

ROUTE 90

Plymouth Meeting Mall to Norristown Transportation Center

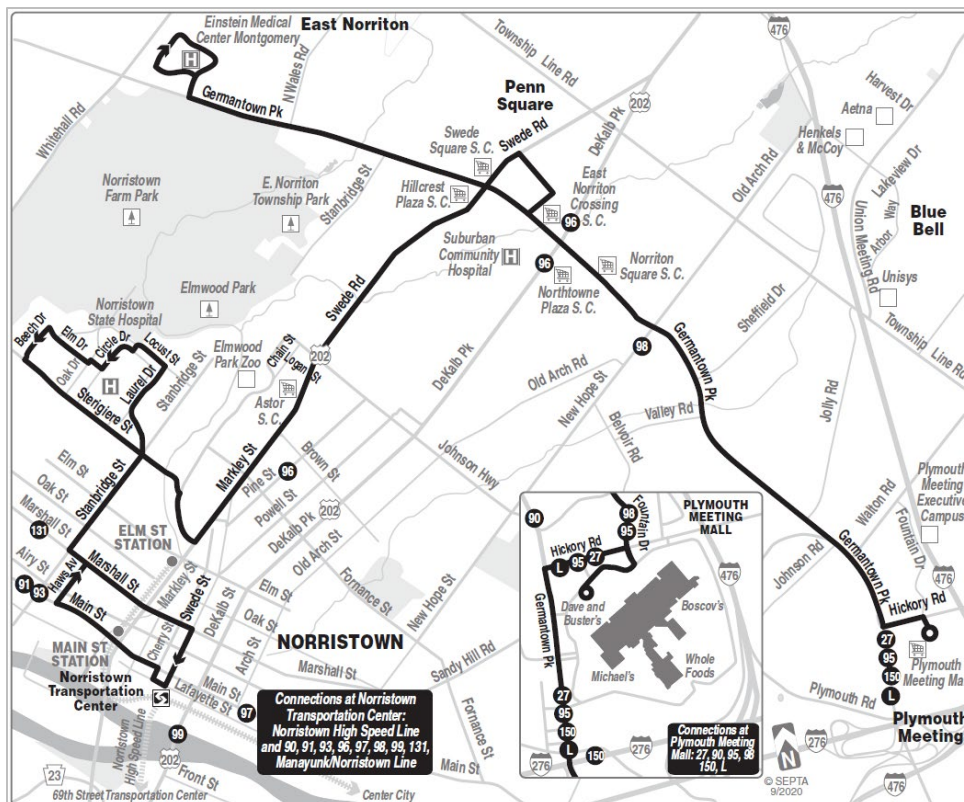
KEY SERVICE CHARACTERISTICS, ISSUES, AND OPPORTUNITIES

- Route 90 connects the Norristown Transportation Center, the Einstein Medical Center Montgomery, and the Plymouth Meeting Mall.
- It has an indirect and circuitous alignment and provides a low level of service. Ridership is also low.
- Route 90 could be improved by straightening the alignment and improving coordination with other SEPTA routes.

ROUTE OVERVIEW

Route 90 operates between Norristown Transportation Center and Plymouth Meeting Mall. It serves Norristown’s Main Street Regional Rail Station, Norristown State Hospital, Einstein Medical Center Montgomery, and East Norriton Crossing Shopping Center. It has an indirect and circuitous T-shaped alignment (see Figure 1).

Figure 1 | Route Map



SERVICE OVERVIEW

Schedule

Route 90 operates on weekdays between 6:00 AM until around 11:30 PM (see Table 1). For most of the day, on average, frequencies are hourly, although AM Peak frequencies are slightly higher while evening and late night frequencies are lower. On Saturdays, service frequencies average every 60 minutes during the day and 84 minutes at night.

Table 1 | Schedule Statistics

Service Day	Span Of Service	Frequency (Range)	Frequency (Average)
Weekdays	4:00 AM to 12:18 AM		
Early AM	4: 00 AM to 5:59 AM		
AM Peak	6:00 AM to 8:59 AM	20-60	47
Midday	9:00 AM to 2:59 PM	48-77	61
PM Peak	3:00 PM to 5:59 PM	56-75	62
Evening	6:00 PM to 9:59 PM	58-130	76
Late Night	10:00 PM to 11:59 PM	80-110	95
Owl	Midnight to 3:59 AM		
Saturdays	8:00 AM to 7:59 AM		
Day	8:00 AM to 5:59 PM	59-62	60
Night	5:59 PM to 7:59 AM	49-125	84

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

Service Patterns

Route 90 operates with five service patterns (see Table 2). Most trips use the primary patterns between Norristown Transportation Center and Plymouth Meeting Mall. Alternative service patterns occur on the last trips of the day (for both weekdays and Saturdays), skipping the Einstein Medical Center and traveling directly to the Plymouth Meeting Mall. The additional service pattern is a short-turn that travels to the Norristown State Hospital only.

Table 2 | Service Patterns

Pattern	Origin	Destination	Unique Feature	Unique Stops	Trips Per Day		
					Wkd	Sat	Sun
Northbound							
230817	Norristown Transportation Center	Plymouth Meeting Mall	Primary Pattern		14	14	0
230815	Norristown Transportation Center	Plymouth Meeting Mall	Does not serve Einstein Medical Center	0	2	2	0
230816	Norristown Transportation Center	Sterigere Street & Stanbridge Street	Short-Turn	0	1	0	0

Southbound							
230821	Plymouth Meeting Mall	Norristown Transportation Center	Primary Pattern		15	14	0
230822	Plymouth Meeting Mall	Norristown Transportation Center	Does not serve Einstein Medical Center	0	1	1	0

Note: Unique stops are those not served by the primary pattern

RIDERSHIP

In the fall of 2019, Route 90 carried 490 passengers on weekdays and 347 on Saturdays (see Table 3). The low ridership and productivity make it one of SEPTA's lowest performing routes.

Table 3 | Fall 2019 Ridership and Productivity

	Weekdays	Saturdays	Sundays
Daily Ridership	490	347	N/A
Rank	107	97	
Passengers per Revenue Vehicle Hour	16.8	13.8	N/A
Rank	112	102	

Transfer Patterns

The largest transfer volumes are to and from:

- The Norristown High Speed Line (14.1% of all trips)
- Route L Erdenheim or Plymouth Meeting Mall to Olney Transportation Center (9.3%)
- Route 99 Phoenixville to Norristown Transportation Center (4.1%)
- Route 96 Lansdale to Norristown Transportation Center (3.9%)
- Route 98 Blue Bell or Plymouth Meeting Mall to Norristown Transportation Center (3.8%)

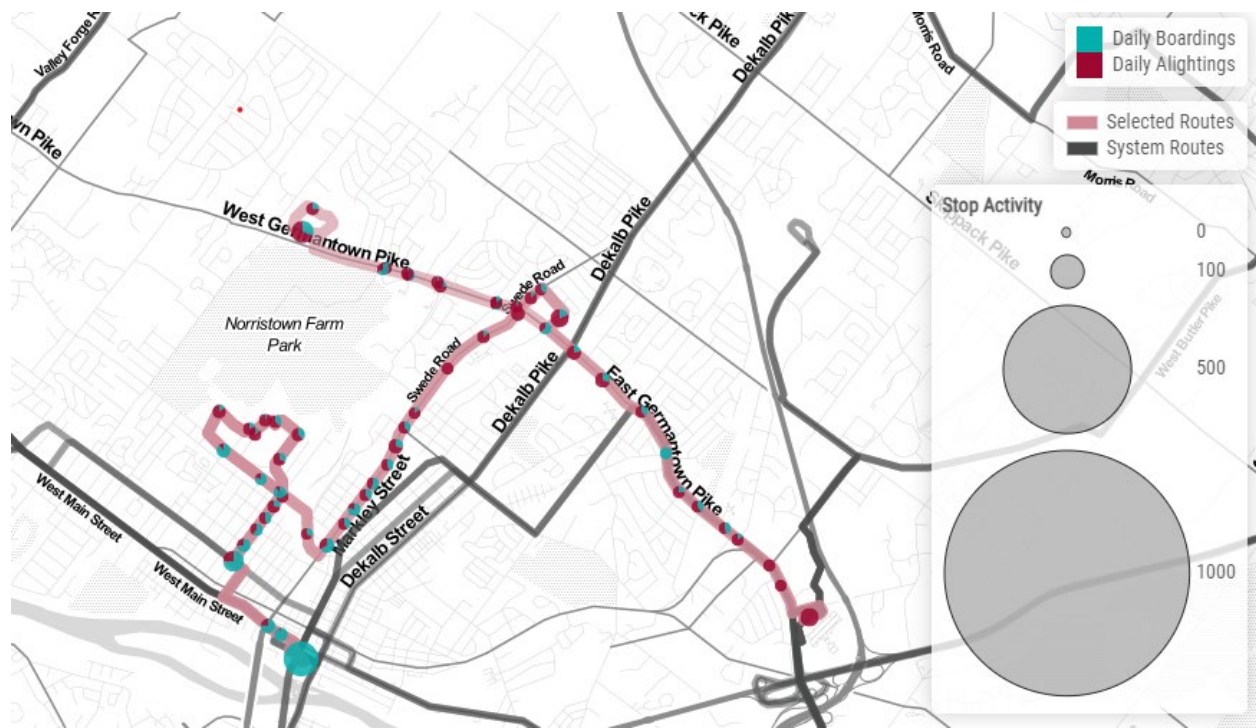
Saturday transfer volumes are slightly lower but similar.

Ridership by Stop

Most riders on Route 90 board or alight at the Norristown Transportation Center, but there is some demand along the route. The higher ridership stops eastbound include (also see Figure 2):

- 96 boardings at the Norristown Transportation Center (21%)
- 29 boardings and 10 alightings at the intersection of Marshall and Stanbridge Street (8%)
- 14 boardings and 31 alightings at the south entrance of Einstein Medical Center plus another four riders use the north entrance (10%)
- 29 riders (6%) alighted at the Plymouth Meeting Mall (6%)

Figure 2 | Weekday Eastbound Ridership by Stop

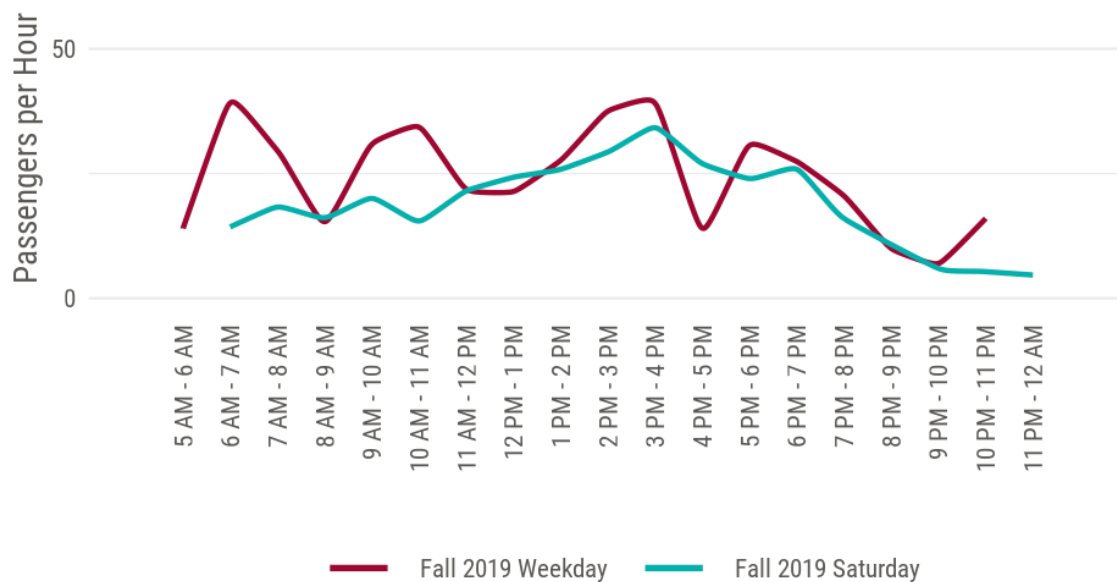


Ridership by Time of Day

Ridership by Hour

Service levels on Route 90 are low, so a small number of trips with higher or lower ridership show up as variations in demand on Figure 3 (and the scale of the graph). Saturday ridership is like weekday ridership but less variable with a clearer peak during the afternoon.

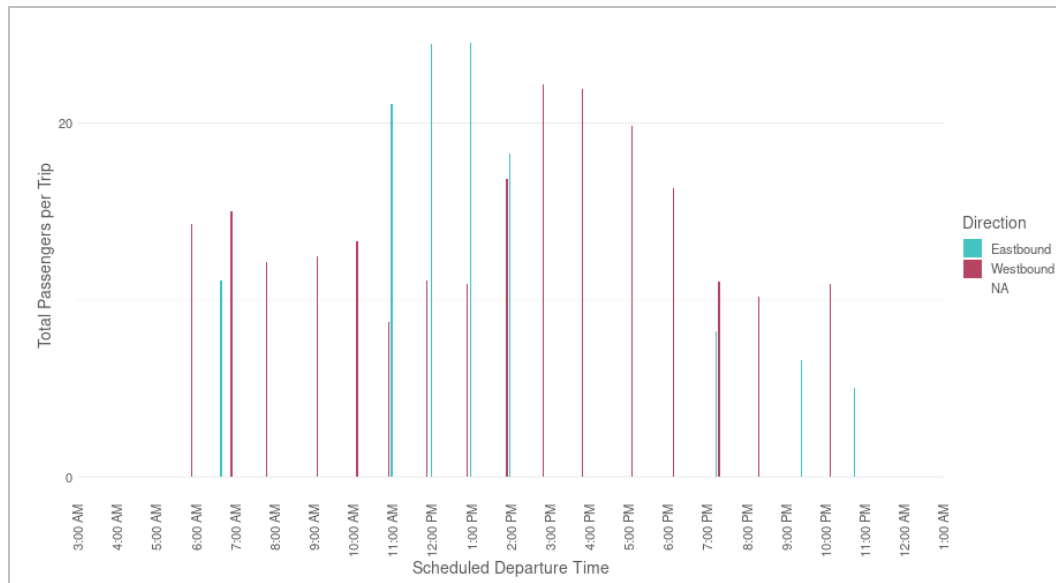
Figure 3 | Ridership by Hour: Pre-Pandemic; Fall 2019



Ridership and Maximum Loads by Trip

On weekdays, a handful of midday trips carry more than 20 passengers (see Figure 4). At other times, demand is lower with most trips carrying between 10 and 15 riders. All trips operate below seated capacity. Saturday ridership is low as well with most trips carrying fewer than 20 passengers per trip.

Figure 4 | Weekday Ridership by Trip



ON-TIME PERFORMANCE AND RUNNING TIMES

On-Time Performance

In the fall of 2019, Route 90’s on-time performance was 84% on weekdays and 77% on Saturdays (see Table 4). While within SEPTA’s performance goal, 20% of Saturday trips arrive early, which could lead to riders missing the bus.

Dropped trips are not an issue for Route 90.

Table 4 | Fall 2019 On-Time Performance

	Early (>2 Mins Early)	On Time (<2 Mins Early to 6 Mins Late)	Late (>6 Mins Late)	Missed Trips
Goal		80%		
Fall 2019 Actual				
Weekday	8.4%	83.5%	8.0%	0.0%
Saturday	19.2%	77.4%	3.4%	0.0%

Note: On-time percentages are for trips that are run (do not include dropped trips)

AVERAGE SPEEDS AND STOP SPACING

Route 90's speeds are good, except for the area right around the Norristown Transportation Center. Stops along Route 90 are well spaced, balancing the need for access to the route speed. An exception are segments in downtown Norristown (Harding Boulevard/Markley Street and along Stanbridge Street and Laurel Drive), where stops are closely spaced (see Figure 6).

Figure 5 | Average Speeds: PM Peak Eastbound

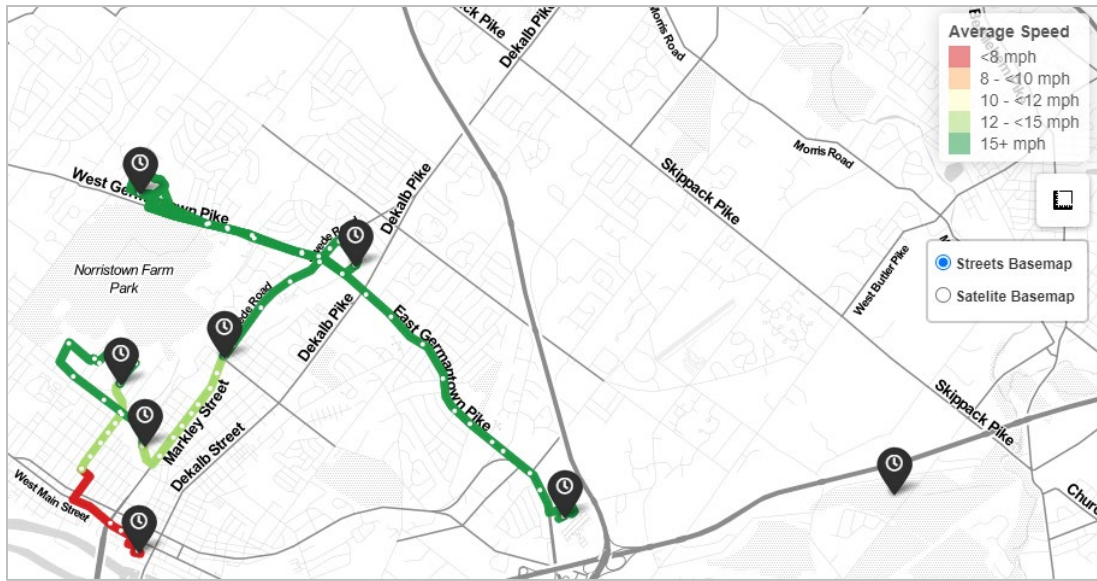
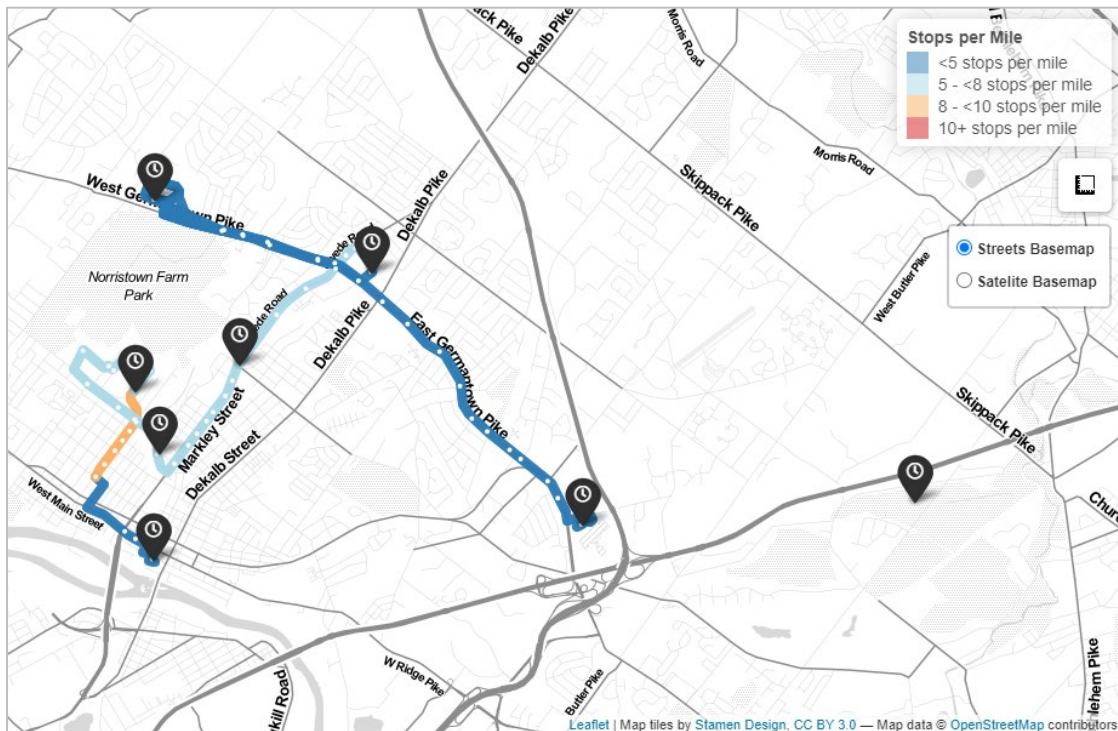


Figure 6 | Stop Spacing by Route Segment



RIDERSHIP

Route 90 riders have similar demographic characteristics as SEPTA riders overall (see Table 5), although they are more likely to be in poverty and slightly less likely to be Black or without a vehicle.

Table 5 | Rider Characteristics

	Route 90 Riders	Systemwide Average
Median Household Income	\$32,003	\$32,713
Share in Poverty	32%	30%
Ethnicity		
White	39%	38%
Black	41%	46%
Hispanic	14%	10%
Other	6%	7%
Without a Vehicle	34%	37%
Seniors	14%	15%
With a Disability	6%	2%

SERVICE IMPROVEMENT OPPORTUNITIES

Opportunities to strengthen Route 90 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Operate Route 90 to Einstein Medical Center Montgomery:** A more direct alignment would make Route 90 more attractive. Given other SEPTA routes in the area, Route 90 could be reconfigured to serve Einstein Medical Center Montgomery as it is the eastern terminus. Riders can travel from the Norristown Transportation Center to the Plymouth Meeting Mall using Routes 98. Route 98 also covers much of Route 90’s alignment along Germantown Pike, but this alignment would lose direct access from the Plymouth Meeting Mall to the Einstein Medical Center.
 - **One potential alignment to the Einstein Medical Center is to travel through Sterigere Street to Whitehall Road to Germantown Pike.** This alignment would provide access to the Montgomery County Emergency Services as well as the Norristown School District as well as provide a faster and more direct route to Einstein Medical Center Montgomery. The route could also continue to the Swede Square Shopping Center before returning to the Norristown Transportation Center.
- **Coordinate with other Norristown Routes:** Several SEPTA routes serve the Norristown area with varying degrees of service levels (frequency) and offering direct alignments. There are likely opportunities to coordinate service, especially with Routes 96 and 98, to improve local service and strengthen connections to major destinations. Other opportunities include extending Route L to the Einstein Medical Center Montgomery, recognizing that Route L is already quite long.

- **Create Hospital Shuttle or On-Demand Service:** Route 90's most important and unique destinations include the medical facilities (Norristown State Hospital and Einstein Medical Center Montgomery), which are relatively close to the Norristown Transportation Center. The Norristown State Hospital is 1.7 miles from the Norristown Transportation Center and the Einstein Medical Center Montgomery is 3.7 miles. Instead of serving these destinations with a fixed route bus, SEPTA could consider providing service via a flexible on-demand shuttle that meets riders at the Norristown Transportation Center and brings them to the medical facility. Riders using needing local access could use Route 96 or 98. This option offers some advantages, such as a higher quality of service that responds to rider needs, but would lose some access, including direct connections between the Plymouth Meeting Mall and Einstein Medical Center. A discussion of flex service may be warranted even if the fixed route services (like Route 90) are maintained.