

South Jersey Transportation Planning Organization Microtransit Feasibility Study

July, 2023



Provided by



Table of Contents

Acknowledgements	4
Executive Summary	6
1. Introduction	10
1.1. Study goals and objectives	11
1.2. Study area overview.....	11
1.3 Microtransit overview	13
2. Review of Past Plans	15
2.1. Access for All Transit Plan, SJTPO	17
2.2. Atlantic County Master Plan, Atlantic County	17
2.3 RTP 2050: Moving South Jersey Forward, SJTPO	20
2.4 Accessing Economic Opportunity Report, Federal Reserve Bank of Philadelphia	20
2.5 Ladders of Opportunity Methodology, SJTPO	22
3. Market Analysis	23
3.1 Travel Demand	24
3.2 Demographics	30
4. System Analysis	46
4.1 Route 54/40 Community Shuttle Review	47
4.2 Paratransit	52
5. Public Outreach	54
5.1 Focus Group Takeaways	55
5.2 Interview Takeaways	57
5.3 CCCTMA Survey Takeaways	58

Table of Contents

6. Service Planning and Implementation.....	60
6.1 Microtransit Service Design	61
6.2 Operating Models	75
6.3 Technology Solutions	77
6.4 Implementation Considerations	80
6.5 Marketing and Public Education	86
6.6 KPIs and Service Evaluation	91
7. Conclusion.....	96
Appendix A: CCCTMA Rider Survey	98

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Executive Summary

In the Summer of 2022, the South Jersey Transportation Planning Organization (SJTPO) commissioned a study to evaluate the feasibility of replacing the Route 54/40 Community Shuttle with a microtransit service. The study was completed in partnership with Cross County Connection Transportation Management Association (CCCTMA) and with the participation of key stakeholders including the South Jersey Transportation Authority (SJTA).

Microtransit is a relatively new form of public transit that delivers on-demand rides to passengers. There are no routes or pre-scheduled stops. Instead, the vehicles are dynamically routed in response to where and when customers want to ride within a predefined service zone. Microtransit is technology-enabled, and riders are encouraged to book trips through a mobile phone app. Typically riders wait between five and twenty minutes for their vehicles to arrive and are asked to walk a few minutes to a nearby intersection to minimize the detours made by the vehicles and maximize the efficiency of the service. Rides are shared between passengers traveling in similar directions.

Because the proposed microtransit service would replace the existing Route 54/40 Community Shuttle, the study area was based on the location of the Route 54/40 Community Shuttle and the surrounding communities. These include Hammonton, Folsom, Newtonville, Landisville, Buena, Minotola, Collings Lakes, and Richland. The study area also covers Vineland, which is not served by the route but is a nearby high-activity area and potential trip generator. Any proposed new microtransit services evaluated in this study, at a minimum, would cover the same geographic area as the existing Route 54/40 Community Shuttle.

The main components of the study include the following:

- 1 Analysis of the performance of the Route 54/40 Community Shuttle
- 2 Identification of gaps in transit service, key destinations, and priority areas within the study area
- 3 Evaluation of the demographics and socioeconomic characteristics of the study area
- 4 Consultation with stakeholders and the community
- 5 Development and analysis of microtransit alternatives in the study area
- 6 Compilation of implementation recommendations and considerations in order for SJTPO to establish a successful new microtransit service



The study area analysis determined that Hammonton and Landisville are the most densely populated areas along the Shuttle route. There is also some employment density along the Route, especially in Hammonton. The large concentration of jobs in Vineland and Millville suggested an opportunity to expand transit coverage into those areas.

The analysis of the current route found that the most popular stops are the Walmart in Hammonton, Hammonton Rail Station, downtown Hammonton and the Dr. Martin Luther King, Jr. Community Center. In 2021, the Shuttle had 7,150 rides, with an average monthly ridership of 600 rides. Monthly ridership after COVID has yet to recover fully, and currently, ridership is about 75% of pre-pandemic levels. A decrease in ridership suggested that there may be latent demand in the area and that improvements in transit services could increase ridership.

In order to supplement the Market Analysis and better understand the needs of the community, focus groups, shuttle ride-alongs, and on-street intercept surveys were conducted to connect with current and potential riders. Outreach was conducted in both English and Spanish. In general, the community was excited about the potential for transit improvements. Feedback on the current Route 54/40 Community Shuttle included:

- Concerns about the services' reliability,
- Safety at bus stops and bus stop infrastructure, and
- A desire for service to more locations.

Many non-shuttle riders noted a struggle to find transportation that meets their needs for work and personal trips. The community engagement was supplemented with interviews and meetings with local stakeholders who represented a diversity of community groups and local businesses. Overall, the community feedback indicated that changes to transit services should prioritize adding weekend service, access to more destinations, shorter wait times, and better on-time performance. Accessibility of transit services to the Spanish-speaking community was also discussed as a priority by both the riders and stakeholders.

Based on the public outreach, market analysis, and a review of past plans, four microtransit alternatives were developed and evaluated for the study. Alternatives A and B covered the towns of Hammonton, Folsom, Newtonville, Collings Lakes, Buena, and Richland, where the Route 54/40 Community Shuttle currently operates. Alternative C expanded service into Camden County, and Alternative D expanded service into Vineland. In Alternative D, trips would only be allowed to start or end in Vineland but not be fully completed within Vineland. This would support trips to and from Vineland and the original Route 54/40 Community Shuttle area. These alternatives were modeled to understand the expected ridership, operating cost, and service quality (anticipated wait times, journey times, and walking requirements). The results of this analysis are summarized in Table 1. By transitioning the shuttle service to a microtransit service, passengers will have access to more areas, shorter wait times, and shorter journey times.



Table 1 Summary of microtransit alternatives

Alternative	Annual Ridership under medium-demand scenario	Vehicles Required to Operate the Service at Peak	Estimated Annual Operating Costs
Alternative A: Zone 1 54/40 Communities	19,000	2 - 4	\$750,000 - \$925,000
Alternative B: Zone 1 54/40 Communities (two vehicle limit, reduced quality of service)	19,000	2 <i>Service would not be able to meet high demand scenarios</i>	\$500,000 - \$625,000
Alternative C: Zone 2 54/40 Communities + Camden County	21,000	2 - 4	\$750,000 - \$925,000
Alternative D: Zone 3 54/40 Communities + Vineland	34,000	4 - 7	\$1,225,000 - \$1,500,000

The final component of the Microtransit Feasibility Study includes recommendations for implementing successful new microtransit services. The next step is for SJTPO, CCCTMA, SJTA, and local stakeholders to determine if they would like to proceed with converting the Route 54/40 Community Shuttle to a microtransit service. This includes evaluating funding opportunities, an overview of the technology required, different operating models, how to market

microtransit services, and how to evaluate microtransit services using key performance indicators. These decisions should be made with community needs in mind, reflect the learnings from the interviews, and focus groups conducted as part of this study. Although microtransit is a relatively new form of public transit, this study provides support for microtransit as a viable alternative service model for the Route 54/40 Community Shuttle.

SECTION 1

Introduction

1.1	.....	Study goals and objectives
1.2	.....	Study area overview
1.3	.....	Microtransit overview

1.

Introduction

1.1 Study goals and objectives

The primary goal of this study is to determine if microtransit is a viable service model for the Route 54/40 Community Shuttle, which is partially funded by grants from NJ TRANSIT and the Pascale Sykes Foundation which ceased operations in mid-2022. The sunseting of the Foundation has accelerated the need to create a more efficient and impactful transportation service that will be competitive when seeking public and private funding, to enhance accessibility for underserved communities, and to demonstrate innovative public transit solutions that could be possible in rural areas of South Jersey.

This study includes the following objectives that support the primary goal:

- Analyze the performance of the Route 54/40 Community Shuttle as it currently exists through review of existing reports, studies, and ridership data
- Identify geographic gaps, key destinations, and priority areas within the study area
- Consult regional stakeholders and the broader community to provide input
- Develop service alternatives, including key service characteristics to provide an efficient microtransit service
- Carry out cost-benefit and budget analysis
- Provide actionable implementation plan for proposed microtransit service



1.2 Study area overview

This study area encompasses communities on and surrounding the Route 54/40 Community Shuttle route, which include Hammonton, Folsom, Newtonville, Landisville, Buena, Minotola, Collings Lakes, and Richland. While not served by the route, the study area also encompasses Vineland (Cumberland County), which is a high-activity area and potential trip generator that is a candidate for the route's expansion.

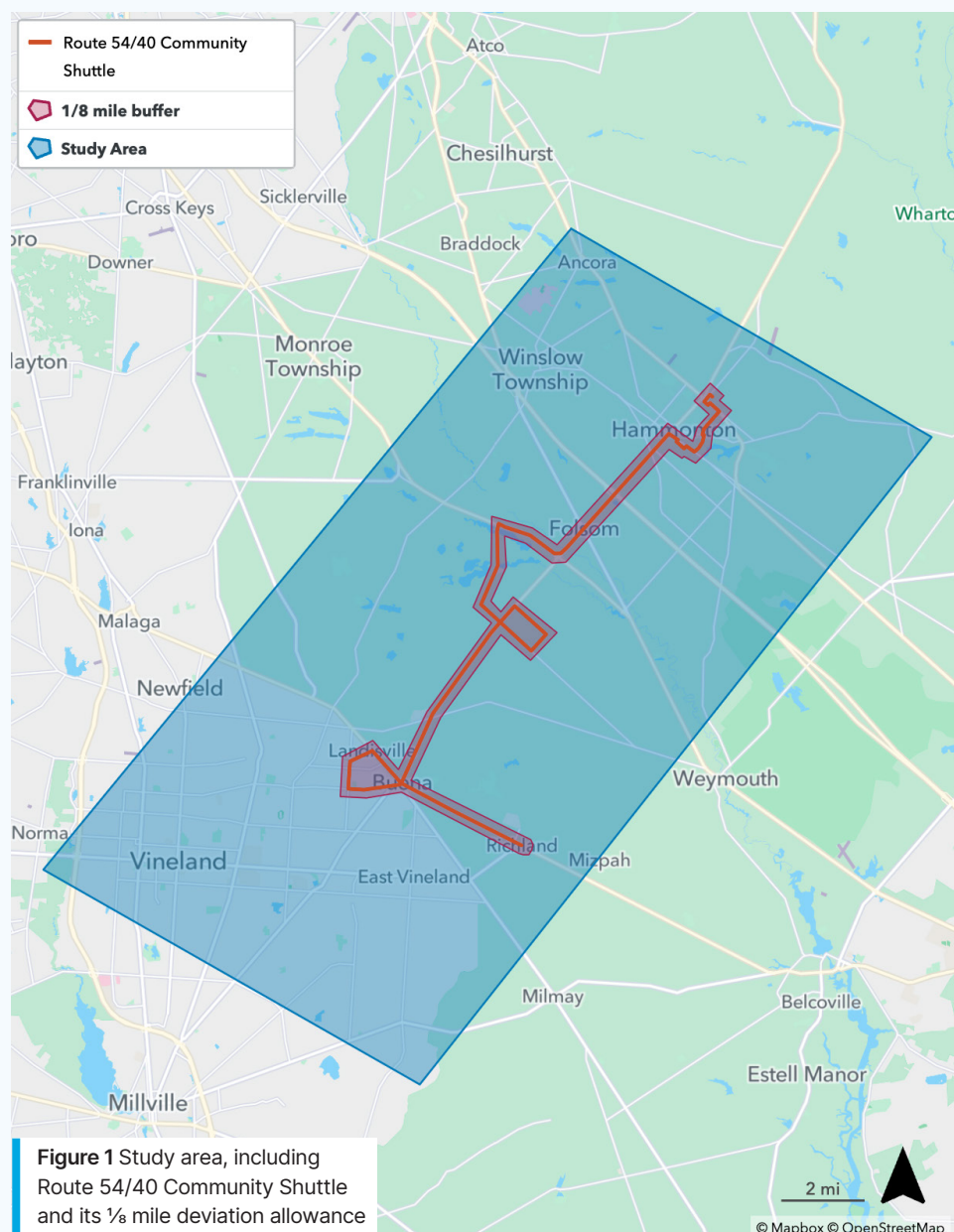
The area can be classified as rural and low-density, with denser concentrations of people and jobs in Hammonton and Vineland. According to the Bureau of Labor Statistics, the largest industries in the county at large are Health Care & Social Assistance, Accommodations & Food Services, and Retail & Trade.¹ The study area is home to some of the largest employers in the region outside Atlantic City, including Americold Logistics and Top Quality Baking in Vineland. It is also home to stores that are key trip generators, such as Walmart and Wawa in Hammonton.

Residents in this area without access to a personal vehicle face challenges that restrict their mobility and access to employment, recreation, and other day-to-day activities. They need a reliable and affordable way to get around the area; in many cases, residents resort to using expensive rideshare services (e.g., Uber, Lyft) or taxis if no other mode is available. Persons with disabilities require transportation that accommodates their specialized needs. Pedestrian and bike infrastructure is lacking, making it difficult to access bus stops or use non-motorized modes for their trips.

¹Source: "Atlantic County, NJ," Data USA, Deloitte and Datawheel, <https://datausa.io/profile/geo/atlantic-county-nj>.

There are several public transportation options that currently exist in the study area. The Route 54/40 Community Shuttle (route shown in Figure 1) is operated by the South Jersey Transportation Authority (SJTA) and administered by the Cross County Connection Transportation Management Association (CCCTMA). It operates eight southbound and nine northbound trips at an hourly frequency on weekdays between Hammonton and Richland, serving Folsom, Landisville, Buena, and Newtonville along the way.

This route also provides connections to three NJ Transit bus lines and to NJ TRANSIT's Atlantic City Rail Line, which connects Hammonton to Atlantic City and Philadelphia. The Community Shuttle also deviates a $\frac{1}{8}$ mile off route, if requested by a passenger a day in advance. By car, Atlantic County is also connected to Atlantic City and Philadelphia. The Garden State Parkway provides a direct link between Atlantic County and New York City. Furthermore, the Atlantic City airport also facilitates regional connections.



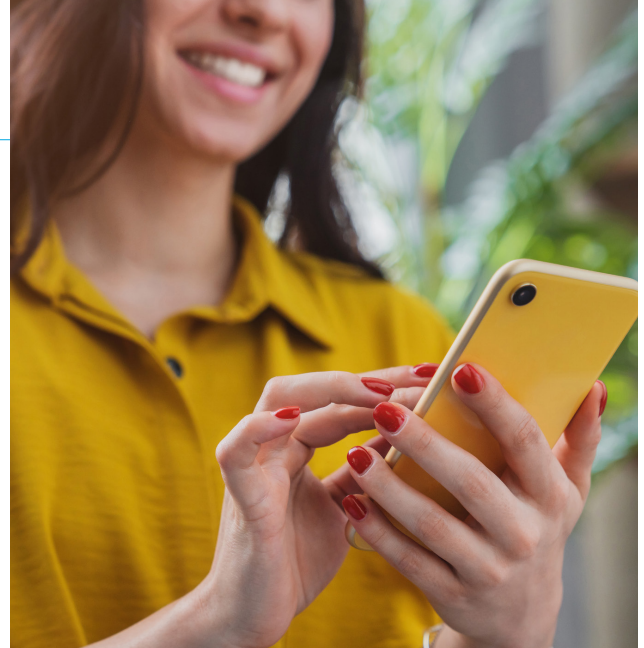
1.3 Microtransit overview

Microtransit, also known as on-demand transit, is a technology-enabled transit system that dynamically routes vehicles based on real-time passenger demand. While demand-response transit has existed for decades, often in the form of Dial-a-Ride and other paratransit services, microtransit has grown in popularity just in the last few years. The key difference is that microtransit is technology driven and encourages riders to book trips through a mobile phone app, allowing on-demand booking in addition to pre-booking. While the configuration of each microtransit service is different, typically, passengers are asked to walk to meet a vehicle at a nearby intersection to reduce detours and maximize the efficiency of the service. There are no fixed routes or pre-determined schedules. Instead, routing is based on where riders want to travel and when. Microtransit is often implemented using small buses or vans, and rides are shared as they are with traditional bus service.

Microtransit services are typically open to anyone to use for any trip purpose. This is unlike some paratransit or other dial-a-ride services that limit trips to seniors or people with disabilities or services that limit trips to medical appointments. Microtransit can be used for shopping, recreational trips, regular work commutes, medical visits, or anything other trip purpose. Wheelchair-accessible vehicles ensure the microtransit service is accessible to people with disabilities. Microtransit can often complement an existing paratransit service by allowing individuals with higher mobility to use microtransit, reducing the demand pressure on paratransit services and allowing them to better serve individuals with greater mobility challenges.

Typically, microtransit services operate within a pre-defined zone, meaning passengers can only book trips where both their origin and destination are within the same area. For passengers who want to travel beyond the zone boundaries, microtransit can provide a first/last-mile connection to fixed-route buses or trains that connect beyond the zone boundaries. In this case, passengers will only be able to complete part of their journey using microtransit.

From the perspective of the vehicles, there are no predetermined routes or stops. Vehicles are scheduled and routed as trip requests are made. If there are no requests, vehicles usually have designated terminals



or staging areas where they can wait until a new trip request is scheduled - the terminal number and locations are determined based on the size of the zone and frequent ride request locations. This minimizes the amount of driving a vehicle does with no passengers on board.

Most services allow passengers to book a trip using a smartphone application, a website, or by calling a dispatcher. To book a ride, a customer indicates the number of passengers in their party and their desired pickup and dropoff locations. When booking using the app, passengers will see a map of the service zone where they can book rides. The application often shows key destinations and transit hubs in the service area. Once the passenger submits a trip request, they are given a proposal that tells them when the vehicle will arrive and where to meet it. Typically, passengers must wait between five and twenty minutes for a trip, although this may vary depending on the level of demand and the number of vehicles available. Passengers can track the vehicle in real-time using the app. The passenger is also provided with vehicle information—for example: license plate, driver name, driver photo, and vehicle ID number. Passengers can usually cancel a ride at any time before pickup. However, last-minute cancellations may negatively affect other passengers, and thus a small fee is often charged to discourage cancellations. For trip requests made through a call center, passengers can choose to receive text message updates for their trips. Call center bookings also ensure the service is accessible to those without access to a smartphone.

Once the vehicle arrives, the driver confirms the passenger's details using the driver app. The driver app also allows for communication between the

dispatcher and the driver, as well as turn-by-turn directions and the manifest of scheduled trip requests. The driver app is consistently refreshed and updated as new customers book rides.

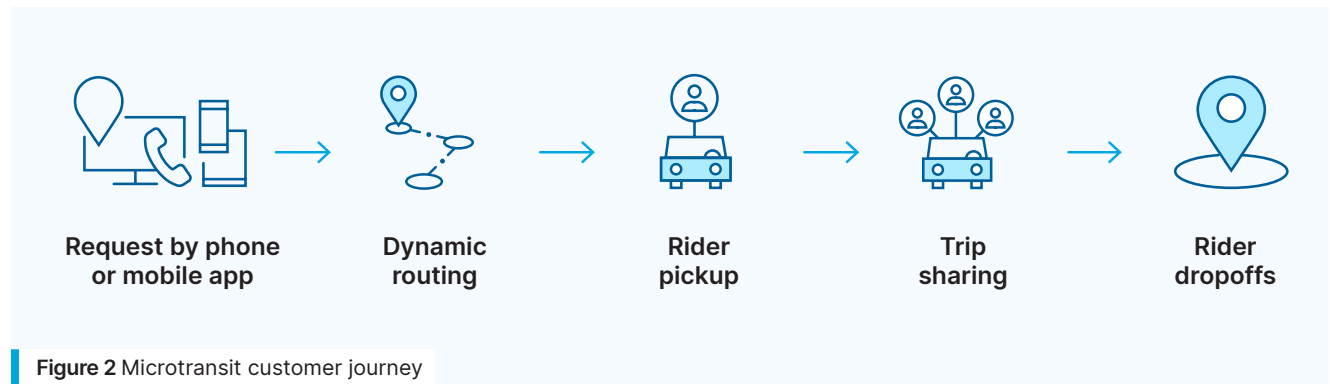
While some microtransit services are fare-free, others charge fares comparable to other public transit services. Passengers can pay for their trips using credit and debit cards, transit passes, cash, or vouchers (each agency must determine what payment methods will be accepted for its service and how much to charge). Options for people without credit cards or bank accounts are made available to ensure the service is accessible to all.

Once the passenger(s) has boarded the vehicle, they are driven to their destination. Along the way, the vehicle will pick up and drop off other passengers heading in a similar direction, but services are configured to avoid lengthy detours for passengers

already on board. The passenger can continue to track their trip's progress using the app. Passengers may also be asked to walk a few minutes from their dropoff point to their final destination. For passengers who are unable to walk, most services provide curb-to-curb service for these passengers or an alternative ADA paratransit service.

After each trip, passengers may be automatically emailed a receipt. Passengers may also be able to provide real-time and post-trip feedback through the app.

Some microtransit services offer pre-booked rides in which passengers select a window in which they would like to be picked up or dropped off in advance of their trip. Pre-booking can be helpful for those needing to travel for appointments or work shifts that are scheduled days or weeks in advance (see [section 6.4.6 pre-booked service](#) for more details).



SECTION 2

Review of Past Plans

2.1	Access for All Transit Plan, SJTPO
2.2	Atlantic County Master Plan, Atlantic County
2.3	RTP 2050: Moving South Jersey Forward, SJTPO
2.4	Accessing Economic Opportunity Report, Federal Reserve Bank of Philadelphia
2.5	Ladders of Opportunity Methodology, SJTPO



2.

Review of Past Plans

The team conducted a review of past reports and studies that have looked at existing conditions and proposed strategies for improving transportation in the area. The purpose of this review was to ensure that recommendations and strategies proposed in this study are aligned with broader goals and objectives for the region put forth by other organizations and agencies. The documents that were evaluated included the following:

- 1 Access for All Transit Plan, *SJTPO* (2021)
- 2 Master Plan, *Atlantic County* (2018)
- 3 RTP 2050: Moving South Jersey Forward, *SJTPO* (2021)
- 4 Accessing Economic Opportunity Report, *Federal Reserve Bank of Philadelphia* (2018)
- 5 Ladders of Opportunity Methodology, *SJTPO*

2.1 Access for All Transit Plan, SJTPO

Overview. The 2021 Access for All Transit Plan assessed the needs of transit-dependent and transit-disadvantaged residents of Salem, Atlantic, Cape May and Cumberland counties, building heavily on the previous 2015 Coordinated Human Services Transportation Plan. It included participation from a Steering Committee of regional stakeholders.

Existing Transportation Needs and Challenges: The Study included an inventory of transportation providers in the SJTPO region. After completing an inventory of current transportation resources, the Study identified the region's existing needs as:

- Transportation that accommodates special needs
- Transportation for persons seeking employment or employment training
- Transportation for services, shopping centers, and NJ TRANSIT connections for transit-dependent populations
- Seamless trip that avoids gaps in the travel chain

Recommendations. The recommendations from this study build on the recommendations in the 2015 plan. They were county-specific and systemwide, including:

- Expanded and new feeder services to NJ TRANSIT bus and rail
- New routes between Woodbine and Atlantic City, Northern Cape May County and Atlantic City, Woodbine and Cape May City, northwestern Salem County and Bridgeton
- Extended and weekend hours on existing services

- Utilization of ride-sharing companies to augment transportation services
- Improved efficiency and cut costs

Strategies for implementation: The strategies for implementing the recommendations included the following:

- Creating a County Coordinating Committee to streamline human service transportation coordination
- Hiring a Mobility Manager to guide County Coordinating Committee
- Enacting a shared agreement between major county transportation agency and another agency to share responsibilities in transportation delivery

2.2 Atlantic County Master Plan, Atlantic County

Overview: As part of New Jersey's post-Sandy recovery effort, Atlantic County received a grant to prepare a Strategic Recovery Planning Report, in which one of its recommendations was to update the 2000 County Master Plan. The document provides goals, recommendations, and implementation actions to guide growth, development, preservation, resiliency and sustainability within the County.

Existing transportation: The transportation section provides an inventory and analysis of Atlantic County's transportation network as well as major employment centers. It includes charts of travel patterns of residents and workers in Atlantic County. The charts show that a majority of residents who live in Atlantic County work in the county, and vice versa, pointing to the need for better local transportation to connect residents with jobs.

Table 2 Resident Locations of Workers Employed in Atlantic County

Where Workers are Employed who live in Atlantic County	2014	
	Count	Share
Total Workers	128,123	100.0%
Atlantic County	84,158	65.7%
Ocean County	6,297	4.9%
Cape May County	5,940	4.6%
Camden County	5,662	4.4%
Cumberland County	4,585	3.6%
Gloucester County	3,855	3.0%
Burlington County	3,480	2.7%
Monmouth County	1,381	1.1%
Middlesex County	1,258	1.0%
Essex County	897	0.7%
All Other Locations	10,610	8.3%

Source: Atlantic County Master Plan.

Table 3 Employment Locations of Atlantic County Residents

Where Workers are Employed who live in Atlantic County	2014	
	Count	Share
Total Workers	125,197	100.0%
Atlantic County	84,158	67.2%
Camden County	4,640	3.7%
Cape May County	4,175	3.3%
Cumberland County	4,116	3.3%
Burlington County	3,807	3.0%
Mercer County	2,940	2.3%
Gloucester County	2,705	2.2%
Ocean County	2,552	2.0%
Middlesex County	2,147	1.7%
Philadelphia County, PA	1,456	1.2%
All Other Locations	10,610	8.3%

Source: Atlantic County Master Plan.

Policy recommendations: The recommendations from this study are primarily policy-oriented, and include the following recommendations that are relevant to this study:

- Seek feasibility of additional public transit routes and more frequent service in areas of need
- Partner with Cross County Connection TMA on shuttle services
- Explore possibilities for more frequent and convenient north-south transit connections along the coast

2.3 RTP 2050: Moving South Jersey Forward, SJTPO

Overview. The Regional Transportation Plan (RTP) is the official regional transportation plan for the SJTPO region and guides the region's transportation decision-making for the next 30 years. It identifies long term goals and projects to improve the region. The vision is a transportation system based on regional collaboration that moves people and goods in a safe and efficient manner, inclusive of all modes and users. The RTP identified five critical issues facing the region:

1. **Funding imbalance:** Funding is not proportionate to population, Vehicle Miles Traveled (VMT), roadway mileage, and people in poverty
2. **Major projects:** Localities bear full cost of moving shore-oriented infrastructure investments forward
3. **Inequitable access:** Vulnerable communities have limited access to mobility
4. **Regulatory burdens:** Environmental regulations make low-impact projects difficult to advance
5. **Infrastructure at risk** due to sea level rise, storm severity and increased precipitation

Goals. The report outlines goals for the region. They are as follows (bolded goals have been deemed relevant to the project):

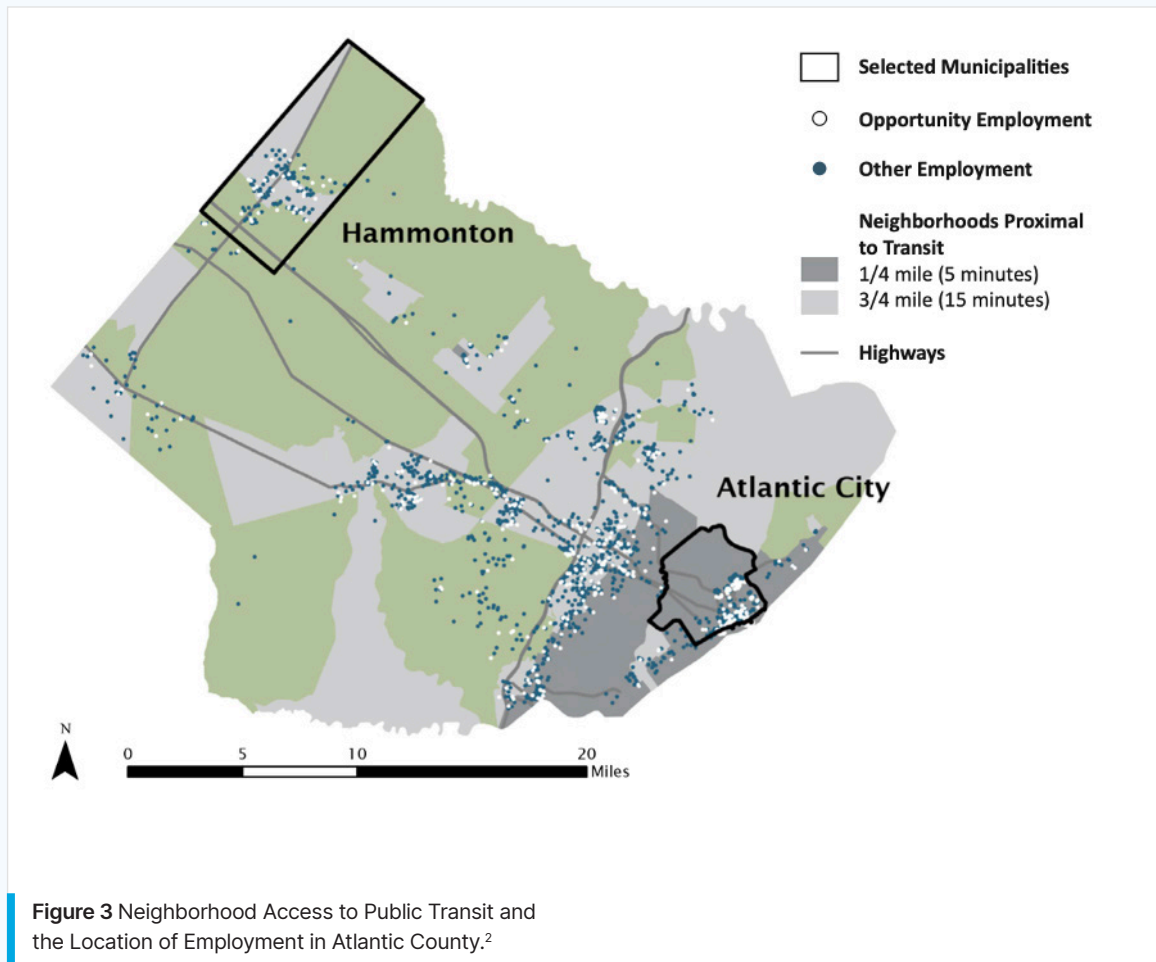
1. **Promote accessibility and mobility for the movement of people and goods**
2. **Mitigate traffic congestion and promote efficient system operation**
3. **Restore, preserve and maintain the existing transportation system**

4. **Support the regional economy**
5. **Improve the resiliency and reliability of the transportation infrastructure**
6. Increase and enhance opportunities for travel and tourism
7. Improve transportation safety
8. **Enhance the integration and connectivity of the transportation system**
9. Protect and enhance the environment and complement land use planning
10. Improve security

2.4 Accessing Economic Opportunity Report, Federal Reserve Bank of Philadelphia

Overview. This study looked at how patterns of employment and public transit affect job access in three regions - York County, northeastern Pennsylvania, and Atlantic County. The findings related to Atlantic County are the following:

- **73% of residents in Atlantic County have access to transit.** Residents in low- and moderate-income neighborhoods (LMI) have greater access to transit than residents overall.
- **The share of opportunity employment within a 15-minute walk of a transit stop in Atlantic County is 84%.**
- The average resident in Atlantic County has access to a 30% share of regional opportunity employment via transit.
- **Employment in Atlantic County is more concentrated compared to other Mid-Atlantic regions.** 60% of regional employment in Atlantic County can be found in employment centers.
- Employment centers with the greatest share of access by prime-age residents or residents living in LMI neighborhoods are not always the largest employment centers.



Note: One dot represents 35 jobs. Dots do not represent the actual location of employment; rather, they reflect job density within census blocks.

Source: Accessing Economic Opportunity Report, Federal Reserve Bank of Philadelphia, 2018.

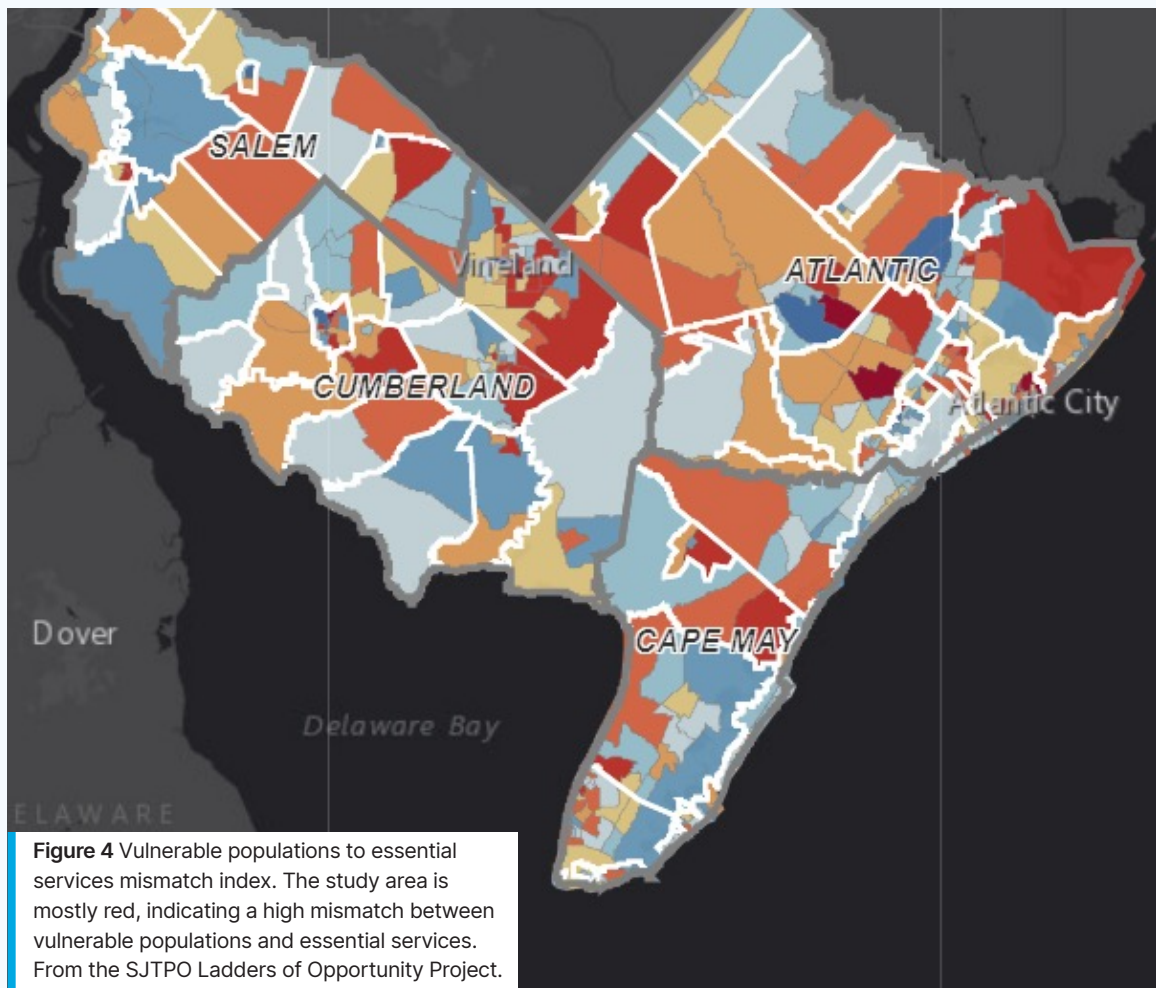
²Opportunity employment is defined as “decent-paying jobs for residents without a four-year college degree.” Neighborhood proximity to transit measured in miles and in minutes walking.

2.5 Ladders of Opportunity Methodology, SJTPO

Overview. The Ladders of Opportunity Analysis is a tool developed by SJTPO that identifies geographic concentrations of vulnerable populations (people with disabilities, people living in poverty, people aged 65 and over, and people without a car) and determines their accessibility to essential services using available transportation. This tool has the potential to serve the following purposes:

- Identify unmet mobility needs and service gaps
- Recommend new or different kinds of transportation access solutions
- Enable more people to access social and economic mobility

The study area sees a high mismatch between essential services and vulnerable populations. This indicates that there are very few available transportation options for residents to access critical services in this area.



SECTION 3

Market Analysis

3.1	.....	Travel Demand
3.2	.....	Demographics



3. Market Analysis

The geographic distribution of residents, jobs, and key destinations drives transit demand and travel patterns. To understand the study area, the team conducted a geographic analysis of key trip generators, points of interest, population density, job density, and demographic groups that are more likely than the average resident to use transit.

The market analysis covers SJTPO's jurisdictional area which includes Atlantic, Cape May, Cumberland, and Salem counties. In total, SJTPO is responsible for transportation planning in 68 municipalities over nearly 1,800 square miles, about 20% of New Jersey's total area, and about 7% of the state's population.

The market analysis showed a potential market for transit service in the areas that are along the route but are not currently within a 0.25-mile radius of stops on the Route 54/40 Community Shuttle. Other areas with potential demand included Vineland and Millville. These findings are discussed in more detail in [section 3.1 Travel Demand](#) and [section 3.2 Demographics](#). In addition to the area surrounding the Route 54/40 Community Shuttle, for each of the market analysis topics, data is presented for Atlantic County, the SJTPO region (defined as Cape May, Cumberland, Atlantic, and Salem counties), and the State of New Jersey.

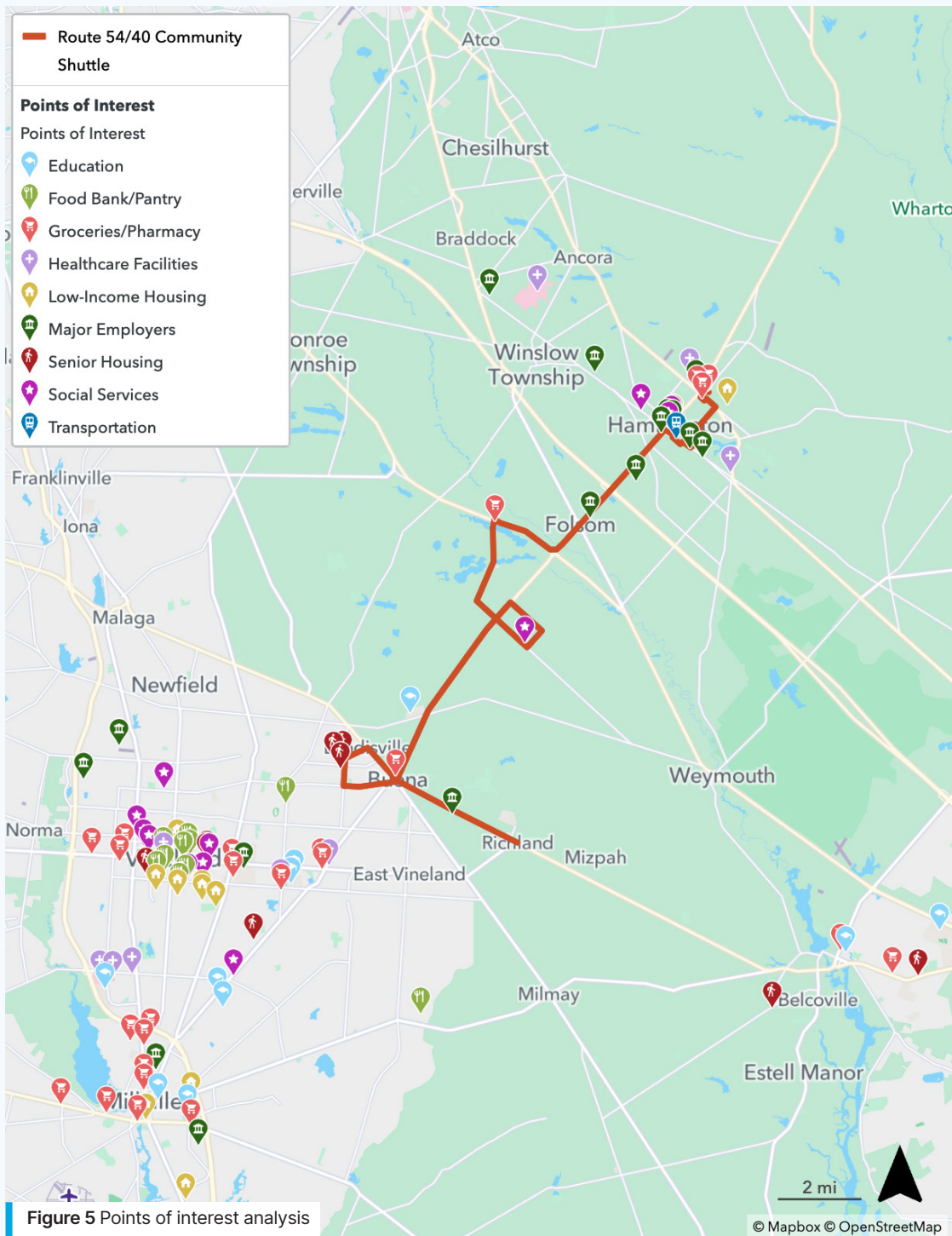
3.1 Travel Demand

The project team looked at factors that generate travel demand, which are points of interest, population density, and job density. Research has shown that higher spatial concentrations of people, jobs, and activity centers increase travel demand, leading to higher demand for public transit.

3.1.1 Points of interest analysis

Points of interest are places that see high levels of activity and foot traffic and are potential trip generators. The map in Figure 5 shows the locations of high schools, food banks, pantries, grocery stores, healthcare facilities, low-income housing complexes, major employers, senior housing complexes, social service agencies, and major transportation transfer points.

Most points of interest in this study area are in or near town centers. Some of them are within a 0.25-mile of bus stops on the route, such as Walmart, ShopRite, Hammonton Family Success Center, NJ TRANSIT's Hammonton Rail Station, Allies in Caring in Hammonton; the Dr. Martin Luther King, Jr. Community Center in Newtonville; Park View Gardens in Minotola; and Wawa in Buena. However, there are major employers that are along the route but not within a 0.25-mile radius of stops along the route, such as Kramer Beverage, South Jersey Gas, Universal Supply Co, and AtlantiCare Hammonton Health. There are many points of interest in Vineland and Millville, which could be potential trip generators if they are included in the zone.



3.1.2 Population density

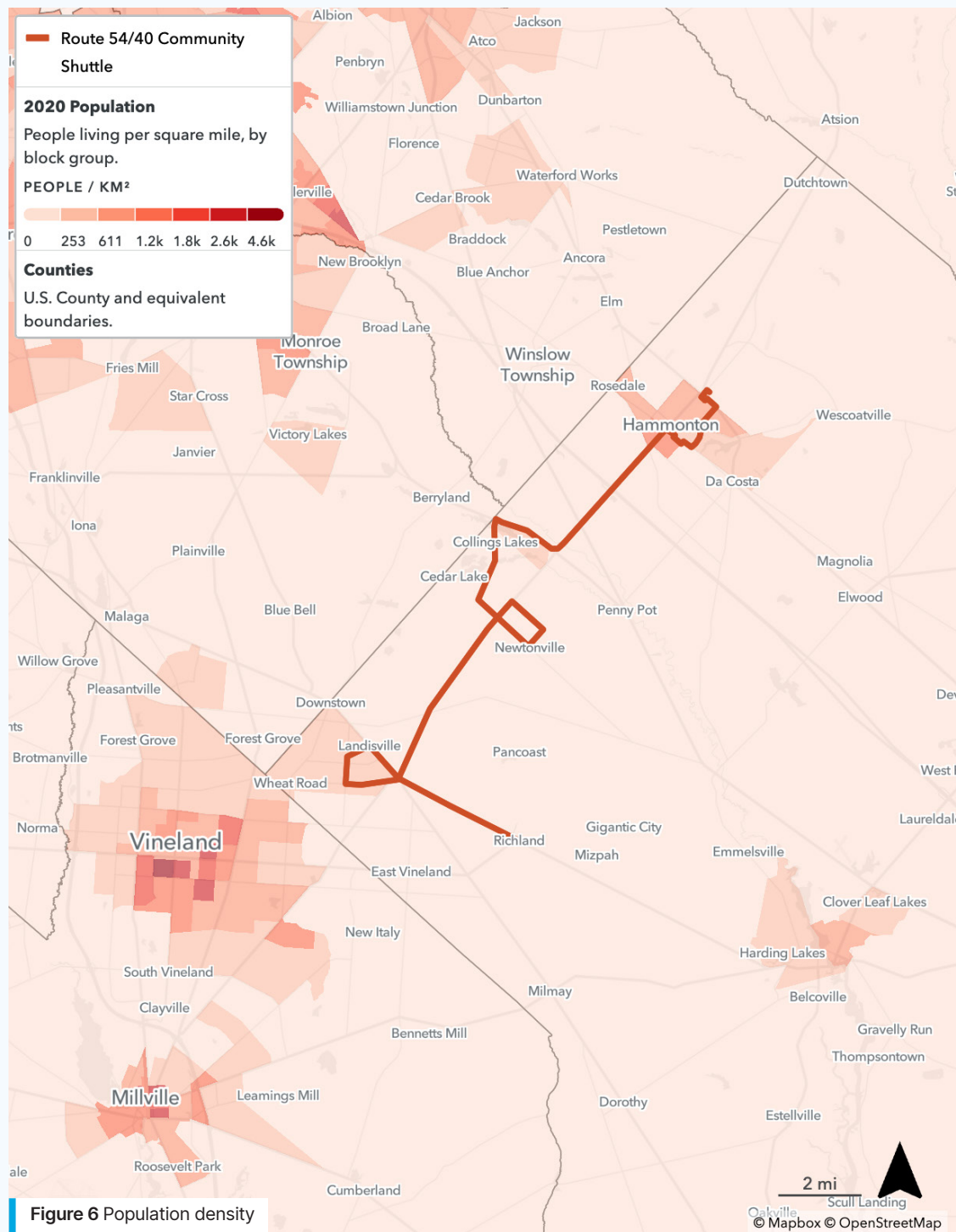
Hammonton and Landisville are the most densely populated towns served by the route. Nearby, population is also densely concentrated in Vineland, Millville and Egg Harbor Township. Table 4 shows population statistics for the study area based on census data which instructs survey respondents to

identify their primary residence (where they spend the majority of the year). However, the population in the SJTPO region fluctuates seasonally due to jobs, tourists, and seasonal travelers. It is estimated that the region's population increases between January and mid Summer.

Table 4 Population density summary table

Region	Population	Area (sq. mi.)	People per sq. mi.
Within 0.25-miles of Route 54/40 Community Shuttle	4,200	3.5	1,200
Atlantic County	274,500	672	410
SJTPO region	588,800	1,778	330
New Jersey	8,885,400	8,723	1,010

Source: American Community Survey 5-year 2016-2020.



Source: American Community Survey 5-year 2016-2020.

3.1.3 Job density

Employment density is an indicator of where people may travel to for work on a regular basis. There is some job density along the Route, especially in Hammonton. There is a large concentration of jobs in Vineland and

Millville, suggesting an opportunity to expand into those areas. Census data shows that workers also commute to Atlantic City and the coast of Atlantic County, and into Camden county, suggesting that more convenient and reliable connection to regional transit could increase overall public transit use.

Table 5 Job density summary table

Region	Population	Area (sq. mi.)	People per sq. mi.
Within 0.25-miles of Route 54/40 Community Shuttle	1,500	3.5	430
Atlantic County	89,700	672	130
SJTPO region	189,700	1,778	110
New Jersey	3,819,700	8,723	440

Source: American Community Survey 5-year 2016-2020.



Source: American Community Survey 5-year 2016-2020.³

³The map displays jobs per square mile by TAZ (Traffic Analysis Zones). TAZs are areas used to tabulate traffic-related data statistics including journey-to-work and place-of-work.

3.2 Demographics

The project team analyzed the regional demographics to understand potential need for public transit in the area. Based on a rider survey conducted by CCCTMA, over 60% of current shuttle riders don't have access to a vehicle, about 45% earn less than \$20,000, and nearly 80% earn less than \$50,000 per year. Understanding the distribution of potential riders can help inform whether a fixed route is meeting regional needs and shape the zones of a potential microtransit service. Additional survey findings are available in [section 5.3 CCCTMA Survey Takeaways](#).

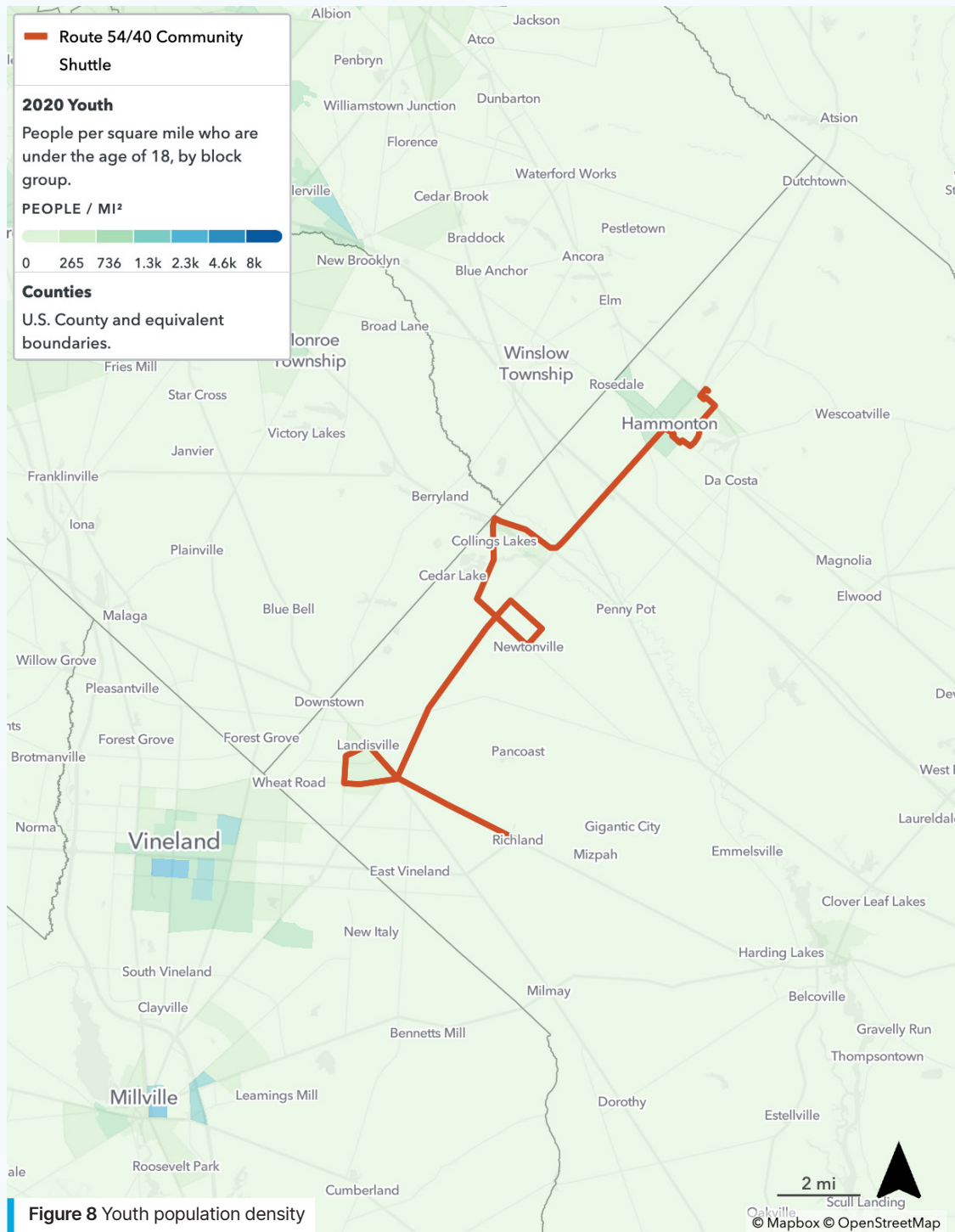
3.2.1 Youth population density

Youth (individuals under the age of 18) are often frequent users of public transit as many are students and do not have access to a private vehicle or may not have their driver's license. The distribution of the youth population largely reflects overall population density, with a higher concentration in Millville, Vineland and Somers Point. 23% of the population is under 18, similar to New Jersey at 22%. Two high schools are within one mile by the Route 54/40 Community Shuttle (Buena Regional High School and Hammonton High School), and some students ride the shuttle.

Table 6 Youth population density summary table

Region	Number of youth	% youth population
Within 0.25-miles of Route 54/40 Community Shuttle	970	23%
Atlantic County	57,650	21%
SJTPO region	123,650	21%
New Jersey	1,954,800	22%

Source: American Community Survey 5-year 2016-2020.



Source: American Community Survey 5-year 2016-2020.

3.2.2 Senior population density

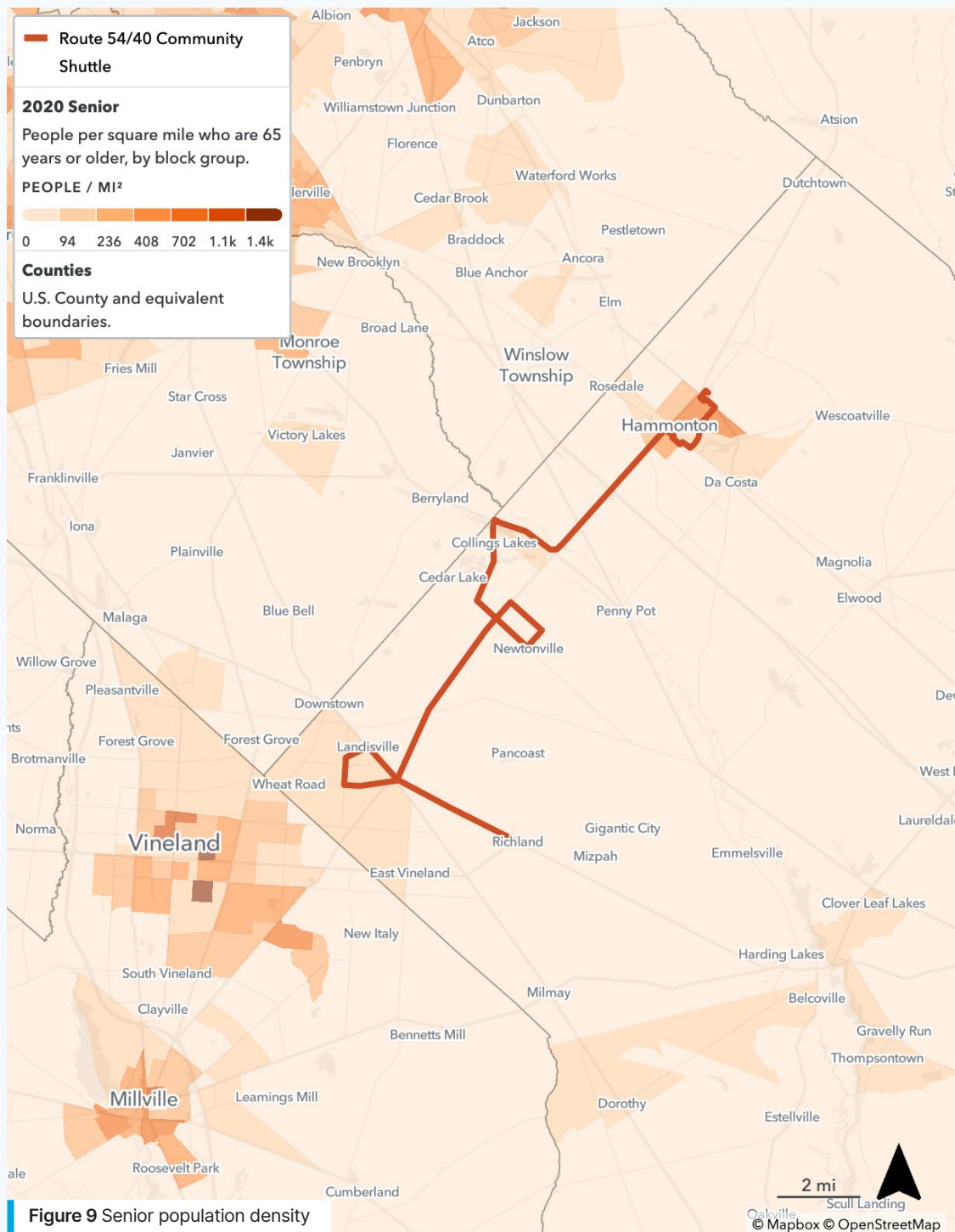
Older adults have a higher tendency to rely on public transit for many reasons, including lower incomes and lower rates of vehicle ownership and usage.

The senior population (individuals who are 65 or older) is concentrated mostly in town centers, such as Vineland, Millville, and Hammonton. The senior population percentage in the SJTPO region (21%) is higher than the NJ average (17%).

Table 7 Senior population density summary table

Region	Number of youth	Percentage of residents under 18
Within 0.25-miles of Route 54/40 Community Shuttle	840	20%
Atlantic County	52,160	19%
SJTPO region	123,650	21%
New Jersey	1,510,520	17%

Source: American Community Survey 5-year 2016-2020.



Source: American Community Survey 5-year 2016-2020.

3.2.3 Median household income

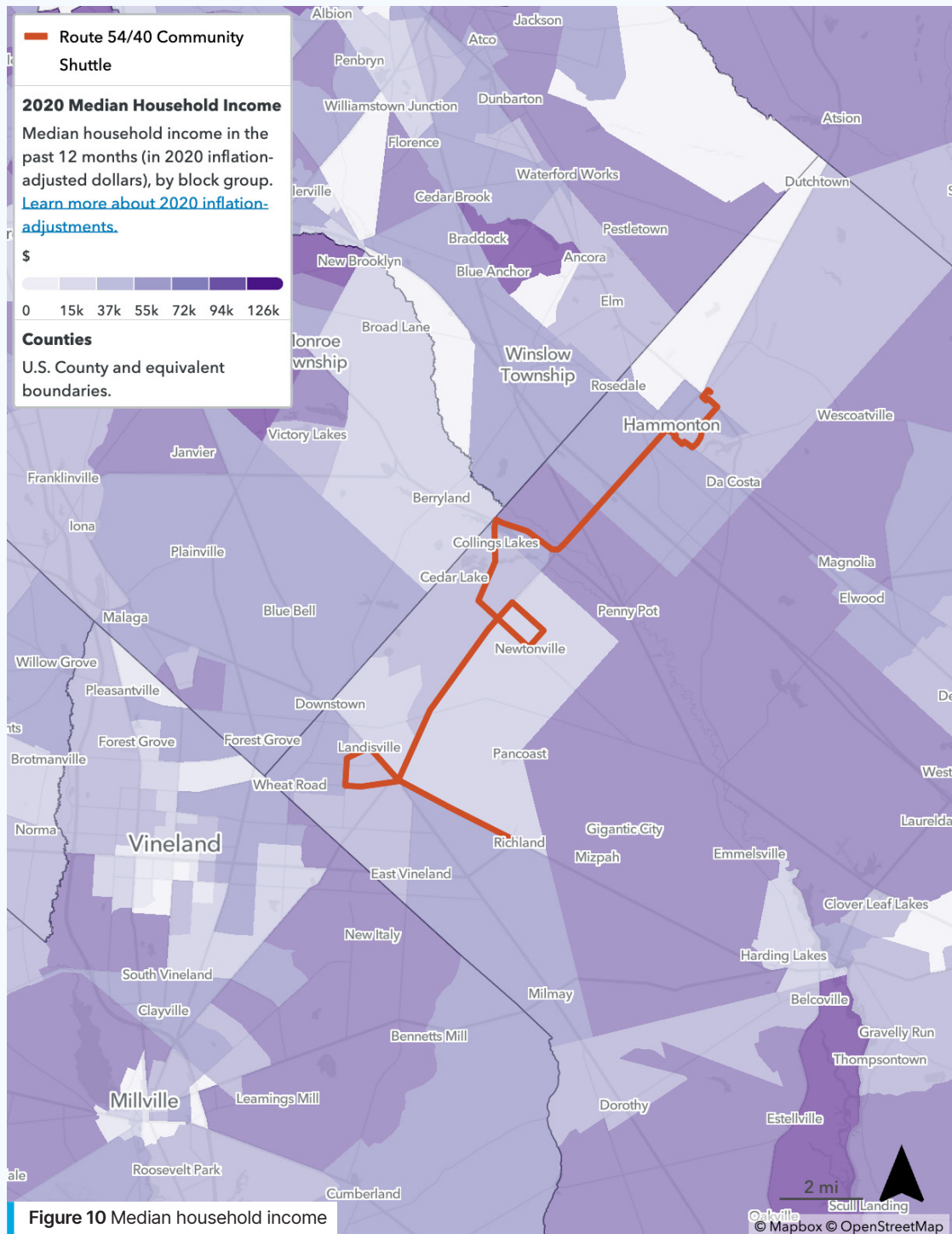
Those with lower incomes tend to rely more on public transit due to its affordability and the high costs of owning and maintaining a vehicle. Median income is lower in town centers and higher in

their peripheries. High-income areas can be found towards southern Atlantic County. The area immediately surrounding the route can be classified as low-to-middle-income.

Table 8 Median household income summary table

Region	Median household income
Within 0.25-miles of Route 54/40 Community Shuttle	\$68,500
Atlantic County	\$63,700
SJTPO region	\$64,000
New Jersey	\$85,200

Source: American Community Survey 5-year 2016-2020.



3.2.4 Residents living in poverty

People living below the poverty threshold are more likely to rely on public transit for work and key errands.⁴ Most of the populated areas in the

SJTPO region have some poverty density. There is an especially high concentration of people living in poverty in Vineland and Millville.

Table 9 Residents living in poverty summary table

Region	Number of residents living in poverty	Percentage of residents living in poverty
Within 0.25-miles of Route 54/40 Community Shuttle	420	10%
Atlantic County	35,690	13%
SJTPO region	76,540	13%
New Jersey	799,690	9%

Source: American Community Survey 5-year 2016-2020.

⁴ Source: "How the Census Bureau Measures Poverty," U.S. Census Bureau, <https://www.census.gov/topics/income-poverty/poverty/guidance/poverty-measures.html>

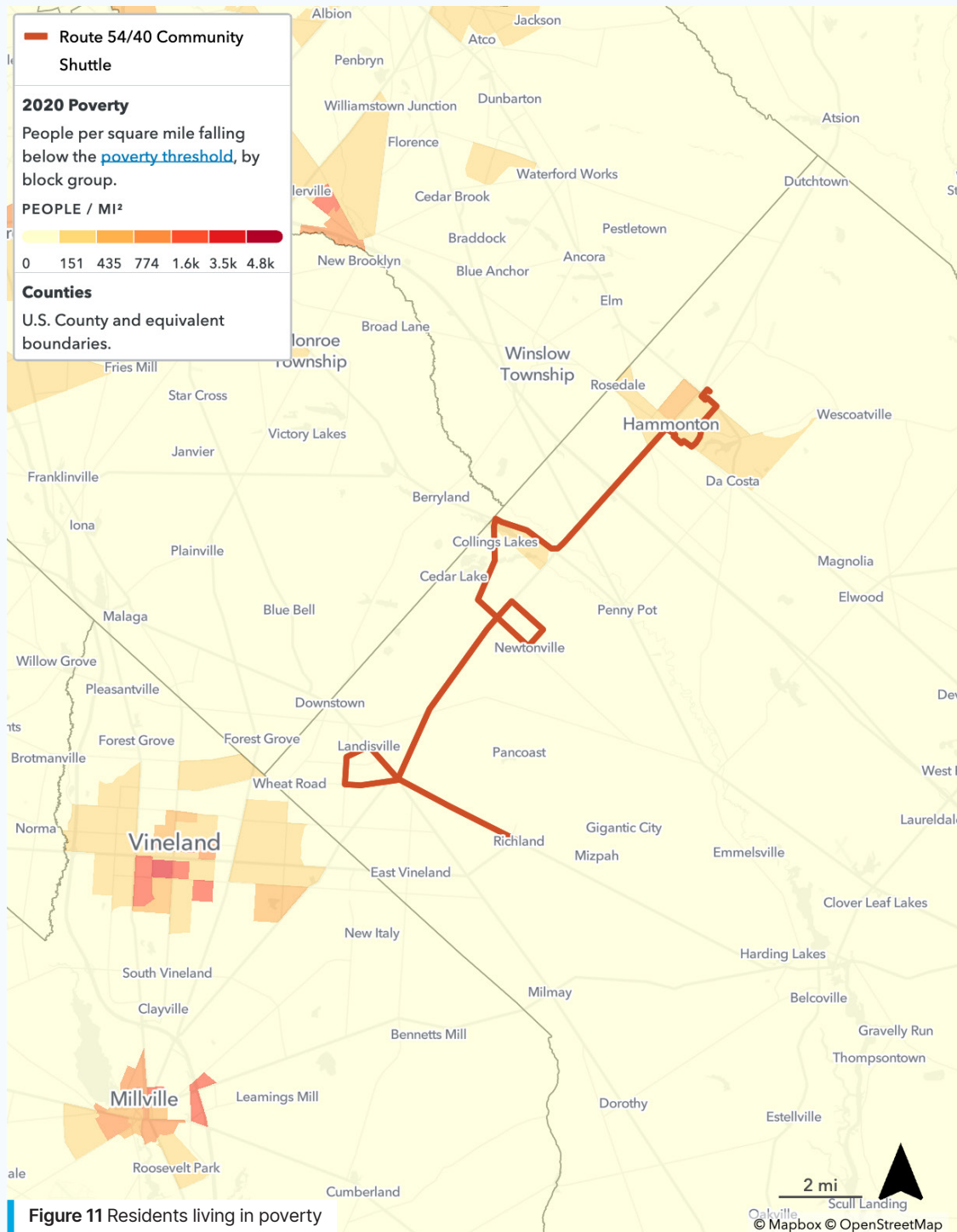


Figure 11 Residents living in poverty

Source: American Community Survey 5-year 2016-2020.

3.2.5 Population of nonwhite and Hispanic/Latino residents

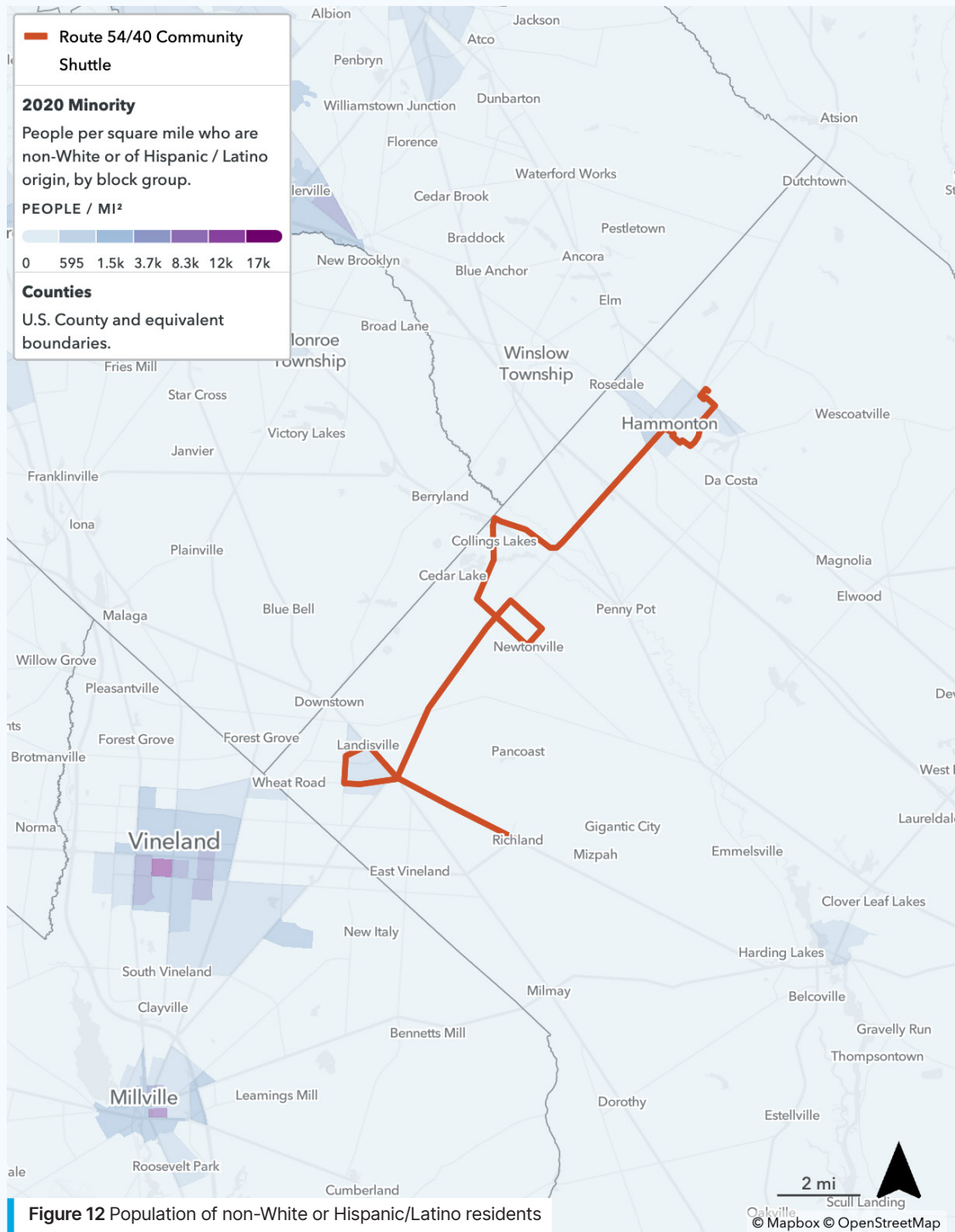
Nonwhite and Hispanic/Latino communities may have a higher tendency to use public transit, as they often have lower incomes and rates of vehicle ownership than their white counterparts. In some instances,

these communities have historically faced lower rates of access to public transit. There is some concentration of residents of color along the route, especially in Landisville and Hammonton. However, there is a higher concentration of nonwhite and Hispanic/Latino residents in parts of Vineland and Millville.

Table 10 People of color population summary table

Region	Number of nonwhite and Hispanic/Latino residents	Percentage of nonwhite and Hispanic/Latino residents
Within 0.25-miles of Route 54/40 Community Shuttle	1,640	39%
Atlantic County	120,780	44%
SJTPO region	206,080	35%
New Jersey	4,176,150	47%

Source: American Community Survey 5-year 2016-2020.



3.2.6 People living with a disability

Many people with disabilities⁵ cannot drive themselves or afford a private vehicle. They are more likely to rely

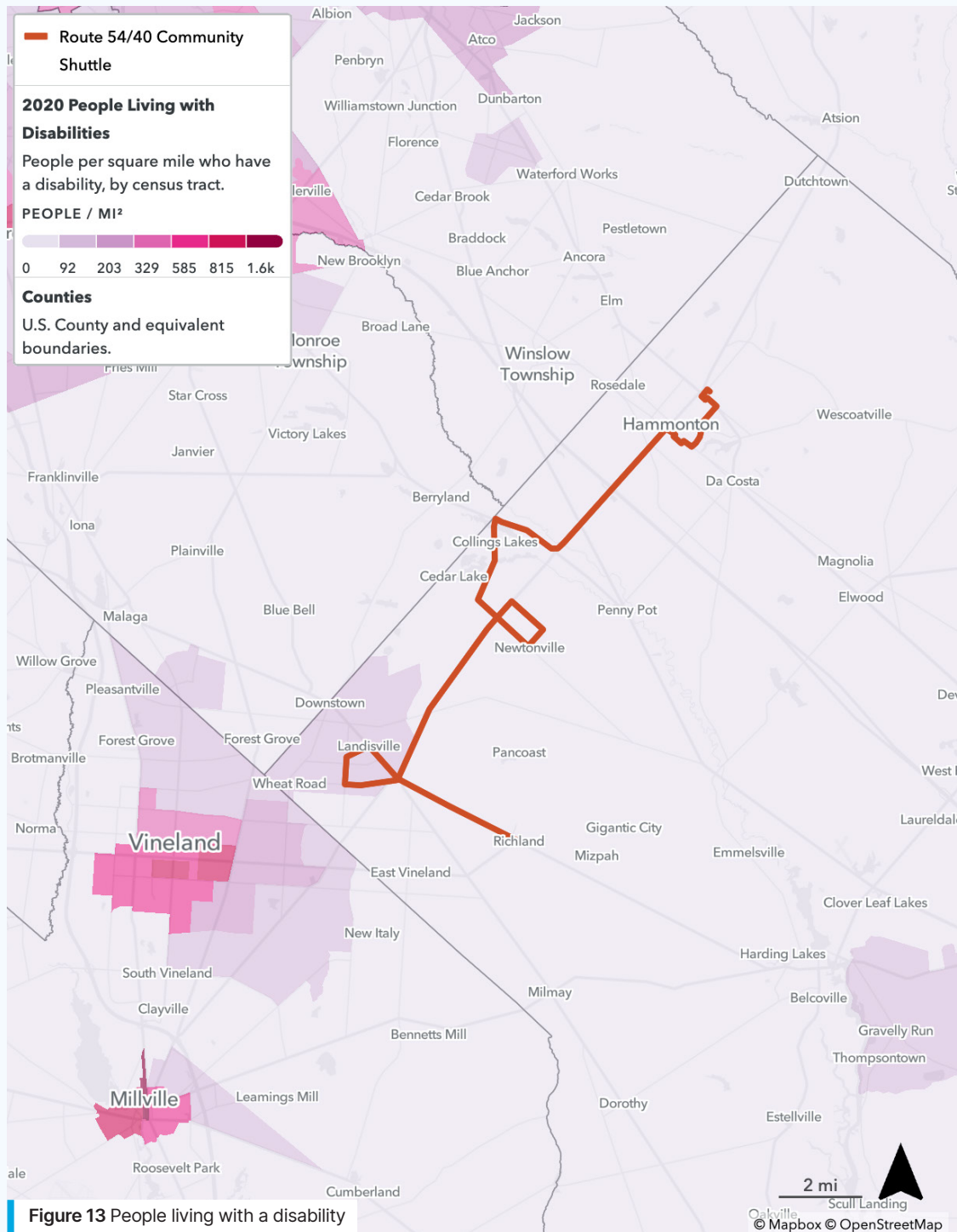
on alternative forms of transportation, including public transit. There are few people living with disabilities immediately surrounding the route. Residents living with disabilities are concentrated in Vineland and Millville.

Table 11 People living with a disability summary table

Region	Number of people living with disabilities	Percentage of people living with disabilities
Within 0.25-miles of Route 54/40 Community Shuttle	670	16%
Atlantic County	27,450	10%
SJTPO region	88,320	15%
New Jersey	888,540	10%

Source: American Community Survey 5-year 2016-2020.

⁵ The American Community Survey identifies disability status as anyone that has serious difficulty in any of four basic areas of functioning: hearing, vision, cognition, and ambulation.



3.2.7 Zero-vehicle households

Only 6% of people living within 0.25-mi of the Shuttle live in zero-vehicle households. Some nearby areas have higher rates of zero-vehicle ownership,

such as the census tract that includes eastern McKee City and the surrounding areas to the east (12%) and some census tracts in central Vineland (17 to 23%). Also 12% of Buena's households have zero-vehicles.

Table 12 Zero-vehicle households summary table

Region	Number of zero-vehicle households	Percentage of zero-vehicle households
Within 0.25-miles of Route 54/40 Community Shuttle	250	6%
Atlantic County	35,690	13%
SJTPO region	58,880	10%
New Jersey	977,400	11%

Source: American Community Survey 5-year 2016-2020.



3.2.8 Public transit commuters

The immediate 0.25-mi shuttle area has 1% of residents taking public transit to work. The SJTPO region as a whole has a much lower percentage of residents taking public transit to work (2%) than the entire state (11%). Of note, the statewide average is influenced by those

who live near New York City and commute using public transit. In the SJTPO region, given the low rates of transit usage and high car ownership, it is likely that only those individuals that do not have access to a private vehicle opt for public transit.

Table 13 Public transit commuter summary table

Region	Number of people taking public transit to work	Percentage of people taking public transit to work
Within 0.25-miles of Route 54/40 Community Shuttle	40	1%
Atlantic County	10,980	4%
SJTPO region	11,780	2%
New Jersey	977,400	11%

Source: American Community Survey 5-year 2016-2020.



Source: American Community Survey 5-year 2016-2020.

SECTION 4

System Analysis

4.1	Route 54/40 Community Shuttle Review
4.2	Paratransit



4. System Analysis

4.1 Route 54/40 Community Shuttle Review

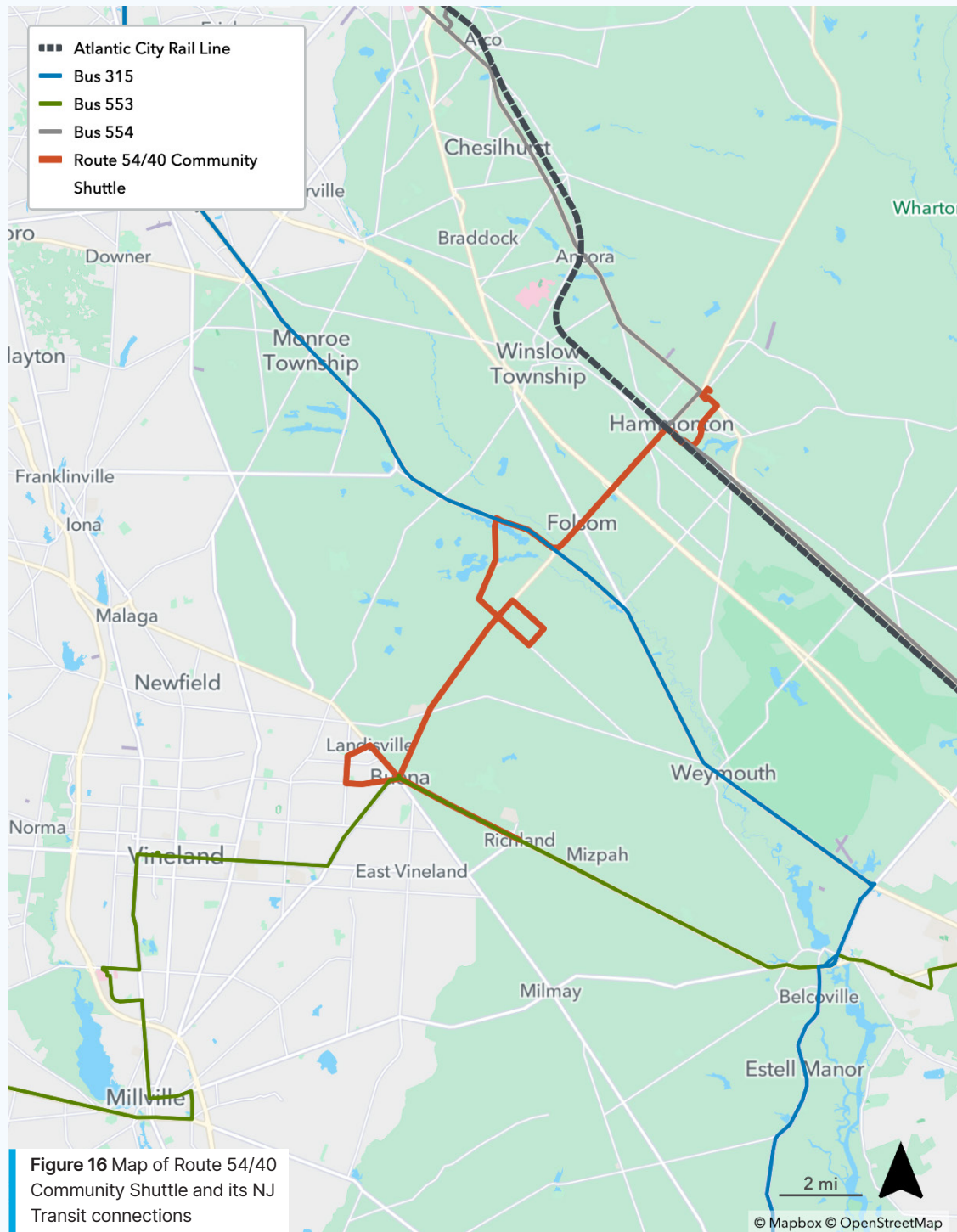
The Route 54/40 Community Shuttle is operated by SJTA and administered by CCCTMA, a nonprofit organization that provides transportation solutions for residents, workers, and businesses in southern New Jersey. Below are some key facts about the service:

- **Fare:** Fare-free
- **Number of vehicles:** 2, each with 28-passenger capacity
- **Operating hours:** Monday-Friday, 6AM-7:45 PM

Table 14 lists the Community Shuttle's connections to fixed-route transit.

Table 14 Route 54/40 Connections to Fixed Route Service

Route Type	Route Name	Route End Points
Bus	NJ Transit #553	Upper Deerfield-Atlantic City (connection in Buena)
Bus	NJ Transit #554	Lindenwold PATCO-Atlantic City (connection in Hammonton)
Bus	NJ Transit #315	Cape May-Philadelphia (connection in Folsom)
Rail	Atlantic City Rail	Philadelphia-Atlantic City (connection in Hammonton)



4.1.1 Monthly Ridership

The shuttle served 7,150 rides in 2021, with an average monthly ridership of 600 rides. Monthly boardings decreased by 27% between 2019 and 2020 as a result of the pandemic, and the shuttle has seen a further

decline in ridership since then, currently operating at 68% of pre-pandemic ridership. Ridership is roughly 10% higher in the summer months compared to winter months, potentially due to warmer temperatures, tourists, and seasonal employment.

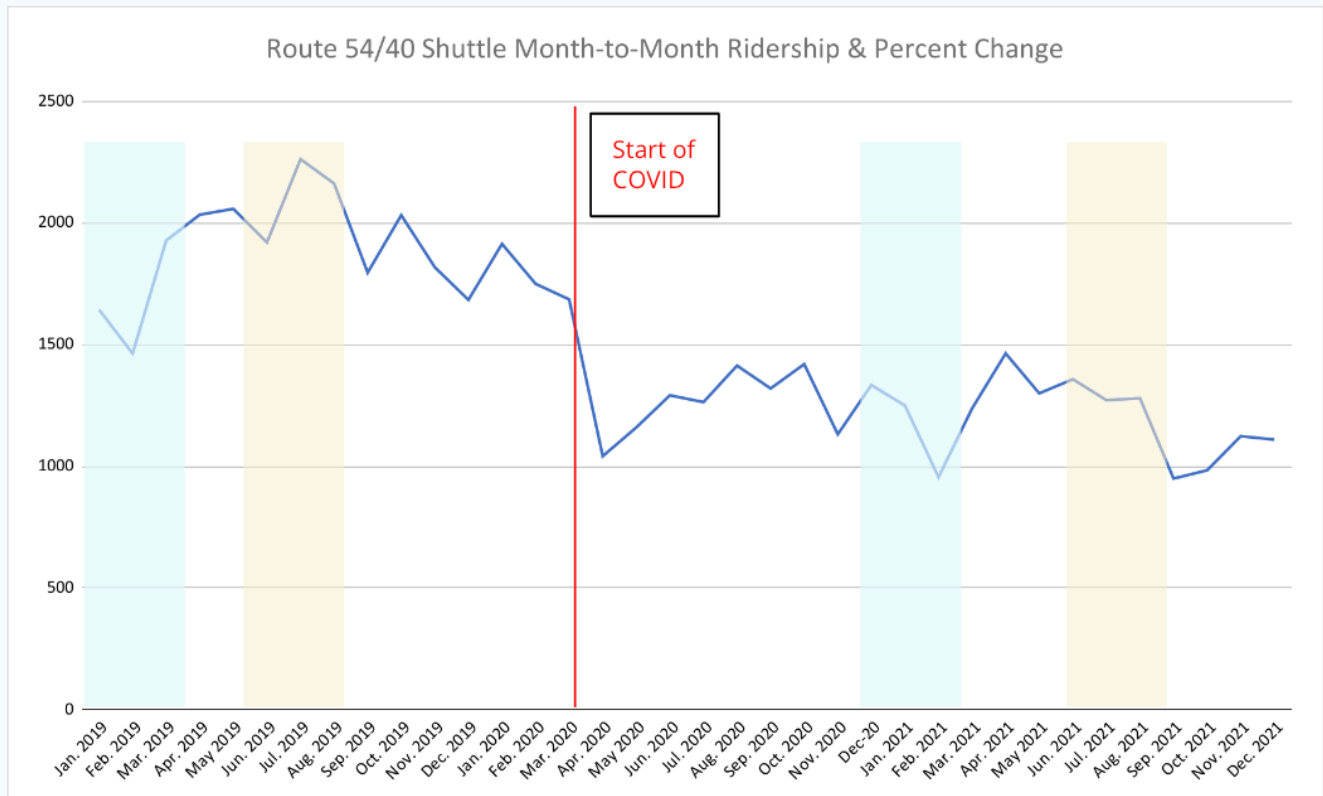


Figure 17 Route 54/40 Shuttle Month-to-Month Ridership

Winter Summer

4.1.2 Origins and Destinations

Destinations with the most frequent boardings and alightings include Walmart, Hammonton Rail Station, downtown Hammonton, the Wawa in Collings Lake, and the Dr. Martin Luther King, Jr. Community Center.

There are fewer boardings and alightings on the western portion of the route, indicating that the shuttle may be used more for connections to NJ Transit and Atlantic City Rail.

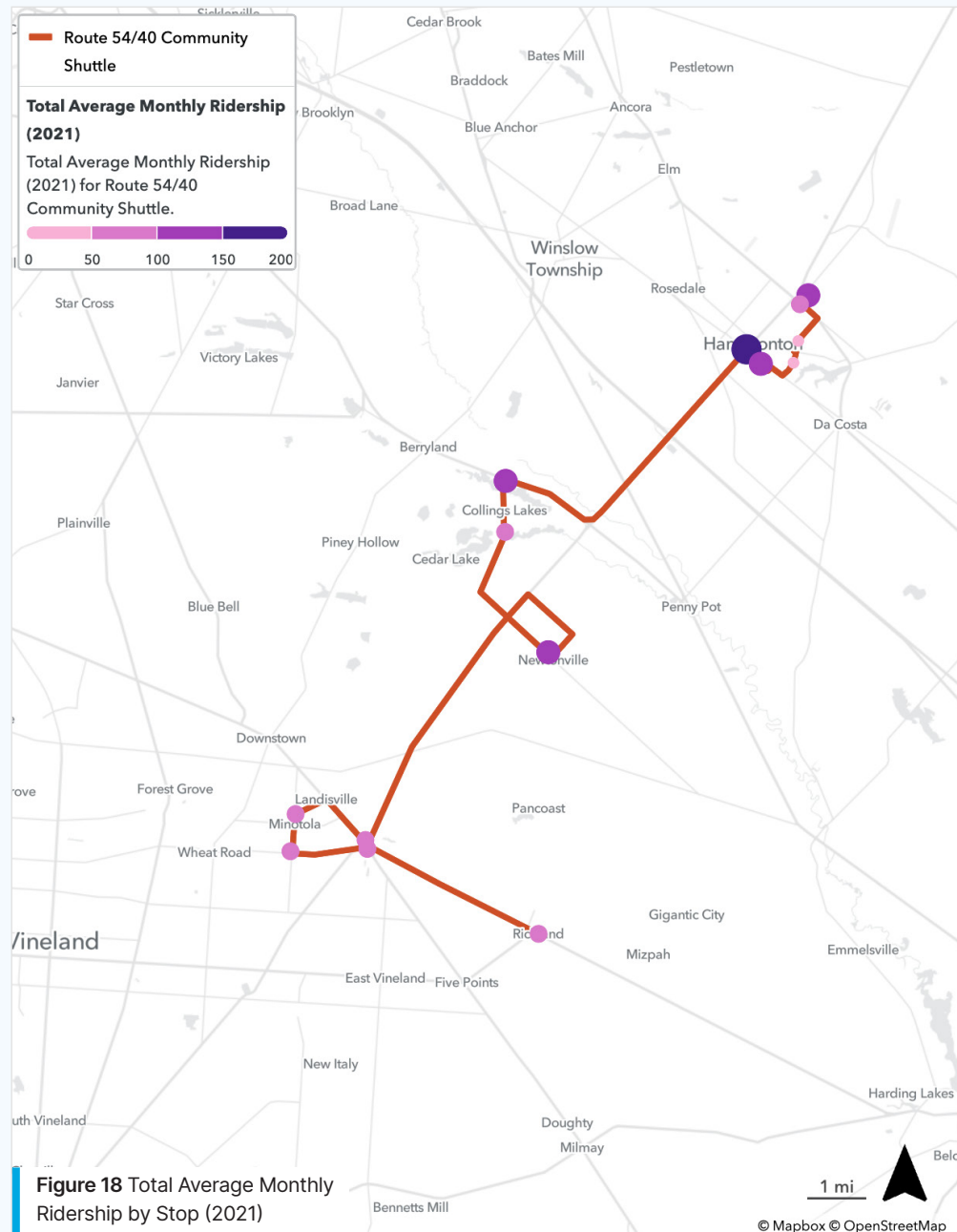


Table 15 shows the total number of boardings as well as percentage changes between 2019 and 2021 of all stops on the route. Overall, boardings and de-boardings have declined by 37% since 2019, with declines seen across most stops on the route. While the absolute number of boardings and alightings at multifamily housing is lower

than other stops, boardings and alightings declined less between 2019 and 2021. Only Silver Terrace and South Blvd. at Central Ave. (both multifamily housing) have seen a positive percent change in ridership since 2019, indicating that more and more residents of these complexes are using the service.

Table 15 Total Boardings and De-Boardings by Stop, 2019-2021

Stop	2019	2020	2021	Percent Change 2019-2020	Percent Change 2020-2021	Percent Change 2019-2021
All Stops Combined	22,802	16,728	14,286	-27%	-15%	-37%
Stop 1: Walmart	4,092	2,488	1,666	-39%	-33%	-59%
Stop 2: ShopRite	1,866	1,334	1,062	-29%	-20%	-43%
Stop 3: Silver Terrace (multi-family housing)	284	306	309	+7%	+1%	+9%
Stop 4: Park Av. Condos (multi-family housing)	444	435	433	-2%	-1%	-3%
Stop 5: Hammonton Rail Station (NJ TRANSIT transfer point)	1,586	1,428	1,366	-10%	-4%	-14%
Stop 6: Downtown Hammonton (NJ TRANSIT transfer point)	2,274	1,890	1,849	-17%	-2%	-19%
Stop 7: Cains Mills Road at Black Horse Pike (single-family housing)	2,820	1,716	1,589	-39%	-8%	-44%
Stop 8: Cains Mills Road at Cedar Lake Drive (single-family housing)	1,353	786	713	-42%	-9%	-47%

Source: SJTA.

Table 15 (Continued) Total Boardings and De-Boardings by Stop, 2019-2021

Stop	2019	2020	2021	Percent Change 2019-2020	Percent Change 2020-2021	Percent Change 2019-2021
Stop 9: MLK Community Center (single-family housing)	2,469	1,539	1,375	-38%	-11%	-44%
Stop 10: Route 40 at Route 54 (NJ TRANSIT transfer point)	1,007	1,015	908	+1%	-11%	-10%
Stop 11: South Blvd. at Central Ave. (multi-family housing)	672	971	806	+44%	-17%	+20%
Stop 12: Central Ave. at Wheat Rd. (multi-family housing)	1,428	1,031	704	-28%	-32%	-51%
Stop 13: Wheat Rd. at Route 40 (NJ TRANSIT transfer point)	770	711	657	-8%	-8%	-15%
Stop 14: Richland Transit Shelter (NJ TRANSIT transfer point)	1,737	1,078	849	-38%	-21%	-51%

Source: SJTA.

4.2 Paratransit

The Atlantic County Transportation Unit provides transportation services to qualified senior citizens and people with disabilities living in Atlantic County. The service can be used for non-emergency medical appointments, nutrition, shopping assistance, and some recreational trips.

Table 16 shows the origin towns of total paratransit trips taken between January and August 2022 (data provided by Atlantic County Transportation Unit). Trips originating from communities in the study area, highlighted in blue, account for about 3.5% of all trips. Based on this information, there may be about 1700 paratransit trips per year in the study area.

Table 16 Paratransit trips by community

Community	Total Passengers	Total Trips	Percentage of Total
Absecon	31	1,077	2.2
Atlantic City	474	15,227	31.1
Brigantine	34	1,071	2.2
Buena Borough	16	702	1.4
Buena Vista	13	636	1.3
Corbin City	1	23	0.05
Egg Harbor City	36	994	2
Egg Harbor Township	127	9,146	18.7
Estelle Manor	1	12	0
Folsom	5	161	0.3
Galloway Township	113	4,493	9.2
Hamilton Township	70	2,415	4.9
Hammonton	11	369	0.8
Linwood	5	528	1.1
Longport	0	0	0
Margate	11	191	0.4
Mullica Township	12	537	1.1
Northfield	33	2,028	4.1
Pleasantville	107	3,988	8.1
Port Republic	3	10	0
Somers Point	35	2,266	4.6
Ventnor	78	2,669	5.5
Weymouth	11	445	0.9

SECTION 5

Public Outreach

5.1	.....	Focus Group Takeaways
5.2	.....	Interview Takeaways
5.3	.....	CCCTMA Survey Takeaways



5. Public Outreach

As part of this Study, Connect-the-Dots and Via conducted community outreach to understand the perspectives of current riders, potential riders, and community leaders. These perspectives were integral to document what is working well in the current service, what can be improved, and how to ensure any potential transition to microtransit will be successful. Feedback gathered during public outreach was taken into consideration when defining use cases for a microtransit service and defining zone boundaries. In parallel, CCCTMA conducted a rider survey aboard the Community Shuttle; the results of this survey also informed our work.

5.1 Focus Group Takeaways

Focus groups, shuttle ride-alongs, and on-street intercept surveys (collectively, all three will be referred to as “focus groups”) were conducted to connect with current and potential riders.

5.1.1 Focus Group Overview

The focus groups reached riders, occasional riders, and non-riders of the 54/40 Community Shuttle within western Atlantic County.

The twelve individuals who participated in focus group conversations lived in western Atlantic County or towns and boroughs near the County. Engagement was conducted in Hammonton, Newtonville, and Vineland, New Jersey. The participants ranged in age from 20-70, with fairly even distribution across age groups. Seven of the participants were of non-white or Hispanic/Latino heritage. The group included five men and seven women.

Participants discussed the ways in which they used transportation methods in and around South Jersey, including but not limited to the Community Shuttle, and ways in which they wished they could use transportation or felt there was room for improvement.

Focus group participants were then introduced to the concept of microtransit, and then discussed the ways it could work for their transportation needs. Participants also made suggestions on how microtransit could work best for their communities.

5.1.2 Key Takeaways

Participants answered questions about their current transportation choices, hopeful transportation choices, potential improvement of the Community Shuttle, and possibilities of future implementation of microtransit. Questions included:

- Do you currently use the Route 54/40 Shuttle? Where do you go? Where do you want to go and currently cannot go? How easy is it to access the route? How reliable is the Shuttle, and how does the schedule work with your needs?
- What could be improved? What concerns do you have about changes to the Shuttle?
- If your area had a version of microtransit, what kinds of trips would you want to use this for? What should be the service area for this type of transit option?
- Would you have concerns about switching to a microtransit option?
- How quickly are you hoping the microtransit will arrive?
- How much would you pay for a service like this?

5.1.3 Current Use of Route 54/40 Community Shuttle

Participants that currently use the Community Shuttle discussed the service, and non-riders discussed the ways in which the Shuttle does not currently serve their transportation needs.

Common Routes and Stops

- Stops within Hammonton are most commonly used by riders. Riders tend to take a similar route every day or every week to and from work.

Common Issues with Current Shuttle

- For non-riders, driving was preferred to taking the Shuttle, as it was considered safer and more reliable.
- Some non-riders did not know the Shuttle existed or did not know that the existing service area would be helpful to their commutes or transportation needs.

- Reliability, timing, and scheduling were identified as key issues – participants articulated that the shuttle does not arrive on time, doesn't come often enough, and does not follow a standardized schedule.
- Safety was also identified as an issue, as some stops are on major roads without infrastructure such as lighting, seating, and pedestrian crossings.

5.1.4 Microtransit Feedback

Most participants were very enthusiastic about the idea of a microtransit service, especially if it allowed for corner-to-corner pickup in a similar service area as the Shuttle.

Scheduling and Timing

- It was very important for participants to be able to set a reliable, timely daily pickup that repeated automatically.
- Participants seemed to be open to waiting 30-40 minutes for a ride that was requested as a one-off request, but consistent pickup needed to be more timely.
- Many requested Saturday and Sunday service.
- Many non-riders stated they would be interested in using the Shuttle instead of driving if it arrived on time (especially when it was scheduled ahead of time).
- Most believed it was important to keep a call-in option for older users.

Service Area

- Participants stated they would like to use microtransit to travel to stops currently along the Shuttle route, plus residential areas nearby.
- Additional areas of interest to participants were Vineland (Walmart and DMV) and Mays Landing (Hamilton Mall).

Cost and Payment

- Most participants were open to paying around \$1 to \$2 to make microtransit possible, but believed a fare greater than \$2 could be prohibitive to some.
- Some riders were unsure if charging for the Shuttle would reduce their use.
- Most participants would prefer to use a card pass to pay, and some were interested in paying via an app.

Infrastructure

- Many riders requested bus stop infrastructure like lighting and seating at designated stops, especially for late night rides.

5.2 Interview Takeaways

5.2.1 Interview Overview

Six interviews were conducted with community and business leaders in the Route 54/40 Community Shuttle service area.

Participants represented the following organizations: Allies in Caring (with a separate group interview with Spanish-speaking community members), Atlantic County Workforce Investment Board, the Dr. Martin Luther King, Jr. Community Center, First Baptist Church of Richland, and Comar Manufacturing.

Interview participants discussed the ways in which their community members and their employees used transportation methods in and around South Jersey, including but not limited to the Community Shuttle, and ways in which they wished they could use transportation or felt there was room for improvement. Focus group participants were then introduced to the concept of microtransit, and afterwards discussed the ways it could work for their individual transportation needs. Participants also made suggestions on how microtransit would work best for their communities.

Conversations centered on two main topics:

- What service area would include the geographical areas and sites most relevant and useful to your communities?
- What service times would best support the transportation needs of your communities?

5.2.2 General Transportation Takeaways

Stakeholders representing community members that use the Community Shuttle discussed the service, and others discussed the ways in which the Shuttle does not currently serve their community's transportation needs or ways in which the Shuttle was unknown to members of their community.

- Many individuals struggle to find transportation to work, for shopping needs, and for other personal needs. Many people do not know about the Shuttle or struggle with its current schedule and unreliability. This takeaway was consistent with all one-on-one interviews and the group interview.
- The Vineland area has a lot of draws for community members - especially in the realms of low- and medium-skill employment opportunities and more shopping centers.
- Though transportation access to Vineland is desired, maintaining public transit coverage in the towns currently served by the Shuttle is still crucial.
- Some interview participants expressed concerns about outreach and communication with current and prospective riders and urged more marketing efforts, language access, and trust-building. Especially in the Spanish-speaking group interview, it was clear that many in the community are unaware or unsure of the Shuttle's availability, schedule, and more - even as the community believes it would be a crucial resource for transportation.
- In the Spanish-speaking group interview, some participants were worried about two aspects of microtransit: (1) Whether ADA and low-mobility people could get door-to-door, rather than corner-to-corner service and (2) whether large groups of people would have their ride requests prioritized over individual riders waiting in low-traffic areas.

5.2.3 Microtransit Takeaways

Microtransit was introduced and thoroughly explained, and two service area zone options were introduced to participants:

- Option 1: Route 54/40 Communities:** The zone encompasses the entirety of communities originally served by the Route 54/40 Community Shuttle, which include Richland, Buena, Newtonville, Collings Lakes, Folsom, and Hammonton. Passengers can be picked up and dropped off anywhere within this zone.
- Option 2: Vineland Extension:** This zone encompasses the entirety of Option 1, as well as parts of Vineland. Passengers will be able to request the same trips in Option 1 (within the communities served originally by Route 54/40). They will also be able to take trips to and from Vineland, but not within Vineland.

Additionally, participants were asked about what time their communities needed to use transportation, and whether service hours of 6:00 AM – 7:45 PM, five days a week on weekdays and 9:00 AM – 6:00 PM on weekends was acceptable or needed improvement.

Most participants were very enthusiastic about the idea of a microtransit service, especially if it allowed for corner-to-corner pickup in a similar service area as the Shuttle and included Vineland.

Geographic Area / Service Area

- Interviewees thought that community members would like to use microtransit to travel to stops currently along the Shuttle route, residential areas nearby, as well as Vineland. There was a preference for Option #2 - Vineland Extension.
- The Spanish-Speaking group did prefer Option #1, but were not opposed to Vineland extension and felt like additional waiting time would be understandable.
- Vineland extension opened up employment opportunities for those residing along the Shuttle's current route, as well as a deeper connection to existing NJ Transit bus lines.
- Downtown Hammonton, Hammonton shopping areas, and NJ TRANSIT Atlantic City Rail Line access continue to be important destinations for community members.

Timing and Schedules

- The outlined schedule (6:00 AM – 7:45 PM, five days a week on weekdays and 9:00 AM – 6:00 PM on weekends) seemed reasonable to interview participants, though it failed to support the 24-hour schedule that industrial jobs required. This schedule does support weekday “day shift” for most of these industrial jobs, however. The flexible nature of microtransit means that operating hours can be adjusted further after a service is launched based on the needs of those riding the service. (Note: Shifts tend to be 12 hours between 7 AM – 7 PM or 7 PM – 7 AM and the plants operate 24 hours a day.)
- Weekends were of some interest, but interview participants felt that weekdays would continue to support the highest ridership. The Spanish-speaking group interview participants were more interested and excited about weekend hours.

- In the Spanish-speaking group interview, participants believed a 30-40 minute wait was acceptable for a microtransit option.
- Though this aspect was unprompted, participants made it clear that it was very important for participants to be able to set a reliable, timely daily pickup that repeated automatically.

Additional Items

- Spanish-speaking participants made it clear that microtransit only would work with a dispatcher with Spanish-speaking ability and the microtransit app translated to Spanish.
- The Shuttle should retain the ability to transport bikes, since many in the Spanish-speaking community use a combination of biking and the Shuttle.

5.3 CCCTMA Survey Takeaways

5.3.1 CCCTMA Survey Takeaways

The CCCTMA survey was conducted in late 2021, and surveyed nearly all regular Shuttle riders over the course of several weeks.

Rider Demographics

- The survey's 28 respondents lived across Hammonton, Folsom, Landisville, Minotola, Buena Borough, Newtonville, Collings Lakes, Richland, and other locations.
- 89% of riders are aged 25-55, 4% of riders are under 25, and 7% of riders are 66 or older.
- 46% of riders earn less than \$20,000 per year, and 79% earn less than \$50,000.
- 63% of riders do not have a vehicle available for household use on a regular basis.

Ridership Trends

- 35% of riders use the shuttle five days a week, and 32% use it two-to-four days a week.
- 57% of riders primarily use the shuttle to commute to work; shopping (14%) and accessing medical services (7%) are also common uses.
- 41% of riders said they use the Shuttle to connect to NJ Transit bus 553, 30% of riders connect to bus 554, and 37% connect to the Atlantic City Rail Line (riders could select more than one option).
- If the shuttle did not exist, 22% of riders said they would drive, 41% would rely on a friend or family member, and 19% said they would use a rideshare. 26% of riders do not have transportation options available besides the shuttle.
- 38% of riders said they heard about the shuttle from a friend or family member, and an additional 23% said they heard about it from their employer.

Views on Fixed-Route and Microtransit

- 50% of riders said they prefer a fixed-route service, 26% said they would prefer on-demand, and 24% they were not sure.
- When asked what is most important in a transit service, the top three answers included weekend service (57%), access to more places (54%), and short wait times (39%).
- When asked what would make them more likely to ride the Shuttle, 65% of riders said having the Shuttle run more frequently, 58% said having the Shuttle operate on Saturdays, and 24% said having the Shuttle operate at night.

SECTION 6

Service Planning and Implementation

6.1	.....	Microtransit Service Design
6.2	.....	Operating Models
6.3	.....	Technology Solutions
6.4	.....	Implementation Considerations
6.5	.....	Marketing and Public Education
6.6	.....	KPIs and Service Evaluation



6. Service Planning and Implementation

6.1 Microtransit Service Design

The project team identified three potential microtransit service zones for the study area based on the market and systems analyses, public outreach, stakeholder input, and the team's expertise from planning microtransit services in locations similar to South Jersey.

These alternatives were selected and evaluated using the following methodology:

- 1 **Draft service zones** by selecting the geographic areas currently served by the 54/40 Shuttle, key destinations, areas with transit-dependent populations, and/or an absence of sufficient public transit services. These areas are then edited and refined with input from SJTPO, CCCTMA, and the relevant stakeholder groups. Three zones were selected for microtransit simulations and modeling.
- 2 **Determine service hours and quality of service targets** that will best achieve the goals, as determined by SJTPO, CCCTMA, and other stakeholders, for each microtransit alternative
- 3 **Estimate demand** by assessing the population, employment, and demographic attributes of each zone alternative. A low, medium, and high estimate for daily and annual ridership was developed.
- 4 **Run simulations** to determine the number of necessary vehicles and assess the tradeoffs between service parameters.
- 5 **Cost-benefit analysis** using the results of the simulations and projected operating costs, evaluate the cost-effectiveness of each alternative.

6.1.1 Development of Alternatives

The project team identified potential microtransit zones based on the following criteria:

- **Existing Service Area of the Route 54/40 Shuttle:**

All alternatives that were developed as part of this study were designed to be able to replace the Route 54/40 Shuttle. Therefore, the zones were drafted to include the entire area of the towns in which the Route 54/40 Shuttle currently operates. This includes the towns of Folsom, Newtonville, Collings Lakes, Minotola, Buena, Richland, and the residential areas of Hammonton. Ensuring that these municipalities are fully included in any potential microtransit zone guarantees that, at a minimum, the new service would provide the same coverage as the current shuttle route.

- **County Boundaries:** Alternatives A and B were designed to only serve Atlantic County, as this is the current focus of the Route 54/40 Shuttle. However, most people do not limit their commutes and travels to jurisdictional boundaries. Therefore, other alternatives expand beyond municipal boundaries to include key destinations that may generate travel demand. Planners and administrators will need to balance the needs of passengers with the administrative and cost challenges associated

with operating an intercounty microtransit service. Providing microtransit service across multiple counties adds complexity to the service in terms of securing funding, coordinating billing (see [section 6.4.2 Intercounty Billing](#) for more information), and in general, managing the service with additional stakeholders and local intricacies.

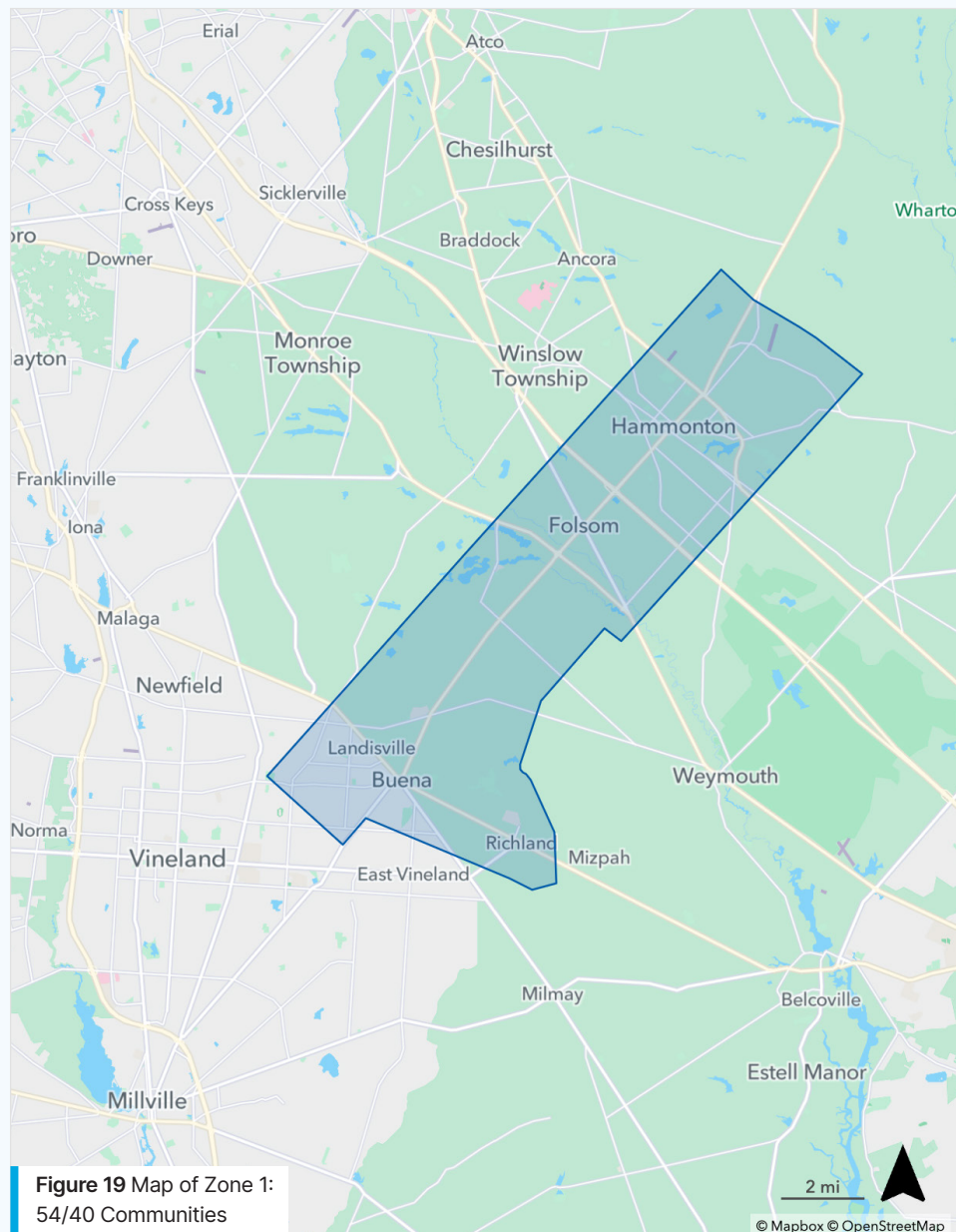
- **Jobs and Key Destinations:** The third consideration when designing the microtransit zones was the location of job centers and key destinations. Successful microtransit zones have a mix of residential areas and commercial areas. Points of interest that generate transit demand for microtransit services include grocery stores, pharmacies, shopping centers, and medical facilities (see [section 3.1.1 Points of interest analysis](#) for more details on local travel destinations). Moreover, the input from the community and stakeholders identified multiple key destinations that people wanted to be able to access by transit, including the Ancora Psychiatric Hospital in Camden County and surrounding area and an industrial area in Vineland.

Three zones were ultimately identified for further evaluation. They were developed based on feedback from public engagement and stakeholder interviews, and further refined in conversation with the Steering Committee.

Zone 1: 54/40 Communities

This zone functions as a direct replacement for the current Route 54/40 Community Shuttle, including all areas served by the route and expanding to fully cover the towns of Hammonton, Folsom, Newtonville, Collings Lakes, Buena, and Richland. This ensures that all those currently using the service, including those

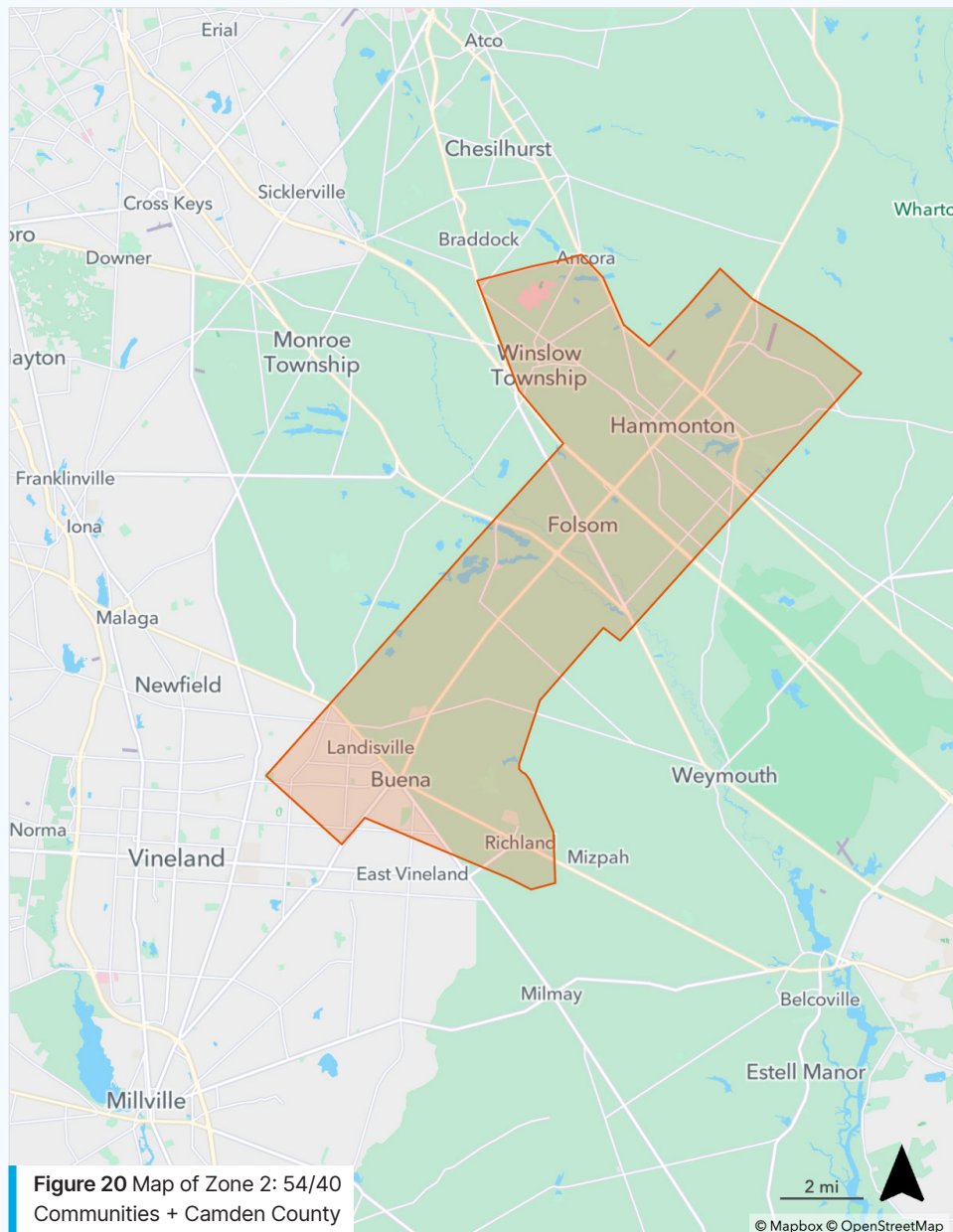
requesting the 1/8th mile allowed deviation from the route, would remain within the microtransit service area. Additionally, expanding to fully cover the towns expands transit access and makes it safer for those living in locations with limited sidewalk access or going to destinations that require crossing major streets to access current shuttle stops. This zone is located entirely within Atlantic County.



Zone 2: 54/40 Communities + Camden County

Zone 2 is a slight expansion of Zone 1, including Zone 1 in its entirety and expanding into Camden County to include the area surrounding Ancora Psychiatric Hospital. This area was identified as a destination

of interest as it is an additional employment center located close to the service area. While the Camden County addition is not a significant addition in terms of square miles, the expansion into another county would make administering the service more complex.



Zone 3: 54/40 + Vineland

This zone includes the entirety of Zone 1 and expands into Vineland, which is located in Cumberland County and is the largest population center close to the service area. The portion of Vineland included in this zone was developed iteratively through conversations with the Steering Committee and stakeholder interviews. It includes key shopping locations and an industrial park. Within this zone, all trips would need

to start or end within Zone 1 boundaries, to ensure that the service is connecting those living or working within the current Community Shuttle area rather than service Vineland residents traveling within Vineland. The Vineland Transportation Center is also located in the zone. Passengers could also transfer between the microtransit service and the NJT bus routes or the Cumberland County Workforce Shuttles that connect to major employment sites such as those in Bridgetown and Millville.

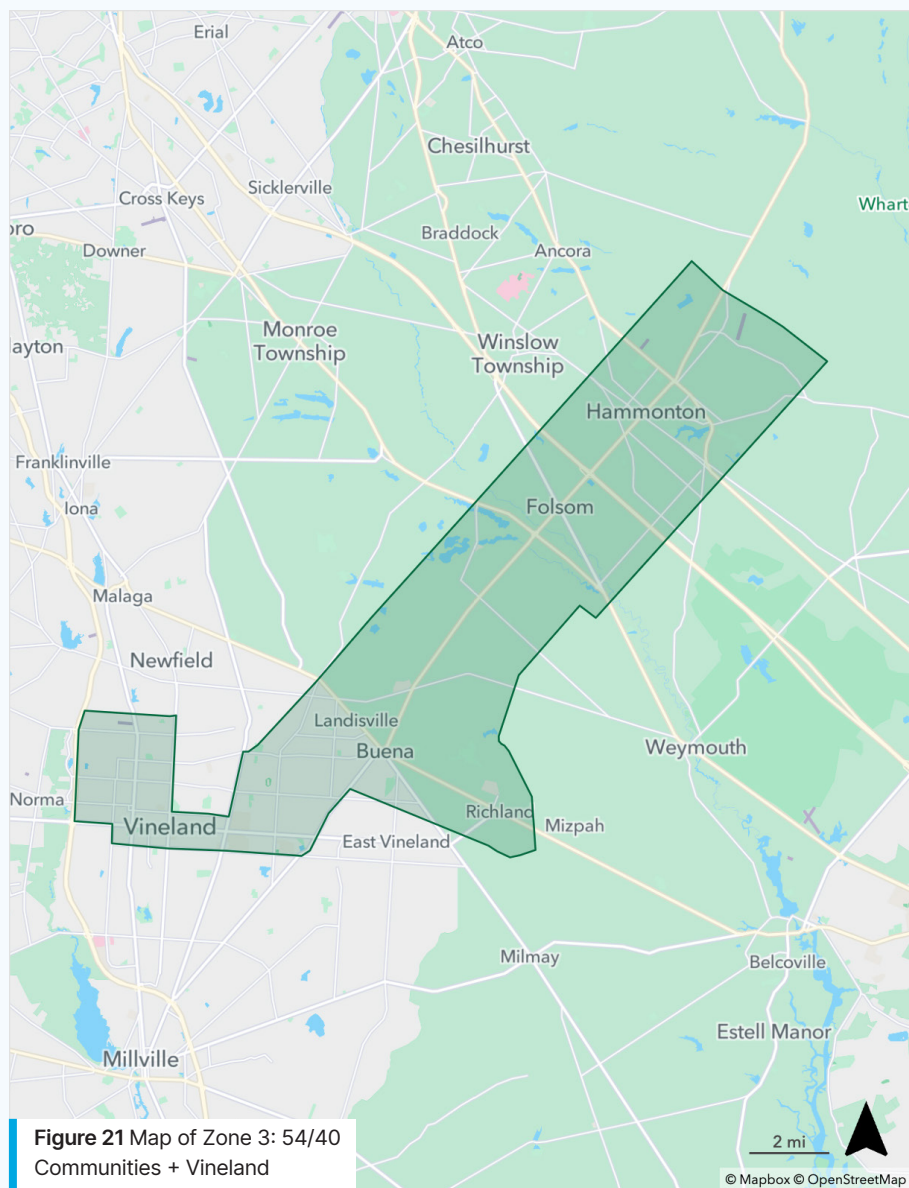


Figure 21 Map of Zone 3: 54/40 Communities + Vineland

6.1.2 Modeling Methodology and Ridership Estimates

Modeling Parameters

In order to simulate the performance of each zone, there are several quality of service parameters that need to be set. In setting service quality targets, we balance the costs of providing the best service (i.e., short wait times, minimal walking, and few detours) with the costs of running a service. Typically, improving the quality of service requires additional vehicles and/or drivers and thus increases the cost of operating a microtransit service. The parameters selected aim to either match or improve upon the existing quality of services provided by the 54/40 Shuttle service. The main parameters that were considered for this study are:

- **Service Hours:** These are the hours when service is available and a customer can request a ride. Service hours simulated for this study match the scheduled hours of service for the existing 54/40 Community Shuttle. In general, microtransit service hours are usually a function of the budget available for a service and the hours in which demand for the service is expected. When replacing other transit services, microtransit service hours should be set to at a minimum match the existing transit service hours. In other cases, service hours are set during off-peak hours or when no other transit services are operating in order to complement the other transit offerings in a service area. Feedback from residents and stakeholders can also be useful in determining service hours and when there would be likely demand for a new microtransit service.
- **Stop Types:** A corner-to-corner service typically requires a short walk to a nearby intersection. This is similar to a bus stop service that also requires a short walk but offers significantly more stopping locations by allowing vehicles to stop near most intersections in addition to the existing fixed-route bus stops. Corner-to-corner service also improves the overall efficiency of a microtransit service, directing people to walk to a pickup location that is closest to the vehicle's existing route, thus minimizing lengthy detours. Even with a corner-to-corner service, riders with accessibility needs may request a curb-to-curb service, similar to Atlantic County Paratransit. However, services that are fully curb-to-curb result in longer wait times and journey times and an overall less efficient and cost-effective service.
- **Maximum Walking Distance:** The distance a passenger must walk from their origin to their vehicle pickup point and from their vehicle dropoff point to their destination. Longer walking distances will increase the efficiency of the service but result in lower ridership, as some passengers will be deterred by long walking requirements. Most services have a maximum walking distance of around a quarter mile; average walking distances are usually about half of the maximum distance set.
- **Maximum Wait Times:** The time a passenger must wait for a vehicle to arrive at their pickup location from when they request a ride. 30-minute maximum wait times are considered 'average,' but wait times typically range from 20 - 40 minutes. Longer wait times are common in rural areas, while shorter wait times are common in denser areas. Increasing the maximum wait time may increase passenger aggregation and thus total passengers. A 30 minute maximum wait time provides a high quality of service and typically has an average wait time between 5 and 20 minutes, depending on the time of day.
- **Maximum Detours:** The allowable detour a passenger can experience (measured in both time and distance) compared to the base route (quickest route) between a rider's pickup and dropoff points. Detours allow the algorithm flexibility to aggregate rides. The 'standard' detour setting is that trips are not allowed to exceed 50% additional time or distance compared to a direct vehicle journey between the origin and destination. Longer detours can improve the productivity of service but may result in longer journey times for passengers. In general, rural areas tend to have longer detours than urban areas where trip distances tend to be shorter and it's easier to aggregate rides.

For more details on how a microtransit service would operate, see [Section 1.3 Microtransit Overview](#).

Ridership Estimates

Once the service zones have been drafted and the service hours and quality of service targets are determined, the next step is to estimate the ridership of each alternative. It can take up to 12 months from the time of launch for the ridership levels to grow to these estimates. However, the estimates impact important decisions regarding the size of the fleet and the level of funding required for each zone.

The demand estimates are based on three factors:

- The number of residents living in each zone,
- The number of jobs located in each zone, and
- The expected microtransit mode share (the percentage of individuals who live or work in a zone that are likely to use the microtransit service).

For each zone, a low, medium, and high ridership estimate was developed.

- **Low:** This scenario assumes the service would not perform as well as expected. While there are several potential reasons for this, the most common reasons for low ridership include poor marketing, a lack of community support, or unforeseen technical or operational challenges that affect the reliability of the service.
- **Medium:** The medium scenario is the project team's best estimate for the ridership within the first 6 - 12 months of operation.
- **High:** This scenario assumes the service is more successful than anticipated. Common reasons for a highly successful service include strong community support and viral marketing campaigns (often through refer-a-friend campaigns). If the decision is made to offer a free service, this will also increase ridership.

The ridership estimates for each alternative are detailed in the following section.

6.1.3 Modeling Results by Alternative

A microtransit simulation tool was used to predict how different service parameters, zones, and fleet configurations will perform as real microtransit services. Simulations also enable us to predict various performance indicators such as service productivity (passengers per vehicle hour), average wait times, and average trip duration. Specifically, the results below include the following for each alternative

- **Service hours:** The hours of service that were modeled for each alternative.
- **Trip restrictions:** Any rules about where travel is allowed. In certain alternatives, trips can only start or end in Vineland.

- **Passenger demand:** The number of expected boardings per weekday and annually.
- **Vehicles required at peak:** The minimum number of vehicles needed to accommodate demand during the peak hours when demand is highest. The modeling may suggest fewer vehicles are needed during off-peak hours, however, at a minimum, two vehicles are recommended to be used at all times to ensure reliable operations.
- **Average utilization:** Utilization is a measure of how productive service is and is measured by the number of passenger boardings per vehicle revenue hour.
- **Average wait times:** The average time a passenger is asked to wait from the time they request a ride to the time they are asked to meet the vehicle.
- **Average trip duration:** A passenger's average journey length from when they are picked up to when they are dropped off at their destination. Detour allowance will impact the trip durations.
- **Average total walk:** The average total walking distance a passenger is asked to complete from their original request location to their pickup point and from their dropoff point to their final requested destination.
- **Annual revenue hours:** The total vehicle revenue hours required to operate the service. These are defined as when a vehicle is "online" and available to complete trip requests or actively driving to pickup passengers and drop them off. This does not include driving time to and from depots or scheduled breaks.

For each alternative, results are provided for the low, medium, and high demand estimates.

Alternative A | Zone 1:**54/40 communities (base alternative)**

The first alternative served as a base point for the remaining alternatives. It is the smallest zone and covers the main areas currently served by the shuttle.

Alternative A assumes a maximum of 30 minute wait times, standard detours (no more than 1.5 times the direct journey distance or time), and a maximum walk of 400 feet (0.25 miles) on either end of the ride for a total maximum walk of 800 feet (0.5 miles). This alternative is also referred to below as the base alternative.

Table 17 Microtransit simulation results for Alternative A (base alternative)

Alternative Name	Alternative A - Zone 1: 54/40 communities (base alternative)		
Service Hours	Weekdays, 6:00 AM-8:00 PM		
Trip Restrictions	None		
Demand Scenario	Low	Medium	High
Passengers (boardings per weekday)	45	75	120
Vehicles Required at Peak (minutes number of vehicles to accommodate demand)	2	3	4
Average Utilization (passengers per vehicle revenue hour)	1.6	1.8	2.3
Average Wait Time (minutes)	11-15	10-14	10-14
Average Trip Duration (minutes)	16-20	12-16	13-17
Average Total Walk (feet)	450	475	675
Annual Passengers (boardings per year)	11,000	19,000	31,000
Annual Revenue Hours	7,000	10,400	13,500

For zone 1 the demand is estimated to be between 45 and 120 passengers per day. This would require two to four vehicles to operate. On average, wait times are between 10 and 15 minutes, and journey times

are between 12 and 20 minutes. At the highest demand level, the utilization is expected to be, on average, 2.3 passengers per vehicle hour.

Alternative B | Zone 1:**54/40 communities limited to two vehicles**

Because the Route 54/40 Community Shuttle currently operates with two vehicles, further analysis was done to determine whether or not a two-vehicle service would be sufficient to serve the same geography. Because the previous results showed that at the

medium and high demand level three or four vehicles would be needed, the parameters were relaxed to encourage further aggregations and efficiencies. The maximum wait time was increased by 10 minutes from 30 minutes in the base scenario to 40 minutes. And the maximum walk increased by 150 feet on each end of the journey. The results of this scenario shown in Table 18.

Table 18 Microtransit simulation results for Alternative B

Alternative Name	Alternative B - Zone 1: 54/40 communities limited to two vehicles		
Service Hours	Weekdays, 6:00 AM-8:00 PM		
Trip Restrictions	None		
Demand Scenario	Low	Medium	High
Passengers (boardings per weekday)	45	75	120
Vehicles Required at Peak (minutes number of vehicles to accommodate demand)	2	2	2
Average Utilization (passengers per vehicle revenue hour)	1.6	2.7	4.4
Average Wait Time (minutes)	10-14	18-22	21-25
Average Trip Duration (minutes)	15-19	17-21	17-21
Average Total Walk (feet)	550	925	850
Annual Passengers (boardings per year)	11,000	19,000	31,000
Annual Revenue Hours	7,000	7,000	7,000
Adequate Supply (fleet is large enough to accommodate demand at peak ⁶)	Yes	Yes	No

⁶This study assumed that the fleet is large enough to accommodate demand at peak when at least 95% of the trip requests could be completed by the available fleet and while meeting the quality of service parameters.

The results in Table 18 show that two vehicles are not sufficient to supply the high demand level even with the relaxed parameters, as there would be inadequate supply to meet the number of trip requests. If demand were to reach the highest estimates, there would be a significant number of trip requests that would not be met with a trip proposal, and passenger experience would vary significantly between requests. The simulations indicate that the actual maximum demand that could be served with two vehicles is likely somewhere between the medium and high demand scenario, more than 75 passengers per weekday but less than 120 passengers per weekday.

In comparison to Alternative A at the medium demand level, with one less vehicle, the average wait times

would increase by approximately 8 minutes, the average trip durations would increase by approximately five minutes, and the average total walking distance would nearly double. Therefore, launching a microtransit service in Zone 1 54/40 Communities with just two vehicles would only work if the decision-makers and riders were comfortable with the relaxed parameters, and operators would still need to add a third vehicle if demand began to grow toward the medium and high levels. Moreover, a two-vehicle service could only be implemented with the relaxed parameters (40 minute maximum wait times and longer walks) to ensure that the medium demand scenario would have adequate supply at just two vehicles, since the Alternative A indicates a third vehicle would be necessary to meet the higher quality of service that was simulated using more vehicles.

Alternative C | Zone 2:**54/40 communities + Camden County**

For Alternative C, the parameters are assumed to be the same as the base scenario, except the zone is expanded to neighboring communities in

Camden County. Due to the expansion, the estimated weekly boardings increase slightly, however the same number of vehicles are required to operate the service, two to four. The results for Alternative C are shown in Table 19.

Table 19 Microtransit simulation results for Alternative C

Alternative Name	Alternative C - Zone 2: 54/40 communities + Camden County		
Service Hours	Weekdays, 6:00 AM-8:00 PM		
Trip Restrictions	None		
Demand Scenario	Low	Medium	High
Passengers (boardings per weekday)	50	80	130
Vehicles Required at Peak (minutes number of vehicles to accommodate demand)	2	3	4
Average Utilization (passengers per vehicle revenue hour)	1.8	2.0	2.5
Average Wait Time (minutes, on-demand trips)	10-14	18-22	12-16
Average Trip Duration (minutes)	16-20	13-17	13-17
Average Total Walk (feet)	425	675	525
Annual Passengers (boardings per year)	12,000	21,000	33,000
Annual Revenue Hours	7,000	10,400	13,500

The estimated ridership for Alternative C is between 50 and 130 boardings per weekday, with slightly higher ridership and the same number of vehicles, the utilization for this zone is slightly higher than for the Alternative A. The wait times are mostly similar,

except for the medium scenario in which the wait times increase to an average of 18 to 22 minutes. The average trip durations are also similar to Alternative A, only increasing by an average of 1 minute in the medium scenario.

Alternative D | Zone 3:**54/40 communities + Vineland**

In the third zone, the parameters simulated are the same as for the Alternative A, however, the zone includes parts of Vineland instead of Camden County.

Trips are restricted so that they cannot be fully taken within Vineland. Furthermore, due to the addition of Vineland and the likely increase in commute trips, the modeling assumed a higher percentage of trips occurring during peak hours.

Table 20 Microtransit simulation results for Alternative D

Alternative Name	Alternative D - Zone 3: 54/40 communities + Vineland		
Service Hours	Weekdays, 6:00 AM-8:00 PM		
Trip Restrictions	Trips cannot start and end within Vineland.		
Demand Scenario	Low	Medium	High
Passengers (boardings per weekday)	65	105	170
Vehicles Required at Peak (minutes number of vehicles to accommodate demand)	4	5	7
Average Utilization (passengers per vehicle revenue hour)	1.2	1.6	1.9
Average Wait Time (minutes, on-demand trips)	11-15	11-15	14-18
Average Trip Duration (minutes)	16-20	16-20	16-20
Average Total Walk (feet)	425	500	425
Annual Passengers (boardings per year)	20,000	34,000	53,000
Annual Revenue Hours	13,500	16,900	23,400

The addition of Vineland results in an increase in estimated passenger boardings per day to between 65 and 170. To meet that level of demand between 4 and 7 vehicles are required to operate the service during peak hours. Even though ridership increases, the overall utilization of the service decreases to an average of 1.9 passenger boardings per revenue hour

at the highest demand level. Wait times are similar to Alternative A, with an average of between 11 and 15 minutes in the medium scenario. The wait times are highest in the high-demand scenario. Trip durations at the medium and high demand levels are higher than Alternative A, with an average of 16 to 20 minutes, compared to 12 - 17 minutes in Alternative A.

6.1.4 Budget Analysis

SJTA, the current operator of the Route 54/40 Community Shuttle, estimates an hourly cost of \$75 to operate a service using diesel buses. This estimate includes the cost of drivers, fringe benefits, fuel, repairs, and insurance. Capital costs account for roughly 30% of total costs, while operating costs account for the remaining 70% (with driver salaries accounting for about one third of the total cost).

Technology costs for operating such service may add 5%-10% to the annual cost.

Table 21 shows the estimated annual cost to operate the service using diesel buses, taking into account a range of plus or minus 10%. Note that Zone 1 with a two-vehicle limit has the lowest cost per trip (about 30% less than the cost with three vehicles), but that a two vehicle service would be unable to meet high demand scenarios in this zone.

Table 21 Cost analysis for medium demand scenarios, operated with diesel buses by SJTA

Zone	Number of Vehicles	Annual Trips	Annual Revenue Hours	Cost Per Hour	Annual Cost	Cost Per Trip
Alternative A: Zone 1 54/40 Communities	3	19,000	10,400	\$75	\$0.70 M - \$0.86 M	\$37 - \$45
Alternative B: Zone 1 54/40 Communities (two vehicle limit)	2	19,000	7,000	\$75	\$0.47 M - \$0.58 M	\$25 - \$30
Alternative C: Zone 2 54/40 Communities + Camden County	3	21,000	10,400	\$75	\$0.70 M - \$0.86 M	\$33 - \$41
Alternative D: Zone 3 54/40 Communities + Vineland	5	34,000	16,900	\$75	\$1.14 M - \$1.27 M	\$41 - \$50

Table 22 Three-year budget for medium demand scenarios, operated with diesel buses by SJTA

Zone	Cost Year 1	Cost Year 2	Cost Year 3	Total Cost for 3 years
Alternative A: Zone 1 54/40 Communities	\$0.70 M - \$0.86 M	\$0.70 M - \$0.86 M	\$0.70 M - \$0.86 M	\$2.11 M - \$2.57 M
Alternative B: Zone 1 54/40 Communities (two vehicle limit)	\$0.47 M - \$0.58 M	\$0.47 M - \$0.58 M	\$0.47 M - \$0.58 M	\$1.42 M - \$1.73 M
Alternative C: Zone 2 54/40 Communities + Camden County	\$0.70 M - \$0.86 M	\$0.70 M - \$0.86 M	\$0.70 M - \$0.86 M	\$2.11 M - \$2.57M
Alternative D: Zone 3 54/40 Communities + Vineland	\$1.14 M - \$1.27 M	\$1.14 M - \$1.27 M	\$1.14 M - \$1.27 M	\$3.42 M - \$4.18 M

It is expected that the costs would remain consistent year over year, as shown in Table 22. It is possible that in the longer term, costs would increase if the operator (e.g., SJTA) saw increased demand and wanted to add additional vehicles or geographic areas to the service. Note that if other regions also started an on-demand service, combining the services could increase demand and lead to a lower cost per trip due to greater efficiency of the service.

This cost estimate is conservative, as there are several tactics that SJTA could use to decrease costs:

- Switching to gasoline buses would decrease costs by about \$10 per hour, as this would decrease capital costs and fuel costs.
- Reallocating the current buses to other routes and using smaller vehicles to operate the service would decrease capital and fuel costs, and could also decrease driver costs as there may be fewer regulations around driver training requirements for smaller vehicles (and more revenue hours could be driven by part-time drivers, who may have a lower hourly cost).
- Switching to electric vehicles could allow the operator to apply for federal funding that would cover the capital expenses of purchasing electric vehicles and installing chargers, and would reduce capital costs in the long term. Note that there may be increased short term costs due to local match and training requirements.

The current estimated operating expense of the 54/40 Community Shuttle in FY 2023 is \$350,000. This operating expense estimate does not take capital costs into account, as SJTA operates the service with vehicles received from New Jersey Transit which have not been amortized into the cost of the 54/40 Community Shuttle. Any expansion to the current service, particularly an increase in the number of vehicles or a change to the vehicle types, would result in increased costs per hour. The \$75 per hour cost was provided by SJTA as a conservative estimate of likely costs which include procurement of new vehicles for an expanded service in the 54/40 Community Shuttle area.

6.2 Operating Models

Route 54/40 is currently operated by SJTA and administered by CCCTMA; it is expected that SJTA would continue to operate service in this area if it transitions to a microtransit model. Other areas in the South Jersey region that are considering implementing a microtransit service will need to understand and evaluate the available models. The operator (e.g., SJTA) and other local decision-makers can select between several operating models that best suit their budget, capabilities, and access to vehicles. Potential models generally include:

- **Agency-operated service:** In this model, the local transit agency (e.g., SJTA) procures a software platform for the operation of microtransit service, and delivers service using its own drivers, vehicles, and operations team. Partnerships of this nature may be described as Software-as-a-Service, or “SaaS.” Software contracts may include ongoing customer support and service optimization services. An agency-operated service would allow the local transit agency to utilize its existing resources and assume a high level of control over service delivery. The primary disadvantage of an agency-operated approach is that the transit agency would be required to develop administrative and operational capacity in a potentially unfamiliar service category, which has the potential to create inefficiencies and higher costs as the agency works to develop expertise in this area (vs. a contracted operator with developed expertise in operating microtransit service). If this operating model is selected, the procurement of the following software capabilities is recommended at a minimum (see [section 6.3 Technology Solutions](#) for more details):
 - Dynamic vehicle routing and passenger aggregation (shared rides)
 - Customer mobile application (available for iOS and Android) providing trip booking and providing real-time estimated time for pickups and arrivals and other trip updates
 - Driver mobile application for real-time transmission of routing and trip information

- Ability for administrators/schedulers to book trips on behalf of customers (so customers can book trips over the phone)
- Ongoing technical, operational, and marketing support
- **Turnkey purchased transportation (vendor-operated):** In this model, the vendor provides a solution that includes a microtransit software platform, along with the vehicles, drivers, and management services needed to operate the service. This partnership model may also be described as Transportation-as-a-Service, or “TaaS,” and/or as a “turnkey” model. If a Turnkey Model is chosen, the managing entity that contracts services could be the operator or another local authority/municipality. Turnkey services sometimes have lower operating costs and are typically easier to scale quickly compared to agency-operated alternatives, as third-party vendors can typically flex vehicle supply or extend operating hours more easily than transit agencies. Turnkey models also ensure that the operator and technology platform are designed to be interoperable and efficient. Disadvantages of using a turnkey model include reliance on a vendor for all aspects of service delivery, and less direct agency control over operational decisions (potentially including vehicle make/model, driver recruitment and pay, and maintenance). However, a well-designed contract can address many of these concerns.

In general, Turnkey services can be more complicated to procure and require more complex contracts. In addition to contracting for the technology platform (see [section 6.3 Technology Solutions](#) for more details), turnkey contracts require additional considerations about drivers, vehicles, and other operational details. Furthermore, there are fewer potential providers for turnkey microtransit solutions, and is more likely to result in contractor/subcontractor arrangements to fulfill the needs of the service.

- **Non-dedicated transportation providers:** Rather than introducing microtransit as a dedicated service, the operator could consider contracting with one or more local taxi/Transportation Network

Companies (TNCs) on a non-dedicated or trip-by-trip basis. Under this model, TNCs would deliver agency-subsidized trips alongside trips for private consumers. While such a model may be appropriate for services with notably low ridership levels (i.e., a service with projected demand that would not require a single dedicated vehicle resource), we typically recommend against non-dedicated models. Disadvantages include limited oversight of operations, limited availability, higher costs per trip, and ineligibility for FTA funding (depending on whether the TNC is able to meet drug and alcohol testing requirements). Further, trips are typically harder to aggregate in a non-dedicated model, meaning costs increase linearly as demand grows (compared to a shared-ride model, where the cost per trip decreases as more customers are aggregated). Finally, this model is not recommended for the South Jersey area because this study shows that there will be sufficient demand to necessitate a dedicated fleet of at least one vehicle during the proposed service hours. Thus, the two dedicated fleet models are likely to be more cost-efficient than subsidizing TNC trips.

Agency-operated and turnkey services are the two most popular operating models for microtransit. These two models can be considered two ends of an operating model spectrum, and a combination of the two models may also be implemented. For example, SJTA can continue to provide vehicles and procure an operator to hire and manage drivers, the technology, and all other operational responsibilities. Moreover, the administrator of the service (e.g., CCCTMA) could procure operations (vehicles and drivers) from one provider and procure software separately from two different third-party vendors. Finally, in an agency-operated model, the operator will be responsible for designating a fleet of vehicles for the service. If the agency does not have vehicles available for use, it may either purchase or lease new vehicles for the service.

It can take between nine months and one year from the time of publishing the procurement to implementation to launch a microtransit service. If vehicles are readily available for use in the service, the procurement to launch process typically takes between six and nine months. Once the procurement process is complete, new microtransit services can launch in as soon as three months.

6.3 Technology Solutions

Microtransit is a technology-enabled transit solution. Microtransit technology includes various components that are used by riders, drivers, and operators. Riders will mostly interface with a rider app or make requests over the phone with a dispatcher. Dispatchers and other members of the operations team will manage the system through the Operations Console. Drivers will receive instructions and complete their rides using a driver app. The three main platforms are all connected and work seamlessly together to deliver microtransit service. This section outlines the recommendations related to the technology platforms needed to implement microtransit. While not all features are required to provide a successful microtransit service, the features listed here may benefit the administrator (e.g., CCCTMA).

Operations Console: A web-based management console where transit agencies and managers can view and manage all aspects of the services. The operations console should have the ability to:

- Create, edit, suspend, and search for passenger accounts.
- Create, edit, suspend, and search for driver accounts.
- Book journeys for passengers who want to book trips by phone.
- Allow manual override of allocated bookings.
- View the current status of all live and upcoming trips.
- View a live run sheet schedule of drivers and manage driver shifts. Printer-friendly schedules/manifests to facilitate shift planning.
- Contact passengers or drivers directly through the console.
- Create and manage essential vehicle information.
- Edit and create stop locations through a map editor.
- Temporarily close off roads.

Passenger App: A mobile phone application where riders can plan their trips and book rides. The passenger app should allow riders to:

- Book microtransit journeys on demand.
- Select their origin and destination on a map, using their current location as a starting point or by dropping a pin on the map.



- Select origin and destination by address/zip code.
- Store frequently used destinations (e.g., home or work) for quick booking.
- Book trips to either depart from their origin at a specified time, or arrive at their destination by a specified time.
- Pre-book trips in advance and be able to set up recurring trip requests (such as daily or weekly bookings).
- Book seats for themselves, as well as other passengers traveling with them on the same journey (booking more than one passenger at once).
- Identify optimal pickup and dropoff locations, and show walking routes on map (including walking distances from origin to pickup location, and dropoff location to destination).
- Show clear and accurate available and expected pickup times for on-demand trip requests.
- Show clear and accurate available and expected pickup and dropoff windows for pre-booked trip requests.
- Show passengers alternative proposals for journeys outside their selected booking window if the passenger's preferred journey can't be served.
- Cancel/change trip details after a trip has been booked.
- Show vehicle information such as the driver name and the vehicle license plate number.
- Set up, edit, and manage their passenger profiles (including whether they have specific mobility requirements, require a door-to-door service, etc.).

- Rate their journey and easily provide feedback on their experience.
- Easily view contact information for customer service and phone bookings.
- View service hours and other frequently asked questions about the service.
- View upcoming and past trip bookings.
- View the app in multiple languages, Spanish at a minimum.
- If fare is introduced: Store passengers' debit card, credit card, PayPal, Apple Pay and/or Google Pay information, and take payment for journeys at the time of booking (unnecessary if the service is fare-free).
- If fare is introduced: Accept discount travel vouchers or promotional discounts (unnecessary if the service is fare-free).

Driver App: Mobile application for drivers to use on smartphones or tablets that enable them to complete trips. Capabilities include the ability to:

- Record the start and end of shifts.
- Give clear visual and audio directions for where the driver must travel.
- Clearly show where passengers are being picked up or dropped off.
- Confirm when a passenger has boarded their bus and been dropped off.
- Provide drivers additional information about their passengers where necessary (e.g., passengers who need help boarding, etc.).
- Contact passengers directly when appropriate.
- Communicate directly with the dispatcher.
- Provide feedback about passengers, and note any concerns, issues, and compliments that arise on their shifts.
- Show a summary of the driver schedule/manifest.

Passenger communications: Informing passengers of their requests and trip information is essential to maintaining a reliable and high-quality service. Whether or not trips are booked by app or by phone, the procured technology should be capable of the following:



- Confirming bookings via text message and app notifications once a journey is booked.
- Providing real-time service information for upcoming journeys, showing the live vehicle location and accurate ETAs on a map in the app.
- For pre-booked trips, informing passengers of their exact pickup time within a configurable number of minutes before boarding.
- Showing passengers the driver's name and vehicle registration details in the passenger app.
- Notifying passengers via SMS about their upcoming journey (e.g., 'Vehicle is X minutes away', 'Vehicle is running Y minutes late', etc.), especially passengers who have booked by phone.
- Sending group messages to all passengers booked onto one or more vehicles.
- Flexible configuring and showing of service messages in the app (e.g., wear face coverings, service disruption, incidents, etc.).
- Marketing to users via email, SMS, and app notifications, based on their travel habits or other characteristics.
- Enabling passengers and drivers to message one another via SMS.

Dynamic Dispatch and Routing: An effective trip dispatching and routing software ensures that a microtransit system runs efficiently by maximizing the number of trips that can be served. The following are capabilities that the dispatch and routing software should be able to do:

- Route services efficiently and dynamically using real-time traffic information.
- Utilize information about the availability of vehicles, customer needs, and conditions to aggregate riders into the same vehicle where appropriate.
- Only route vehicles along roads accessible to them.
- Configure maximum passengers' maximum detour time, to ensure efficient routing and good service quality for all passengers.
- Flexibly assign drivers and vehicles to different shifts and services.
- Flexibly configure driver rest periods at designated locations.
- Configure the system to reflect the different needs of different passengers (e.g., additional boarding time for disabled passengers, wheelchair users, etc.).
- Give wheelchair passengers priority access to wheelchair-accessible vehicles if the service also includes non-wheelchair-accessible vehicles.
- On-time standards for 'Arrive by' requests where a passenger cannot be late (e.g., for travel connections or medical appointments).
- Pickup windows for pre-booked trip requests (a wider pickup window offers greater flexibility to optimize the overall service, while a narrower pickup window offers passengers greater certainty over when they will travel).
- Maximum allowed detours, wait times, and walk distances for trip proposals.
- Vehicle details (e.g., number of seats, available wheelchair spaces, etc.).
- If fare is introduced: Fares based on time, location, and distance of travel, as well as relevant passenger details (unnecessary if service is fully fare-free).

Service Configuration: A highly configurable microtransit service is flexible, regularly optimized, and customized to the needs of the area and passengers. Service features that would be important to be able to configure include:

- Where and when passengers can travel based on the zone that they are traveling to/from.
- Service zone boundaries.
- Service hours.
- Optimal locations for vehicle stopping based on rules set by the operator.
- Windows in which trips can be pre-booked (e.g., from up to 5 minutes before bus arrives to up to 3 months in advance).
- **Reporting:** Readily available reporting, including operational, compliance, and financial data, is important to ensure that the operators and funders are able to best understand the service performance and plan for the future. Reporting capabilities that would be important to have include:
- Summary reports on driver activity (including hours driven, distance traveled, journeys completed, etc.).
- The ability to produce bespoke reports on an ad-hoc basis as needed.
- Visual representations of service usage and travel patterns, so managers can refine their microtransit service and make informed decisions about developing the broader public transit system.
- Downloadable data sets of trip requests for analysis in other tools used by the operators and funders.

6.4 Implementation Considerations

6.4.1 Funding

The 54/40 Community Shuttle is currently funded by a combination of New Jersey - Jobs Access Reverse Commute (NJ-JARC) funds, federal funding from Section 5311 Formula Grants for Rural Areas, and subsidized capital costs through the New Jersey Turnpike Authority (NJTA) and New Jersey Transit's provision of vehicles for the service.

If a microtransit service is implemented in the 54/40 Community Shuttle area, the operator (e.g., SJTA) and administrator (e.g., CCCTMA) can use a variety of additional funding sources to launch and operate the services. These include federal, state, regional and local sources (including some that are already being used for the service).

Federal Funding

Federal Transportation Administration (FTA) formula funding: Most federal funds will require a local match of up to 50% of allocated funds. Depending on the type of funding and operating model, local match requirements may be as low as 20%. Local match requirements also vary for operating and capital expenses.

- Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities:** This program provides formula-based funding for the purpose of assisting transit agencies and nonprofit organizations in meeting the transportation needs of older adults and people with disabilities when existing transportation

services are insufficient. Section 5310 funding is directed to transit agencies and other local government bodies designed as direct recipients or sub-recipients to FTA funding. Typically, metropolitan planning organizations (MPOs) establish Section 5310 allocations to projects identified in their Coordinated Human Services Transportation Plan, which is updated every 5 years. If desired, a microtransit service could complement the existing paratransit service, and if needed, the operators could agree to use 5310 funding to provide the complementary service.

- Section 5311 Formula Grants for Rural Areas (already used for the 54/40 Community Shuttle):** The 5311 program provides formula-based funding for capital, planning, and operating expenses for public transportation in rural areas, defined as incorporated or unincorporated communities with a population of less than 50,000. Numerous states have used this funding to support microtransit services. The federal share is 80 percent for capital projects, 50 percent for operating assistance, and 80 percent for Americans with Disabilities Act (ADA) non-fixed route paratransit service. For a turnkey service, the federal share is 65 percent of contracted expenses.
- Section 5307 Urbanized Area Grants:** The 5307 program provides transit capital and operating assistance to urbanized areas, defined as incorporated areas with a population of 50,000 or more residents. Section 5307 funding is directed to transit agencies and other local government agencies designated as direct recipients or sub-recipients of FTA funding. This funding source could be available only if the microtransit service were to extend into Vineland or another urbanized area.



Federal discretionary grants:

- **USDOT Rural Surface Transportation Grant:** As part of the Infrastructure Investment and Jobs Act, Congress authorized a new federal grant program, known as the Rural Surface Transportation Program (also known as “Rural”), to address gaps in transportation infrastructure in rural areas. On March 23, 2022, the Department of Transportation announced the availability of \$300 million in Rural funds, along with the INFRA and MEGA programs totaling \$2.9 billion altogether. States, local governments, tribal governments, transit agencies and regional metropolitan planning organizations (e.g., SJTPO) may apply for funding for projects located outside a Census-defined Urbanized Area, or within an Urbanized Area with a population of less than 200,000. Federal funding may be used to cover up to 80% of eligible costs. Microtransit can be funded if bundled as a capital expense such as the turnkey purchased transportation approach.
- **USDOT Strengthening Mobility and Revolutionizing Transportation (SMART) Program:** This program, established by the Bipartisan Infrastructure Law, designates annually \$100 million for fiscal years 2022-2026. It provides grants to eligible public sector agencies to conduct demonstration projects focused on advanced smart community technologies and systems in order to improve transportation efficiency and safety. The FY23 Notice of Funding Opportunity (NOFO) will open in September 2023. Eligible applicants include states, public transit agencies, and MPO's. Eligible projects include coordinated automation, connected vehicles, sensors, systems integration, delivery/logistics, innovative aviation, smart grid and traffic signals.
- **Section 5399(c) Low or No Emissions Vehicle Program (Low-No):** The FTA Low or No Emission competitive program provides funding to state and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses as well as acquisition, construction and leasing of required supporting facilities. Eligible applicants include direct or designated recipients of FTA grants, states, and local governmental authorities. Entities must create a Zero-Emissions Fleet Transition Plan in order to apply for Low-No funding.
- **Enhancing Mobility Innovation (EMI):** Funded by the Federal Transit Administration and formerly known as the Accelerating Innovative Mobility (AIM) Program, Integrated Mobility Innovation (IMI) Program and Mobility on Demand Sandbox (MOD) program, this competitive grant program funds forward-thinking approaches that improve transit financing, planning, system design and service. Eligible activities include all activities leading to the development and testing of innovative mobility, such as planning and developing business models, obtaining equipment and service, acquiring or developing software and hardware interfaces to implement the project, operating or implementing the new service model, and evaluating project results.
- **Carbon Reduction Program:** USDOT will distribute roughly \$6.4 billion over the next five years to states and MPOs to reduce carbon emissions in the transportation sector. This funding can be allocated towards any project that will reduce emissions by helping users take transit; this includes on-demand transportation service technologies such as microtransit.
- **Advanced Transportation Technologies & Innovative Mobility Deployment (ATTIMD):** Administered by the Federal Highway Administration and formerly known as the Advanced Transportation & Congestion Management Technologies Deployment (ATCMTD), this program provides competitive grants for the development of model deployment sites for large scale installation and operation of advanced transportation technologies to improve safety, efficiency, system performance, and infrastructure return on investment. Grant recipients may use funds under this program to deploy advanced transportation and congestion management technologies, including microtransit. As of 2022, \$60 million of ATCMTD funding is available annually.
- **USDOT Rebuilding America's Infrastructure with Sustainability and Equity (RAISE) Discretionary Grant:** Administered by the Department of Transportation, this federal program provides funding for transportation planning and capital projects (formerly known as the BUILD Grant or TIGER Grant programs).
- **Congressional Earmarks:** U.S. Senators and Members of Congress are increasingly using the recently revived congressional earmark process to advance promising transportation projects in their communities, including microtransit. A Community Project Funding (previously referred to as an earmark) is a funding provision that is inserted into an appropriations bill in Congress that directs funds

to a designated recipient for a specific project. For example, during FY2023 37 Members of Congress and 38 Senators submitted earmark requests to the House/Senate Appropriations Committees. In both chambers, more than half of earmark requests ultimately received funding. Both of Virginia's current Senators, Tim Kaine and Mark Warner, have been highly supportive of the earmarks process, securing more than \$200 million for Virginia projects in FY2023. Many transportation-related earmark requests are focused on capital projects, such as bike/pedestrian facility construction or roadway improvements. However, earmarks could also fund microtransit fleet replacement or electrification, software, or operations (through the capital cost of contracting rule). The City of Valdosta's microtransit program, Valdosta On Demand, received \$1 million to support its operations through FY2023 Congressional appropriations. Unlike a competitive grant process, transit agencies must approach their Members of Congress directly to request support for their microtransit project through the annual appropriations process and see the request through to fruition.

State Funding

There are several sources of funding available at the state level for innovative transportation, particularly that which enhances jobs access and economic opportunity, or serves low-income communities.

- **New Jersey - Jobs Access Reverse Commute (NJ-JARC) (already used for the 54/40 Community Shuttle):** Localities can apply for NJ-JARC funding for the development of shuttle services that will connect low-income communities with increased economic opportunity including jobs and other employment resources. Eligible services include shuttles and connector services to public transit or warehouse locations. There is an ADA requirement but demand response services are eligible for funding, as long as you can make a case that riders are using the service to travel to and from jobs. The program is administered by NJ-TRANSIT and the project must align with the region's human services transportation plan. There is a required 50% match.
- **Atlantic County Community Development Block Grant (CDBG) and State of New Jersey Small Cities CDBG:** CDBG supports community development activities that build stronger and



more resilient communities and provides direct assistance to eligible municipalities and counties for housing rehabilitation, public facilities, community revitalization, and economic development, which includes transportation initiatives. The Atlantic County CDBG is administered by the Atlantic County Improvement Authority (ACIA) and the State of New Jersey Small Cities CDBG is administered by the New Jersey Department of Community Affairs.

- **New Jersey County Aid:** County Aid funds are appropriated by the New Jersey Legislature annually for the improvement of public roads and bridges under county jurisdiction. Public transportation and other transportation projects are also included.

Local Funding

Local and regional funding accounts for a majority of transportation funding in the United States. Due to the study area's rural location and likely small size of a microtransit service, some local funding sources such as vehicle advertising, local sales tax, transient occupancy or hotel taxes, and other similar revenue sources are not recommended for the service. Fare revenues, which can offset a small portion of operating expenses, are also not recommended at this time due to community input that this may prevent residents from using the service.

One local funding source for further exploration is private-sector partnership for funding. Local employers and businesses may wish to partner with the service to ensure that it is available to their locations. For local businesses in particular, service availability may increase their access to a local workforce as well as increasing community visibility if their name appears on select materials advertising the service.

6.4.2 Intercounty Billing

The current Route 54/40 Community Shuttle operates entirely within Atlantic County, with all administration and billing handled as a single-county service. Of the proposed zone alternatives, Zone 1 is located entirely within Atlantic County, Zone 2 spans Atlantic and Camden Counties, and Zone 3 spans Atlantic and Cumberland Counties. The operator (e.g., SJTA) could decide to either fully cover the costs of all trips, regardless of whether they start/end in another county, or to split the cost of those trips with the other counties.

- Paying for all trips:** The primary goal of the extensions into Camden and Cumberland Counties is to expand access to jobs and key destinations for Atlantic County residents. Trips both starting and ending within Camden County are unlikely because the Camden County portion of Zone 2 is so small, and trips starting and ending within Cumberland County are not possible as the Zone 3 setup requires that all trips start or end in Atlantic County. Thus, Atlantic County may decide to pay for all microtransit trips regardless of zone selection as the goal is to better serve residents of this county with extensions into the surrounding counties. However, the ability to cover trips extending into other counties may be limited by the funding sources used for the service.
- Splitting costs with other counties:** The operator may decide to split costs with other counties for trips that start or end outside of Atlantic County. In this case, the split could be based on the portion of the service zone that falls within either county. Alternatively, the software used to implement microtransit could track the origin and destination counties, and the operator could download this data at a regular cadence and bill the other counties for a portion or the entirety of trips starting or ending in the other counties (this option is recommended only if trip tracking is required for billing purposes with state or federal funding sources). This would require an intercounty agreement, alignment on cost-sharing, and ongoing administration and billing. Microtransit services across the US implement cost-sharing measures across city and county borders to expand access for residents across the larger area.

This is particularly effective when both locations have a microtransit service, or agree to both contribute to a single, region-wide service.

6.4.3 Electric Vehicles

The US Department of Energy has mandated that all public transit agencies transition to 100% zero-emission bus fleets by the year 2040.⁷ Many transit agencies are already moving in this direction. For example, in Jersey City, the microtransit service is offered by both internal combustion engine (ICE) and electric vehicles (EVs), and additional EVs are being phased into the service over time.⁸ EVs can have lower operating costs than standard vehicles because they require less maintenance and have lower fuel costs. EVs also can provide quieter and smoother rides facilitating a better customer experience. Some choice riders may also be attracted to a sustainable transit option and choose to ride the service to lower their carbon footprint. Overall, EVs reduce greenhouse gas emissions and emit fewer local pollutants, thus improving local air quality in the communities with the service.

Should the operator (e.g., SJTA) decide to implement a microtransit service with electric vehicles (EVs), the following factors should be considered:

- Vehicle Type:** Most microtransit services operate with vehicles that have a capacity of 8 to 12 riders. As of Spring 2023, there are no readily available fully electric vehicles with over 6 passengers in the United States. There are some passenger cars with a capacity for 4 passengers, for example, the Hyundai Ioniq or Kia Niro EV, but these do not have wheelchair spaces. Alternatively, companies like Greenpower and Lightening offer retrofitted electric passenger vans, such as the Ford Transit van, that can be configured to include wheelchair spaces and have a capacity of 12 riders. Another option for the operator would be using Hybrid minivans such as the Toyota Sienna or the Chrysler Pacifica. Transit agencies could also use full-sized electric buses to operate a microtransit service (e.g., New Flyer's Xcelsior Charge or Proterra ZX5 Electric Transit Bus), but these can be more costly to operate and require drivers to have a commercial driver's license.

⁷ Source: "Zero-Emission Transit Bus Requirements," Alternative Fuels Data Center, U. S. Department of Energy, <https://afdc.energy.gov/laws/12257>.

⁸ Source: "Case Study Via Jersey City," Via Transportation, Inc., <https://ridewithvia.com/case-study/jersey-city?lang=en>.

- **Dedicated charging infrastructure:** This will be necessary to operate an electric microtransit service efficiently. Once vehicles are selected, further analysis should be conducted to understand how many charging bays will be needed. This will depend on the vehicle range of the selected vehicle, the number of vehicles needed to operate the service, the driver shifts and schedules, and the mileage required by each vehicle in order to complete rides. If such infrastructure is not readily available, the operator will also have to build out charging infrastructure for the service. While the upfront costs for purchasing vehicles and implementing charging infrastructure can be expensive, specific funding resources are available through the federal government for electrified transit services. For example, the FTA's Low or No Emissions Vehicle Program can be used to purchase electric transit vehicles (see [section 6.4.1 Funding](#) for other applicable funding opportunities).

6.4.4 Accessibility

The microtransit system should prioritize accessibility to ensure all potential customers have access to service, including passengers with disabilities, and those without smartphones or credit cards. We recommend the following accessibility measures:

- **For customers with limited mobility:** The current Route 54/40 Community Shuttle deviates up to an eighth of a mile from its scheduled route for passengers who are unable to walk to or from a bus stop. These requests must be made in advance. Instead, with a microtransit service, separate requests do not need to be made for vehicle deviations, thus providing more overall flexibility for all passengers.

This study recommends a corner-to-corner microtransit service, which typically asks passengers to walk a few minutes on either end of their vehicle journey. For those who are unable to walk to meet a vehicle, curb-to-curb service can be provided by the same vehicle fleet, thus ensuring the microtransit service is ADA compliant. Curb-to-curb rides pickup and dropoff passengers as close as possible to their requested origin and destination locations.

The service should include at least 20% wheelchair-accessible vehicles (WAV). If the implemented service only has two vehicles, it is suggested that both be WAVs as one vehicle may be unavailable at



times, meaning a second WAV must be available. As a point of comparison, around 3.5% of GMT MyRide trips require an additional level of accessibility (by customers who either require curb-to-curb service or who use wheelchairs, as of April, 2022). A fleet with 20% WAVs will ensure an equivalent quality of service can be offered for customers using wheelchairs. To make the booking process simple for passengers with disabilities, the software platform should remember a passenger's need for a WAV, and ensure that a WAV request is the default for future bookings. To avoid operational problems, the dispatching system should automatically assign passengers to vehicles with an available wheelchair position.

- **For customers with hearing, vision, or cognitive impairments:** Passengers should be able to indicate their disability status, either directly through the app or through notifying the customer service agent at the time of booking. This information can be used to modify the service to better adapt for their needs, whether it's through enabling point-to-point pick-up and drop-offs, concessionary pricing, or notification to the driver to provide additional assistance. App features such as voiceover, adaptive font size, and Switch Control can further help some customers with low vision.

- **For customers without smartphones:** In addition to the smartphone app for booking trips, offering web-based and phone booking options can ensure passengers without smartphones (or those who prefer not to use an app) can access the service. The administrators of the service should be able to easily book microtransit rides on behalf of customers calling in. The administrator (e.g., CCCTMA) can also partner with community organizations to train workers on how to book trips on behalf of passengers.
- **For unbanked or underbanked customers:** If the service charges fares, customers without debit or credit cards should be able to pay for services with several different options, which may include physical or digital vouchers (purchased in cash at community centers, transit hubs, or other key locations), prepaid debit cards, or cash on board the vehicle. Some agencies choose to avoid cash options due to the logistics and safety involved with collecting cash onboard vehicles.

6.4.5 Language

To ensure that the microtransit service is accessible to non-English speaking customers, the app should be made available in multiple languages. The most important language to provide service in would be Spanish. Within the study area, 24% of the population speaks Spanish as the primary language at home. Furthermore, 12% of the population in the study area speak English 'less than very well' (78% of which speak Spanish at home).⁹ Other languages spoken at homes in the study area include French, Haitian, Russian, and Polish but none by a significant percent of the residents that would justify the costs of adding a third language to the app. Multilingual dispatchers and drivers can further improve accessibility for non-English speakers and improve their trust and comfort with the system.

6.4.6 Pre-booked service

Most microtransit services are 'on-demand,' meaning that passengers book rides when they want to travel and typically wait between 5 and 20 minutes for vehicles to arrive. The on-demand microtransit model was simulated for this study. On-demand microtransit services provide passengers with the most flexibility

to travel when they want to. Alternatively, microtransit services can be 'pre-booked,' meaning passengers book rides in advance of their journey. Depending on how the service is configured, trips may be booked as soon as 2 hours in advance or longer depending on what is allowed by the operator. Typically, up to a few weeks in advance is allowed.

When customers make pre-booked trip requests, they are usually provided rides within a set timeframe. This window can vary by service, but typically trip proposals are offered within an hour before or after the requested time. Pre-booked rides can be made based on the requested pickup or dropoff time. After customers make their trip request, they typically receive a smaller pickup window (usually between 20 and 30 minutes long) in which they will actually be picked up by the microtransit vehicle. Passengers receive their pickup window usually the morning of their ride or a few hours before. Most software providers allow agencies to customize the exact windows and parameters to fit customer needs. And passengers can track the vehicles in the app or receive text message updates to prepare for their trip.

Pre-booked services are useful for riders traveling to scheduled medical appointments or work shifts, where the customer's arrival or departure times are pre-determined in advance, or whenever being on time is especially important. With on-demand microtransit services, wait times can fluctuate throughout the day depending on the demand for the service and the vehicles that are 'online.' Therefore, some passengers prefer to pre-book their rides to ensure they will reach their final destination on schedule. Recurring rides can also be pre-booked. For example, if a customer has shift work every weekday at 9 AM, they can book daily rides for these trips all at once. Another benefit of pre-booked microtransit services is that an agency will know how many vehicles they will need to supply a service in advance and can schedule drivers accordingly.

Finally, microtransit services can be delivered with a hybrid approach, allowing both pre-booked and on-demand microtransit trips. In a hybrid approach, pre-booked trips are scheduled first, and on-demand trip proposals are only offered if there is the capacity for the ride request after accounting for the pre-booked

⁹Source: Language Spoken At Home For The Population 5 Years And Over (Universe: Population 5 Years and Over). From table C16001 in the American Community Survey 5-year; 2016-2020, using Census Tracts.

rides. During the public outreach for this study, feedback from the community indicated an interest in pre-booked rides, especially for employment purposes. This study recommends implementing a hybrid booking model to replace the Route 54/40 Community Shuttle.

6.5 Marketing and Public Education

Building on the community engagement conducted as part of this study, we recommend that the administrator (e.g., CCCTMA) conduct parallel community engagement and marketing activities to ensure the microtransit service's success once a decision has been made to launch a new service.

6.5.1 Community Engagement & Changes to Existing Service

The ability to move conveniently and affordably between home, work, school, childcare, and healthcare is central to a community's ability to thrive. The transit systems that enable this movement play a crucial role in people's everyday lives, and any changes to

these systems — even positive ones — can naturally be a source of apprehension. Service changes have the potential to catch customers unaware, and some customers may even assume they are excluded from the new service offering. Service changes can be particularly fear-inducing for vulnerable populations, for whom public transit serves as a vital lifeline with no easy replacement. In this case, the new microtransit service will likely replace the existing 54/40 Community Shuttle, which will require an adjustment by the existing riders.

Fears can be exacerbated by a lack of information regarding what changes to transit means for the community. Concerns about cost, access for those with accessibility needs and/or lack of technology, service coverage, and more routinely create opposition to changes in transit offerings.

A high-touch and proactive approach to community engagement not only helps mitigate concerns but can turn those in the community who could potentially be opponents of change into advocates. When launching a microtransit service, support from the community is essential, both to ensure a smooth launch and to set the service up for continued success and growth.



Pre-launch

Community engagement should begin several months before launch, giving the administrator time to incorporate feedback from stakeholders and potentially adjust service design. Re-starting community engagement early in the launch process also helps preempt passenger and stakeholder concerns through thorough education about service offerings. Any additional community engagement efforts should build on the public engagement conducted as part of this study. To continue this process:

1. Identify subcommunities that may be sensitive to service changes or require personalized outreach to adapt service. These may be the same groups that were previously engaged and new additional groups that may also be affected. Working with partner organizations such as Allies in Caring, may be helpful in identifying and connecting to these groups. Examples of communities that should play a central role in community engagement efforts are included in Table 23.

Once key stakeholders have been identified, steps can be taken to preemptively address their concerns. For example, if accessibility is an expected concern, educate customers about the wheelchair-accessible vehicles in the fleet and

the ability to book door-to-door trips for mobility-impaired passengers.

2. Develop materials that engage with likely responses to the new service to answer questions proactively. These materials can include pamphlets, mailers, videos, or physical or digital advertisements. The materials should explain the mechanics of the service, how passengers will book trips, the service zone, and fares (if any). Be sure to address how passengers in high-barrier groups will be able to access the service, including information about phone booking and accessibility features. Furthermore, these materials should build on the engagement during the planning stage by including any finalized details regarding the actual implementation of the service, such as the vehicle types that will be used.
3. Speak with advocacy groups, elected officials, civic and business leaders, and major local employers as part of the broader community outreach. Continue to engage with the Atlantic County Shuttle Advisory Committee and this study's Steering Committee, and ask them to share the upcoming changes with their communities. Trusted community leaders can ensure changes are communicated with community groups, and promote awareness of and trust in the new system.

Table 23 Targeted communities for pre-launch community engagement

Customers with High Barriers to Entry	Stakeholder Groups Sensitive to Service Changes
Seniors	Agency employees (drivers, call center staff, administrators)
Non-native English Speakers, specifically the Spanish speaking community	Employee unions
Unbanked individuals, or those who prefer cash	Rider advocacy groups
Those without cellphones	Elected Officials
Homeless riders	Civic and business leaders
Riders with disabilities	Major local employers

Launch

Leading up to the launch of the microtransit service, the administrator can continue its community engagement strategy through three channels:

- **Stakeholder Organizations:** As the administrator approaches launch and finalizes key service parameters, it should re-engage previously-contacted organizations (including this study's Steering Committee and the Atlantic County Shuttle Advisory Committee) to enlist their help in publicizing key information about the service. Helpful organizations may include libraries, health centers, care facilities, civic groups, and social services organizations. These organizations can help create and distribute informational materials that are relevant to the audiences they serve.
- **Customers with high barriers to entry:** The administrator can build a list of current shuttle riders who are likely to have trouble accessing the new service and conduct phone calls to help them create accounts and alleviate any concerns they may have. This will be their first interaction with the service and can impact how much they promote the service to their peers, so it's important to keep the communication open and keep a detailed record of their feedback, both positive and negative.

- **The public:** The administrator should make information available to the general public by posting information about service changes as early as possible and in as many places as possible. Particularly because the microtransit will replace the existing shuttle service, we recommend posting physical signage (e.g., at bus stops and aboard vehicles) to explain upcoming service changes, along with posting information digitally on local websites and social media. Furthermore, drivers of the 54/40 Community Shuttle can make announcements and share informational flyers with riders in the days and weeks before launch.

Post-launch

After the microtransit service has been launched, community engagement activities can continue to inform improvements to the system. The administrator can re-engage the Steering Committee and the Atlantic County Shuttle Advisory Committee, as well as microtransit riders to see how service is going, and identify opportunities for improvement. Feedback from riders can be obtained through surveys administered directly by the microtransit app. Stakeholder organizations can also play a central role in continuing to promote the service to their constituent communities.



6.5.2 Marketing Microtransit Service

Marketing is an important step to ensure the public is aware of the new microtransit service, both to ensure existing transit customers are prepared for changes to service, and to attract new customers to the system. Many potential customers will be unfamiliar with microtransit as a type of public transit and will need to learn how to book rides and use the service. Creating sustained awareness of the microtransit service prior to launch is essential, and some of the following strategies may be useful:

- Webpage:** Create a dedicated website for the microtransit service with key service information.
- Press release:** Develop a pre-launch press release for distribution in local media that directs readers to download the microtransit app.
- How-to video:** Create a short informative video on how to use the service and share on the service website and social media.
- Targeted outreach:** Targeted emails or print and social media advertisements. Targeted outreach including “how-to” instructions may be particularly useful for seniors and at retirement communities.
- Community announcements:** Announce microtransit service in local communications, newsletters, and social groups

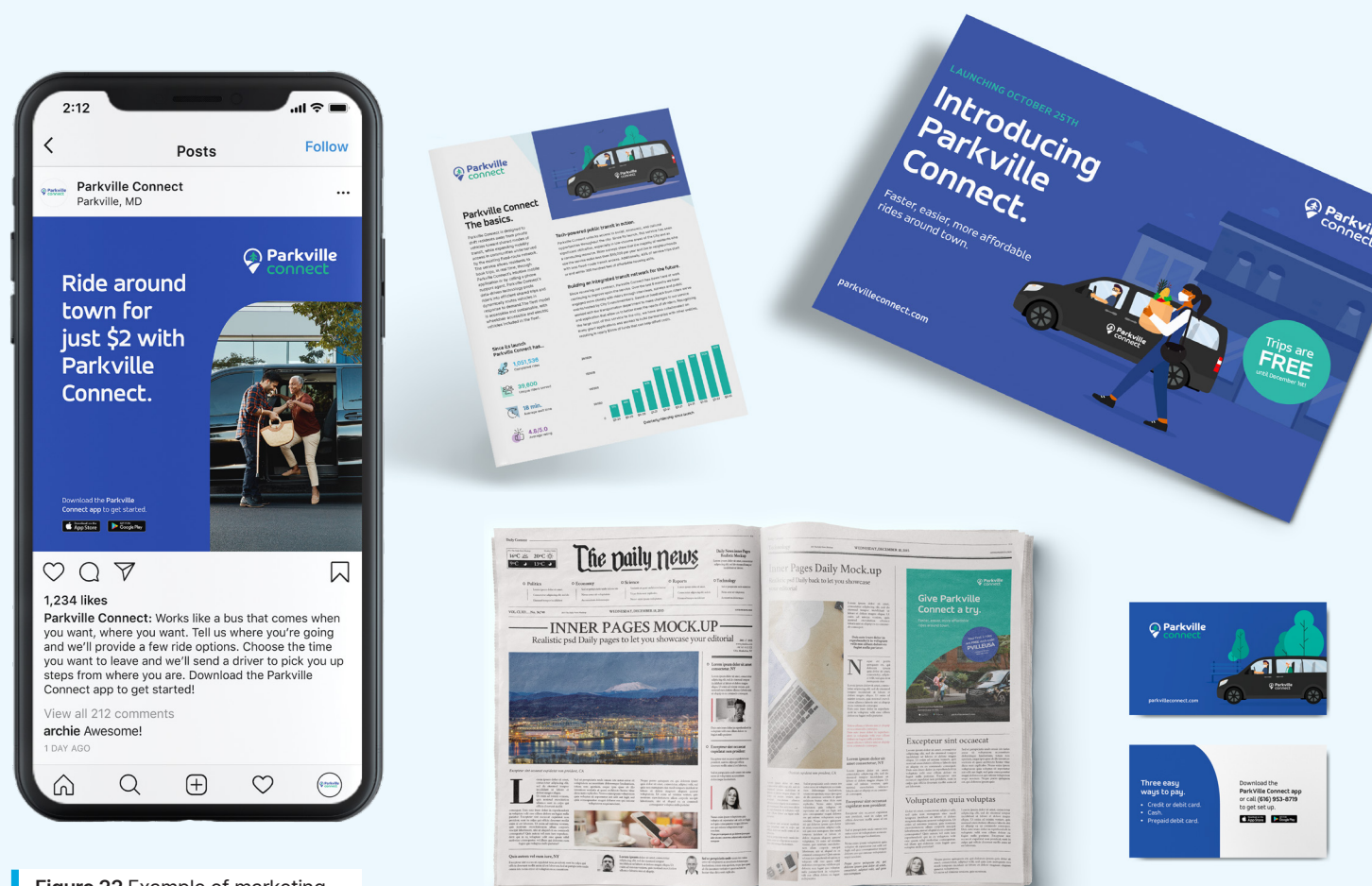


Figure 22 Example of marketing materials for a microtransit service

The following topics are suggested to be included in the marketing materials for a new microtransit service:

- Instructions on how to download the app and book microtransit rides.
- Safety Protocols and customer service contact information.
- A map of the service zone boundaries and popular travel destinations within the zone.
- Service hours.
- Expected wait times and walking requirements to meet vehicles.
- Instructions on how to request accessible rides.
- Explanation that the service is free.

Encouraging awareness of microtransit through word of mouth is especially important. Generating awareness via word of mouth can be achieved through some of the following approaches:

- **Focus groups:** As done during the public engagement phase of this study, focus groups can be used as a way to discuss and learn directly from the public. Focus groups can serve as a good opportunity to instruct customers who may be in need of assistance using new technology,

like seniors, unbanked customers, nonnative English speakers.

- **Street marketing:** Placing a wrapped microtransit vehicle at high foot traffic areas can increase awareness and encourage conversation about the service.
- **Conversations with community leaders:** By engaging community leaders, as done through the engagement process of this study, decision-makers can help build trust and awareness around a new service. Community leaders often become strong advocates for new transit services, especially ones that directly benefit their constituents.
- **Community “ride-alongs:”** Once the service is up and running, community ride-alongs can be organized to increase awareness of the new service. Formal ride-alongs can be an opportunity to teach people how to use microtransit and help build trust in the service. Ride-alongs can be done with specific communities, such as with the Latinx community or immigrant groups and be conducted in multiple languages to improve accessibility to the service.

The administrator (e.g., CCCTMA) can conduct marketing activities in phases to ensure success at each phase of the service’s lifecycle:

Table 24 Phased approach to marketing activities

	Pre-launch	Months 1-3	Months 4+
Focus	Establish marketing channels and develop materials	Promote service visibility and attract first-time riders	Continue attracting customers and retain customers with engagement promotions
Activities	<ul style="list-style-type: none"> ● Design marketing materials ● Begin pre-launch awareness: social media, local press, and local government outlets 	<ul style="list-style-type: none"> ● Digital (social media) and physical ads (flyers, direct mail, bus station signage). ● Press releases ● Events and direct public engagement 	<ul style="list-style-type: none"> ● Rider surveys and focus groups ● Referral campaigns ● Promotion of discounted tickets and referral campaigns ● Outreach to specific communities

6.6 KPIs and Service Evaluation

After a microtransit service has been implemented it should be regularly evaluated to assess the success of service and identify opportunities for improvements.

Table 25 outlines some possible Key Performance Indicators (KPIs) that CCCTMA can use to analyze the microtransit service and benchmark it against the existing Route 54/40 Community Shuttle. CCCTMA should set a target value or range for each KPI and regularly monitor the service against these goals.

Table 25 Key Performance Indicators

	KPI description	Trajectory of KPI for a successful microtransit service
Ridership	A successful microtransit service must attract riders. If ridership is high, this indicates that the service is providing a useful form of mobility for residents. Ridership can be measured by day, month, or year and can be compared by the time of day and day of the week.	Ridership should grow over time. It can take six to twelve months for ridership to reach the levels estimated in this study. After about a year of service, ridership should continue to grow but likely at a slower pace. Ridership of any of the microtransit alternatives is expected to be higher than the current ridership of the 54/40 Community Shuttle.
Efficiency	<p>In order to ensure the microtransit service is delivering value-for-money relative to other forms of public transit, CCCTMA should evaluate the efficiency of the service. Several potential metrics can be used including:</p> <ul style="list-style-type: none"> Passengers per vehicle hour (often called utilization or productivity) Cost per passenger 	As ridership grows, the service should become more efficient. Over the first year of service, CCCTMA can expect the passengers per vehicle hour to increase and the cost per passenger to decrease. After the first year of service, when ridership growth begins to slow, so will the efficiency metrics. Estimated utilization (passengers per vehicle hour) is provided for each alternative in 6.1.3 Modeling Results by Alternative . This can be converted into cost per trip once the hourly operating costs are finalized.

Table 25 (Continued) Key Performance Indicators

	KPI description	Trajectory of KPI for a successful microtransit service
Quality of Service	<p>Quality of service KPIs reflect how a service is performing and can impact ridership. Several possible metrics can be collected to measure the quality of a microtransit service:</p> <ul style="list-style-type: none"> • Average passenger wait time • Average passenger walking distance • Average customer satisfaction rating • On-time performance at pickup or dropoff • Percent of seat-unavailable trip requests 	<p>CCCTMA should set targets for quality of service KPIs that are the same as, or better than, the current Community Shuttle service. After the first few months of service, once any operational challenges have been overcome, the quality of service metrics should stabilize and stay consistent.</p> <p>Estimated average passenger wait times and walking distance are provided for each alternative in 6.1.3 Modeling Results by Alternative.</p> <p>Average customer satisfaction ratings, usually measured on a scale from 1 to 5, should be high.</p> <p>On-time performance at pickup or dropoff, typically measured a percent of trips that arrive within a certain time threshold, should be high or close to 100%.</p> <p>The percent of seat-unavailable trip requests should be low or close to zero. An increase in this metric may indicate that additional vehicles are needed to meet demand or other service parameters need to be adjusted.</p>

Table 23 (Continued) Key Performance Indicators

	KPI description	Trajectory of KPI for a successful microtransit service
Accessibility	<p>Microtransit services should be accessible for individuals with a disability. In order to track whether the microtransit service is meeting these individual's needs, there are several possible KPIs:</p> <ul style="list-style-type: none"> Customer satisfaction of disabled riders Average wait times for Wheelchair Accessible Vehicles (WAVs) vs. standard vehicles. Or average wait times for passengers requesting an accessible ride vs. a non-accessible ride. Number of trips made by riders with a disability 	<p>CCCTMA should set targets for accessibility KPIs that are the same as, or better than, the current Community Shuttle service. Like the quality of service metrics listed above, once the microtransit service is stable, these metrics should stay fairly consistent and similar to those of the average rider.</p> <p>Customer satisfaction of disabled riders should be high and close to the same as the average for all riders.</p> <p>Average wait times for wheelchair-accessible rides and standard rides should be similar and should be similar to the estimates by alternative in 6.1.3 Modeling Results by Alternative.</p> <p>The number of trips made by riders with a disability should grow as ridership grows over the first year of service and then stabilize. This metric can be compared to the requested deviations currently made by the 54/40 Community Shuttle but is expected to be higher as the microtransit service should be easier for passengers with disabilities to request rides on because of the on-demand nature of microtransit.</p> <p>One challenge with tracking these metrics is that SJTPO may not know which passengers have a disability. While it can be assumed that all passengers requesting a WAV have a disability, there may be passengers with disabilities who are comfortable using a standard vehicle. Therefore, this metric may also be tracked through a survey emailed to passengers or completed through an app, where individuals may self-identify if they have a disability.</p>

Table 25 (Continued) Key Performance Indicators

	KPI description	Trajectory of KPI for a successful microtransit service
Equity	Like other forms of public transit, microtransit can be an essential service for many people. It is important to track whether or not disadvantaged communities have equal access to a service. One way to measure this is to see if the demographics of riders are proportional to the demographics of the community.	<p>Similar to tracking accessibility, CCCTMA may not know the demographics of each passenger. It may be best to collect this information instead through a survey sent to passengers, where individuals can self-report their race/ethnicity, income, and age.</p> <p>The trip origin and destination locations can also be mapped and compared to the demographics of the area to determine if there are a disproportionate number of trips originating and/or ending in census tracts with higher than average rates of low-income residents, minority populations, or other demographic metrics.</p>

SECTION 7

Conclusion

7.

Conclusion

This study presents a set of four microtransit alternatives for the replacement of the Route 54/40 Community Shuttle. The shuttle currently uses two vehicles and serves a population of 4,200 people in Hammonton, Folsom, Newtonville, Collings Lakes, Buena, and Richland. By transitioning the shuttle service to a microtransit service, passengers will have access to more areas, shorter wait times, and shorter journey times.

Four alternatives, covering three different microtransit service zones, were evaluated. Alternative A focused on the 54/40 communities. This is the smallest zone that was analyzed and is most similar to the current service area of the Route 54/40 Community Shuttle. However, with the recommended service parameters of a 30-minute maximum wait time and no more than a 0.25-mile walk on either end of the trip, three vehicles would be needed to operate the service at the estimated medium-demand ridership level. Alternative B showed that if funding is limited, and only two vehicles are available to operate the service, it is recommended to increase the maximum wait time and the maximum walks to and from the vehicle in order to be able to serve the medium estimated ridership demand with the existing vehicle fleet.

If additional funding is available, depending on the amount, the service could be implemented in the 54/40 community zone with the recommended higher quality of service parameters (shorter waits and shorter walk times) or even expand the service into areas of Camden County and Vineland. Expansions into these other areas would cost more but provide access to key destinations for the 54/40 communities. Alternative D, expansion to Vineland, would especially increase access to more job opportunities at the industrial park. Alternative C, expansion to Camden County, would increase access to medical services by providing connections to Ancora Psychiatric Hospital. Alternative D would require more vehicles and cost more to operate compared to Alternative A. However, ridership is expected to be 40% higher. At



the recommended parameters, Alternative C (access to Camden County) would result in a modest increase in ridership (7%) and require the same number of vehicles as Alternative A, thus costing the same. If there is enough funding for Alternative A at the recommended parameters, the only downside to expanding into Camden County would be the administrative and funding challenges associated with intercounty services.

The next step is for SJTPO, CCCTMA, SJTA, and local stakeholders to determine if they would like to proceed with converting the Route 54/40 Community Shuttle with a microtransit service and, if so, with which zone alternative and quality of service parameters. These decisions should be made with community needs in mind and reflect the learnings from the interviews and focus groups conducted as part of this study. The chosen microtransit alternative will dictate the funding needed to be secured. Also, selecting an operating model will influence which public funds could be applicable for the service and how much local match is required. Once funding is secured, administrators can proceed with the procurement and implementation of the service.

Appendices

A	CCCTMA Rider Survey
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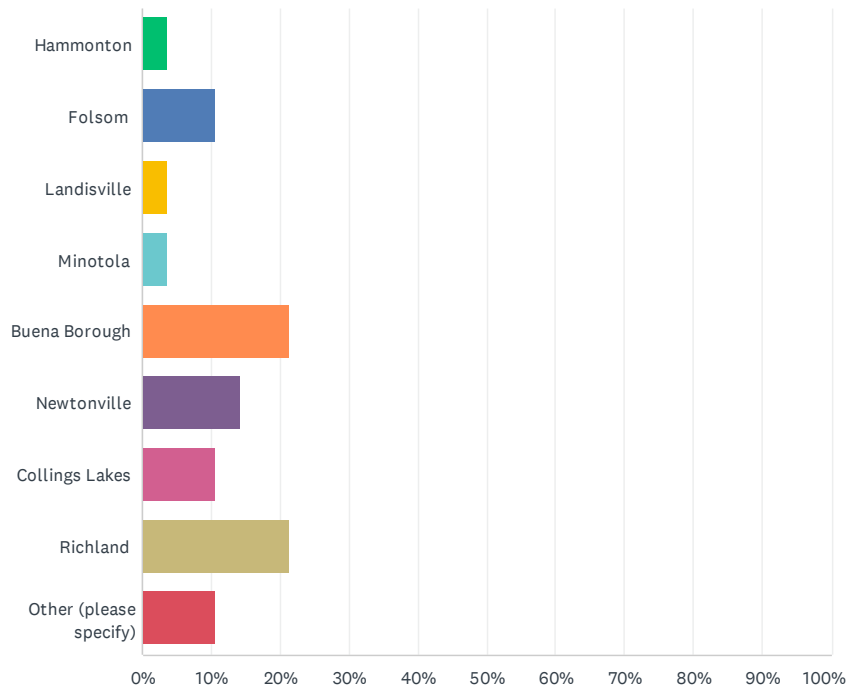
Route 54/40 Community Shuttle Ridership Survey - 2022



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q1 Where do you live?

Answered: 28 Skipped: 0



ANSWER CHOICES	RESPONSES	
Hammonton	3.57%	1
Folsom	10.71%	3
Landisville	3.57%	1
Minotola	3.57%	1
Buena Borough	21.43%	6
Newtonville	14.29%	4
Collings Lakes	10.71%	3
Richland	21.43%	6
Other (please specify)	10.71%	3
TOTAL		28

OTHER (PLEASE SPECIFY)	RESPONSES
Sicklerville	1



Route 54/40 Community Shuttle Ridership Survey-- 2022

Vineland

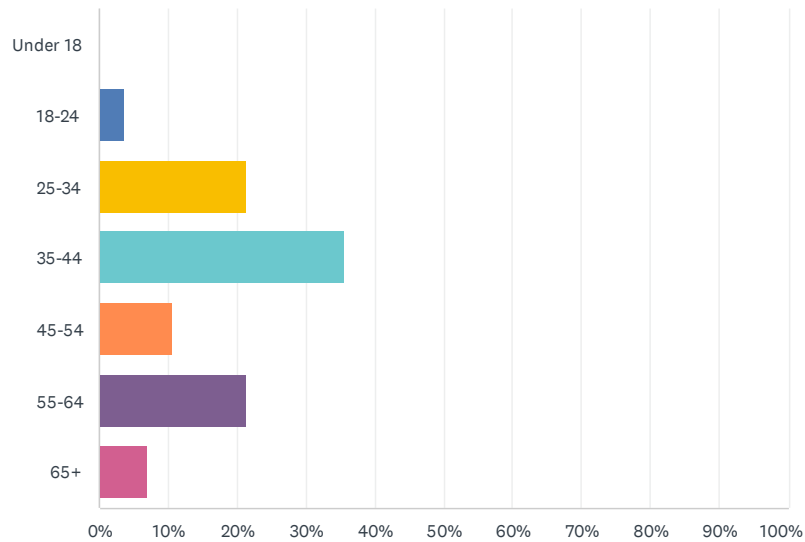
2



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q2 What is your age?

Answered: 28 Skipped: 0



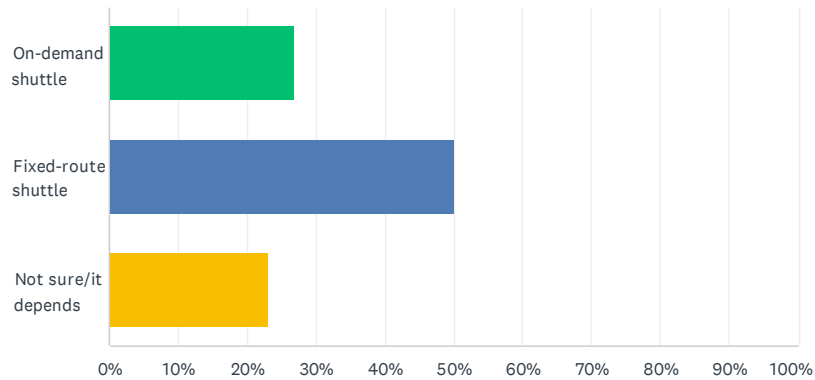
ANSWER CHOICES	RESPONSES	
Under 18	0.00%	0
18-24	3.57%	1
25-34	21.43%	6
35-44	35.71%	10
45-54	10.71%	3
55-64	21.43%	6
65+	7.14%	2
TOTAL		28



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q3 Which of the following would better suit your local transportation needs?

Answered: 26 Skipped: 2



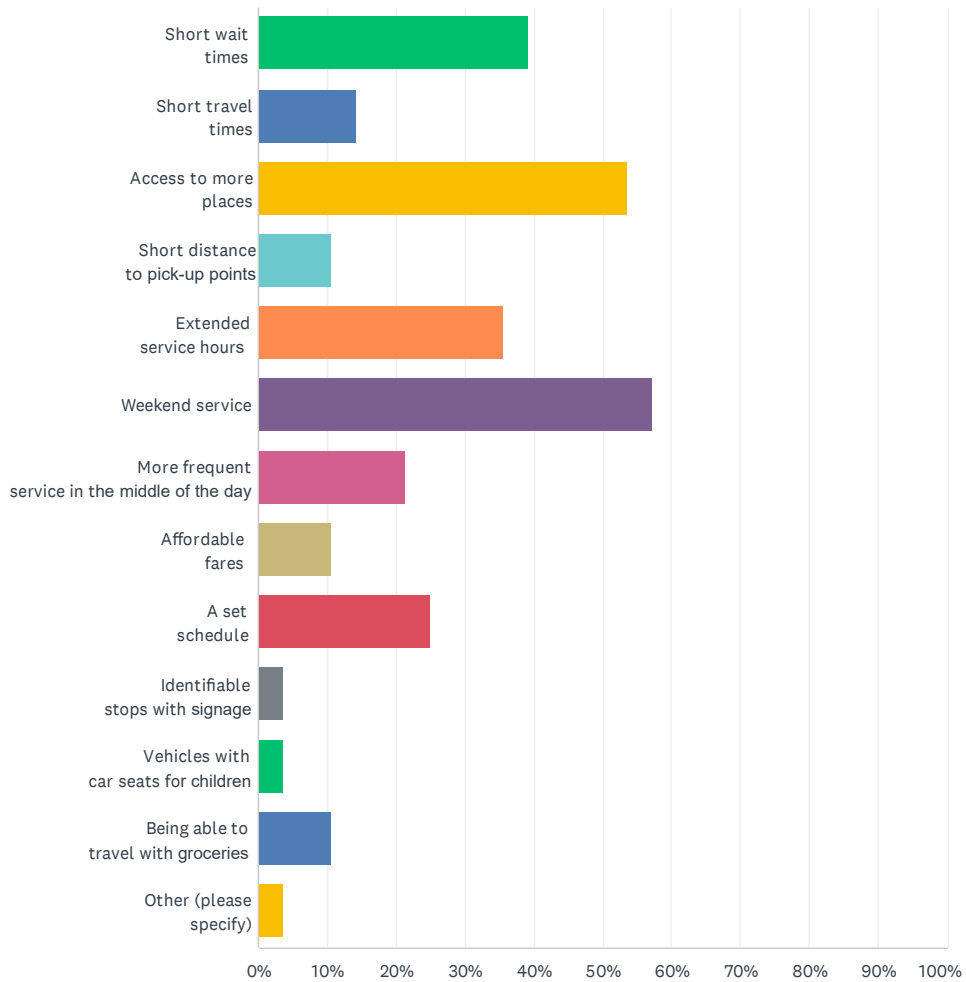
ANSWER CHOICES	RESPONSES	
On-demand shuttle-- only comes when I request to get picked up (using a phone number or app), meeting me nearby and taking me close to my destination	26.92%	7
Fixed-route shuttle-- stops at the same place and time every day, even if there is a longer wait and might not stop close to my destination	50.00%	13
Not sure/it depends	23.08%	6
TOTAL		26



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q4 What is most important for you in a transit service? Select NO MORE THAN THREE of the following options.

Answered: 28 Skipped: 0



Route 54/40 Community Shuttle Ridership Survey-- 2022

ANSWER CHOICES	RESPONSES	
Short wait times	39.29%	11
Short travel times	14.29%	4
Access to more places	53.57%	15
Short distance to pick-up points	10.71%	3
Extended service hours (early in the morning and late in the evening)	35.71%	10
Weekend service	57.14%	16
More frequent service in the middle of the day	21.43%	6
Affordable fares	10.71%	3
A set schedule	25.00%	7
Identifiable stops with signage	3.57%	1
Vehicles with car seats for young children	3.57%	1
Being able to travel with groceries	10.71%	3
Other (please specify)	3.57%	1
Total Respondents: 28		

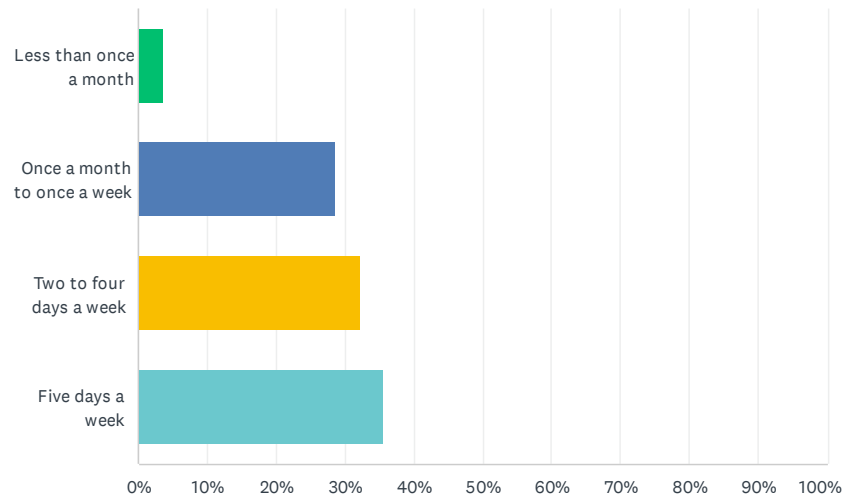
OTHER (PLEASE SPECIFY)	RESPONSES
Being on time	1



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q5 How often do you ride the Route 54/40 Community Shuttle currently?

Answered: 28 Skipped: 0



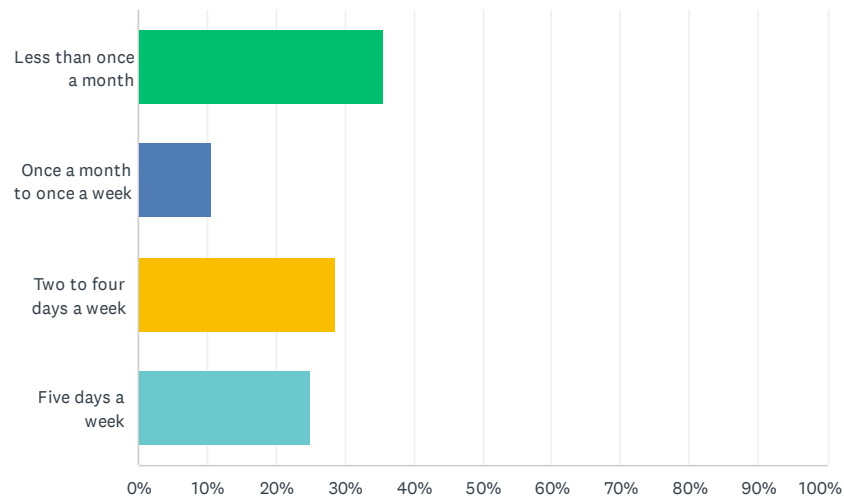
ANSWER CHOICES	RESPONSES	
Less than once a month	3.57%	1
Once a month to once a week	28.57%	8
Two to four days a week	32.14%	9
Five days a week	35.71%	10
TOTAL		28



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q6 How often did you ride the Route 54/40 Community Shuttle before the COVID-19 pandemic started in April 2020?

Answered: 28 Skipped: 0



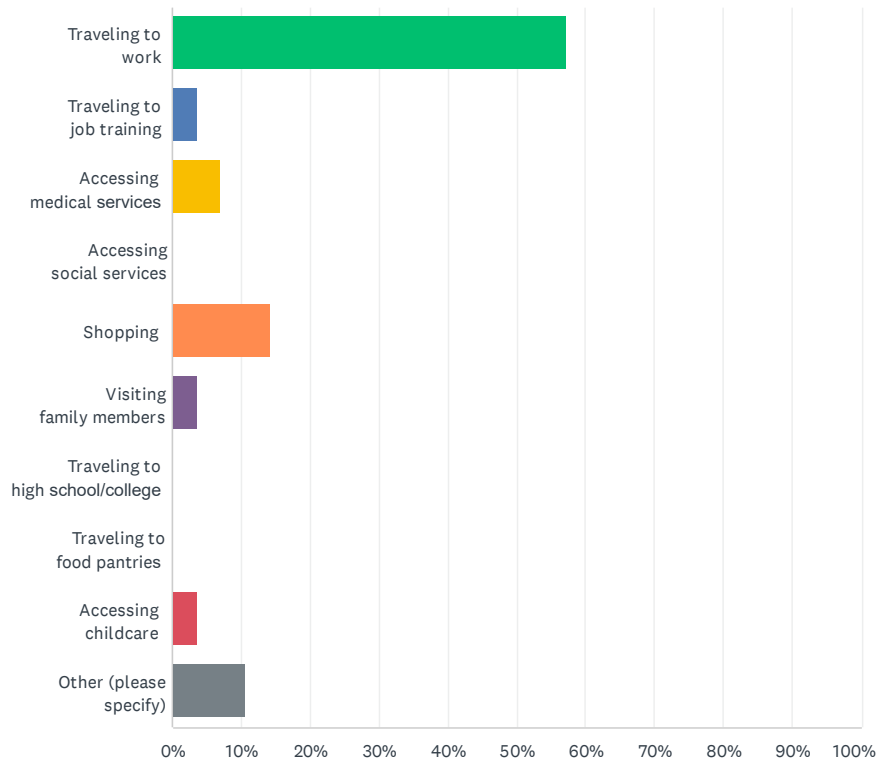
ANSWER CHOICES	RESPONSES	
Less than once a month	35.71%	10
Once a month to once a week	10.71%	3
Two to four days a week	28.57%	8
Five days a week	25.00%	7
TOTAL		28



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q7 When riding the Route 54/40 Community Shuttle, which of the following best describes your primary trip purpose? Please select only one.

Answered: 28 Skipped: 0



Route 54/40 Community Shuttle Ridership Survey-- 2022

ANSWER CHOICES	RESPONSES	
Traveling to work	57.14%	16
Traveling to job training	3.57%	1
Accessing medical services (doctor appointment, pharmacy, etc.)	7.14%	2
Accessing social services	0.00%	0
Shopping	14.29%	4
Visiting family members	3.57%	1
Traveling to high school/college	0.00%	0
Traveling to food pantries/ food banks	0.00%	0
Accessing childcare	3.57%	1
Other (please specify)	10.71%	3
TOTAL		28

OTHER (PLEASE SPECIFY)	RESPONSES
To catch train or bus to work in AC	1
Traveling home from work	1
Connection to bus route	1



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q8 What hours of the day do you typically work? Please answer below, and be sure to specify AM or PM.

Answered: 27 Skipped: 1

RESPONSES

In the morning

10 a.m. - 2 p.m.

7 - 5

7 a.m. - 3:30 p.m.

9 to 5:30

4:00 p.m. to 11:00 p.m.

Disabled

Not at this time

Don't work

PM

8 - 10 a.m.; 3 - 5 p.m.

None

1 p.m.

Not sure

9 a.m. to 4 p.m.

7 p.m. - 7 a.m.

7 a.m.

9 a.m. to 4:30 p.m.

9 a.m. - 5:30 p.m.

11-11

7:00 a.m. - 2:30 p.m.

6 a.m. - 10 a.m.

9 a.m.

Need 7:59 leaving Richland to catch 8:35 a.m. Hammonton train to A.C.

8-5

8:05 a.m.

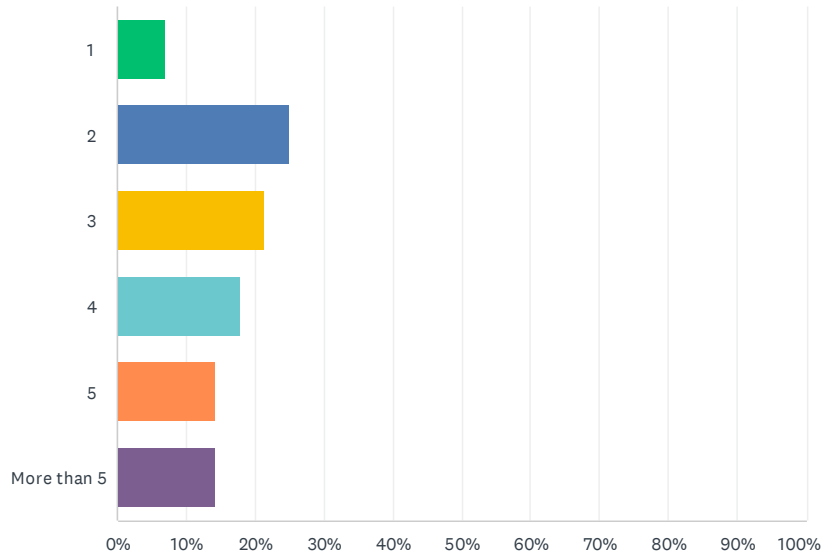
12:30 p.m. - 6:30 p.m.



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q9 Including yourself, how many people are in your household?

Answered: 28 Skipped: 0



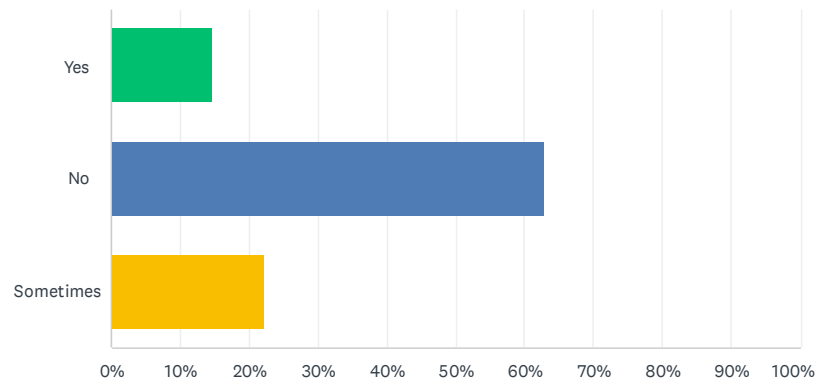
ANSWER CHOICES	RESPONSES	
1	7.14%	2
2	25.00%	7
3	21.43%	6
4	17.86%	5
5	14.29%	4
More than 5	14.29%	4
TOTAL		28



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q10 Do you have a vehicle available within your household to use on a regular basis?

Answered: 27 Skipped: 1



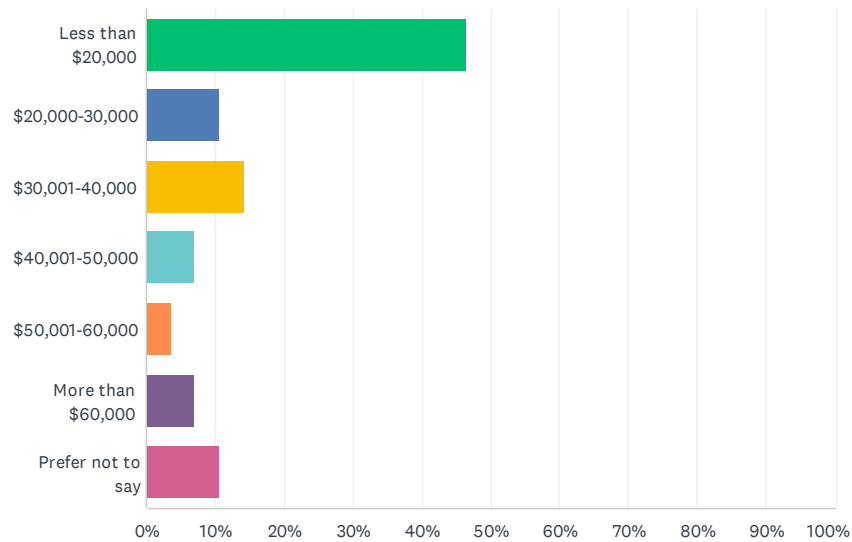
ANSWER CHOICES	RESPONSES	
Yes	14.81%	4
No	62.96%	17
Sometimes	22.22%	6
TOTAL		27



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q11 What is your household's annual income?

Answered: 28 Skipped: 0



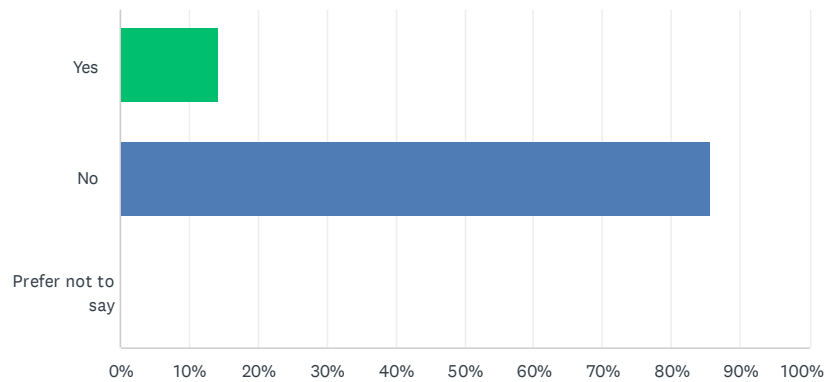
ANSWER CHOICES	RESPONSES	
Less than \$20,000	46.43%	13
\$20,000-30,000	10.71%	3
\$30,001-40,000	14.29%	4
\$40,001-50,000	7.14%	2
\$50,001-60,000	3.57%	1
More than \$60,000	7.14%	2
Prefer not to say	10.71%	3
TOTAL		28



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q12 Are you currently enrolled in TANF, Post-TANF, or general assistance programs?

Answered: 28 Skipped: 0



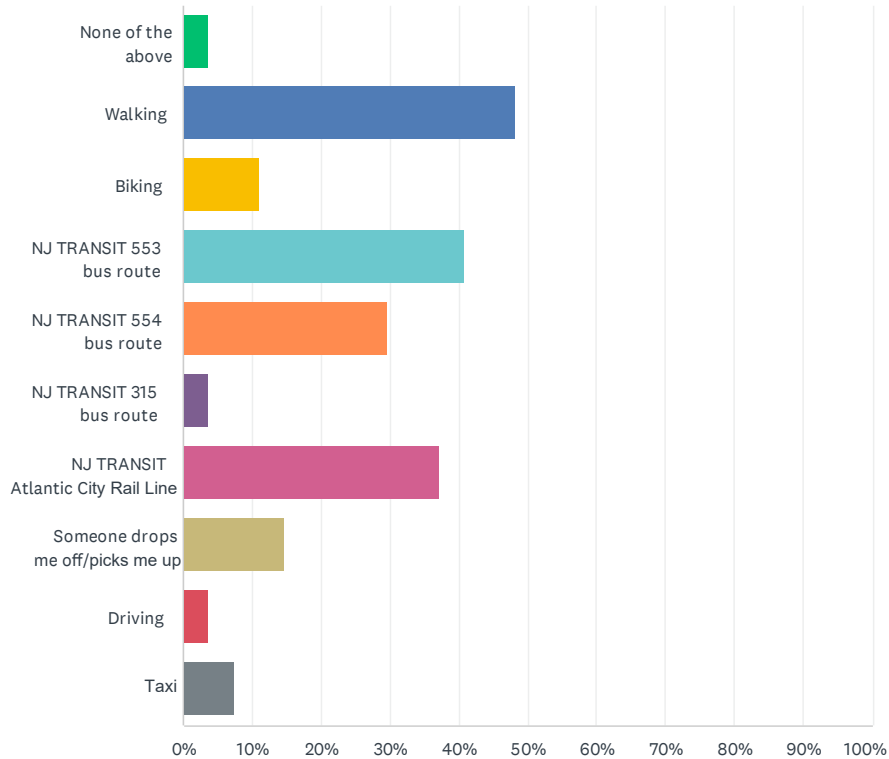
ANSWER CHOICES		RESPONSES	
Yes		14.29%	4
No		85.71%	24
Prefer not to say		0.00%	0
TOTAL			28



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q13 When you take the Route 54/40 Community Shuttle, what other transportation options do you use to complete your trip? Please check all that apply.

Answered: 27 Skipped: 1



Route 54/40 Community Shuttle Ridership Survey-- 2022

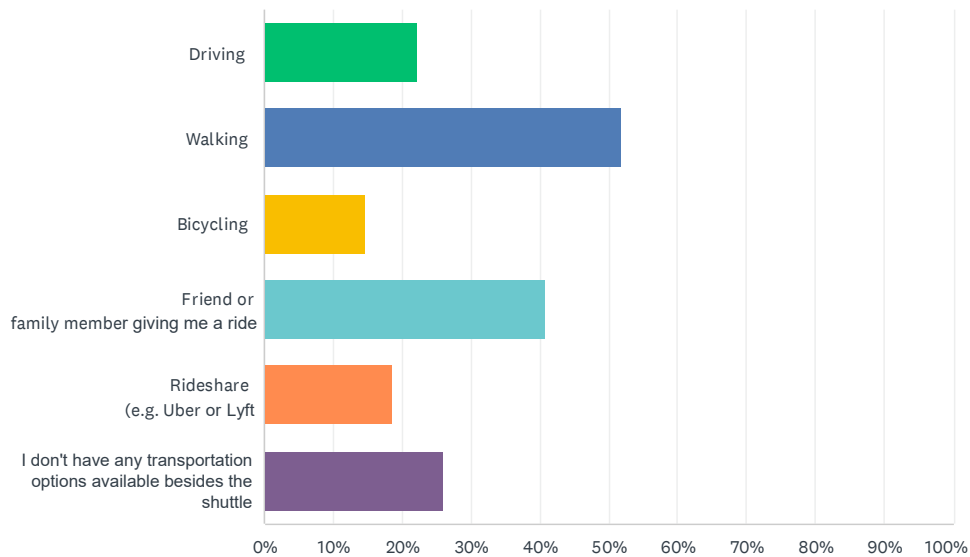
ANSWER CHOICES	RESPONSES	
None of the above	3.70%	1
Walking	48.15%	13
Biking	11.11%	3
NJ TRANSIT 553 bus route	40.74%	11
NJ TRANSIT 554 bus route	29.63%	8
NJ TRANSIT 315 bus route	3.70%	1
NJ TRANSIT Atlantic City Rail Line	37.04%	10
Someone drops me off/picks me up	14.81%	4
Driving	3.70%	1
Taxi	7.41%	2
Total Respondents: 27		



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q14 Without the Route 54/40 Community Shuttle, what transportation modes would you use? Please check all that apply.

Answered: 27 Skipped: 1



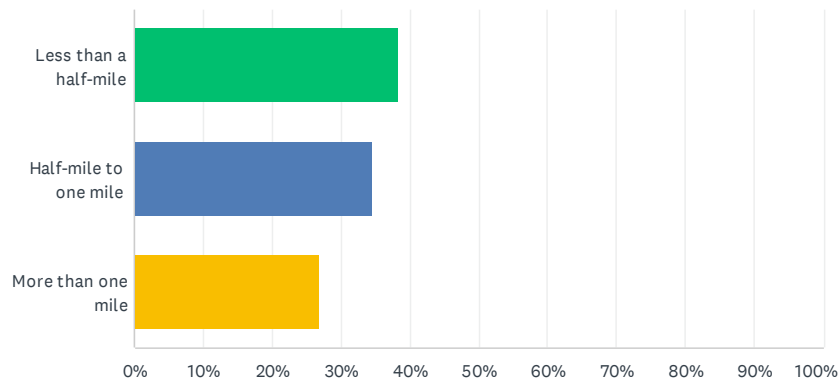
ANSWER CHOICES	RESPONSES	
Driving	22.22%	6
Walking	51.85%	14
Bicycling	14.81%	4
Friend or family member giving me a ride	40.74%	11
Rideshare (e.g. Uber or Lyft)	18.52%	5
I don't have any transportation options available besides the shuttle	25.93%	7
Total Respondents: 27		



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q15 Approximately how far from home do you travel to access your closest shuttle stop?

Answered: 26 Skipped: 2



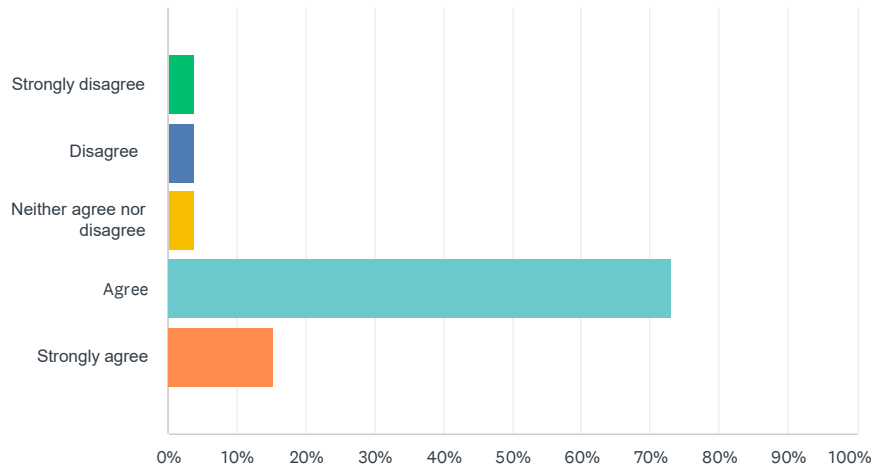
ANSWER CHOICES	RESPONSES	
Less than a half-mile	38.46%	10
Half-mile to one mile	34.62%	9
More than one mile	26.92%	7
TOTAL		26



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q16 Please respond to the following statement: "I am satisfied with the service that the Route 54/40 Community Shuttle provides." You can explain further with comments in the box below.

Answered: 26 Skipped: 2



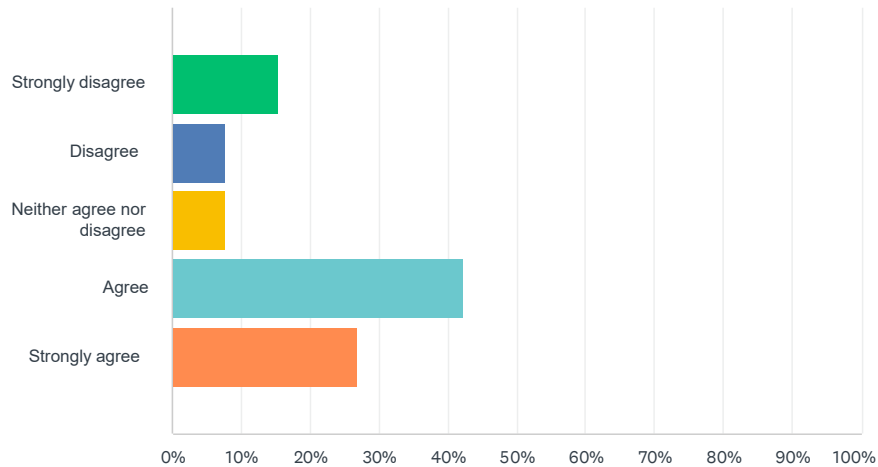
ANSWER CHOICES	RESPONSES	
Strongly disagree	3.85%	1
Disagree	3.85%	1
Neither agree nor disagree	3.85%	1
Agree	73.08%	19
Strongly agree	15.38%	4



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q17 Please respond to the following statement: "Without the Route 54/40 Community Shuttle, I could not travel to where I need to go." You can explain further in the box below.

Answered: 26 Skipped: 2



ANSWER CHOICES	RESPONSES	
Strongly disagree	15.38%	4
Disagree	7.69%	2
Neither agree nor disagree	7.69%	2
Agree	42.31%	11
Strongly agree	26.92%	7

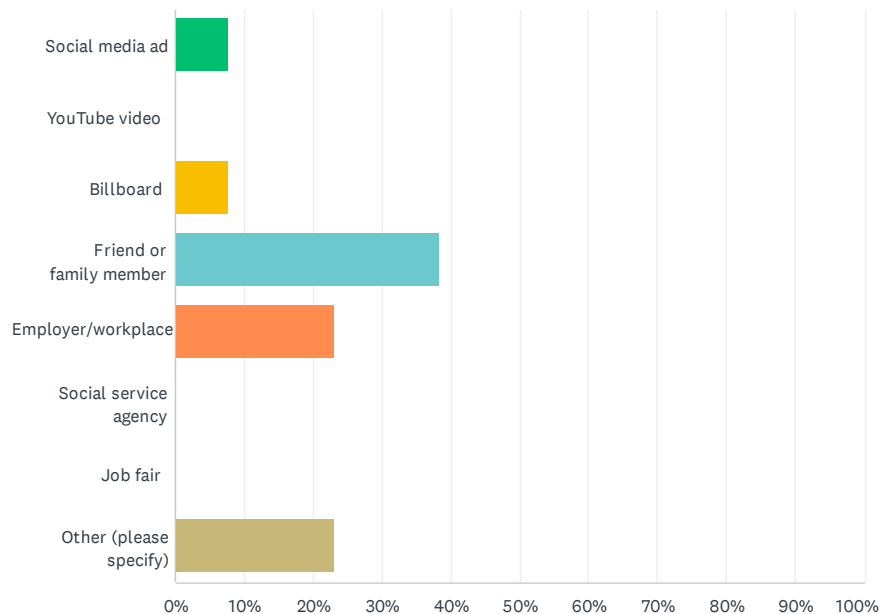


Route 54/40 Community Shuttle Ridership Survey-- 2022

SurveyMonkey

Q18 How did you learn about the Route 54/40 Community Shuttle? Please select only one.

Answered: 26 Skipped: 2



ANSWER CHOICES	RESPONSES	
Social media ad	7.69%	2
YouTube video	0.00%	0
Billboard	7.69%	2
Friend or family member	38.46%	10
Employer/workplace	23.08%	6
Social service agency	0.00%	0
Job fair	0.00%	0
Other (please specify)	23.08%	6
TOTAL		26

OTHER (PLEASE SPECIFY)	RESPONSES
Advertisement flyer	1
Google Maps	1
Mail	1



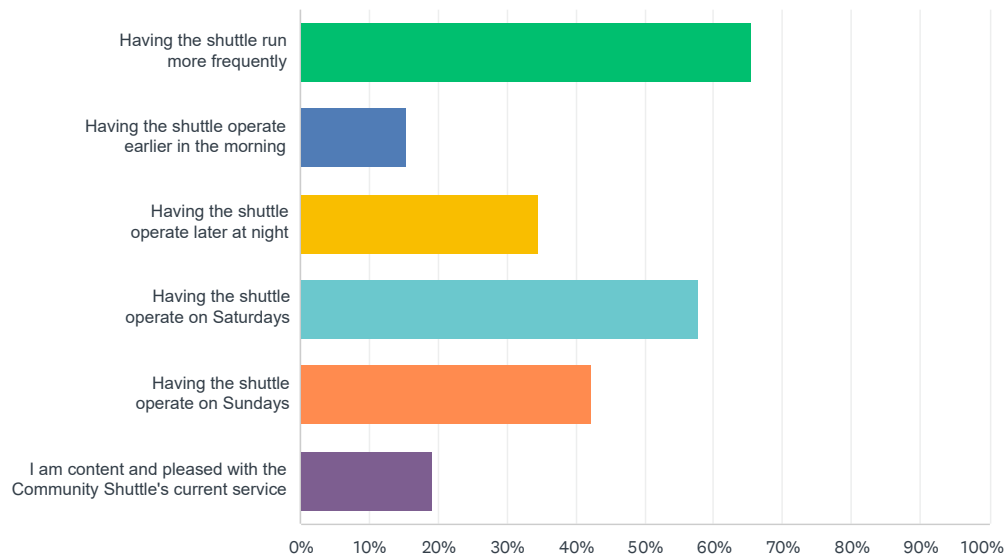
Route 54/40 Community Shuttle Ridership Survey-- 2022		SurveyMonkey
Municipal building		1
I started the shuttle (Gov. Whitman helped me). Then other people started. Now they say they started.		1
MLK Community Center meeting for this bus service since that started		1



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q19 What would make you more likely to ride the Route 54/40 Community Shuttle? Please check all that apply.

Answered: 26 Skipped: 2



ANSWER CHOICES	RESPONSES	
Having the shuttle run more frequently	65.38%	17
Having the shuttle operate earlier in the morning	15.38%	4
Having the shuttle operate later at night	34.62%	9
Having the shuttle operate on Saturdays	57.69%	15
Having the shuttle operate on Sundays	42.31%	11
I am content and pleased with the Community Shuttle's current service	19.23%	5
Total Respondents: 26		



Route 54/40 Community Shuttle Ridership Survey-- 2022

Q21 Please share any additional thoughts or comments regarding the Route 54/40 Community Shuttle. Your input is important.

Answered: 11 Skipped: 17

RESPONSES

I feel alerts should be sent if a shuttle isn't coming.

Overall experience is amazing; just wish it was more reliable

I would just like to have it come on time or either 15 minutes earlier or later 15 minutes

Like that it's free. Its a first for me.

No additional comment

No comment

N/A

Stop pick-up sings

Thanks to this service, I can get to work and I like that it takes me to Vineland

To extend the bus to Vineland.

Aware and training to the drivers to be on time always at specific location. Get motivated so they're satisfied with what they're doing.



