% of all inbound boardings.
- The next two stops combined (Avon Street at School Street and Summer Street at School Street) represent another 25% of inbound boardings.
- Boardings are low along the rest of the route, with only two stops generating more than 15 daily boardings: Somerville Avenue at Union Square (30 boardings and three alightings) and Webster Avenue at Cambridge Street stop in Inman Square (16 boardings and five alightings).
- There is limited turnover until the end of the route, where:
 - Hampshire Street at Portland Street generates 10 boardings and 43 alightings (12% of alightings).
 - Broadway at Galileo Way generates one boarding and 60 alightings (16% of alightings).
 - 227 passengers alight at Main Street at Kendall Station/MIT (63% of alightings).

Outbound ridership is the reverse of the inbound ridership pattern.

Ridership by Trip

Weekday ridership is highest on inbound trips between 7:55 AM and 8:45 AM, with maximum loads of 45 to 50 riders, and on the 5:45 PM outbound trip with a maximum load of 51 riders. Infrequent afternoon and PM peak service concentrates riders onto this one trip, and surrounding trips at 5:00 PM and 6:25 PM have fewer than 40 total boardings. Because there is limited turnover throughout the route, maximum loads are close to the total boardings on each trip (see Figure 4 and Figure 5).

Inbound ridership falls to fewer than 15 passengers per trip after 10:40 AM. No other inbound trip serves more than eight passengers. Similarly, no outbound trip prior to 3:00 PM serves more than eight passengers.

Figure 3 | Weekday Inbound Ridership by Stop Map



Figure 4 | Weekday Ridership by Trip: Inbound

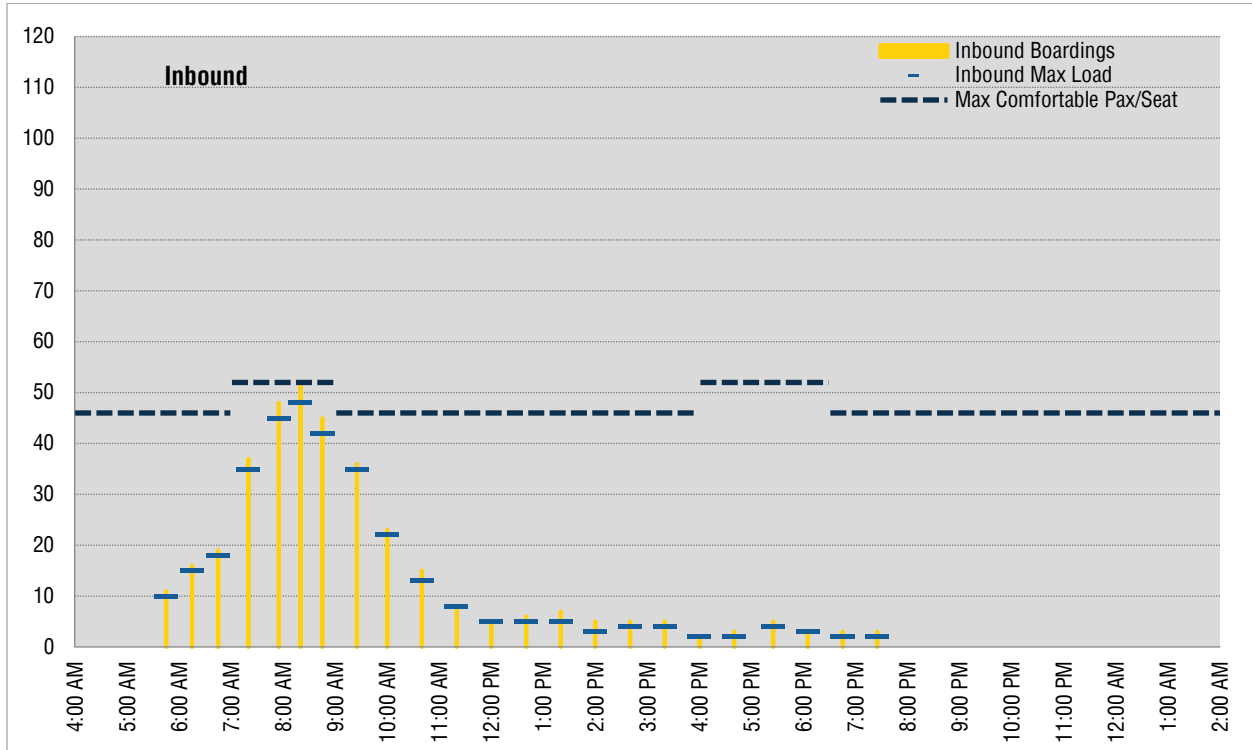
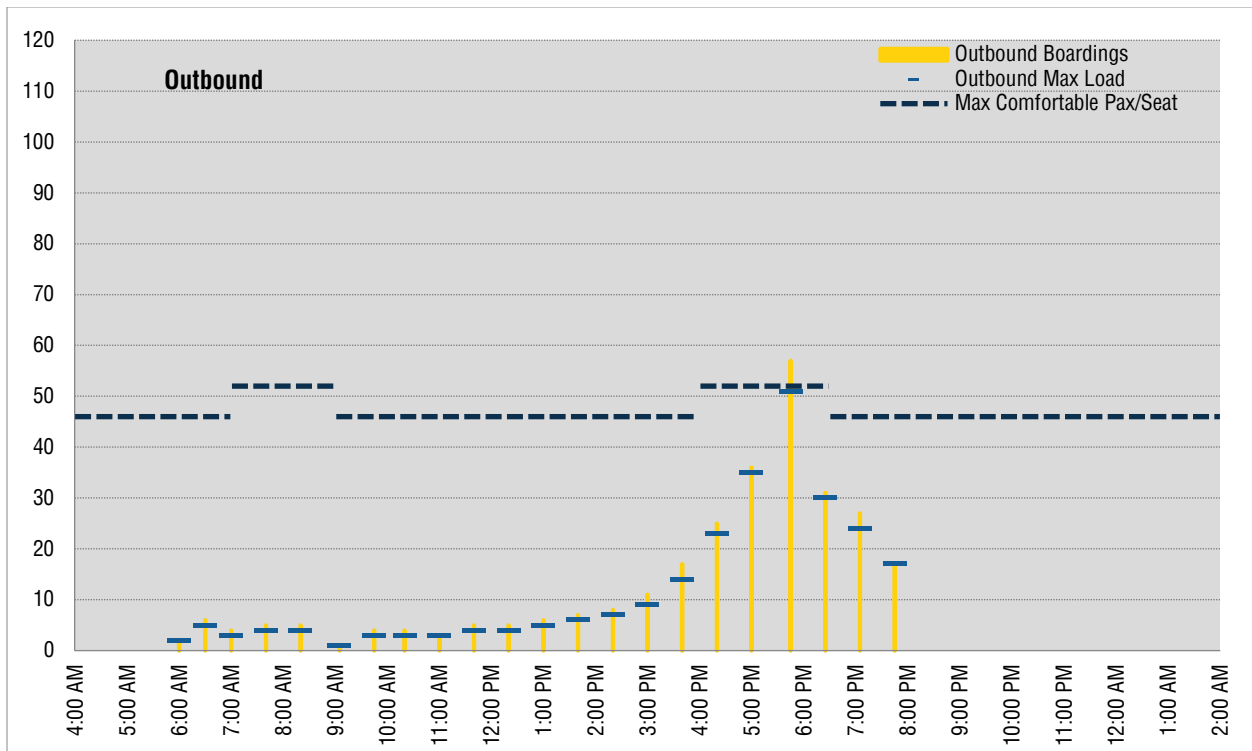


Figure 5 | Weekday Ridership by Trip: Outbound



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 85, 94.5% of passenger minutes are in comfortable conditions, which is above the minimum standard but below the target (see Table 3). The three AM peak inbound trips and one outbound trip per weekday that attract the highest ridership do have some standing passengers, reducing comfort.

Table 3 | Passenger Time Spent Traveling in Comfortable Conditions

	WEEKDAYS	SATURDAYS	SUNDAYS
Minimum Standard	92%	92%	92%
Target	96%	96%	96%
Actual	94.5%	-	-

Reliability and Speed

Reliability

Route 85 leaves and arrives on time 71% of the time. As a route with very infrequent service (every 30 minutes or longer), there are no dropped trips on average.

Table 4 | Reliability

SERVICE DAY	ORIGIN/MID-ROUTE ON-TIME PERFORMANCE	DESTINATION ON-TIME PERFORMANCE	OVERALL RELIABILITY	DROPPED TRIPS
Monday-Friday	71%	71%	71%	0.0%
Saturday	-	-	-	-
Sunday	-	-	-	-

Running Times

Route 85's inbound trips run five to 10 minutes longer than scheduled for most of the service day (see Figure 6). Outbound trips run closer to schedule, running slightly ahead of schedule before 12:00 PM and one to two minutes longer than scheduled through the rest of the day (see Figure 7).

Figure 6 | Scheduled & Median Travel Time by Trip: Route 85 Inbound

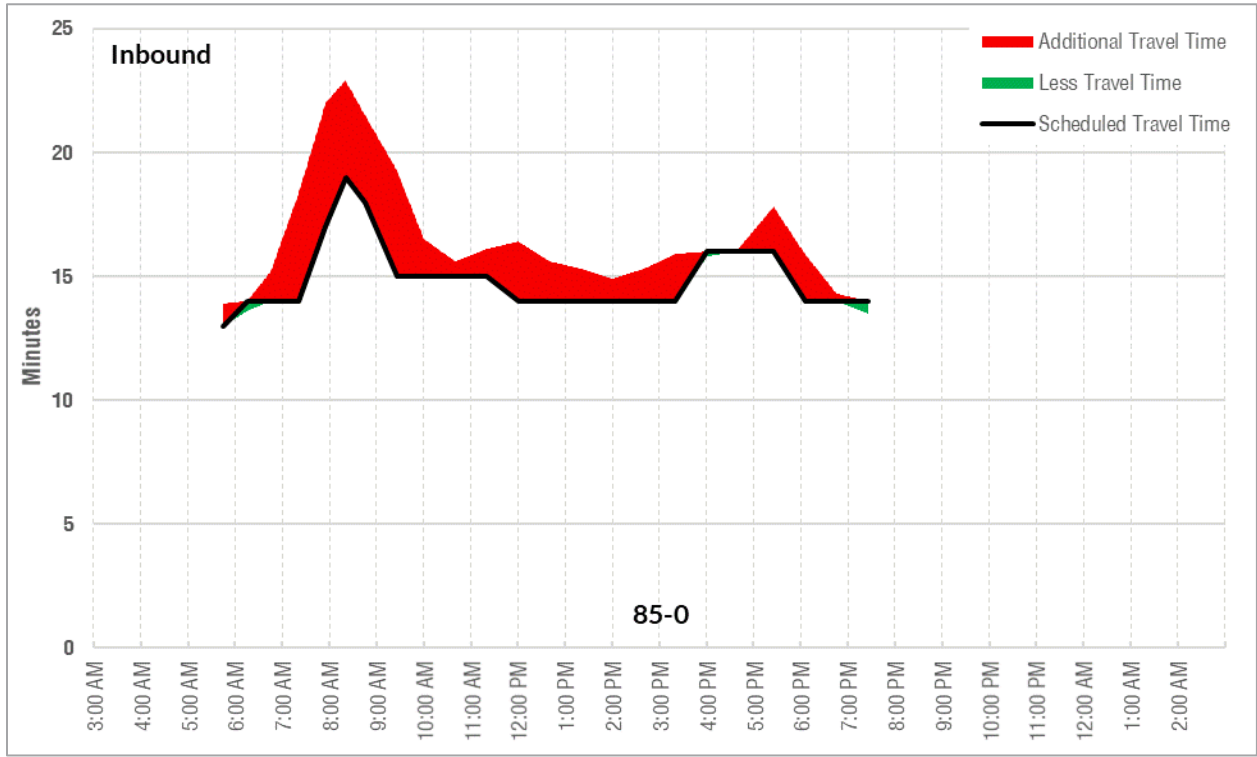
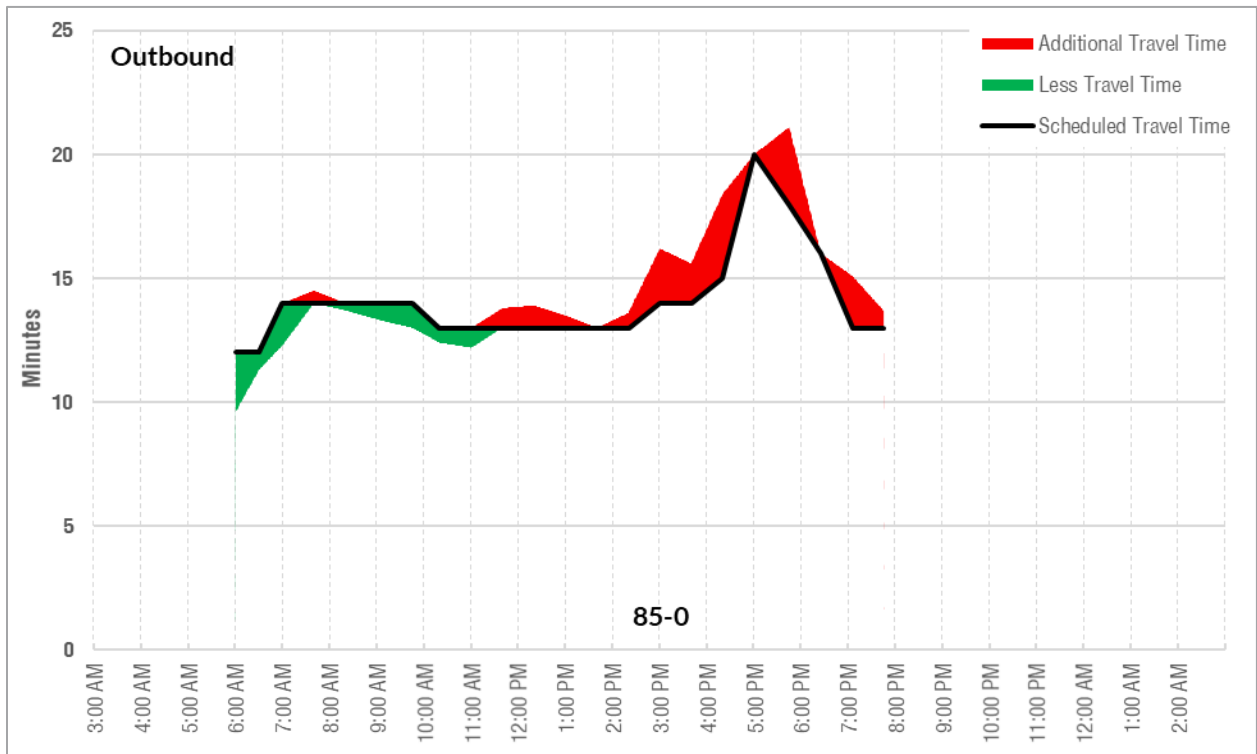


Figure 7 | Scheduled & Median Travel Time by Trip: Route 85 Outbound



Stop Spacing

Route 85 has an average of 6.5 stops per mile, which is on the higher end of the MBTA's stop spacing guidelines of four to seven stops per mile in urban areas.

Summary

Route 85 functions as a commuter service that connects residents of Spring Hill and Somerville to Kendall Square. Ridership is relatively high in the peak direction during peak periods, and extremely low at all other times. The vast majority of passengers board at several stops on Spring Hill and alight at Kendall/MIT Station, with few riders using Route 85 at stops between Union Square and Kendall Square, where service is also provided by Route CT2 Sullivan Station – Ruggles Station. Route 85 does not comply with MBTA service frequency standards for Local bus routes on weekdays. It also does not operate on weekends, which is the standard for local bus routes serving dense urban neighborhoods.