

ROUTE 8

City Loop

SERVICE OVERVIEW

Route 8 is an Urban Local route that operates as a one-way loop serving the Downtown Transit Center (DTC), Fern Hill, McAuley Square, UVM's Waterman Building, and Champlain College. The route travels primarily along North Street, North Prospect Street, Maple Street, and Battery Street (see Figure 1).

Figure 1: Route Map



On weekdays, Route 8 operates from 6:45 AM to 7:40 PM, every 30 minutes throughout the service day (see Table 1). On Saturdays, service operates from 6:45 AM to 6:40 PM, also every 30 minutes throughout the service day. No Sunday service is provided.

Table 1: Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (OUTBOUND)
Monday-Friday	6:45 AM to 7:40 PM	30/30/30	26
Saturday	6:45 AM to 6:40 PM	30/30	24
Sunday	-	-	-

Peak frequencies are calculated for service between 6:00 am – 9:00 am & 3:00 pm – 6:00 pm. Midday service is from 9:00 am – 3:00 pm. Evening service is for service after 6:00 pm. Saturday and Sunday frequencies are shown as AM/PM.

Route 8 has two service variants, and service alternates between the two on both weekdays and Saturdays. Variant 8-5 operates via Fern Hill, which is an affordable housing apartment complex, and Variant 8-6 deviates to McAuley Square, which is a senior housing complex. Fern Hill is a one minute walk from the closest stop on Prospect Street and McAuley Square is a four minute walk.

Table 2: Service Variants

VARIANT	ORIGIN	DESTINATION	UNIQUE FEATURE	TRIPS PER DAY		
				WKD	SAT	SUN
OUTBOUND				26	24	-
8-5	DTC	Loop service	Via Fern Hill	13	12	-
8-6	DTC	Loop service	Via McAuley Square	13	12	-

RIDERSHIP

Route 8 carries 259 passengers per weekday and 105 on Saturdays. By weekday ridership, it ranks 4th out of GMT's seven Urban Local routes.

Ridership by Stop

Weekdays

As with most Burlington routes, the DTC is Route 8's highest ridership stop (see Figure 2). Other than the DTC, most of Route 8's ridership is to and from locations that are also served by other routes:

- North Street between North Avenue and Winooski Avenue, with 62 boardings and alightings. These stops are also served by Route 7 North Avenue.
- The two stops on Prospect Street that serve UVM, with 54 boardings and alightings. Although other routes do not serve Prospect Street, Routes 1 Williston, 2, Essex Junction, 11 College Street Shuttle, and 12 UMall/Airport all provide service to UVM.
- Two stops on Winooski Avenue that serve 70 boardings and alightings. These two stops are within one block of Route 9 Riverside/Winooski service on Intervale Avenue.

Somewhat surprisingly, the unique portions of the route have the lowest ridership. Of these segments, the highest ridership stop is at McAuley Square Senior Housing, with 16 boardings and alightings. The stop at Fern Hill serves only nine boardings and alightings. Stops along the southern jog down to Cliff Street at Maple Street serves only six boarding and alightings. The entire segment along Maple Street serves only 27 boardings and alightings.

Saturdays

As on weekdays, most ridership is to and from the DTC (see Figure 3). Ridership is low at all other stops, with the highest at the two stops on Winooski Avenue (12 and 10 boardings and alightings, respectively). All other stops serve a total of seven or fewer boardings and alightings.

Figure 2: Weekday Inbound Ridership by Stop



Figure 3: Saturday Inbound Ridership by Stop

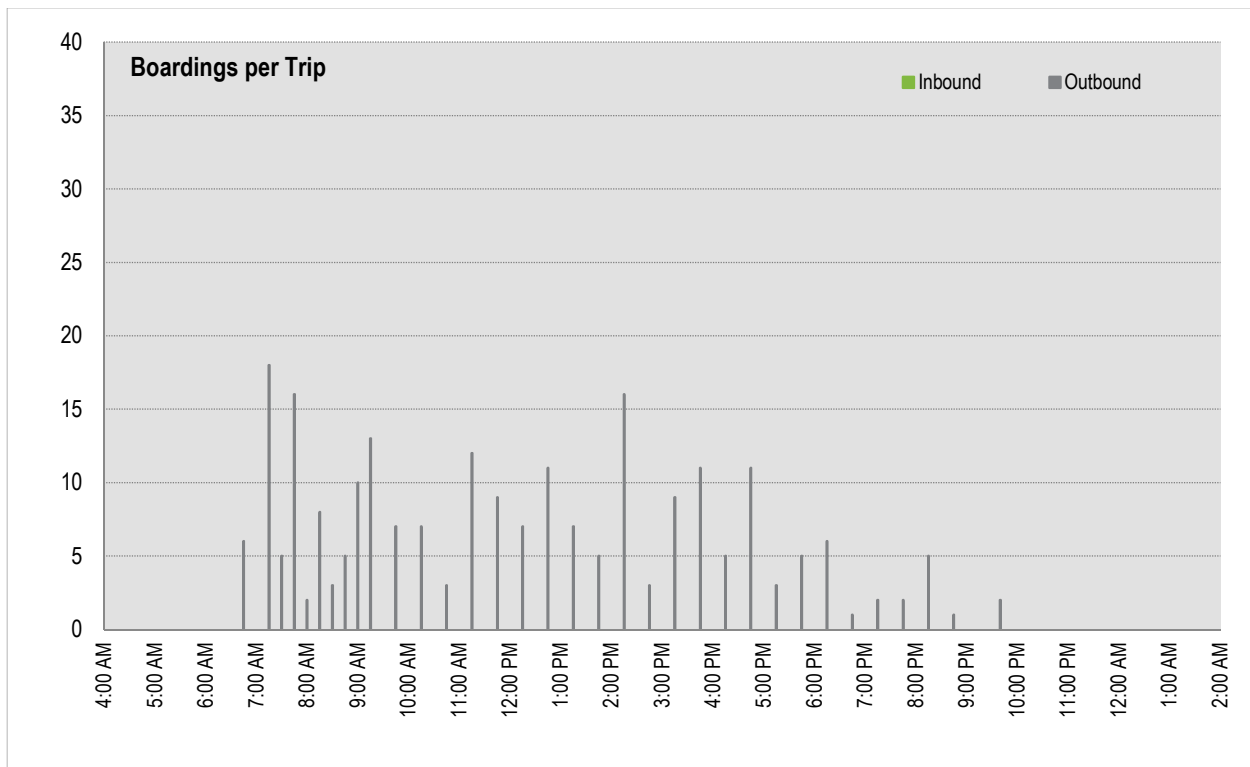


Ridership by Trip

Weekdays

On weekdays, Route 8 averages 10 passengers per trip. Ridership is highest during the morning peak, when two trips carry over 15 passengers. However, ridership by trip during the morning peak is also highly variable, with some trips carrying fewer than five passengers per trip (see Figure 4). Several midday trips carry over 10 passengers. Ridership is generally lower in the afternoon and evening, with no trip after 2:30 PM exceeding 11 riders.

Figure 4: Weekday Ridership by Trip

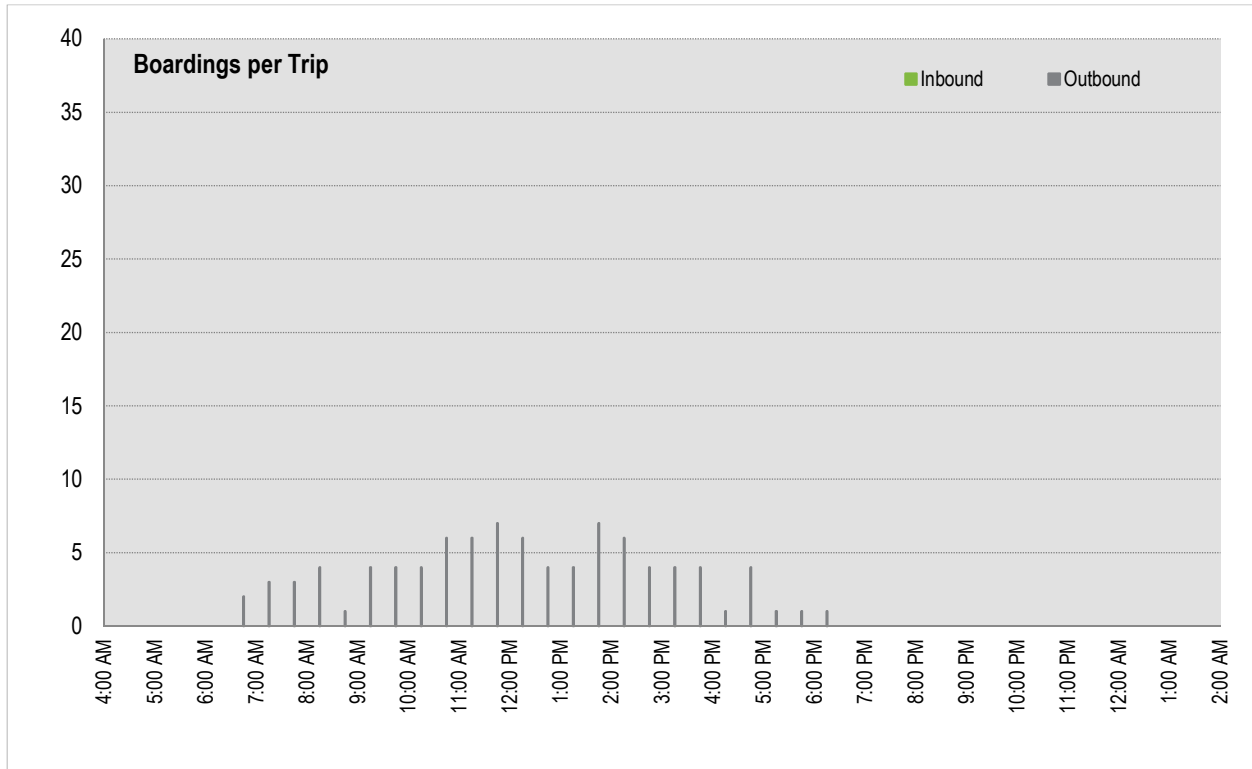


Maximum loads are about two-thirds of total boardings per trip, at 12 passengers or fewer.

Saturdays

On Saturdays, Route 8 averages fewer than four passengers per trip, with individual trips ranging from one to seven passengers. Although ridership is low throughout the day, it is highest between 10:30 AM and 2:30 PM (see Figure 5).

Figure 5: Saturday Ridership by Trip



SERVICE PRODUCTIVITY

Route 8 ranks fourth of the seven Urban Local routes in terms of weekday ridership and third of seven in terms of ridership per revenue hour (see Table 3). On weekdays, Route 8 carries an average of 259 passengers per day, or 24 passengers per revenue vehicle hour. On Saturdays, ridership and performance is significantly lower, at 105 passengers per day, and 10 passengers per revenue vehicle hour.

Table 3: Productivity Statistics

	MONDAY-FRIDAY	SATURDAY	SUNDAY
Average Daily Ridership	259	105	-
Pax/Revenue Vehicle Hour	23.7	10.2	-
Urban Local Average	21.9	13.8	14.4
Pax/One-Way Trip	10.0	4.4	-
Urban Local Average	6.9	4.0	12.8
Pax/Revenue Vehicle Mile	1.4	0.8	-
VTrans Productivity Threshold	1.95	1.95	1.95
Cost/Passenger	\$3.40	\$8.71	-
VTrans Effectiveness Threshold	\$4.37	\$4.37	\$4.37

Source: Green Mountain Transit, May 2016; VTrans Performance Reviews (2016)

Route 8 meets VTrans' operating cost per passenger threshold on weekdays, but not on Saturdays. It does not meet the passenger per revenue vehicle hour threshold for either weekdays or Saturdays.

SERVICE IMPROVEMENT OPTIONS

On weekdays, Route 8's performance is mediocre, and on Saturdays, it is poor. Service change options are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Replace Route 8 with Reconfiguration of Other Routes:** Route 8's loop operation is inconvenient for most riders as it requires a large amount of out of direction travel. It may be possible to provide better service to existing riders with a reconfiguration of other downtown routes. The replacement of Route 8 in this manner would also help provide resources to increase service levels on those other routes.
- **Operate Service Directly from Prospect Street to Maple Street:** The deviation down to Cliff Street serves only four passengers per weekday and degrades service for other passengers by adding to travel times. Service would be more attractive to most riders if it operated directly from Prospect Street to Maple Street.
- **Discontinue Deviation into Fern Hill:** Route 8 provides front-door service to Fern Hill on every other trip, or every hour. This stop has only four boardings per day and is only a one minute walk from the closest regular stop on Prospect Street. Deviating off of Prospect Street degrades service for other passengers along the route by increasing the circuitousness of the route.
- **Discontinue Deviation into McAuley Square:** Route 8 deviates off of Prospect Street to serve McAuley Square on every other trip, or every hour. McAuley Square is only a four-minute walk from the closest regular stop on Prospect Street, and deviating off of Prospect Street degrades service for other passengers along the route by increasing the circuitousness of the route.
- **Eliminate Service After 5:00 PM:** Low ridership on trips after 5:00 PM (six or fewer passengers) indicate that the resources necessary to operate that service could be better spent elsewhere. As a result, reducing the service span to approximately 6:45 AM to 5:00 PM would benefit users on some other part of the system.
- **Operate Weekday Service Every 60 minutes:** Weekday service operates every 30 minutes, which is more frequent service than warranted by demand. The operation of service every 60 minutes throughout the service day would continue a basic levels of service and provide resources to improve service elsewhere.
- **Operate Saturday Service Every 60 minutes:** Route 8 ridership per trip is low on Saturdays. However, a similar level of service is provided as on weekdays, and as a result, most trips carry fewer than five passengers. A reduction in service frequencies to every 60 minutes could provide resources to add Saturday service on other routes.
- **Discontinue Saturday Service:** Saturday ridership is very low, and most areas served by Route 8 are served by other routes. Saturday service could be discontinued to provide resources for other improvements.