

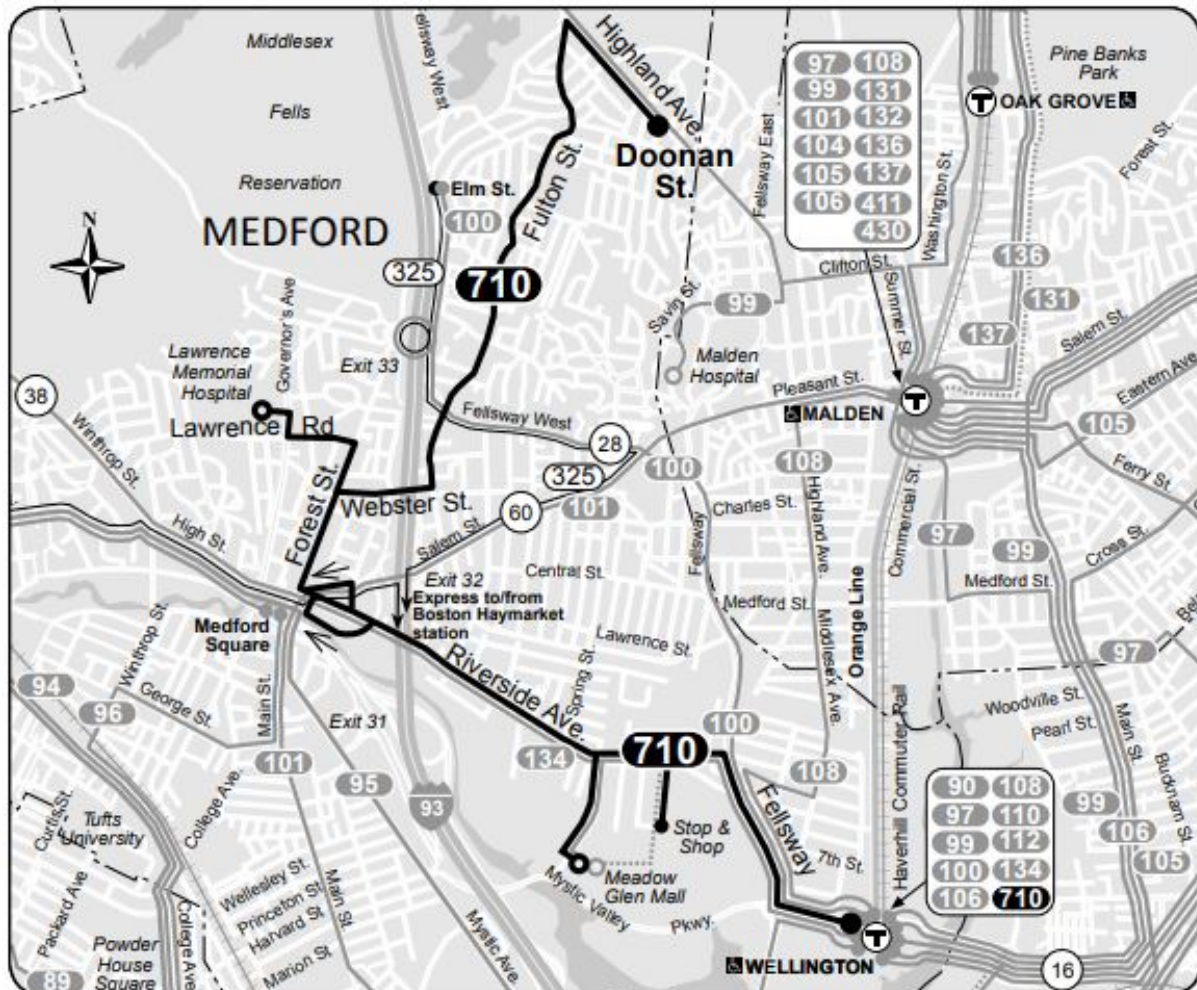
Route 710

North Medford – Medford Square, Meadow Glen Mall, or Wellington

Route Overview

Route 710 is a contracted local route that operates between North Medford and the Orange Line rapid transit station of Wellington (see Figure 1). Between these two termini, the route provides access to Lawrence Memorial Hospital, Medford Square, Meadow Glen Mall, and grocery shopping at Stop & Shop. Note that all data reported in this profile, while being the most recent data available, is from 2015.

Figure 1 | Route 710 Service Map



Network Importance

[Data not available]

Service Overview

Schedule

Route 710 operates between 7:00 AM and 7:00 PM on weekdays with the following frequencies (see Table 1):

- During the AM peak, every 60 minutes.
- Between 9:00 AM and 4:00 PM, every 50 to 120 minutes. Between 9:00 AM and 1:30 PM, mostly every 70 minutes, and mostly every 60 minutes between 1:30 PM and 4:00 PM.
- From 4:00 PM through the end of service, every 60 minutes.

Route 710 meets the MBTA's weekday Span of Service Standards, which call for active operation between 7:00 AM and 7:00 PM. However, the route fails the weekday Frequency Standards, which require 30-minute headways during peak periods and 60-minute headways during all other periods.

The route does not operate during the weekends.

Table 1 | Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (RANGE)	FREQUENCY (AVERAGE)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	7:00 AM to 7:00 PM			11/12
Sunrise	-	-	-	-
Early AM	-	-	-	-
AM Peak	7:00 AM to 8:59 AM	60	60	2/2
Midday Base	9:00 AM to 1:29 PM	50 - 120	70	3/5
Midday School	1:30 PM to 3:59 PM	50 - 120	60	3/2
PM Peak	4:00 PM to 6:29 PM	60	60	2/3
Evening	6:30 PM to 7:00 PM	1 trip	-	1/0
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 Patterns

Route 710 operates four different service patterns on weekdays – three travel inbound and three travel outbound (see Table 1):

- Pattern 710.0 is the primary pattern, traveling between Highland Avenue at Doonan Street and the Medford Stop & Shop in both directions.
- Pattern 710.4 operates a short version of the route in the inbound direction between Fulton Street at Gaston Street and Medford Square.
- Pattern 710.5 operates between Lawrence Memorial Hospital and Wellington Station via Medford Square in both directions.
- Pattern 710.3 connects Wellington Station and Highland Avenue at Doonan Street via Medford Square in the outbound direction.

Table 2 | Service Patterns

PATTERN	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIP S per WKD	TRIPS per SAT	TRIPS per SUN
INBOUND				11	-	-
710.0	Highland Avenue at Doonan Street	Medford Stop & Shop	Via Lawrence Memorial Hospital & Meadow Glen Mall	6	-	-
710.4	Fulton Street at Gaston Street	Riverside Avenue at River Street	Terminates at Medford Square	3	-	-
710.5	Lawrence Memorial Hospital	Wellington Station	Via Medford Square	2	-	-
OUTBOUND				12	-	-
710.0	Medford Stop & Shop	Highland Avenue at Doonan Street	Via Lawrence Memorial Hospital & Meadow Glen Mall	6	-	-
710.3	Wellington Station	Highland Avenue at Doonan Street	Via Medford Square	4	-	-
710.5	Wellington Station	Lawrence Memorial Hospital	Via Medford Square	2	-	-

Ridership

Routes 710 carries 40 riders per weekday. This route does not operate on weekends.

Major Destinations and Transfers

[Data not available]

Ridership by Stop

Most stops along Route 710 are flag stops. This contributes to the extremely low number of combined boardings and alightings per stop along the route. The few stops that host a combined activity of at least three riders traveling inbound are as follows (see Figure 2):

- Lawrence Memorial Hospital: four boardings, zero alightings.
- Riverside Avenue at River Street: four boardings, two alightings.
- Riverside Avenue at Locust Street: two boardings, one alighting.
- Wellington Station: zero boarding, six alightings.
- Medford Stop & Shop: zero boardings, three alightings.

Outbound ridership by stop patterns are roughly the reverse of inbound ridership.

Ridership by Trip

Ridership by trip is particularly low with no trip featuring over five riders in either direction (see Figure 2 and Figure 3).

- Inbound ridership is highest on trips around 5:00 PM at about four riders.
- Generally, inbound trips carry two riders per trip.
- In the outbound direction, ridership is highest around 8:00 AM with trips carrying about four riders per trip. Much like inbound ridership patterns, outbound trips generally carry two riders per trip.

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. 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 710, 100% of passenger minutes are in comfortable conditions, which is above both the minimum standard of 92% and the MBTA target of 96% (see Table 3).

Table 3 | Passenger Time Spent Traveling in Comfortable Conditions

	WEEKDAYS	SATURDAYS	SUNDAYS
Minimum Standard	92%	92%	92%
Target	96%	96%	96%
Actual	100%	-	-

Figure 2 | Weekday Ridership by Trip: Inbound

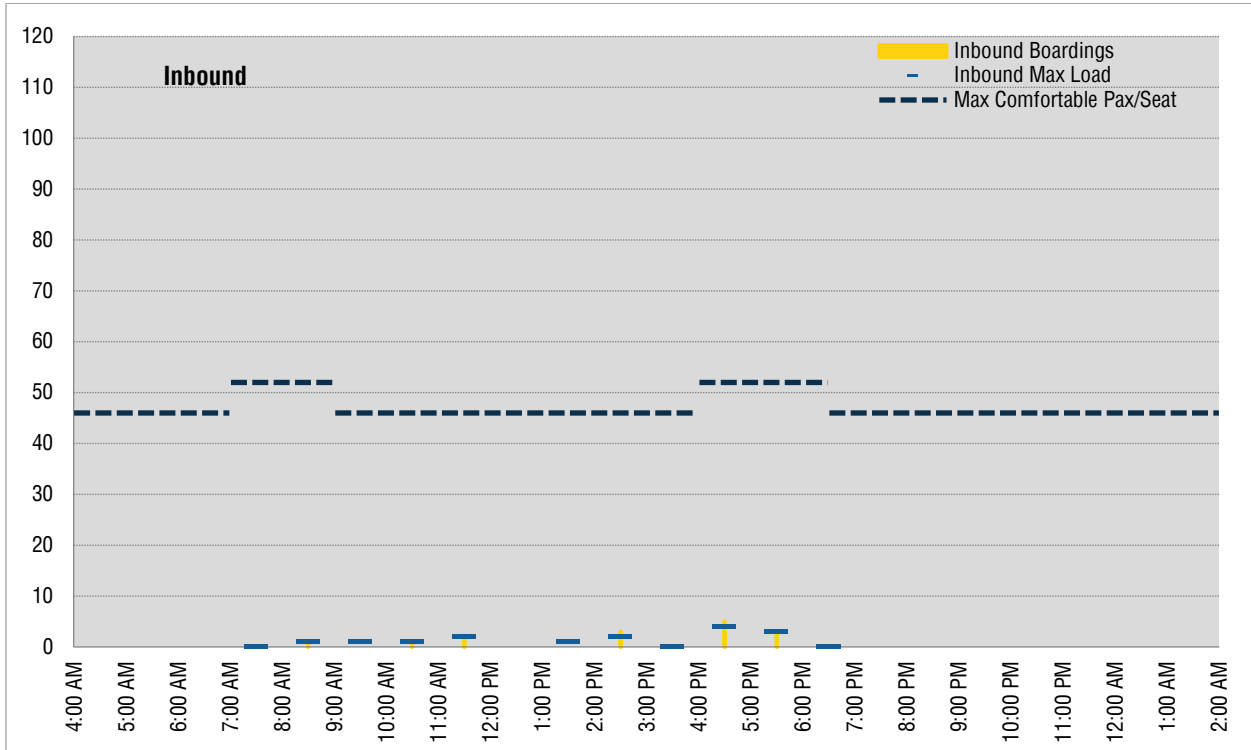
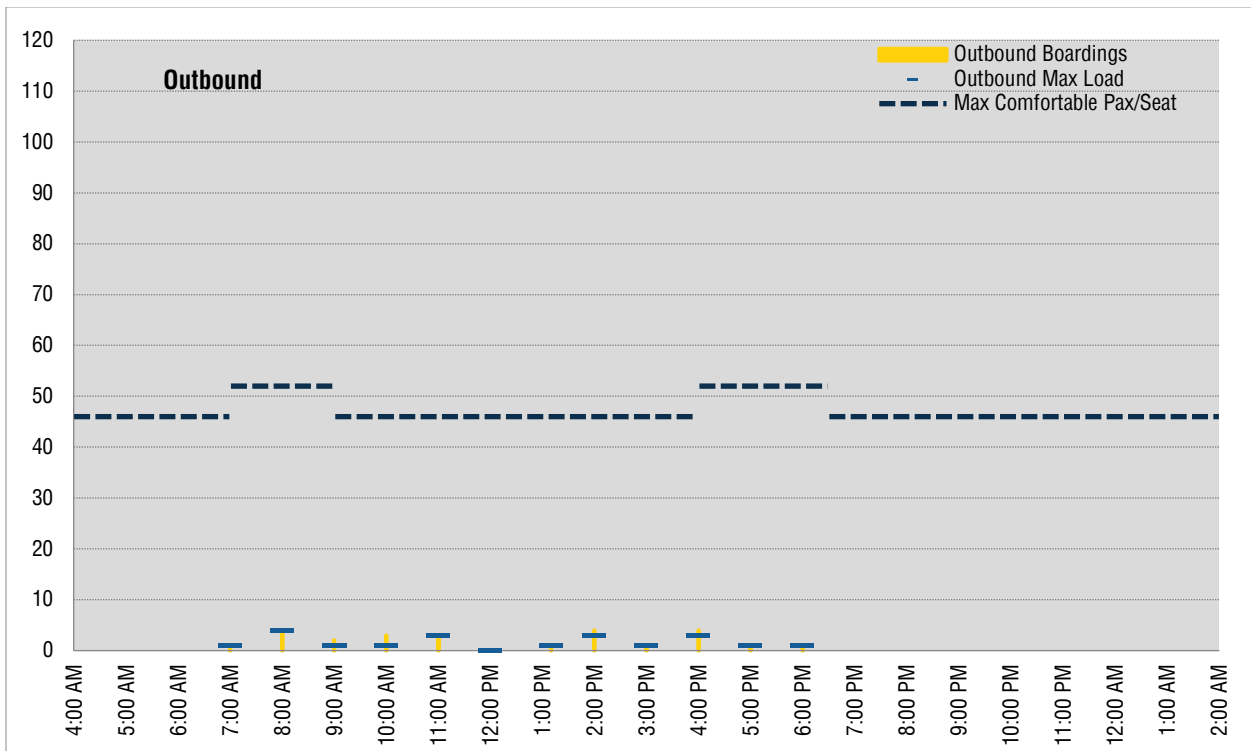


Figure 3 | Weekday Ridership by Trip: Outbound



Reliability and Speed

Reliability

[Data not available]

Stop Spacing

Stops along Route 710 vary widely in spacing. Fixed stops range in distance apart from 450 feet to 1500 feet, average 800 feet apart. This translates into 6.6 stops per mile, which falls within the recommended four to seven stops for urban areas. However, since Route 710 allows for flag stops, spaces between pick-up locations has no real lower limit. In other words, with the allowance of flag stops, stops could be even as close as 20 feet apart, for example. As a result, it is difficult to determine whether current stop spacing is appropriate for this type of route. However, the lower end of the fixed route stop spacing – 450 feet or 11.7 stops per mile – is entirely too close for a local route, even in urban areas.

Summary

Route 710 is a local, contracted operated route that runs between North Medford and Wellington providing service to Lawrence Memorial Hospital, Meadow Glen Mall, Stop & Shop, and Medford Square. The route runs only on weekdays making 11 inbound trips and 12 outbound trips each day it operates. This flag stop route hosts extremely low ridership rarely carrying as many as five riders per trip.