



SOUTH CENTRAL TRANSIT AUTHORITY

# TRANSIT DEVELOPMENT PLAN UPDATE

## APPENDIX H: RRTA ROUTE PROFILES

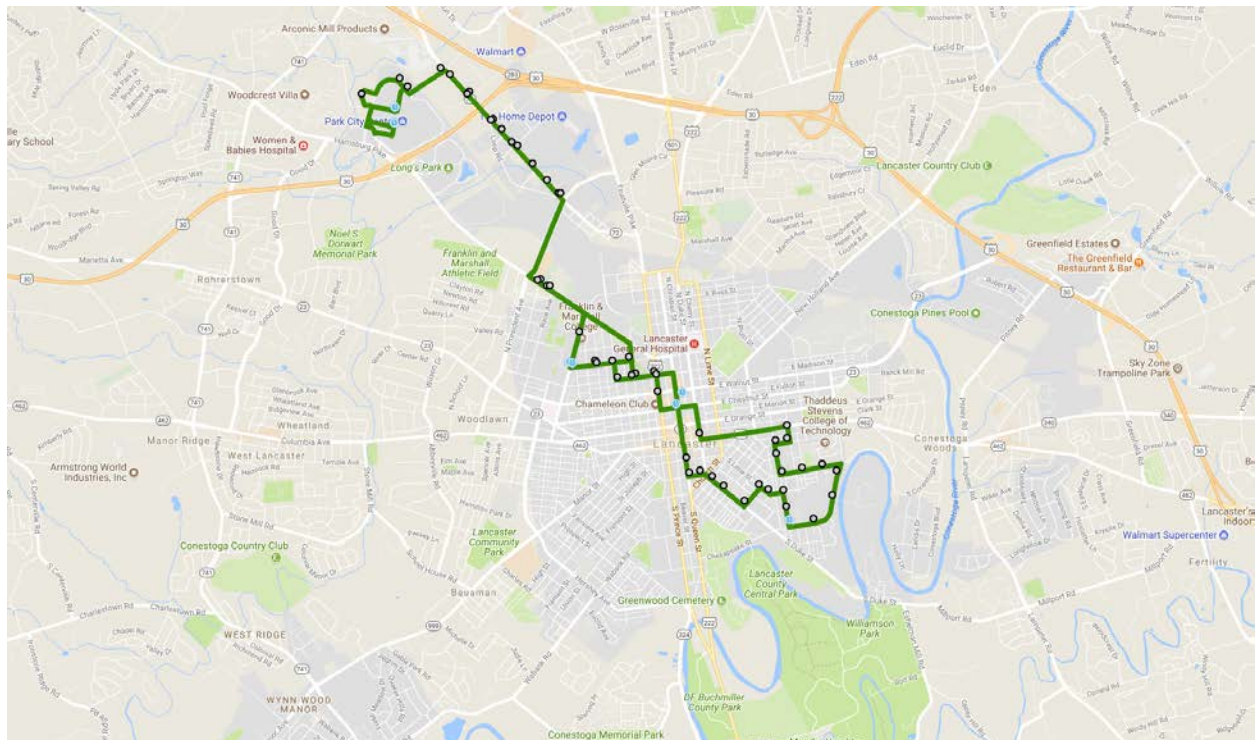
MAY 2018



RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 1

Park City A – Southeast



## Route Overview

### Cities Served

Lancaster

### Major Corridors Served

Queen Street, Prince Street, Lemon Street, Harrisburg Pike, Manheim Pike

### Major Activity Centers / Points of Interest

Park City Mall, Parkview Plaza, Franklin and Marshall College, Queen Street Station, Neighborhood Service Center

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (LOOP)
Monday-Friday	6:05 AM to 10:35 PM	20-45/30/20-50	26
Saturday	6:50 AM to 10:35 PM	30-40/35-60	25
Sunday	11:10 AM to 6:40 PM	60/60-75	8

Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

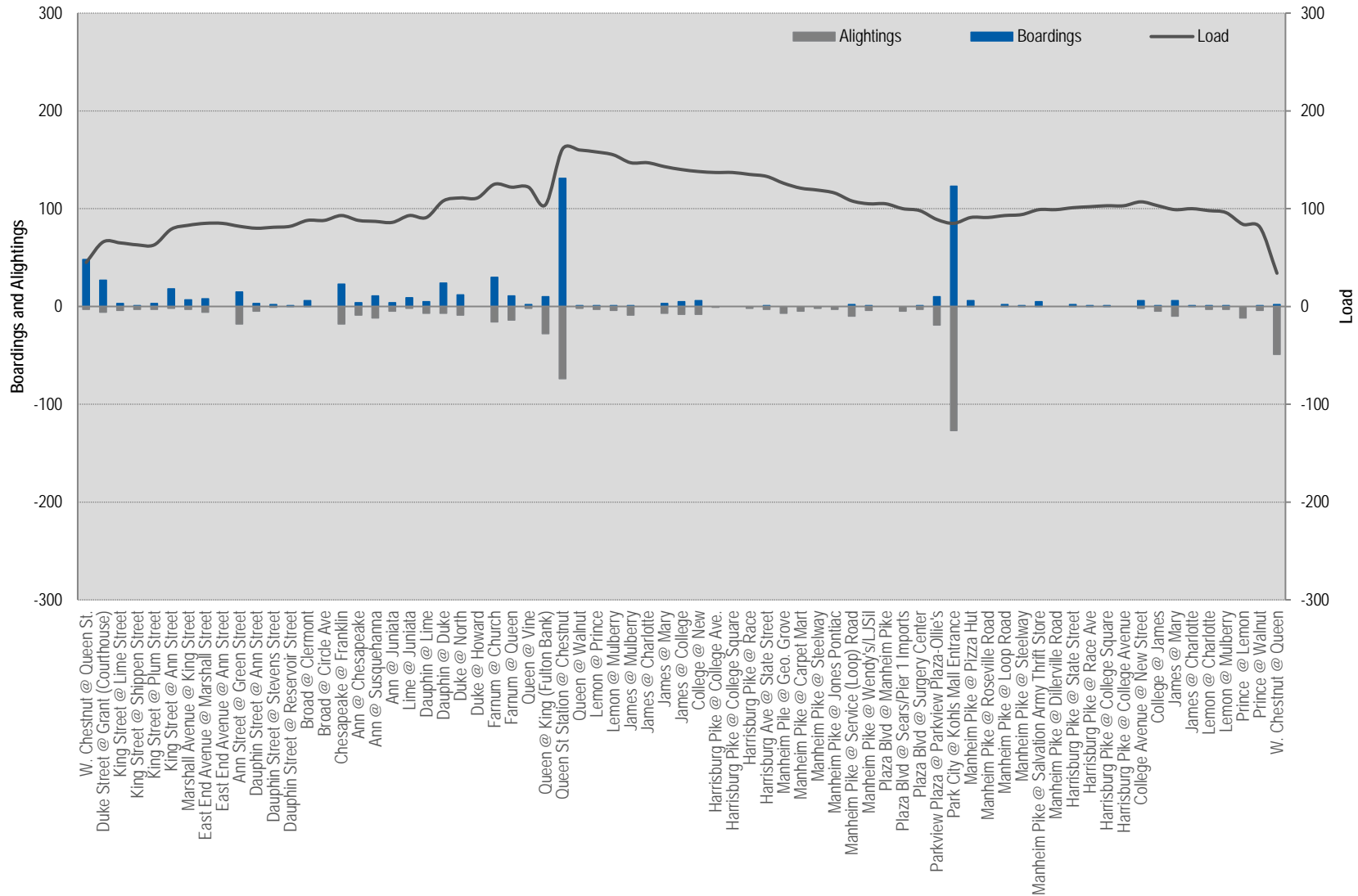
## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

LOOP STOPS	LOOP ONs / OFFs
W. Chestnut @ Queen St	48/3
Duke Street @ Grant (Courthouse)	27/6
King Street @ Ann Street	18/2
Ann Street @ Green Street	15/18
Chesapeake @ Franklin	23/18
Ann @ Susquehanna	11/12
Dauphin @ Duke	24/7
Duke @ North	12/9
Farnum @ Church	30/16
Farnum @ Queen	11/14
Queen @ King (Fulton Bank)	10/28
Queen St Station @ Chestnut	131/74
Manheim Pike @ Service (Loop) Road	2/10
Parkview Plaza @ Parkview Plaza-Ollie's	10/19
Park City @ Kohls Mall Entrance	123/127
Manheim Pike @ Service (Loop) Road	2/10
Parkview Plaza @ Parkview Plaza-Ollie's	10/19
Park City @ Kohls Mall Entrance	123/127
James @ Mary	6/10
Prince @ Lemon	0/12
W. Chestnut @ Queen	2/49

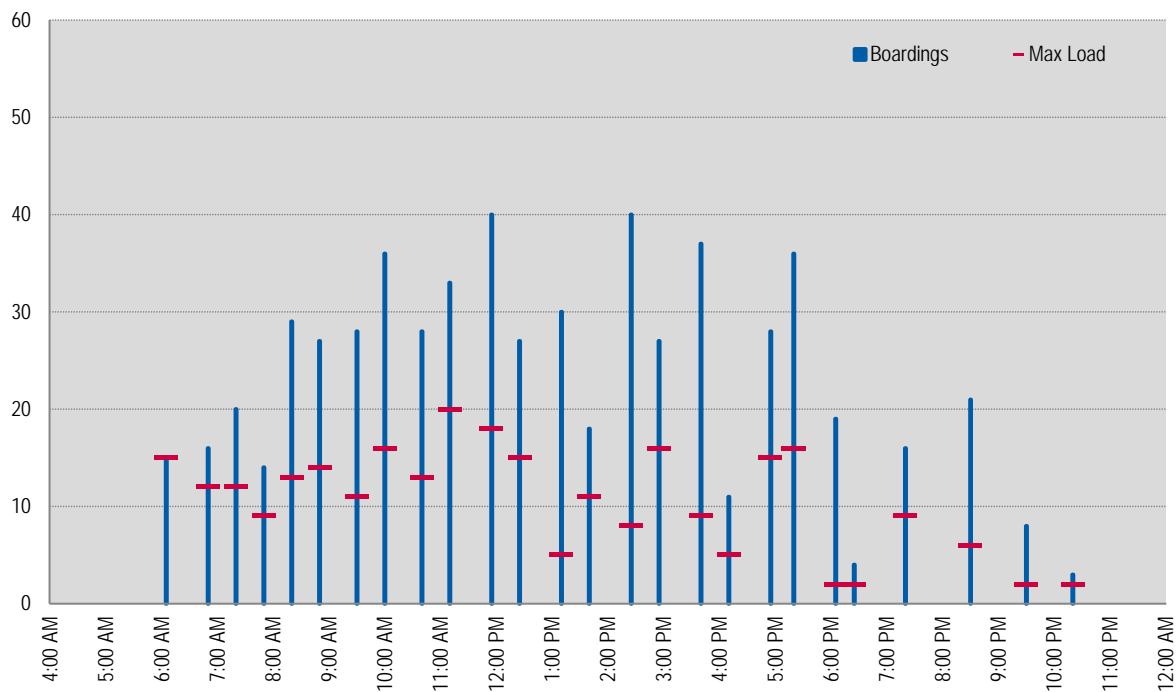


## Daily Ridership by Stop



## Ridership by Trip

### Daily Ridership by Trip



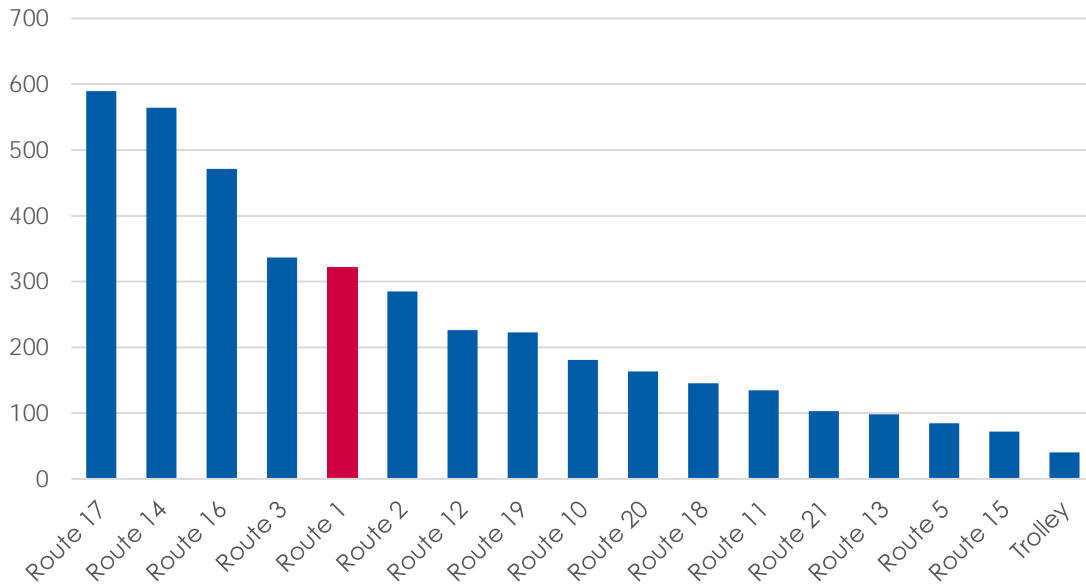
## Service Performance

### Productivity Statistics

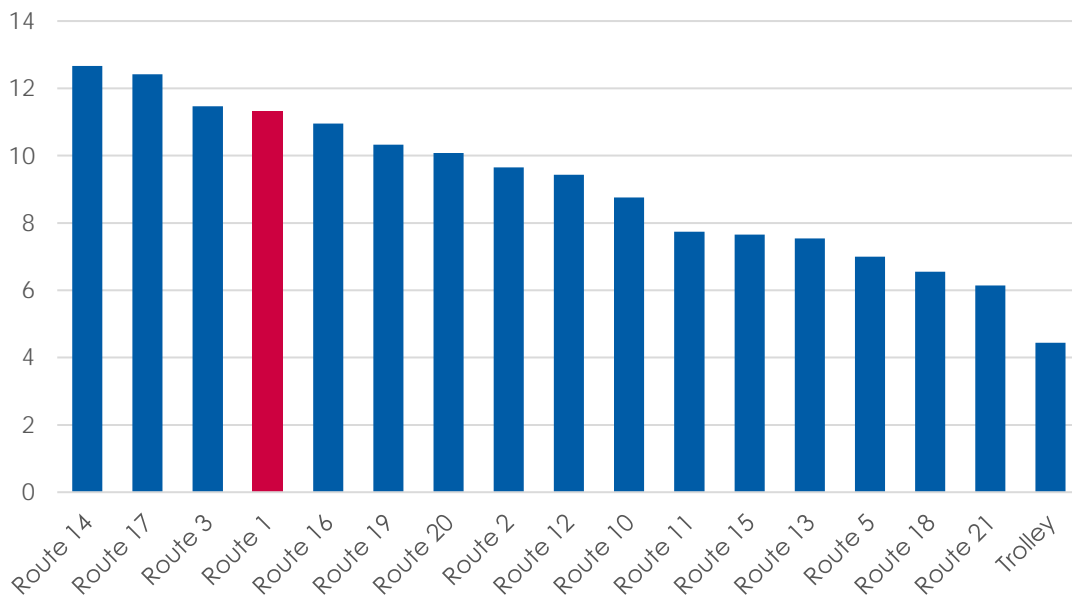
DAILY AVERAGE	
Average Daily Ridership	611
Pax/Revenue Hour	22.0
Red Rose Average	15.9
Pax/One-Way Trip	12.2
Red Rose Average	10.6
Pax/Revenue Mile	2.1
Red Rose Average	1.2

Note: Sunday service was not provided at time of ridership data collection.

### Average Daily Ridership by Route



### Average Daily Ridership per Revenue Hour by Route



## Service Improvement Opportunities

Opportunities to strengthen Route 1 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

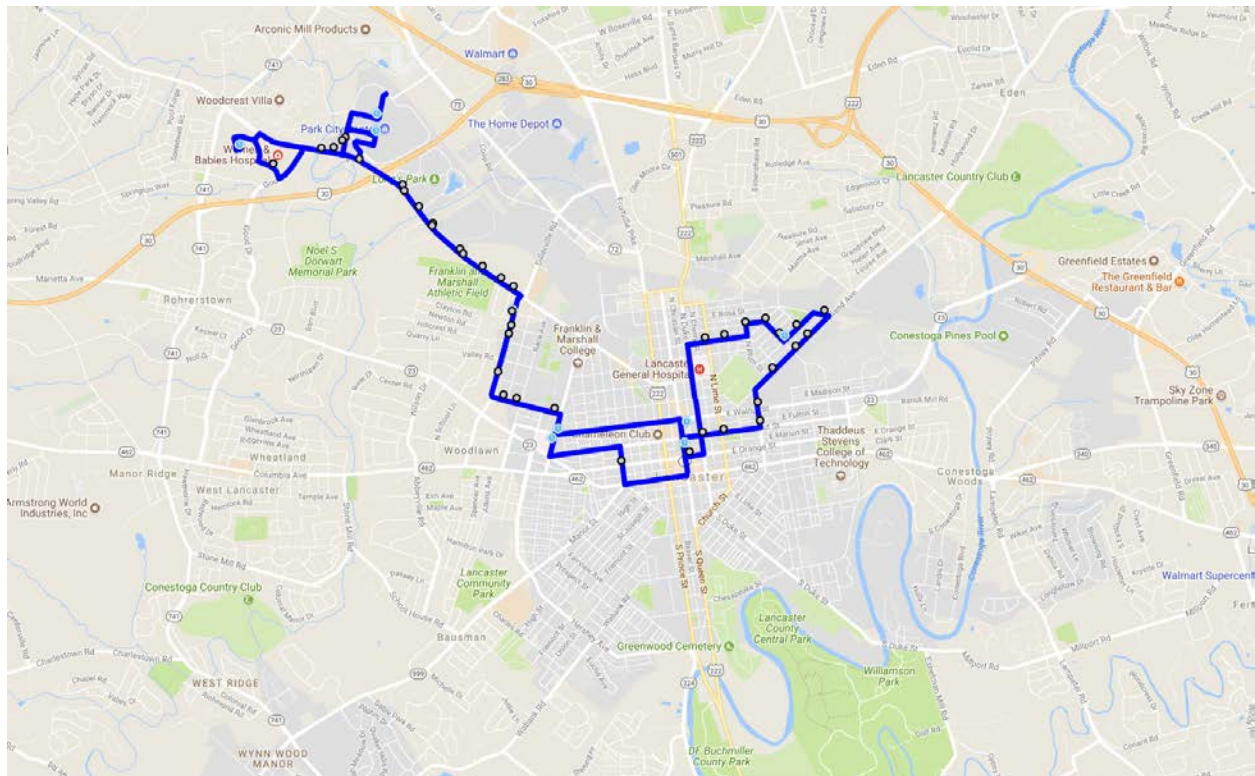
- Operate 30-minute service throughout the day and hourly service in the evening on weekdays and Saturdays.

- Operate hourly service throughout the day on Sundays to provide consistent “clockface” headways.
- Consolidate stops to improve travel time and reliability, particularly along Manheim Pike and Harrisburg Pike, where most stops have few or no riders.
- Redesign northern alignment to switch segments with Route 2 to make service more direct and serve each corridor with one route: Serve Buchanan Avenue and President Avenue with Route 1, serve College Avenue and Harrisburg Pike with Route 2.
- Coordinate schedule with Route 2 and Route 3 to stagger departures to and from Park City Mall.
- The southern portion of the alignment has several high-ridership stops and serves a fairly dense area, and may warrant additional service.
- Route 1’s southern alignment is very circuitous, forcing riders to travel a 25-minute one-way loop to reach Queen Street Station. Opportunities to streamline service may include:
  - Redesign the southern alignment of Route 1 to make the route bidirectional, or split the segment into two bidirectional alignments.
  - Redesign the southern alignment of Route 1 in conjunction with Route 2 and Route 3 to operate more direct and convenient local service south and east of downtown Lancaster.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 2

Park City B – 6<sup>th</sup> Ward



## Route Overview

### Cities Served

Lancaster

### Major Corridors Served

Chestnut Street, New Holland Avenue, Buchanan Street, President Avenue, Harrisburg Pike

### Major Activity Centers / Points of Interest

Queen Street Station, LGH Health Campus, LGH Women and Babies Hospital, Park City Mall, Franklin and Marshall College, Lancaster Regional Medical Center, Lancaster General Hospital, Grandview Shopping Center, McCaskey High School



## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (LOOP)
Monday-Friday	6:17 AM to 10:35 PM	30-35/20-45/15-60	26
Saturday	7:10 AM to 10:35 PM	35-40/45-60	23
Sunday	11:05 to 6:25 PM	55/60-65	8

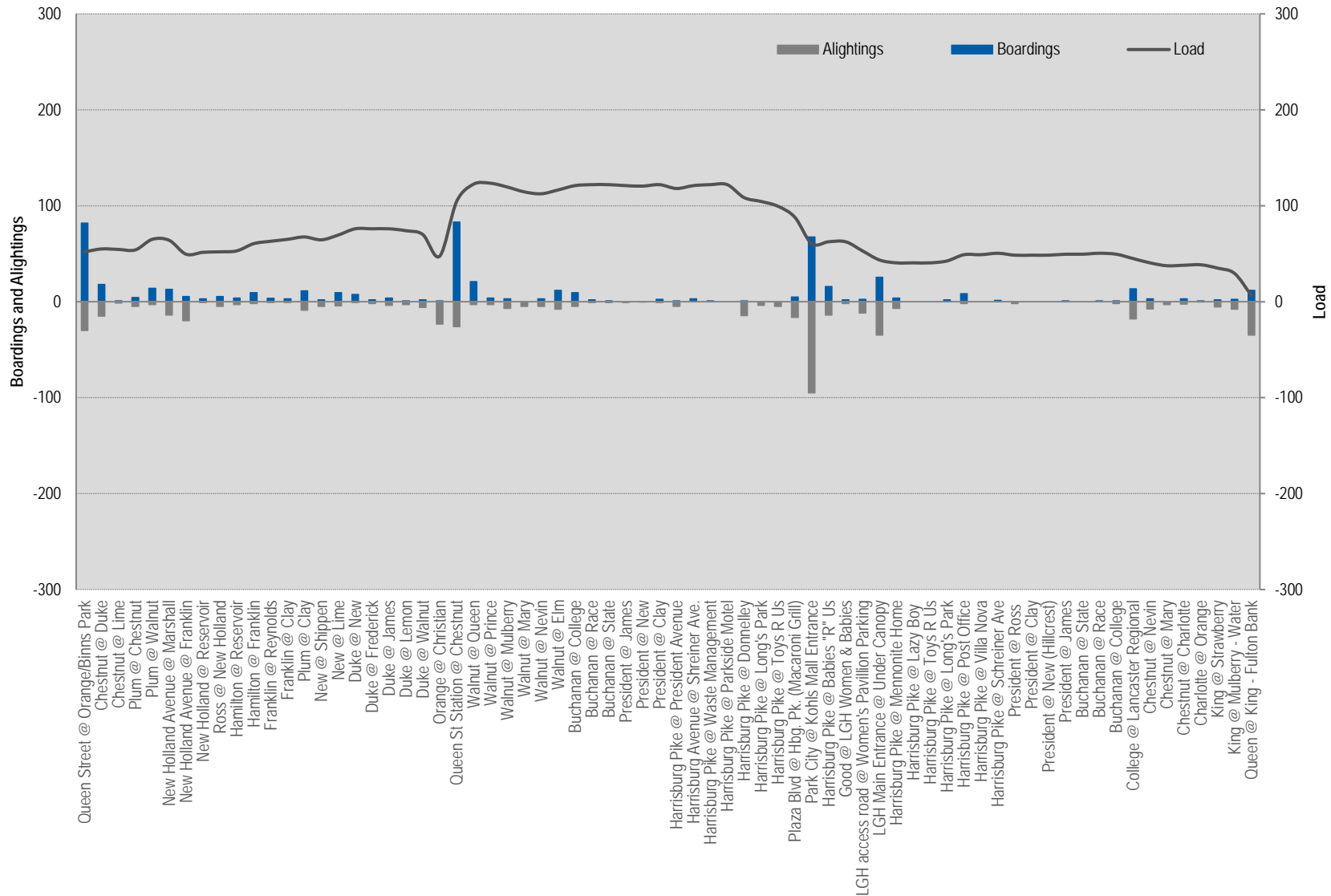
Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

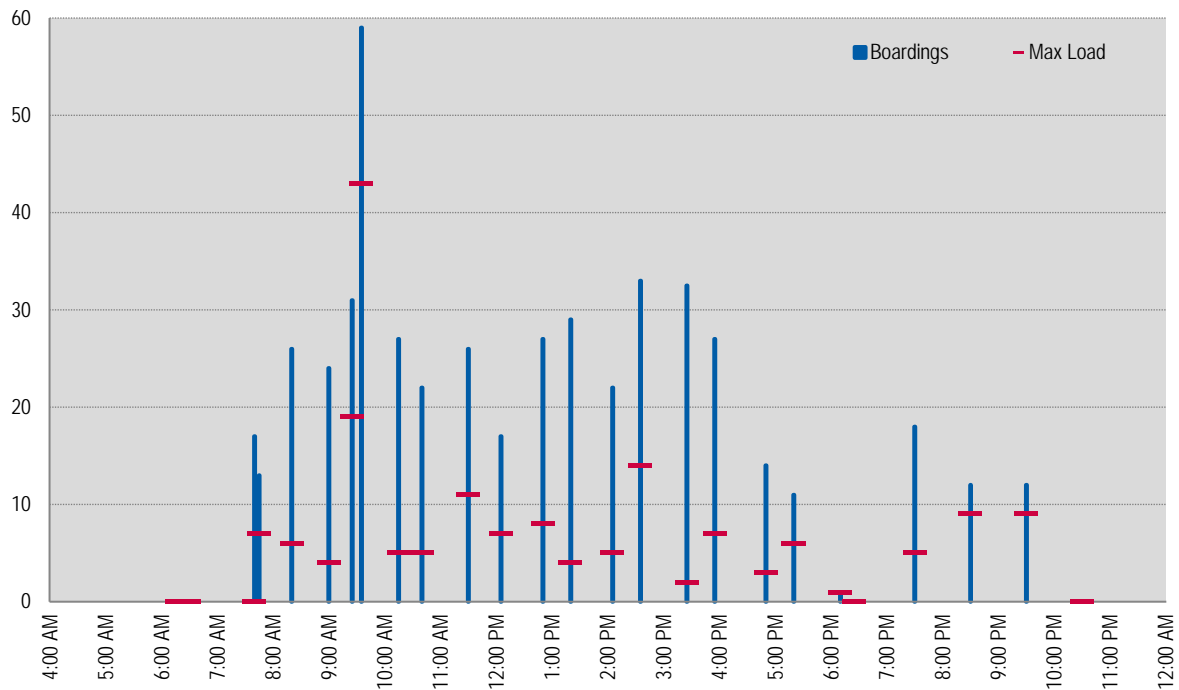
LOOP STOPS	LOOP ONs / OFFs
Queen Street @ Orange/Binns Park	82/30
Chestnut @ Duke	18/15
Plum @ Walnut	14/3
New Holland Avenue @ Marshall	13/14
New Holland Avenue @ Franklin	6/20
Hamilton @ Franklin	10/2
Plum @ Clay	12/9
New @ Lime	10/5
Orange @ Christian	1/25
Queen St. Station @ Chestnut	83/26
Walnut @ Queen	21/3
Walnut @ Elm	12/8
Buchanan @ College	10/5
Harrisburg Pike @ Donnelley	1/15
Plaza Blvd @ Hbg. Pk. (Macaroni Grill)	5/17
Park City @ Kohls Mall Entrance	68/95
Harrisburg Pike @ Babies "R" Us	16/14
LGH access road @ Women's Pavillion Parking	3/12
LGH Main Entrance @ Under Canopy	26/35
College @ Lancaster Regional	14/18
Queen @ King - Fulton Bank	12/35

## Daily Ridership by Stop



## Ridership by Trip

### Daily Ridership by Trip



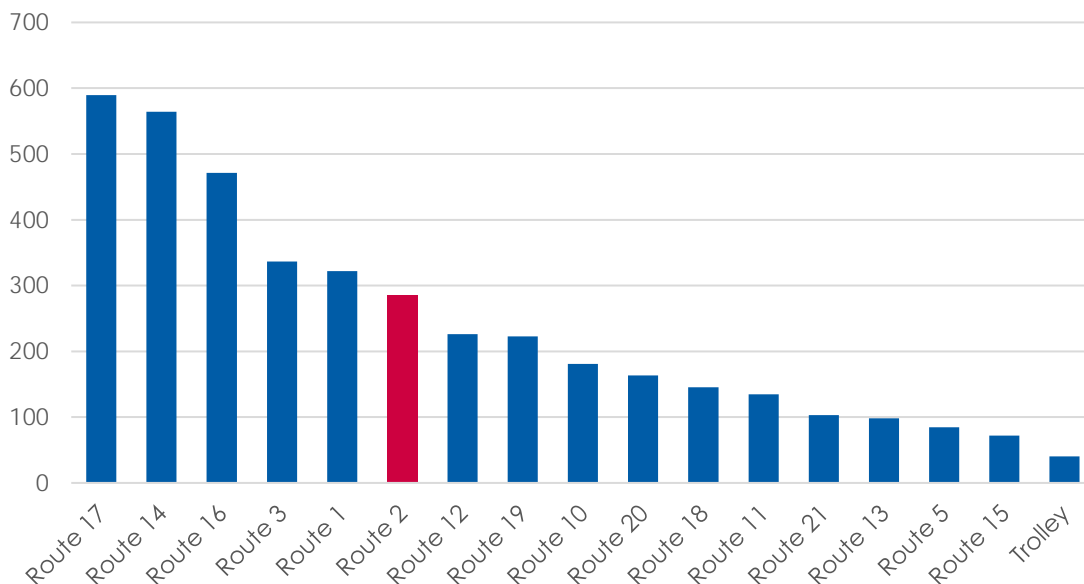
## Service Performance

### Productivity Statistics

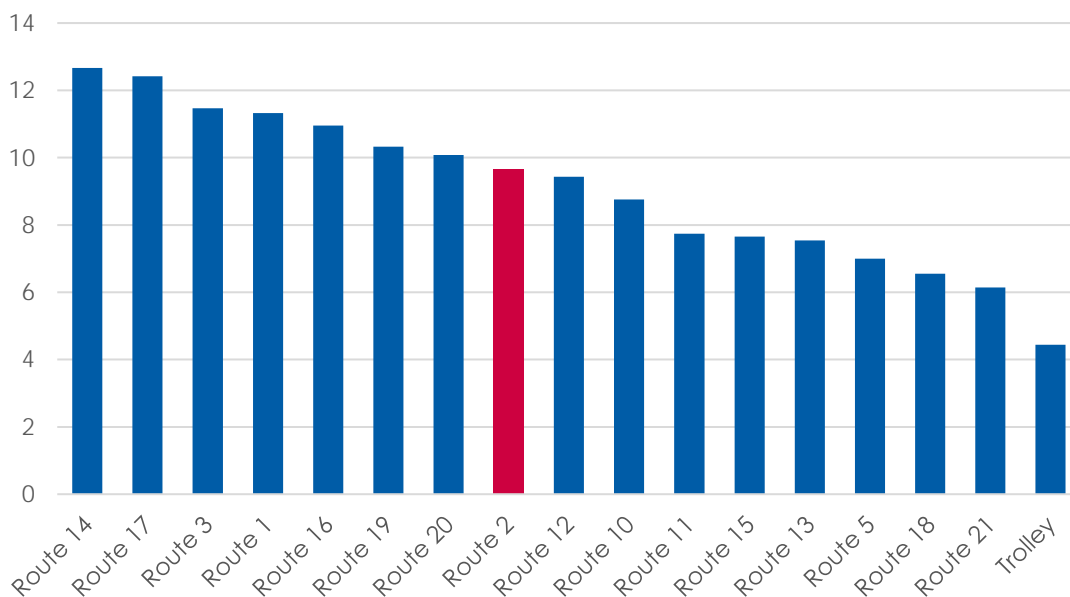
DAILY AVERAGE	
Average Daily Ridership	529
Pax/Revenue Hour	18.3
Red Rose Average	15.9
Pax/One-Way Trip	11.0
Red Rose Average	10.6
Pax/Revenue Mile	1.7
Red Rose Average	1.2

Note: Sunday service was not provided at time of ridership data collection.

### Average Daily Ridership by Route



### Average Daily Ridership per Revenue Hour by Route



## Service Improvement Opportunities

Opportunities to strengthen Route 2 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- Operate 30-minute service throughout the day and hourly service in the evening on weekdays and Saturdays.

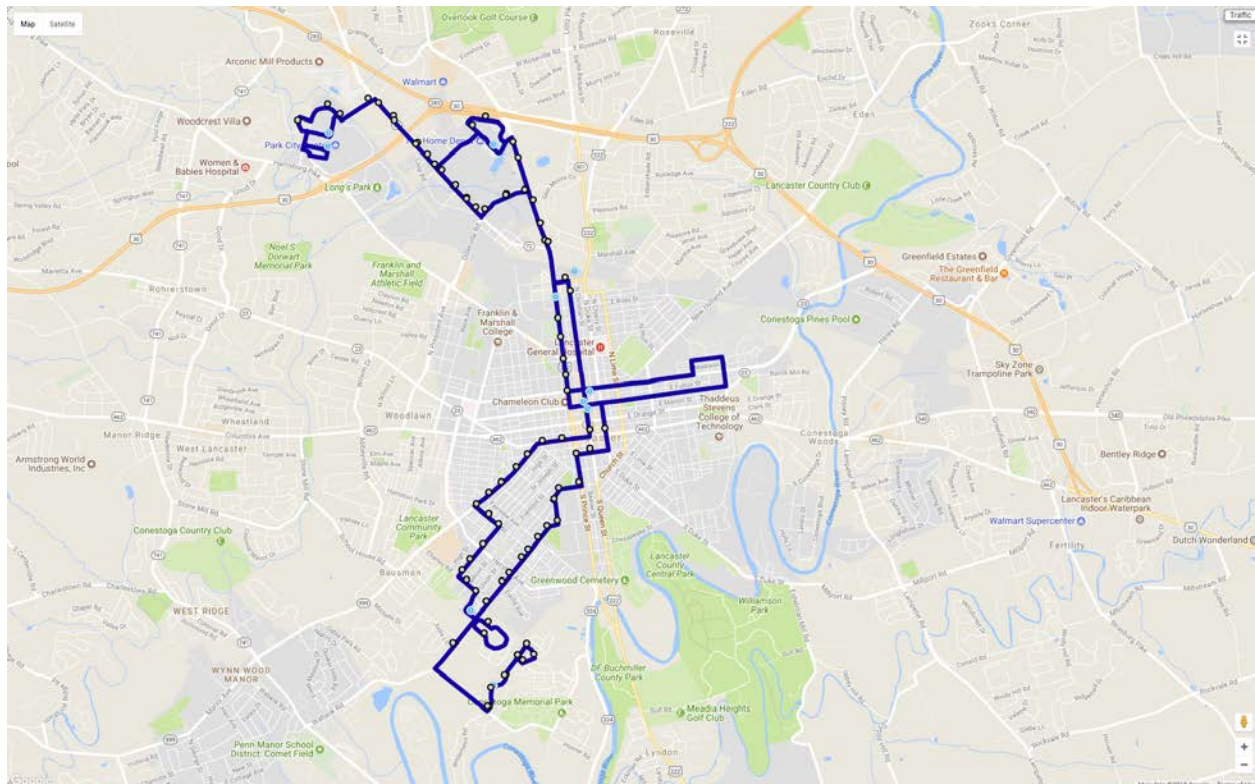
- Operate hourly service throughout the day on Sundays to provide consistent “clockface” headways.
- Coordinate schedule with Route 1 and Route 3 to stagger departures to and from Park City Mall.
- Consolidate stops to improve travel time and reliability, particularly along Buchanan Avenue, President Avenue, and Harrisburg Pike, where most stops have few or no riders.
- Redesign northern alignment to switch segments with Route 1 to make service more direct and serve each corridor with one route: Serve College Avenue and Harrisburg Pike with Route 2, serve Buchanan Avenue and President Avenue with Route 1,
- Route 2’s eastern alignment is very circuitous, forcing riders to travel a 25-minute one-way loop to reach Queen Street Station. Opportunities to streamline service may include:
  - Redesign the eastern alignment as bidirectional segments instead of a one-way loop.
  - Redesign the eastern alignment in conjunction with Route 5 to create new bidirectional routes that match existing and underlying demand, making local service more efficient and convenient while maintaining coverage in these high-density areas.
  - Discontinue service along New Street and Christian Street, which is somewhat redundant with Route 5 service, and operate bidirectional service along Chestnut Street and New Holland Avenue with a redesigned eastern terminal loop.



RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 3

Park City C – 8<sup>th</sup> Ward



## Route Overview

### Cities Served

Lancaster

### Major Corridors Served

Manheim Pike, Fruitville Pike, Prince/Queen Streets, Wabank Street, Manor Street

### Major Activity Centers / Points of Interest

Queen Street Station, Amtrak/Greyhound Station, Park City Center, Parkview Plaza, Lancaster County Courthouse, Pennsylvania Department of Welfare, RRTA Operations Center/Park-and-Ride, Sterling Place

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (LOOP)
Monday-Friday	6:00 AM to 10:40 PM	30-40/40-45/40-70	23
Saturday	7:45 AM to 10:40 PM	45/45-65	20
Sunday	10:50 AM to 6:50 PM	65/60-65	8

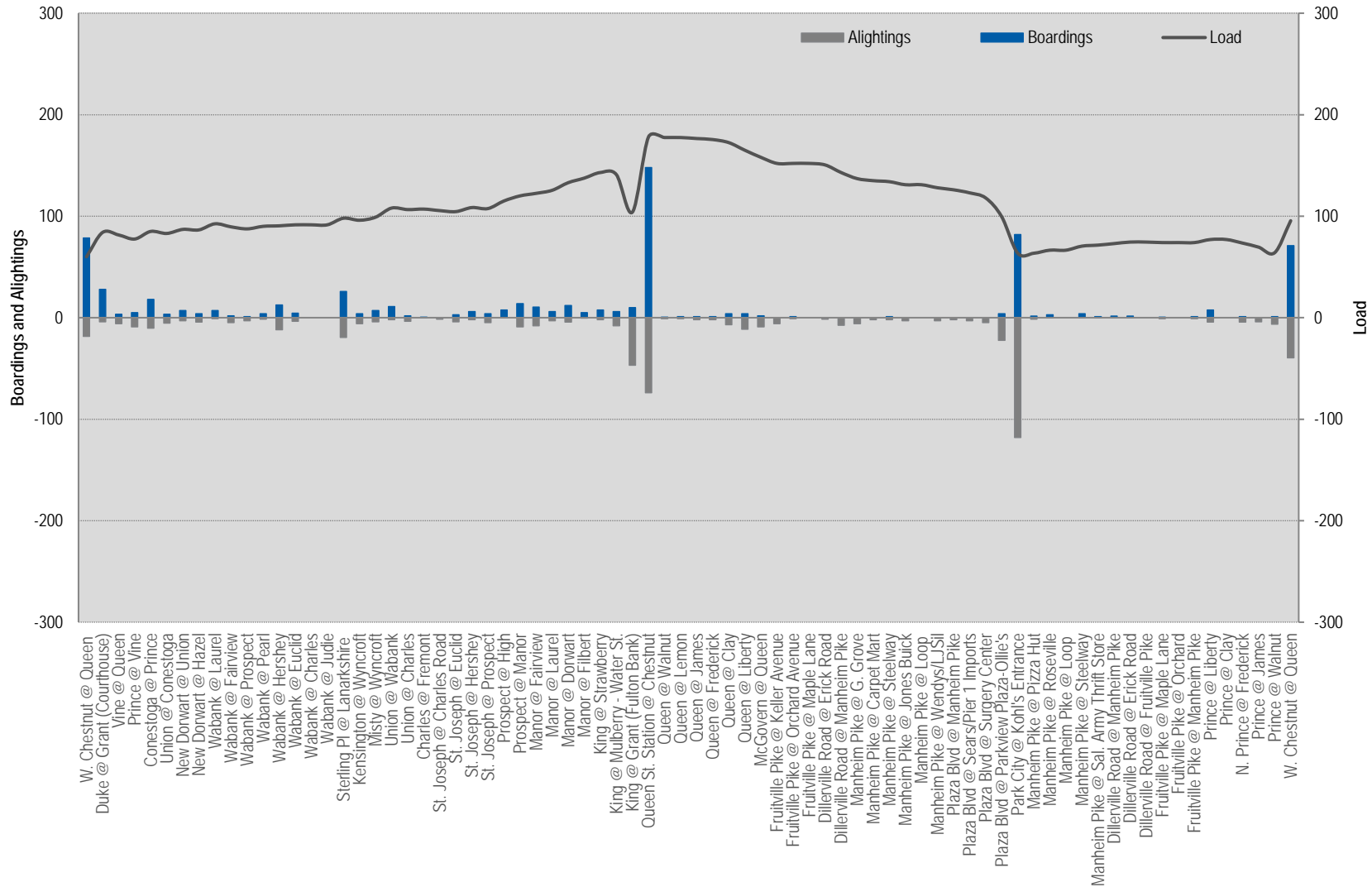
Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

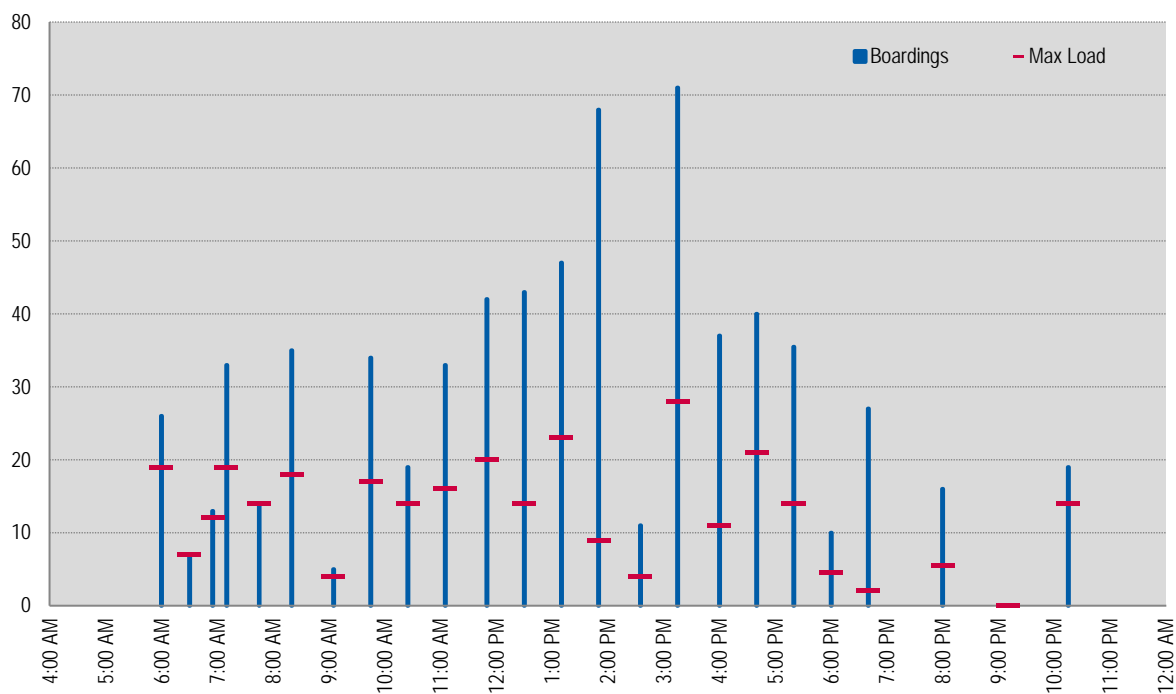
LOOP STOPS	LOOP ONs / OFFs
W. Chestnut @ Queen	79/19
Duke @ Grant (Courthouse)	28/4
Conestoga @ Prince	11/18
Wabank @ Hershey	13/12
Sterling Pl @ Lanarkshire	26/20
Union @ Wabank	11/2
Prospect @ Manor	14/9
Manor @ Fairview	11/8
Manor @ Dorwart	12/5
King @ Grant (Fulton Bank)	10/47
Queen St. Station @ Chestnut	148/74
Queen @ Liberty	4/12
Plaza Blvd @ Parkview Plaza-Ollie's	4/23
Park City @ Kohl's Entrance	82/118
W. Chestnut @ Queen	71/40

## Daily Ridership by Stop



## Ridership by Trip

### Daily Ridership by Trip



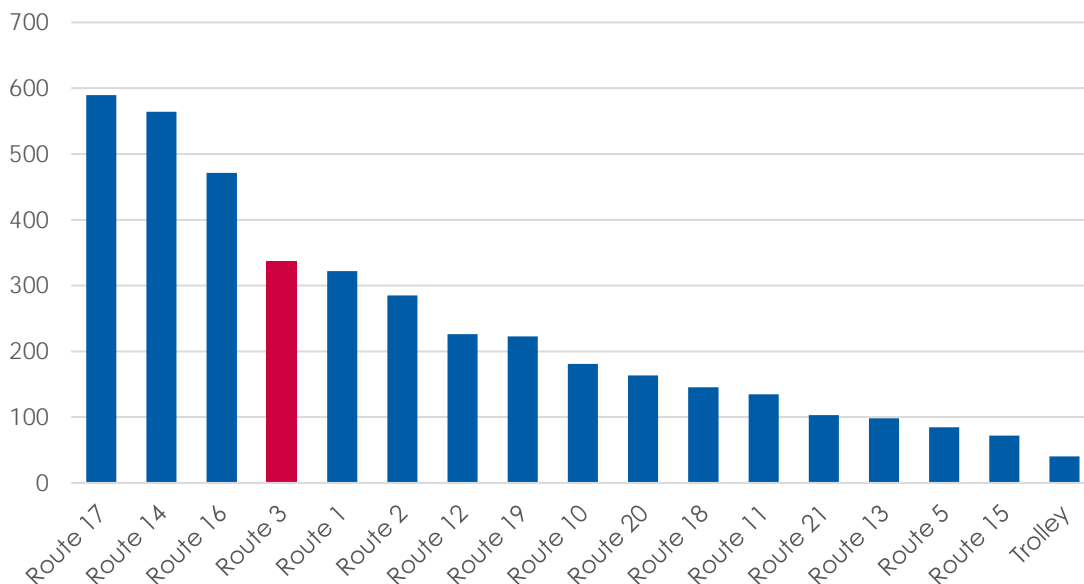
## Service Performance

### Productivity Statistics

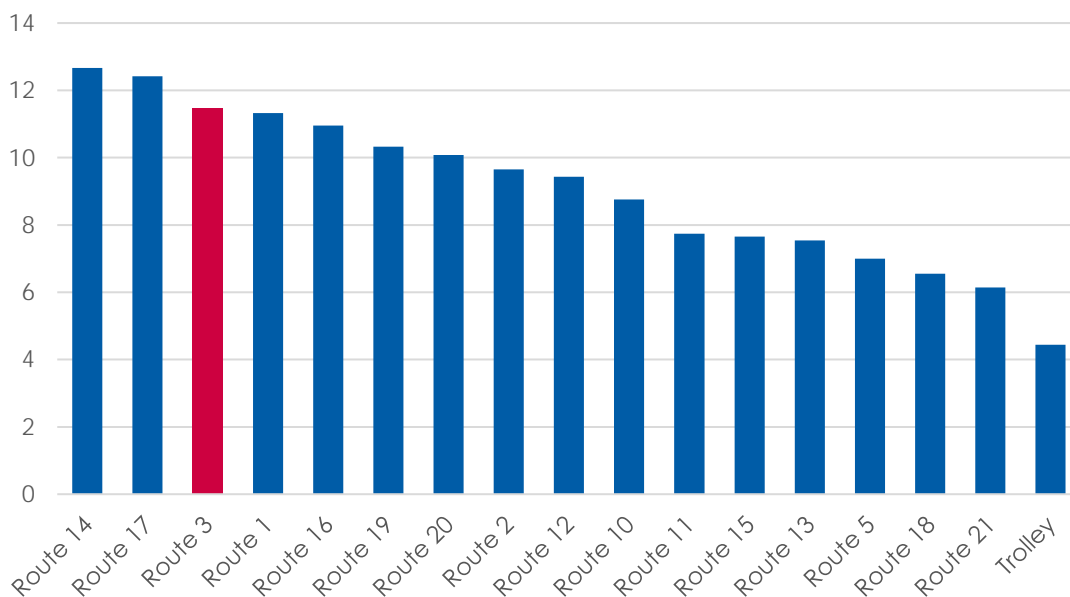
DAILY AVERAGE	
Average Daily Ridership	665
Pax/Revenue Hour	23.2
Red Rose Average	15.9
Pax/One-Way Trip	15.1
Red Rose Average	10.6
Pax/Revenue Mile	2.2
Red Rose Average	1.2

Note: Sunday service was not provided at time of ridership data collection.

### Average Daily Ridership by Route



### Average Daily Ridership per Revenue Hour by Route



## Service Improvement Opportunities

Opportunities to strengthen Route 3 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- Operate 30-minute service throughout the day and hourly service in the evening on weekdays and Saturdays.



- Consider increasing weekday service further during the afternoon hours when ridership is highest (between noon and 5 PM).
- Operate hourly service throughout the day on Sundays to provide consistent “clockface” headways.
- Relatively high demand on the last trip indicates there may be demand for later service. Consider adding another evening trip to provide additional service.
- Coordinate schedule with Route 1 and Route 2 to stagger departures to and from Park City Mall.
- Serve Sterling Place on alternate trips to make operate a consistent schedule (hourly service with clockface headways) and better match demand
- Discontinue the route’s deviation into Kensington Terrace and operate along Wabank Street on all trips. The stop inside Kensington Terrace generates only four riders per day, and is less than a five-minute walk from Wabank Road.
- Serve Manor Center/Weis Market on Millersville Pike to provide a direct connection to local grocery and retail opportunities.
- Discontinue service along Manor Road/Millersville Pike, since it is already served by Route 16 operating bidirectional, 30-minute service. Manor Center/Weis Market could serve as a stop or terminus on a redesigned Route 3 and provide a transfer opportunity to Route 16.
- Consolidate stops, especially along Manheim Pike and Fruitville Pike, due to very low ridership to improve reliability.
- Route 3 ranks second-highest in ridership and productivity in the RRTA system. Ridership and productivity could be increased with modifications to the circuitous alignment. Currently, riders must travel 30-minutes in a one-way loop to reach Queen Street Station. Opportunities to streamline the alignment and provide more direct service for riders may include:
  - Split the southern portion of Route 3 into two bidirectional alignments to provide more direct service and meet demand in these high-density neighborhoods. Provide a crosstown connection to Manor Center/Weis Market with one of the new alignments.
  - Redesign the southern alignment of Route 3 in conjunction with Route 1 to operate more efficient local service south of downtown Lancaster.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 5

Route 5 (Grandview/Rossmere)



## Route Overview

### Cities Served

Lancaster

### Major Corridors Served

Lititz Pike, Lime Street

### Major Activity Centers / Points of Interest

Queen Street Station, Golden Triangle Shopping Center, Lancaster Shopping Center, Lancaster County Social Services, Lancaster General Hospital

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (LOOP)
Monday-Friday	6:15 AM to 6:15 PM	35-50/45/0	17
Saturday	8:35 AM to 6:00 PM	45-80/180	5

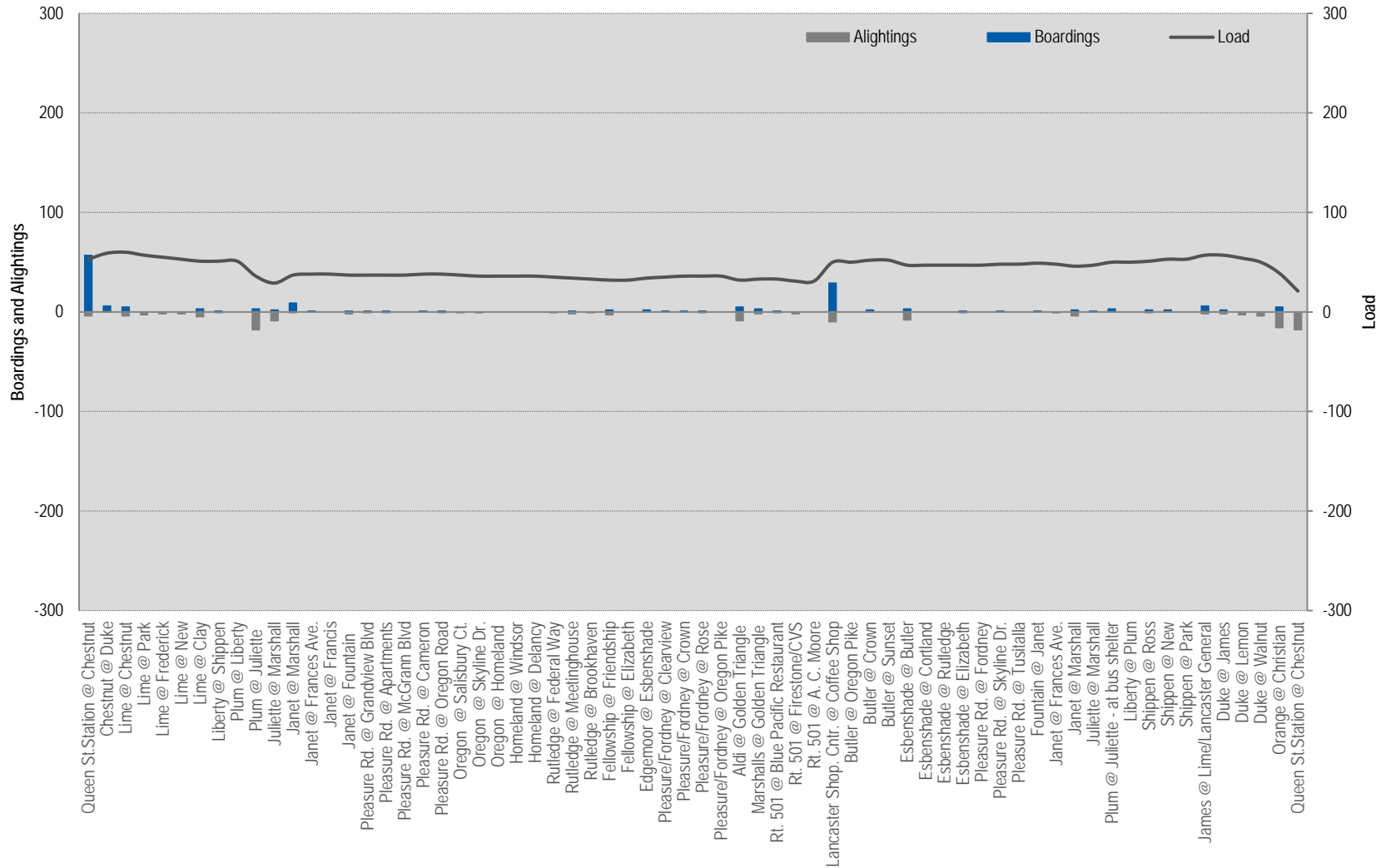
Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

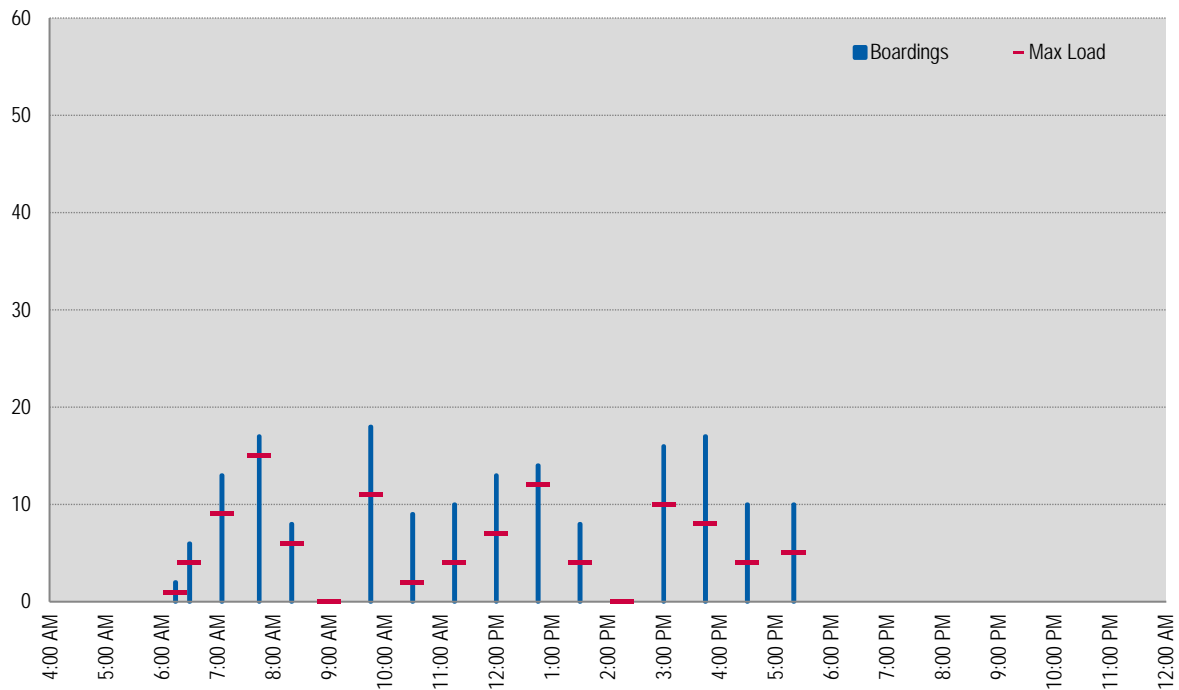
LOOP STOPS	LOOP ONs / OFFs
Queen St. Station @ Chestnut	57/4
Plum @ Juliette	3/18
Lancaster Shop. Center @ Coffee Shop	29/10
Orange @ Christian	5/16
Queen St. Station @ Chestnut	0/18

## Daily Ridership by Stop



## Ridership by Trip

### Daily Ridership by Trip



## Service Performance

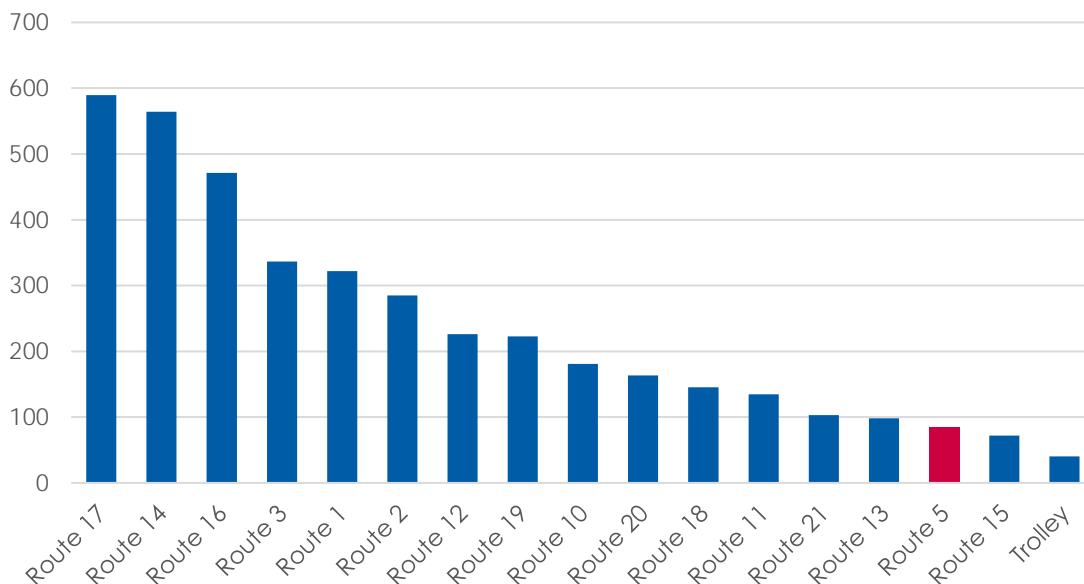
### Productivity Statistics

DAILY AVERAGE	
Average Daily Ridership	169
Pax/Revenue Hour	14.3
Red Rose Average	15.9
Pax/One-Way Trip	10.6
Red Rose Average	10.6
Pax/Revenue Mile	1.3
Red Rose Average	1.2

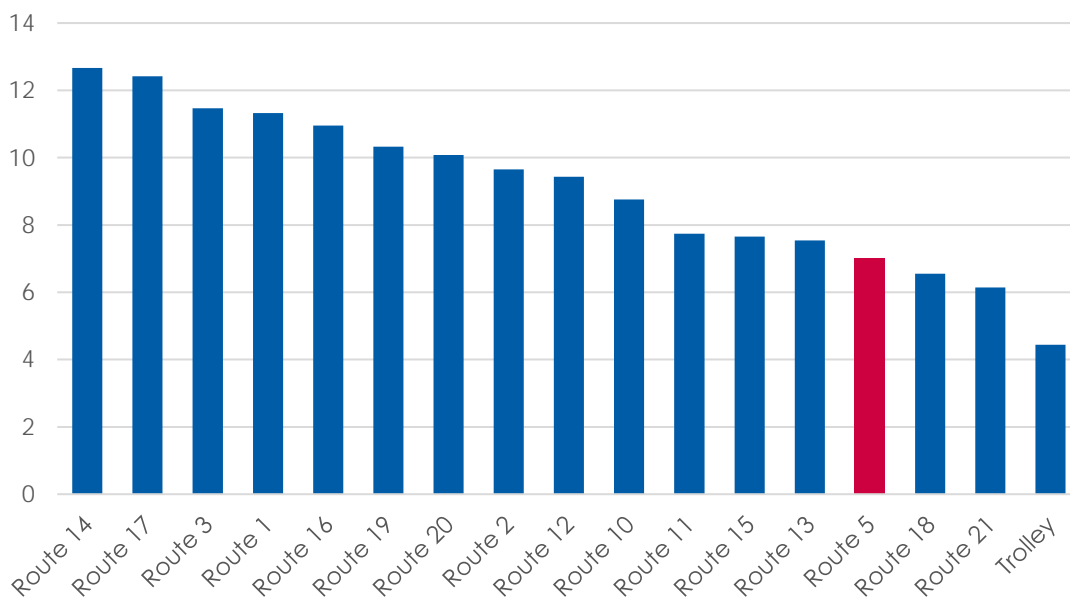
Note: Sunday service was not provided at time of ridership data collection.



### Average Daily Ridership by Route



### Average Daily Ridership per Revenue Hour by Route



## Service Improvement Opportunities

Opportunities to strengthen Route 5 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- Operate hourly frequency during weekday service hours to better match demand and provide clockface headways that are easier for riders to remember.

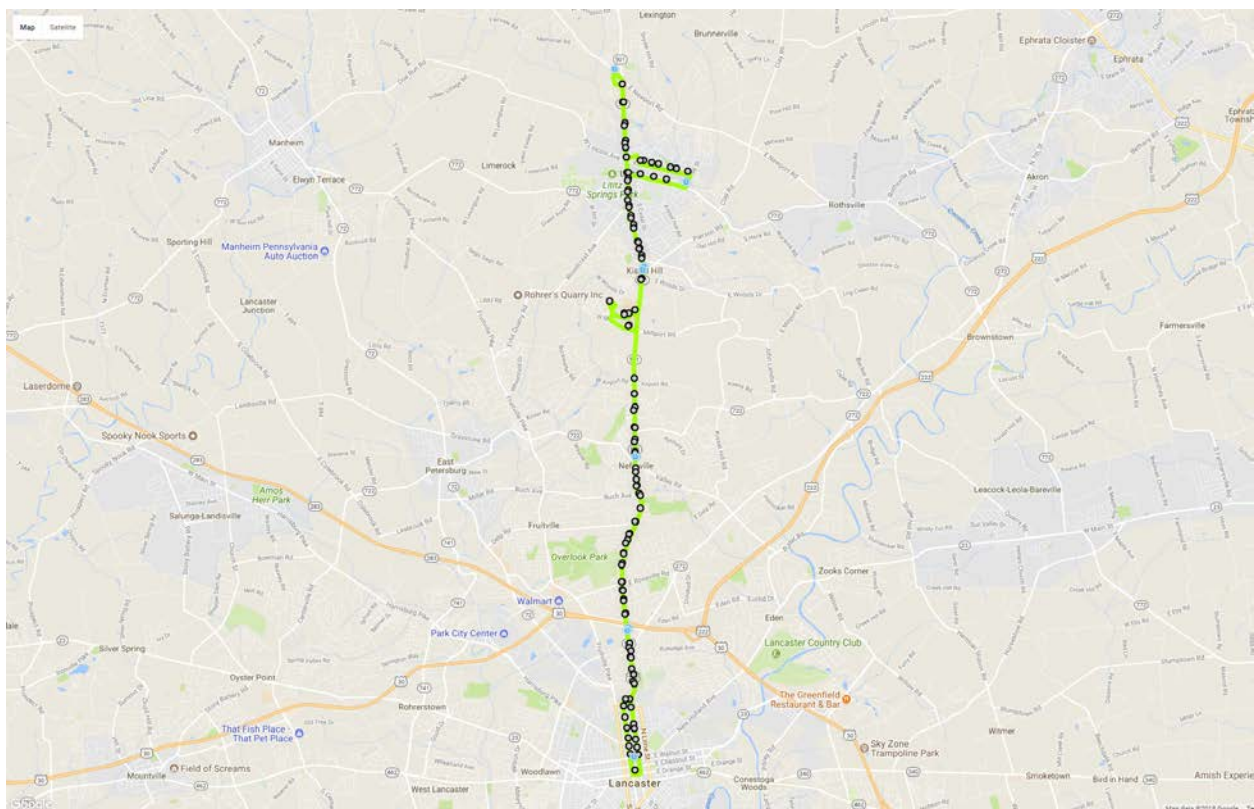
- Discontinue the loop serving Pleasure Road, Oregon Boulevard, and Rutledge Drive. This deviation adds two miles to the trip and generates only five boardings per day.
- Consolidate stops along several segments of the route due to low ridership in order to speed travel time for riders and improve reliability.
- The route effectively operates as a large one-way loop, forcing riders to travel the full length of the route to complete a round trip. Redesign the route in conjunction with Route 2 to provide less circuitous and operate bidirectional routes that better match the demand in these neighborhoods.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 10

Lititz

## Route Overview



### Cities Served

Lancaster, Neffsville, Kessel Hill, Lititz

### Major Corridors Served

Lititz Pike/Broad Street, Main Street (Lititz)

### Major Activity Centers / Points of Interest

Queen Street Station, Amtrak/Greyhound, Lancaster General Hospital, Lancaster Shopping Center, Golden Triangle Shopping Center, Lancashire Hall, Kessel Hill, Heart of Lancaster Hospital, Luther Acres, Sauder Eggs, Cornerstone Center

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	5:15 AM to 6:35 PM	30-45/30-45/30-45	14/14
Saturday	6:45 AM to 6:40 PM	90/90	8/8

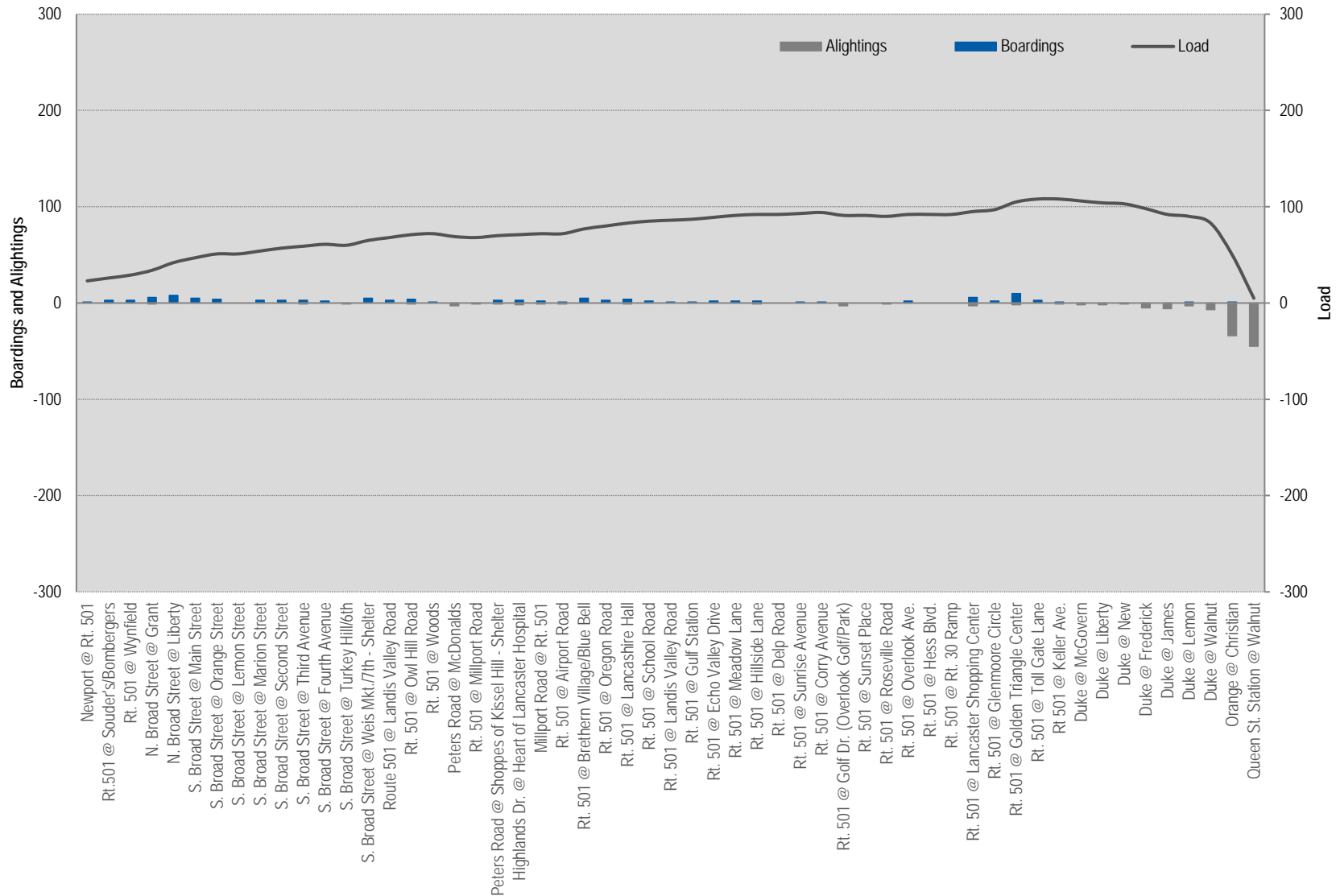
Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

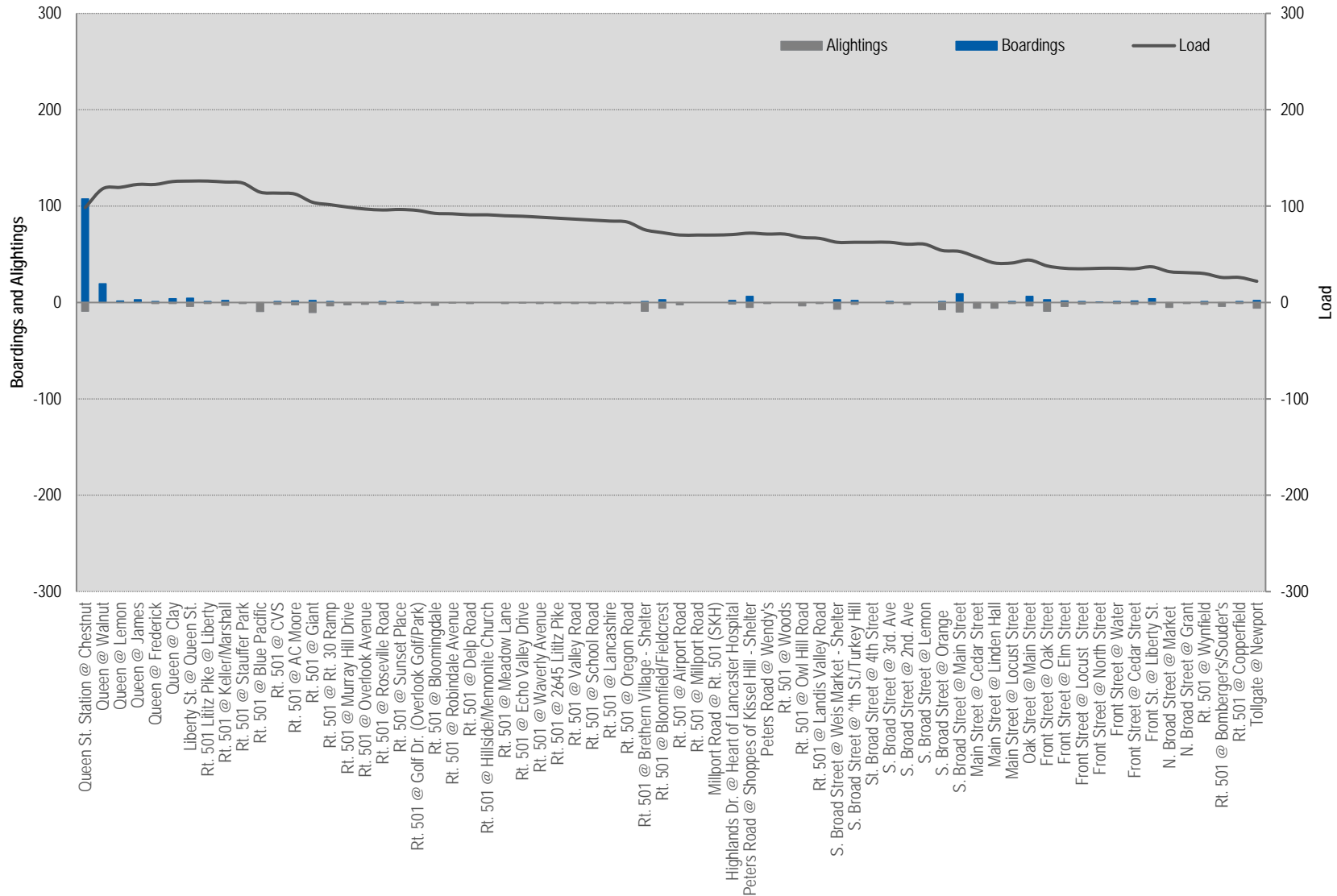
OUTBOUND STOPS	OUTBOUND ONs / OFFs	INBOUND STOPS	INBOUND ONs/OFFs
Queen St. Station @ Chestnut	9/99	Rt. 501 @ Golden Triangle Center	10/2
Queen St. @ Walnut	10/115	Orange @ Christian	35
Queen St. @ Lemon	11/104	Queen St. Station @ Walnut	0/45
Rt. 501 @ Brethern Village	1/9		
Peters Road @ Shoppes of Kissel Hill	7/5		
S. Broad Street @ Weis Market	3/7		
S. Broad Street @ Orange	1/8		
Oak Street @ Main Street	7/4		
Front Street @ Oak Street	3/9		

## Daily Inbound Ridership by Stop



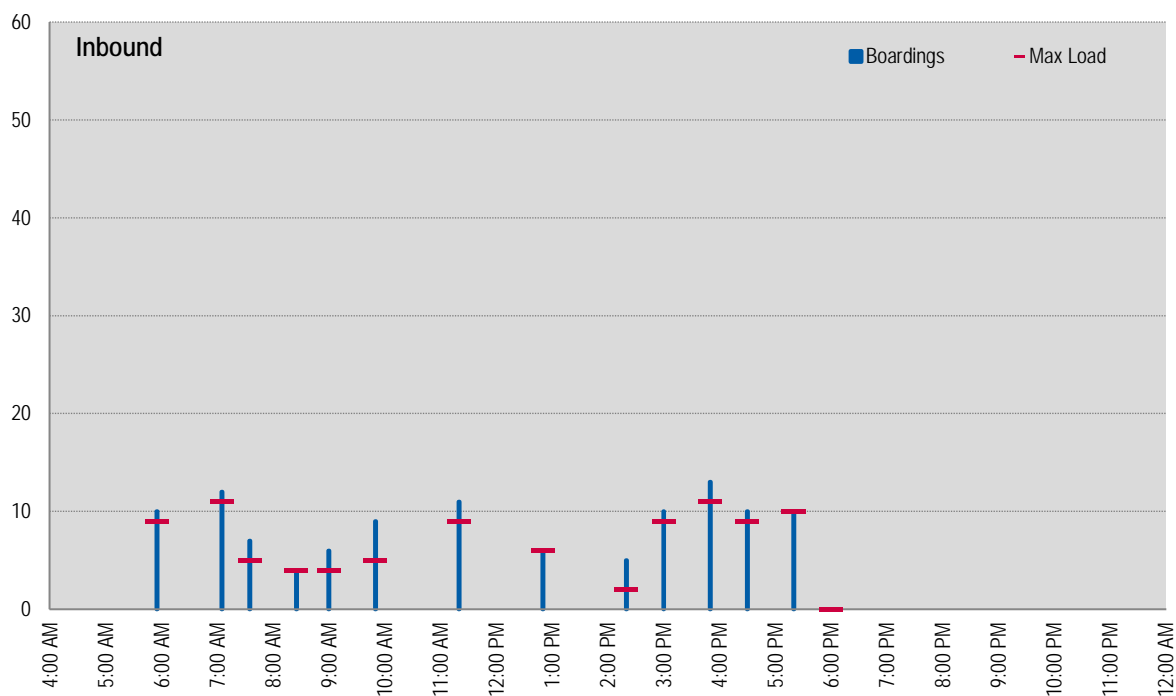


## Daily Outbound Ridership by Stop

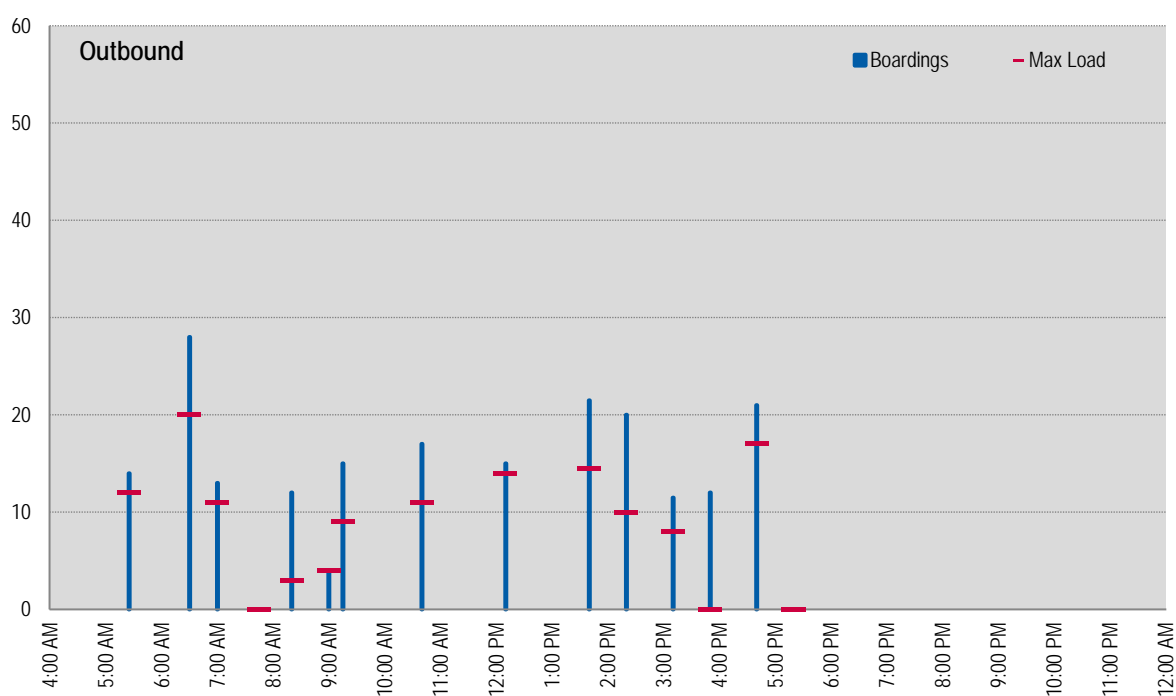


## Ridership by Trip

### Daily Inbound Ridership by Trip

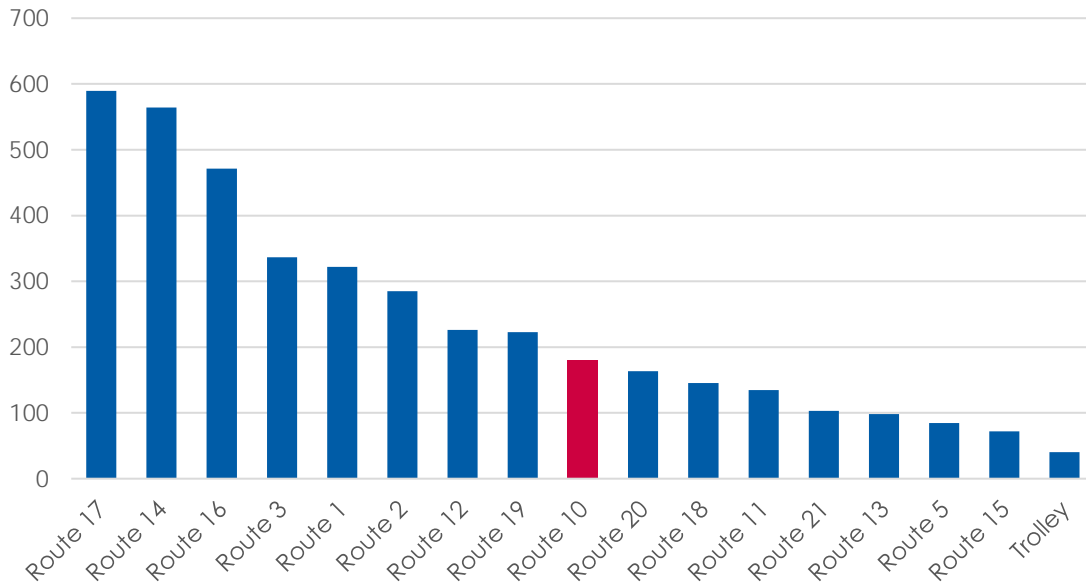


### Daily Outbound Ridership by Trip

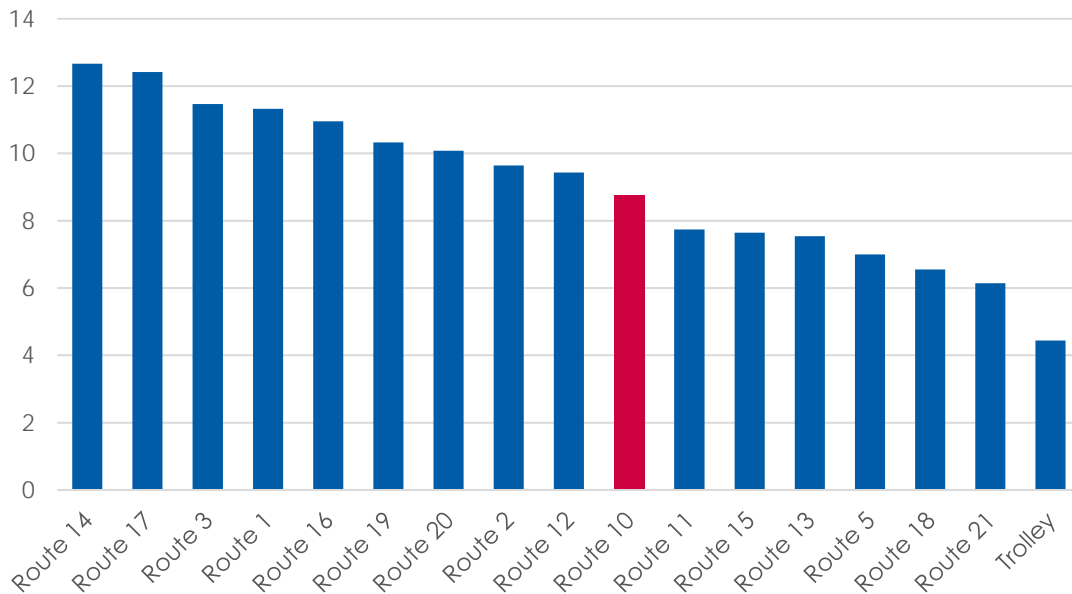


## Service Performance

### Average Daily Ridership by Route



### Average Daily Ridership per Revenue Hour by Route



## Productivity Statistics

	DAILY AVERAGE
<b>Average Daily Ridership</b>	<b>176</b>
<b>Pax/Revenue Hour</b>	<b>8.7</b>
Red Rose Average	15.9
<b>Pax/One-Way Trip</b>	<b>6.3</b>
Red Rose Average	10.6
<b>Pax/Revenue Mile</b>	<b>0.6</b>
Red Rose Average	1.2

*Note: Sunday service was not provided at time of ridership data collection.*

## Service Improvement Opportunities

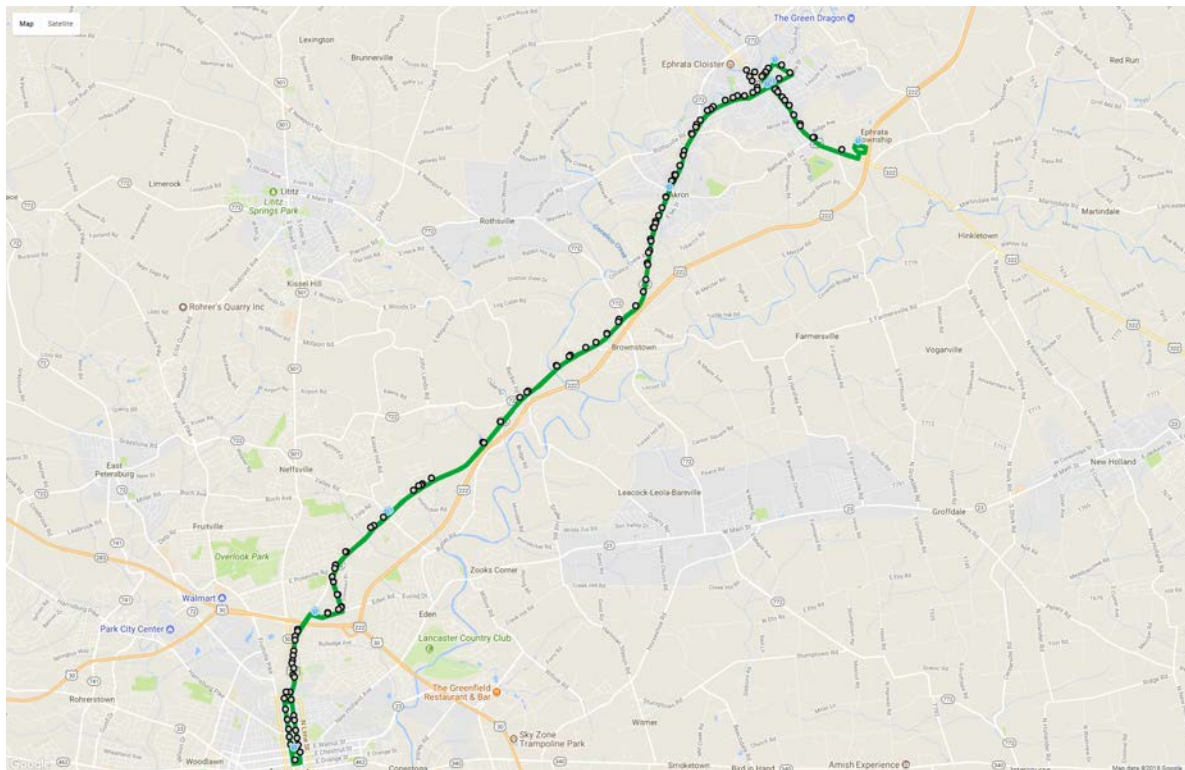
Opportunities to strengthen Route 10 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- Operate fewer trips during the AM peak (7-9 AM) and add another round trip after 5 PM to better match demand. Consider scheduling the 6:30 AM inbound trip to begin at 6 AM, as that trip's high ridership indicates there may be demand for earlier service.
- Serve Lititz (E Main Street/Oak Street/Front Street) both inbound and outbound. Currently, riders traveling inbound to Lancaster must board an outbound bus and then travel north to Tollgate Road before turning around, adding nearly three miles to their trip.
  - Alternatively, serve Lititz and Tollgate in reverse directions during the AM and PM peak, based on the prevailing flow of travel.
- There is opportunity to significantly consolidate stops, in light of very low ridership at most stops along Lititz Pike/Broad Street. Route 10 is an average of 10 miles in each direction, with an average of six scheduled stops per mile. Consolidating stops would provide faster and more consistent service for riders.
  - Consider operating Route 10 as a long-distance limited stop/express route between central Lancaster and Lititz, stopping only at key destinations along the route where most people are using the route.
- Convert Route 10 to a demand response or micro transit route. Service would provide more flexible access to jobs in the corridor and provide a higher level of service when compared to existing fixed route service.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 11

## Ephrata



## Route Overview

### Cities Served

Lancaster, Akron, Ephrata

### Major Corridors Served

Oregon Pike, Route 272, State Street, Main Street/US Route 322

### Major Activity Centers / Points of Interest

Queen Street Station, Amtrak/Greyhound Station, Lancaster Shopping Center, Eden Resort, Oregon Dairy, 222 Dutch Lanes/Park-and-Ride, Kmart/Park-and-Ride, EARS, Walmart

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	5:15 AM to 6:50 PM	30-105/75-105/—	11/11
Saturday	7:50 AM to 6:45 PM	100-185/—	5/5

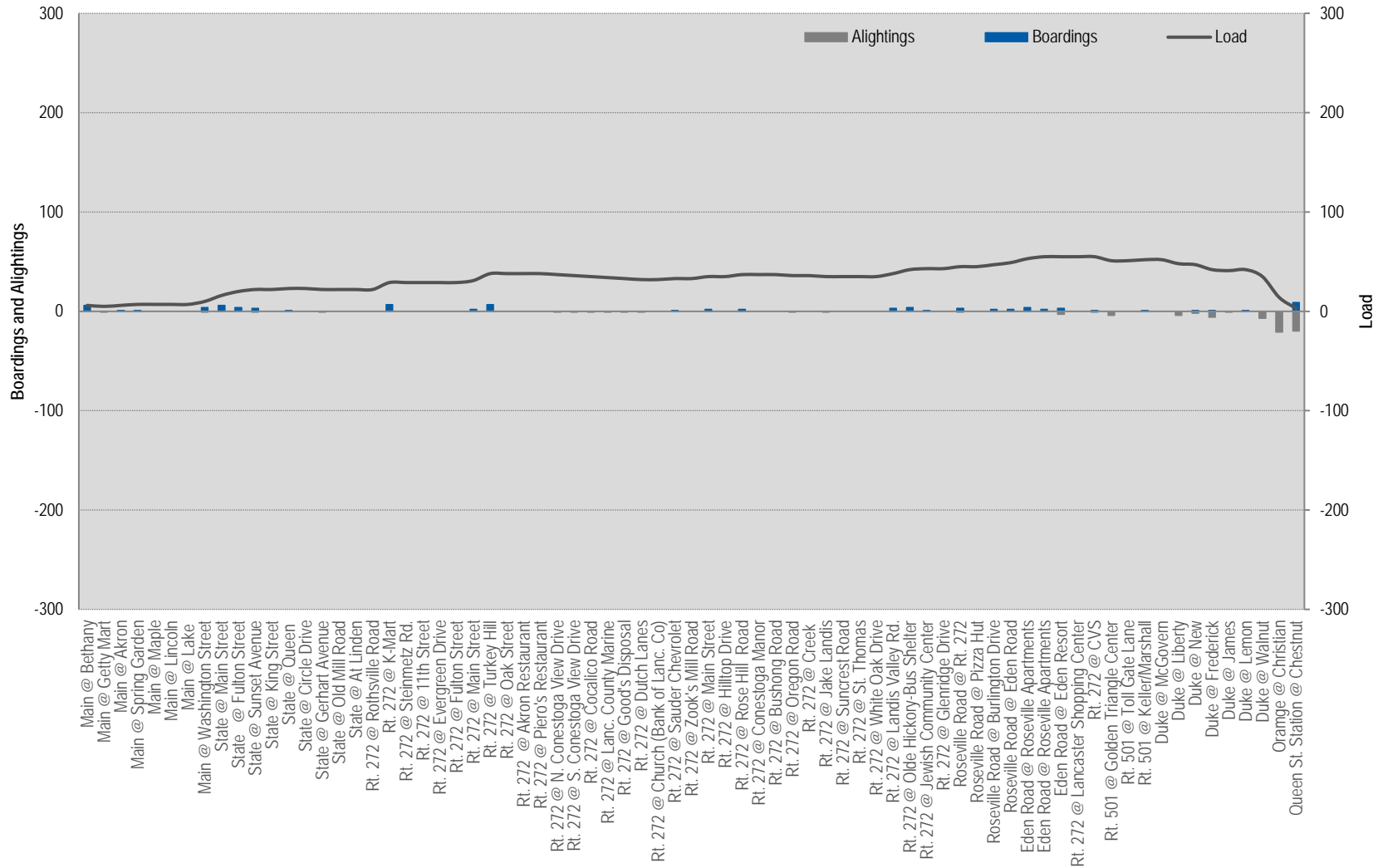
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## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

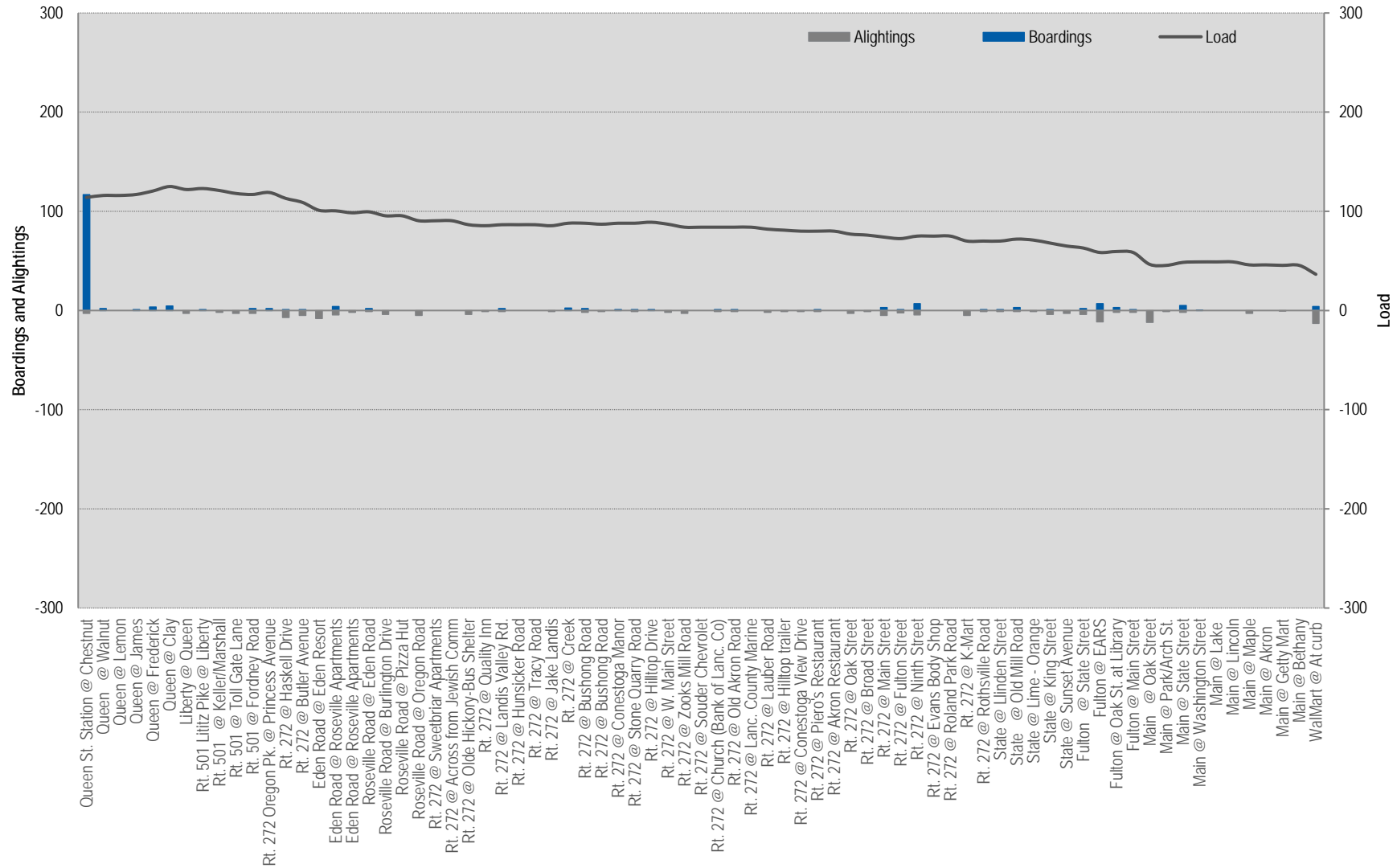
OUTBOUND STOPS	OUTBOUND ONs / OFFs	INBOUND STOPS	INBOUND ONs/OFFs
Queen St. Station @ Chestnut	117/3	Orange @ Christian	0/21
Fulton @ EARS	7/12	Queen St. Station @ Chestnut	9/20
Main @ Oak Street	0/12		
Wal-Mart	4/13		

## Daily Inbound Ridership by Stop



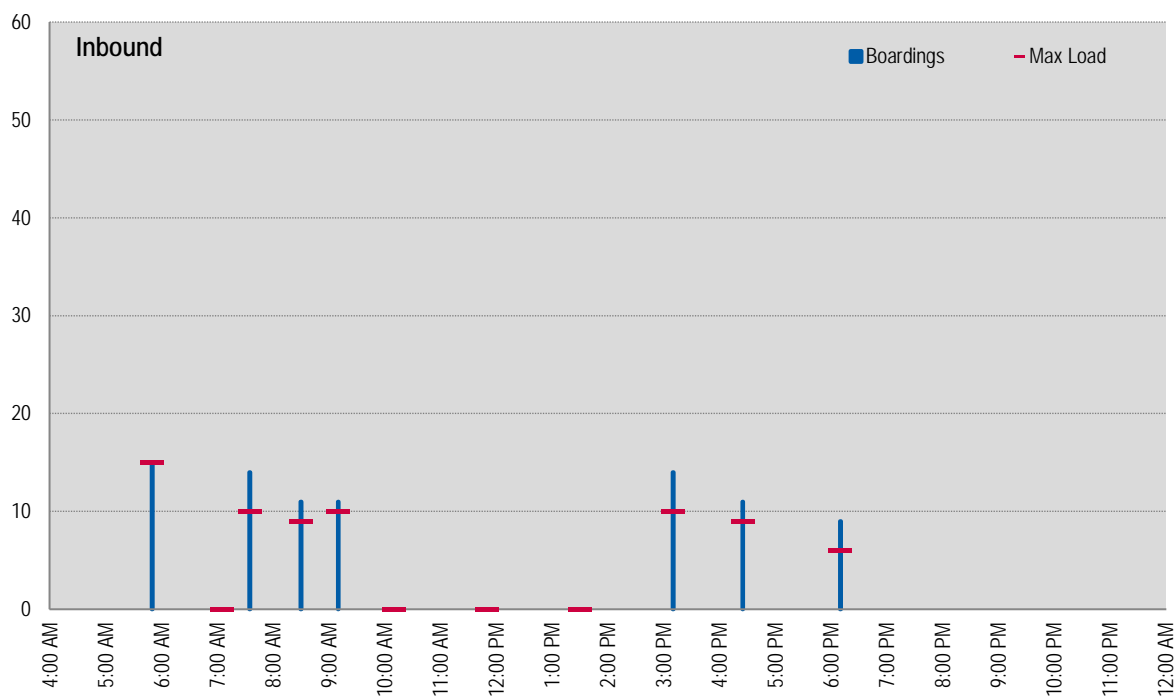


## Daily Outbound Ridership by Stop

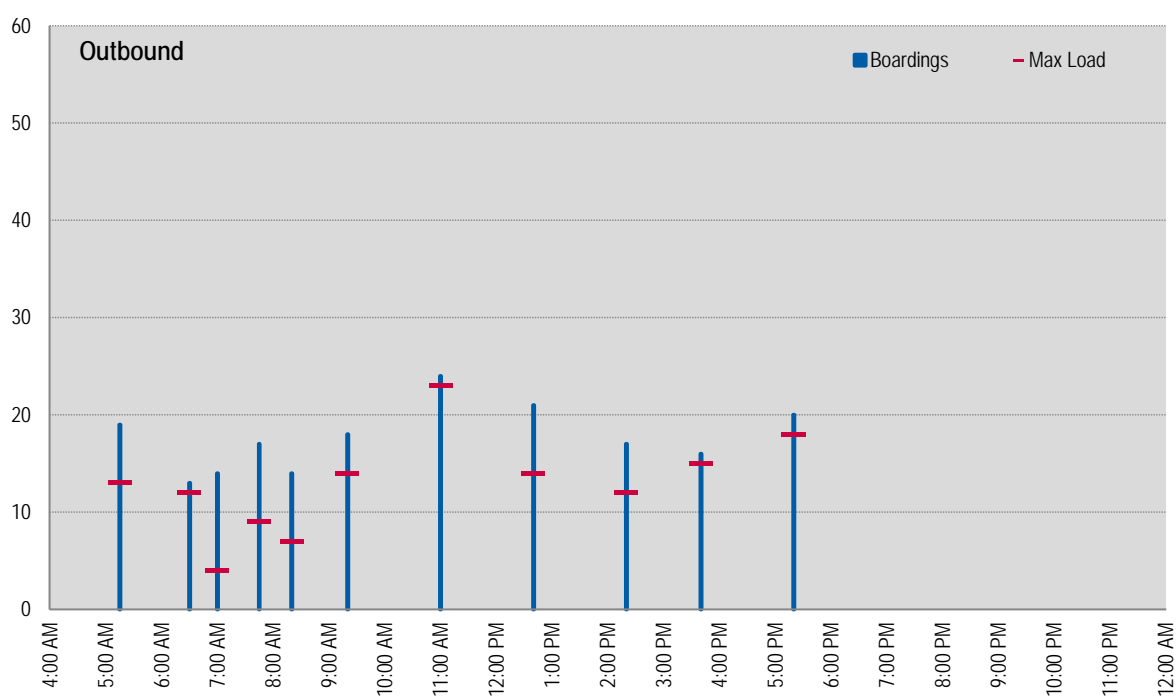


## Ridership by Trip

### Daily Inbound Ridership by Trip

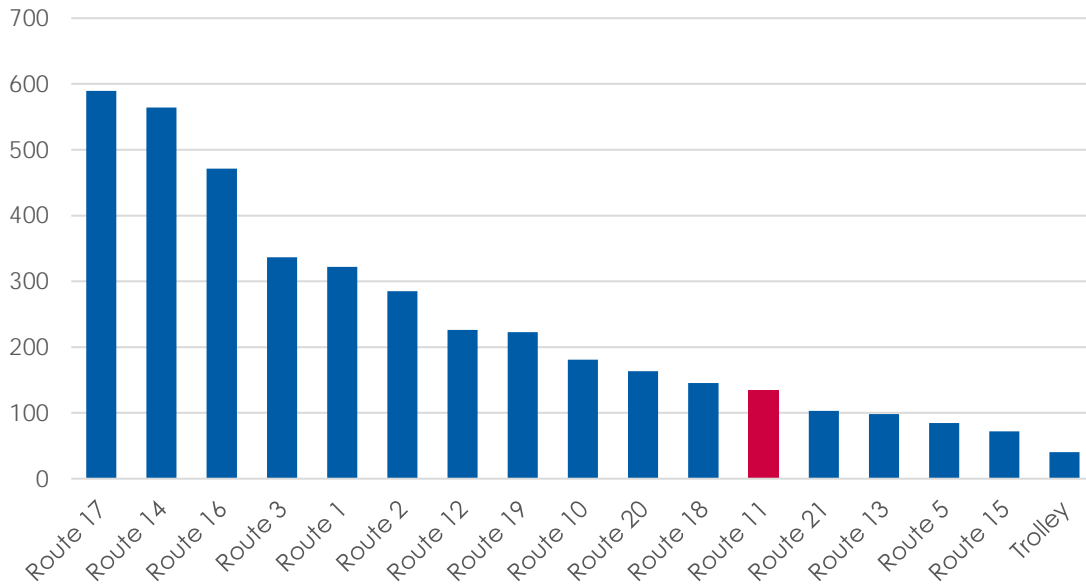


### Daily Outbound Ridership by Trip

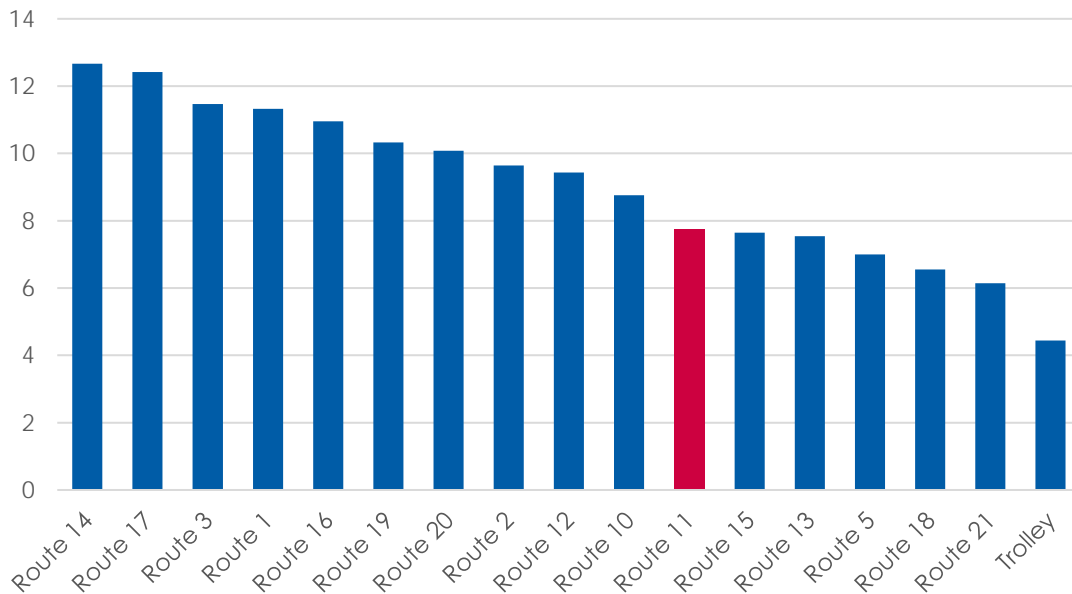


## Service Performance

Average Daily Ridership by Route



Average Daily Ridership per Revenue Hour by Route



## Productivity Statistics

	DAILY AVERAGE
<b>Average Daily Ridership</b>	<b>278</b>
<b>Pax/Revenue Hour</b>	<b>16.4</b>
Red Rose Average	15.9
<b>Pax/One-Way Trip</b>	<b>12.6</b>
Red Rose Average	10.6
<b>Pax/Revenue Mile</b>	<b>0.8</b>
Red Rose Average	1.2

*Note: Sunday service was not provided at time of ridership data collection.*

## Service Improvement Opportunities

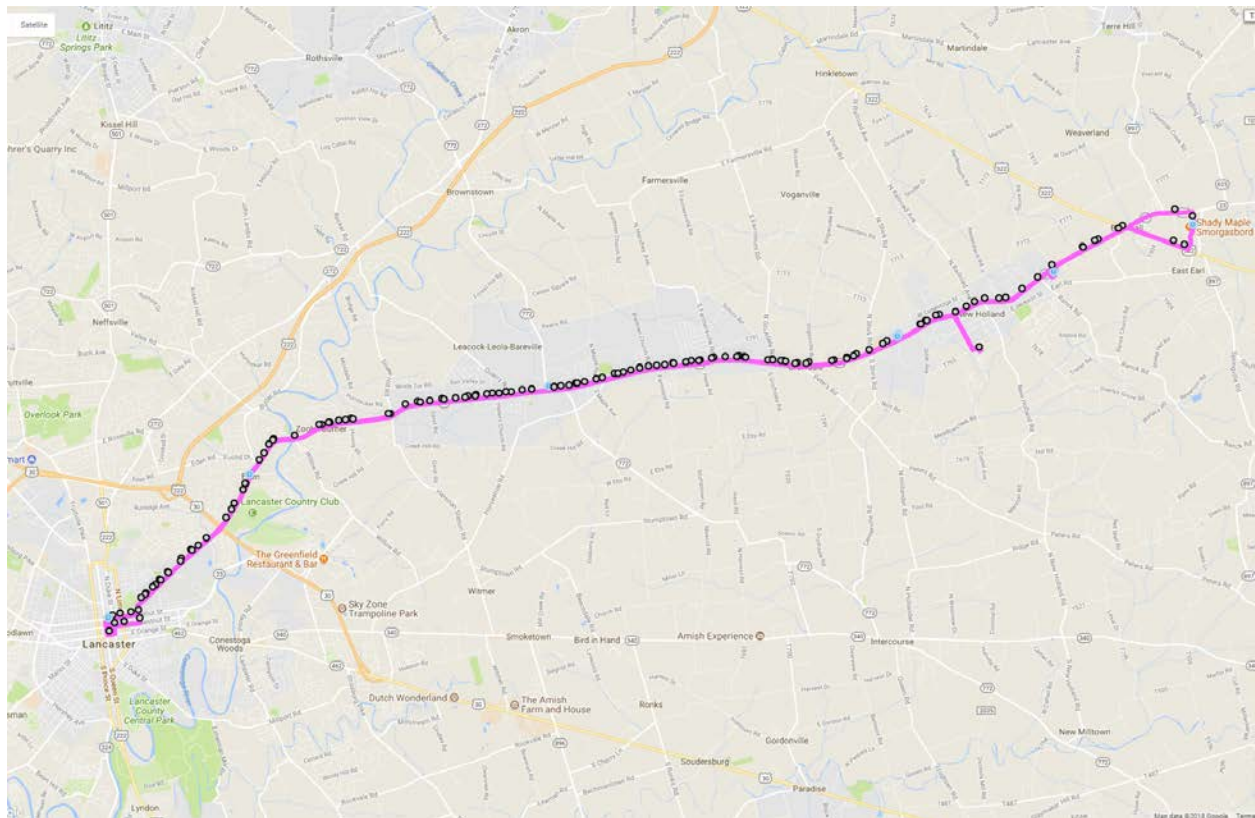
Opportunities to strengthen Route 11 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- There is significant opportunity to consolidate stops and provide a much faster trip for riders, especially along Oregon Pike and Main Street. Route 11's alignment is approximately 11.5 miles in each direction with an average of six stops per mile, and half of all stops have only one rider or no riders at all.
- Consider operating an additional midday trip and an additional trip after 5:20 PM, based on ridership patterns during the course of the day.
- Adjust AM peak frequency to better match demand. These trips have very low ridership as compared to the rest of the service, and resources from these trips may be reallocated to increase service later in the day when demand is higher.
- EARS is one of the highest ridership stops on Route 11, behind Queen Street Station and Walmart. Depending upon EARS' hours of operation and programming, there may be demand for additional service to serve EARS, which could be provided by an existing trip that does not currently operate this variant.
- Evaluate potential for park-and-ride at Walmart in Ephrata.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 12

## New Holland



## Route Overview

### Cities Served

Lancaster, Eden, Leola, New Holland, Blue Ball

### Major Corridors Served

New Holland Avenue, New Holland Pike/Route 23, Main Street

### Major Activity Centers / Points of Interest

Queen Street Station, Grandview Shopping Center, Burle Industries, Lancaster Labs, Dart, Tyson Foods, Yoder's Country Market, Shady Maple Smorgasbord

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	5:05 AM to 7:00 PM	30-75/45-110/—	14/14
Saturday	6:15 AM to 6:55 PM	105-190/—	5/5

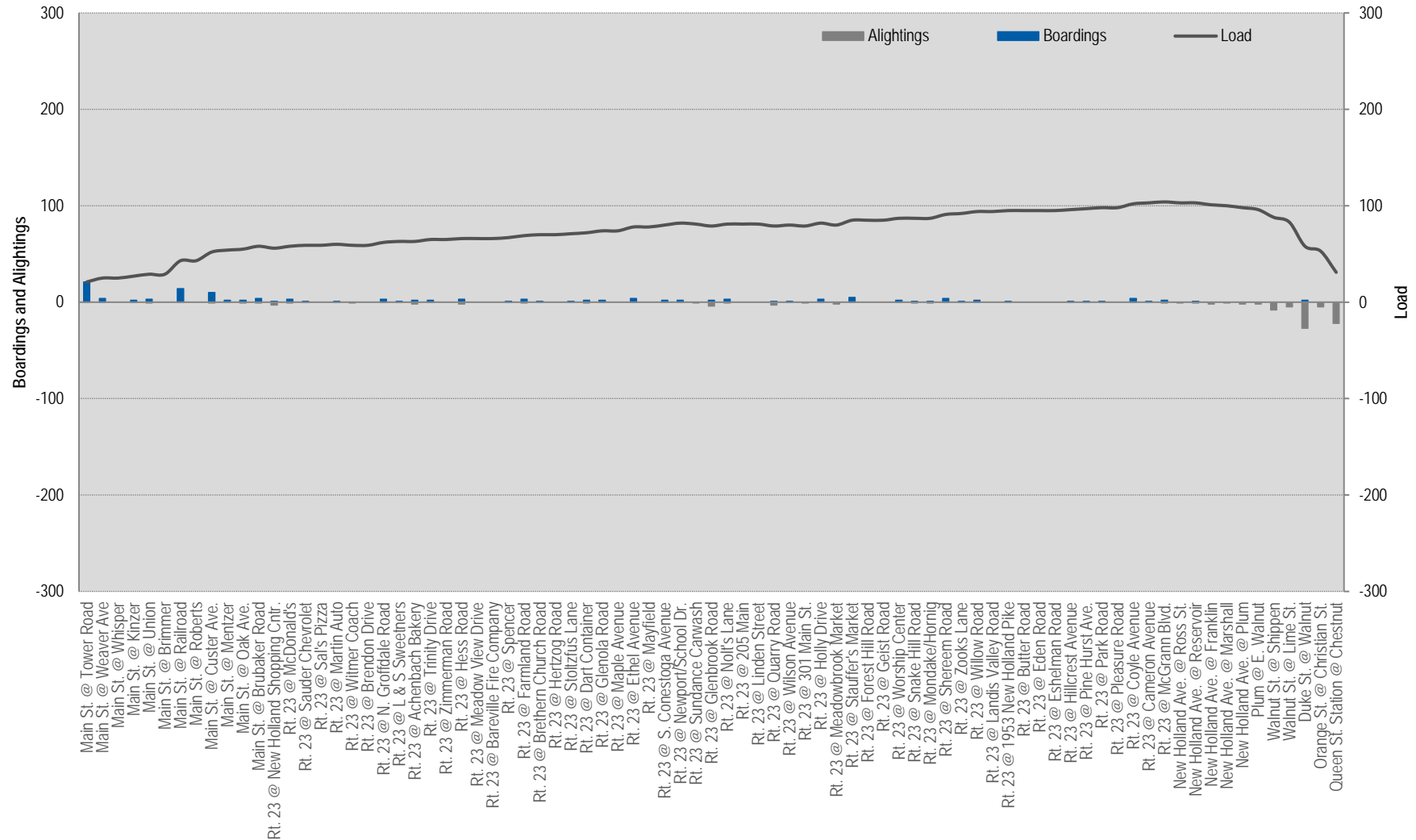
Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

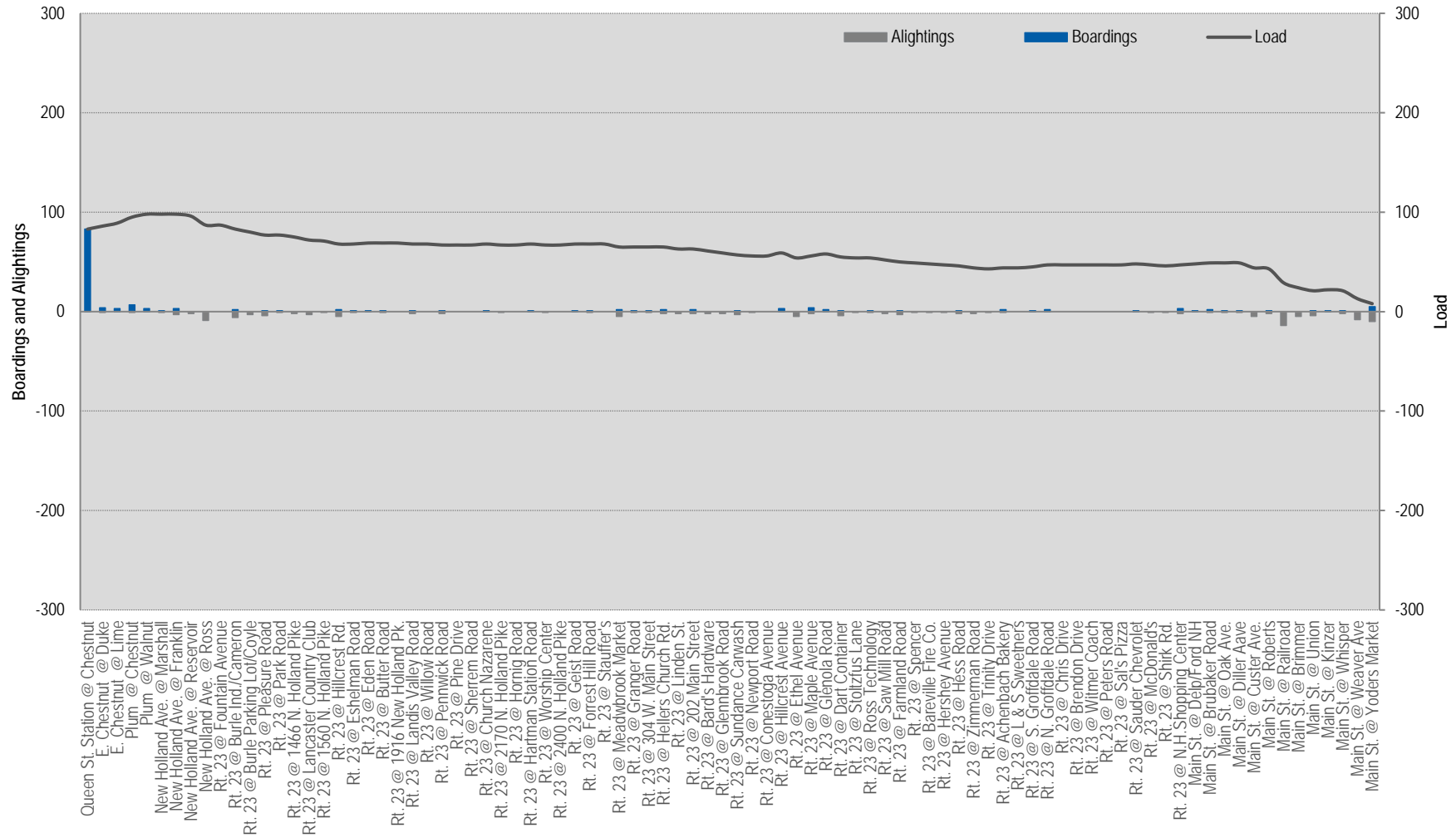
OUTBOUND STOPS	OUTBOUND ONs / OFFs	INBOUND STOPS	INBOUND ONs/OFFs
Queen St. Station @ Chestnut	83/0	Main St. @ Tower Road	21/0
Main St. @ Railroad	0/14	Main St. @ Railroad	14/0
Main St. @ Yoder's Market	5/10	Main St. @ Custer Ave.	10/1
		Duke @ Walnut	2/27
		Queen St. Station @ Chestnut	0/22

## Daily Inbound Ridership by Stop



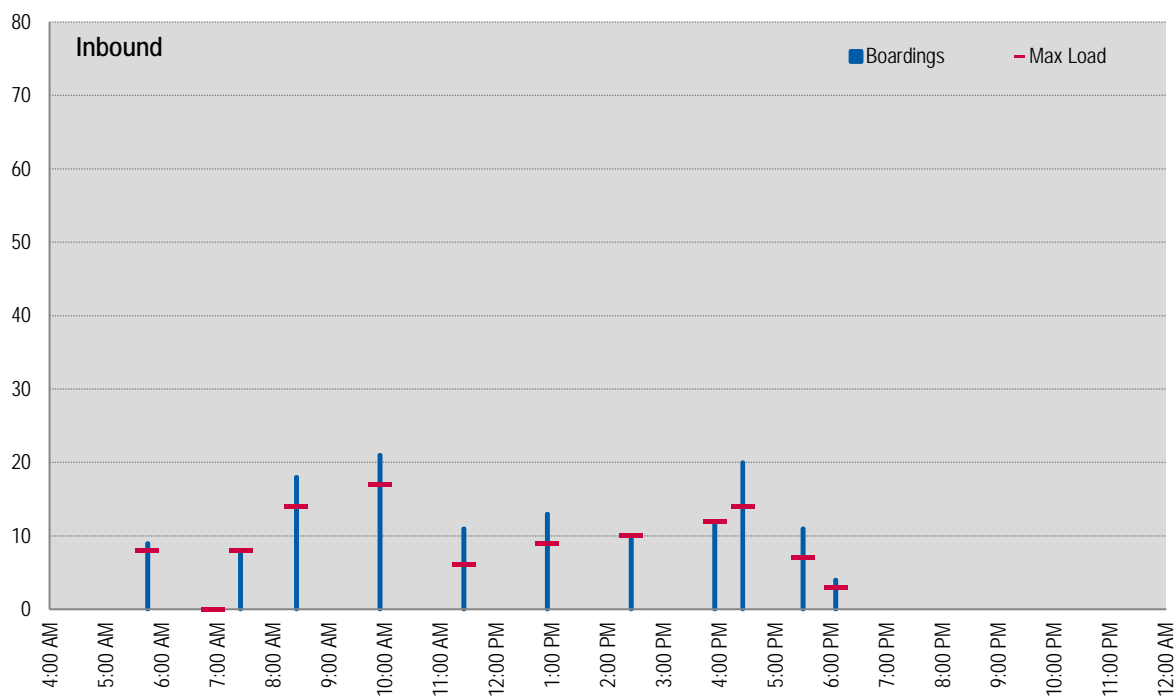


## Daily Outbound Ridership by Stop

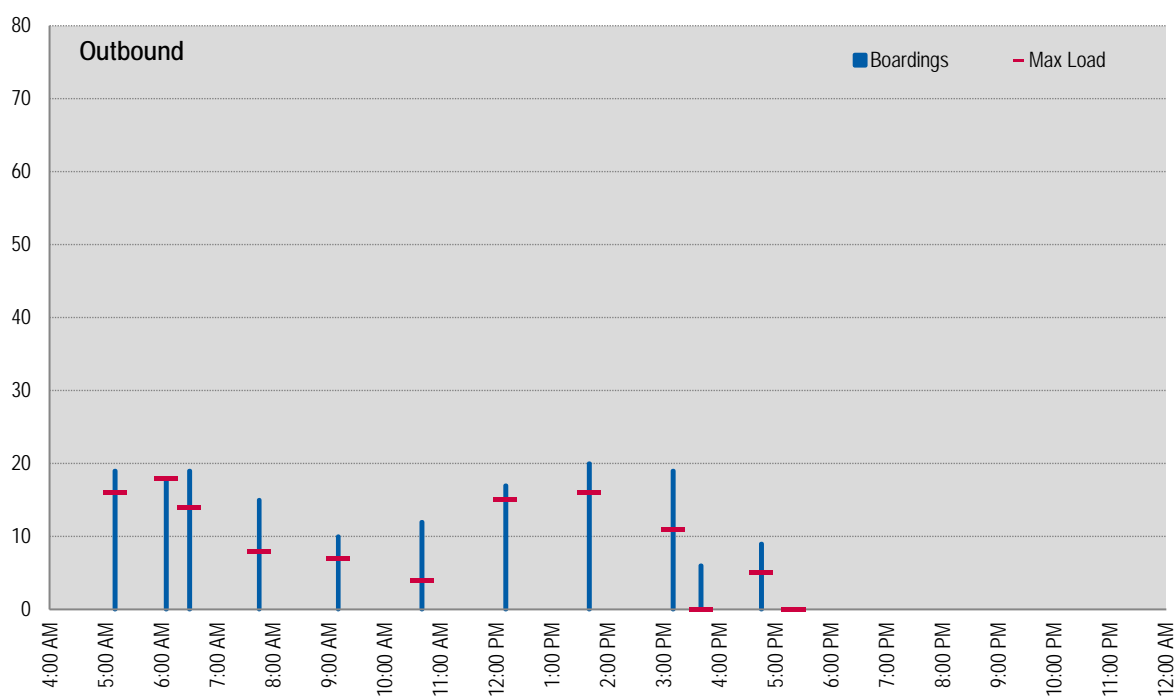


## Ridership by Trip

### Daily Inbound Ridership by Trip

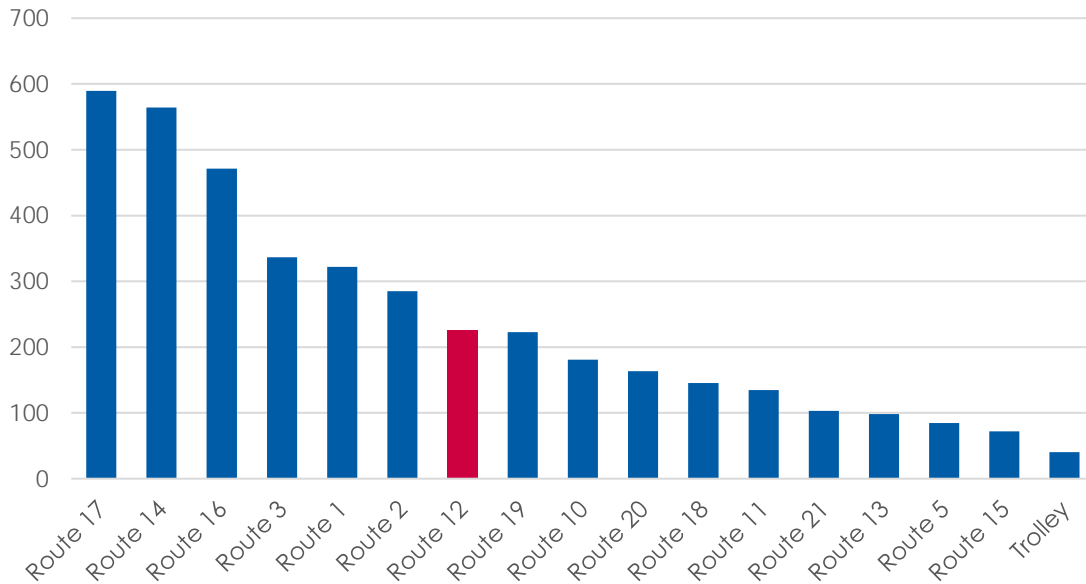


### Daily Outbound Ridership by Trip

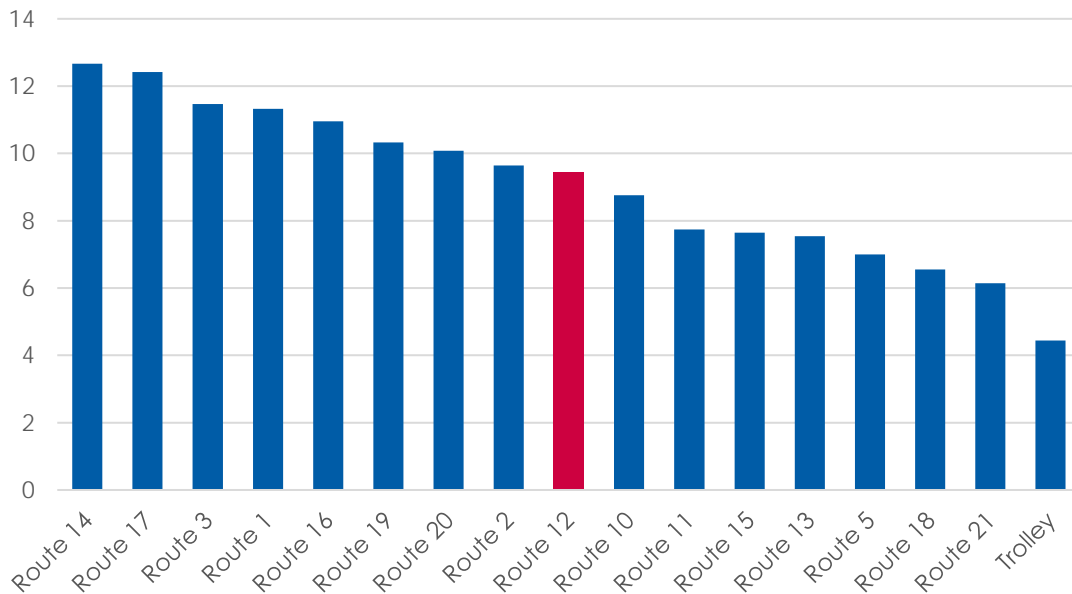


## Service Performance

### Average Daily Ridership by Route



### Average Daily Ridership per Revenue Hour by Route



## Productivity Statistics

	DAILY AVERAGE
<b>Average Daily Ridership</b>	<b>301</b>
<b>Pax/Revenue Hour</b>	<b>12.9</b>
Red Rose Average	15.9
<b>Pax/One-Way Trip</b>	<b>10.8</b>
Red Rose Average	10.6
<b>Pax/Revenue Mile</b>	<b>0.7</b>
Red Rose Average	1.2

*Note: Sunday service was not provided at time of ridership data collection.*

## Service Improvement Opportunities

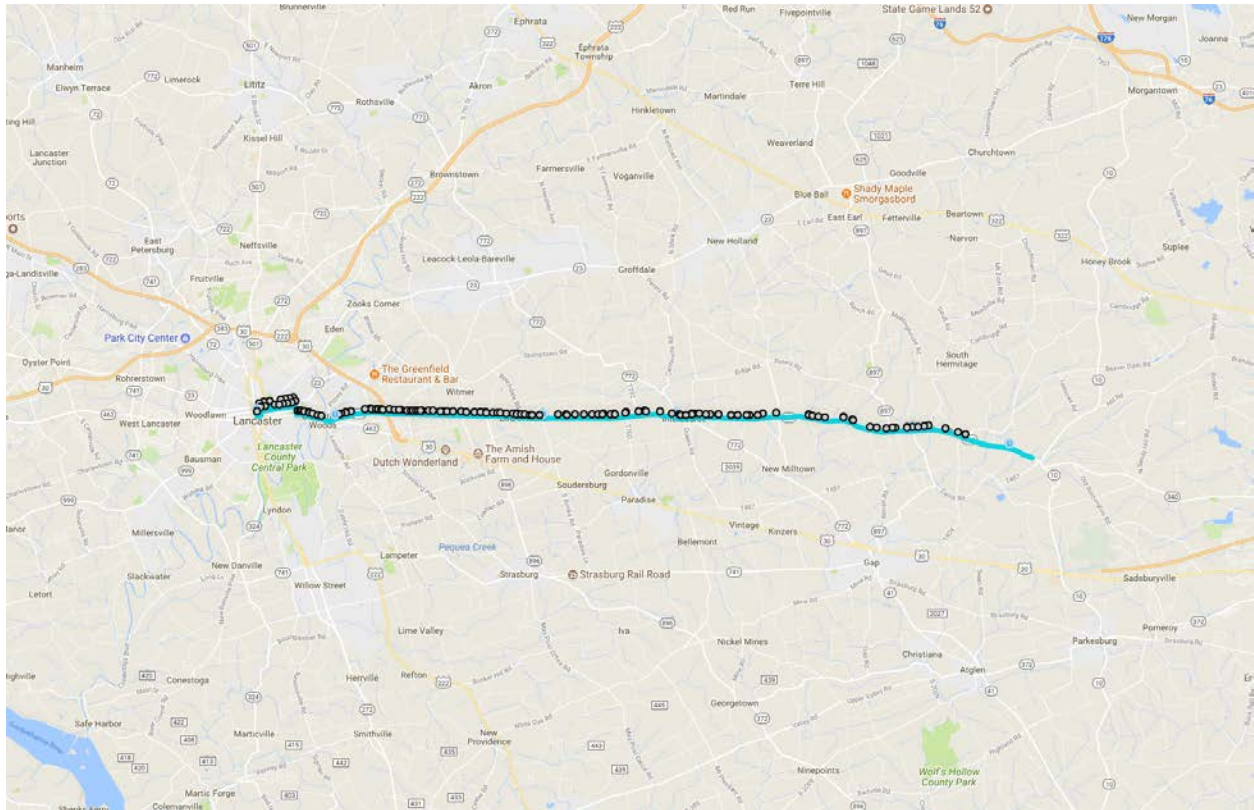
Opportunities to strengthen Route 12 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- Adjust schedules to better match late afternoon service to demand. The number of trips increases in the later afternoon, but ridership is very low. Operating fewer trips would match demand while making resources available for other service needs in the system.
- There is significant opportunity to consolidate stops and provide a much faster trip for riders. Route 12's alignment is approximately 15 miles in each direction with between five and six stops per mile, and one third of all stops have just one rider or no riders at all. Consider operating Route 12 as a long-distance limited stop/express route, stopping only at key destinations where most people are using the route.
- Identify opportunities to locate park-and-ride facilities along the route.
- Serve Tyson Foods with vanpool or other shared ride service that is coordinated with employee shift schedules and provides more direct service to and from the site.
- Collect ridership data for trips that serve the extension to Shady Maple Smorgasbord, as data was not collected for these stops previously.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 13

White Horse



## Route Overview

### Cities Served

Lancaster, Bridgeport, Bird-In-Hand, Intercourse, White Horse

### Major Corridors Served

King Street, Old Philadelphia Pike/Route 340

### Major Activity Centers / Points of Interest

Binns Park, Stevens College of Technology, Harrisburg Area Community College (HACC) – Lancaster Campus, Pennsylvania Department of Health, Bird-In-Hand Farmers Market

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	5:30 AM to 6:35 PM	60-110/95-170/—	8/8
Saturday	6:30 AM to 5:15 PM	3 trips	3/3

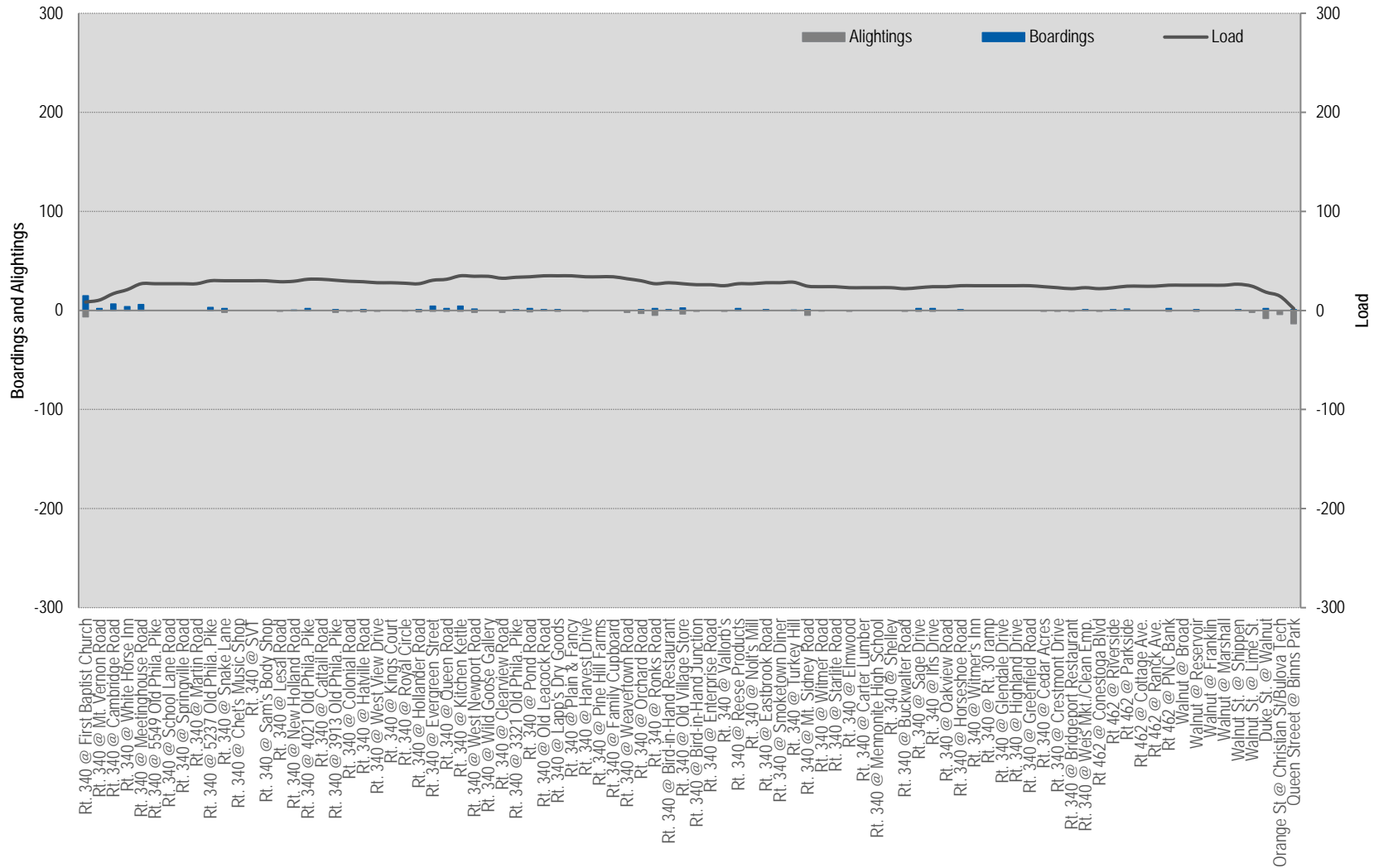
Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

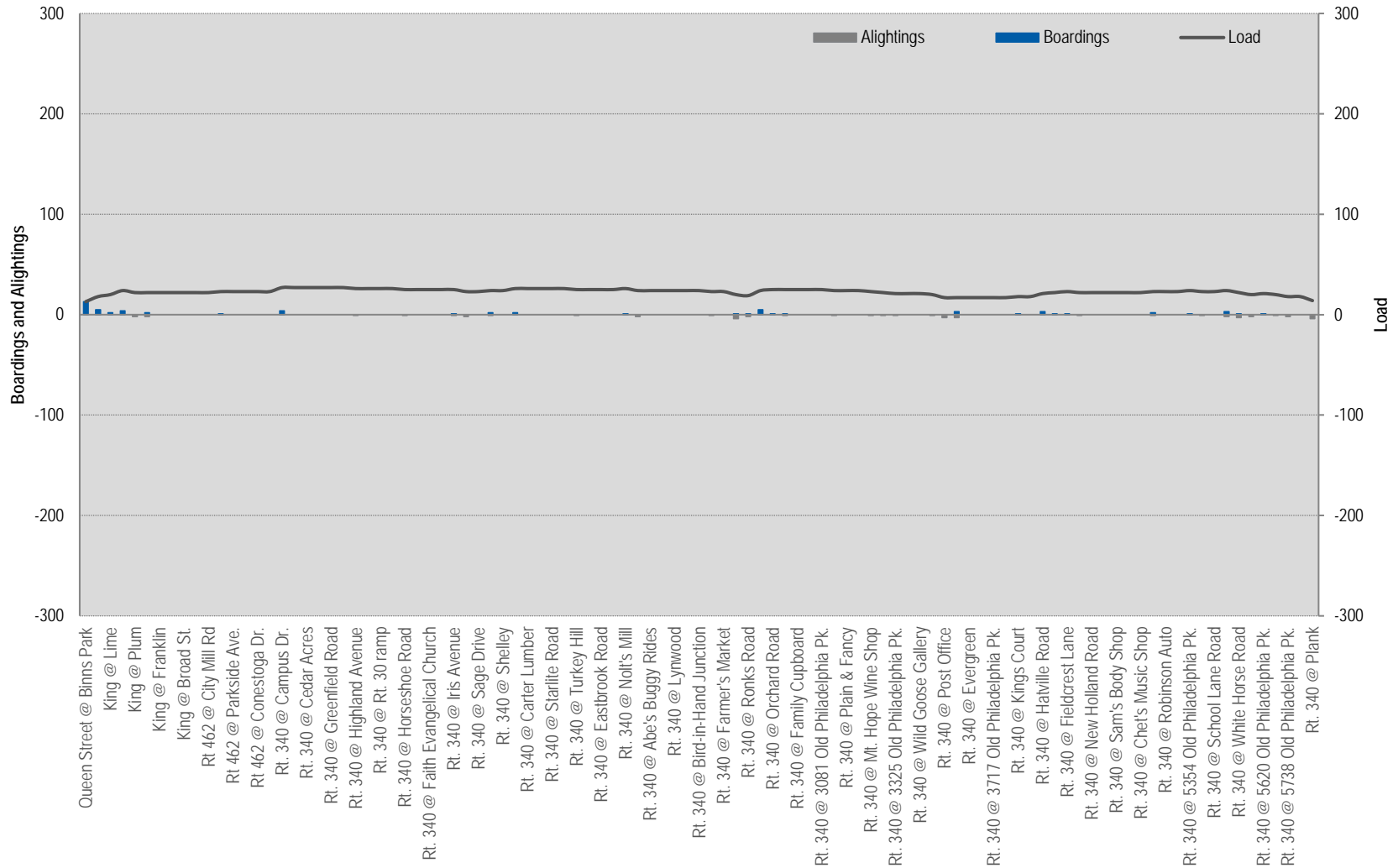
OUTBOUND STOPS	OUTBOUND ONs / OFFs	INBOUND STOPS	INBOUND ONs/OFFs
Queen Street @ Binns Park	13/0	Rt. 340 @ First Baptist Church	15/7
		Queen Street @ Binns Park	1/14

## Daily Inbound Ridership by Stop



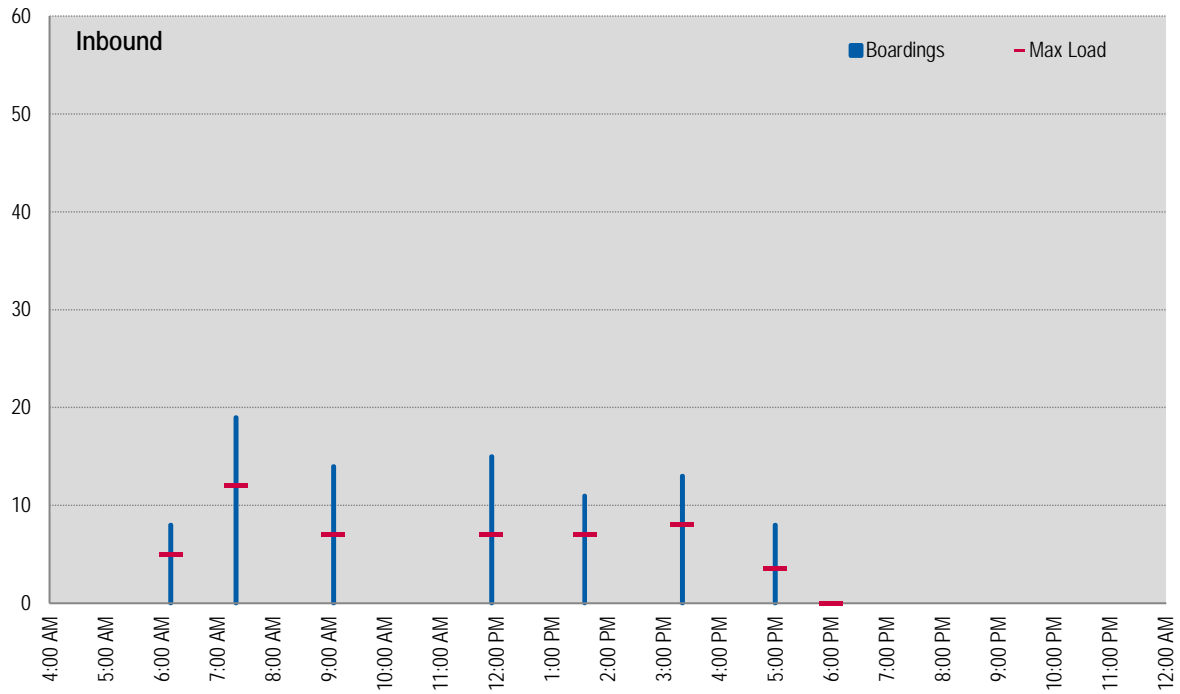


## Daily Outbound Ridership by Stop

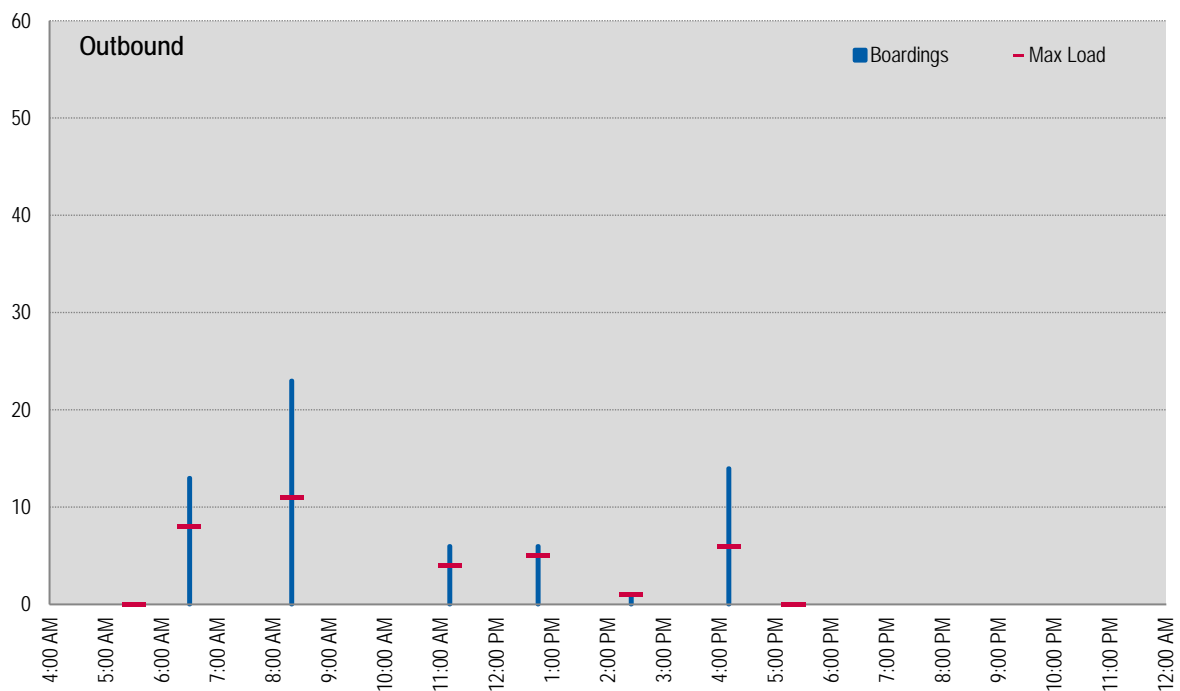


## Ridership by Trip

### Daily Inbound Ridership by Trip

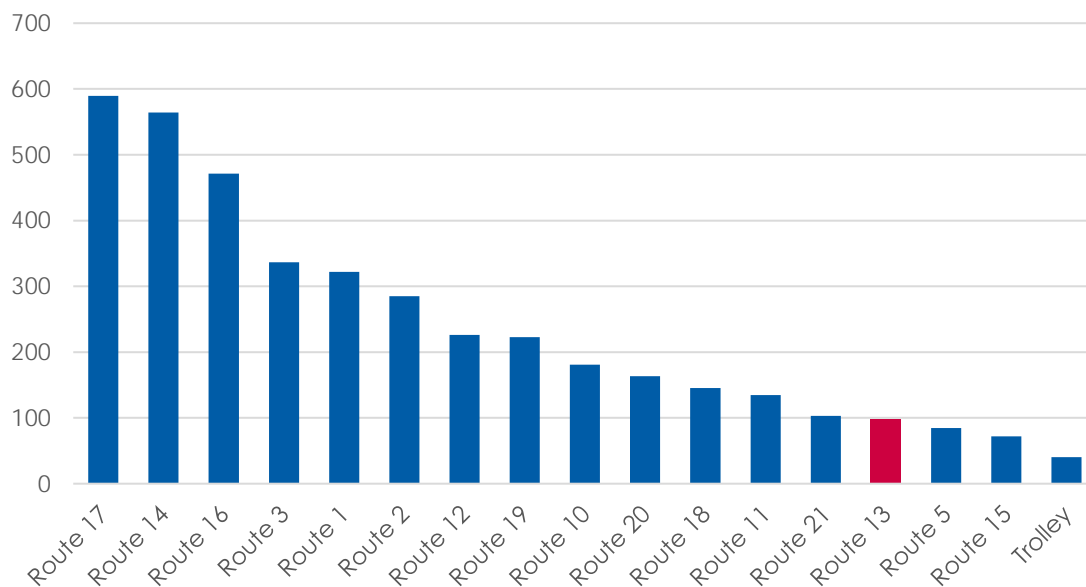


### Daily Outbound Ridership by Trip

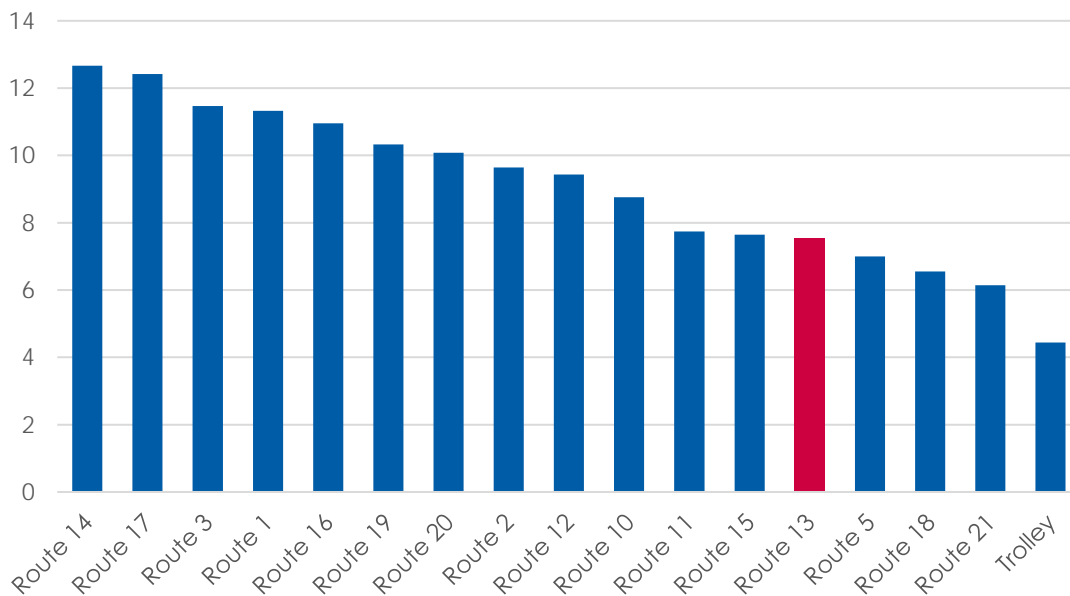


## Service Performance

### Average Daily Ridership by Route



### Average Daily Ridership per Revenue Hour by Route



## Productivity Statistics

	DAILY AVERAGE
<b>Average Daily Ridership</b>	<b>151</b>
<b>Pax/Revenue Hour</b>	<b>11.9</b>
Red Rose Average	15.9
<b>Pax/One-Way Trip</b>	<b>9.4</b>
Red Rose Average	10.6
<b>Pax/Revenue Mile</b>	<b>0.5</b>
Red Rose Average	1.2

*Note: Sunday service was not provided at time of ridership data collection.*

## Service Improvement Opportunities

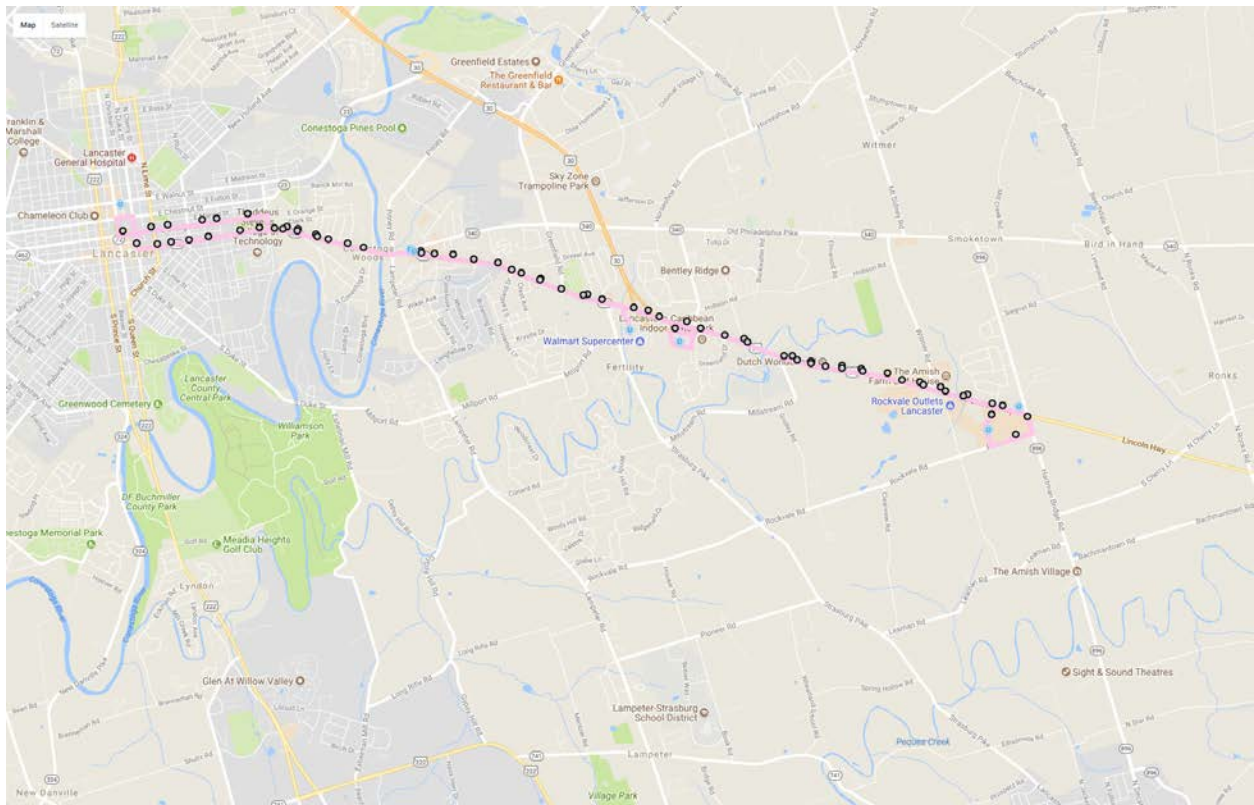
Opportunities to strengthen Route 13 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- There is significant opportunity to consolidate stops and provide a much faster trip for riders. Route 13's alignment is approximately 19 miles in each direction, and 70% of all stops have just one rider or no riders at all. Consider operating Route 13 as a long-distance limited stop/express route, stopping only at key destinations where most people are using the route.
- Adjust schedule to better match demand. Operate two AM peak trips, two midday trips, and two PM peak trips.
- Identify opportunities to locate park-and-ride facilities along the route.
- Discontinue Route 13. Ridership is very low along the entirety of the route, and resources from this very long route may be better invested elsewhere in the system. Areas served by Route 13 may be better served by demand-response or other type of service to provide access more efficiently.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 14

Rockvale Square



## Route Overview

### Cities Served

Lancaster

### Major Corridors Served

King Street, Lincoln Highway/US Route 30

### Major Activity Centers / Points of Interest

Queen Street Station, Stevens College of Technology, Walmart/Park-and-Ride, East Towne Centre, Tanger Outlets, Dutch Wonderland, Quality Outlet Shopping Center, Rockvale Outlets

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	5:40 AM to 10:40 PM	25/25/35-70	35/35
Saturday	6:30 AM to 10:40 PM	25/35-70	33/33
Sunday	7:20 AM to 6:45 PM	60-70/45	13/13

Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

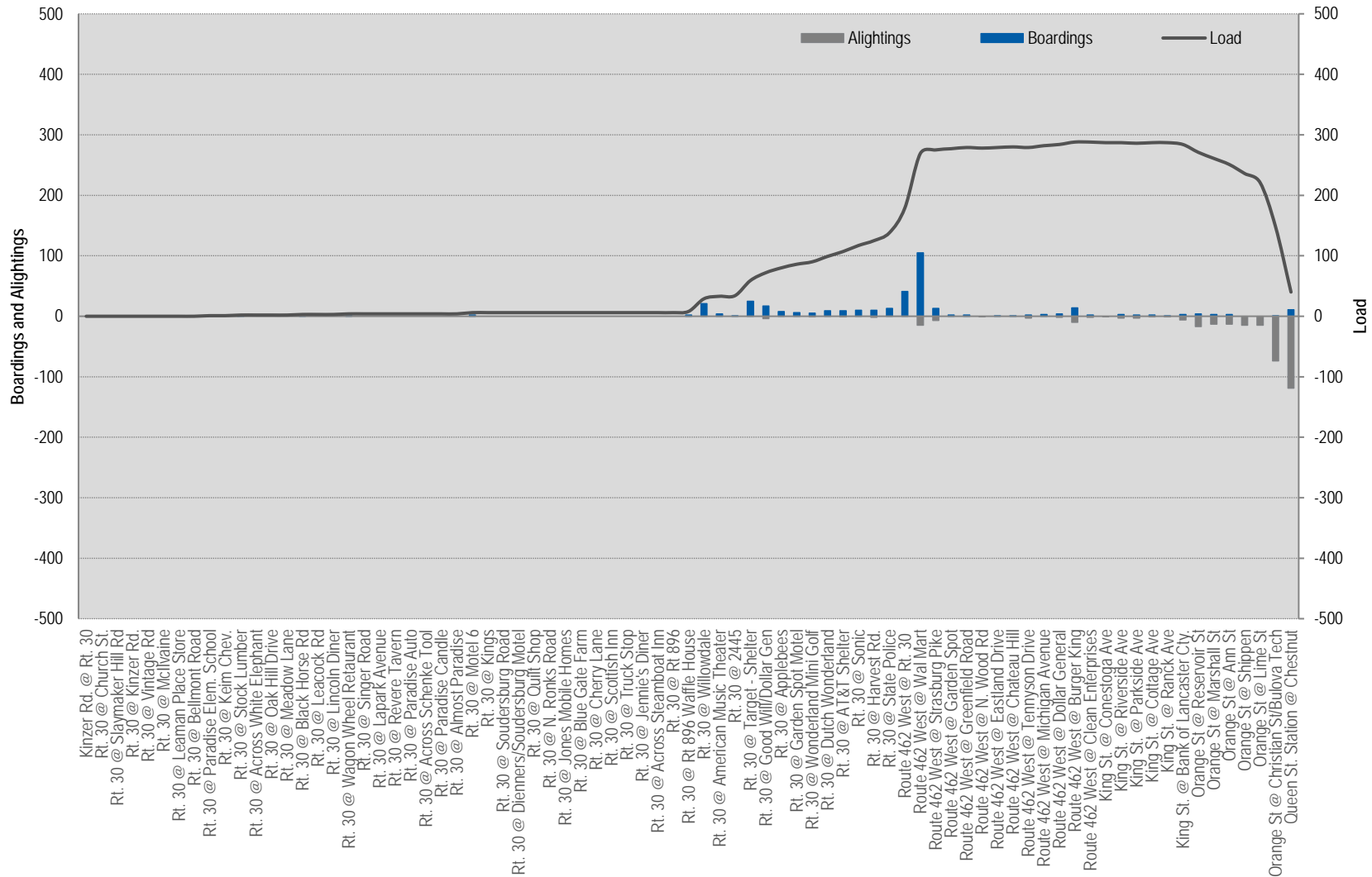
## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

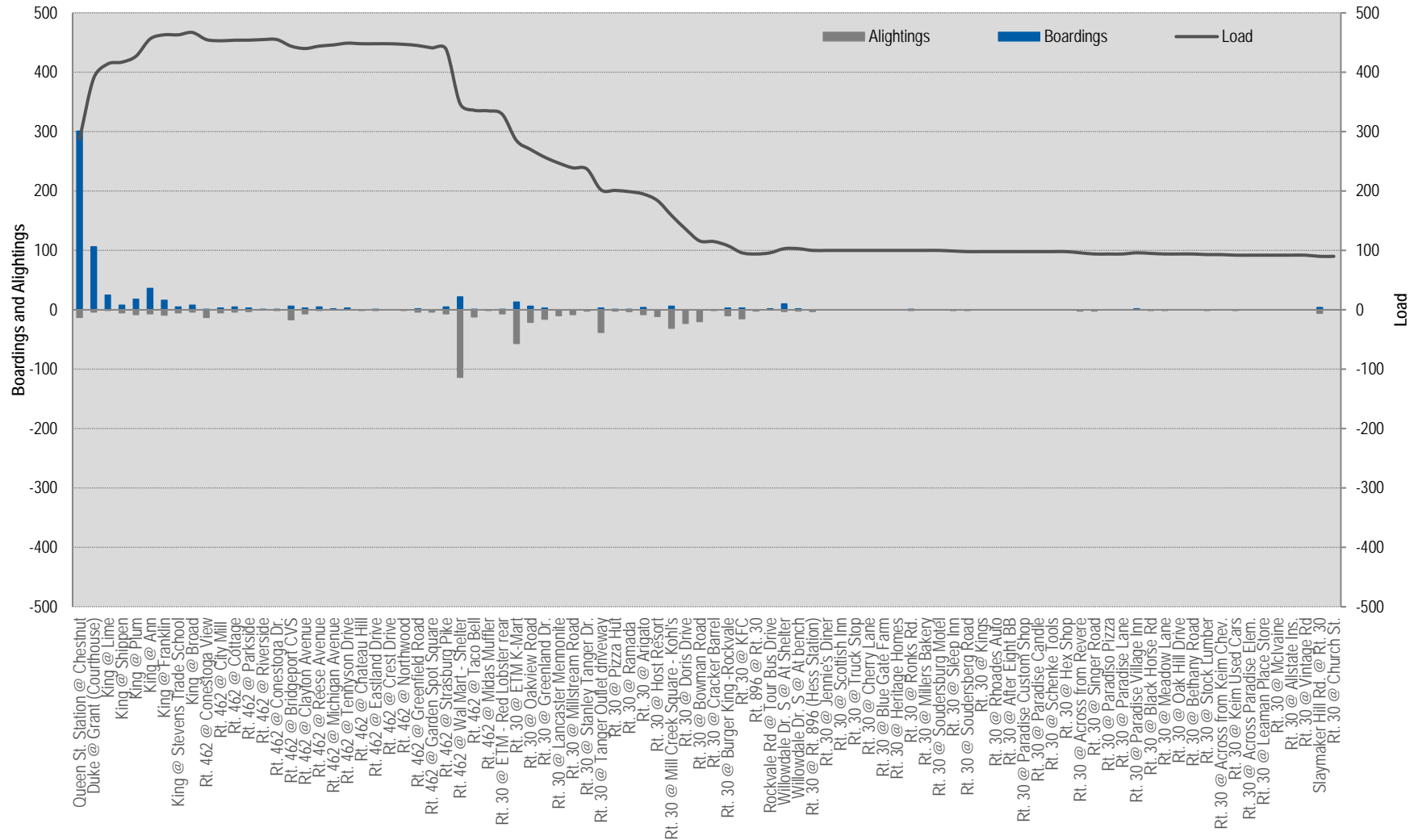
INBOUND STOPS	INBOUND ONs / OFFs	OUTBOUND STOPS	OUTBOUND ONs / OFFs
Rt. 30 @ Willowdale	21/0	Queen Street Station	301/13
Rt. 30 @ Target	25/0	Duke @ Grant (Courthouse)	106/4
Rt. 30 @ Goodwill/Dollar General	17/4	King @ Lime	25/1
Rt. 30 @ AT&T Shelter	9/1	King @ Shippen	8/5
Rt. 30 @ Sonic	10/0	King @ Plum	18/8
Rt. 30 @ Harvest Rd.	10/2	King @ Ann	36/7
Rt. 30 @ State Police	13/0	King @ Franklin	16/9
Route 462 West @ Rt. 30	41/0	King @ Stevens Trade School	5/5
Route 462 West @ Walmart	105/15	King @ Broad	8/4
Route 462 West @ Strasburg Pike	13/7	Rt. 462 @ Conestoga View	1/13
Route 462 West @ Burger King	14/10	Rt. 462 @ Bridgeport CVS	6/17
Orange St @ Reservoir St	4/17	Rt. 462 @ Strasburg Pike	5/7
Orange St @ Marshall St	3/13	Rt. 462 @ Walmart	22/114
Orange St @ Ann St	3/13	Rt. 462 @ Taco Bell	1/12
Orange St @ Shippen	0/15	Rt. 30 @ ETM K-Mart	13/57
Orange St @ Lime St	0/15	Rt. 30 @ Oakview Road	6/21
Orange St @ Christian St/Bulova Tech	1/74	Rt. 30 @ Greenland Dr.	3/16
Queen St. Station @ Chestnut	11/119	Rt. 30 @ Lancaster Mennonite	0/10
		Rt. 30 @ Tanger Outlet	3/38
		Rt. 30 @ Host Resort	0/11
		Rt. 30 @ Mill Creek Sq - Kohl's	6/31
		Rt. 30 @ Doris Drive	0/23
		Rt. 30 @ Bowman Road	0/20
		Rt. 30 @ Burger King -Rockvale	3/10
		Rt. 30 @ KFC	3/15
		Willowdale St. S @ Shelter	10/3
		Slaymaker Hill Rd. @ Rt. 30	4/6



## Daily Inbound Ridership by Stop

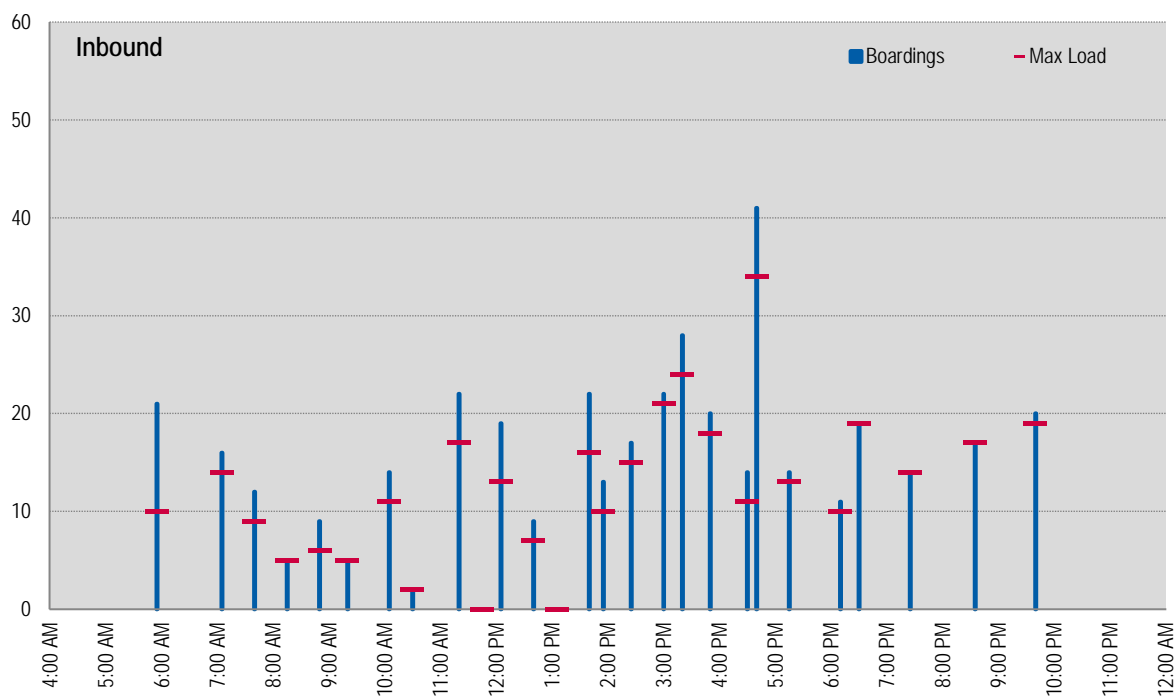


## Daily Outbound Ridership by Stop

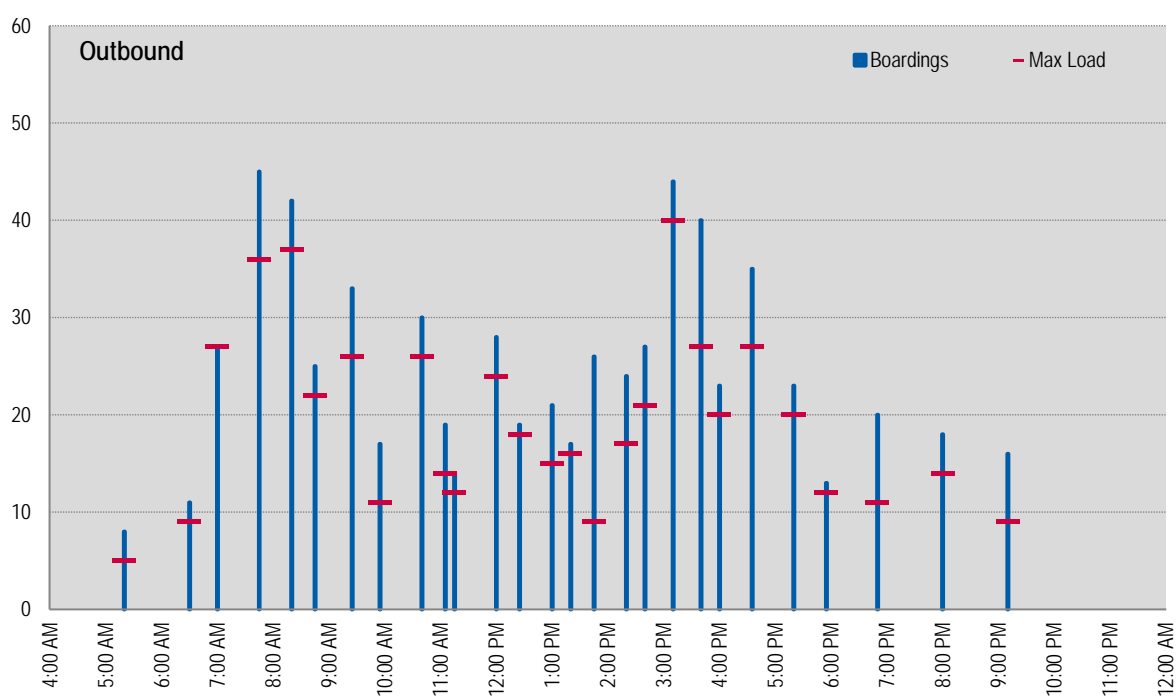


## Ridership by Trip

### Daily Inbound Ridership by Trip

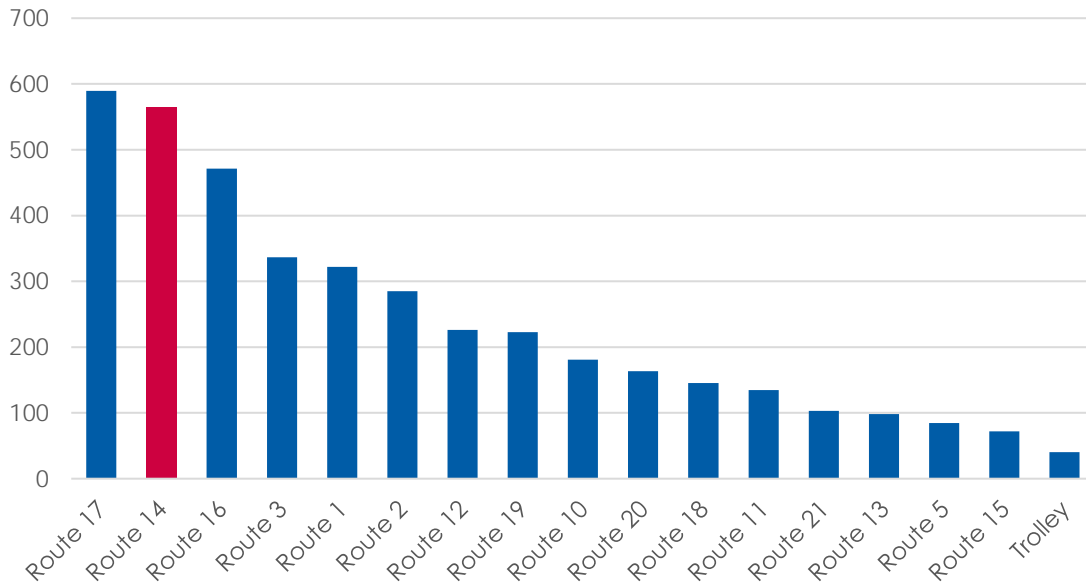


### Daily Outbound Ridership by Trip

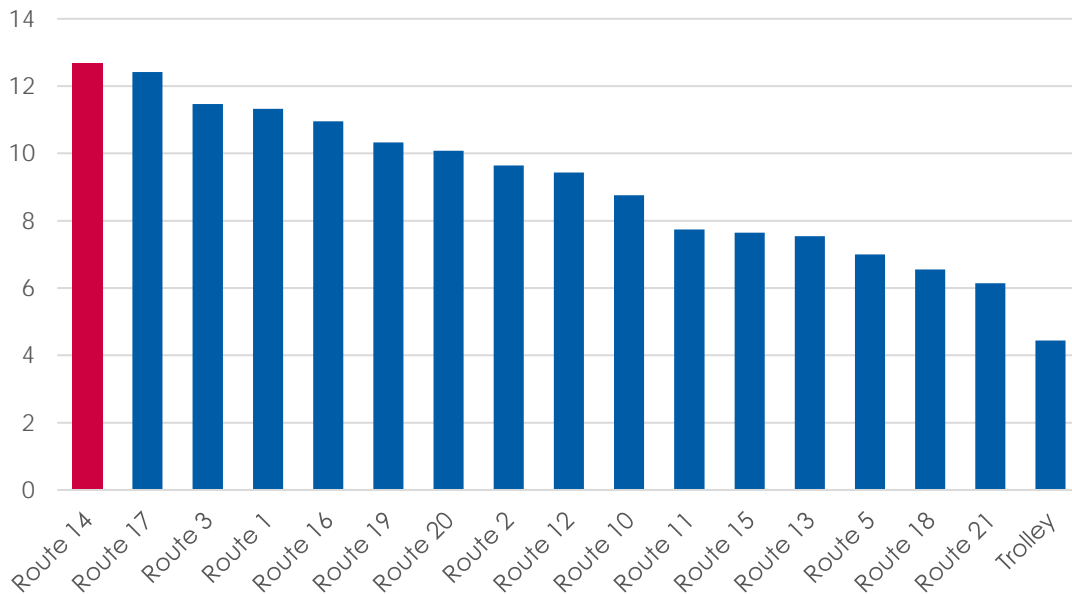


## Service Performance

Average Daily Ridership by Route



Average Daily Ridership per Revenue Hour by Route



## Productivity Statistics

	DAILY AVERAGE
<b>Average Daily Ridership</b>	<b>1,021</b>
<b>Pax/Revenue Hour</b>	<b>23.5</b>
Red Rose Average	15.9
<b>Pax/One-Way Trip</b>	<b>14.6</b>
Red Rose Average	10.6
<b>Pax/Revenue Mile</b>	<b>1.9</b>
Red Rose Average	1.2

*Note: Sunday service was not provided at time of ridership data collection.*

## Service Improvement Opportunities

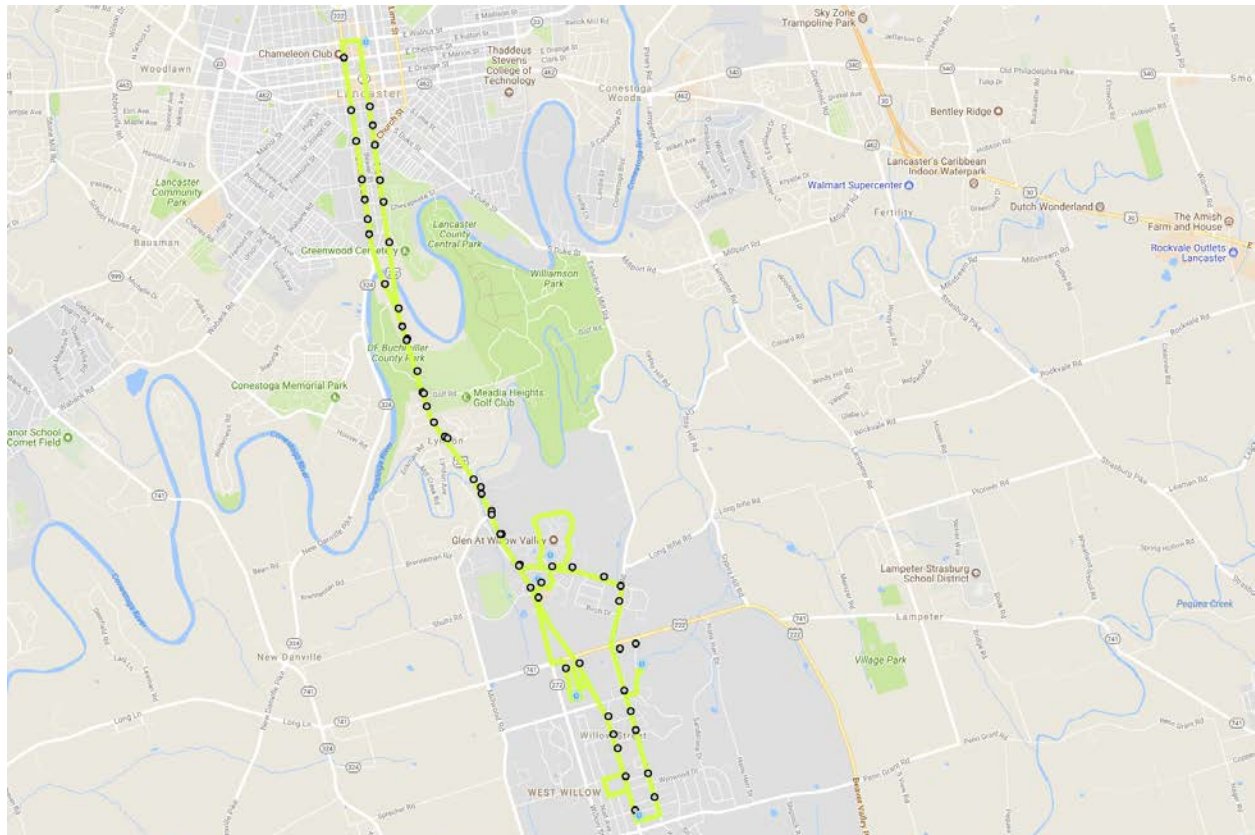
Opportunities to strengthen Route 14 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route. *(Note: According to published schedules, Route 14 no longer operates service between Rockvale Outlets and Kinzers.)*

- Operate 15-minute service throughout the day and 30-minute service in the evening on weekdays and Saturdays to better match demand.
- Operate 30-minute or hourly service throughout the day on Sundays to provide consistent clockface headways.
- Relatively high demand on later trips indicates there may be demand for later service. Consider adding a 10 PM trip to provide additional evening service.
- Consolidate stops, particularly along Route 462 West, to improve reliability and travel time for riders.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 15

## Willow Street



## Route Overview

### Cities Served

Lancaster, Lyndon, Willow Street

### Major Corridors Served

Prince/Queen Streets, Highland Avenue, Willow Street Pike (Route 222/Route 272)

### Major Activity Centers / Points of Interest

Queen Street Station, Kendig Square/Kmart, Willow Valley Manor, Willow Valley Square/Park-and-Ride, Lancaster General Hospital – Willow Lakes

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (LOOP)
Monday-Friday	5:50 AM to 6:10 PM	40-60/120/—	10
Saturday	8:20 AM to 4:20 PM	60-120/—	8

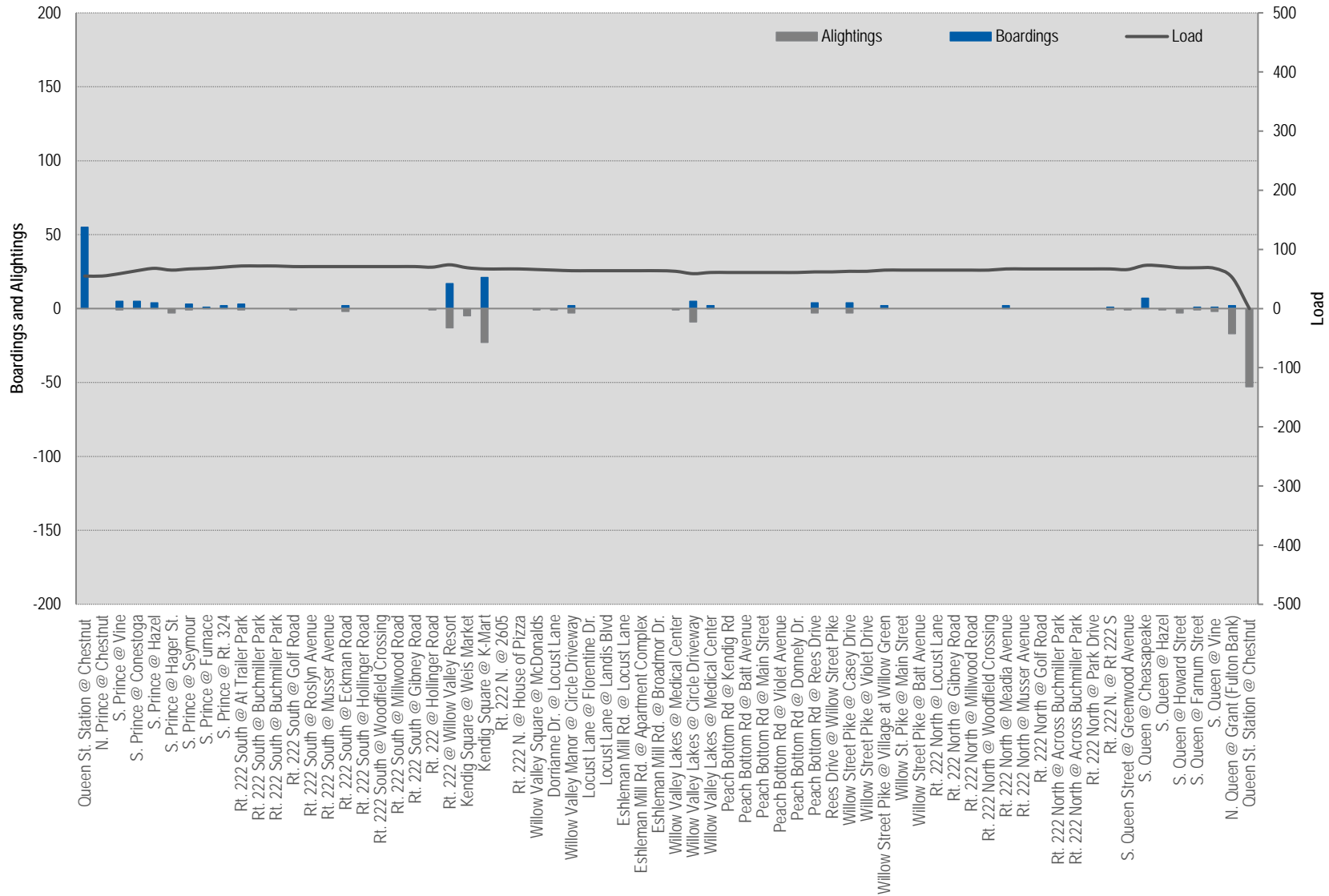
Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

STOPS	LOOP ONs / OFFs
Queen St. Station @ Chestnut	55/0
Kendig Square @ K-Mart	21/23
Rt. 222 @ Willow Valley Resort	17/13
N. Queen @ Grant (Fulton Bank)	2/17
Willow Valley Lakes @ Circle Driveway	5/9

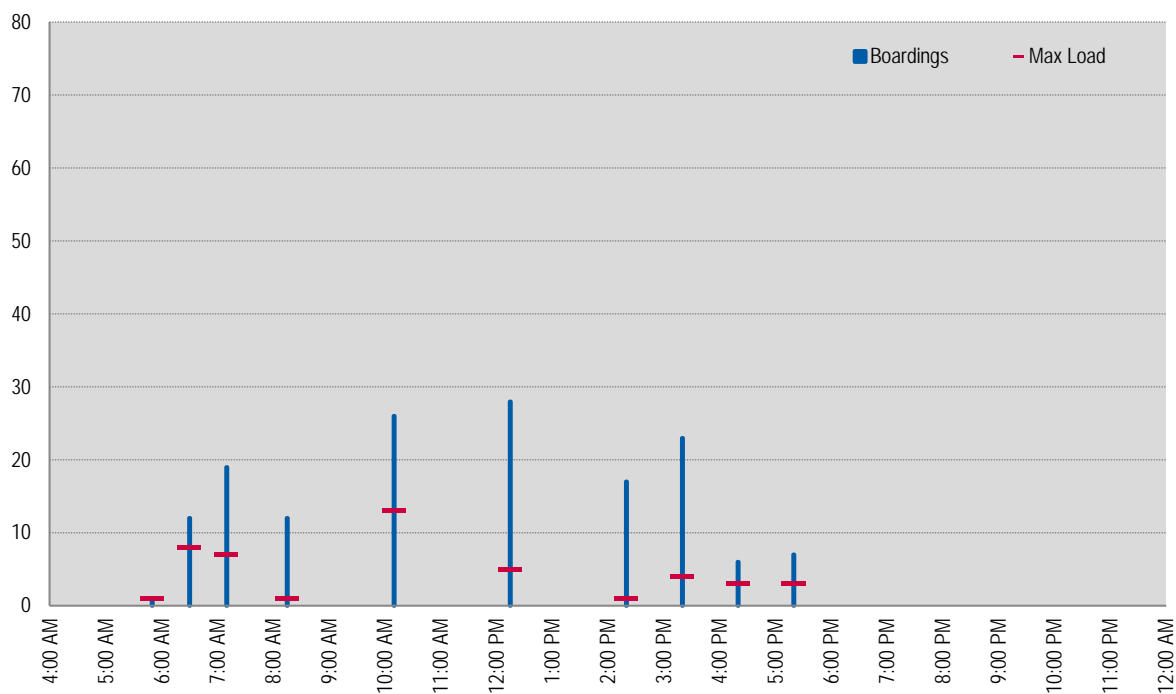
## Daily Ridership by Stop





## Ridership by Trip

### Daily Ridership by Trip



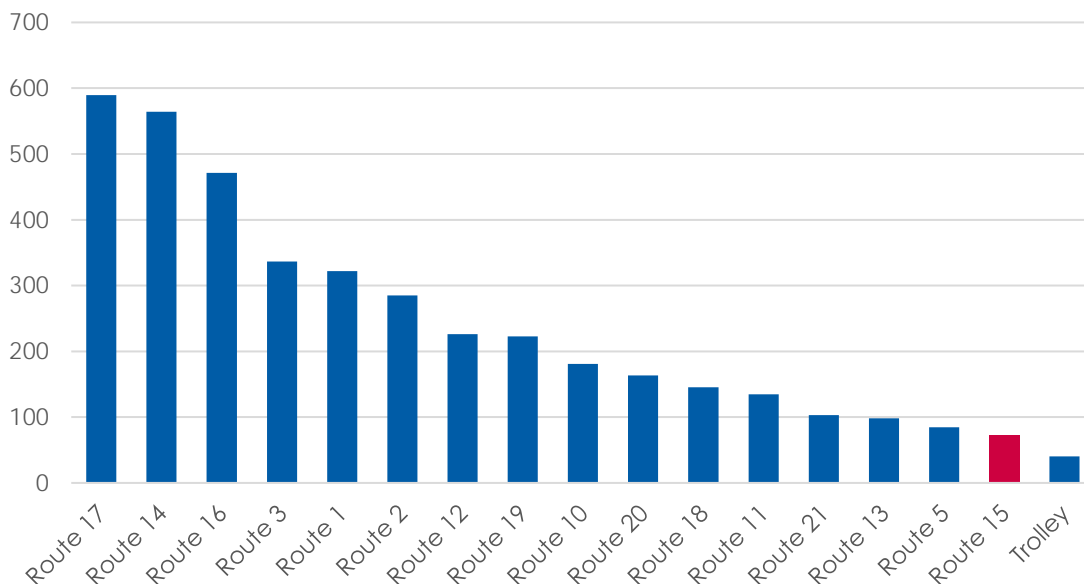
## Service Performance

### Productivity Statistics

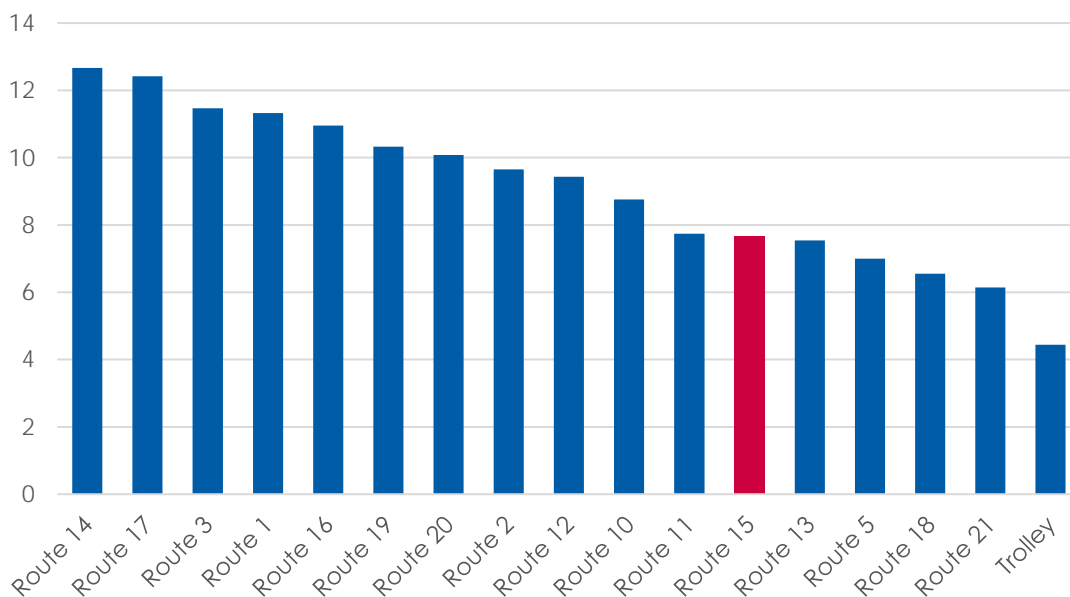
DAILY AVERAGE	
Average Daily Ridership	151
Pax/Revenue Hour	16.5
Red Rose Average	15.9
Pax/One-Way Trip	7.6
Red Rose Average	10.6
Pax/Revenue Mile	1.1
Red Rose Average	1.2

Note: Sunday service was not provided at time of ridership data collection.

### Average Daily Ridership by Route



### Average Daily Ridership per Revenue Hour by Route



## Service Improvement Opportunities

Opportunities to strengthen Route 15 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- Simplify the route's alignment through Willow Street to make it less circuitous and easier to understand. Within Willow Street, Route 15 effectively operates as a 6.5-mile one-way loop comprised of several smaller loops, forcing riders to travel out-of-direction for a

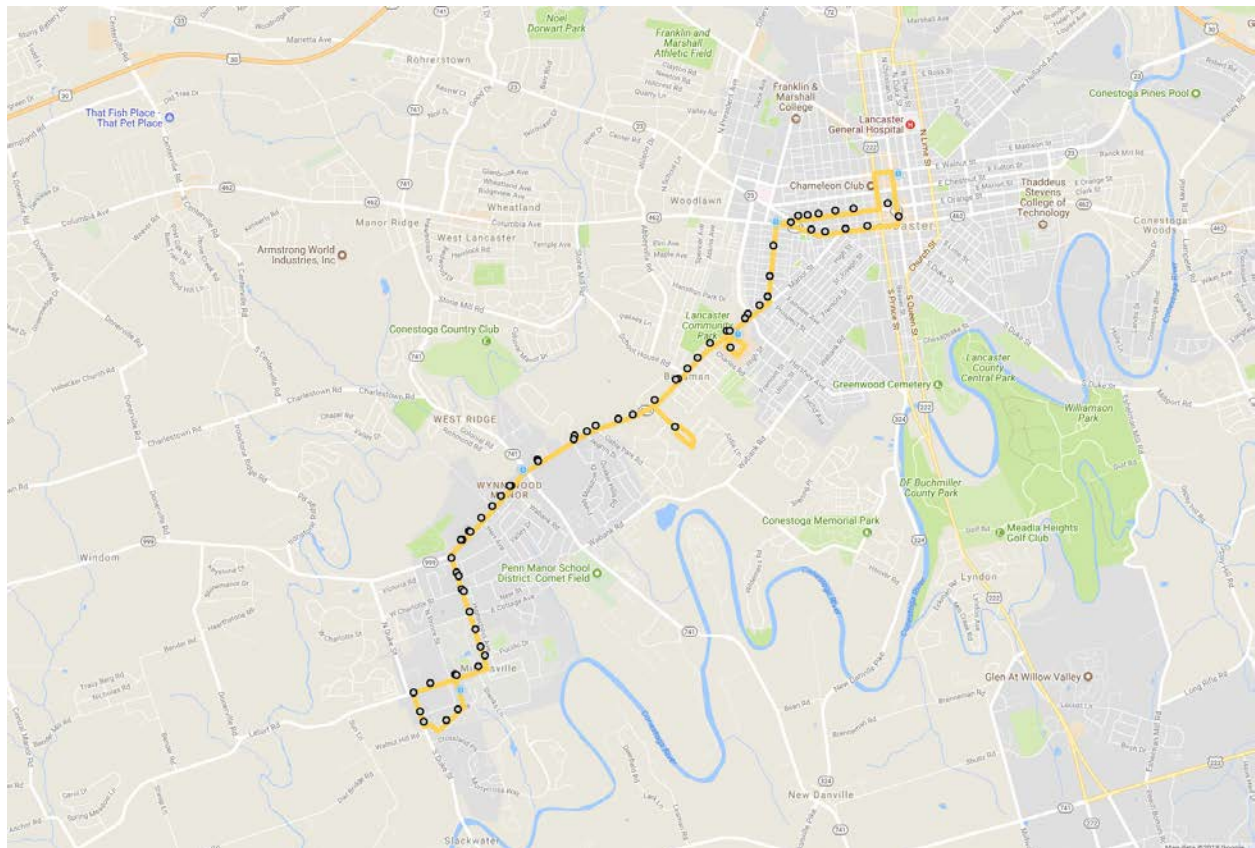
significant amount of time, and to ride the entire length of the route to complete a round trip. The route's meandering alignment also makes it difficult to understand where exactly the route goes and when, forcing riders to decipher just how to use the route to get where they want to go. Simplifying the route's alignment through Willow Street, including making service more symmetrical, will provide clearer, more direct, and more convenient service for residents and visitors alike.

- Operate fewer variants to provide more consistent service for riders. Route 15 operates only 10 trips on weekdays but has four service variants, complicating the schedule and making service less predictable for riders.
- Provide additional midday service to better match demand, as indicated by higher ridership on the two midday trips. Conversely, ridership on the earliest and latest trips is very low. Using resources from these low ridership trips to provide more service during the midday would better match demand.
- There are significant opportunities for stop consolidation, as there are many stops that are closely spaced together that generate low or no ridership at all. This would speed travel times and provide more consistent and reliable service for riders.
- Expand Saturday service by operating hourly headways and extend service later in the afternoon. Route 15 serves several retail destinations, and there is an opportunity to serve Saturday shopping trips that occur during the mid and late afternoon.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 16

Millersville



## Route Overview

### Cities Served

Lancaster, Bausman, Millersville

### Major Corridors Served

Orange Street, Manor Avenue (Lancaster), Millersville Pike, Manor Avenue (Millersville)

### Major Activity Centers / Points of Interest

Queen Street Station, Manor Center/Weis Market, Lancaster Greens, Millersville University

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	5:40 AM to 11:10 PM	20-50/60/55	27/27
Saturday	7:20 AM to 11:10 PM	60/65/70/55	15/15
Sunday	11:15 AM to 6:40 PM	75-80/105-165/55	5/5

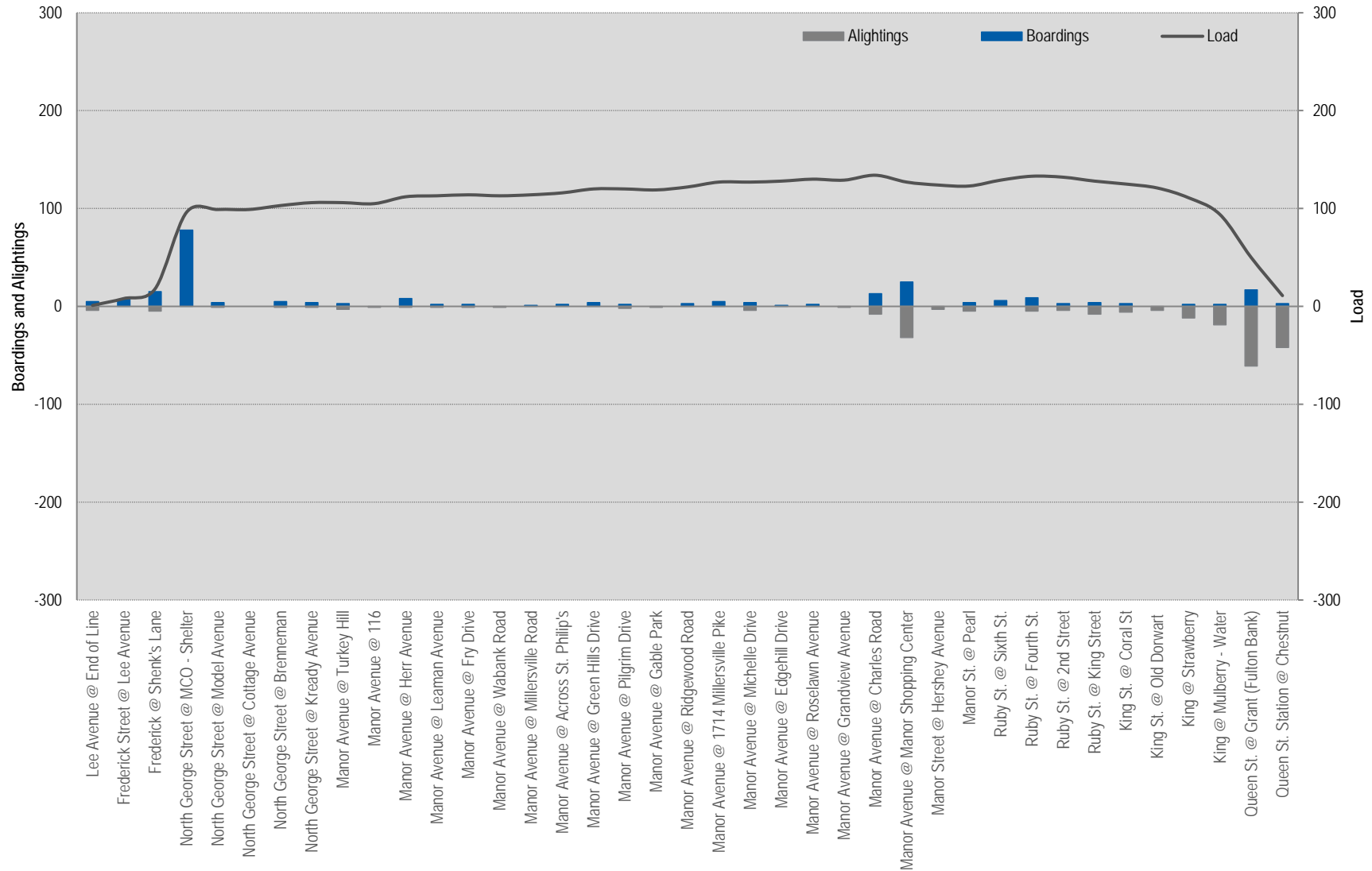
Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

## Ridership by Stop

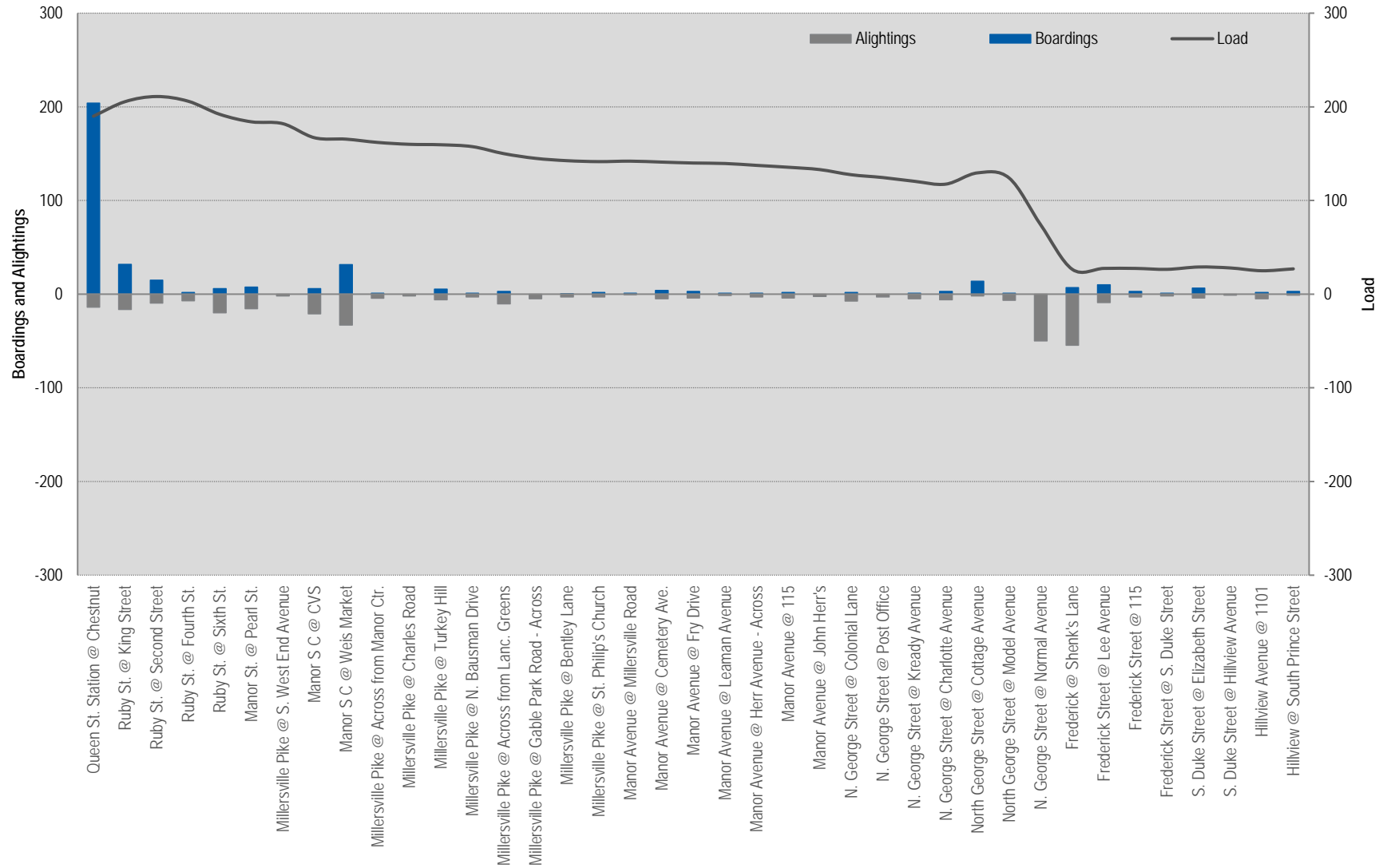
### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

INBOUND STOPS	INBOUND ONs / OFFs	OUTBOUND STOPS	OUTBOUND ONs / OFFs
Frederick @ Shenk's Lane	15/5	Queen St Station @ Chestnut	204/14
North George St @ MCO - Shelter	78/0	Ruby St @ King St	32/17
Manor Ave @ Charles Rd	13/8	Ruby St @ 2 <sup>nd</sup> St	15/10
Manor Ave @ Manor Shopping Ctr	25/32	Ruby St @ 6 <sup>th</sup> St	6/20
Ruby St @ 4 <sup>th</sup> St	9/5	Manor St @ Pearl St	8/16
Ruby St @ King St	4/8	Manor S C @ CVS	6/21
King St @ Strawberry St	2/12	Manor S C @ Weis Market	32/33
King St @ Mulberry - Water	2/19	Millersville Pike @ Turkey Hill	6/6
Queen St @ Grant (Fulton Bank)	17/61	Millersville Pike @ Lancaster Greens	3/11
Queen St Station @ Chestnut	3/42	North George St @ Colonial Lane	2/8
		North George St @ Cottage Ave	14/2
		North George St @ Normal Ave	0/50
		Frederick @ Shenk's Lane	7/55
		Frederick @ Lee Ave	10/9
		South Duke St @ Elizabeth St	7/4

## Daily Inbound Ridership by Stop

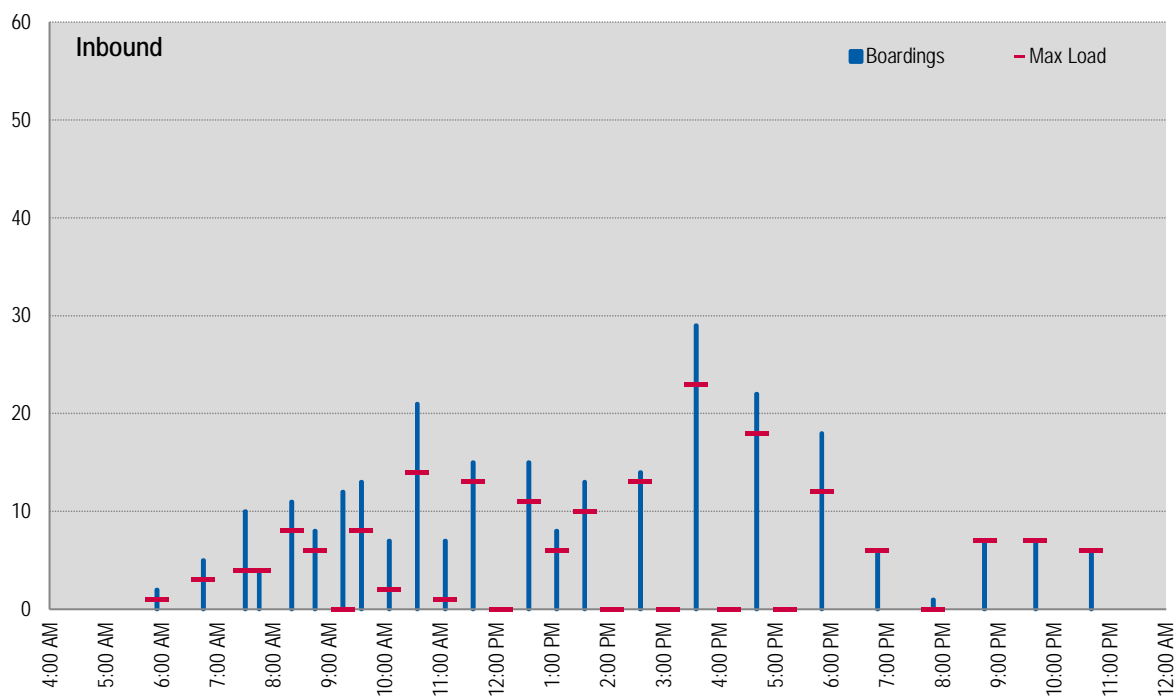


## Daily Outbound Ridership by Stop

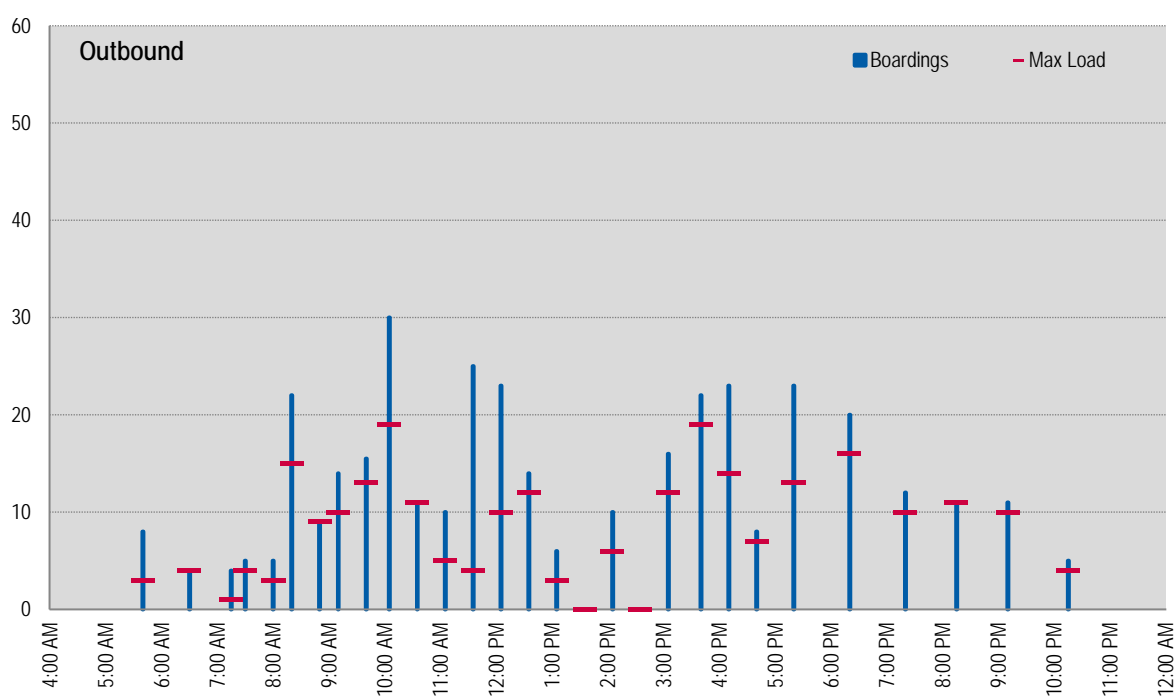


## Ridership by Trip

### Daily Inbound Ridership by Trip



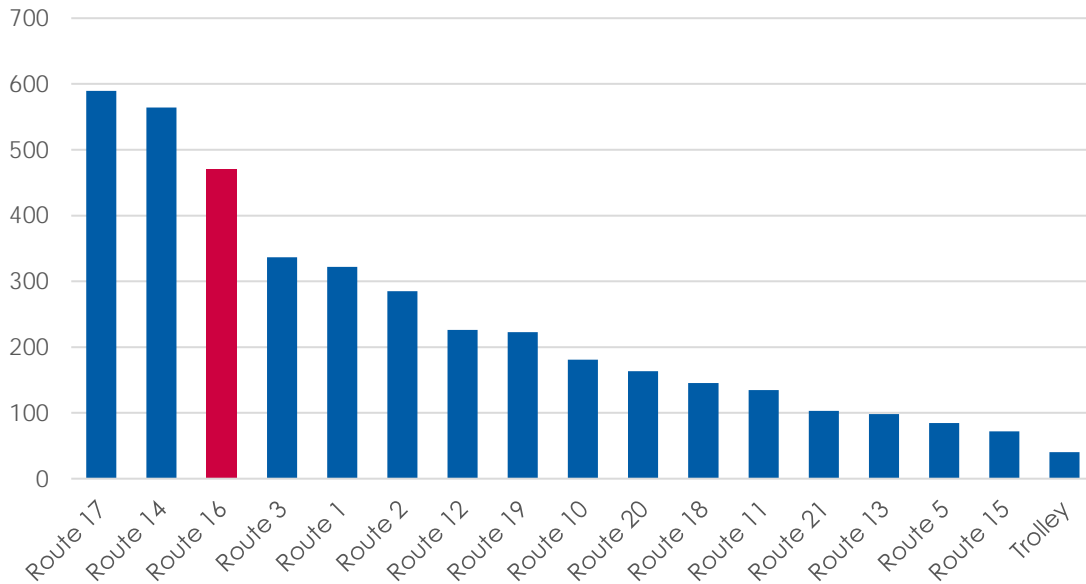
### Daily Outbound Ridership by Trip



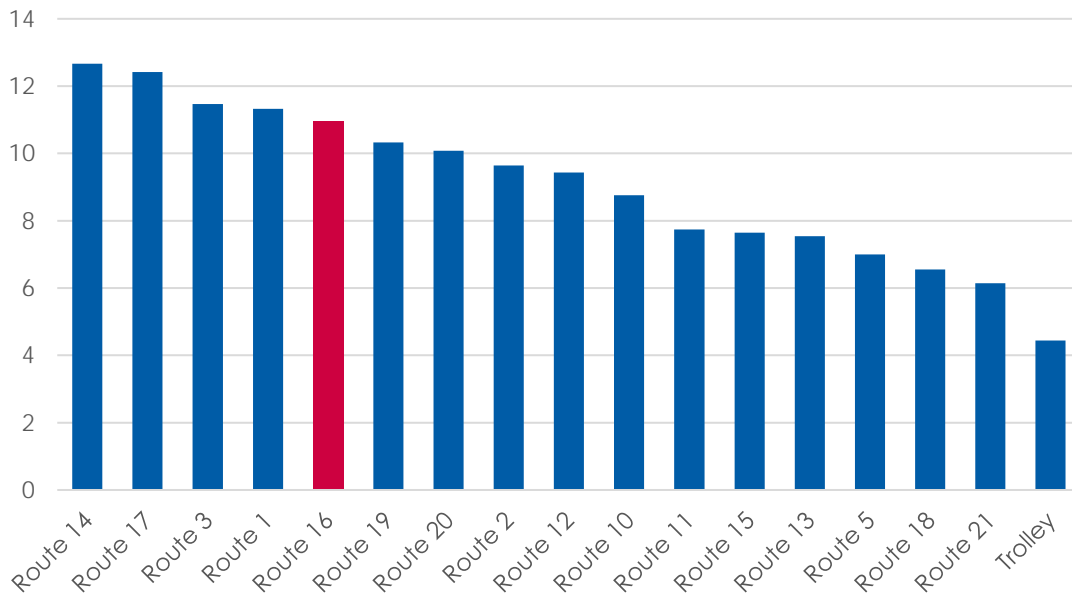


## Service Performance

Average Daily Ridership by Route



Average Daily Ridership per Revenue Hour by Route



## Productivity Statistics

	DAILY AVERAGE
<b>Average Daily Ridership</b>	<b>631</b>
<b>Pax/Revenue Hour</b>	<b>22.3</b>
Red Rose Average	15.9
<b>Pax/One-Way Trip</b>	<b>11.7</b>
Red Rose Average	10.6
<b>Pax/Revenue Mile</b>	<b>1.9</b>
Red Rose Average	1.2

*Note: Sunday service was not provided at time of ridership data collection.*

## Service Improvement Opportunities

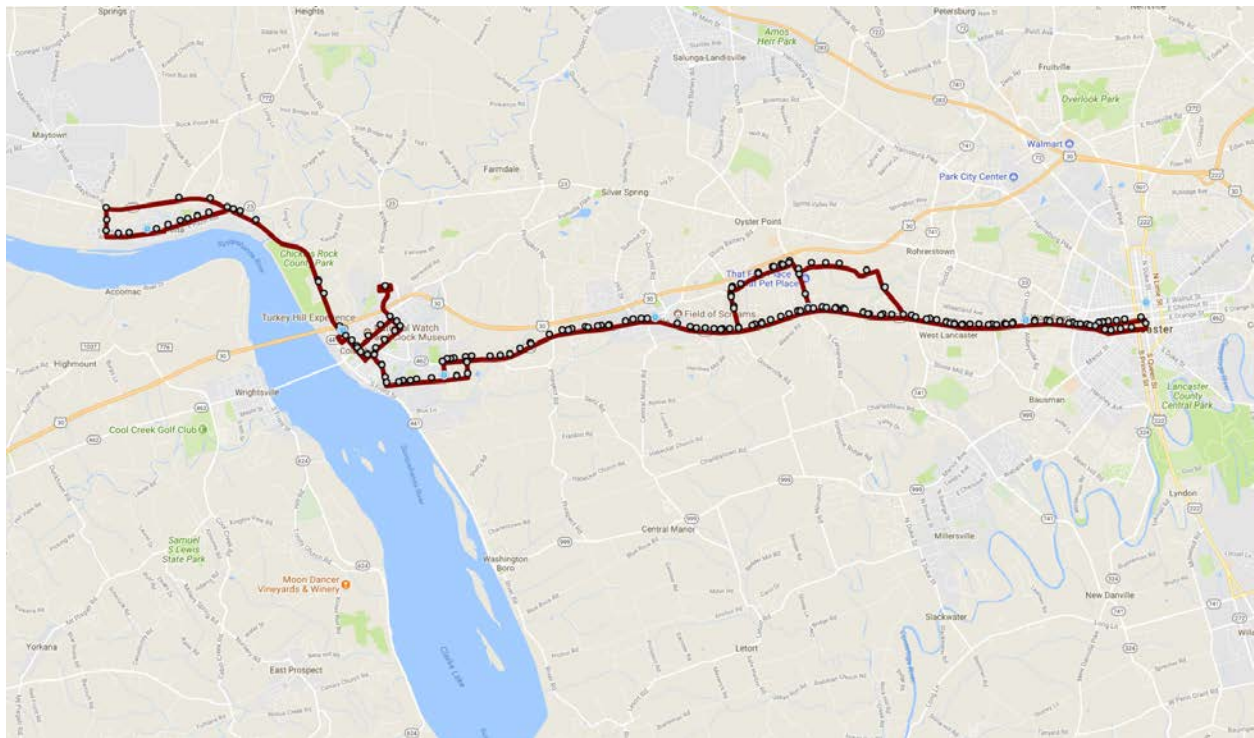
Opportunities to strengthen Route 16 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- Operate hourly service before 8 AM due to very low ridership on these earlier trips. Continue to operate 30-minute service between 8 AM and 6 PM and hourly service in the evening to match demand.
- Operate hourly service on Saturdays to provide consistent “clockface” headways for riders.
- Manor Center/Weis Market may provide a potential transfer/crosstown connection opportunity with a redesigned Route 3.
- Consolidate stops, especially along Millersville Pike, Manor Avenue (Millersville), and North George Street, due to low ridership to improve travel time and reliability for riders.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 17

Columbia



## Route Overview

### Cities Served

Lancaster, Mountville, Columbia, Marietta

### Major Corridors Served

Columbia Avenue, Orange/King Streets, Main Street, Locust Street, Market Street

### Major Activity Centers / Points of Interest

Queen Street Station, Stone Mill Plaza, Downtown Columbia, Kmart/Park-and-Ride, Columbia Borough Hall/Rabbit Transit, Hempfield Industrial Park, Columbia Shopping Center, Marietta

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	4:50 AM to 10:05 PM	30-45/30/60-90	26/26
Saturday	6:15 AM to 7:05 PM	65/30-90/60	13/13
Sunday	11:00 AM to 6:30 PM	90/60-120/60	5/5

Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

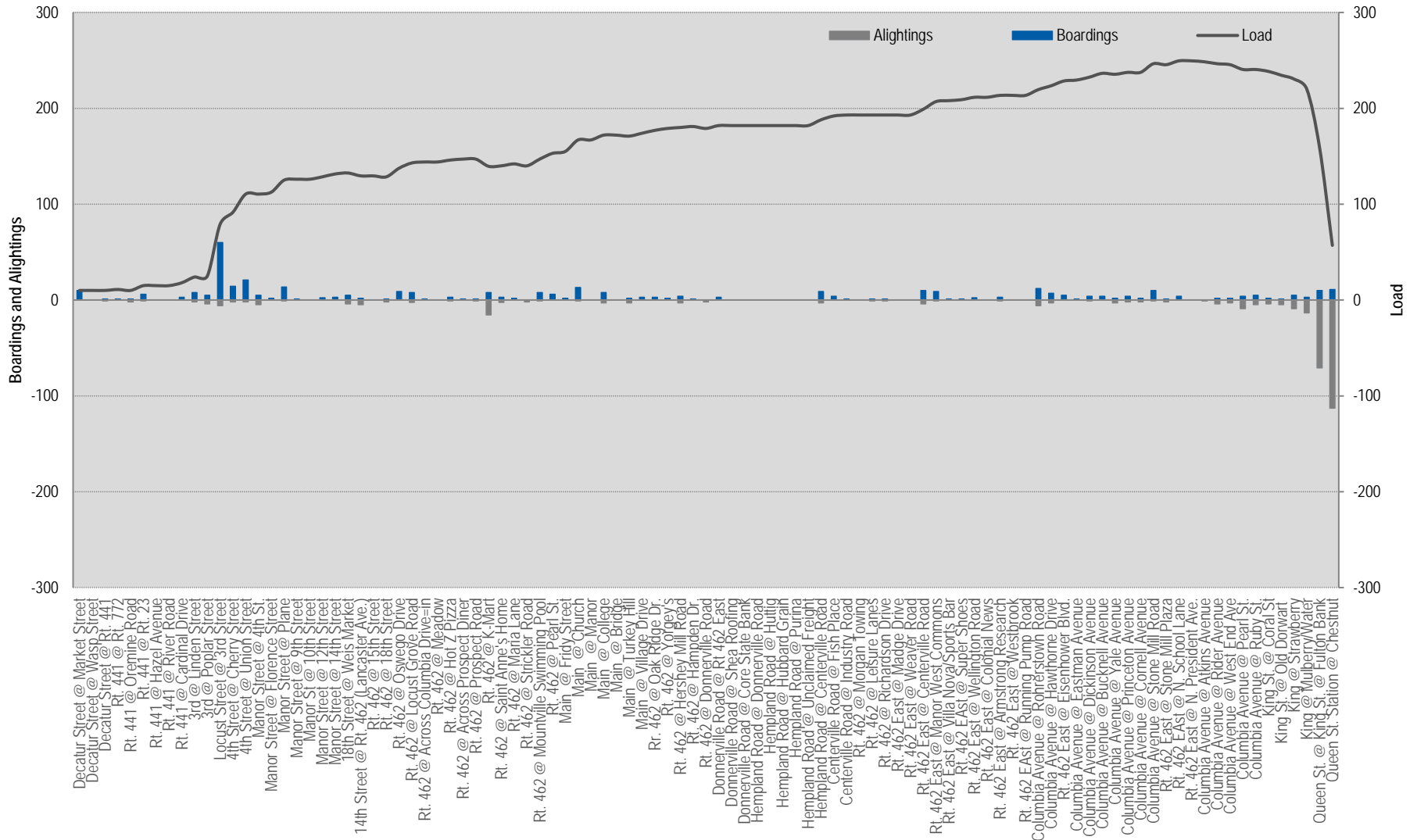
## Ridership by Stop

### Highest Weekday Ridership Stops (10 or More Daily Boardings & Alightings)

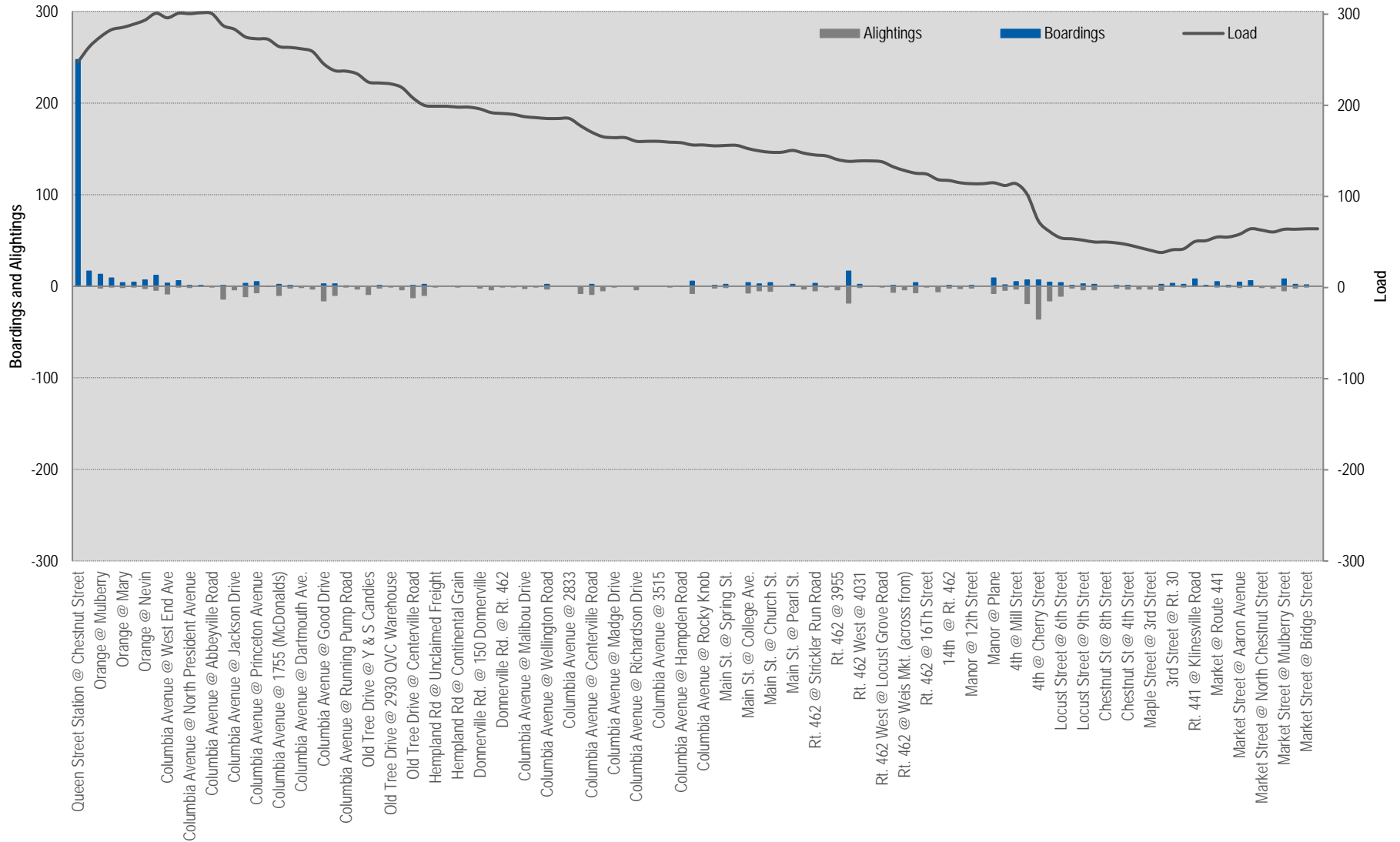
INBOUND STOPS	INBOUND ONs / OFFs
Decatur St @ Market St	10/0
3 <sup>rd</sup> @ Linden St	8/2
Locust St @ 3 <sup>rd</sup> St	60/6
4 <sup>th</sup> St @ Cherry St	15/2
4 <sup>th</sup> St @ Union St	21/2
Manor St @ 4 <sup>th</sup> St	5/5
Manor St @ Plane	14/1
Rt 462 @ Locust Grove Road	8/3
Rt 462 @ K-Mart	8/16
Main @ Church	13/1
Main @ College	8/3
Hempland Rd @ Centerville Rd	9/3
Rt 462 East @ Centerville Rd	10/4
Rt 462 East @ Manor West Campus	9/1
Columbia Ave @ Rohrerstown Rd	12/6
Columbia Ave @ Hawthorne Dr	7/3
Columbia Ave @ Stone Mill Rd	10/1
Columbia Ave @ Pearl St	4/9
Columbia Ave @ Ruby St	5/5
King St @ Strawberry	5/9
King St @ Mulberry (Water)	3/14
Queen St @ King St (Fulton Bank)	10/71
Queen St Station @ Chestnut	11/113

OUTBOUND STOPS	OUTBOUND ONs / OFFs
Queen St Station @ Chestnut	248/0
Orange @ Christian	17/0
Orange @ Mulberry	13/2
Orange @ Charlotte	9/1
Orange @ Nevin	7/3
Orange @ King	12/5
Columbia Ave @ West End Ave	4/9
Columbia Ave @ Across Taco Bell	1/14
Columbia Ave @ Stone Mill Rd	3/12
Columbia Ave @ Princeton Ave	5/7
Columbia Ave @ 1755/McDonalds	2/10
Columbia Ave @ Good Dr	3/16
Columbia Ave @ Rohrerstown Rd	3/10
Old Tree Drive @ Centerville Rd	1/13
Hempland Rd @ Centerville Rd	2/10
Columbia Ave @ Centerville Rd	2/9
Columbia Ave @ Lincoln W Dr.	6/8
Main St. @ College Ave.	4/8
Main St. @ Church St.	4/6
Rt. 462 @ Prospect Rd	17/19
Manor @ Plane	9/8
4th @ Union	7/19
4th @ Cherry Street	7/36
Locust St @ 5th St.	5/16
Locust St @ 6th Street	4/11
Market St @ Mulberry St	8/5

## Daily Inbound Ridership by Stop

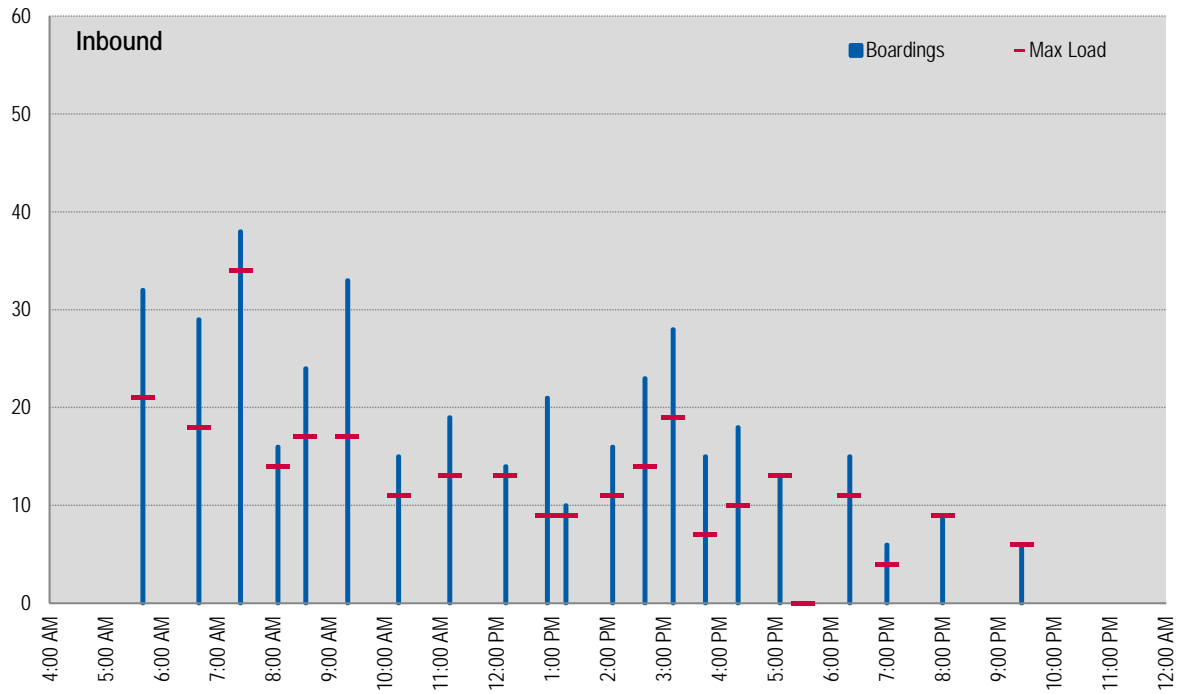


## Daily Outbound Ridership by Stop

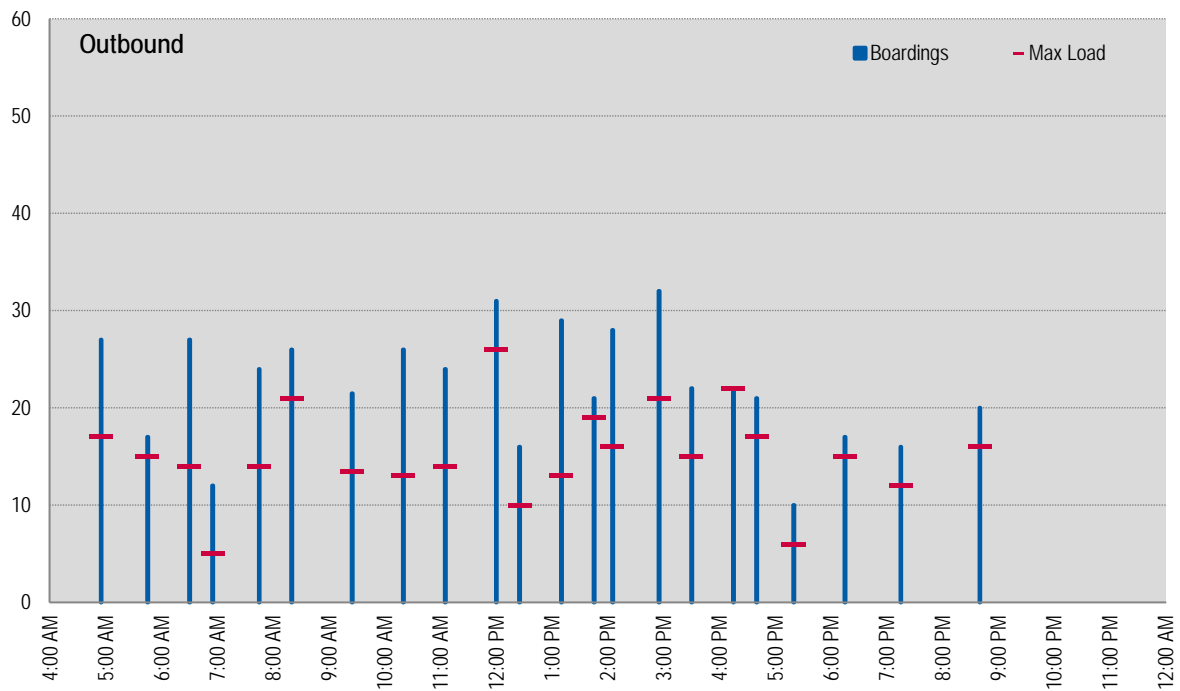


## Ridership by Trip

### Daily Inbound Ridership by Trip



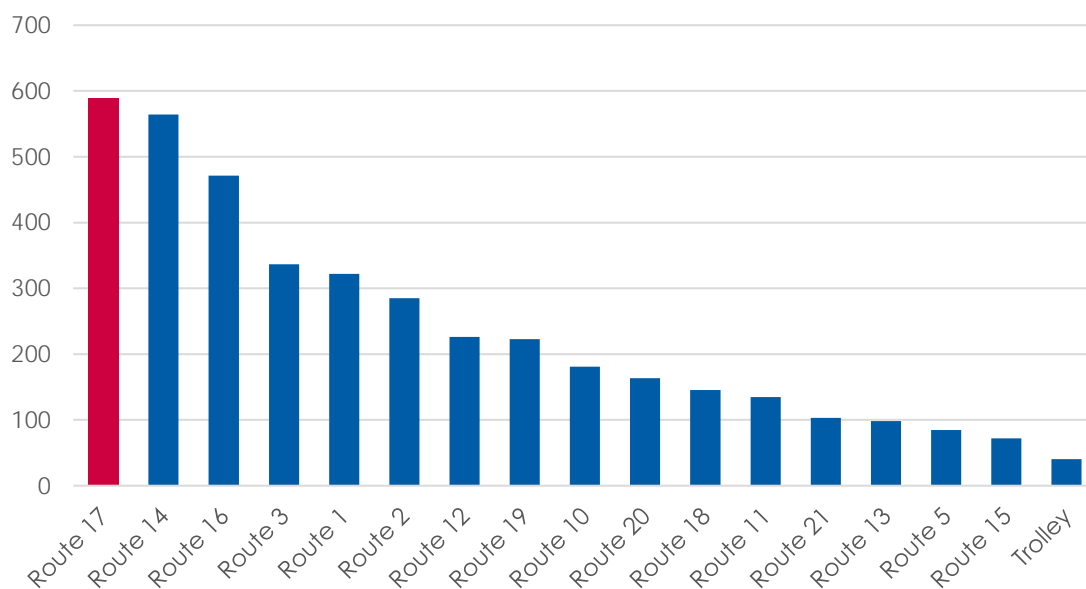
### Daily Outbound Ridership by Trip



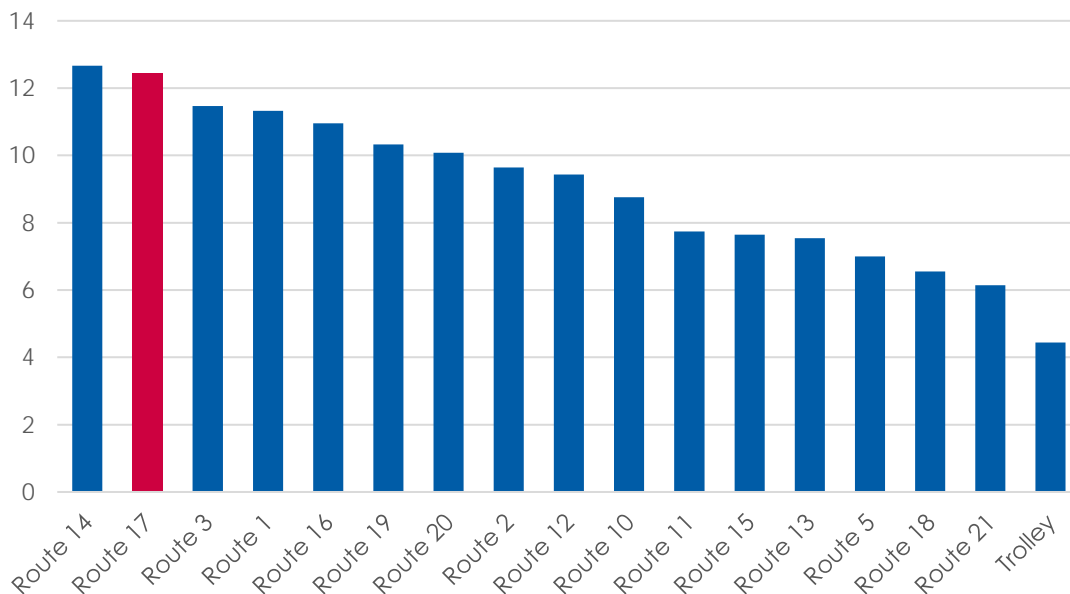


## Service Performance

### Average Daily Ridership by Route



### Average Daily Ridership per Revenue Hour by Route



## Productivity Statistics

	DAILY AVERAGE
<b>Average Daily Ridership</b>	<b>539</b>
<b>Pax/Revenue Hour</b>	<b>11.6</b>
Red Rose Average	15.9
<b>Pax/One-Way Trip</b>	<b>10.4</b>
Red Rose Average	10.6
<b>Pax/Revenue Mile</b>	<b>0.8</b>
Red Rose Average	1.2

*Note: Sunday service was not provided at time of ridership data collection.*

## Service Improvement Opportunities

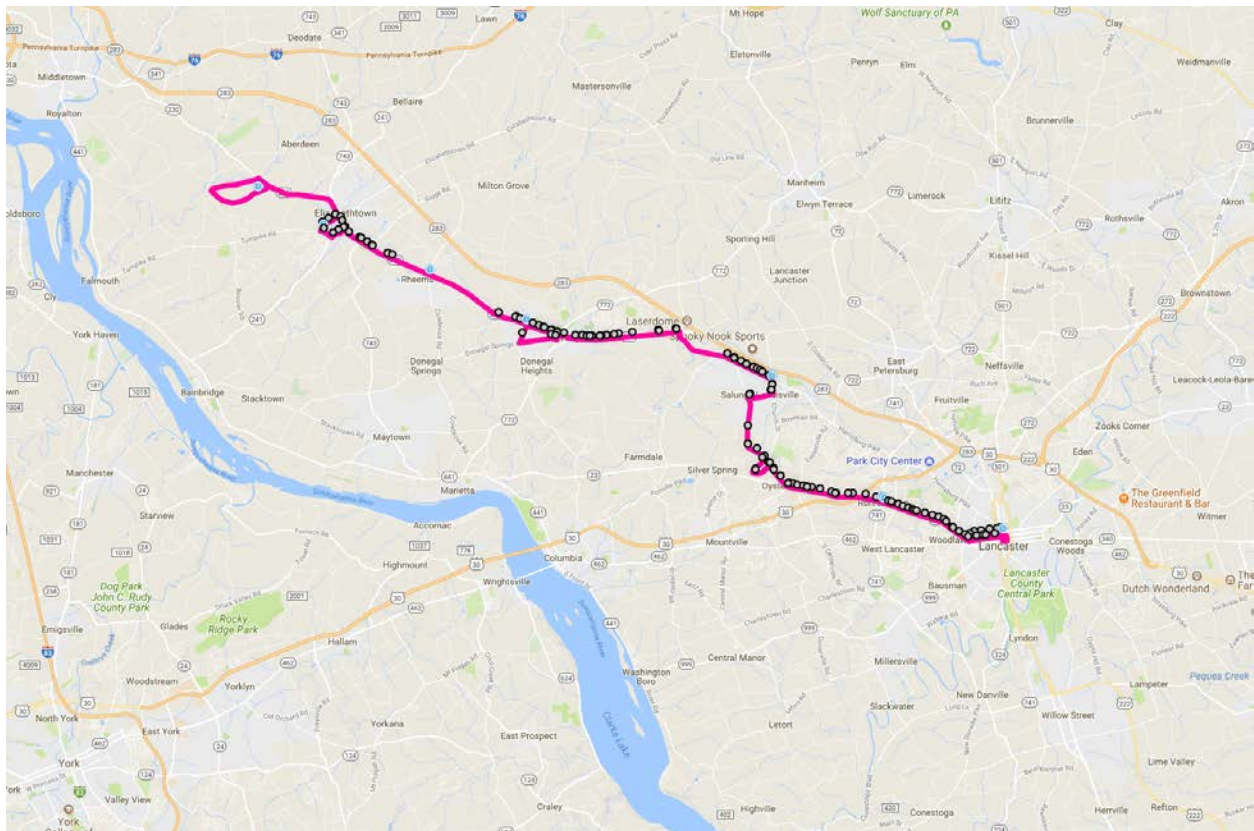
Opportunities to strengthen Route 17 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- The highest ridership on Route 17 is generally traveling inbound in the morning, but ridership remains mostly consistent throughout the day. Operate 30-minute service throughout the day (including early AM) until 5PM and then hourly service during evening hours to provide consistent “clockface” headways and meet ridership demand.
- Consolidate stops along the route due to low ridership to improve travel speed and reliability for riders.
- Streamline Route 17’s alignment through Columbia, which is currently very circuitous and serves several stops with very low ridership. Making the alignment more direct and consolidating stops would provide riders with a faster and more efficient trip.
- Discontinue deviation via 18<sup>th</sup> Street and Manor Street in Columbia on select midday trips, and operate all service via Columbia Avenue and 14<sup>th</sup> Street to Manor Street.
- Discontinue deviation to Hempfield Industrial Park on select trips, which adds nearly two miles to each trip and serves 11 stops but generates relatively low ridership. Riders who do need to reach the industrial park may be better served with a vanpool or other program that is coordinated with shift start/end times and provides more direct service to and from job sites.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 18

Elizabethtown



## Route Overview

### Cities Served

Lancaster, Rohrerstown, Oyster Point, Mt. Joy, Rheems, Elizabethtown

### Major Corridors Served

Marietta Avenue, Main Street/Route 230, Market Street

### Major Activity Centers / Points of Interest

Queen Street Station, Lancaster Regional Medical Hospital, Oyster Point Medical Center, Elizabethtown Amtrak Station, multiple fulfillment and distribution centers

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	4:55 AM to 7:15 PM	40-90/50-125/55-140	10/10
Saturday	6:30 AM to 3:10 PM	2 trips	2/2

Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

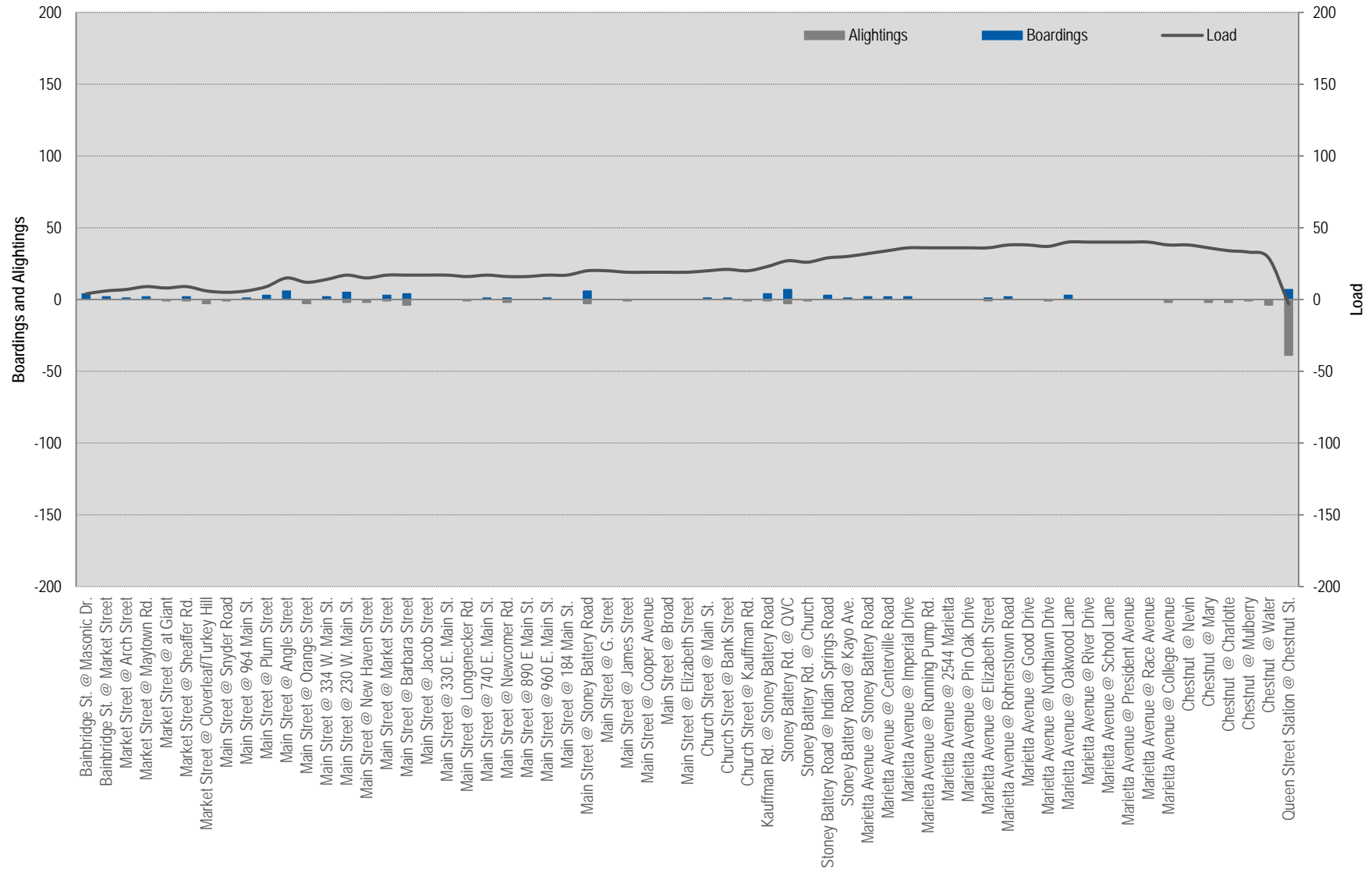
## Ridership by Stop

### Highest Weekday Ridership Stops (10 or More Daily Boardings & Alightings)

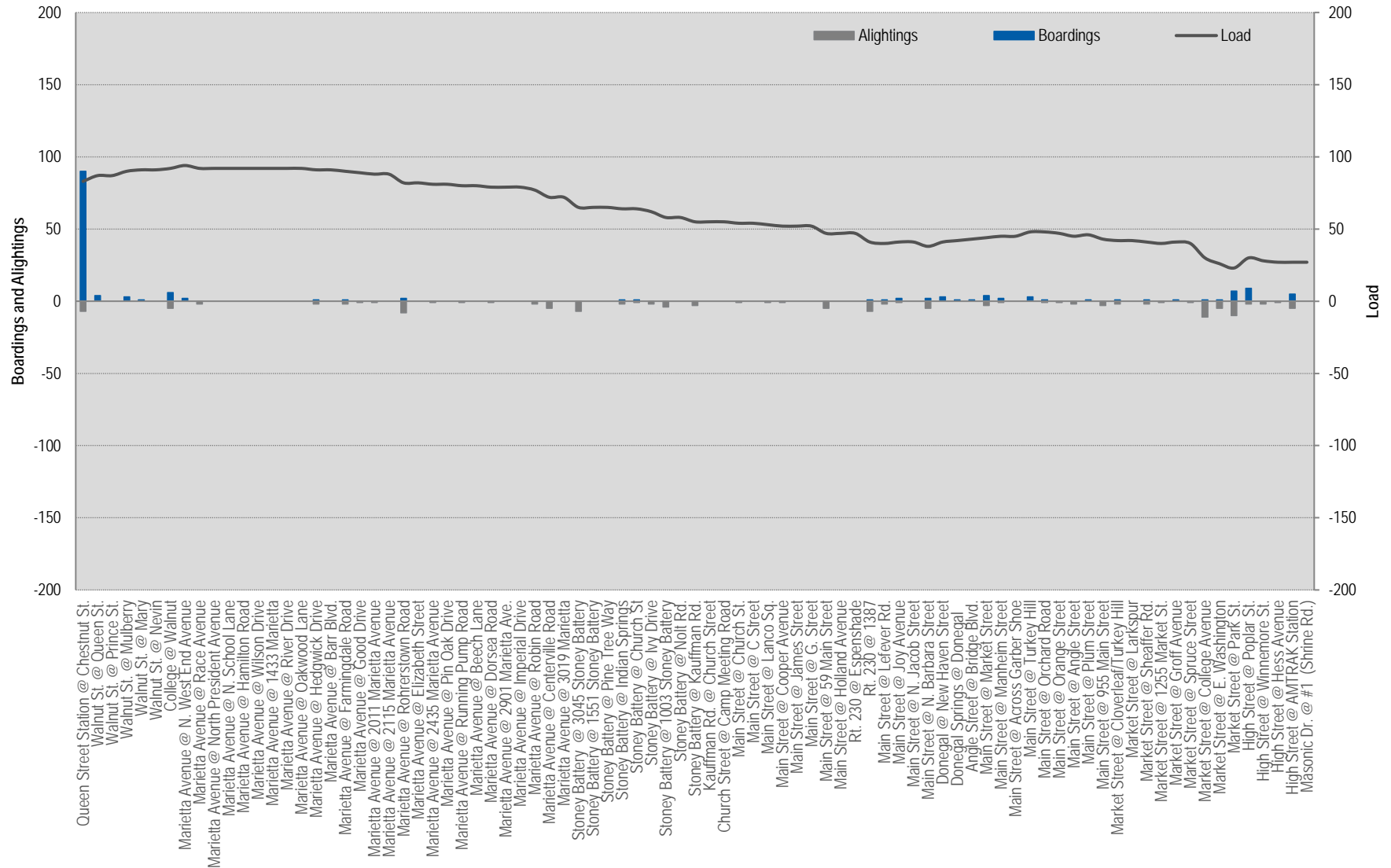
INBOUND STOPS	INBOUND ONs / OFFs
Stoney Battery Rd @ QVC	7/3
Queen St Station @ Chestnut St	7/39

OUTBOUND STOPS	OUTBOUND ONs / OFFs
Queen St Station @ Chestnut St	90/7
College @ Walnut	6/5
Marietta Ave @ Rohrerstown Rd	2/8
Market St @ College Ave	1/11
Market St @ Park St	7/10
High St @ Poplar St	9/2
High St @ Amtrak Station	5/5

## Daily Inbound Ridership by Stop

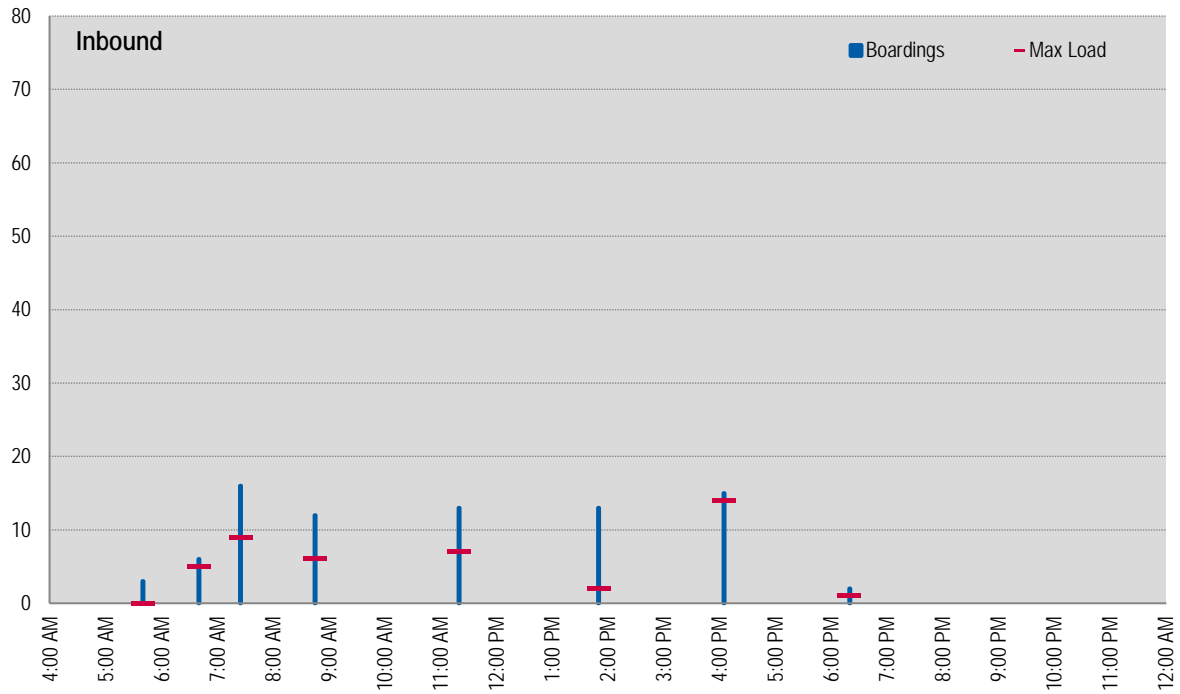


## Daily Outbound Ridership by Stop

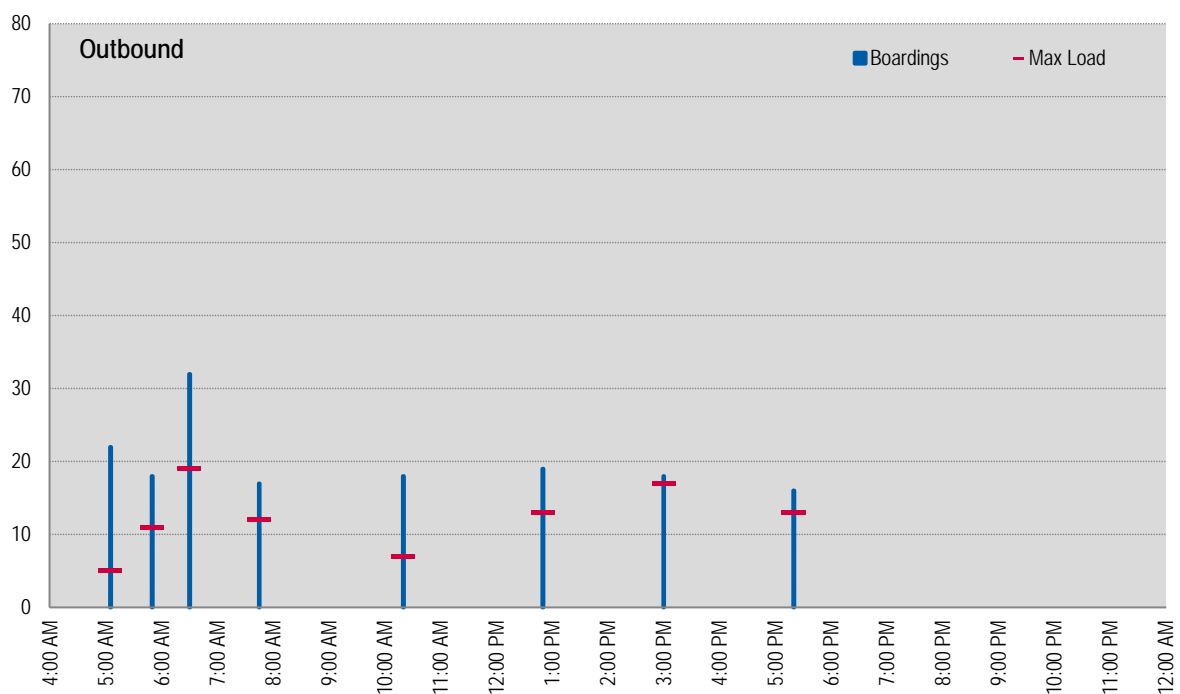


## Ridership by Trip

### Daily Inbound Ridership by Trip

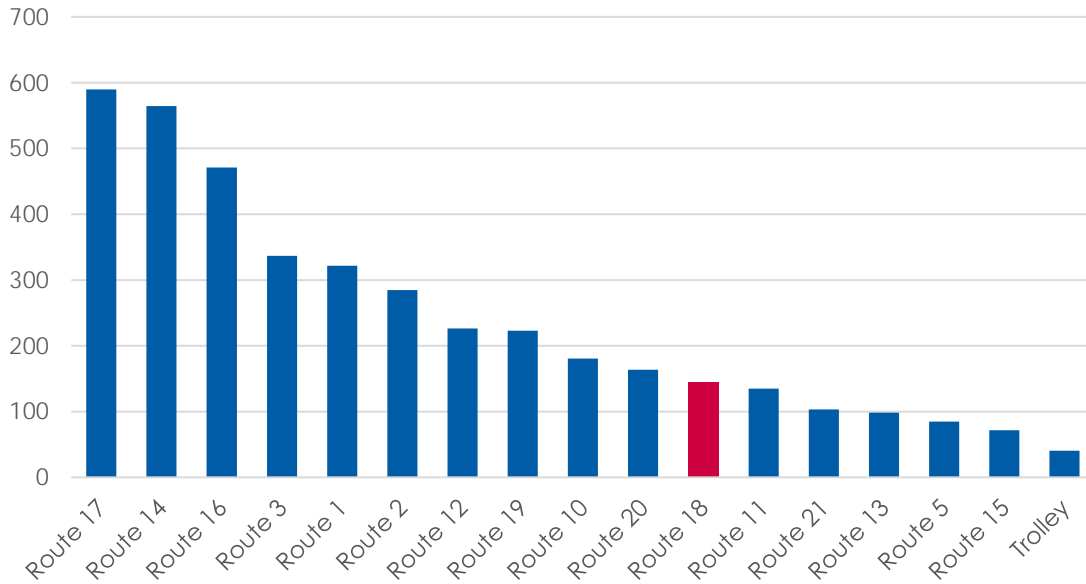


### Daily Outbound Ridership by Trip

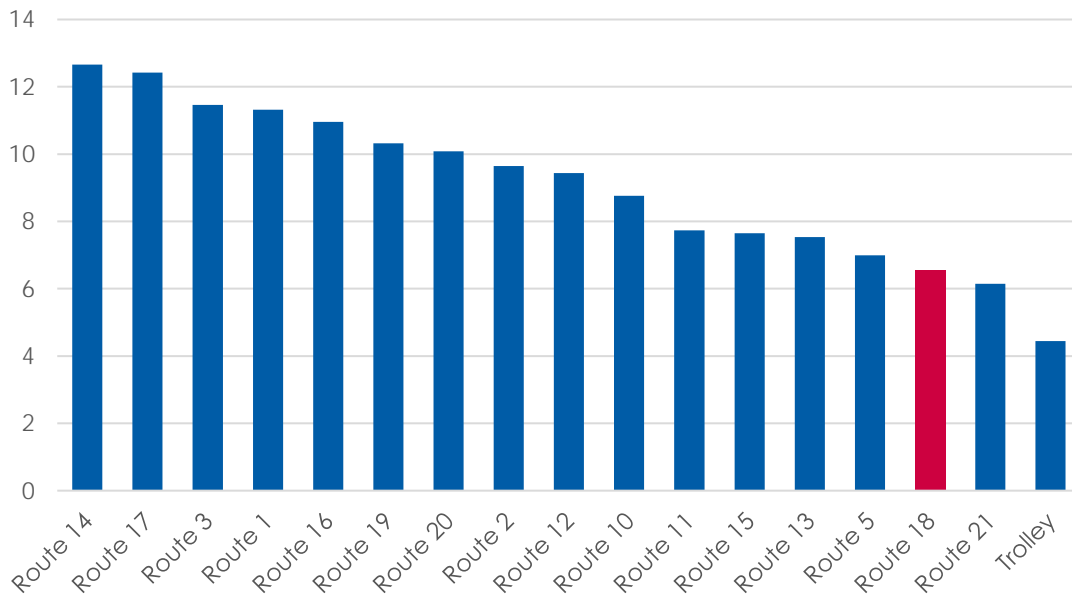


## Service Performance

### Average Daily Ridership by Route



### Average Daily Ridership per Revenue Hour by Route





## Productivity Statistics

DAILY AVERAGE	
<b>Average Daily Ridership</b>	<b>240</b>
<b>Pax/Revenue Hour</b>	<b>11.1</b>
Red Rose Average	15.9
<b>Pax/One-Way Trip</b>	<b>12.0</b>
Red Rose Average	10.6
<b>Pax/Revenue Mile</b>	<b>0.5</b>
Red Rose Average	1.2

*Note: Sunday service was not provided at time of ridership data collection.*

## Service Improvement Opportunities

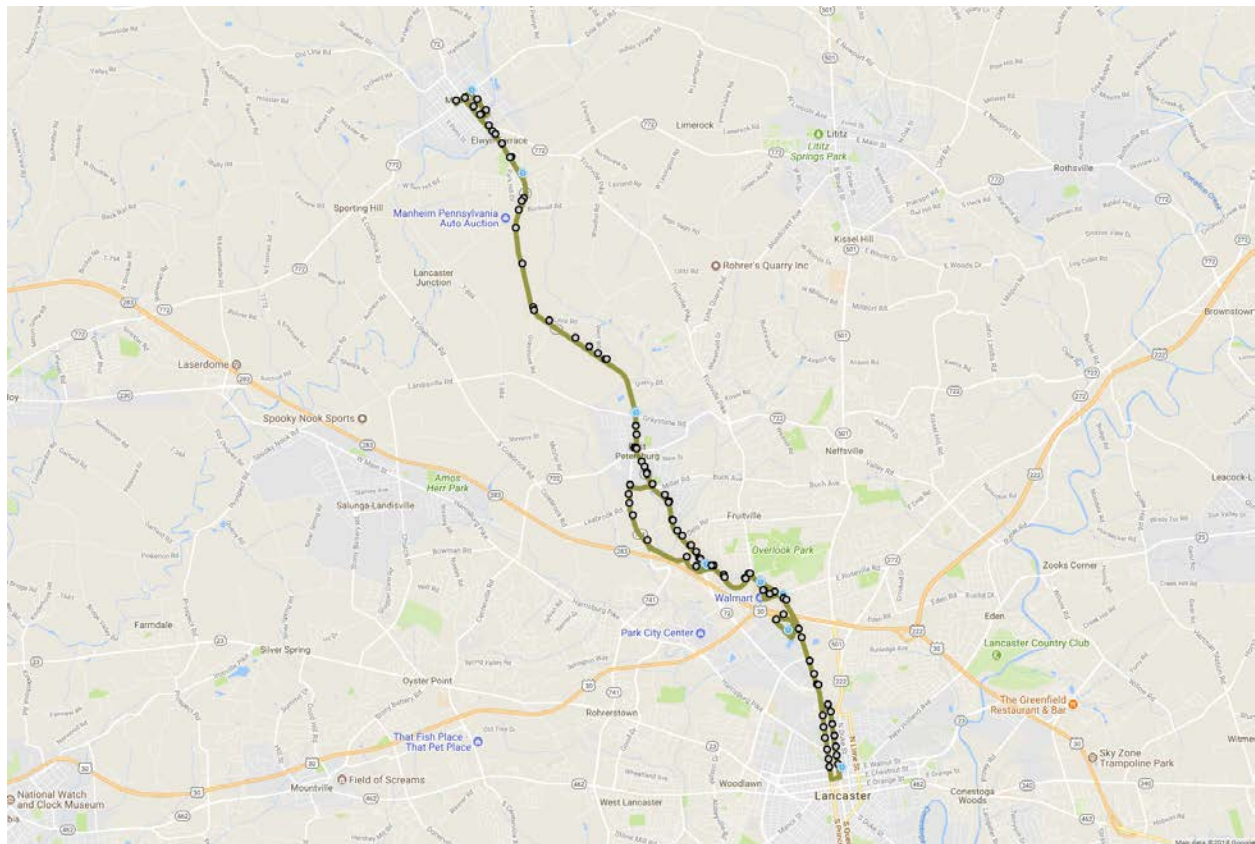
Opportunities to strengthen Route 18 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- There is significant opportunity to consolidate stops and provide a much faster trip for riders. Route 18's alignment is approximately 20 miles in each direction, and one third of all stops have no riders at all. Consider operating Route 18 as a long-distance limited stop/express route, stopping only at key destinations where most people are using the route.
- Identify opportunities to locate park-and-ride facilities along the route.
- Route 18 currently runs at irregular frequencies throughout the day. Simplifying departure times by operating at regular intervals would make the schedule more consistent and easier for riders to understand.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 19

Manheim



## Route Overview

### Cities Served

Lancaster, East Petersburg, Manheim

### Major Corridors Served

Queen Street, Fruitville Pike, Route 72/Manheim Pike/Main Street

### Major Activity Centers / Points of Interest

Queen Street Station, Amtrak/Greyhound Station, Red Rose Commons, Kmart/Park-and-Ride, Hawthorne Plaza/Walmart/Park-and-Ride, Foxshire Plaza, Granite Run Industrial Par, Chelsea Square Shopping Center, Arnold Logistics

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (INBOUND/OUTBOUND)
Monday-Friday	5:15 AM to 6:50 PM	35-75/45-95/—	14/14
Saturday	7:45 AM to 6:50 PM	85/105	7/7

Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

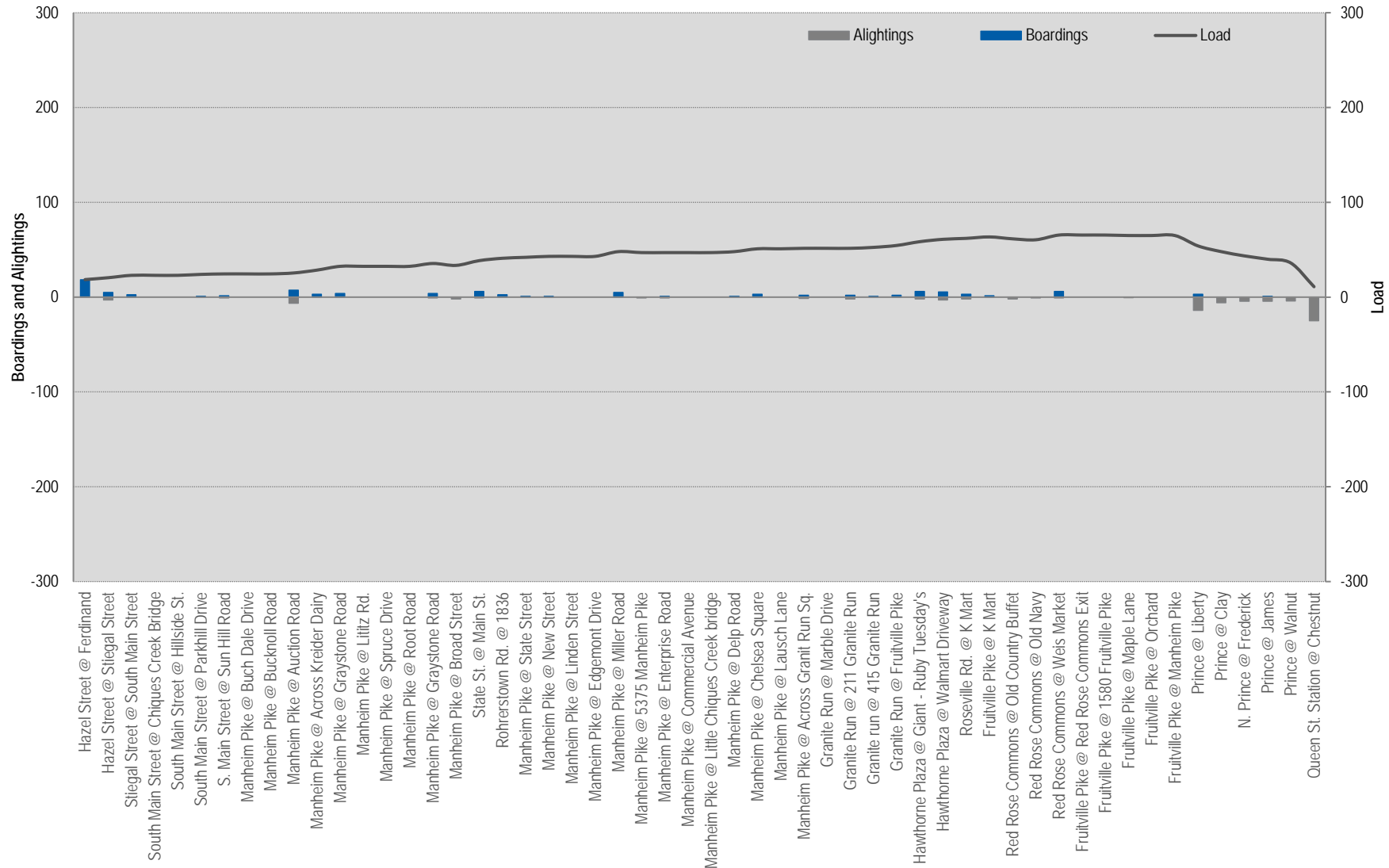
## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

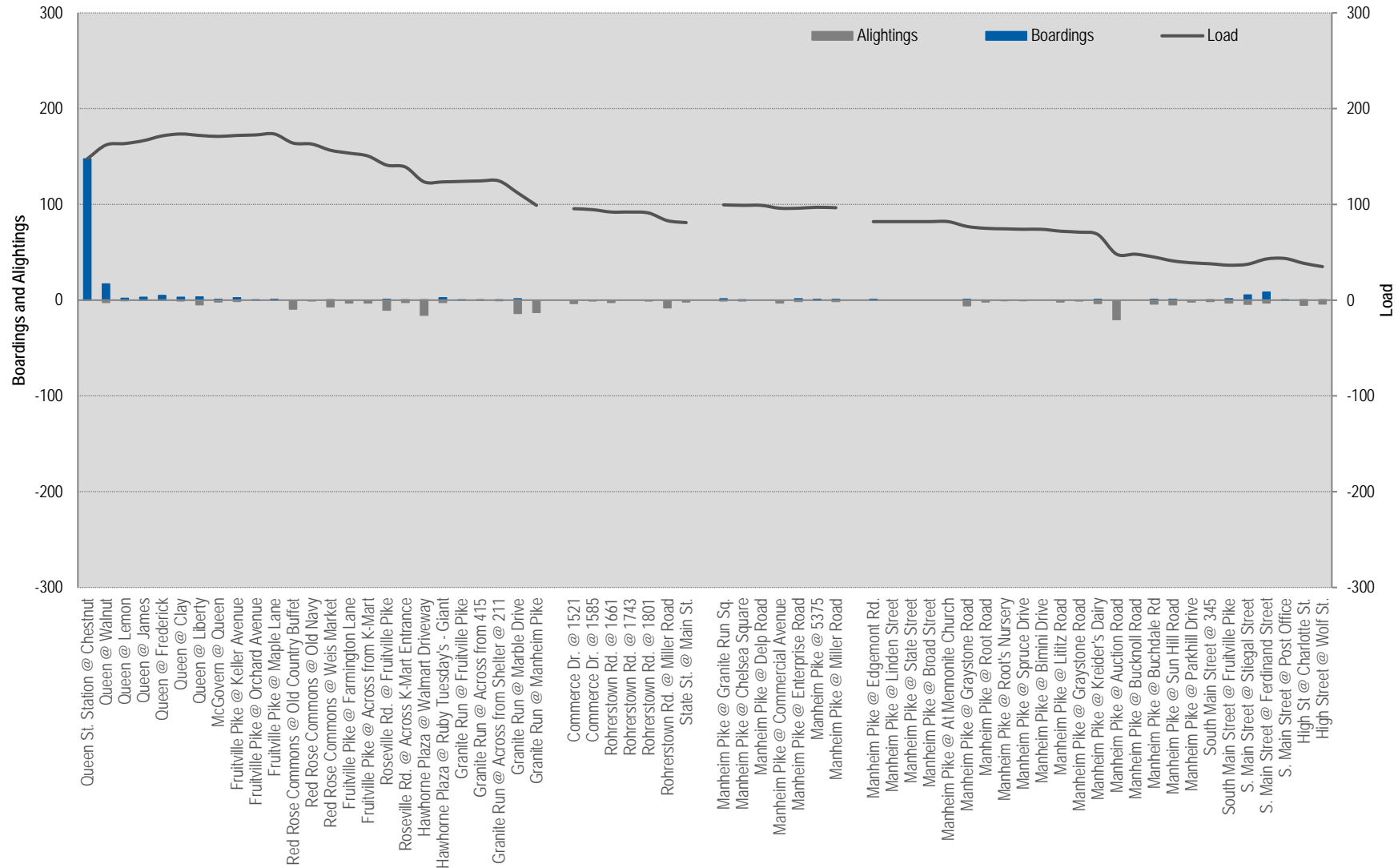
INBOUND STOPS	INBOUND ONs / OFFs
Hazel St @ Ferdinand	19/3
Manheim Pike @ Auction Rd	8/7
Price @ Liberty	3/14
Queen St Station @ Chestnut	33/25

OUTBOUND STOPS	OUTBOUND ONs / OFFs
Queen St Station @ Chestnut	115/16
Queen @ Walnut	17/3
Roseville Rd @ Fruitville Pike	1/11
Hawthorne Plaza @ Walmart	1/16
Granite Run @ Marble Drive	2/14
Granite Run @ Manheim Pike	0/13
Manheim Pike @ Auction Rd	0/21
Main St @ Stiegel St	6/5
Main St @ Ferdinand St	9/3

## Daily Inbound Ridership by Stop

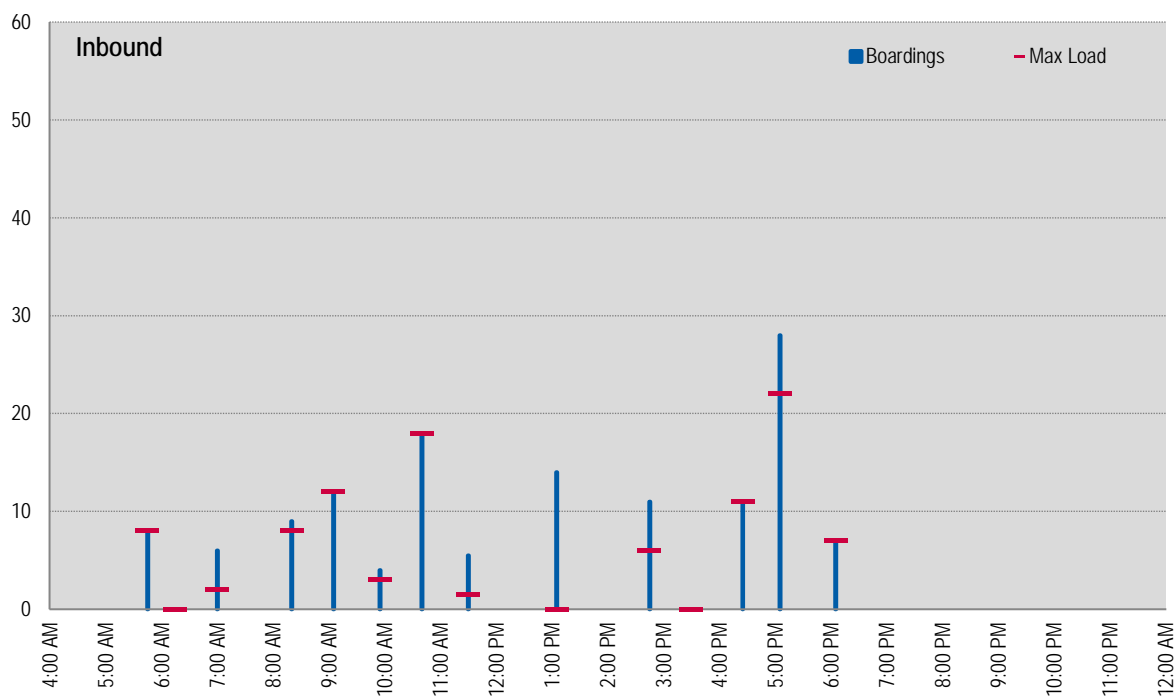


## Daily Outbound Ridership by Stop

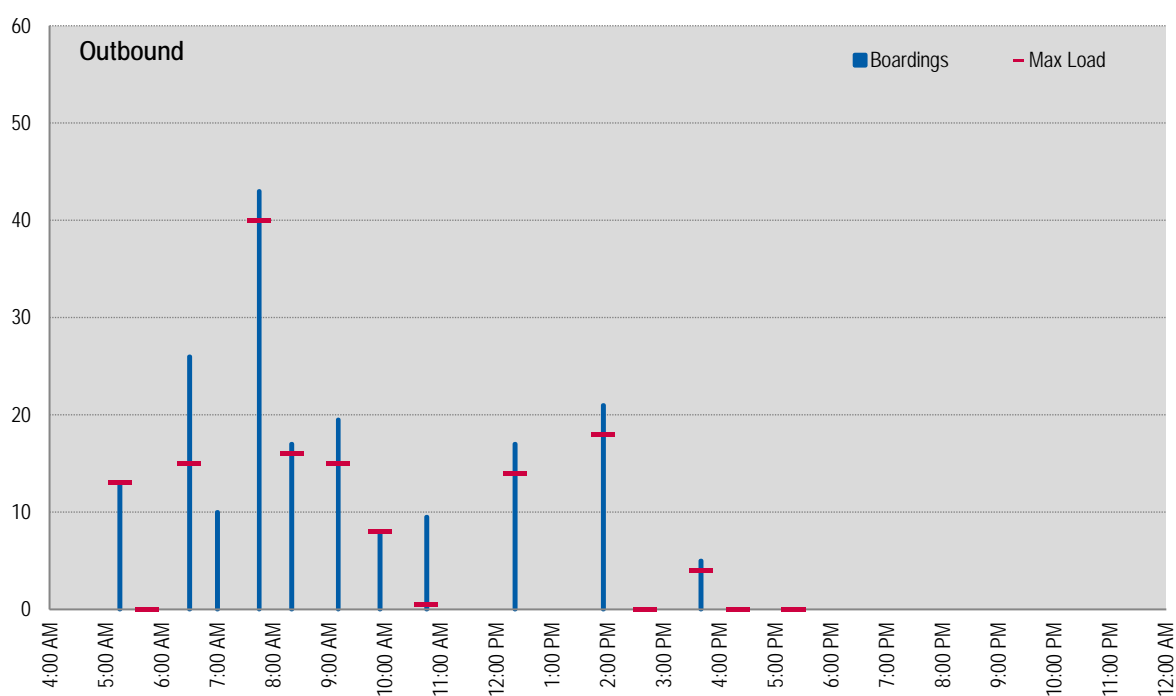


## Ridership by Trip

### Daily Inbound Ridership by Trip

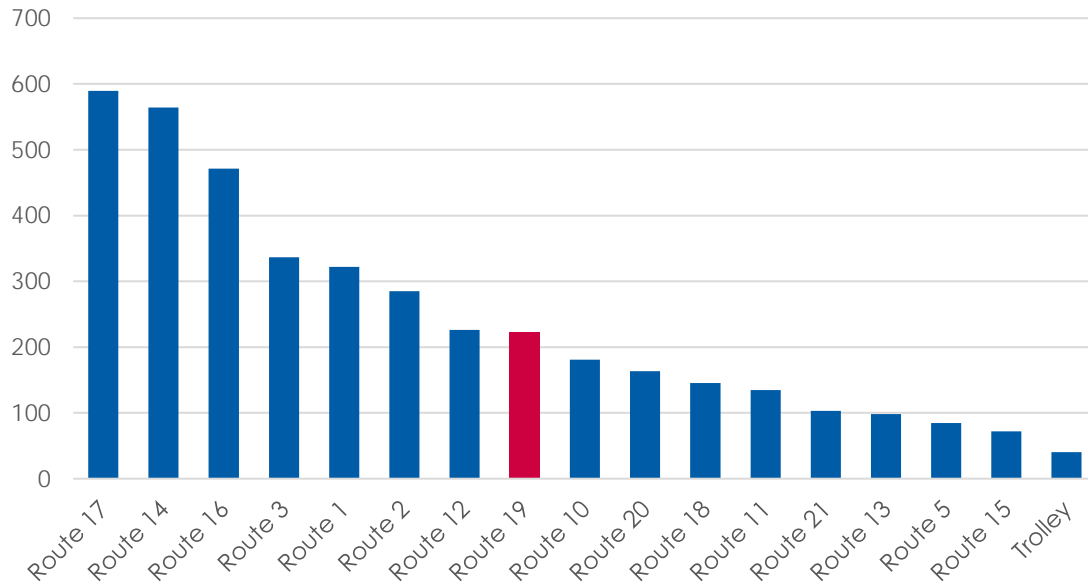


### Daily Outbound Ridership by Trip

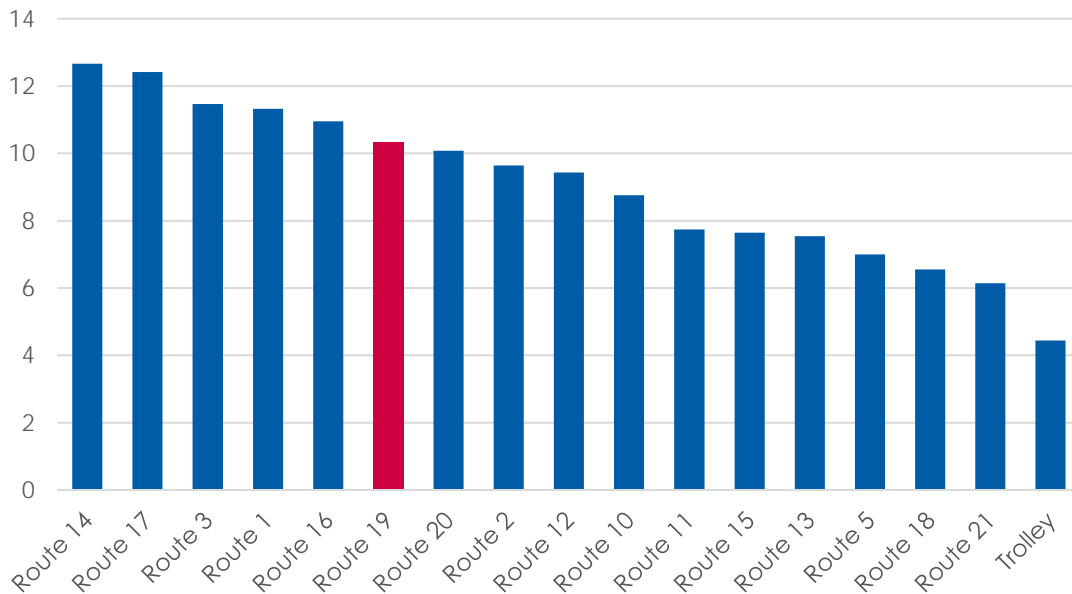


## Service Performance

### Average Daily Ridership by Route



### Average Daily Ridership per Revenue Hour by Route



## Productivity Statistics

	DAILY AVERAGE
<b>Average Daily Ridership</b>	<b>323</b>
<b>Pax/Revenue Hour</b>	<b>15.3</b>
Red Rose Average	15.9
<b>Pax/One-Way Trip</b>	<b>11.5</b>
Red Rose Average	10.6
<b>Pax/Revenue Mile</b>	<b>1.0</b>
Red Rose Average	1.2

*Note: Sunday service was not provided at time of ridership data collection.*

## Service Improvement Opportunities

Opportunities to strengthen Route 19 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

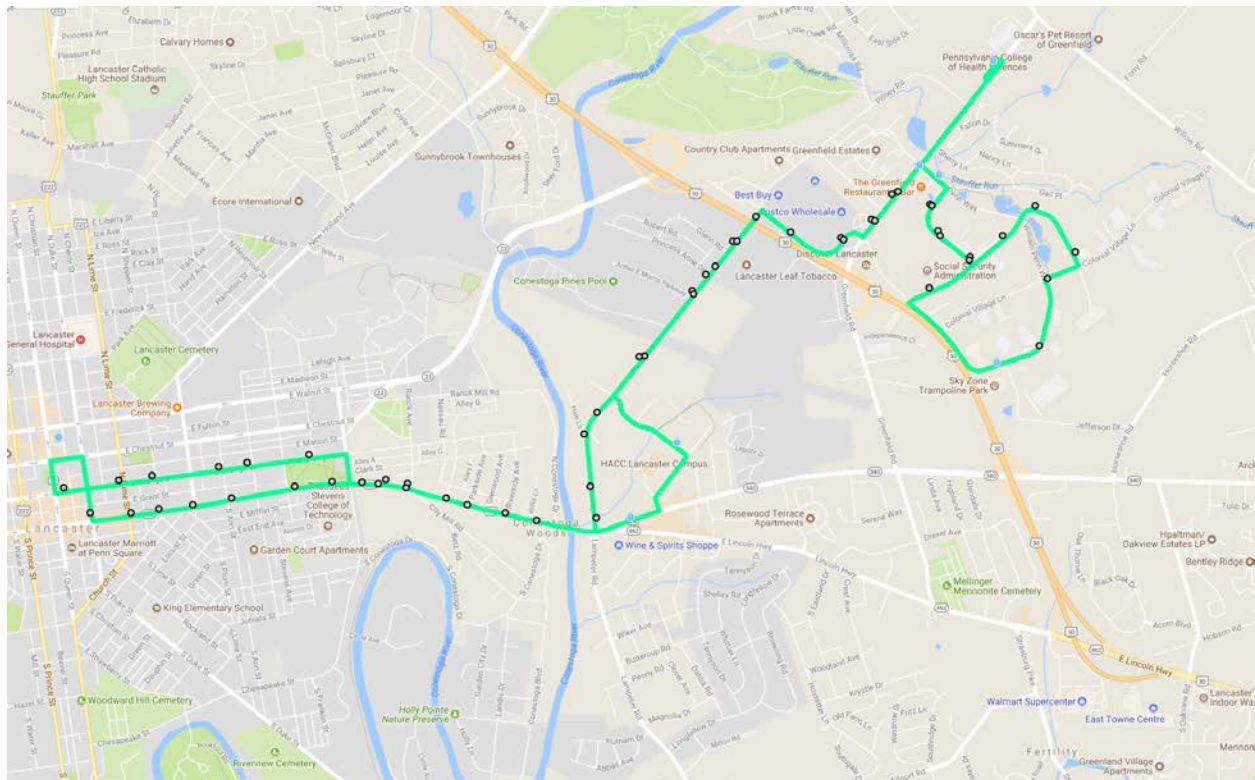
- Operate an additional AM trip to serve Commerce Drive/Arnold Logistics. The highest ridership trip on Route 19 is the 7:45 AM outbound trip serving Commerce Drive instead of Manheim Pike, with the vehicle reaching seated capacity, which indicates that there is additional demand to reach this area at that time.
- Adjust service levels to better match demand during the day. Although parts of the day feature higher ridership, most trips carry well below seated capacity, indicating that the supply of service far exceeds demand.
- Operate Route 19 as a long-distance limited stop/express route, stopping only at key destinations where most people are using the route. The route is approximately 10 miles in each direction with an average five stops per mile, and most ridership is focused at just a few key locations with most other stops serving few or no riders.
- Route 19 currently runs at irregular frequencies throughout the day. Simplifying departure times by operating at regular intervals would make service more consistent and predictable for riders.



RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 20

## Greenfield



## Route Overview

### Cities Served

Lancaster

### Major Corridors Served

Orange/King Streets, Pitney Road, Greenfield Road

### Major Activity Centers / Points of Interest

Queen Street Station, Stevens College of Technology, Harrisburg Area Community College (HACC) – Lancaster Campus, PA College of Health Sciences, Social Security Office, Greenfield Corporate Center

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (LOOP)
Monday-Friday	5:20 AM to 9:40 PM	45-70/60/40-55	19

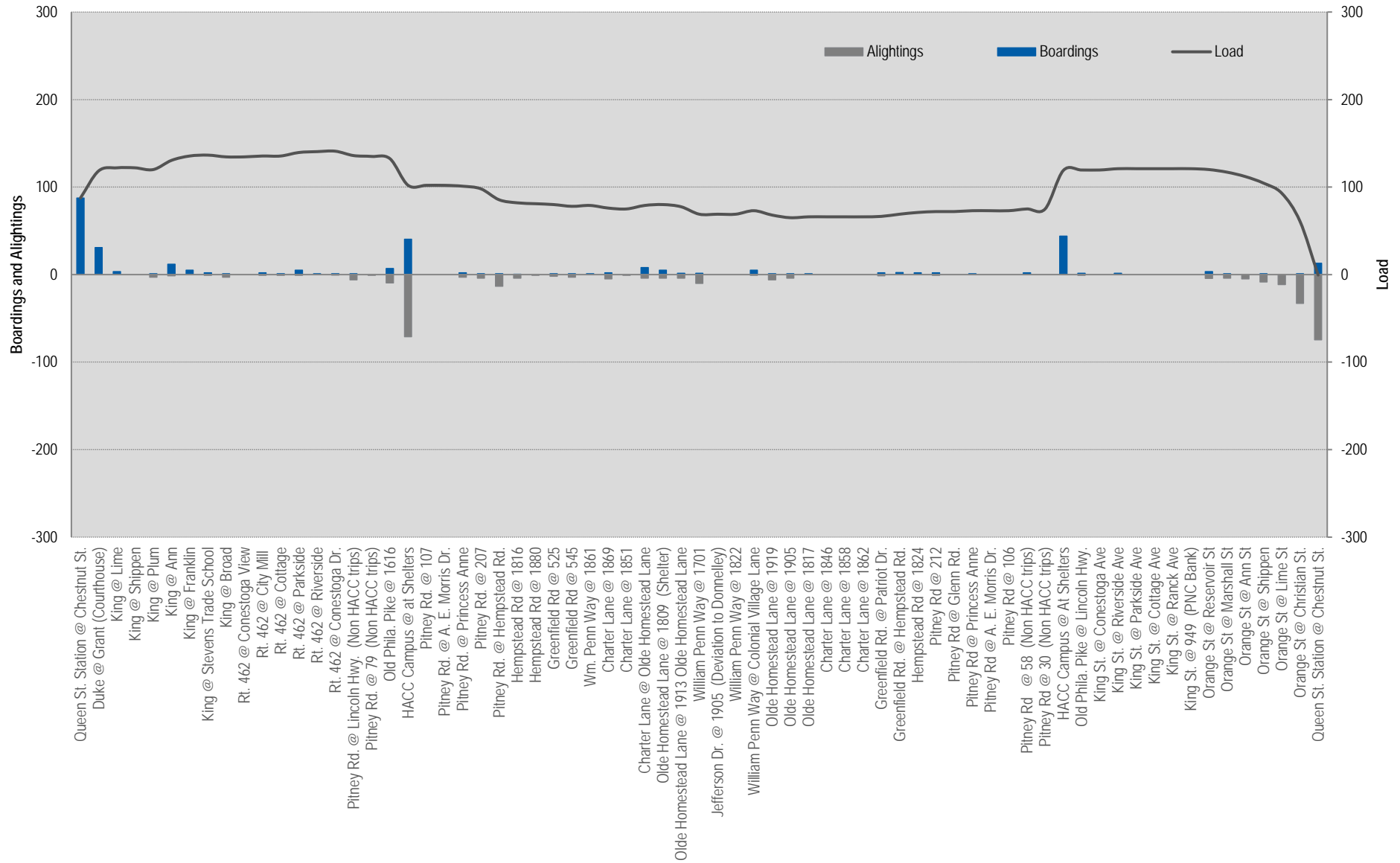
Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

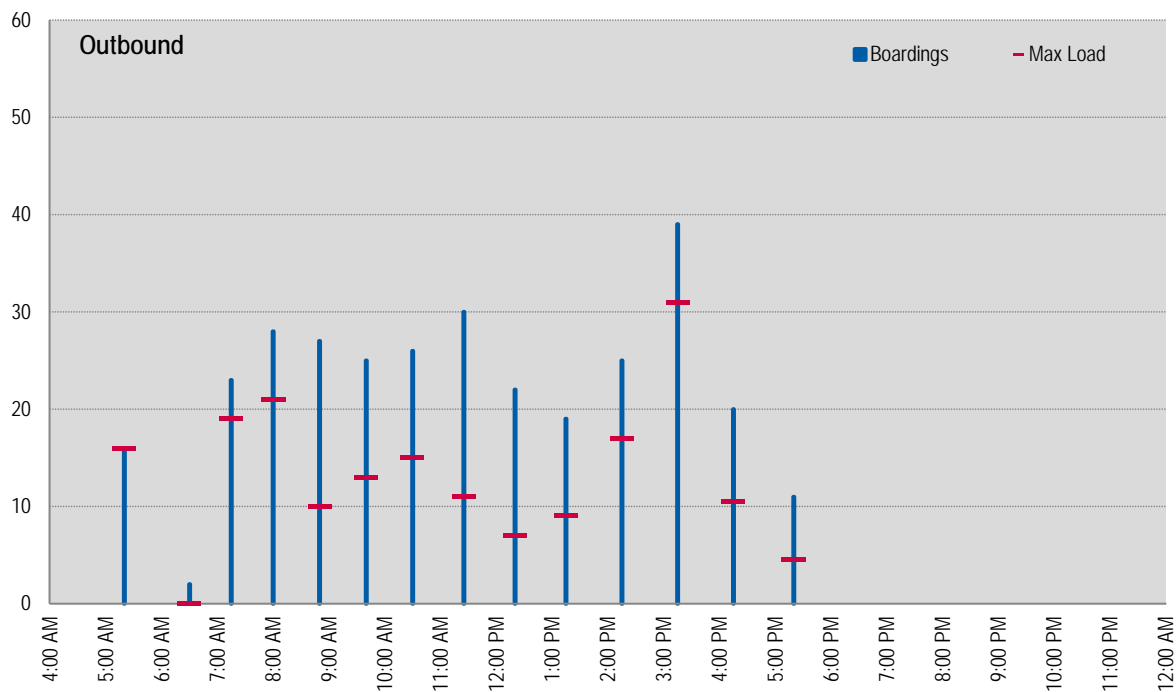
LOOP STOPS	LOOP ONs / OFFs
Queen St. Station @ Chestnut St.	88/0
Duke @ Grant (Courthouse)	31/0
King Street @ Ann Street	12/2
Old Phila. Pike @ 1616	7/10
HACC Campus @ at Shelters	41/71
Pitney Rd. @ Hempstead Rd.	1/14
Charter Lane @ Olde Homestead Lane	8/4
William Penn Way @ 1701	2/10
HACC Campus @ At Shelters	44/0
Orange St @ Shippen	1/9
Orange St @ Lime St	0/12
Orange St @ Christian St	1/33
Queen St. Station @ Chestnut St	13/75

## Daily Ridership by Stop



## Ridership by Trip

### Daily Outbound Ridership by Trip



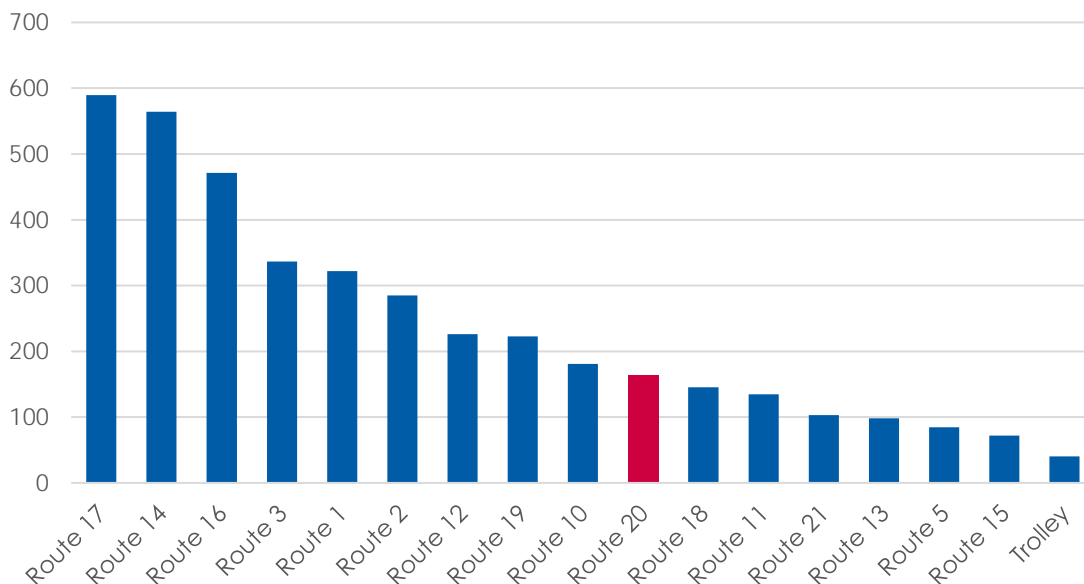
## Service Performance

### Productivity Statistics

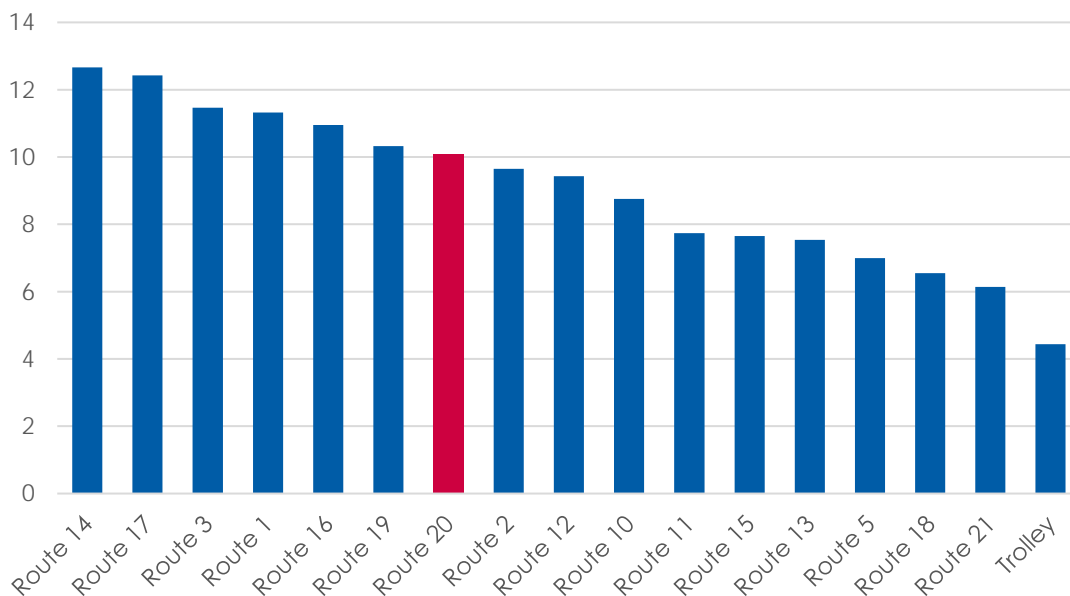
DAILY AVERAGE	
Average Daily Ridership	313
Pax/Revenue Hour	19.8
Red Rose Average	15.9
Pax/One-Way Trip	8.2
Red Rose Average	10.6
Pax/Revenue Mile	1.4
Red Rose Average	1.2

Note: Sunday service was not provided at time of ridership data collection.

### Average Daily Ridership by Route



### Average Daily Ridership per Revenue Hour by Route



## Service Improvement Opportunities

Opportunities to strengthen Route 20 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

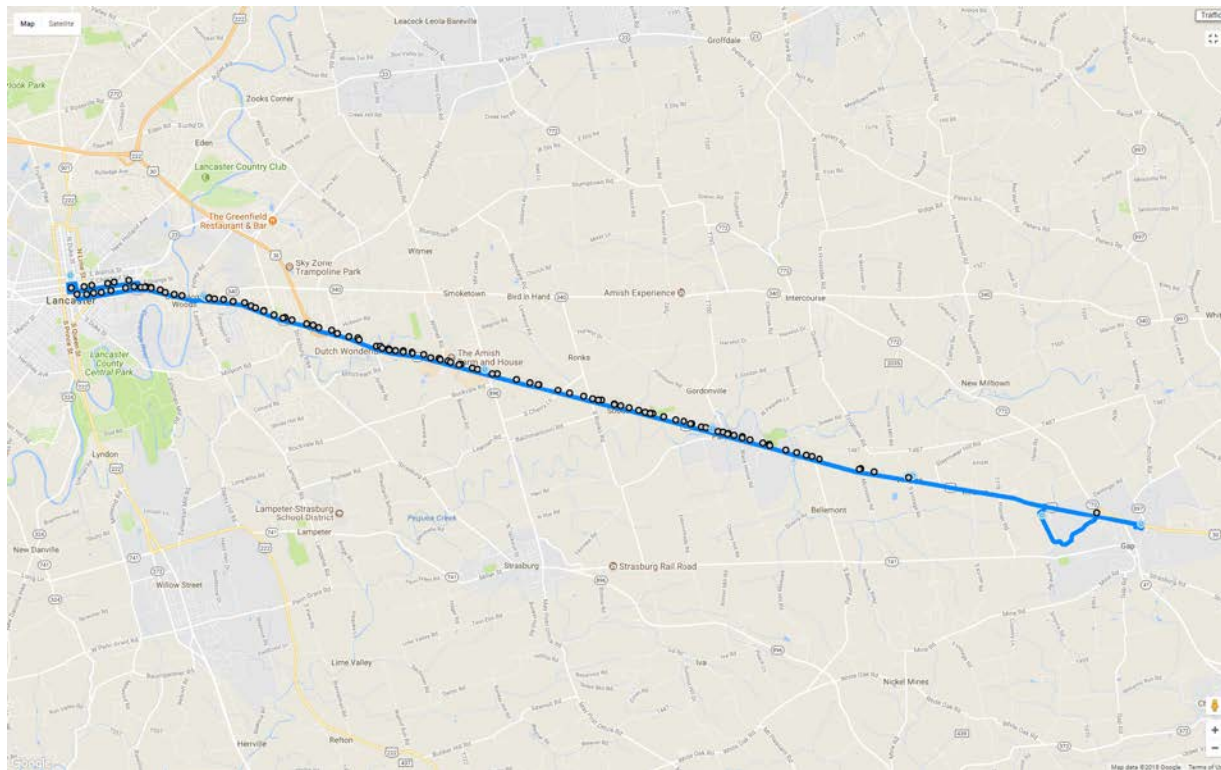
- Collect ridership data to evaluate the performance of trips after 6 PM, which have been added since this data was collected.
- Operate an additional trip between 2:15 PM and 4:15 PM, as relatively high ridership on the 3:15 PM trip indicates there is demand for additional service during this time.

- Operate service at “clockface” headways to make the schedule more consistent and easier for riders to remember. Run hourly service during the day, and potentially 30-minute service later in the afternoon to match the peak in demand. If ridership has changed since the last data collection, increase frequency to 30-minute service as needed.
- Coordinate schedules between Routes 14 and 21 to create a consistent and high frequent corridor along King Street.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE 21

Gap



## Route Overview

### Cities Served

Lancaster, Bridgeport, Paradise, Kinzers, Gap

### Major Corridors Served

King Street, Lincoln Highway/US Route 30

### Major Activity Centers / Points of Interest

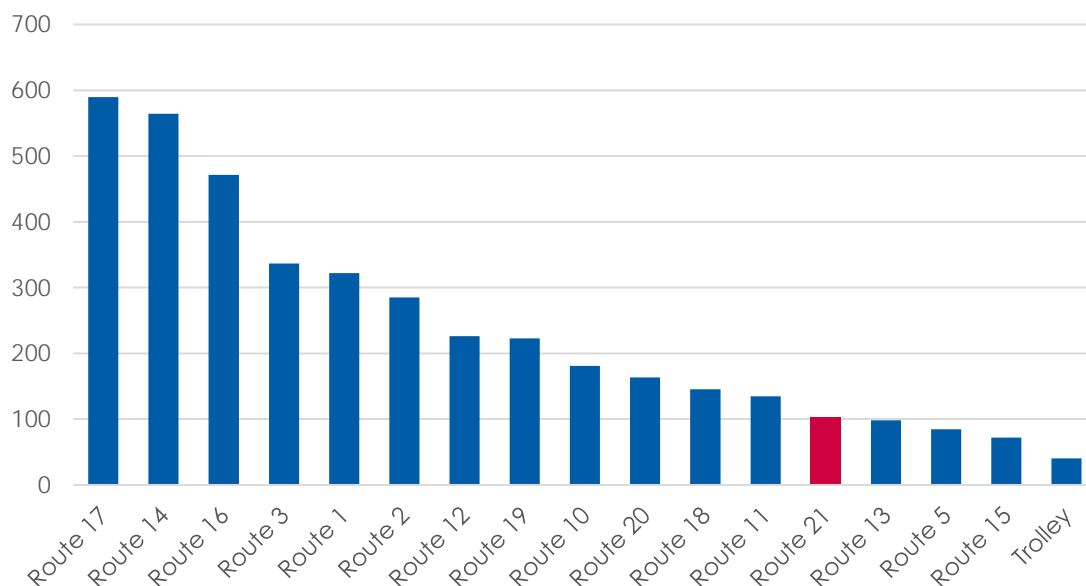
Queen Street Station, Stevens College of Technology, Walmart/Park-and-Ride, East Towne Centre, Tanger Outlets, Dutch Wonderland, Rockvale Outlets, Urban Outfitters Distribution Center, Gap Shopping Center

## Schedule Statistics

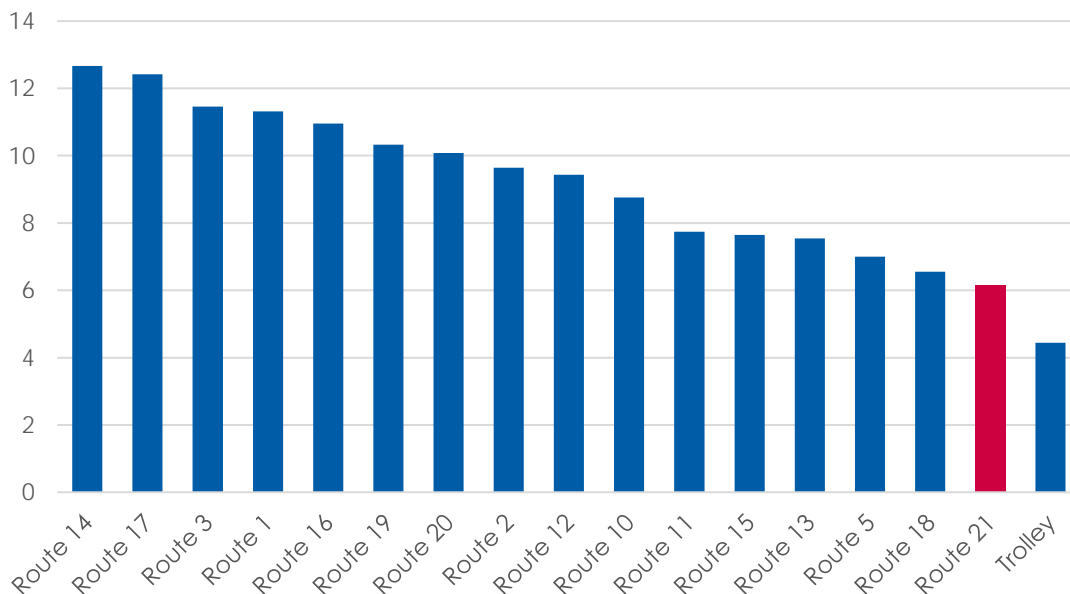
SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS INBOUND/OUTBOUND
Monday-Friday	5:05 AM to 6:35 PM	20-25 / 30 / -	8/8
Saturday	6:00 AM to 6:35 PM	45-65 / 75-110 / -	8/8

Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

## Average Daily Ridership by Route



## Average Daily Ridership per Revenue Hour by Route





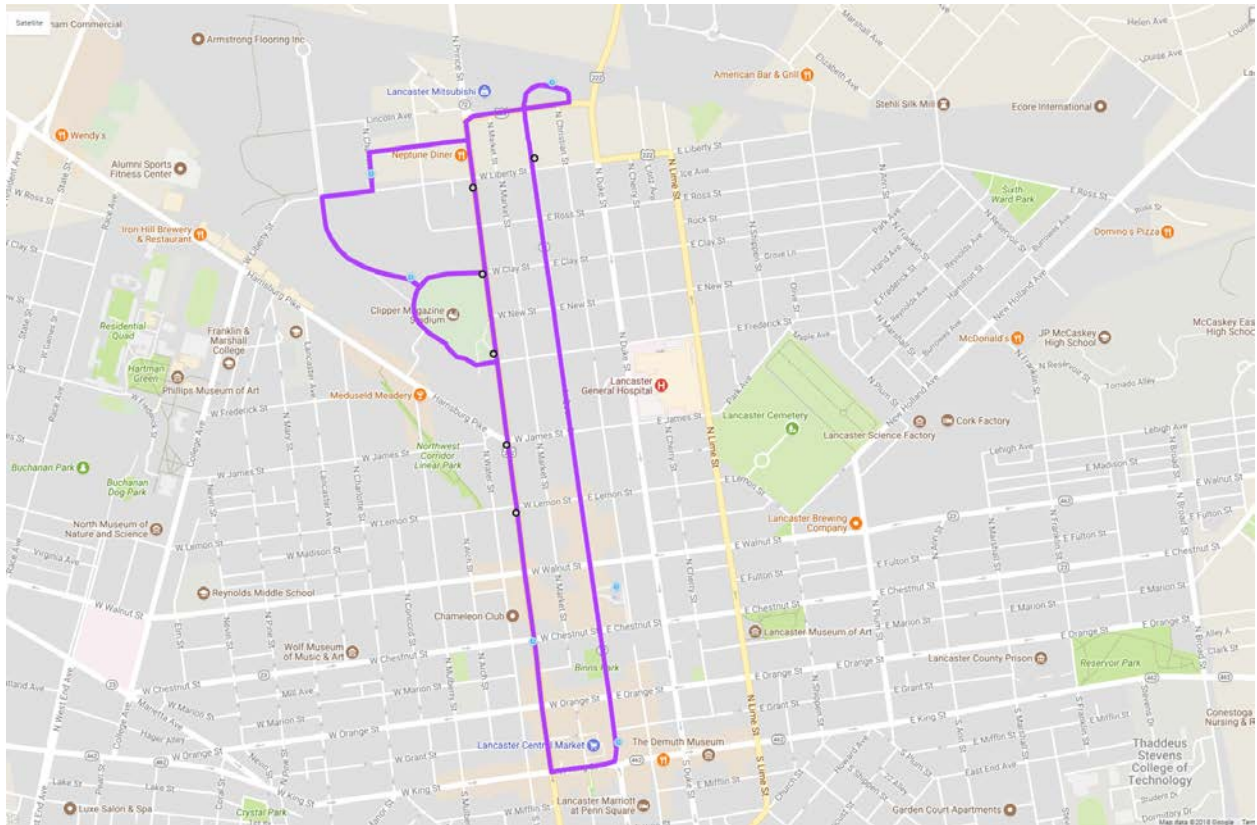
## Service Improvement Opportunities

Opportunities to strengthen Route 21 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- Operate as limited-stop/express route, since most of this route's alignment is already served with all-day local service by Route 14, the system's highest-ridership route. Operating Route 21 as a limited-stop route would provide a faster trip for riders of this longer route.

RED ROSE TRANSIT AUTHORITY (RRTA)

# HISTORIC DOWNTOWN TROLLEY



## Route Overview

### Cities Served

Lancaster

### Major Corridors Served

Queen Street, Prince Street

### Major Activity Centers / Points of Interest

Queen Street Station, Amtrak/Greyhound Station, RRTA Clipper Magazine Stadium/Park-and-Ride, Central market, Penn Square, Convention Center, Liberty Place

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (LOOP)
Monday-Friday	5:20 AM to 6:10 PM	20-30/—/—	22

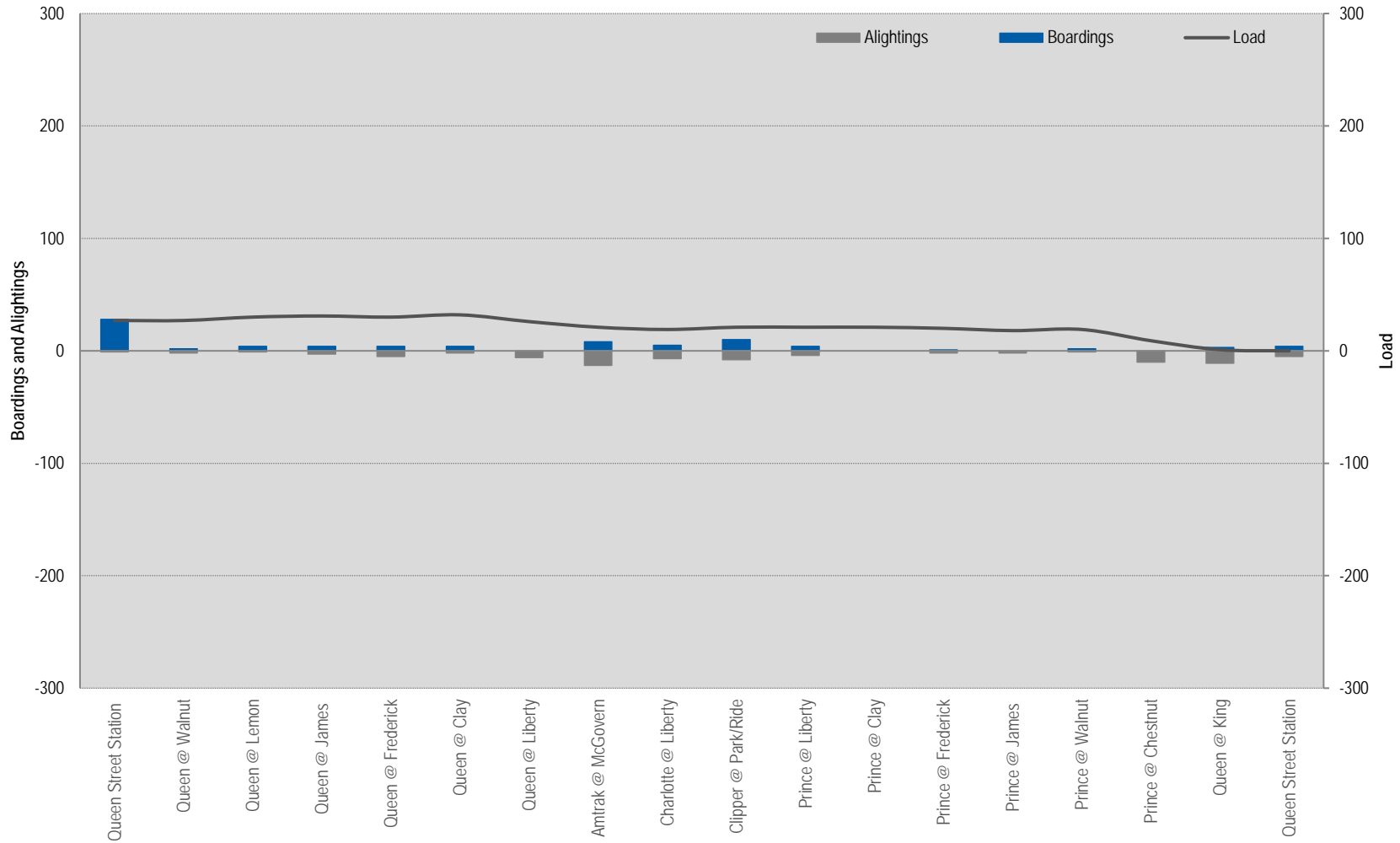
Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

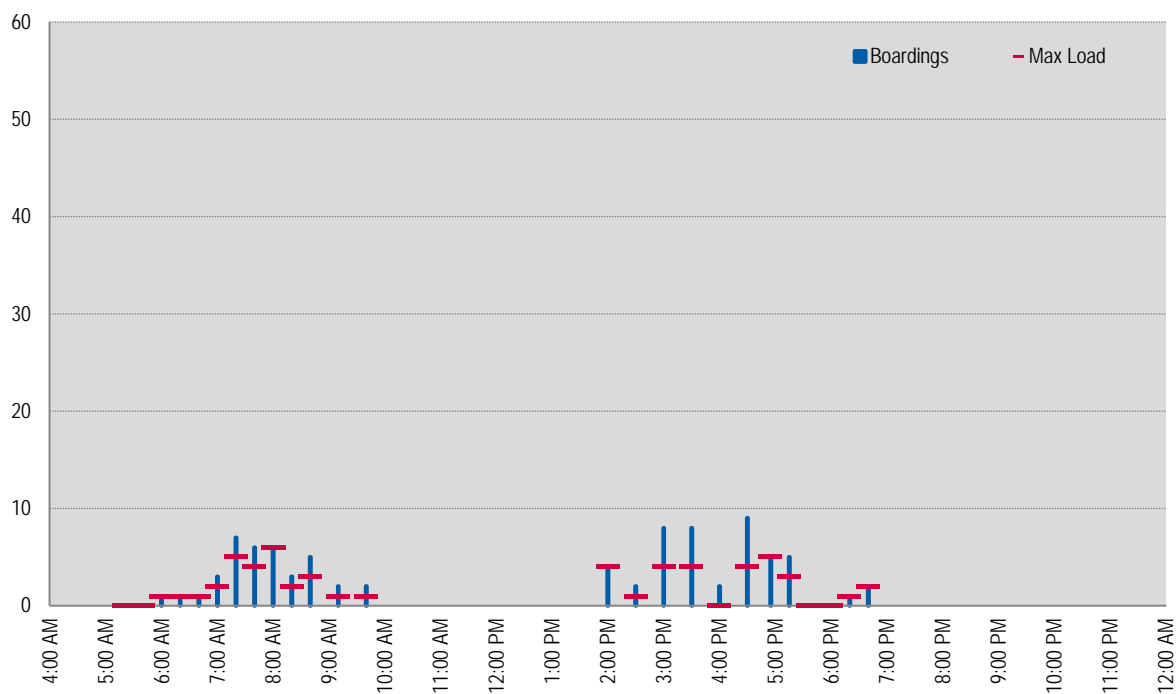
LOOP STOPS	LOOP ONs / OFFs
Queen Street Station	28/1
Amtrak @ McGovern	8/13
Clipper @ Park/Ride	10/8
Prince @ Chestnut	0/10
Queen @ King	3/11

## Daily Ridership by Stop



## Ridership by Trip

### Daily Ridership by Trip



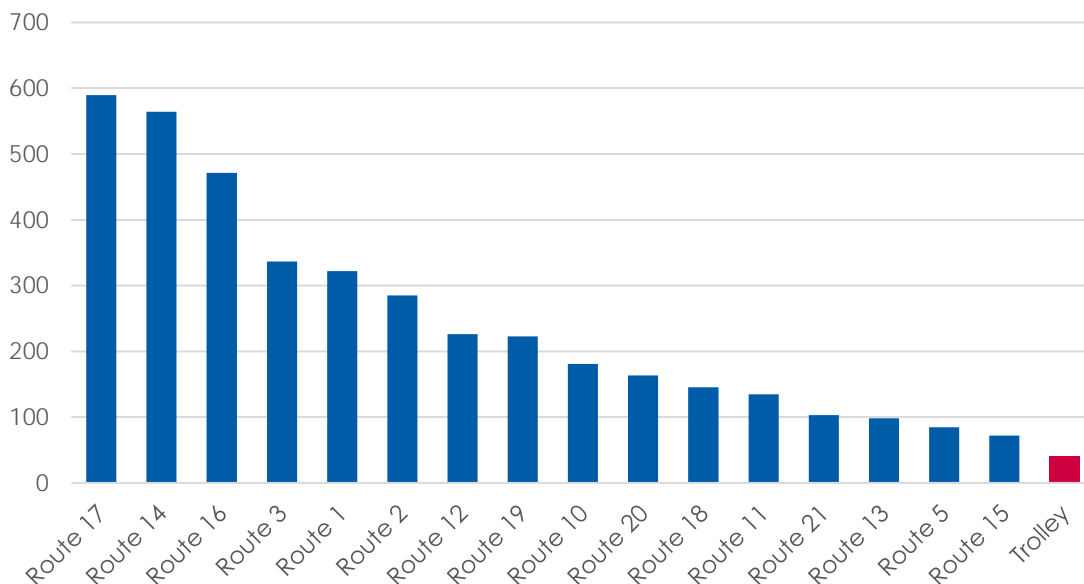
## Service Performance

### Productivity Statistics

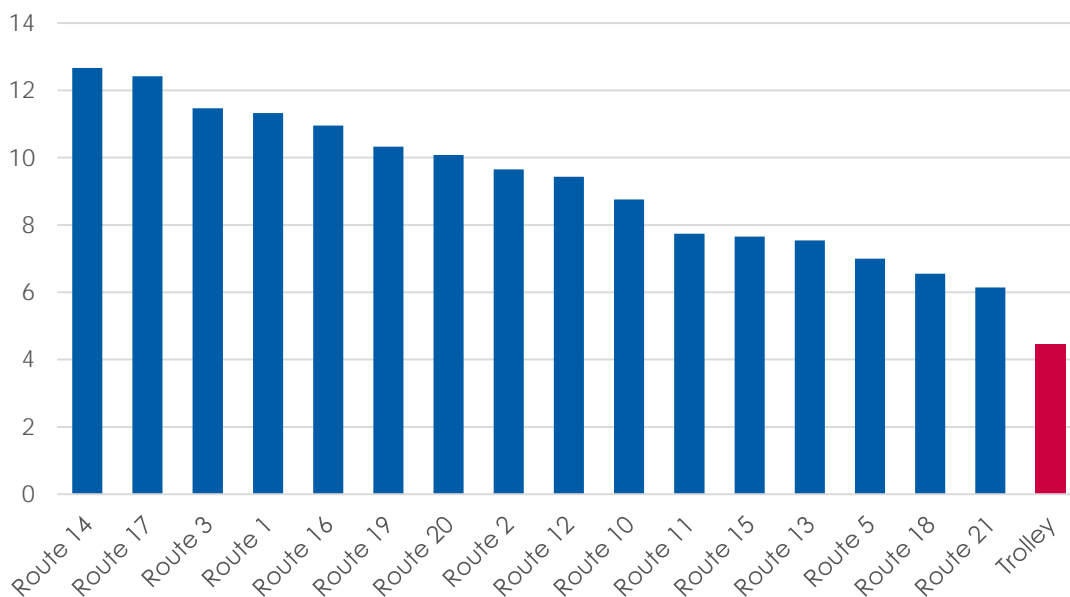
DAILY AVERAGE	
Average Daily Ridership	83
Pax/Revenue Hour	9.3
Red Rose Average	15.9
Pax/One-Way Trip	3.8
Red Rose Average	10.6
Pax/Revenue Mile	1.3
Red Rose Average	1.2

Note: Sunday service was not provided at time of ridership data collection.

### Average Daily Ridership by Route



### Average Daily Ridership per Revenue Hour by Route



## Service Improvement Opportunities

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

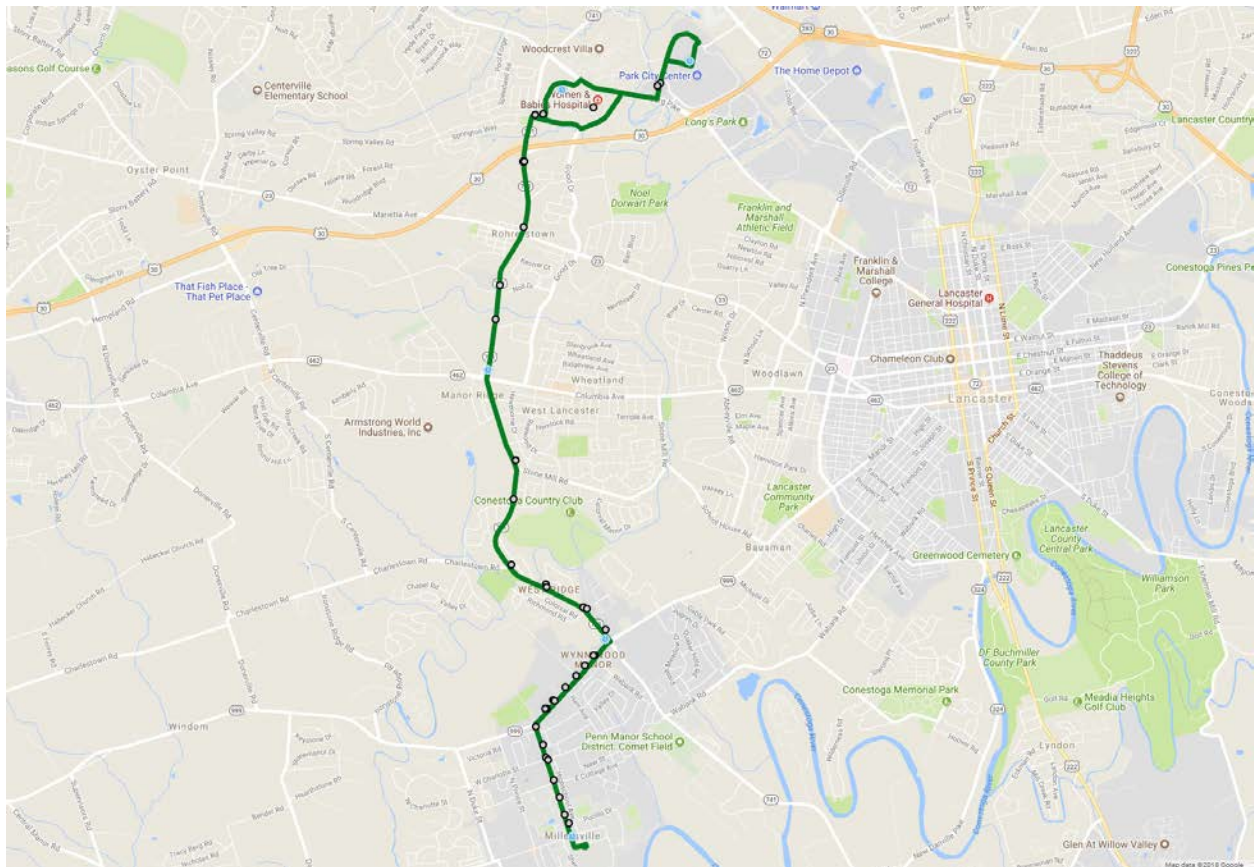
These recommendations are based on service performance and do not include community comments or market data.

- Discontinue the route due to very low ridership (it is the lowest ridership route in the RRTA system) and low productivity. The route operates as a three-mile one-way loop through the most walkable areas of downtown Lancaster. The route also runs parallel with existing local and county routes that operate higher levels of service throughout the day, while the trolley operates a limited schedule (weekday peak hours only).
  - Operate direct, bidirectional service between Amtrak and downtown Lancaster with a redesigned Route 5.
- Provide service that is more oriented toward visitors.
  - Focus service on visitor destinations (for example, more service along King Street and Orange Street to serve restaurants).
  - Make fewer stops that are more focused on key destinations to provide a faster and more convenient trip.
  - Adjust schedule to begin service later in the day, and run during midday, evening, and weekend hours rather than just peak weekday commuting hours.
  - Discontinue service deviation to Liberty Place.
- Structure service to connect parking garages to visitor or employment centers and potentially reduce personal auto traffic as well as the need for expanded parking.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE MU

## MU Park City Xpress



## Route Overview

### Cities Served

Millersville, Manor Ridge, Rohrerstown, Lancaster

### Major Corridors Served

George Street, Manor Avenue, Millersville Road, Rohrerstown Road

### Major Activity Centers / Points of Interest

Millersville University, Regency Square, LGH Health Campus, Park City



## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (LOOP)
Monday-Friday	2:05 PM to 10:15 PM	55/55/55	9
Saturday	2:05 PM to 10:15 PM	55/55	9
Sunday	1:10 PM – 6:35 PM	55/—	6

Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

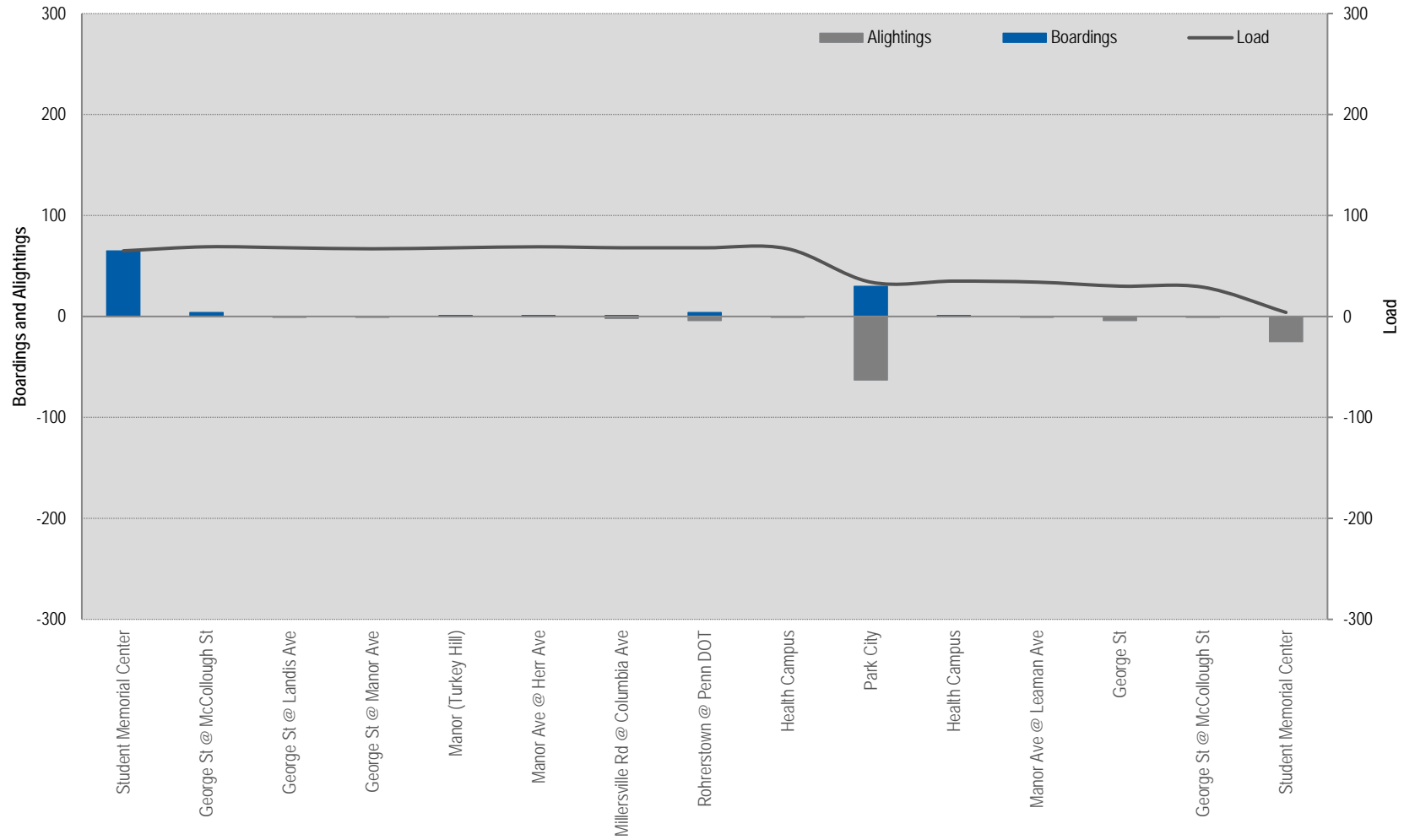
Note: Route operates only when Millersville University is in session during the Fall and Spring semesters.

## Ridership by Stop

### Highest Ridership Stops (10 or More Daily Boardings & Alightings)

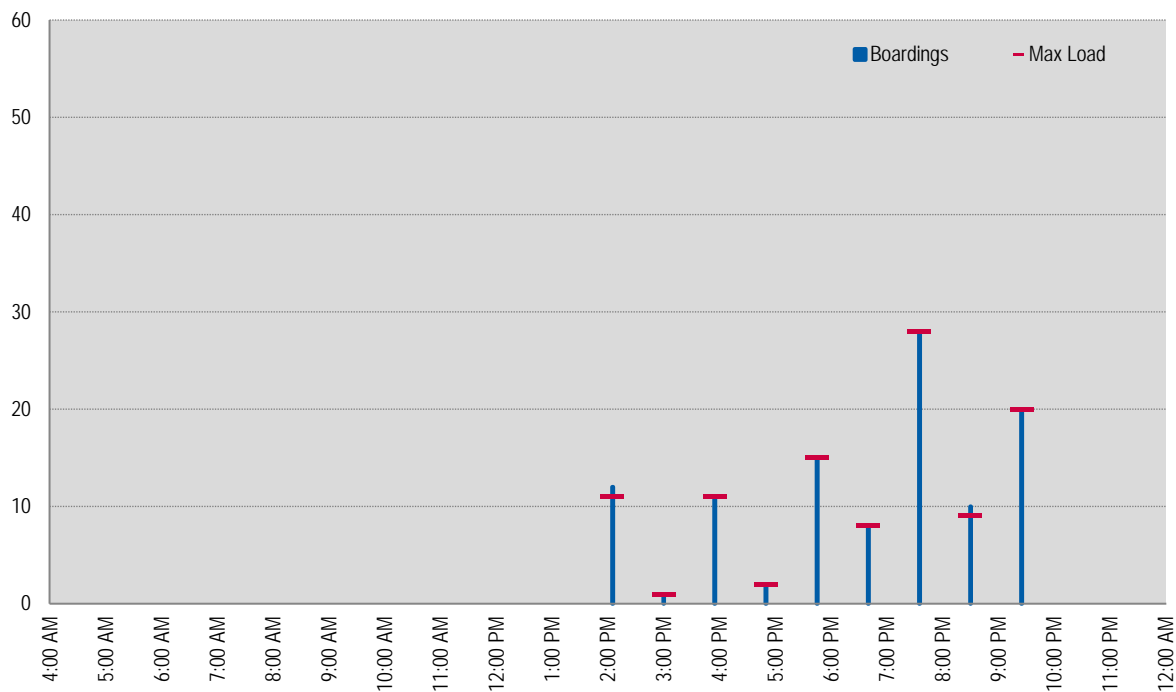
LOOP STOPS	LOOP ONs / OFFs
Student Memorial Center	65/0
Park City	39/63
Student Memorial Center	0/25

## Daily Ridership by Stop



## Ridership by Trip

### Daily Ridership by Trip



## Service Performance

### Productivity Statistics

DAILY AVERAGE	
Average Daily Ridership	107
Pax/Revenue Hour	13.1
Red Rose Average	15.9
Pax/One-Way Trip	11.9
Red Rose Average	10.6
Pax/Revenue Mile	0.8
Red Rose Average	1.2

Note: Sunday service was not provided at time of ridership data collection.

## Service Improvement Opportunities

Opportunities to strengthen the MU Park City Xpress route are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- Operate an additional evening trip. The last trip of the day (starting at 9:25 PM) is the second-highest ridership trip of the day, indicating there is demand for later evening service.
- Operate hourly service to provide clockface headways, making the schedule more consistent and predictable for riders.
- Discontinue service at very low ridership stops to speed travel time and make service more reliable. For example, stops on George Street at Landis Avenue and Manor Avenue are one block apart, but each have just one alighting and no boardings.
- Discontinue the route's service to LGH Health Campus, since the stop has only one boarding and one alighting per day.

RED ROSE TRANSIT AUTHORITY (RRTA)

# ROUTE MU

## MU Xpress



## Route Overview

### Cities Served

Millersville

### Major Corridors Served

Cottage Avenue, George Street, Duke Street

### Major Activity Centers / Points of Interest

Millersville University, Student Memorial Center, Biemesderfer Stadium, Performing Arts Center  
Prince Street Parking Garage, Brookwood Apartments, Wellness Apartments, South Side Suites

## Schedule Statistics

SERVICE DAY	SPAN OF SERVICE	FREQUENCY (MIN)	DAILY TRIPS (LOOP)
Monday-Thursday	7:30 AM to 9:50 PM	20/20/20	43
Friday	8:50 AM to 2:50 PM	20/—	18

Peak frequencies are calculated for service that operates 6 AM – 9 AM and 3 PM – 6 PM. Midday service is 9 AM – 3 PM. Evening service is for service after 6 PM. Saturday and Sunday frequencies are shown as AM/PM.

Note: Route operates only when Millersville University is in session during the Fall and Spring semesters.

## Service Improvement Opportunities

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

- Brand the service as a shuttle or circulator, rather than “Xpress”, since the route does not operate rapid/limited-stop service or commuter/express service. This would also help differentiate the route from the MU Park City Xpress route.
- Continue to operate the route as a campus and local-area circulator, with regular 20-minute service throughout the day. Collect ridership data to evaluate the route’s performance and identify potential areas for improvement.