

# ROUTE 33

## Penn's Landing to 23<sup>rd</sup>-Venango

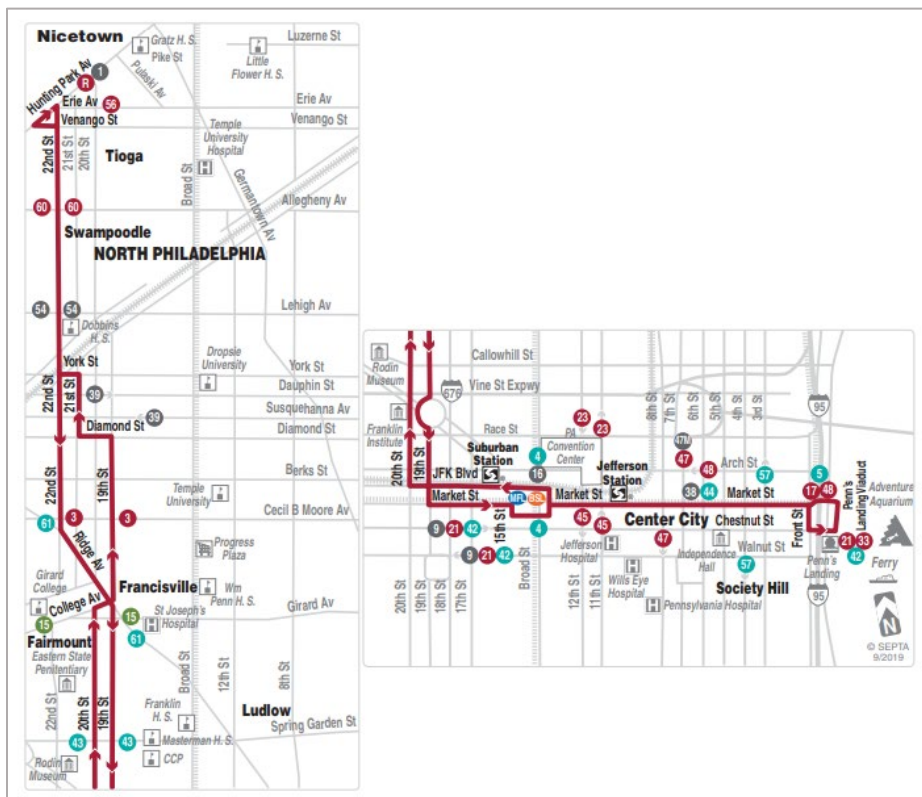
### KEY SERVICE CHARACTERISTICS, ISSUES, AND OPPORTUNITIES

- Route 33 operates 24 hours per day in an L-shaped alignment that provides north-south service in North Philadelphia as well as east-west service through Center City on Market Street.
- Route 33 carries very high ridership but is also one of the slowest routes in the network. Priority treatments, fewer bus stops, and better parking/curb management could improve speed and on-time performance.
- Some of the route, particularly south of Ridge Avenue, overlaps with other routes and/or operates close to other nearby service. Consolidating services on fewer corridors can enable increased frequency.

### ROUTE OVERVIEW

Route 33 operates 24 hours per day and provides east-west service through Center City on Market Street, as well as north-south service west of Broad Street through North Philadelphia (see Figure 1). The alignment is simple and direct, although some of the service overlaps with other routes and/or is parallel to nearby service.

Figure 1 | Route Map



## SERVICE OVERVIEW

### Schedule

Route 33 operates 24 hours per day on all days of the week. Frequencies vary by time of day (see Table 1):

- On weekdays, frequencies are consistent throughout much of the day. Peak period frequencies are roughly every 7-9 minutes. Midday frequencies are approximately every 10 minutes on average.
- On weekend days, service frequencies average 11-13 minutes during the day and every 24-26 minutes at night.

**Table 1 | Schedule Statistics**

Service Day	Span Of Service	Frequency (Range)	Frequency (Average)
<b>Weekdays</b>	24 Hours		
Early AM	4:00 AM to 5:59 AM	15-38	32
AM Peak	6:00 AM to 8:59 AM	7-15	9
Midday	9:00 AM to 2:59 PM	7-10	10
PM Peak	3:00 PM to 5:59 PM	7-10	7
Evening	6:00 PM to 9:59 PM	7-25	13
Late Night	10:00 PM to 11:59 PM	22-30	28
Owl	Midnight to 3:59 AM	28-35	33
<b>Saturdays</b>	24 Hours		
Day	8:00 AM to 5:59 PM	9-18	11
Night	Before 8:00 AM & After 5:59 PM	10-37	24
<b>Sundays</b>	24 Hours		
Day	8:00 AM to 5:59 PM	11-28	13
Night	Before 8:00 AM & After 5:59 PM	12-37	26

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

### Service Patterns

Route 33 officially has six weekday service patterns, but the differences are only minor variations for the eastern terminus and routing in that immediate area (see Table 2).

**Table 2 | Service Patterns**

Pattern	Origin	Destination	Unique Feature	Unique Stops	Trips Per Day		
					Wkd	Sat	Sun
<b>Northbound</b>							
229506	Penn's Landing	23rd St & Venango St Loop	Primary Pattern	0	86	64	57
229507	Penn's Landing	23rd St & Venango St Loop	Slight variation at eastern end	0	21	18	12

229505	Front St & Market St Loop	23rd St & Venango St Loop	Short turn	1	6	6	6
229508	Front St & Market St Loop	23rd St & Venango St Loop	Short turn with slight variation	1	3	3	3
<b>Southbound</b>							
229502	23rd St & Venango St Loop	Penn's Landing	Primary Pattern	0	107	82	69
229501	23rd St & Venango St Loop	Front St & Market St Loop	Short Turn	1	9	9	9

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

## RIDERSHIP

In Fall 2019, Route 33 carried 11,306 passengers on weekdays, 6,007 on Saturdays, and 4,905 on Sundays (see Table 3). Based on weekday ridership, it was SEPTA’s 7th highest ridership route. The route has the 6<sup>th</sup> highest ridership on weekends.

**Table 3 | Fall 2019 Ridership and Productivity**

	Weekdays	Saturdays	Sundays
<b>Daily Ridership</b>	<b>11,306</b>	<b>6,007</b>	<b>4,905</b>
Rank	7	6	6
<b>Passengers per Revenue Vehicle Hour</b>	<b>61.9</b>	<b>47.1</b>	<b>49.8</b>
Rank	20	26	19

## Transfer Patterns

While the single largest transfer rate on Route 33 is with the Market-Frankford Line, many other Route 33 transfers are to various SEPTA routes along the entirety of Route 33’s alignment. The largest transfer volumes are to and from:

- The Market-Frankford Line (9.7% of all trips)
- The Broad Street Line (2.8%)
- Route R (Henry-Midvale and Wissahickon Transportation Center to Frankford Transportation Center) (2.7%)
- Route 57 (Whitman Plaza to Rising Sun-Olney or Fern Rock Transportation Center) (2.7%)
- Route 60 (35<sup>th</sup>-Allegheny to Richmond-Westmoreland) (2.6%)

Weekend transfer percentages are very similar.

## Ridership by Stop

The stops along Market Street and JFK Boulevard have more boarding and alighting activity than elsewhere on the route, but there is significant activity all along Route 33, especially at transfer points. For northbound weekday trips, some highlights include:

- 453 riders board and 58 alight at 8<sup>th</sup>-Market
- 626 riders board and 224 alight at 15<sup>th</sup>-JFK
- There are 117 boardings and 105 alightings at 19<sup>th</sup> Street and Cecil B. Moore Avenue
- 147 riders board and 245 alight at 21<sup>st</sup>-Diamond
- There are 177 boardings and 349 alightings at 22<sup>nd</sup>-Lehigh
- The stop at 22<sup>nd</sup>-Allegheny has 96 boardings and 239 alightings
- A combined 1,121 passengers alight at the final two stops on Venango Street

There are a significant number of alightings along Market Street and JFK Boulevard for trips from Penn's Landing, indicating that some riders are using Route 33 for travel within Center City.

**Figure 2 | Weekday Northbound Ridership by Stop**



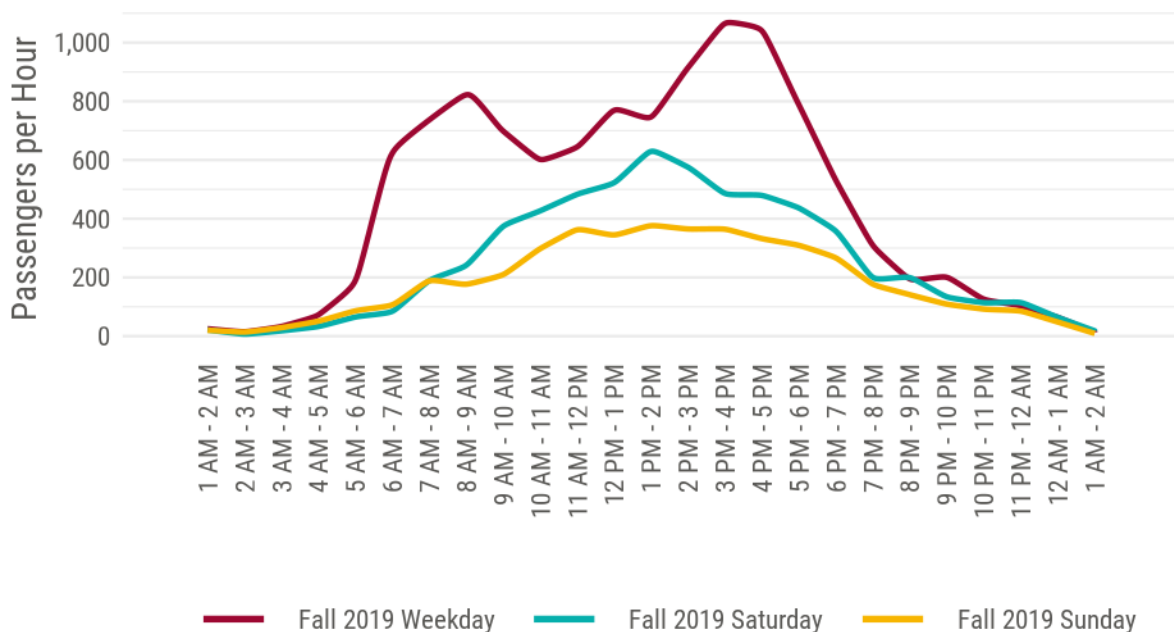
## Ridership by Time of Day

### Ridership by Hour

In Fall 2019, weekday ridership was consistent throughout the day with the highest ridership during the PM peak. Ridership during midday was almost as high per hour as the AM Peak (see Figure 3). Students likely comprise a significant percentage of passengers.

Weekend ridership was strong throughout much of the day, peaking in mid-afternoon. Sunday ridership was somewhat less than Saturday but still relatively high per hour.

**Figure 3 | Ridership by Hour: Fall 2019**



## Ridership and Maximum Loads by Trip

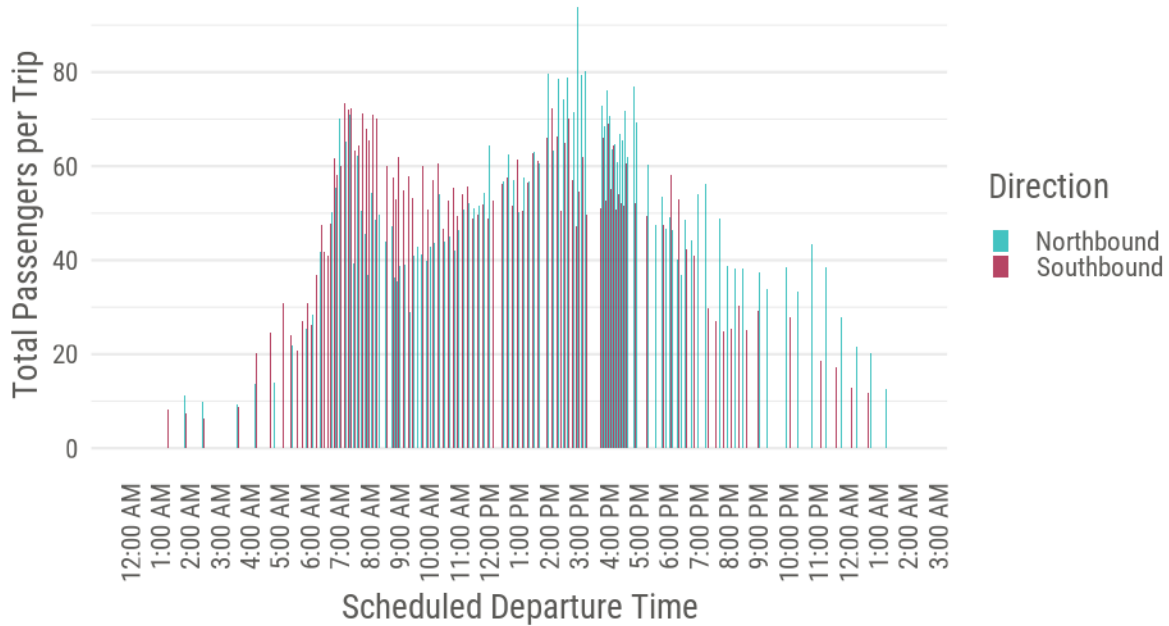
In Fall 2019, weekday ridership per trip is high on most trips (see Figure 4):

- AM peak trips carried 60 to 70 passengers
- Midday trips carried 40 to 60 passengers
- PM peak trips carried 70 to 80 passengers
- After 7:00 PM, ridership decreased from 55 passengers to around 40.
- After 11:00 PM ridership continued to drop to around 20 per trip

The combination of very frequent service during most of the day and the use of articulated buses with 59 seats mean that maximum loads did not exceed the seating capacity.

Weekend trips carry 40-50 passengers through much of the day and less during mornings and evenings. Sunday ridership is somewhat lower than Saturday. All weekend trips have loads within the seating capacity.

Figure 4 | Fall 2019 Weekday Ridership by Trip



## ON-TIME PERFORMANCE AND RUNNING TIMES

### On-Time Performance

In Fall 2019, Route 33’s on-time performance was 76.1% on weekdays, 71.8% on Saturdays, and 69.9% on Sundays (see Table 4). On weekdays, trips are about as likely to be late than early but on weekend days, trips are more likely to be late than early.

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
<b>Goal</b>		<b>80%</b>		
<b>Fall 2019 Actual</b>				
Weekday	13.0%	76.1%	10.9%	7.7%
Saturday	7.4%	71.8%	20.9%	6.2%
Sunday	9.2%	69.9%	20.9%	6.2%

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

## AVERAGE SPEEDS AND STOP SPACING

On weekdays during the PM Peak, Route 33 travels at less than 8 mph along most of the route and is one of the slowest routes in the SEPTA system (see Figure 5). Slow speeds are attributable to traffic congestion as well as stop spacing along the route. Route 33 has an average of 10 stops per mile over its entire length; but many segments have more than 11 stops per mile (see Figure 6).

Figure 5 | Fall 2019 PM Peak Northbound Speeds

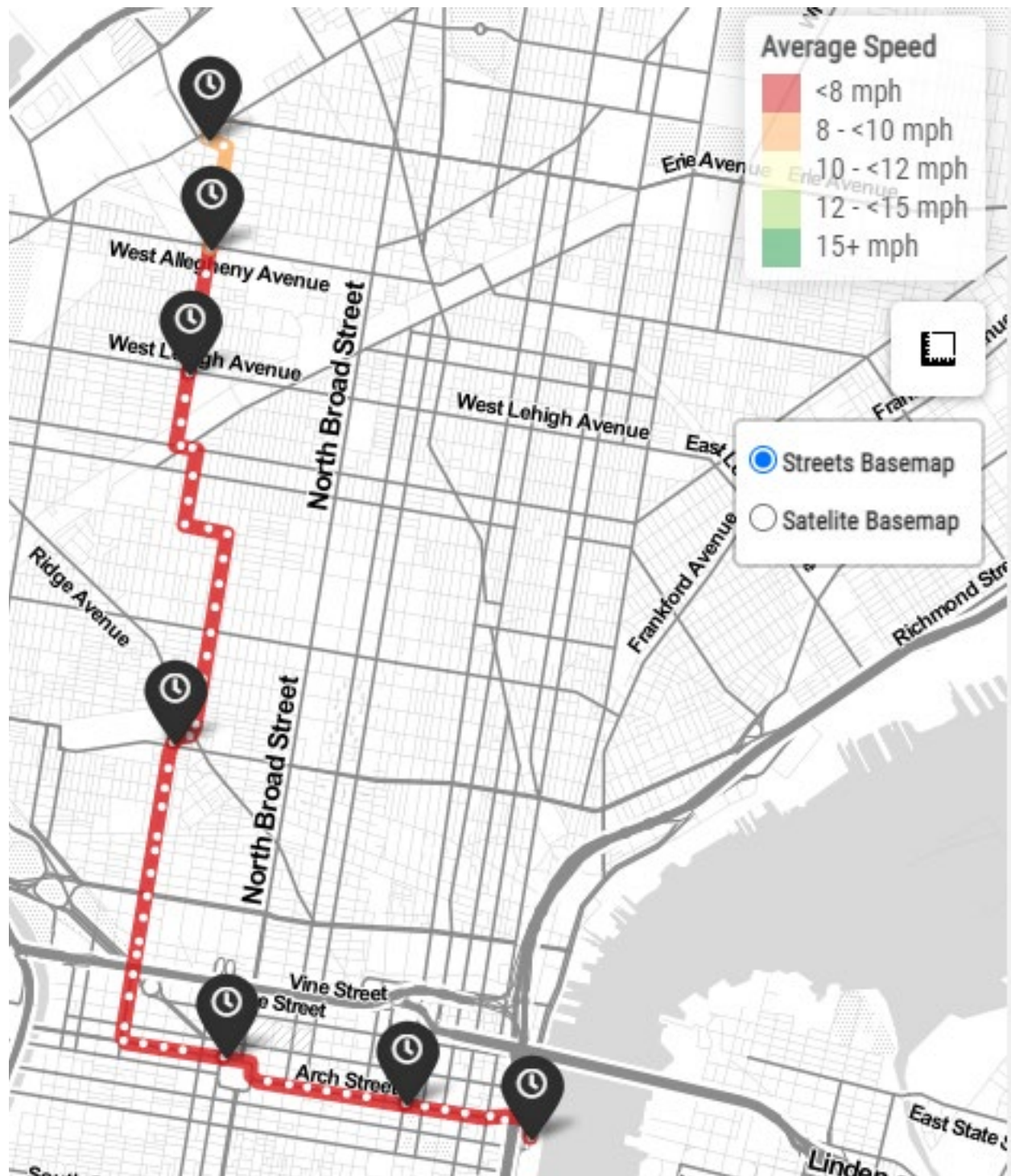


Figure 6 | Stop Spacing by Route Segment





## RIDER CHARACTERISTICS

Route 33's rider demographics differ somewhat from SEPTA's entire service area (see Table 5). The route's riders are more likely to be Black, to be in poverty, to be seniors, to have a disability and to be without access to a vehicle.

**Table 5 | Rider Characteristics**

	Route 33 Riders	Systemwide Average
Median Household Income	\$32,241	\$32,713
Share in Poverty	38%	30%
Ethnicity		
White	30%	38%
Black	59%	46%
Hispanic	7%	10%
Other	4%	7%
Without a Vehicle	51%	37%
Seniors	22%	15%
With a Disability	3%	2%

## SERVICE IMPROVEMENT OPPORTUNITIES

Opportunities to strengthen Route 33 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- Combine with Route 17:** These two routes overlap on Market Street and could be combined as more direct north-south service between North and South Philadelphia. A suitable transfer point with the Market-Frankford Line would need to be determined, possibly near City Hall.
- Consolidate with Route 2:** Route 2 and Route 33 provide similar service in North Philadelphia along parallel corridors a few blocks apart. Route 33 on 19<sup>th</sup> and 20<sup>th</sup> Streets is a walkable distance from Broad Street, so the Route 2 service in between could be discontinued with resources reallocated to more frequent service on Route 33. North of Ridge Avenue, Route 33 moves a little further to the west, but still within walking distance from Broad Street.
- Move Southern Terminus to City Hall:** The route's Market Street stops east of Broad Street are well-used but other bus routes and the Market-Frankford Line duplicate this segment. Shortening Route 17 to City Hall would enable increased service.
- Collaborate with the City on Parking/Curb Management:** New technology and policies may enable bus cameras to assist with parking and curb management operations around bus stops and routes. The improvements could increase Route 33's speed and on-time performance.