RIVERHEAD
Comprehensive Plan
Update

Chapter 5: Transportation and Mobility

Working Draft

This document is presented in its current form as a preliminary draft for public review. We encourage all stakeholders to provide comments as your input will play a vital role in shaping the final version of the Comprehensive Plan. Please email comments to compplan@townofriverheadny.gov.

Please note that the document will be further refined once comments are received from the community. Since it is an interim document, it is in a raw formatted form. The revised draft will be arranged in a more graphic format with photos, figures, and other visual elements to enhance clarity and understanding. Thank you for your time and participation in this important planning process.

Submitted by BFJ Planning

February 8, 2024

5. TRANSPORTATION AND MOBILITY

This chapter examines the existing transportation system in Riverhead, which includes state, county, and local roadways, sidewalks, bikeways, and public transit modes. The analysis includes an inventory of current circulation conditions to assess the location and types of facilities for all transportation modes. Stakeholder engagement, encompassing the public, agency representatives, Town staff, and officials, was integral to the update process through various meetings, including those with the project-specific Steering Committee and interviews with government agencies at Town, County, and State levels. The plan's goals and recommendations are informed by stakeholder input and data analysis, incorporating a review of recommendations from the 2003 Comprehensive Plan and other relevant studies.

The data and discussions in this chapter highlight key transportation trends in Riverhead, emphasizing the town's need to prioritize safe, efficient, and sustainable transportation options connecting residents and visitors to vital destinations. Roadway improvements are essential to alleviate congestion and enhance safety for pedestrians, bicyclists, motorists, and individuals of all ages and abilities. The Town should approach road enhancements with sensitivity to its residential neighborhoods and preservation of historic, scenic, and natural resources while addressing the need to expand and improve existing infrastructure, including the Town's road network, and to accommodate future growth demand.

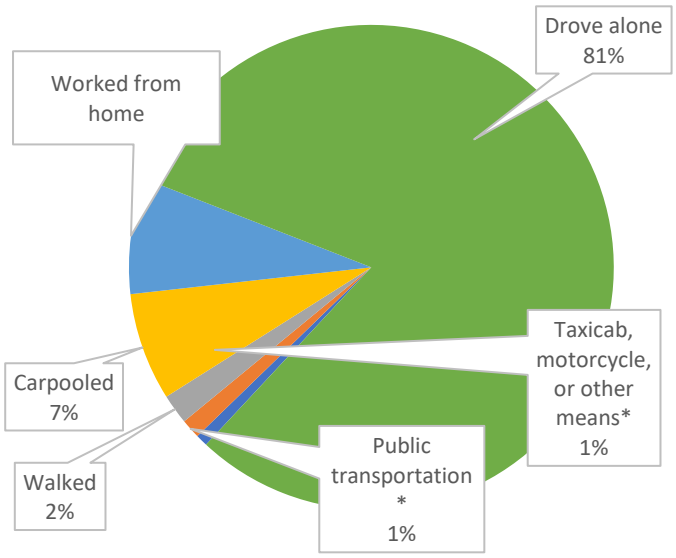
Furthermore, Riverhead should actively promote alternative transportation modes, such as walking, biking, and public transit. Ensuring accessibility to downtown and hamlet centers via bus, bike, and pedestrian routes is crucial. This initiative could involve developing new bike and pedestrian paths and encouraging the use of public transit options. Emphasizing cleaner transportation alternatives will contribute to Riverhead's sustainability goals by reducing the environmental impact of automobiles, including greenhouse gas emissions.

Travel Characteristics

The U.S. Census Bureau provides estimates on means of transportation to work for workers over 16 years old. In the 2022 ACS five-year estimates, driving alone was the dominant form of transportation to work, comprising 81% of the estimated 15,860 workers (see Figure 1). Working from home was the second largest category (8%), followed by carpooling (7%). Only 2% of workers are estimated to walk to work, about 1% to use public transportation, and another 1% to use other means. Bicycling is also a category for which the survey estimates; however, the survey estimated that zero people ride their bikes to work.

In the 2022 ACS 5-year estimates, the U.S. Census Bureau estimated the mean travel time to work was about 27 minutes. Table 1 below shows the travel times distribution for workers over 16 years old who do not work from home (approximately 14,641 workers).

Figure 1. Means of Transportation to Work, 2022



**Because of a small number of commuters using public transportation, taxicab, motorcycle, or other means, there is a high margin of error and the estimates may not be reliable.*

Source: U.S. Census Bureau, 2022 ACS 5-year estimates

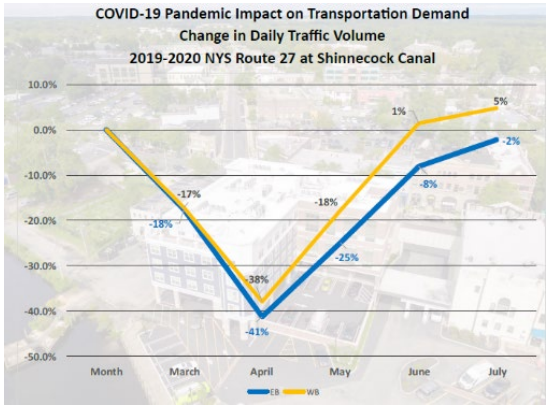
Table 1. Travel Time to Work, 2022

Travel Time to Work	Percent of Workers
Less than 10 minutes	15%
10 to 14 minutes	16%
15 to 19 minutes	12%
20 to 24 minutes	9%
25 to 29 minutes	6%
30 to 34 minutes	18%
35 to 44 minutes	5%
45 to 59 minutes	11%
60 or more minutes	8%

Source: U.S. Census Bureau, 2022 ACS 5-year estimates

In the initial plan update, an online survey gathered public input on various planning subjects, including the town's transportation. The survey responses were from a small percentage of the population and may not be as reliable as census data. However, the results somewhat mirror the census data with the largest portion, 83%, reporting that they drive their car alone to work. The survey focused on transportation mode use, trip length, and purpose, revealing that, akin to many communities, most household trips are work-related. Respondents mainly reported short trips under 15 miles, predominantly using single passenger cars, consistent with the town's low-density development and the absence of a robust public transportation system. Despite some transportation system improvements, travel characteristics have remained largely unchanged since 2003, presenting challenges for future planning.

It is important to note that this Comprehensive Plan update began just before the onset of the Covid-19 pandemic in 2020, significantly impacting transportation demand across all sectors. However, as of this document's writing, New York State Department of Transportation (NYSDOT) and Suffolk County Department of Public Works (SCDPW) indicate stabilized traffic volumes, no longer necessitating adjustments to traffic counts due to the pandemic's influence. Transit ridership, though on a path to recovery, remains below pre-pandemic levels. Work-from-home policies reduced commuter traffic, and some second homeowners opted to relocate permanently after the pandemic's impact diminished.

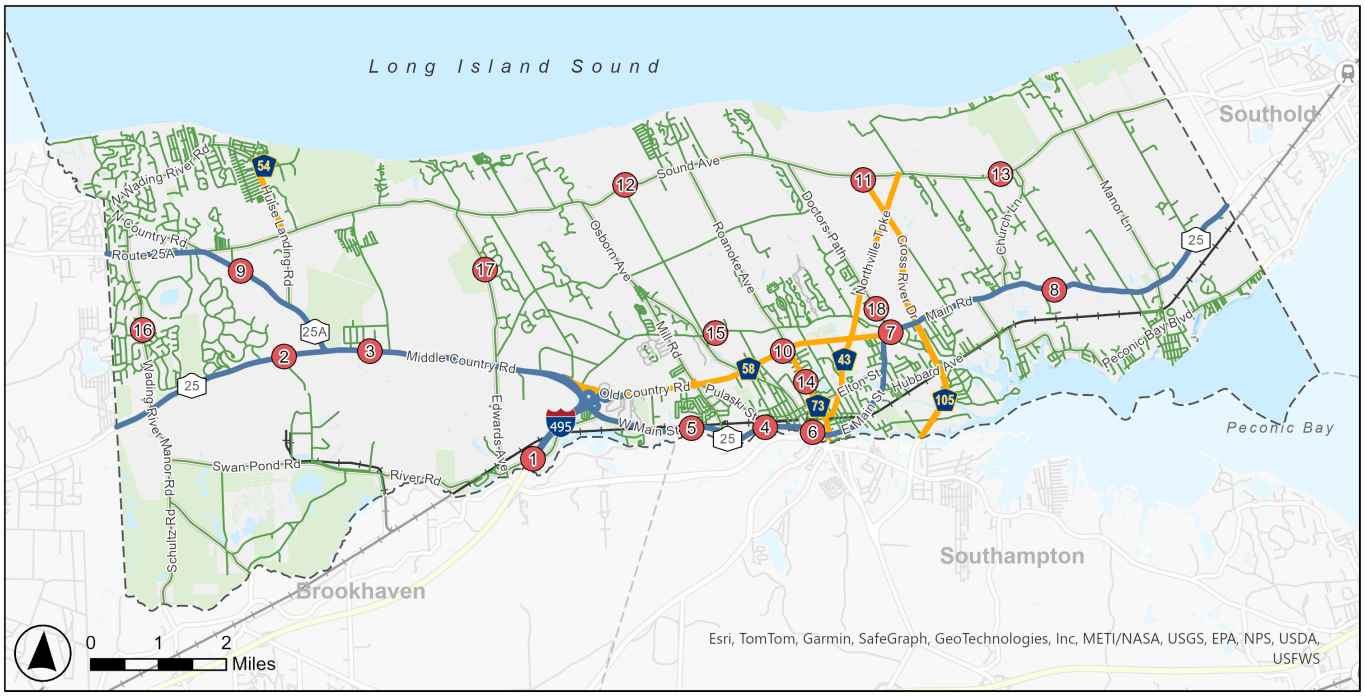


Source: NYSDOT, SCDPW Traffic Data

Streets and Highways

Riverhead boasts a comprehensive road network exceeding 200 miles, encompassing a segment of Interstate 495 (the Long Island Expressway (LIE)), two New York State highways, several Suffolk County roads, and extensive Town roadways. Noteworthy state highways include NY25, spanning the town's entire length, and NY25A in western Riverhead. Key County roads feature CR43 (Northville Turnpike), CR105 (Cross River Drive), and CR58 (Old Country Road), along with others like a portion of CR54 (Hulse Landing Road) north of Sound Avenue, and a portion of CR73 (Roanoke Avenue) located between East Main Street and Middle Road. Additionally, Peconic Avenue, a short stretch of CR63 between Main Street and the Town line at the Peconic River, holds significance just south of downtown. Prominent Town roads such as Sound Avenue, Middle Road, Edwards Avenue, Doctors Path, and Peconic Bay Boulevard contribute to the extensive network. The following section provides an overview of major roadway facilities, incorporating available recent and historic traffic volume information. Figure2 shows major roads in Riverhead classified by jurisdiction, as well as information regarding traffic flows on each facility

Figure 2. Road Jurisdiction and Traffic Volumes



Road Jurisdiction
- State
- County
- Town
- Private or Other
- Traffic Volume Location

Map No.	Location	VPD	Map No.	Location	VPD
1	I-495 Long Island Expressway (LIE)	23,200	10	CR58 near Roanoke Ave	34,000
2	NY25 at Enterprise Park at Calverton (EPCAL)	8,800	11	CR105 at Sound Ave	4,800
3	NY25 West of NY25A	16,300	12	Sound Ave west of CR105	18,000
4	NY25 east of Mill Rd	16,100	13	Sound Ave east of CR105	15,000
5	NY25 west of Mill Rd	8,000	14	CR73 (Roanoke Ave) south of CR58 Roundabout	8,000
6	NY25 east of CR94	9,500	15	Middle Rd btw Doctor's Path and LIE	5,000
7	NY25 at CR58	22,600	16	Wading River-Manorville Road btw LIE and NY25A	8,500
8	NY25 EB towards Southold Town Line	13,000	17	Edwards Avenue btw LIE and Sound Avenue	4,000
9	NY25A btw NY25 and Sound Ave	7,600	18	Doctor's Path north of CR58	2,800

Sources: Town of Riverhead, NYS GIS, USGS, BFJ Planning

A description of the roadways shown in Figure 2 is provided below with information regarding the growth in traffic volumes over the last decade. It is noted that, as part of the long-term transportation planning study conducted by NYSDOT in the early 2000's, traffic volumes in the Town of Riverhead were generally estimated to increase by 47%, or approximately 2.3% per year, from 2000 to 2020. However, as discussed below, while some roadways experienced growth in traffic approaching the predicted rate, most did not.

I-495 Long Island Expressway (LIE)

The LIE is a six-lane east-west interstate highway that traverses most of Long Island and terminates in Riverhead. Interchange 72, NY25, and Interchange 73 CR58, are within the Town's borders. Travelers from the west use the LIE to reach Riverhead and Southold. The LIE was originally planned to terminate at CR48, a concept which has long since been abandoned. Since 2003, traffic volumes on the LIE in Riverhead have increased by 1.5% per year.

New York State Route 25 (NY25)

NY 25 spans from the Edward M. Koch Bridge in Queens to Orient Point, covering the entire length of the Town of Riverhead with two lanes—one in each direction. This road, connecting the western border to the LIE, provides access to Calverton National Cemetery in the west and Splish-Splash Water Park in the east. West of the LIE, development is relatively sparse on NY25, but it offers entry to the former Grumman Naval Weapons Research facility, now known as Enterprise Park at Calverton (EPCAL). Since 2013, traffic volumes on this NY25 section have increased by less than 0.5% per year.

From the LIE to CR105, the road provides access to more developed areas such as the Tanger Factory Outlet Center, running parallel to the Peconic River, and passing through Downtown Riverhead as Main Street. Traffic volumes have been relatively steady since 2013, with signs of increased demands post-Covid19 disruptions. Just west of Downtown, traffic uses CR94 to cross the Peconic River, heading east and south via NY24 and CR51, where the Suffolk County Courts and County Center are situated.

East of Downtown, NY25 connects CR58 to CR105, experiencing congestion seasonally, especially in summer months, due to traffic to and from the eastern North Fork. With additional traffic from CR58, Annual Average Daily Trips (AADT) significantly rises to 22,600 vehicles per day (vpd) in 2022. Beyond CR105 to the eastern Southold Town border, NY25 passes through agricultural land interspersed with residences, the Jamesport hamlet center, farmstands, and some commercial development. Traffic volumes decrease to 13,000vpd at the Southold Town line.

New York State Route 25A (NY25A)

NY25A is a two-lane New York State highway stretching from the western border of Town shared with the Town of Brookhaven to NY25, primarily passing through agricultural landscapes with the entrance to Calverton National Cemetery along its route. Bike lanes are incorporated into the facility. The East Wind Hotel and spa complex, including the Shoppes at East Wind, are located at the intersection of NY25a at Sound Avenue. Traffic volumes decreased slightly between 2022, and 2023, although the intersection of 25A and Wading River-Manor Road continues to experience significant congestion.

Suffolk County Route 58 (CR58)

Route 58, an east-west Suffolk County roadway, spans from the eastern terminus of the LIE to NY25, located east of Downtown Riverhead. This densely developed corridor features various commercial properties and experiences congestion during peak hours, with the western part carrying higher traffic volumes than the LIE. In 2022, AADT exceeded 34,000 vpd near Roanoke Avenue, while east of Roanoke Avenue, volumes were somewhat lower.

SCDPW expanded and enhanced CR58 in the early 2000s, but due to limited rights of way, the design omitted provisions for bicycles or bus turnouts, and compromises were made for ADA compliance. The resulting configuration includes two lanes in each direction, turning lanes, and sections of a center two-way left-turn lane, but lacks shoulders, deceleration lanes, or bus turnouts. Design compromises were made to avoid property acquisition, leading to utility poles being placed in sidewalks, often violating the Americans with Disabilities Act (ADA) accessibility guidelines.

County Road 105 (CR105, Cross River Drive)

CR105 is a major north-south, limited-access Suffolk County highway that extends from the Southampton town line to Sound Avenue. The portion of the road in Riverhead provides four lanes, two in each direction. Development is agricultural in nature, and traffic volumes are low, except during the peak summer season, when tourist traffic causes

delays on CR105 at its intersections with NY25 and Sound Avenue. Speeds tend to be high. Between 2013 and 2022 traffic volumes increased by approximately 1.5% per year.

Sound Avenue

Sound Avenue is a two-lane east-west Town roadway that extends the length of the Town, parallel to the Long Island Sound. East of the Southold Town line, the roadway becomes CR48 (Middle Road) under the jurisdiction of SCDPW, and continues to the east until it terminates in Greenport, where it joins NY25 as the only major roadway to Orient Point. Since 2014, traffic volumes have been increasing on Sound Avenue by approximately 2.0% per year, based on NYSDOT data. This is a higher rate of growth than shown on other roadways within the Town. Sound Avenue experiences significant congestion during seasonal periods (typically late September through October), due in part to tourism to the East End, as well as travel to and from points east.

Although the existing right of way is 66 feet wide, the pavement is between 28 and 30 feet wide for most of its length. Few sidewalks and shoulder areas are provided. In some cases, landscape features of the homes, such as fences and plantings, encroach on the Town right of way. The road has significant horizontal and vertical curvature, which limits stopping sight distances.

It is significant to note that in 1975, Sound Avenue, from its junction with NY25A to its eastern end at the Town boundary with Southold, was designated as a "Scenic and Historic Corridor" in Suffolk County by the New York State Senate-Assembly. Although the designation states that Sound Avenue and "its natural beauty shall be preserved and protected for the benefit and enjoyment of the people of the state." (NY Senate Bill 5814, Assembly Bill A.8189), this did not result in any specific or concrete protections for the roadway or surrounding lands.

Roanoke Avenue (CR73 & Town of Riverhead Jurisdiction)

CR73 Roanoke Avenue is a two-lane north south Town roadway that extends from Main Street to Sound Avenue. Roanoke Avenue intersects with CR58 at a roundabout that was converted to a two-lane roundabout by Suffolk County since the time of the 2003 Master Plan. The Roanoke Avenue right-of-way is under the jurisdiction of the SCDPW from its intersection with East Main Street to the intersection with Middle Road. North of Middle Road, the roadway is under the jurisdiction of the Town of Riverhead. The crash rate at the roundabout is among the highest in the Town of Riverhead, although crash severity is low, as is common at roundabouts.

Middle Road

Middle Road is a two-lane east-west Town roadway that extends about 4.75 miles between its dead-end western terminus north of Old County Road to its eastern terminus at Doctor's Path, just north of NY25. Middle Road can be accessed from NY25 via Manor Road. Existing traffic volumes are relatively low. Drivers familiar with the area use Middle Road as a bypass route to CR58. Depending on location, Middle Road experienced between 3,000 and 5,000 vpd in 2022, a slight increase since 2013.

Wading River-Manorville Road

This two-lane, north-south roadway in the western portion of the Town provides access to the LIE and points south from the north shore of the Town, the hamlet of Wading River, and the residential development along its length. Access to EPCAL from the LIE can also be made via NY25 and Grumman Boulevard. Traffic volumes have increased approximately 2% per year since 2014.

Edwards Avenue

Edwards Avenue extends from the LIE to points north in the western portion of the Town (Calverton). It has intersections with the LIE, NY25 and Sound Avenue, Riley Avenue, and several residential neighborhoods. Edwards becomes CR94 (Nugent Drive) at the intersection with River Road. Many vehicles use Edwards Avenue to access Sound Avenue during tourist season, to avoid congestion further east. Edwards Avenue experienced growth in traffic volumes of approximately 1% per year since 2013. For NY25 at Edwards Avenue, NYSDOT has a design-stage improvement project to add left turn lanes at all approaches, widen the intersection, and align the roadway's north-south orientation as it crosses NY25 (NYSDOT Statewide Traffic Improvement Plan PIN 0810.01). Improvements at this intersection are anticipated to be completed during the 2024 construction season, per a May 2023 correspondence with NYSDOT. In that same memo, the NYSDOT stated this intersection is being prioritized over safety enhancement projects at other intersections in the Towns of Southold and East Hampton

Doctor's Path

Doctor's Path is a two-lane north-south roadway that extends from NY25 to Sound Avenue. Doctor's Path intersects with NY25, CR58 and Middle Road at one of the more complex intersections in the Town. NYSDOT last made Improvements to the intersection more than twenty years ago. The 2022 AADT was approximately 2,800vpd, basically unchanged since 2014.

Roadway Capacity

Traffic data from State and County roadways in the Town, including Sound Avenue and other heavily traveled roads, was collected and analyzed to determine whether the roadway capacity supports current and future needs. The data, sourced from transportation agencies and studies, was normalized for seasonality. Planning-level capacity analyses were conducted for multiple Town roadways, revealing that, in almost all cases, the existing facilities are adequately sized to handle forecasted traffic demand. Generally, large-scale roadway widening is unnecessary for the foreseeable future. Instead, a strategy involving spot improvements, travel demand management, and facility management techniques is deemed sufficient for most Town roadways. It's important to note that this assessment pertains specifically to vehicular traffic only, as many roads lack pedestrian and bicycle accommodations.

The determination that roadways have ample capacity pertains to planning-level analyses focused on determining whether there is adequate lane capacity to meet average annual traffic demand. These analyses do not account for daily peak hours or seasonal variations in demand. Consequently, positive results from the analyses do not rule out the potential need for local improvements in intersection capacity, traffic control adjustments, or safety enhancements. However, they do provide assurance that extensive roadway widenings are not considered likely. Localized improvements are addressed on a case-by-case basis in appropriate sections of the report.

Exceptions to this generalization exist, such as the impact on NY25 between Wading River Road and Manor Lane, which will come under considerable demand pressure as the EPCAL property is built out. There is also recurring congestion on CR58 from I-495 to the Roanoke Avenue traffic circle, which is due to the level of development in the surrounding area, the number of access points, and its role as one of three routes to the North Fork, including the Cross Sound Ferry terminal.

The North Fork of Long Island, including Riverhead's agricultural district mostly associated with Sound Avenue, is an increasingly popular and continually evolving attraction for large numbers of tourists and visitors. Wineries, vineyards, and conventional agricultural and agritourism uses continue to thrive, while of late, breweries and distillers of spirits have become a popular part of the picture. These attractions draw large numbers of visitors during the good weather months, beginning in springtime during the strawberry season and extending well into the fall and early Christmas season. This activity is not limited to Riverhead Town, as Riverhead's roadways serve as the critical access to similar tourist attractions to the east.

Enterprise Park at Calverton (EPCAL)

Regarding EPCAL, the 2003 Plan recognized the necessity of widening NY25 due to the impact of the property's development, a need confirmed in an FGEIS completed in connection with the most recent proposal for the property. While the exact nature of the property's development is unknown, extensive roadway mitigation, including facility widening, intersection approach widenings, and traffic signal updates, will be required According to the NYSDOT, an increase in peak hour traffic volumes of only 1,000 vehicles would trigger the need to widen NY 25. Thus, widening would be required well before Enterprise Park is built out to its full potential.

The FGEIS prepared for the 2016 EPCAL Reuse and Revitalization Plan identified substantial specific improvements to the transportation system that would be necessitated by phased build out of the EPCAL parcel. The improvements were based on assumed levels of trip generation that would occur based on phased development of the property under the adopted Planned Development District that was the subject of the FGEIS. A summary of the system improvements and the estimated time when they would be triggered is as follows:

2025

- Widen NY25 to five (5) Lanes (two lanes in each direction with center turn lane)
- Widen approaches to twelve (12) intersections
- Upgrade five (5) existing traffic signals
- Install six (6) new traffic signals

2035

- Additional widenings at eight (8) intersections
- Upgrade ten (10) signals
- Install one (1) additional signal

Note that these mitigation measures are likely needed regardless of the ultimate development, and that basing the need on the levels of traffic generated remains a valid strategy that the Town should consider maintaining. Coordination with NYSDOT and other agencies will also be required..

CR58 Corridor Improvements

The 2003 Plan recommended that the Town work with Suffolk County to develop a plan to convert the entire length of CR58 (including the portion of Route 25 that links CR58 to CR105) into a four-lane roadway, with a raised, landscaped median, and turn pockets at major intersections and entrances to major shopping centers. This improvement alternative, which included shoulders and sidewalks on both sides and turn outs for bus stops, required property acquisition for full implementation, and was among several alternatives that were investigated in the SCDPW's Corridor Study for CR58, Old Country Road performed in the late 1990's.

The CR58 Commercial Corridor experienced a period of intense commercial development prior to and in the years following the completion of the 2003 Master Plan, and traffic congestion became a major impediment to continued growth. At the time, CR58 provided a single lane in each direction, and combined with the obsolete design of the traffic circle at Roanoke Avenue, the facility lacked adequate capacity to accommodate the growing traffic demand, resulting in persistent recurring congestion, long delays and increasing congestion related crashes. In 2010 CR58 was reconstructed by the SCDPW to provide two lanes in each direction, with a center two way left turn lane in some areas and separate left turn lanes in other areas. However, due to the lack of available rights of way, the design excluded accommodations for bicycles or bus turnouts, and design compromises were made with respect to compliance with ADA requirements

The Suffolk County Department of Public Works is currently conducting a study on CR58 with an eye toward developing a new operating plan for the traffic signals located along the corridor. The signals are currently interconnected, and the signal timing and phasing are coordinated, but changes in development along the corridor itself and elsewhere in the Town have resulted in the need for the update of the signal operations. The results of this study are due 2024 to 2025. It is anticipated by the County that some improvement to the operating conditions along the corridor will be achieved. However, SCDPW has no plans for any other improvements to the corridor.

Sound Avenue

Despite tourist and agriculture-related congestion on Sound Avenue and NY25, public sentiment strongly emphasized maintaining the rural, scenic character of these roadways. Consistent with the 2003 Plan, sentiments expressed the nature of the roadway facilities as part of the district's attraction. A draft preliminary potential strategy for Sound Avenue congestion, proposing a center two-way left-turn lane, faced public disapproval. Consequently, a strategy of spot improvements, access management restrictions, and traffic control for seasonal and localized issues is recommended, along with access management and a review of parking regulations and restrictions with an eye toward reducing the impact of off-site parking on sight distance and roadway capacity.

Traffic Safety

Roadways on Long Island demonstrate elevated crash rates compared to other areas in New York State, and this trend extends to Riverhead. Utilizing NYSDOT's newly implemented Crash Location and Engineering Analysis Repository (CLEAR) system, locations with the highest number of crashes in the Town were identified (see Figure 3). These locations primarily consist of intersections where at least one, if not both, approach roadways are either Suffolk County or New York State roadways. This aligns with expectations, as the County and State facilities, known for their substantial traffic volumes, play a prominent role in the Town. Locations of note include the following:

- *CR58/Old Country Road at CR73/Roanoke Avenue (Roundabout) – 323.* This is a high total number of crashes (average of nearly 65 per year); however, as expected at roundabouts, the majority of crashes are low-severity, i.e. merging or lane-changing types of crashes which result in no, or minor, personal injuries, as opposed to conventional intersections, where right-angle crashes with potentially serious injuries can be the most dominant crash severity. Crash severity analysis indicates that only 15% of crashes resulted in injury.
- *CR58 at Mill Road – 142.* Nearly 40% of the crashes are rear-end collisions, typically the most dominant crash type at signalized intersections. Injury rate was 27%.

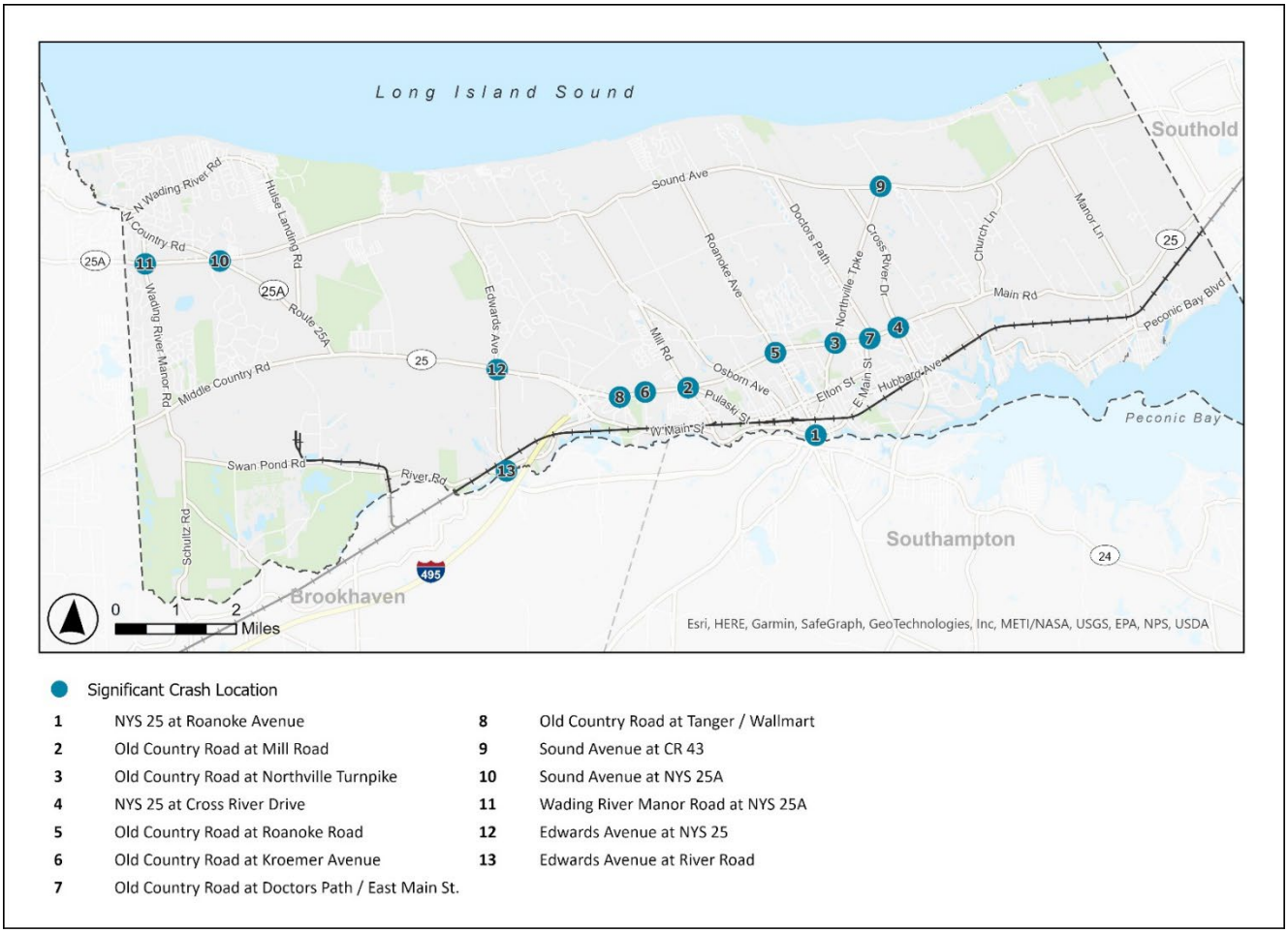
- *CR58 at Kroemer Avenue – 107.* Right-angle collisions are the most frequent type, which could indicate insufficient traffic signal clearance (yellow and all-red) intervals.
- *NY25 at CR105– 101.* As noted above this intersection has insufficient traffic capacity. Injury crash rates was 27%
- *CR58 and CR43/Northville Turnpike– 98.* Crash totals have increased the last two years; however, they are not high when the total intersection volume is considered. Injury crash rate was 36%

Other locations where Town roads intersect and have the highest crash totals, are on Sound Avenue:

- *Sound Avenue at CR 43/Northville Turnpike – 64.* Thirteen crashes per year, including 25% injury crashes, and one fatality. Rear end crashes were most frequent.
- *Sound Avenue at NY 25A – 39.* Eight crashes per year. Rear end crashes were most frequent. 31% of crashes involved injury.

These locations were considered in the recommendations developed for this Plan to improve safety for all transportation system users.

Figure 3. Significant Crash Locations



Sources: Town of Riverhead, NYS GIS, USGS, NYSDOT CLEAR, LKMA Engineering

Public Transportation

The two major elements of the public transportation system serving the Town of Riverhead are commuter rail service provided by the MTA's Long Island Railroad (LIRR), and bus service provided by Suffolk County Transit (SCT). The LIRR has been providing commuter rail service to the North Fork of Long Island for more than a century and a half and is the only commuter rail service on Long Island. Due to system constraints and lack of demand, service has been traditionally sparse in Riverhead. At one point, service to the North Fork of Long Island was completely discontinued, although it has been since restored.

Although technically not considered public transportation, the Town is also served by the Hampton Jitney, a private luxury bus service, and by various ride sharing services including Uber and Lyft, and by private taxi services. The Hampton Jitney provides bus service between Orient Point and Manhattan, as well as service to JFK and LaGuardia International airports in New York City, and to Islip Mac Arthur airport in Islip. Ride sharing services and taxis also provide alternative means of transportation for travelers in the Town, although their impact on the transportation system is difficult to assess, and as private entities, the Town has little influence over the services provided.

Long Island Railroad

The Main Line of Long Island Railroad (LIRR) runs from Long Island City in the west to Greenport in the east, passing through Riverhead. It is electrified west of Ronkonkoma; with 24-hour service to Penn and Grand Central Stations. East of Ronkonkoma, the segment is served by diesel-electric trains most of which terminate at Ronkonkoma, requiring customers traveling west of Ronkonkoma to transfer there. Three eastbound and four westbound trains travel each weekday between Ronkonkoma and Greenport. Also, one additional round trip is scheduled between Ronkonkoma and Riverhead (formerly Yaphank) each weekday. Weekend service consists of four round-trips each day between Ronkonkoma and Greenport. On Fridays during the summer, the eastbound trip to Riverhead is extended to Greenport, and one additional evening trip runs from Greenport to Jamaica, running express between Ronkonkoma and Jamaica.

Source: Google Image

The Greenport Branch has by far the lowest ridership among LIRR services for which data is available. In 2018, the LIRR's second–least used service (the West Hempstead Branch) had more than 14 times as many riders as the Greenport Branch did. In the same year, Greenport Branch riders accounted for 0.08% of LIRR ridership overall. A recent study conducted by the Metropolitan Transportation Authority (MTA) indicated that the most common means of access to the Riverhead station is by shared ride, with 64 percent of passengers either being dropped off, carpooling, or using a rideshare (taxi/TNC) service (2012-2014 data). Twenty-one percent of riders walked to the station and nine percent drove alone. The high percentage (64%) of shared rides suggest that most riders are generally vehicle dependent; however, the high percentage (21%) of walkers also suggests that the station area is walkable. Four percent of all passengers accessed the station via public transit and two percent took a bike.

The LIRR finished 2022 with ridership growth, rebounding from previous declining trends due to the COVID-19 pandemic. Total ridership in 2022 was 52.5 million customers, 50.0% above 2021's 35.0 million ridership. Commutation ridership increased 117.8% with 21.1 million passengers, outperforming 2022 Non-Commutation ridership that increased 24.2% with 31.5 million passengers. However, total ridership remains well below pre-pandemic levels. The chart below shows changes in ridership by branch from 2021 to 2022. As can be seen, ridership on the Greenport branch, which serves Riverhead, experienced the slowest growth of all branches. This is in keeping with the slower rate of growth in non-commuters than in commuters, since the Greenport branch likely serves a larger proportion of recreational riders than the other commuter-oriented branches.

RIDERSHIP BY BRANCH

Branch	ANNUAL RIDERSHIP 2022	2021	% Change
Babylon	10,514,026	7,034,569	49.5% ▲
City Zone	5,672,913	4,010,110	41.5% ▲
Far Rockaway	4,095,562	2,794,801	46.5% ▲
Greenport	66,287	50,365	31.6% ▲
Hempstead	2,778,998	1,751,358	58.7% ▲
Long Beach	2,749,871	1,848,569	48.8% ▲
Montauk	1,662,936	1,128,803	47.3% ▲
Oyster Bay	854,728	514,605	66.1% ▲
Port Jefferson	9,428,532	6,271,150	50.3% ▲
Port Washington	8,321,271	5,229,282	59.1% ▲
Ronkonkoma	5,783,041	4,024,559	43.7% ▲
West Hempstead	612,358	378,577	61.8% ▲
Total	**52,540,522**	**35,036,746**	**50.0%**

▲ Increase ▼ Decrease ● No Change

* Ridership data is based on ticket sales.
** Port Jefferson branch includes ridership from Huntington Branch.

Source: LIRR 2022 Annual Ridership Report

The LIRR has previously cited these ridership trends in attempts to end service east of Ronkonkoma. In 2010, the MTA proposed eliminating all service on the Greenport branch except for the popular summer weekend service. Ultimately, weekday service remained, but weekend service outside of the summer season (defined as Memorial Day-Columbus Day) was discontinued. In 2013, the span of weekend service was extended to operate from the first weekend in May to the last weekend in November. In 2016, the LIRR restored year-long weekend service between Ronkonkoma and Greenport.

Additional significant changes to the LIRR system since 2003 include:

- In 2010, the Town of Riverhead obtained Federal Funding for the rehabilitation of the industrial rail spur that served the former Naval Weapons Research facility in Calverton, now known as EPCAL. Limited freight service is provided to several manufacturing companies located at EPCAL.

- In 2012, the LIRR started adding a second track along the formerly single-tracked section of the Main Line between Farmingdale and Ronkonkoma stations to increase track capacity and allow for enhanced service options. The project was completed in September 2018.

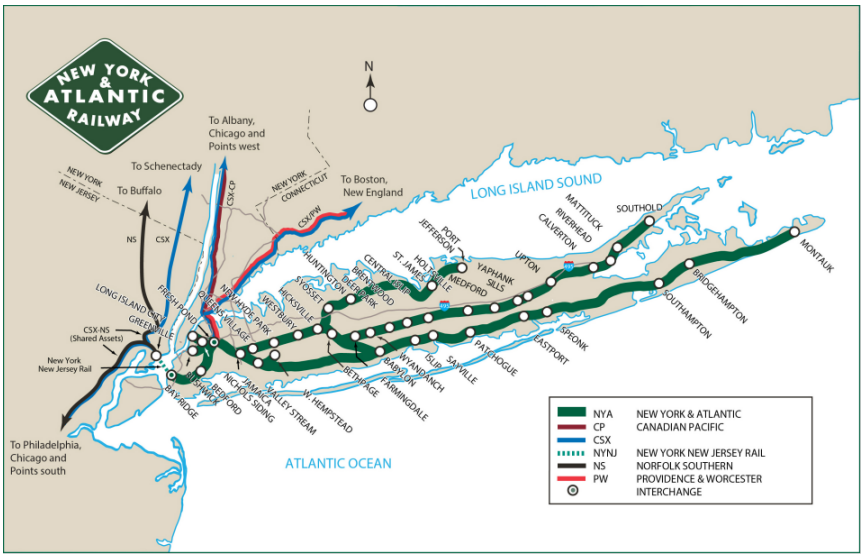
- In January of 2023, MTA/LIRR completed the East Side Access project, which extended the LIRR tracks from Sunnyside in Queens to Grand Central Terminal on the east side of Manhattan.

- To accommodate a projected increase in Long Island Rail Road ridership following completion of the East Side Access project, and to expand local and reverse-peak service, a third track was built on the Main Line

between Floral Park and Hicksville, in addition to eliminating each of the grade crossings and rebuilding all of the stations along this stretch of the Main Line Begun in 2016, the entirety of the third track was complete by October 3, 2022

Freight Rail

In May 1997, freight service was franchised on a 20-year term to the New York and Atlantic Railway (NYA), a short line railroad owned by the Anacostia and Pacific Company. It has its own equipment and crews, but uses the rail facilities of the LIRR. NYA connects with numerous other rail freight operators. THE NYA Freight routes are shown on the map to the right.



Source: New York and Atlantic Railways

Town of Riverhead Transit Oriented Development Project

The Town is currently working with selected developers to build a proposed Transit Oriented Development on two parcels in the vicinity of the Riverhead LIRR station. This development is intended to foster increased use of the LIRR by residents of the developments. The developers propose constructing a four- and five-story mixed-use building with 243 apartments, featuring parking on the ground floor and at-grade commercial use on the town-owned parking lot between Court Street and Railroad Avenue. Additionally, a mixed-use multi-level building with 36 workforce apartments, 332 public parking spaces, and retail shops is planned for a county-owned parking lot on Griffing Avenue. To facilitate this, the Town would sell the Railroad Avenue property to the developer, obtain the Griffing Avenue property from Suffolk County (retaining a portion for a Town-owned parking structure) for ultimate transfer to the developer.

Proposed Bike Route Network for Riverhead LIRR Source: MTA First- and Last-Mile Access Mobility Study & Toolkit Development Riverhead, NY Pilot Report (VHB/KFH Group)

First Mile/Last Mile MTA Pilot Project

The Town of Riverhead was selected to participate in the MTA's First Mile/ Last Mile Pilot project, which looked at ways to make biking safer and more efficient to Riverhead Station and downtown. The pilot study yielded recommendations, identified funding and resources for implementation, and a toolbox for exploring additional measures enhancing LIRR usage. Riverhead was selected for the pilot program in 2022.

Bike Routes 24 and 25, intersecting Riverhead, provide wide shoulders. An interconnected bike lane network is proposed, categorized by priority, considering the phased construction of lanes. Prioritization is based on connectivity, trails, and LIRR access, subject to factors like cost and community feedback. Bike enhancements, including parking, aim to divert more resources to the station area and encourage biking for station access. With DRI grant funds, planned pedestrian improvements, Mobility Hub Project, and the bike pilot, these initiatives become catalysts for TOD investment in the downtown area, supported by robust multi-modal improvements.

Suffolk County Transit

Suffolk County Transit (SCT) is the provider of bus services in Suffolk County, including the Town of Riverhead and is an agency of the Suffolk County government. Prior to 2023, SCT operated four routes in the Town of Riverhead, the S-58, S-62, S-66 and the S-92, as well as the S-8A feeder, which served as a circulator to connect communities to the main bus routes. Some SCT bus routes have been running the same paths since SCT took over management of transit services in 1980, and many of these route patterns were run for decades before that by private operators. Suffolk County Accessible Transportation (SCAT) provides permanently or temporarily disabled passengers curb-to-curb public bus service to any location within 0.75 miles of a Suffolk County public bus route. SCAT also provides rides to the companions and personal care attendants of disabled passengers. Reservations must be made one to seven days in advance of the trip.

Source: Google Image

Most U.S. transit agencies have seen declining transit ridership over the past decade, and in the ten years prior to 2021, ridership on SCT's fixed route services had declined by about 25%. However, from 2003 through 2019, most major routes serving Riverhead experienced growth in ridership, as shown in the table below. Note that several of the routes in the table extend beyond Riverhead, and riders outside the Town are included in the totals. In addition, the Covid 19 pandemic had devastating impact on ridership on all public transportation systems, although due to demographic factors commuter rail systems were more severely affected than bus transit systems in general.

Trip lengths were long on the major routes, with service largely provided on an hourly basis with limited or no service on Sundays. The S92, with service extending from Montauk Point to Orient Point, was the most heavily used Suffolk Transit route on eastern Long Island. In 2019, nearly 373,000 riders used the S-92 route.

Suffolk Transit Ridership			
Route	2019	2003	Change
S-58	197,997	169,130	28,867
S-62	104,533	115,067	-10,534
S-66	216,051	166,954	49,097
S-92	372,846	280,717	92,129
8A	33,291	38,753	-5,462
Total	924,718	770,621	154,097

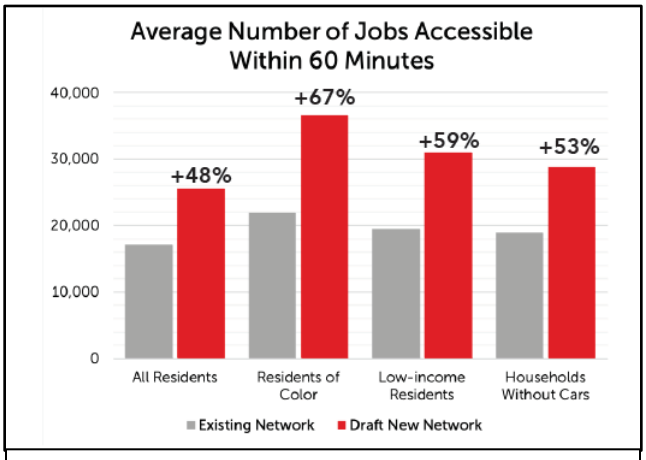
Change in Ridership 2003 to 2019 Suffolk Transit Routes Serving Riverhead, NY

Source: Suffolk Transit

Notwithstanding the growth in ridership in general, daily boardings and alightings at nearly all stops in Riverhead were low, with the most popular stops being the County Center, Peconic Avenue and the LIRR station.

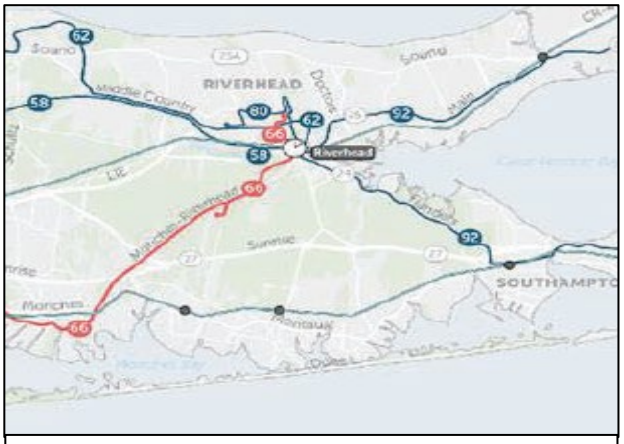
In response to low and decreasing ridership on the system as a whole, and the changing needs of the travelling public on Long Island, as recommended in the 2012 Connect Long Island, the Suffolk County Planning Department undertook the Reimagine Transit initiative, which builds on the Connect LI regional transportation and development plan to redesign Suffolk County's fixed-route bus network and on-demand mobility services, and identify opportunities for the use of new mobility tools, like on-demand transit services. Under this initiative, the County developed several new concepts and a draft service map, the intent of which is to change the focus of bus service in Suffolk County from a coverage-oriented system to a ridership-oriented system.

The draft plan was released to the public in 2022 for comment, underwent refinement based on public comment, and the new schedule was implemented in the Fall of 2023. The chart on the right shows the anticipated impact of the service changes with respect to access to employment for transit users. As can be seen, the service changes have the potential to significantly improve access to employment for segments of the population usually considered more inclined to utilize transit for their work trips. It is anticipated that SCT will conduct ridership surveys to assess the effectiveness of the new network once the service changes have been in effect for a reasonable period.



Source: Reimagine Transit – Suffolk County Mobility by Jarrett Walker and Associates February 2022

A draft new bus network was released by SCT, which included changes to route alignments, although system changes are not limited to new route alignments. Under the new system, the entire network will operate seven days a week, while weekday hours of operation will be extended system wide. Compared to the existing network, there are many more routes which run every 30 minutes. The new system will offer timed connections at seven locations across the County to reduce wait times, strengthen connections to the LIRR, and get people to their destinations faster, including Riverhead at the Suffolk County Center where Routes 58, 66, and 92 would be timed to meet.



Suffolk Transit Final New Network, Riverhead NY
Source: Reimagine Transit – Suffolk County Mobility by Jarrett Walker and Associates February 2022

Route 92 experiences only a minor alignment adjustment compared to the existing Route S92. This change simplifies deviations made by Routes 92 and 8A. The schedule has been modified to offer regular hourly service during the midday, along with additional peak period trips similar to the current schedule. Timed connections are established every hour at Riverhead County Center, where northbound and southbound buses on Route 92, along with Routes 58 and 66 from the western part of the County, can meet. This ensures more consistent and reliable timing for Route 92, increased service frequency for Peconic Bay Medical Center, and timed connections between Routes 58, 66, and 92 at the County Center.

Initially eliminating the 8A feeder route, public feedback during the rollout led to the introduction of a modified 8A, now named Route 80, providing circulator service in Riverhead. Sunday service is available on all routes, and more frequent nighttime service is offered. The implementation of the new network is expected to increase the number of jobs in Riverhead reachable by bus within 60 minutes by 2000. The network also envisions creating seven new transit hubs at LIRR stations, facilitating timed connections between bus routes and LIRR trains. Additionally, a flexible service is being piloted in the Southampton area to cover areas with low ridership.

Pedestrians and Bicycles

Pedestrians

Pedestrian facilities in the Town vary based on location, adjacent development, and responsible agencies. Downtown, commercial centers, and hamlet areas, especially on NYSDOT and SCDPW roadways, typically have sidewalks. Less built-up and agricultural regions may lack pedestrian facilities, reflecting a common condition in communities across the country.

Sidewalk and Pedestrian Crossing on NY25 in Downtown Riverhead

Source: Google Image

The major agencies, SCDPW and NYSDOT, prioritize pedestrian and bicycle travel when improving facilities, requiring compliant sidewalks for developed properties along their roadways. However, current conditions vary; for instance, CR58 generally has continuous sidewalks on one side or the other, as does Peconic Avenue from the Peconic River to Main Street. North of CR58, little sidewalk is provided on Roanoke Avenue, where roadside development is residential in nature, and would clearly benefit from improved pedestrian facilities. On NY State highways, NY25 and NY25A, similar conditions prevail. Built up areas see some pedestrian accommodations, and less intensely developed areas see little or none. In addition, it is noted that while a detailed in inventory of these facilities was not conducted, field observations indicate that a substantial amount of the existing pedestrian facilities do not appear to be in compliance with current accessibility guidelines, including lack of compliant pedestrian ramps, non-standard sidewalk widths, the presence of obstructions that are not appropriately treated, lack of turning areas, and the lack of pedestrian accommodation on traffic signal equipment.

Discontinuous Sidewalk on NY25 West of Downtown

Source: Google Image

Pedestrian facilities on Town roads generally follow the same patterns, although with a much greater degree of non-compliance with current standards. Town standards do not include a requirement for sidewalks, and sidewalks on Town roads are somewhat less robust than on roadways under the jurisdiction of the two major agencies.

The Town at present does not have a formal Safety Action Plan (formerly referred to as a Pedestrian Safety Action Plan) based on FHWA guidelines to identify locations where pedestrian safety improvements are needed. Having a Safety Action Plan in place can help leverage access to federal infrastructure funds for implementation of improvements where deficiencies have been identified.

Bicycles

Bicycle facilities within the Town of Riverhead include two New York State Bicycle Routes, 24 and 25, which provide wide shoulders for cyclists. Bike Route 25 extends from Orient Point on the eastern tip of the North Fork westward through Riverhead, to Smithtown, NY. This route primarily travels along State Route 25 east of Riverhead, and from Riverhead west the route is on smaller/local roads. Bike Route 24 connects Bike Route 25 to Old Riverhead Road, just north of State Route 25. In addition, there are numerous connecting routes and the recently opened Vietnam Veterans Memorial Recreation Trail at the Calverton Enterprise Park (EPCAL), a continuous 10-mile loop using the security road around the perimeter of the former Grumman facility in Calverton. Bike racks are provided at numerous Town beach, park, marina and community center locations.

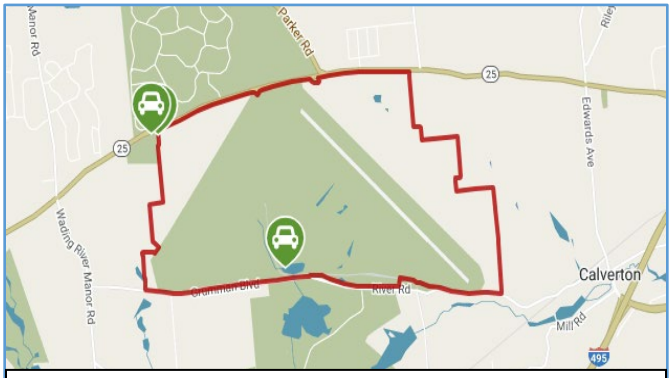
Source: SCDPW Bike Ped Master Plan

The North Shore Rail Trail, formerly known as the Rails to Trails Recreational Path, is a 10-mile multi-use recreational path that was completed in 2022. It runs along the former Wading River railway corridor in Brookhaven. From its eastern endpoint on Wading River Manor Rd, the trail runs west from the hamlet of Wading River to the border between the hamlets of Mount Sinai and Port Jefferson Station. Paralleling NYS Rt. 25A, the North Shore Rail Trail connects local recreational areas, schools, businesses, residential areas and athletic fields. There are trail kiosks at both endpoints and quarter-mile markers along the route. The North Shore Rail Trail is part of Suffolk's county-wide Hike and Bike Master.

With the exception of the NYS bike routes, much of this bicycle infrastructure has been implemented since the 2003 Master Plan, largely through the efforts of the Town's ad-hoc Alternative Transportation Committee.

While Town roadway standards currently require 14-foot wide curb lanes, which is sufficient to accommodate bicyclists riding in mixed traffic, the Town code does not at present include any requirements for accommodations for pedestrians and bicyclists on private development applications. Town development standards do not specifically reference or require such accommodations either.

In 2019, the Town of Riverhead completed the EPCAL Alternative Transportation Path, which loops around the 2,900-acre Enterprise Park at Calverton (EPCAL) and links to the 65-acre recreational facility on the western portion of the park. The trail utilizes the perimeter road that was once used by Grumman Corporation personnel for security during its more than 40 years of operation. EPCAL is adjacent to an existing 491-acre industrial park and future commercial uses once a subdivision is completed by the town on the remaining acreage available for private investors. The park's continuing redevelopment is expected to result in economic investment and employment as it will be attractive to companies to be near amenities that promote a healthy lifestyle to employees.



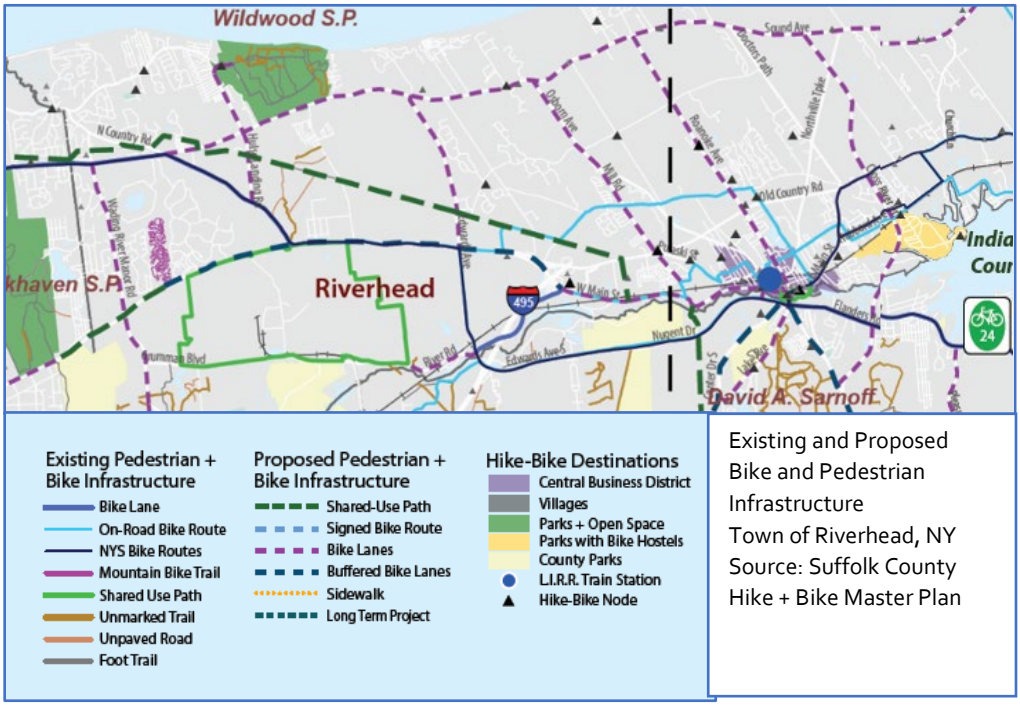
EPCAL Alternative Transportation Path Source: TrailLink by the Rails to Trails Conservancy

In 2019, Suffolk County launched a regional Bike Share system, which was owned and operated by Zagster. According to the County, the system was expected to contribute to the local economy by increasing access to bicycles for tourists as well as extending the reach of existing transit networks via critical last-mile connections between transportation hubs and other destinations. The Town of Riverhead had planned to participate but Zagster company went out of business shortly after the COVID-19 pandemic struck.

In 2021, Bethpage Ride, a bike-sharing program operated by Pedal Share, began operating in four communities on Long Island, including Riverhead. The system includes 22 stations with a total of 100 bicycles. Bikes are available for rental during warm weather months. Bike racks are located at the Enterprise Park at Calverton recreational trail, as well as at Town Hall, the train station and in downtown Riverhead

Suffolk County Hike Bike Master Plan

In 2020, the Suffolk County Department of Economic Development and Planning (SCEDP) issued the comprehensive Suffolk County Hike + Bike Master Plan (the Plan) intended to facilitate development of safe, integrated, and well-designed network of pedestrian and bicycle facilities throughout the County. The focus of the Plan is to identify both point projects and linear network improvements to improve the comfort and level of connectivity of the active transportation network. This Plan primarily includes the development of a proposed network of on-road and off-road bike facilities, shared-use paths, and sidewalks. Several of the plan's recommendations are for bike facility improvements in the Town of Riverhead, including a shared use path in Calverton and bike lanes and signing on NY25 west of Downtown to the Tanger Outlet Center. Implementation of the recommended network and improvements is intended to expand mobility choices and improve the quality of life for County residents, reduce the reliance on automobiles, promote public health and boost economic activity.



Existing and Proposed Bike and Pedestrian Infrastructure
Town of Riverhead, NY
Source: Suffolk County Hike + Bike Master Plan

MTA First Mile Last Mile Pilot Project

The Town of Riverhead was selected to participate in the MTA's First Mile/ Last Mile Pilot project. The Town decided that making biking safer and more efficient to Riverhead Station and around the downtown area should be the focus of the effort for the pilot study. This is discussed in greater detail in the Public Transportation portion of this chapter.

Goals and Recommendations

Goal 1: Alleviate congestion, elevate safety, and improve mobility on current infrastructure without excessive expansion.

Traffic congestion has not been identified as a widespread issue town-wide based on public outreach for this Plan. Public input largely confirmed this observation, with a focus on enhancing traffic conditions during the increasingly popular tourist season on the North Fork. Critical transportation goals include improving seasonal/tourist-related traffic flow on NY25, Sound Avenue, and CR58. Specific locations identified through public input, highlighted capacity and safety concerns at the NY25/Edwards Avenue intersection, congestion on CR58 between I-495 and the Roanoke Avenue Traffic Circle, and long queues on the eastbound NY25 approach to CR105. Safety concerns at the intersections of Harrison Avenue/Middle Road and Osborne Avenue/Sound Avenue were raised, with public support for considering traffic signal or roundabout installations. For NY25 at Edwards Avenue, NYSDOT has a design-stage improvement project, and SCDPW is advancing a project to study and enhance traffic signal coordination along CR58 for recurring congestion.

The objective is to optimize the efficiency of existing facilities, ensuring a balanced approach that meets the community's transportation needs without unnecessary expansion. Recommended implementation measures are described below.

1.1: Develop capacity and safety improvements through management strategies.

Planning-level capacity analyses conducted along major roadways in the Town indicate that for the most part, roadways in Riverhead can provide adequate capacity to accommodate anticipated growth. While areas of local congestion exist, large scale capacity improvements are not necessary. One exception is NY25 (see Goal 2).

Some specific intersection improvements identified include:

- *NY25/Middle Country Road and County Road 105/Cross River Drive*: Consider extension of the eastbound right turn lane on NY25 and the installation of a second northbound-to-westbound left turn lane. The East End Food Institute in the southwest quadrant intersection would be of significant size, possibly requiring a service road on its west side, along with a driveway access to CR 105 consisting of right turns in/right turns out only. This issue has been referred to SCDPW for short-term solutions, likely involving increased queue storage at the intersection approaches.
- *Sound Avenue at Edwards Avenue: Consider* a dedicated westbound-to-southbound left turn lane to prevent westbound traffic queues. These occur when left turning motorists need to stop in traffic to wait for gaps in oncoming traffic to make their turns (after the left turn arrow disappears).

1.2: Develop/Implement Town-wide access management and complete streets policies

Access management can increase capacity on existing facilities by limiting the number of vehicular conflict points where vehicles enter and exit roadside development. By combining access points, restricting access points to side streets, and limiting allowable turning movements, access management strategies reduce delay-causing crashes, as well as increase safety for pedestrians.

Complete Streets are streets designed and operated to enable safe use and support mobility for all users. Those include people of all ages and abilities, regardless of whether they are travelling as drivers, pedestrians, bicyclists, or public transportation riders. Complete Streets approaches vary based on community context. They may address

a wide range of elements, such as sidewalks, bicycle lanes, bus lanes, public transportation stops, roadway crossing opportunities, median islands, accessible pedestrian signals, curb extensions, modified vehicle travel lanes, streetscape, and landscape treatments. Complete Streets reduce motor vehicle-related crashes and pedestrian risk, as well as bicyclist risk when well-designed bicycle-specific infrastructure is included.

1.3: Utilize roundabouts to increase capacity while *reducing crashes.*

Roundabouts more efficiently distribute capacity to intersection approaches while reducing speeds and lowering the number of high severity crashes. Rather than installing new traffic signals, the Town should consider roundabouts first as NYSDOT already does. The Osborn Road/Middle Road/Horton Avenue intersection is an example of a constructed roundabout serving Town roads. A roundabout might also serve to address traffic issues at the Sound Avenue at Edwards Avenue intersection discussed above. In addition, the intersections of Reeves Avenue at Roanoke Avenue and Reeves Avenue at Horton Avenue have been identified by Town staff as potential locations for safety improvements, which should include consideration of roundabouts.

1.4: Work with Suffolk County Department of Public *Works to improve CR58.*

The $8 Million improvement to CR58 in 2010 by SCDPW, which included an additional travel lane throughout much of its length, lacks continuous ADA compliant sidewalks, has no bus shelters or turnouts, and lacks sufficient shoulders. The Town should work with SCDPW to revisit this design and improve the corridor for all users. A "boulevard" design similar to NY347 could be considered. In addition, intersection geometry should be reviewed to ensure that pavement markings, turning radii, lane widths and traffic control devices are in compliance with current standards.

The long-term transportation strategy for the CR58 corridor should include at a minimum, shoulders, sidewalks, bus stops and shelters, and turning lanes where needed. These improvements would require the pursuit of cross access agreements with private owners as additional right-of-way width is needed. The 2003 CMP recommended that private developers be engaged to ensure participation in the process, through property dedications, internal cross access arrangements, and site plan design that enhances access and mobility for all users, pedestrian, bicycles, transit and private automobiles. This opportunity continues to exist during the redevelopment process.

Photo of completed section of NY 347 in Hauppauge/Smithtown. NYSDOT had developed this Complete Streets concept for the entire length of NY 347, from Hauppauge to Mt. Sinai in the Towns of Smithtown and Brookhaven. The noise walls are constructed in residential areas that abut NY 347. Improvements include a shared-use path along the south side of the roadway and bus stop shelters. Source: Google Earth

1.5: Investigate high crash locations and develop mitigation.

Based on a 5-year accident history (2018-2022) using NYSDOT's Crash Location and Engineering Analysis Repository (CLEAR), "intersections with the highest number of crashes on major (County or State) roadways, along with the total number of crashes, include the following:

- CR58/Old Country Road at CR73/Roanoke Avenue (Roundabout).
- CR58 at Mill Road.
- CR58 at Kroemer Avenue.
- NY25 at CR105.
- CR58 and CR43/Northville Turnpike.

Recommendations at these intersections should be discussed with NYSDOT and Suffolk County DPW representatives. SCDPW should be contacted to ensure that high crash locations on County roads, including CR58, are included in SCDPW's upcoming Strategic Highway Safety Action Plan (SHSAP). The SHSAP will identify high-risk locations, collision patterns, and develop a prioritized list of systemic short, medium, and long-term strategies and countermeasures.

Two locations where Town roads intersect and have high crash totals, when overall traffic volumes are considered, are on Sound Avenue:

- *Sound Avenue at CR 43/Northville Turnpike.*
- *Sound Avenue at NY 25A*.

The Town should initiate safety studies at these locations in the near term. Mitigation measures should include consideration of the installation of roundabouts. Preliminary examination of the traffic volumes at these locations indicate that single lane roundabouts would be sufficient to accommodate the demand. However, long term traffic projections should be developed during the preliminary design phase of any improvement projects at these locations, to ensure that future traffic demand is considered in the design.

Goal 2: Preserve and enhance historic and scenic corridors while improving traffic flow and safety.

The Scenic and Historic Resources chapter of this plan focuses on safeguarding Riverhead's scenic views. Zoning recommendations aim to maintain corridor character through adjustments in allowable density and setbacks. Simultaneously, the plan advocates for roadways that provide accessibility to these areas without compromising their unique features or community context. The goal is to protect significant views and scenic viewsheds, ensuring they remain unaffected by transportation changes while enhancing mobility and access for the community.

2.1: Conduct corridor studies to identify context sensitive short- and long-term improvement strategies.

Along identified or designated corridors, studies should be conducted to determine the appropriate balance between mobility and preservation of the historic features of the corridors. These studies should be reflective of the public's desires for the future of the corridors, and not simply accommodate projected increased demand. Potential subject areas include rural corridors along Sound Avenue, as well downtown hamlet centers with potentially significant features, such as buildings with period architecture, etc. The proliferation of signing, both private and public, should be avoided, and capacity and traffic control improvements should be considered in context. Traffic signals can have negative visual impact, and should be carefully considered.

Potential candidate corridors for analysis representing three different corridor types include: a rural, agricultural / agritourism corridor (Sound Avenue), a "Hamlet Main Street" type corridor (Main Road east of CR105), and an open agricultural corridor that has adjacent industrial zoned property that is under pressure for development with renewable energy uses (Edwards Avenue).

2.2: Develop design criteria for designated corridors.

Design criteria, essentially a style book for transportation improvements, should be developed for scenic corridors, with Sound Avenue as a priority. The design criteria would address signage, striping, materials, lighting, landscaping, and other elements in the right-of-way. Recommendations include the following process for preservation and enhancement of the historic and scenic corridors:

- Review and Update Land Use policies along historic and scenic corridors
- Develop Criteria for Designation of Corridors
- Identify Candidate Corridors, Apply Criteria, Designate Corridors
- Conduct Corridor Studies to Identify Context Sensitive Short and Long Term Improvement Strategies
- Develop Implementation Strategy, Including Funding Sources

2.3: Continue to coordinate with the North Fork Transportation and Traffic Task Force

The Suffolk County Department of Economic Development and Planning has established the North Fork Transportation and Traffic Task Force (NFTTTF), covering the entire North Fork, including Riverhead and Southold Towns, and the Village of Greenport. This Task Force aims to identify and develop specific action items to alleviate vehicular traffic congestion and pedestrian safety concerns in Riverhead and Southold, especially during summer and autumn. The Task Force pinpointed areas of concern, including some in Riverhead, and proposed cost-effective measures. Ongoing meetings are anticipated to discuss pilot improvements and plan next steps.

The Plan advocates ongoing close coordination with the Task Force to identify improvement projects and funding sources that address cross-boundary issues. This collaboration involves the Towns, Village of Greenport, Suffolk County, and the New York State Department of Transportation. The Town of Riverhead is encouraged to actively participate in this long-term planning effort.

Goal 3: Goal: Support economic growth at EPCAL through a well-defined transportation plan.

The future of EPCAL development presents new opportunities for redevelopment strategies, including potential Land Uses and proactive measures to ensure any impacts are addressed. Regardless of the nature of the ultimate development, improvements to the transportation system will be required to accommodate the additional traffic expected to be generated. NY State's involvement should be overseen by its Empire State Development Agency.

3.1: Review and update off-site improvements needed to mitigate EPCAL traffic.

The FGEIS prepared for the 2016 EPCAL Reuse and Revitalization Plan identified substantial improvements to the transportation system that would be necessitated by phased build-out of the 2,324-acre EPCAL parcel. The improvements were based on assumed levels of trip generation that would occur, based on phased development of the property under the adopted Planned Development District (PDD) that was the subject of the FGEIS. A similar process should be undertaken for any new proposals considered by the Town.

3.2: Identify parties responsible for mitigation.

The ultimate outcome for the property remains in flux; however, regardless of the final plan for the property, a plan should be put in place that identifies parties responsible for traffic mitigation, explores potential funding sources, and has a realistic implementation schedule. A significant majority of the responsibility for implementing the mitigation should be borne by the developer, which should be documented at the outset of development. Mitigation should be implemented prior to the onset of operations of the new development.

3.3: Initiate needed roadway improvements by other agencies.

The 2016 traffic mitigation plan identified the need for widening NY25 from William Floyd Parkway in the west to I-495/LI Expressway in the east to provide two travel lanes in each direction, regardless of the ultimate development of EPCAL. NYSDOT's five-year Transportation Improvement Plan (TIP) contains no plans to implement this improvement. Discussions should be held with NYSDOT to initiate the planning and design process in this regard. In the past, NYSDOT has expressed the willingness to engage with the Town regarding the long-term solution for NY25.

An alternative to some of the improvements needed on NY25 could be the construction of an access road to the south from EPCAL, generally following Connecticut Avenue and Halsey Manor Road to the Long Island Expressway, and extension of service roads to the west to CR111/Eastport Manor Road (Exit 70). That alternative would need to address the presence of Long Island Pine Barrens lands, freshwater wetlands, and residences, primarily along the north-south portion of its route and would also require coordination with the Town of Brookhaven.

3.4: Explore expanded use of rail transportation for EPCAL, for both people and freight.

The existing rail spur connecting the LIRR main branch track to the EPCAL property should be an integral part of the transportation solution for the property. The spur currently carries freight only. Development plans should include use of the spur, and consideration should be given to utilizing the spur for passengers as well as freight. Passenger service could be provided from the Ronkonkoma LIRR Station east to Riverhead, with a transfer at Riverhead to a shuttle service to EPCAL. Any required upgrades to the spur should be included in the solution.

Freight

Movement of freight by rail has the potential to remove many truck trips from the local roadways, and to minimize the impacts of development at EPCAL on the transportation system. In light of public concern regarding recent applications for significant new warehouse space in the Town, rail freight service could help catalyze industrial development at EPCAL, which has been the subject of significant public concern.

Passenger Rail

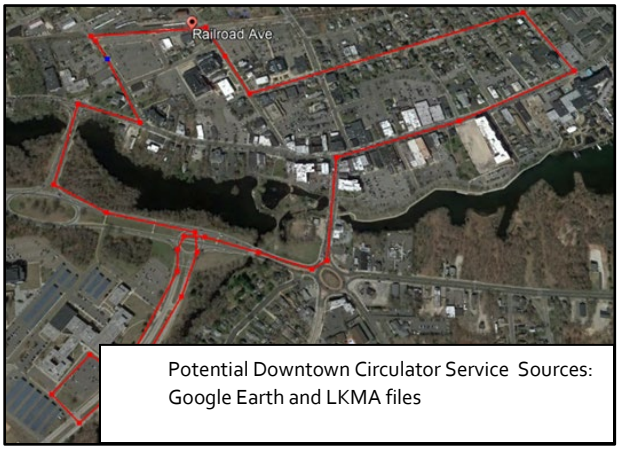
The rail spur serving the EPCAL property was rehabilitated in 2010 to industrial rail standards. Providing passenger rail service via this link would require determining that the facility is adequate for safe passenger rail service. The Town should consider contracting for services to initiate the process for this determination.

Goal 4: Foster increased use of public transportation.

Residents generally supported enhancements that would increase the use of public transportation in Riverhead. The goal includes recommendations to enhance accessibility, awareness, and overall adoption of public transportation options. The aim is to create a community environment that fosters the convenience and benefits of utilizing public transit, contributing to a more sustainable and efficient transportation system.

4.1: Install bus turnouts on CR58 and other major bus routes.

Increased rider comfort and ease of boarding and alighting encourages bus ridership. SCDPW did not include bus facilities when CR58 was last improved, nor are shelters provided in most other areas in Town on County Roads. If the new transit network recently implemented by SCT is to be successful in significantly improving access to employment by SCT, impediments to ridership should be minimized or eliminated wherever possible.



Potential Downtown Circulator Service Sources: Google Earth and LKMA files

4.2: Work with LIRR for increased service.

LIRR has indicated a willingness to provide improved services including added trains and service and schedule improvements and modifications in communities that commit to pursuing locally driven Last Mile First Mile initiatives. Insofar as the Town of Riverhead has demonstrated its willingness to do so by participation in the MTA pilot program, improved services should be sought. As stated, the new network recently implemented by SCT, along with prior changes to the system including the addition of bike rack to all SCT buses since 2003 have addressed a number of recommendations made in the 2003 Master Plan. Based on public input as part of the Plan update, as well as consultation with stakeholders and Steering Committee members, the following measures are recommended to provide continued improved service for existing transit users, as well as to attract new users to the system.

4.3: Work with Suffolk County Transit to improve and implement a new bus plan.

Suffolk County Transit (SCT) has recently completed the Reimagine Transit initiative, which redesigned the agency's bus system to improve access to employment, rather than the prior focus on geographical coverage. The Town should work with SCT to determine the appropriate location for the transit hub, which was proposed for Downtown Riverhead.

4.4: Continue to Pursue First Mile Last Mile Strategies for the LIRR Station

The First Mile Last Mile pilot project discussed above will help advance the Town's goals of improving access to the LIRR station, and funding for its implementation should be pursued. The MTA report provided important next steps in implementing the program and identified potential funding sources. These resources should be pursued by the Town.

In addition, other potential First Mile Last Mile measures should be investigated, and MTA/LIRR participation sought. Circulator service within the downtown area, and shuttle service to outlying areas are two LM/FM strategies that could foster the increased use of LIRR service, and encourage LIRR to provide additional service.

4.5: Amend site plan requirements in the Town code to facilitate and encourage bus use

Bus shelters and turnouts on major developments with frontage on roadways where transit is provided should be required. If needed, property dedications should be obtained during site plan approval process. Improved connectivity between the existing pedestrian facilities and internal site features should be incorporated into site plan requirements, including continuous ADA compliant pedestrian ramps and sidewalks.

4.6: Consider Circulator Buses / Trolleys in downtown, in hamlet centers and between major destinations

Rather than relying on county or regional public transportation efforts, local public transportation solutions can reduce traffic and increase use by providing small scale service among local destinations. These could include the

County Center, downtown Riverhead, Sound Avenue (Seasonal) and the LIRR station. To facilitate this, it would be helpful to partner with a large institution/commercial use to help with funding, perhaps through permitting advertising on the vehicles. Circulator bus service has been successfully implemented in recent years in the Town of Southampton and the Town of East Hampton. The route depicted here could provide circulator bus service between and among major trip generators in the downtown area on a route that is less than three miles long.

Goal 5: Encourage use of Alternative forms of transportation (pedestrians and bicyclists)

Public input received during the public comment efforts, including the online survey, outreach meetings and public workshops indicated general support for continuing to improve pedestrian safety and bicycle access in the Town. Public commentary regarding the pedestrian experience in Riverhead focused primarily on the lack of sidewalks in specific locations. Some of the specific areas mentioned regularly include

- Need for improved pedestrian and bike facilities on CR58, and connections between sidewalks.
- Bicycle safety - most roads are not welcoming, particularly those that are unlit
- Sound Avenue was noted as particularly problematic for bicyclists
- Need for improved sidewalks in the vicinity of schools, especially Riverhead High School. For example, while there is an existing sidewalk on the east side of Harrison Avenue to the High School, no sidewalk or shoulder exists on the west side. Sidewalks are also lacking along North Griffing Avenue, which runs along Pulaski St, athletic fields, Riverhead Middle School, BOCES, and Riverhead High School.
- Concern expressed about the safety and usability of existing marked bike paths

The town recognizes the importance of fostering a safe and accessible environment for non-motorized travel, contributing to both the well-being of residents and the overall sustainability of the community. By creating infrastructure, policies, and awareness campaigns that prioritize pedestrian walkability and bicycle-friendly pathways, Riverhead aims to enhance the quality of life for its residents while reducing environmental impact and promoting a healthier lifestyle. This goal aligns with the Town's vision for a more inclusive, sustainable, and vibrant community.

5.1: Develop a Safety Action Plan (SAP)

A Safety Action Plan (formerly referred to as a Pedestrian Safety Action Plan) identifies areas in need of pedestrian safety improvements, develops solutions, prioritizes locations and provides a schedule for implementation. By having a PSAP in place, municipalities can leverage funding from State and Federal local sources to make needed improvements. Assistance in developing a SAP is also available at the federal level. SAP funding has been replaced by SS4 (Safe Streets for All Road Users) funding.

5.2: Conduct Walkability Audits in Hamlet Centers

Walkability audits identify gaps in accessible pedestrian paths, examine connectivity between land uses and public pedestrian facilities, and identify impediments to pedestrian use. Walkability audits can also assist in identifying needed improvements to the pedestrian system, such as sidewalk and crosswalk construction and installation of pedestrian Walk/Don't Walk symbol signals, installation of mid-block pedestrian crossings, and other pedestrian safety countermeasures. These audits can facilitate procurement of grant-funded improvements, like those in low- and middle-income communities funded by the Community Development Block Grant (CDBG) program.

5.3: Review / Update Site Plan Requirements for Pedestrian and Bicycle Facilities

Installation of sidewalks along site frontages of all newly developed and redeveloped properties should be included in site plan requirements. (In some cases sidewalks, or easements for them, could be procured when development rights are purchased by the County, and later extinguished to permanently preserve the property.) Sidewalks should be extended beyond individual sites to nearby street crossings and sidewalk "dead ends" avoided, where feasible.

An accessible pedestrian path should be provided between the external sidewalk and internal site features. Bike racks should be provided near the entrances of buildings. Residential subdivisions should provide bike-friendly internal roadways. Parking requirements included in the building code should be revisited to reduce excess parking, which will allow for additional pedestrian amenities on-site, as well as reducing impermeable surfaces.

5.4: Coordinate and Implement Bike Route / Bike Lane Improvements

A project to implement bike facilities on NY 25/West Main Street from Mill Road to Peconic Avenue (1.4 miles) is underway. Investigate a connection to the Port Jefferson – Wading River "Rails to Trails" shared-use path which avoids farmlands impacts. That path connects (via approximately one mile of bike lanes along NY25A in Port Jefferson Station) to the Setauket-Port Jefferson Station Greenway Trail. Work with the Trust for Public Land to implement completion of Empire State Trail/LI extension, and with Suffolk County Planning for the newly funded LI Greenway east extension, from Riverhead to Montauk Point.

In addition, connections to the Suffolk County Blueway Trail should be provided as the trail is implemented. The Blueway Trail provides suggested routes depending upon skill level and the locations of features such as rest stops, scenic locations, good birdwatching and amenities such as restrooms, concessions, nearby businesses and parking. The Peconic River in Downtown has been identified as one of the 20 Priority Locations in the Plan.

Roadways within the Town which have been identified in Suffolk County's Hike/Bike Master Plan for bicycle and shared-use path improvements include bike lanes on north-south roads such as Edwards Avenue (north of NY25), Mill Road/Osborn Avenue, Roanoke Avenue and CR105. The Town should continue to work with Suffolk County and NYSDOT toward build out of the bike network identified in the master plan.

5.5: Review / Update Town Roadway Standards for Compatibility with Bike Use

On newly constructed or reconstructed Town roads, consideration should be given to bike lanes (a minimum 4' in width, 5' where curbed), bike bypass lanes at traffic signals, bike-friendly drainage basin grates, and other features to encourage bicycle use. Appropriate warning signs for motorists and bike route signs for bicyclists should be provided.

5.6: Review Town-owned facilities for Bicycle and Pedestrian Access

Town office buildings should be reviewed, and bike racks installed near entrances. The Town should consider bike repair kiosks in Downtown areas and near municipal buildings.

Town development standards do not specifically reference or require such accommodations either. Multi-unit residential and commercial properties should provide accessible internal pedestrian paths among site features including building access points and parking areas, and connections to external pedestrian features should also be required. Bike racks should be provided on commercial and multi-unit residential site plans.

Town roadway standards currently require 14-foot wide curb lanes, which, according to FHWA standards, is sufficient to accommodate bicyclists riding in mixed traffic. However, to foster increased comfort for bike users, bike Lane standards should be developed for use on roadways where appropriate. Drainage grates should be bike friendly, cross-slopes on shoulders should be modified, in accordance with FWHA standards.

Goal 6: Coordinate Transportation Improvements with adjacent Towns and other agencies

Recognizing the interconnected nature of regional transportation networks, the objective is to coordinate efforts to enhance infrastructure, optimize traffic flow, and address shared challenges. By working in tandem with neighboring municipalities and relevant agencies, Riverhead aims to create a more seamless and integrated transportation system that benefits the broader community, improves connectivity, and ensures a cohesive approach to addressing regional transportation needs.

The recommendations of this plan will require input and support from various entities that have jurisdiction over roads or operate public transportation in Riverhead.

- **Town Committees:**

  Engage the Alternative Transportation Committee to refine recommendations and to provide insights and recommendations for non-motorized and alternative transportation options, including biking, walking, and public transit. Collaborate with the Traffic Safety Committee to address road safety concerns, identify problem areas, and suggest measures to enhance traffic safety.
- **Adjacent Towns:**

  Liaise with neighboring towns, including Brookhaven, Southampton, and Southold, to share information and collaborate on transportation planning efforts. This collaborative approach will lead to a more integrated regional transportation network. The Town should work with the North Fork Transportation and Traffic Task force to assist in this collaboration to address regional transportation challenges specific to the North Fork area, fostering synergy between Riverhead and neighboring communities.
- **Suffolk County and NYSDOT**

  The Town should work closely with Suffolk County and NYSDOT as many arterial roads are within their jurisdiction. Collaboration efforts should ensure that transportation improvements align with land use goals and economic development strategies, ensuring that transportation supports local businesses and residents. The Town should also advocate for regular maintenance and strategic upgrades to maximize efficiency, safety, and minimize disruptions. NYSDOT can also assist aligning transportation improvements with state-level initiatives, promoting regional connectivity and funding opportunities.
- **Metropolitan Transportation Authority (MTA)/Long Island Rail Road (LIRR):**

  Collaborate with the MTA and LIRR to enhance connectivity with regional rail systems, improving access to and from Riverhead, and promoting sustainable commuter options.
- **NY State Economic Development:**

  Work with NYSEDC to ensure that transportation projects align with economic development goals and support the growth of local businesses and industries.