BOROUGH OF SAYREVILLE
CIRCULATION ELEMENT

DRAFT: JUNE 21, 2024

PREPARED BY: HEYER, GRUEL & ASSOCIATES

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Middlesex County, New Jersey

DRAFT: June 21, 2024
Adopted: _____

Prepared by:

Heyer, Gruel & Associates
Community Planning Consultants
236 Broad Street, Red Bank, NJ 07701
(732-741-2900)

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Susan S. Gruel, P.P. #1955

M. McKinley Mertz, AICP, PP 6368

With contributing content by Hanah Davenport and Bailey Surbrook

ACKNOWLEDGEMENTS

Mayor and Council

Kennedy O'Brien, Mayor
Christian Onuoha, Councilman
Daniel Balka, Councilman
Donna Roberts, Councilwoman
John Zebrowski, Councilman
Michael Colaci, Councilman
Stanley Synarski, Councilman

Planning Board

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Noren Shah, Member*
Sean Bolton, Member

**Subcommittee Members*

Borough Staff

Vincent Buffalino, Boro 911 Coordinator/Deputy OEM Coordinator

Additional Thanks To

Jay Cornell, Assistant Borough Engineer
Michael Fowler, Planning Board Planner

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INTRODUCTION

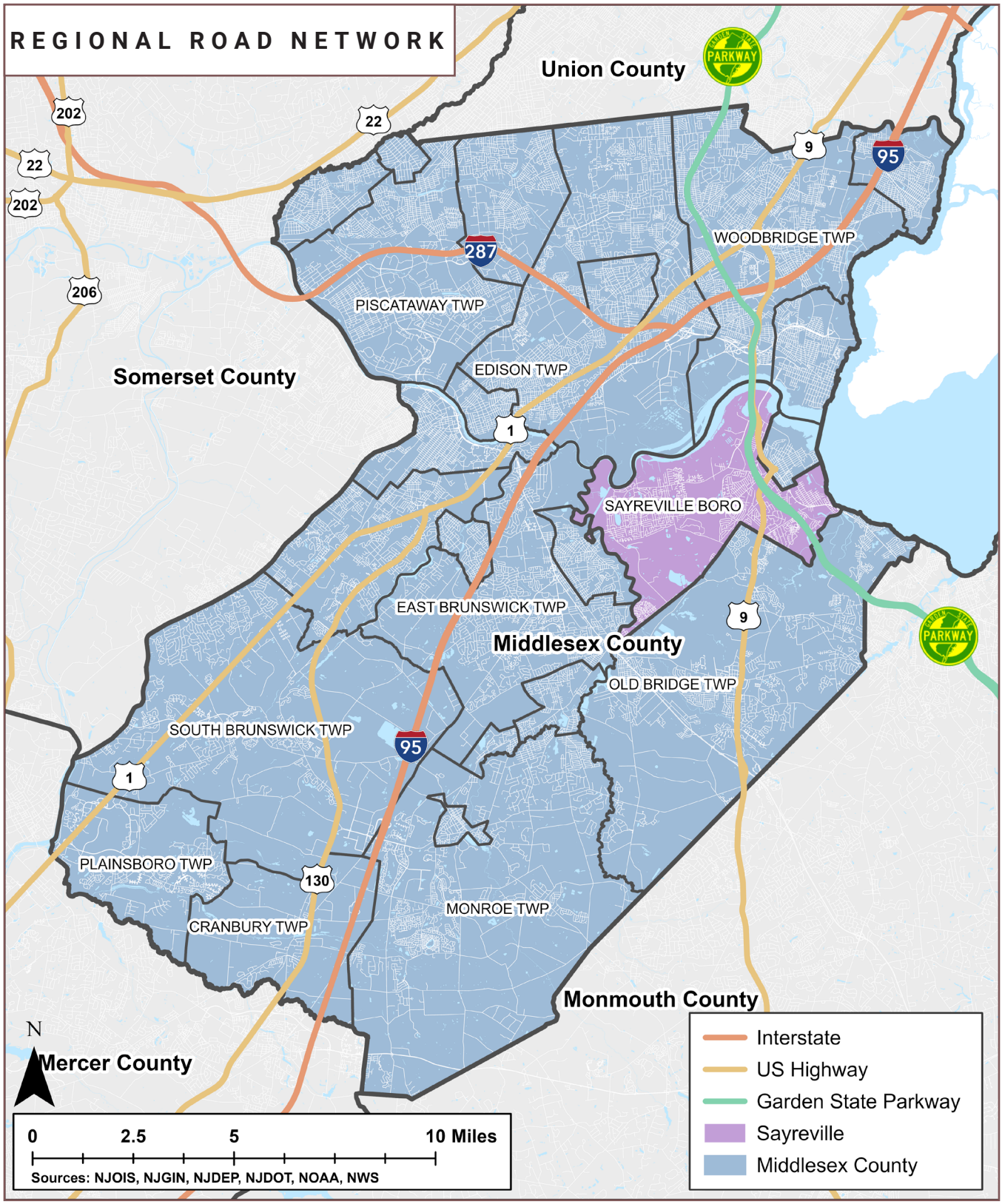
The Circulation Element of the Master Plan is intended to provide guidance to the Borough to facilitate the movement of goods and people within and around the Borough of Sayreville. A well-integrated circulation network incorporates multimodal forms of infrastructure, including roads, sidewalks, pedestrian amenities, truck routes, bicycle facilities, and public transportation options. As such, transportation infrastructure in Sayreville has far reaching consequences, impacting the Borough's economy, climate resilience, air quality, quality of life, safety, and public health.

Much of Sayreville's history is intertwined with the Raritan River, which historically served as an integral trade and transportation route long before the Borough's incorporation in 1919. Throughout the eighteenth and nineteenth centuries, the area that would later become Sayreville served as an important river port and welcomed working class immigrants from countries including Ireland, Poland, and Italy to support the local industrial economy. In more recent decades, Sayreville has come to be known as a popular bedroom community for New York City and New Jersey due to its central location and proximity to regional transit.

Sayreville has direct access to the regional transportation system. Three major roadways run through the eastern portion of the Borough, including the Garden State Parkway, U.S. Route 9, and NJ Route 35. These roadways provide connectivity throughout the state of New Jersey and into neighboring states, including Delaware and New York. Sayreville is also served by a network of three public bus routes and eight private bus routes that provide access locally throughout Middlesex County, regionally to various shore points and to urban cores like Jersey City, and across state lines into New York City.

The most recent Circulation Element was previously completed in 2013. The purpose of this Element is to provide an updated description Sayreville's circulation network, considering improvements which have been made since the adoption of the prior Element, and to offer recommendations to support the network's further improvement. The Circulation Element is not intended to provide detailed engineering concepts, but rather is intended to identify a comprehensive set of opportunities and recommendations which will improve circulation throughout the Borough. The Element is prepared in accordance with the New Jersey Municipal Land Use Law.

A historic photo of a dock on the Raritan River in Sayerville, c. 1900.
Source: Sayreville Historic Society, facebook.com/SayrevilleHistoric


REGIONAL ROAD NETWORK
Union County
Somerset County
Middlesex County
Monmouth County
Mercer County
PISCATAWAY TWP
EDISON TWP
WOODBRIDGE TWP
SAYREVILLE BORO
EAST BRUNSWICK TWP
OLD BRIDGE TWP
SOUTH BRUNSWICK TWP
PLAINSBORO TWP
CRANBURY TWP
MONROE TWP
PARKWAY
287
95
9
1
22
202
206
130
N
0
2.5
5
10 Miles
Sources: NJOIS, NJGIN, NJDEP, NJDOT, NOAA, NWS
Interstate
US Highway
Garden State Parkway
Sayreville
Middlesex County

Circulation Element Principles

SAFETY

A central goal of this plan is to improve the safety of walking, cycling, and driving in Sayreville. As such, the plan analyzes the existing conditions of the Borough's roadway network and provides data regarding vehicle crashes to inform recommendations which aim to improve the safety of the roadway network and to provide safer and more widespread pedestrian infrastructure.

CLIMATE RESILIENCE

Due to its position along the Raritan and South Rivers, portions of Sayreville are heavily impacted by flooding during extreme weather events, such as Superstorm Sandy in 2012. As the likelihood of these extreme weather events rises due to climate change, it has become increasingly important to ensure Sayreville's circulation network incorporates the necessary stormwater infrastructure to mitigate the risk of potential flooding.

FREEDOM OF MOVEMENT

As will be discussed later in this Element, the current circulation network in Sayreville is highly automobile focused. In addition, there are limited public transit options within the Borough. This plan encourages the construction of infrastructure and the adoption of policies that will support alternative modes of transportation within the Borough, including walking and cycling, to reduce the automobile dependency of residents within the Borough. In addition, pedestrian infrastructure should be ADA accessible to meet the needs of all residents.

MODERNIZATION OF THE CIRCULATION NETWORK

Over the past decade the number of electric vehicles on the road has risen dramatically. This trend will continue to intensify over the coming decade as New Jersey is slated to ban the sale of new gas-powered vehicles by 2035. As a result, it is crucial that Sayreville has the necessary infrastructure in place to support this shift, including the construction of electric vehicle charging stations.

Goals and Objectives

This Circulation Element advances the following goals and objectives:

1. Enhance the safety of the street network for pedestrians, bicyclists, and vehicles.
2. Promote the construction of complete and green streets in accordance with the State of New Jersey Complete Street Design Guide.
3. Improve the resiliency of the transportation network from climate hazards such as flooding.
4. Improve pedestrian connectivity throughout the Borough.
5. Promote patterns of development and the construction of new infrastructure which supports walking and cycling.
6. Support the development of electric vehicle charging infrastructure throughout the municipality.
7. Accommodate the loading, parking, and delivery needs of local commercial, warehousing, and manufacturing uses while limiting traffic impacts on residential neighborhood roads.

Existing Traffic and Roadway Conditions

VEHICULAR TRAFFIC CIRCULATION

The Borough of Sayreville is excellently connected to the regional highway network via U.S. Route 9 and NJ Route 35. Because neither roadway is a limited access highway, they have various access points throughout the Borough. Another major roadway that cuts through the Borough is the Garden State Parkway, which has access points off Washington Road, Main Street Extension, Chevalier Avenue, and U.S. Route 9. The Garden State Parkway also includes the Jon Bon Jovi Service Area park and ride lot.

There are 5 County roads that cut through the Borough, including Route 535 (Washington Road), Route 615 (Bordentown Avenue), Route 670 (Main Street), Route 673 (Ernston Road), and Route 675 (Jernee Mill Road).

The Borough has four primary thoroughfares, which include Washington Road, Main Street/Main Street Extension, Bordentown Avenue, and Jernee Mill Road. The first two of these, Washington Road and Main Street, run east and west through the Borough. Washington Road runs through the center of Sayreville and leads west into South River Borough, allowing for ease of transportation between these two municipalities. Main Street is located farther north than Washington Road, and it runs primarily east and west before turning south and converging with Washington Road on the western side of the Borough. Both thoroughfares extend east to the Garden State Parkway, where they converge and provide direct access onto the freeway. Main Street extends east into the City of South Amboy, where a number of public transit options can be accessed. The Main Street Extension is a diverted route off Main Street which runs north and south in the northeast corner of the Borough. The Extension provides direct access to the Garden State Parkway, U.S. Route 9, and New Jersey Route 35.

The third of these thoroughfares, Bordentown Avenue, runs along the Borough's southern municipal boundary with Old Bridge Township until it intersects with Middlesex County Road 673 in the eastern portion of the Borough. Past this point, Bordentown Avenue provides access onto U.S. Route 9 and the Garden State Parkway before leading into the City of South Amboy to the east. The final of these thoroughfares, Jernee Mill Road, is located in the western portion of the Borough and runs north and south. It serves as a link between Washington Road and Bordentown Avenue and provides access to critical infrastructure including the Red Oak Power Facility and the Sayreville Energy Center.

ROADWAY SYSTEM DESCRIPTION

Streets and roadways are classified according to a hierarchy that identifies function by the amount and type of traffic expected and the type of access allowed. Each roadway in the Borough can be classified according to the function it performs. Once classified, roads can be analyzed to determine whether they are fulfilling their intended purposes, and recommendations can be made for changes to each level of classification. This hierarchy serves to create a network that can be systematically and methodically studied for possible improvements.

The following section contains the various roadway classifications and their locations in the Borough. Each subsection contains a brief description of the roadway classifications and those local roadways that meet the criteria.

Freeways

Freeways are high speed, high capacity, limited access highways devoted entirely to the movement of motor vehicles and provide no direct access to abutting properties. They generally traverse large areas, often an entire state, and connect with freeways of adjoining states.

Design features of freeways include the separation of opposing traffic lanes by a continuous center barrier or median strip and full access control and grade separations at intersections or interchanges which are generally widely spaced. Freeways carry multiple lanes of traffic in each direction and are generally designed for a capacity of between 1,000 to 1,500 vehicles per lane per hour.

The Garden State Parkway is a freeway that passes through Sayreville. The Garden State Parkway is managed by the New Jersey Turnpike Authority. The portion of the Parkway which passes through Sayreville has twelve lanes – six northbound and six southbound. These lanes are further split between express lanes which have limited on and off ramps, and lanes for local traffic. Just prior to the Governor Alfred E. Driscoll Bridge, the express and local lanes merge, and the Parkway expands to seven northbound lanes and seven southbound lanes. Just to the north of the bridge, the Garden State Parkway includes an interchange with access to New Jersey Route 440, which transitions into Interstate 287, and an interchange with Interstate 95, which is an important freeway that runs from northern Maine to southern Florida and connects through all of the major cities along the northeast corridor.

According to the 2022 Healthy Community Planning Report for Sayreville, the Borough has a mean air cancer risk of 186 in a million. This risk, however, is not equal across the Borough; the area directly surrounding the Garden State Parkway has the highest air cancer risk at a rate of 194 to 243 in a million. While this decrease in air quality cannot be entirely linked to the Garden State Parkway, it is reasonable to conclude that it plays a role. According to the 2017 AirToxScreen data utilized

for the report, on-road mobile sources including cars, trucks, buses, and motorcycles account for the highest air cancer risk contribution within the Borough by a significant amount.[1]

Principal Arterials

Principal arterials serve to take traffic from freeways or expressways along to other destinations. These roads are designed primarily to handle automobile traffic and contain few direct access points to local uses. Principal arterials provide major local and inter-municipal movements and commonly provide access to freeways and expressways. In order to preserve their traffic carrying capacity, the number of intersections, driveways, and frontage activity are generally minimized along these streets. U.S. Route 9 and New Jersey Route 35 are classified as principal arterials.

U.S. Route 9 runs north to south through the eastern portion of Sayreville. South of the Garden State Parkway, U.S. Route 9 has six lanes. North of the Parkway, U.S. Route 9 has four lanes until its transitions back to six lanes north of Raritan Street. Within Sayreville, U.S. Route 9 includes interchanges with the Garden State Parkway and New Jersey Route 35. New Jersey Route 35 runs north to south through the eastern portion of Sayreville, and generally has four lanes. New Jersey Route 35 includes the Cheesequake Creek Draw Bridge which can cause temporary traffic back-ups while boats are passing through.

Minor Arterials

Minor arterials handle a larger share of access to local uses and are generally designed to be more pedestrian-friendly. Minor arterials, typically under County and local jurisdiction, connect lower-level streets with principal arterial roads and freeways and also act as alternate routes for primary arterial roads. They usually are designed to serve smaller commercial and residential districts with lower speed limits as well as have narrower rights-of-way and shallower building setbacks than primary arterials.

Several roadways in Sayreville meet the minor arterial criteria, including County Roads 535 (Washington Road), 615 (Bordentown Avenue), 670 (Main Street), and 673 (Ernston Road), as well as the Main Street Extension. Given the local and regional importance of minor arterials, intersections along these roadways can experience high traffic volumes. Washington Road, Bordentown Avenue, Main Street, and Ernston Road generally have two travels lanes, except at busy intersections where they widen to include right, straight, and left turn lanes. The stretch of Ernston Road just to the east of U.S. Route 9, however, has six travel lanes. The Main Street extension has two northbound lanes and two southbound lanes with a median in between.

The Middlesex County Vision Zero Plan assigned High Injury Network (HIN) scores to county roads throughout Middlesex County. Two roads within Sayreville – Main Street (Route 535) and Washington Road (Route 535) scored as the third and fifth most dangerous roads for pedestrians and bicyclists within Middlesex County based on their HIN score.[2] It is important to note that any improvements to these roads would require coordination with Middlesex County since these roads are under the jurisdiction of the county.

Collector Streets

Collector streets provide access between local destinations and larger arterials. They tend to be pedestrian-oriented with lower speed limits. Municipalities usually maintain collector streets, although some are under County jurisdiction. Collector streets are often utilized as a means to provide alternatives for local traffic. Alternatives allow the larger arterials to function more efficiently and work in concert with the local roads to disperse and diffuse larger traffic volumes. Portions of several roadways in Sayreville meet the collector street criteria, including County Road 675 (Jernee Mill Road), Macarthur Avenue, Cheesequake Road, North Ernston Road, Pulaski Avenue, Deerfield Road, and Scott Avenue. Each of these roads has two travels lanes.

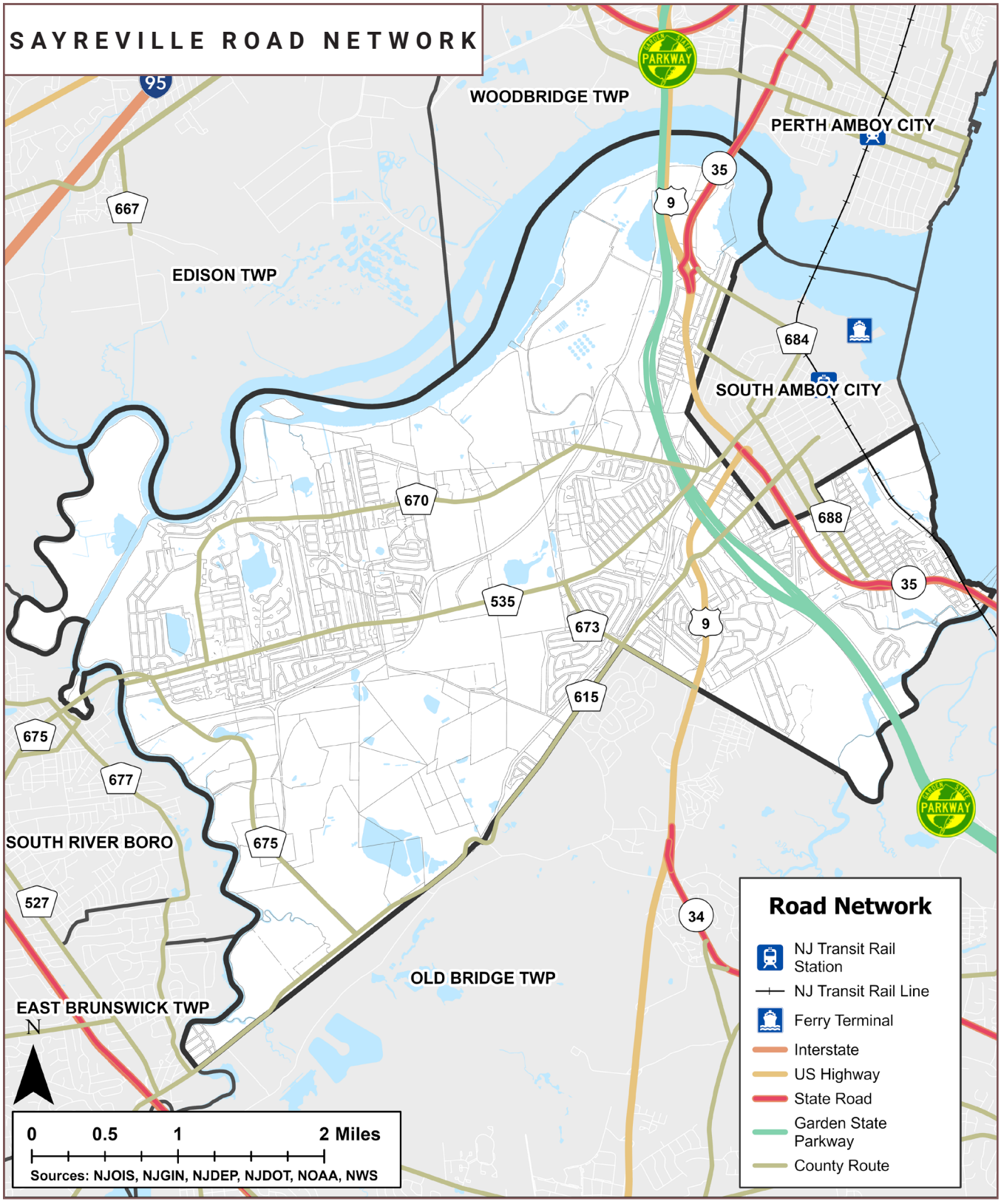
Local Roads

The rest of Sayreville's streets are classified as local roads, the lowest level of the street hierarchy. Local streets provide direct access to specific land uses and receive less traffic than other roadway classes. However, they are often the backbone of a healthy roadway network. In some cases, trucks may be prohibited on local streets for pedestrian safety and residential living. Municipalities

[1] *New Jersey Environmental Public Health Tracking, 2022, 2022 Health Community Planning Report: Middlesex County Sayreville Borough: Promoting Better Health and a Better Environment for New Jersey, p. 9-10.*

[2] *Middlesex County, NJ, 2022, Destination 2040: Vision Zero: Middlesex County's Action Plan to Eliminate Traffic-Related Fatal and Serious Injury Crashes*

usually maintain local streets. They are typically shorter in length than the other classifications and usually provide access to individual properties. Local streets carry low levels of traffic, have very low speed limits, and are often narrower than collector streets. They can have shallower setbacks and narrower rights-of-way than the other classifications because there is less need to separate buildings from traffic. The use of these streets by residents in non-vehicular functions helps maintain the identity of the neighborhood.



ROADWAY ISSUES

Flooding

Many of Sayreville's roadways are susceptible to flooding due to the Borough's location along the Raritan River and the South River, and the drainage capacity of the existing roadway network. In many cases, the resulting flooding necessitates the closure of major roadways within Sayreville, including portions of Washington Road, Main Street, Bordentown Avenue, and Chevalier Avenue during heavy rainfall events. The Sayreville Office of Emergency Management has identified several roadways with a history of flooding, including:

- **Weber Avenue along the South River and Washington Canal towards the Raritan River:** Weber Avenue has not had a major flood since Superstorm Sandy in 2012 but remains a concern during high-tide events and due to the future risk of potential superstorms.
- **The right turn ramp from MacArthur Avenue to Washington Road:** This area experiences flooding during heavy rainfall since the current drainage system quickly becomes inundated. This results in the closure of the straight and the right turn lanes during heavy rainfall events.
- **Washington Road between Sayreville Boulevard South and North Edward Street:** This stretch of Washington Road is a valley, where the existing drainage system tends to inundate during heavy rainfall. This causes water to pool in the middle of the road across both lanes of travel which, at times, requires the roadway to be closed.
- **The right turn ramp from Main Street to the Main Street Extension (located underneath the train bridge):** The drain underneath the train bridge can become clogged with debris during rain events, which causes flooding and the closure of the right turn ramp. In addition, portions of Main Street Extension near Kennedy Drive become impassable during heavy rain events.
- **The intersections of Chevalier Avenue, Main Street, and Route 9:** This area has numerous on and off ramps for major transportation routes, such as the Garden State Parkway and U.S. Route 9. On numerous occasions, the ramps from U.S. Route 9 to Main Street and U.S. Route 9 to Chevalier Avenue have had to close due to vehicles becoming stuck during flooding events. In addition, the portion of Chevalier Avenue under the U.S. Route 9 overpass poses a risk to motorists during flash flood events.
- **Bordentown Avenue under the U.S. Route 9 overpass:** Bordentown Avenue in this location is a valley where water pools due to poor drainage conditions. The flooding affects both lanes of traffic, resulting in the closure of the road and, in some cases, leaving motorists stranded underneath the overpass during heavy flooding.
- **South Minisink Avenue under the train bridge:** South Minisink slopes down to the base of the bridge, causing water to pool due to poor drainage conditions. Construction was recently completed to address the drainage issues in this location; however, it is too early to determine the effectiveness of the improvements.
- **Bordentown Avenue near South River:** This portion of the roadway regularly floods during heavy rain events, which causes the height of the south river to rise. In severe cases, the road becomes completely impassible due to the flooding.

Existing Traffic Volumes

The New Jersey Department of Transportation (NJDOT) provides traffic volume counts for select roads throughout the Borough. Table 1 provides annual average daily traffic counts for selected Sayreville roads from the most recent year the data is available.

The 2013 Circulation Element noted that in January 2010, U.S. Route 9 had an average daily traffic volume of 81,720 vehicles. In January 2020, U.S. Route 9 had an average daily traffic volume of 98,864 vehicles, representing an increase in traffic volume of 20.98%. In addition, the 2013 circulation element noted that Washington Road at Deerfield Road had an average daily traffic volume of 18,655 vehicles. In May of 2019, this portion of Washington Road had a recorded average daily traffic volume of 17,886, representing a decrease in traffic volume of -4.23%. It is important to note that the traffic numbers included in the above table reflect pre-COVID traffic patterns. It will be relevant to review any updated traffic counts as they are released for these areas to determine if the pandemic had any lasting effects on the volume of these roads.

Table 1: Annual Average Daily Traffic (AADT) Volumes		
Road Segment	**AADT Volume**	**Date Range**
Main Street between Keegan Place and Pulaski Avenue	15,483	9/12/2018 - 9/14/2018
Ernston Road between Gerard Place and Hartshore Way	6,438	2/5/2019 - 2/7/2019
Macarthur Avenue between Beekman Street and Junker Street	8,979	5/7/2019 - 5/9/2019
Washington Avenue between Deerfield Road and Parlin Drive	17,886	5/14/2019 - 5/16/2019
Main Street Extension between Kennedy Drive and Chevelier Avenue	18,436	5/14/2019 - 5/16/2019
Pine Avenue between Manor Street and Meacham Place	6,038	10/9/2019 - 10/14/2019
US-9 between Bordentown Avenue and Garden State Parkway	98,864	1/29/2020 - 1/30/2020
Main Street between Memorial Way and Sayreville Boulevard	16,787	12/2/2020 - 12/3/2020
NJ-35 between Fairview Avenue and Kath Street	33,646	12/2/2020 - 12/3/2020

Source: New Jersey Department of Transportation

Table 2: Vehicular Crashes 2016 - 2022		
Year	**Number of Crashes**	**Percentage Change**
2016	1,712	--
2017	1,757	2.63%
2018	1,826	3.93%
2019	1,927	5.53%
2020	1,266	-34.30%
2021	1,370	8.21%
2022	1,310	-4.38%

Source: New Jersey Department of Transportation

Table 3: Vehicular Crash Time of Day 2018 - 2022		
Time of Day	**Number of Crashes**	**Percent of Crashes**
Unknown/Not Reported	52	0.68%
Dawn	146	1.90%
Daylight	5,256	68.27%
Dusk	181	2.35%
Night (Dark)	2,064	26.81%
Total	**7,699**	**100%**

Source: New Jersey Department of Transportation

Table 4: Vehicular Crashes Involving a Pedestrian or a Cyclist 2018 - 2022	
Year	**Number of Crashes**
2018	8
2019	20
2020	10
2021	17
2022	12
Total	**67**

Source: New Jersey Department of Transportation

Crash Analysis

The latest available vehicular crash statistics (shown on Table 2) were analyzed to identify crash trends, causes, and hotspots. The crash data was accessed through Safety Voyager, which is managed by the New Jersey Department of Transportation.

During the seven-year span between 2016 and 2022, a total of 11,168 vehicular related crashes were reported within Sayreville, resulting in 14 fatalities and 1,750 injuries. Of these crashes, 67 involved pedestrians or bicyclists. Between 2016 and 2019, the number of crashes in Sayreville were trending upward before sharply declining in 2020. Between 2016 and 2019, the number of reported crashes rose by 12.56% from 1,712 to 1,927. Between 2019 and 2020, however, the number of reported crashes declined substantially by -34.30%, from 1,927 to 1,266. The decline in reported crashes is most likely a factor of COVID-19, which resulted in stay-at-home orders closing all non-essential businesses and wide-spread work from home policies in 2020, ultimately leading to significantly decreased traffic volume. Between 2020 and 2022, the number of crashes per year rose slightly but remained far below pre-COVID numbers.

As shown on Table 3 above, of the crashes reported between 2018 and 2022: 1.90% occurred at dawn; 68.27% occurred during the day; 2.35% occurred at dusk; and 26.81% occurred at night. Time of day was not recorded for the remaining accidents (0.68%).

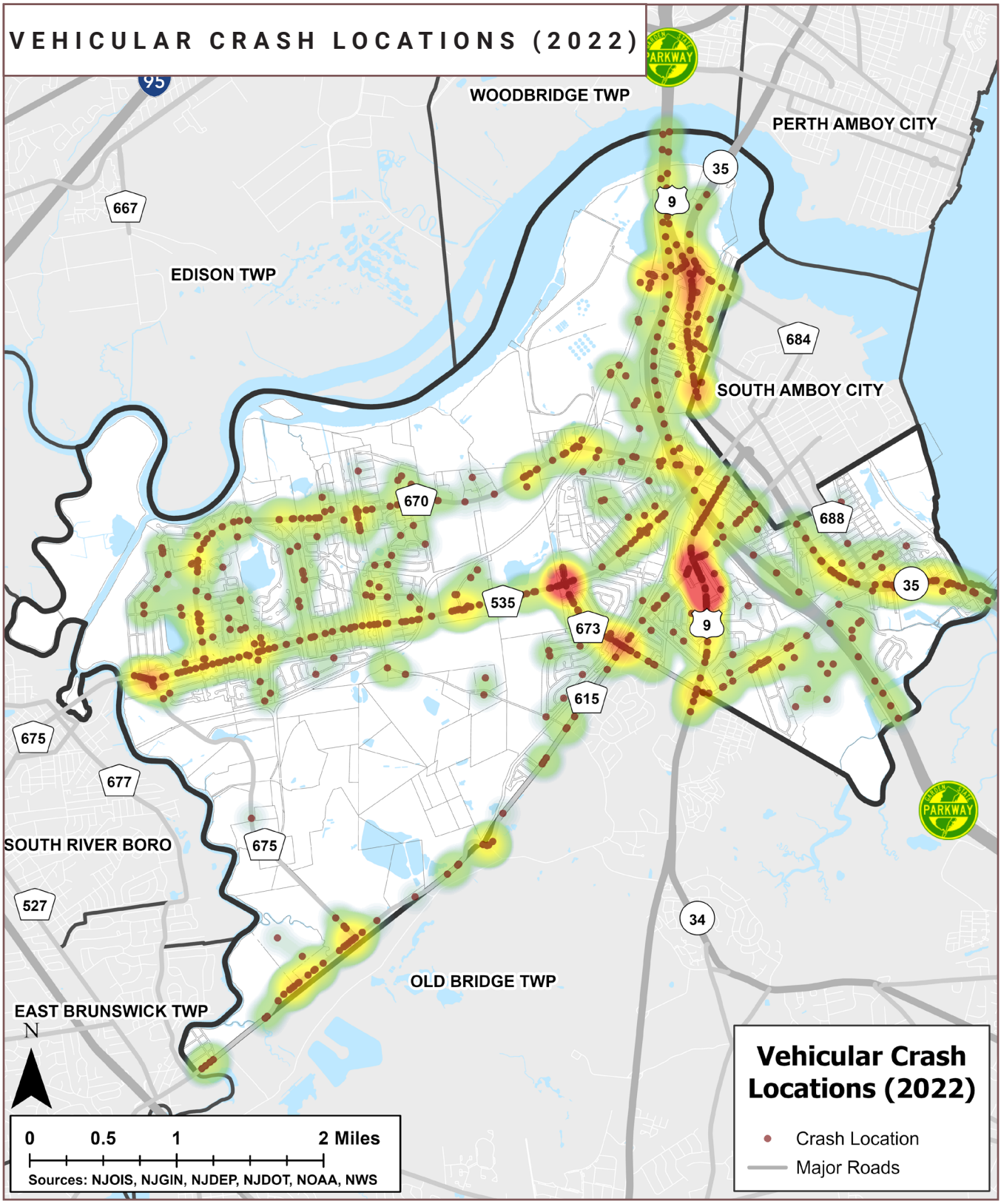
As demonstrated in the Vehicular Crash Locations Map, high crash corridors include Washington Road, Main Street, Ernston Road, U.S. Route 9, and Bordentown Avenue. The intersection of Washington Road and Ernston Road, the stretch of U.S. Route 9 just south of Bordentown Avenue, and the stretch of U.S. Route 9 just north of South Amboy have a particularly high concentration of vehicular crashes. These streets are among the highest traffic volume streets within the Borough which directly correlates to the high number of crashes reported on these roads.

Between 2018 and 2022, a total of 67 vehicular crashes involving a pedestrian or a cyclist occurred. Of these crashes, 8 (11.94%) resulted in a fatality and 51 (76.12%) resulted in an injury, as shown on Table 4. As illustrated on the Crashes Involving a Pedestrian or Bicycle Map, many of the crashes have occurred along major corridors, such as Main Street, Washington Road, and Ernston Road. There is a particularly high number of crashes concentrated on the stretch of Ernston Road between U.S. Route 9 and Washington Road. While there are crosswalks that cross Ernston Road in this location, the right-of-way comprises six traffic lanes, which has likely contributed to the number of crashes involving a pedestrian or a bicycle in this location.

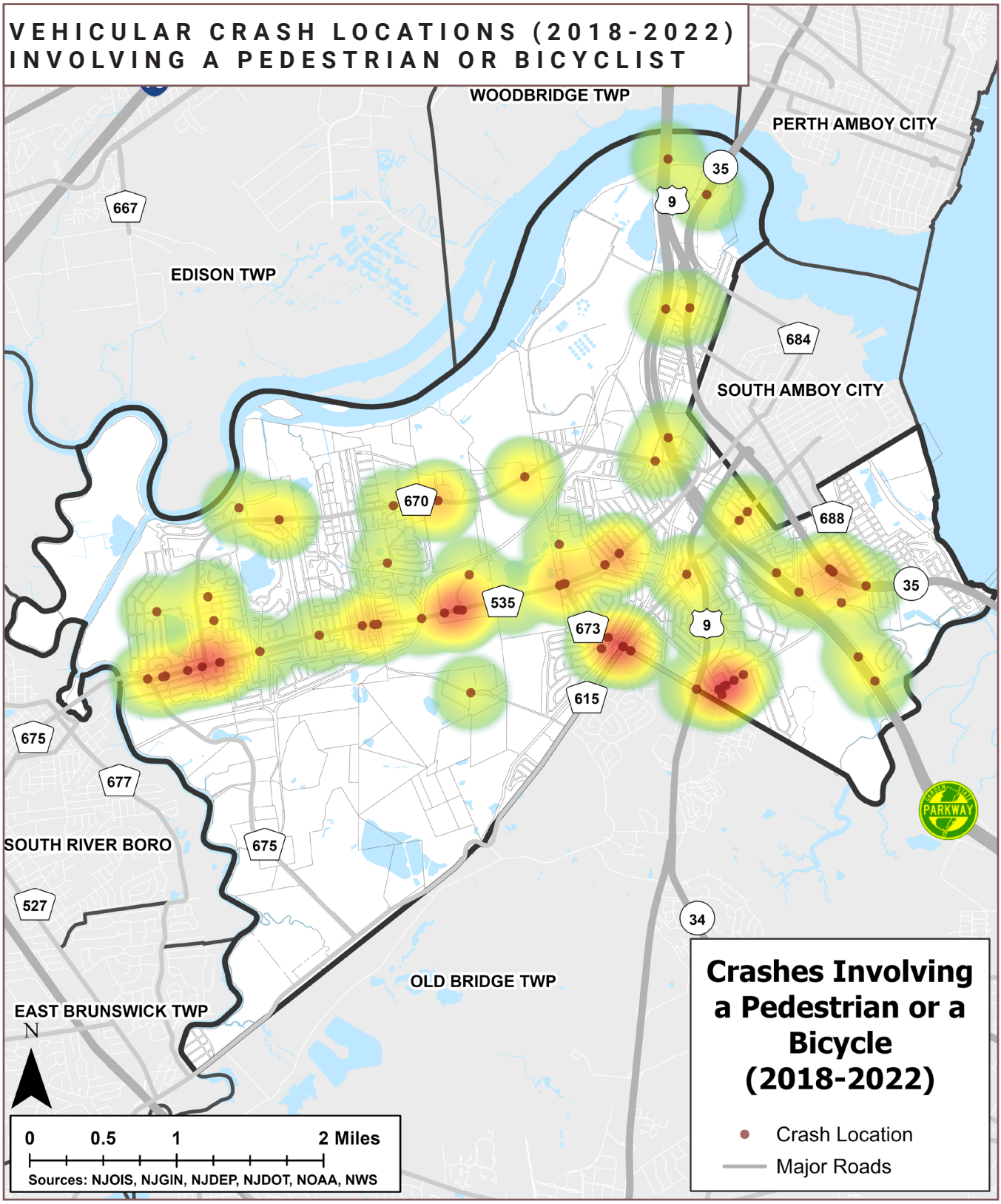
Freight and Delivery

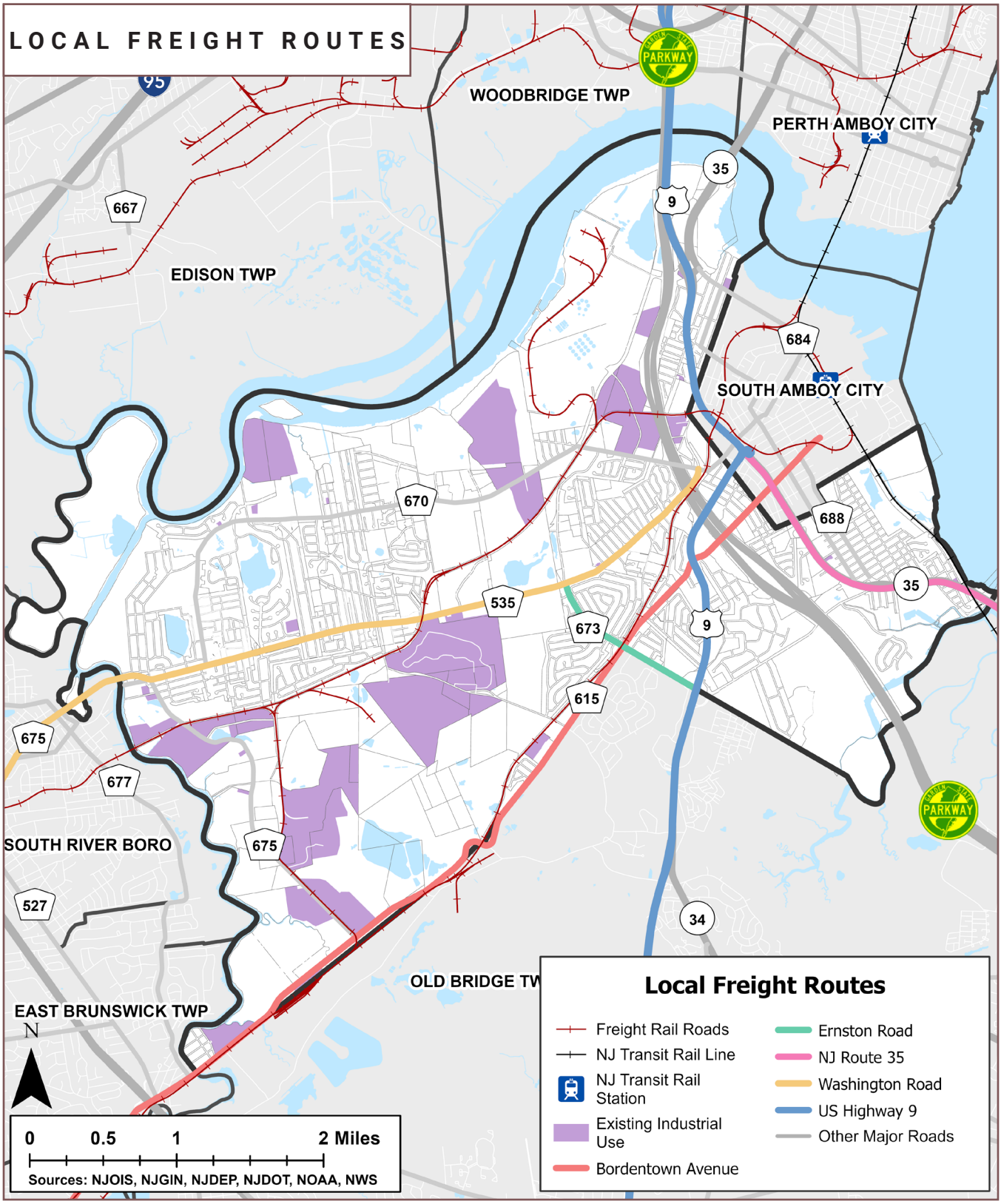
Industrial manufacturing and warehousing are a critical component of Sayreville's economy. Approximately 1,150 acres (~10%) of the Borough's land is classified as industrial. It is anticipated that industrial warehousing in Sayreville will continue to expand, including development within the Fulton's Landing Redevelopment Area, which permits the construction of more than one-million square feet of warehousing that has yet to be realized. In addition, the recently constructed Arsenal Trade Center at 50 Minisink Avenue includes more than one-million square feet of warehousing space across a 74-acre site. As such, it is important to ensure that Sayreville's roadway network can support the freight traffic that is generated from these uses and that freight traffic is directed to route around residential areas within the Borough.

The New Jersey Department of Transportation maintains a "Large Truck Network Map," which provides designated travels routes for 102-inch-wide trucks and double-trailer truck combinations. The full description of the network is described in the New Jersey Access code at N.J.A.C. 16:32. Per the map, U.S. Highway 9, New Jersey Route 35, Washington Road, Bordentown Avenue, and portions of Ernston Road are identified as part of the New Jersey Truck Access Network, as illustrated on the Local Freight Routes map. Trucks accessing manufacturing facilities and warehouses in Sayreville can utilize these roads to access Interstate 95, which is located just to the west of Sayreville, and Interstate 287, which is located just to the north of Sayreville. These interstates are identified as part of the national truck network and are vital roadways for the shipping of freight along the eastern seaboard of the United States.


VEHICULAR CRASH LOCATIONS (2022)
95
WOODBRIDGE TWP
PERTH AMBOY CITY
35
9
667
EDISON TWP
684
SOUTH AMBOY CITY
670
688
535
673
35
9
615
675
677
675
SOUTH RIVER BORO
527
34
OLD BRIDGE TWP
EAST BRUNSWICK TWP
N
0 0.5 1 2 Miles
Sources: NJOIS, NJGIN, NJDEP, NJDOT, NOAA, NWS
Vehicular Crash Locations (2022)
Crash Location
Major Roads

VEHICULAR CRASH LOCATIONS (2018-2022) INVOLVING A PEDESTRIAN OR BICYCLIST




LOCAL FREIGHT ROUTES
95
WOODBRIDGE TWP
PARKWAY
PERTH AMBOY CITY
35
9
667
EDISON TWP
684
SOUTH AMBOY CITY
670
688
35
535
673
9
615
675
677
SOUTH RIVER BORO
675
527
34
OLD BRIDGE TW
EAST BRUNSWICK TWP
N
0 0.5 1 2 Miles
Sources: NJOIS, NJGIN, NJDEP, NJDOT, NOAA, NWS
Local Freight Routes
Freight Rail Roads
NJ Transit Rail Line
NJ Transit Rail Station
Existing Industrial Use
Bordentown Avenue
Ernston Road
NJ Route 35
Washington Road
US Highway 9
Other Major Roads

Alternative Modes of Transportation

In terms of public transit, Sayreville is served by various bus services but is otherwise limited. The Borough does not have any internal access to trains, light rail, ferries, or other alternative modes of transportation. In order to analyze the need for alternative modes of transportation, however, it's important to understand transportation patterns of Borough residents.

As shown in Table 5, transportation in Sayreville is largely automobile dependent. According to the 2021 American Community Survey 5-year estimates, approximately 95.2% of households in Sayreville have access to at least one vehicle and nearly 60% have access to at least two vehicles. This is higher than state averages where approximately 89% of households have access to at least one vehicle and 53.6% have access to at least two vehicles. Comparing the data in the table above to the data reported in Sayreville's 2013 Circulation Plan Element, the percentage of households without access to a vehicle has increased from 2.1% to 4.83% over the past decade. If this trend continues, it will become increasingly important to invest in alternative forms of transportation which are accessible to households who do not have access to a personal vehicle.

As shown in Table 6, approximately 81% of Sayreville's working population aged 16 and over commute to work via car, truck, or van; of those people, roughly 9.7% carpool while the others drive alone. Female residents utilize the bus at a higher rate than males, while males use long-distance trains or commuter rails at a higher rate than females. The least frequently utilized modes of transport for Sayreville residents in the workforce are biking and walking.

Table 5: Cars Per Household 2021

Household Size	# of Households	% Households with no vehicle	% Households with 1 vehicle	% Households with 2 vehicles	% Households with 3 vehicles	% Households with 4+ vehicles
1 Person	4,521	8.91%	78.52%	10.75%	1.81%	0.00%
2 People	4,600	4.48%	27.59%	55.43%	10.59%	1.91%
3 People	3,172	3.37%	21.03%	36.54%	34.27%	4.79%
4+ People	4,585	2.18%	10.21%	42.25%	25.32%	20.04%
Total	**16,878**	**4.83%**	**35.28%**	**36.33%**	**16.69%**	**6.87%**

Source: 2021 ACS 5-Year Estimates

Table 6: Means of Transportation to Work* 2021

Transportation Method	# Female	% Female	# Male	% Male	Total #	Total %
Car, Truck, or Van -- Drove Alone	7,989	71.9%	9,235	70.6%	17,224	71.2%
Car, Truck, or Van -- Carpooled	945	8.5%	1,410	10.8%	2,355	9.7%
Bus	717	6.5%	622	4.8%	1,339	5.5%
Subway or Elevated Rail	55	0.5%	87	0.7%	142	0.6%
Long-Distance Train or Commuter Rail	83	0.7%	319	2.4%	402	1.7%
Bicycle	0	0.0%	23	0.2%	23	0.1%
Walked	67	0.6%	58	0.4%	125	0.5%
Taxicab, Motorcycle, or Other Means	227	2.0%	276	2.1%	503	2.1%
Worked from Home	1,029	9.3%	1,054	8.1%	2,083	8.6%
Total	**11,112**	**100%**	**13,084**	**100%**	**24,196**	**100%**

Source: 2021 ACS 5-Year Estimates
**For the Working Population Ages 16+*

According to 2021 American Community Survey 5-Year Estimates, the most common travel time to work for Sayreville residents across genders is 30 to 34 minutes, and 83% of employed Sayreville residents work outside of the Borough. As shown in Table 7, the majority of males living in Sayreville (56.7%) travel 30 minutes or more to work, while the majority of females living in Sayreville (52.5%) travel 30 minutes or less to work. Furthermore, females living in Sayreville worked within Middlesex County (58.8%) at a higher rate than males living in Sayreville, only 49.4% of whom worked within Middlesex County. Across both genders, the vast majority of employed persons living in Sayreville work within the State of New Jersey, with just 13.2% of the population crossing state lines for work.

This data suggests that, overall, females living in Sayreville tend to work closer to home than males living in Sayreville, and males living in Sayreville tend to travel longer distances for work then females living in Sayreville. This is supported by the fact that, proportionally speaking, a higher percentage of females (9.3%) in Sayreville work from home as compared to males (8.1%). This data may at least partially explain why males tend to use long-distance trains or commuter rails at a higher rate than females. Similarly, the low rate of walking or biking as a means of transportation is likely also linked to the average commute time and commute area; less people are able or willing to walk or bike 30 minutes as they are to drive it, and for those who do plan to bike or walk there is often a lack of comprehensive bicyclist- and pedestrian-friendly infrastructure between municipalities.

Table 7: Summary of Sayreville Commuter Data 2021

	# Female	% Female	# Male	% Male	Total #	Total %
Worked in Place of Residence	2,167	19.5%	2,008	15.3%	4,175	17.3%
Worked Outside Place of Residence	8,945	80.5%	11,076	84.7%	20,021	82.7%
Worked in County of Residence	6,534	58.8%	6,465	49.4%	12,999	53.7%
Worked Outside County of Residence	3,279	29.5%	4,733	36.2%	8,012	33.1%
Worked in State of Residence	9,813	88.3%	11,198	85.6%	21,011	86.8%
Worked Outside State of Residence	1,299	11.7%	1,886	14.4%	3,185	13.2%
Commuted 29 Minutes or Less to Work	5,295	52.5%	5,215	43.3%	10,510	47.5%
Commuted 30 Minutes or More to Work	4,788	47.5%	6,815	56.7%	11,603	52.5%
Commute Time to Work was Avg. (30-34 Minutes)	1,757	17.4%	1,810	15.0%	3,567	16.1%
Departure Time for Work was between 2:00-7:59 am	5,271	52.3%	7,681	63.8%	12,952	58.6%
Departure Time for Work was between 8:00 am-11:59 pm	4,812	47.7%	4,349	36.2%	9,161	41.4%
Departume Time for Work was Avg. (7:00-7:29 am)	1,466	14.5%	1,440	12.0%	2,906	13.1%

Source: 2021 ACS 5-Year Estimates

Bus/Shuttle

In 2007, the Borough completed construction of the Sayreville Park and Ride facility on Raritan Street. This facility was constructed as a way to alleviate resident concerns regarding the lack of street parking during weekdays. It includes parking for 290 vehicles, 30 of which are reserved for daily commuters; the remaining spaces are reserved for monthly and quarterly permit holders. The Raritan Street Park and Ride also includes shelters for pick-up and drop-off. There is one additional commuter parking area on North Ernston Road, which includes spaces for approximately 200 vehicles for residents who have a monthly or a quarterly permit. There are no spaces available to daily permit holders. These spaces are located along the shoulder of the roadway and are not designated spaces within a parking lot. At the time of this writing, a daily permit costs $4, a monthly permit costs $30, and a quarterly permit costs $90.

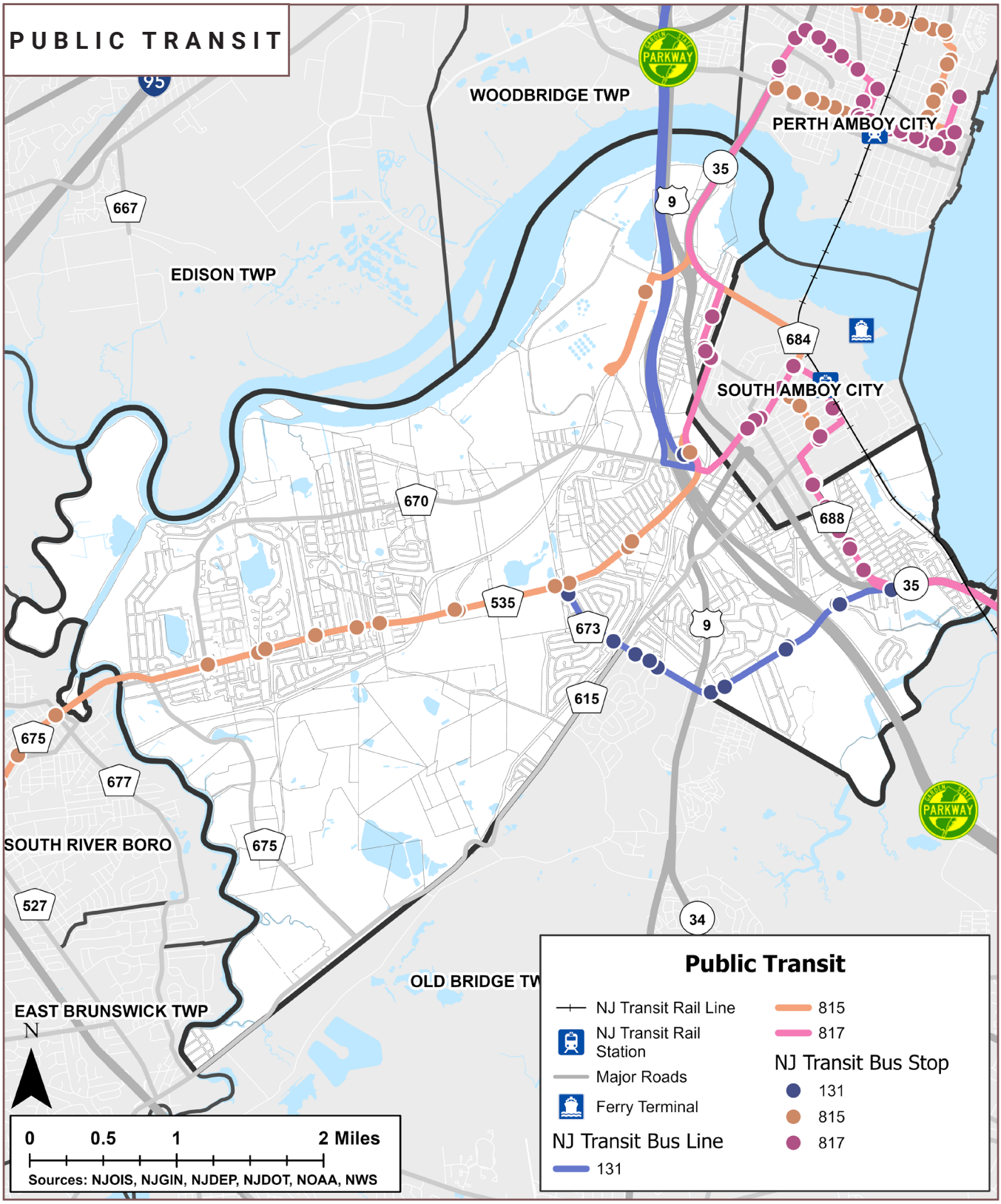
The Sayreville Park and Ride facility is served by New Jersey Transit bus routes 131 and 815. Route 131 (Sayreville to New York) departs from Ernston Road/ Gondek Drive in Sayreville and ends at the Port Authority Bus Terminal in New York City. This route has stops in Sayreville, which are primarily located on Ernston Road in the eastern half of the Borough. Route 815 (Woodbridge to New Brunswick) departs from the Woodbridge Center Mall in Woodbridge and ends at George Street/Albany Street in New Brunswick. This route has several stops in Sayreville, all of which are located along Main Street and primarily service the western half of the Borough. In addition, a portion of Sayreville is served by New Jersey Transit bus route 817. Route 817 departs from the intersection of Rector Street and Fayette Street in Perth Amboy and ends at Garfield Avenue in Middletown. Route 817 has stops in Sayreville, located primarily along New Jersey Route 35 in the eastern portion of the Borough.

Middlesex County Area Transit (MCAT) also services Sayreville via Deviated Route M7. This route has eight stops in Middlesex County, departing from the South Amboy Rail Station and ending at the Brunswick Square Mall in East Brunswick. This route has two stops in Sayreville, located along Bordentown Avenue: one at the Winding Woods Apartment complex in the southwest corner of the Borough; and the other at Bordentown Avenue/Cheesequake Road near the Borough's southern border with Old Bridge. This route runs east to west with services every 30 minutes, 45 minutes, or hour between 6:00 am and 6:45 pm on Mondays through Fridays, and with two services on Saturdays at 10:30 am and 1:30 westbound and at 9:20 am and 11:30 am eastbound.

The MCAT also provides transportation to the Sayreville Senior Citizen Center. Senior citizens can register with the service to make bus transportation reservations within Middlesex County. In addition, the Borough includes around the town bus service to key destinations such as the grocery store, local doctor visits, and local bank visits.

Sayreville is also serviced by Academy Bus, a private bus company offering commuter transportation throughout the New Jersey area and to Manhattan. The Jon Bon Jovi Service Area is the Borough's closest bus stop and is located at the Garden State Parkway park and ride lot. This stop is serviced by eight Academy Bus routes, which separately provide Sayreville residents with access to shore municipalities such as Long Branch, large New Jersey urban cores such as Jersey City, and to the Port Authority Bus Terminal and Wall Street area in Manhattan. On most of these routes, the Jon Bon Jovi Service Area is the third or second to last stop before the final destination. Most of these services run comprehensive schedules on Mondays through Fridays, although some of the routes—such as the Wall Street via Jersey City route—only run Mondays through Thursdays. Academy Bus does not offer weekend services.

In addition, on October 30, 2023, a Ferry Terminal opened in South Amboy with commuter service to Midtown and Downtown Manhattan in the morning and evening. As part of this service, a free shuttle service operates throughout South Amboy and Sayreville between 4:40am and 8:35am and between 4:20pm and 7:25pm. The shuttle route has eight stops along Washington Road and Main Street within Sayreville. The shuttle has an additional eight stops in South Amboy, including the South Amboy Ferry Landing and the New Jersey Transit Rail Station in South Amboy. In the morning the Ferry has four departures leaving approximately every hour between 5:45am and 8:45am. In the evening the Ferry has four arrivals arriving approximately every hour between 4:20pm and 7:25pm. The Ferry has two additional departures leaving at 4:25pm and 5:25pm.


PUBLIC TRANSIT
WOODBRIDGE TWP
PERTH AMBOY CITY
EDISON TWP
SOUTH AMBOY CITY
SOUTH RIVER BORO
OLD BRIDGE TW
EAST BRUNSWICK TWP
PARKWAY
95
35
9
667
684
670
688
535
673
615
675
677
527
34
N
0 0.5 1 2 Miles
Sources: NJOIS, NJGIN, NJDEP, NJDOT, NOAA, NWS
Public Transit
NJ Transit Rail Line
NJ Transit Rail Station
Major Roads
Ferry Terminal
NJ Transit Bus Line
131
815
817
NJ Transit Bus Stop
131
815
817

Walking and Bicycling

Many of the single-family residential neighborhoods within western Sayreville are served by a relatively built out sidewalk network. A few residential blocks within this portion of Sayreville, however, do not have sidewalks. Any future expansions of the sidewalk network in this area would be difficult due to existing narrow road widths and rights-of-ways. The sidewalk network within the single-family residential neighborhoods in eastern Sayreville, on the other hand, is largely incomplete, with most of the homes not having direct access to a sidewalk. The Garden State Parkway and U.S. Route 9 also serve as major barriers for pedestrians living in the neighborhoods east of these freeways and the rest of Sayreville.

The major thoroughfares through Sayreville are Main Street, Washington Street, Bordentown Avenue, Ernston Road, and U.S. Route 9.

- The sidewalks along Main Street are built out between its intersection with Washington Road and where Main Street transitions into the Main Street Extension. The Main Street Extension currently does not have any sidewalk infrastructure.
- The sidewalks along Washington Road are built out. Although there are curb-cuts at nearly every intersection which permits pedestrian crossings, many north to south crossings lack painted crosswalks. There are also limited opportunities for mid-block crossings.
- Sidewalks run along both sides of the stretch of Ernston Road that passes through Sayreville.
- Most of Bordentown Avenue lacks sidewalk infrastructure. Bordentown Avenue between Cheesequake Road and Burlew Avenue has a sidewalk along at least one side of the road. The stretch of sidewalk between Cheesequake Road and Ernston Road is located in the Township of Old Bridge.
- U.S. Route 9 does not have sidewalks.

Sayreville currently does not have a dedicated bicycling network. Cyclists within the Borough either must cycle along the sides of roads where the road width and speed permits or must use the Borough's sidewalk network.

Sayreville has a few off-street walking and cycling paths. These paths are used for recreational purposes rather than for circulation. John F. Kennedy Park at the corner of Washington Road and Ernston Road has a scenic walking and bicycle path which loops around a small lake. The Julian L. Capik Nature Preserve, located on Range Road just north of its intersection with Bordentown Road, has 2.9 miles of walking trails. The Raritan Bay Waterfront Park also contains shared walking and bicycle paths which weave between various recreational sports fields and have views of the Raritan Bay.

Safe Routes to School

The Safe Routes to School program was created by the New Jersey Department of Transportation to encourage the creation of safer and more accessible pedestrian environments throughout the state. The program provides funding for infrastructure improvements and education programs aimed at overcoming barriers to walking and cycling to school. Benefits of the program include reducing traffic, reducing fuel consumption, reducing air pollution, and encouraging a healthy and active lifestyle from an early age. Sayreville has applied for Safe Routes to School funding in the past but has yet to receive any funds.

A portion of the sidewalk along Main Street

Planned and Proposed Improvements

Since Sayreville's adoption of the 2013 Circulation Element, the Borough, Middlesex County, and private developers have continued to invest in road improvements throughout Sayreville.

Throughout this time frame, the Borough has typically received annual funding from the New Jersey Department of Transportation and has implemented annual road improvements projects averaging a cost of approximately $3,000,000 to $5,000,000 each year. These improvements typically comprise various water, storm, sanitary, traffic signal, and roadway repair projects.

An example of one such recently proposed Borough project regards interchange improvements to Bordentown Avenue, with the intention to provide links to Burlew Avenue, Eugene Avenue, and U.S. Route 9. The proposed concept plan envisions the creation of two round-abouts, one to the north and one to the south of U.S. Route 9, which will permit cars to turn onto and exit the highway. Bordentown Avenue is proposed to pass underneath U.S. Route 9. These improvements are currently in the conceptual design phase and no timeline for the completion of the project has been established.

Another project example is the Main Street By-Pass, which is being designed to provide an alternative route to Main Street by connecting Kimball Drive East with River Road. The project has been designed and most of the permits have been acquired to construct the road. The total project is estimated to cost approximately $20 million, of which the Borough has secured $2 million in grant funding from the New Jersey Department of Transportation. The construction of the roadway has been delayed until the Borough can acquire additional funding.

Recently implemented and proposed roadway improvement projects undertaken by Middlesex County and private developers throughout the Borough include those below:

- **Bordentown Avenue and Jernee Mill Road Intersection:** As of the writing of this Plan, improvements to this intersection are currently being designed by Middlesex County.
- **Bordentown Avenue and Cheesequake Road Intersection:** The developers of the Arsenal warehouse development are currently implementing upgrades to this intersection.
- **Bordentown Avenue, Burlew Place, Kenneth Avenue, and Eugen Boulevard:** A project to improve these roadways is currently being studied by the New Jersey Department of Transportation.
- **Jernee Mill Road, Washington Road, and MacArthur Avenue Intersection:** Improvements to this intersection are currently being designed by Middlesex County.
- **Main Street and Kimball Drive East Intersection:** Improvements to this intersection are proposed to be constructed as part of Fulton's Landing Redevelopment.
- **Main street and Crossman Road Intersection:** Improvements to this intersection are currently being designed by Middlesex County.
- **Hartle Street Extension and Washington Road By-Pass:** The Hartle Street Extension to Washington Road is proposed as part of the Arsenal warehouse development. The extension is proposed to cross a Conrail right-of-way. Conrail has not approved the initial proposal and alternative road alignments are currently under consideration.

RECOMMENDATIONS

Focus Area 1: Green Infrastructure / Resiliency

Due to the Borough's location along the Raritan River, Sayreville has a particularly high risk of flooding during extreme weather events. In addition, as discussed earlier in this Element, several roadways have a documented history of flooding during heavy rainfall due to poor drainage. It is important to ensure Sayreville's circulation network meets current best practices regarding the installation of green infrastructure and can support the expanding roll-out of new technology, such as electric vehicles.

RECOMMENDATION 1

Retrofit existing municipally owned lots to include electric vehicle charging infrastructure in accordance with best practices established by the State of New Jersey.

At the time of this writing, the number of electric vehicle (EV) charging stations required for certain land uses and parking lot sizes is governed by the Model Statewide Municipal Electric Vehicle Ordinance published by the New Jersey Department of Community Affairs on September 1, 2021. The standards within this ordinance are subject to change. As the sale of electric vehicles continues to rise, it has become increasingly important to expand charging infrastructure. Current statewide EV requirements only apply to new developments. Even though it is not required by state law, to better support the roll out of EV's in Sayreville, the Borough should pursue funding opportunities to convert existing standard parking spacings in municipally owned lots to electric vehicle charging spaces. The Borough should also view any future major construction projects to municipally owned lots as an opportunity to invest in electric vehicle charging infrastructure.

RECOMMENDATION 2

The Borough should assess its existing emergency route signage and make upgrades as needed.

As identified earlier in this Plan, the Borough has several roads that are flood prone during high precipitation events. The Borough should conduct a comprehensive assessment of its existing emergency route signage to determine adequacy in terms of the amount and visibility of these signs. As needed, the Borough should install replacement or additional signs, prune landscaping, etc. to ensure that all emergency route signs are in good condition and provide clear direction for travelers. Additionally, the Borough may consider installing flashing signs warning of flooding along roadways that are particularly impacted by stormwater inundation.

RECOMMENDATION 3

Install green stormwater management infrastructure as part of the Borough's circulation network in high flood hazard areas to mitigate the risk of flooding. Encourage new subdivisions and development within redevelopment areas to incorporate green stormwater management infrastructure as part of newly constructed roadway networks.

Three of Sayreville's municipal boundaries are defined by waterways, including the Raritan Bay, the Raritan River, and the South River. As such, Sayreville has a relatively substantial amount of land which falls within FEMA's 100- and 500-year floodplains. As sea levels rise, the amount of land susceptible to flooding in Sayreville will continue to rise. To mitigate the risk and effects of flooding throughout Sayreville, the installation of green stormwater management infrastructure as part of the Borough's circulation network is recommended. Green stormwater infrastructure can be constructed as part of the road network, along flood prone waterways and on public property. Properties acquired as part of the Blue Acres program, for instance, could be designed to capture flood water before it is able to inundate surrounding roadways.

An EV charging station in Monterey Park, CA
Source: Frederic J. Brown/AFP/Getty Images

Examples of potential green stormwater infrastructural improvements include, but are not limited to:

- **Rain Gardens/Stormwater Planters:** A rain garden is a planted area that collects rainwater. Rain gardens are designed to promote the infiltration of stormwater into the underlying soil. Rain gardens can be placed as roadway medians or as vegetated areas along sidewalks or along the sides of roadways.
- **Permeable/Pervious Paving:** Permeable pavement allows rainwater and runoff to move through the pavement's surface to a storage layer below, with water eventually seeping into the underlying soil. Types of permeable pavement include pervious concrete, porous asphalt, interlocking concrete pavers, and grid pavers.
- **Infiltration Basins:** Infiltration basins store stormwater either in an artificial pond or in a chamber placed below the surface to hold water runoff until it is able to seep into the ground. Infiltration Basins can be designed to blend into their surroundings such as having a layer of grass or concrete placed above.
- **Bioswales:** Bioswales are shallow, vegetated channels that convey, slow down, and filtrate stormwater runoff. They are often placed in roadway medians and are used to convey water away from critical infrastructure such as streets and sidewalks. Bioswales also partially filter stormwater of pollutants as it moves through the roots of the vegetation layer.
- **Vegetated Curb Bump-Outs:** Vegetated curb bump outs are vegetated curb extensions that protrude into the street either mid-block or at an intersection, creating a new curb some distance from the existing curb. They help to improve stormwater drainage by reducing the amount of impervious surfaces in an area. The design of the vegetated curb bump-outs can be used to beautify the streetscape.
- **Tree Pits:** Tree pits (also referred to as tree trenches or tree wells) are vegetated planting areas with trees that are designed to filter stormwater runoff. They are often placed between the street and the sidewalk and will have curb cuts which convey stormwater into them. They have numerous benefits, including producing shade along sidewalks, reducing sewer inundation, and beautifying the streetscape.
- **Green Parking:** Incorporate vegetated planting areas and permeable paving in parking lots, to reduce impervious surfaces to reduce stormwater runoff. Incorporating shade trees in parking lots can also help mitigate the urban heat island effect produced by large areas that have an asphalt or concrete surface.

Rain garden in a parking lot in San Mateo County, CA
Source: Flows to Bay, flowstobay.org

Stormwater tree pit diagram
Source: Philadelphia Water Department, water.phila.gov

Focus 2:
Pedestrian and Bicylist Infrastructure / Connectivity

Sayreville is largely automobile dependent due to its current pattern of development. Many areas within the Borough lack a complete pedestrian network, and the Borough is only limitedly served by public transportation. It is important to support a range of transportation options to ensure that people are able to freely move throughout the Borough, regardless of their physical and financial circumstances. As such, the Borough should support initiatives which encourage and improve the safety of walking and cycling throughout Sayreville. This Plan notes that any proposed improvements to roads under jurisdiction of either Middlesex County, New Jersey, or the United States will require coordination with and approval from the relevant authority.

RECOMMENDATION 1

Develop walking and cycling paths to connect the Borough's park network, specifically focusing on opportunities within areas acquired via the blue-acres buyout program, and in other publicly owned areas where future development is restricted due to flood risk. These paths can provide opportunities for recreation along Sayreville's water and riverfronts in addition to creating leisurely and safe pedestrian and bicyclist connections between the Borough's parks and recreational assets.

As referenced in the 2024 Community Facilities Element, the Borough may want to consider the feasibility of constructing greenways that would connect Sayreville's network of parks and recreational assets. Sayreville has limited off-street circulation paths for cycling and walking. At the same time, portions of Sayreville along the Borough's waterfront cannot be developed due to elevated flood risk. Constructing walking and cycling paths in these locations would open additional opportunities for recreation within the Borough, while also serving as an environmentally low impact form of development. These pathways can be incorporated into a future greenway and park network throughout the Borough. This Plan notes that such an endeavor would require in-depth analysis in terms of siting, circulation, and funding, amongst other matters.

RECOMMENDATION 2

Install high-visibility painted crosswalks at all crossing locations across major thorough fares in the Borough, including Main Street, Washington Street, and Bordentown Avenue. At midblock crossings, or at crossings where vehicles are not required to stop, install rapid rectangular flashing beacons (RRFB) and pedestrian hybrid beacons (HAWK) signals. Installing textured crosswalks where the texture of the cross walk differs from the roadway can further improve driver awareness of crosswalks, thereby improving pedestrian safety at crossings.

Many of the major throughfares lack painted crosswalks at crossing locations, increasing the risk of vehicle accidents involving a pedestrian. Demarcating crosswalks and installing crossing signage and RRFB's and HAWK signals will alert drivers that pedestrians may cross at this location, reducing the likelihood of an accident.

RECOMMENDATION 3

Install wayfinding signage throughout the Borough.

Wayfinding signage provides information to pedestrians to help them navigate around the Borough and to clarify locations and distances to important landmarks and amenities throughout the Borough. The design of wayfinding signage can also be used as a marketing tool and can become an integral component which enhances the brand of a community.

RECOMMENDATION 4

Continue to apply to the New Jersey Safe Routes to School Program to fund the construction of pedestrian infrastructure that will make walking and biking to school safer for children.

The Safe Routes to School Program provides funding for various types of projects and initiatives, including the construction of pedestrian infrastructure such as sidewalks, crosswalks, bicycle facilities, and traffic calming measures. In addition, the program provides educational resources which encourage children to walk and bike, thereby encouraging healthy habits from a young age. The program also provides funding for projects which reduce vehicle traffic and air pollution near schools. These improvements would have numerous benefits for children throughout Sayreville.

The Borough should conduct an assessment of the roadways and pedestrian infrastructure surrounding the District's schools, specifically identifying any needs for additional crossings, crossing lights, street lighting, crossing guards. In this process, the Borough should also access the general conditions of the sidewalk network for any needed improvements and to ensure that all sidewalks are ADA accessible.

RECOMMENDATION 5

Ensure that new roadways in redevelopment areas are properly integrated with Sayreville's existing roadway and pedestrian network.

Sayreville has several ongoing large scale redevelopment projects, including the Riverton Waterfront Redevelopment, which is slated to add 2,000 units of housing and 6,500,000 square feet of retail commercial space. It is important to ensure that the circulation networks proposed within these developments properly link to Sayreville's existing network. In the specific case of the Riverton Waterfront Redevelopment, there is currently no pedestrian infrastructure linking it with the remainder of Sayreville's sidewalk network. Developing sidewalks and bicycle lanes along Main Street and the Main Street Extension will be necessary to improve pedestrian access between the Riverton Development and other portions of Sayreville. Further, traffic control within and linking redevelopment areas to the remainder of the Borough should be mitigated through specific standards.

RECOMMENDATION 6

Continue to engage with the State of New Jersey, Middlesex County, and adjacent municipalities regarding improvements to roads which cross through the Borough.

Several prominent roads, including Washington Road (County Route 535), Main Street (County Route 670), Ernston Road (County Route 673), Bordentown Avenue (County Route 535), New Jersey Route 35, and United State Route 9 pass through the Borough. It is important to proactively engage with Middlesex County and the State of New Jersey with suggested improvements regarding these roads and to ensure intergovernmental cooperation when enacting projects and providing funding aimed at improving these roads. In some cases, Sayreville can help support initiatives that are crafted at the county and the state level, such as the Middlesex Vision Zero

A rendering depicting the future vision of Riverton in the Waterfront Redevelopment Area
Source: Riverton, riverton.com

The boardwalks at DeKorte Park in Lyndhurst, NJ offer a prime example of how pedestrian circulation can exist in environmental conservation areas
Source: The Meadowlands Nature Blog, meadowblog.net

Students safely cross a street with the help of a crossing guard
Source: NJDOT Local Aid Resource Center, njdotlocalaidrc.com

Plan, which seeks to reduce the number of pedestrian fatalities related to vehicle crashes to zero. Working with Middlesex County to repair existing infrastructure and to construct new pedestrian infrastructure along county routes will help Middlesex County achieve its vision zero goal while improving pedestrian safety within the Borough. It is further recommended that the Borough continue to pursue intergovernmental coordination with neighboring municipalities to address mutually advantageous road improvements and infrastructure on roads that fall under local jurisdiction.

RECOMMENDATION 7

Implement a public campaign highlighting pedestrian and bicyclist safety.

In coordination with Sayreville's Police Department and other community facilities—such as the Library and Department of Recreation—the Borough should consider implementing a campaign centered on pedestrian and bicyclist safety within Sayreville. In addition to distributing educational materials, the Borough could offer workshops, bike safety programs, and other opportunities to provide the community with knowledge, tools, and practices centered on heightening pedestrian and bicyclist safety throughout the Borough.

Focus Area 3: Street / Neighborhood Design

Sayreville has several prominent redevelopment areas, which offer great opportunities to support patterns of development which enable people to walk and bike to work, retail, and recreational opportunities. Further, street and neighborhood design principles can be applied to accommodate burgeoning technologies in the transportation sector.

RECOMMENDATION 1

Encourage compact mixed-used development within existing and future redevelopment areas.

Compact mixed-used developments where residential uses are mixed with commercial uses allow people to live within walking distance of work, retail, and entertainment options. This reduces automobile dependency within mixed use neighborhoods and encourages active and healthy lifestyles.

RECOMMENDATION 2

Encourage cross access between properties along major commercial corridors, particularly along U.S. Route 9 and Bordentown Avenue.

The commercial businesses along U.S. Route 9 largely consists of big-box retail and strip mall uses. Promoting cross access between parking lots of adjacent uses will prevent cars from continually needing to access U.S. Route 9 when frequenting several businesses on one trip. Cross-access arrangements and shared parking lots will also allow people to park in one location and walk to several businesses, rather than needing to continuously move their car.

RECOMMENDATION 3

The Borough should construct complete streets within redevelopment areas and throughout Sayreville as the Borough considers future roadway improvements.

Complete streets are an integrated transportation network designed to enable safe and convenient travel and access along and across streets for users of all ages and abilities, including pedestrians, bicyclists, motorists, movers of commercial goods, and transit riders. The State of New Jersey Complete Streets Design Guide includes several recommendations, including:

- **Ensuring sidewalks have a minimum clear-width of 5-feet in compliance with ADA accessible standards:** In areas with heavier pedestrian traffic, sidewalks should be as wide as possible to improve the flow of foot-traffic and to improve pedestrian comfort.
- **Creating buffers between sidewalks and the road:** These buffers could include wayfinding signage, benches, streetlights, hydrants, utility poles, stormwater management infrastructure, foliage, and receptacles for trash and recycling. The design guide recommends ensuring the buffer has a minimum width of 2.5-feet.
- **Ensuring sidewalks are constructed with a slip-resistant material with a smooth surface:** Brick and cobblestone should not be utilized for surfaces dedicated to walking but can be used as decorative elements in the buffer area.
- **Aligning curb ramps with pedestrian paths:** Provide directional curb ramps at intersections which reflect desired pedestrian paths across the street.

- **Providing shade for pedestrians:** Planting shade trees along the public right-of-way to mitigate the urban heat island effect and to increase pedestrian comfort.
- **Providing street furniture:** Installing street furniture along sidewalks, such as bicycle parking racks, bus shelters, parklets, and benches.
- **Mitigating Traffic Speeds:** Implementing traffic calming measures, such as curb extensions, center road islands, and the narrowing of existing traffic lanes, to reduce the speed of traffic in areas with high levels of car accidents involving pedestrians.
- **Creating dedicated bicycle lanes along the street where feasible:** Preferably, a buffer would be installed to separate car traffic from cycling traffic to ensure the safety of cyclists.

As noted in the 2024 Sayreville Land Use Element, the Borough's existing sidewalk network is incomplete in the sense that it has gaps in various areas throughout Sayreville. Filling in these gaps on a large scale presents challenges, especially in residential neighborhoods where a lack of adequate space or a property's location along a county road may make the construction of new sidewalks infeasible. Therefore, it is recommended instead that the reviewing board consider where and how sidewalk gaps can be closed as land development applications undergo site plan review. Where there is adequate space, this approach can strengthen pedestrian connectivity on a site-by-site basis.

RECOMMENDATION 4

The Borough should take proactive actions to prepare for a potential rise in autonomous vehicle use.

As the development and use of autonomous vehicles becomes more common in coming decades, the Borough should consider taking proactive measures to ensure the future safety of its residents. The Borough may consider taking initial steps towards preparing safety campaigns, police officer trainings, and infrastructure improvements in this manner. Although additional research and assessment would be needed, infrastructure improvements could include: ensuring that road markings are painted clearly and properly; ensuring that speed limit signs and other traffic signs are unobstructed; ensuring that roads are well surfaced and have adequate lighting for censors; and implementing stop light improvements as needed.

An example of a complete street in Sheffield, England
Source: Nigel Dunnett, https://sheffielder.net/2021/08/04/west-bar/, retrieved from Re-Think The Future

FUNDING / RESOURCES

- **Department of Environmental Protection It Pay$ to Plug In Grants:** The NJDEP's It Pay$ to Plug In grant program offers local governments, businesses, non-profits, and educational institutions partial reimbursement for the installation of public electrical vehicle charging stations. Applications for this program are currently accepted on a rolling basis.
- **Federal Transit Administration Grant Programs:** The Federal Transit Administration (FTA) maintains a list of current federal grant programs that provide funding for a wide range of transit and transportation related projects.
- **Keep Middlesex Moving Resources:** Keep Middlesex Moving (KMM) is the Transportation Management Agency for Middlesex County and provides a plethora of resources regarding transportation safety. Most notably, it provides: a Teen Driving Safety program, which provides interactive presentations for teens on the dangers of distracted driving; a Paint the Pavement program, which provides stencils, paint, and rollers to paint colorful safety messages on public sidewalks to alert distracted pedestrians of upcoming street crossings; and a Flag It program, which provides brightly colored flags on either side of a crosswalk for pedestrians to hold while crossing as a means of increasing their visibility to motorists. The Borough may consider utilizing these resources to enhance Sayreville's Safe Routes to School efforts.
- **NJDOT Local Aid Funds:** The New Jersey Department of Transportation offers a variety of funding opportunities for local governments. The Borough may consider specifically looking into: the Local Aid Infrastructure Fund, which can be used for emergency repairs and safety improvements to critical bike and pedestrian locations; the Municipal Aid Program, which provides grant funding for the improvement of any public road or bridge governed by a municipality, to include project areas including bikeways, mobility, pedestrian safety, roadway safety, and more; and the Bikeway Grant Program, which provides funding for the creation of new protected bike path mileage.
- **Safe Routes to School Program:** As mentioned earlier in this Plan, the Borough should continue pursuing funding through the Safe Routes to School program to foster a built environment that prioritizes the safety and well-being of children walking or biking to school. The program is being administered by the New Jersey Department of Transportation in partnership with the North Jersey Transportation Planning Authority and is administered on a yearly basis.
- **Safe Streets and Roads for All (SS4A) Grant Program:** The SS4A program, established by the Bipartisan Infrastructure Law, will provide funding for regional, local, and Tribal initiatives with a goal to prevent roadway fatalities and serious injuries through the year 2026. The program provides funding for two types of grants, including: Planning and Demonstration grants, which support activities toward the development of Action Plans; and Implementation grants, which support the implementation of roadway safety strategies and projects.
- **Street Smart NJ:** Street Smart NJ is a program under the coordination of the North Jersey Transportation Planning Authority, which provides resources for public education campaigns that raise awareness of pedestrian and motorist laws and reduce pedestrian and cyclist crashes. The program has free how to guides, campaign materials, social media guides, enforcement templates, press materials, and more. The Sayreville Police Department is currently listed as a Street Smart Campaign Location, and this Plan recommends that the Borough continue to facilitate this partnership.
- **Sustainable Jersey Complete Streets Technical Assistance Program:** In partnership with the Alan M. Voorhees Transportation Center at Rutgers University, Sustainable Jersey offers a range of free technical assistance to selected municipalities annually, covering project areas including bicycle corridor and network plans, corridor/neighborhood complete streets assessment, and complete and green streets policy. In the past, technical assistance has in some cases included the production

of conceptual renderings and temporary demonstrations portraying the benefits of potential roadway improvements. The most recent application round of this program closed in February 2024. If interested, the Borough may check back in towards the end of 2024 to receive updates on upcoming opportunities.

- **USDOT Pedestrian and Bicycle Funding Opportunities List:** The United States Department of Transportation provides a fact sheet that indicates the federal grants available for a variety of transit-related projects, including bicycle plans, bicycle lanes on roads, crosswalks for pedestrians, streetscaping, road diets, sidewalk retrofits, traffic calming, and more.
- **USEPA Green Infrastructure Funding Opportunities List:** The United States Environmental Protection Agency's website provides an updated list of federal green infrastructure funding opportunities, which comprises ongoing and cyclic opportunities from entities including the USDA, DOI, DOD, NPS, and more.

Keep Middlesex Moving's "Paint the Pavement" program
Source: Keep Middlesex Moving, kmm.org

A traffic calming demonstration project in Belleville, NJ, which was supported by NJTPA's & Sustainable Jersey's Complete Streets Technical Assistance Program
Source: NJTPA, njtpa.org/Newsroom/NJTPA-New

Washington Avenue in Hoboken models the success of Vision Zero projects and represents one of the many focuses supported by federal and state grants
Source: Bike Portland, bikeportland.org