TOWN OF BARRINGTON

COMPLETE STREETS PLAN

Approved by Barrington Town Council, October 3, 2022

BARRINGTON COMPLETE STREETS PLAN

TOWN OF BARRINGTON, RI

October 2022

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1 INTRODUCTION AND PURPOSE

Introduction

The Barrington Complete Streets Plan is the Town's framework for carrying out the Complete Streets Policy adopted by the Town Council in 2019 calling for providing safe multi-modal streets within critical transportation corridors. In addition to infrastructure improvements, the Plan proposes actions to improve safety and access throughout the community, including speed limit adjustments, restriping, signage, and trail upgrades.

The Plan was developed by the Town's Department Planning, Building and Resiliency with the assistance of consulting engineer VHB of Providence.

Purpose

The Plan provides a list of priority roadways along with strategies for improving walking and bicycling connectivity and safety for each street or section of street. Improvements include new and reconstructed sidewalks, handicap ramps, crosswalk striping, striping of lane widths, signage, and adjustments to speed limits. The Plan also is intended to inform and prioritize long-term investments in the State's Transportation Improvement Program for State roads within the Barrington town limits.

Implementation of Complete Street projects will be based on several factors, including:

- A need to address an ongoing or emerging pedestrian/bike safety issue.
- Availability of funding for Complete Street projects on local roads.
- State approval and availability of funding for projects on State roads.
- Feasibility based on an internal assessment or a more detailed engineering study

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COMPLETE STREETS POLICY

On September 9, 2019, the Town Council adopted the following Complete Streets Policy for Barrington.

- **Purpose**

Complete Streets enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders, of all ages and abilities, making it easy to cross the street, walk to shops, and bicycle to work. Complete Streets principles contribute toward the safety, health, economic viability, and quality of life in a community by providing greater opportunities in multi-modal and non-motorized transportation.

The purpose of Barrington's is to establish a local street network that safely accommodates automobile, bicycle, and pedestrian activity within critical corridors for all users of all ages and abilities, with an emphasis on improving routes in the vicinity of schools, commercial and mixed-use areas, major roadways, and parks and recreational areas. The Barrington Complete Streets policy directs decision makers to consistently fund, plan for, design, and construct streets, including as part of repaving projects, consistent with the Complete Streets concept.

The Complete Streets Policy achieves multiple goals of the Town's 2015 Comprehensive Plan, including:

- **Circulation Goal C-2:** Provide a **balanced multi-modal transportation** system throughout the town to help reduce automobile dependency, enhance our community's character, and improve the health and well-being of our citizens.
- **Objective C-2.1: Increase the share of local trips made via walking and biking** - trips to school, to recreational opportunities, and to / within village commercial areas.
- **Policy C-2.1.1:** … **Enhance, promote connections to East Bay Bike Path**
- **Policy C-2.1.2: Reduce barriers to walking and biking to school** through infrastructure and non-infrastructure activities.
  …
- **Action F. Develop a "complete streets" policy** for Council approval,

encouraging a local street network that safely accommodates automobile, bicycle and pedestrian activity.

- **Applicability**

The Complete Streets policy is established on the principle that users of all ages and abilities of all modes of streets require access to safe facilities of all modes of transportation. All modes of transportation include, but are not limited to, pedestrians, cyclists, public transit and school bus riders, motorists, drivers of delivery trucks and emergency responders.

The Complete Streets policy considers all road projects – new, maintenance, or reconstruction – as opportunities to implement Complete Streets. The Town will work toward designing, constructing, maintaining, and operating a street network of facilities for people of all ages and abilities.

Exceptions to the Barrington Complete Streets policy include:

1) Locations where the cost of accommodation is excessively disproportionate to the need or probable use.

2) Documentation of an absence of current and future need.

3) Streets and sections of streets identified within a Town Council-approved Barrington Complete Streets plan as exempt from the requirements of this policy.

- **Complete Streets Objectives**

Barrington's Complete Streets is intended to achieve the following objectives:

1) **Remove or reduce barriers that limit access to destinations** – The project will alleviate the problem and the facility will be part of an existing multi or walkway network and link, complete, or extend systems. However, a project that is the first element of a planned multi or walkway system will also be valued. Isolated projects with no clearly defined origin or destination will be avoided.

2) **Connect destinations** – The purpose of the facility is to provide pedestrian links to destinations including transit stops shopping centers, and playgrounds and pedestrian oriented destinations.

3) **Create safe routes to schools** – The facilities will serve streets and the network surrounding schools.

4) **Promote linkages to trail network, Town Beach, access points to the shore** – The facilities will improve routes leading to and from trails on publicly owned and Land Trust properties, the Town Beach, and key public points of access to the shore.

Implementation will be carried out administratively coordination among all departments in the Town, the School Department, private developers as applicable, and state agencies.

The latest design guidance and standards available will be used in the implementation of the Complete Streets Policy, and ultimately development of a Complete Streets Plan. Examples include the RI Department of Transportation Highway Design Manual and the latest edition of American Association of State Highway Transportation Officials (AASHTO) A Policy on Geometric Design of Highway and Streets.

State and local road projects in which Complete Streets principles are applied will be planned and designed in a manner that considers stakeholder and community input.

The Planning Board will evaluate, on a periodic basis as determined by the Planning Board or at the request of the Town Council, the effectiveness of the Complete Streets Policy and implementation of the Policy to identify where the Policy has succeeded and where there are opportunities for improvement. The Town will develop performance measures to gauge implementation and effectiveness of the policies.

- **Implementation**

1) The Town will design road projects consistent with the Complete Streets principles and best practices for implementing policy, to include consistency with a Complete Streets Plan if available.

2) A Town Manager-appointed administrative review committee will review the list of streets proposed for resurfacing by the Department of Public Works for opportunities to apply the Complete Streets Policy, consistent with the Complete Streets Plan, prior to projects proceeding to the more detailed design stage. The administrative review committee, in evaluating potential Complete Streets projects, shall have the option to request input from the Technical Review Committee, serving in an advisory capacity.

3) The Town will develop and maintain a Complete Streets Plan, to include a comprehensive inventory of pedestrian (including trails) and bicycle facility infrastructure that will prioritize projects to eliminate gaps in the sidewalk and bikeway network. State roads shall be

included in the Complete Streets Plan to serve as guidance on proposed improvements to State roads[1], including projects in the State's Transportation Improvement Program.

4) The Planning Board will consider funding for the project priority list recommended in a Town Complete Streets Plan as part of the development of the 6-Year Capital Improvement Program budgets, as well as recommendations for inclusion on the State's Transportation Improvement Program.

5) The Town will seek additional sources of funding and grants for implementation of Complete Streets policies.

[1] State law (RIGL 24-16-2) requires consideration of complete street design features when the State constructs or modifies roads and highways (see http://webserver.rilin.state.ri.us/Statutes/TITLE24/24-16/24-16-2.HTM)

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EXISTING CONDITIONS

A. Transportation Infrastructure

Roads

Barrington has approximately 110 miles of State and Town-maintained roadways. Barrington's major artery is County Road (Route 114/103), the only direct route connecting Barrington with the neighboring community of Warren, with bridge crossings at the Barrington River and the Palmer/Warren River. Local roads, which account for about 75 percent of the total road length, provide access within neighborhoods and districts. These streets generally lack sidewalks and have low vehicular traffic volumes. Critical transportation corridors that are priority multimodal roadways are classified as arterials and collectors (see list below).

Expressway

State Roads

- Wampanoag Trail/County Road (RI 114 and RI 103/114) from East Providence Line to north of the County-Massasoit intersection

Principal Arterials

State Roads

- County Road (RI 103) from Riverside to the merge with Wampanoag Trial (RI 114)
- County Road (RI 103/114) from north of County-Massasoit intersection to Warren line

Minor Arterials

State Roads

- Massasoit Avenue
- Middle Highway from Nayatt Road to County Road
- Nayatt Road from Rumstick Road to Middle Highway
- New Meadow Road from Massasoit Avenue to Sowams Road
- Rumstick Road from County Road to Nayatt Road
- Sowams Road

Collectors

State Roads

- Barneyville Road

- Middle Highway from County Road to Prince's Hill Road
- Nayatt Road from Middle Highway to Washington Road
- New Meadow Road from Massasoit Avenue to County Road, and from Sowams Road to Massachusetts line
- Prince's Hill Road
- Washington Road

Town Roads

- Bay Road from Nayatt Road to Chachapacassett Road
- Bay Spring Avenue from Washington Road to Narragansett Avenue
- Chachapacassett Road
- Federal Road
- Ferry Lane
- Kent Street
- Lamson Road from Martin Avenue to New Meadow Road
- Lincoln Avenue
- Mathewson Road
- Metropolitan Park Drive to East Providence line
- Maple Avenue
- Martin Avenue
- Narragansett Avenue from Bay Spring Avenue to Metropolitan Park Drive
- Rumstick Road from Nayatt Road to Chachapacassett Road

Private roads represent a small fraction of the street network. The most significant are Mallard Cove Way off New Meadow Road and Woodhaven Road off Nayatt Road. The remaining private streets are short dead-end roads serving up to two lots.

Bridges

- Roadway Bridges: The State owns and maintains the three roadway bridges in town: Veterans Memorial Bridge ("White Church Bridge" or "Central Bridge"), the Lance Corporal Victor Patrick Andreozzi and Vietnam Veterans Bridge (Barrington River Bridge) and Warren River Bridge, all replaced since 2010. The bridges all have sidewalks on both sides, but no provisions for bicycles . Temporary modifications to the Barrington and Warren River Bridges in 2021 provided additional width for bikes and pedestrians on the north side of the bridge by removing the guardrails and constructing an 8-foot-wide wood walkway, protected from vehicular traffic by jersey barriers placed in the shoulder of the roadway. These measures are to remain in place until the East Bay Bike Path bridges are replaced over both rivers.

- Bike Path Bridges: The bike path bridges over the Barrington River and Warren River, originally railroad bridges built about 100 years ago, were closed in 2019 due to concerns about the severely

deteriorated condition of the wooden pylons supporting the structure. The RI Office of Statewide Planning's 2019 Bicycle Mobility Plan considers both bridges to be in "poor" condition, with a substructure and superstructure rating of "4" out of 10, and a deck rating of 5 out of 10 (see condition assessment photos – **Figure 3.1**). Since the closure, cyclists and pedestrians have had to follow detours to County Road to cross the two rivers via the vehicular bridges. The Town considers replacement of these bridges as urgent priorities requiring immediate and sufficient funding in the State Transportation Improvement Program.

Figure 3.1: Bike Path Bridge Condition Assessment Photos

Condition assessment photos of the East Bay Bike Path Bridge over the Palmer River (Source: RI Moving Forward Bicycle Mobility Plan, 2019)

Bikeway System

The East Bay Bicycle Path ties together Bristol, Warren, Barrington, and East Providence, as well as Providence via the I-195 bridge. Many types of users frequent the bike path – walkers, joggers, and bicyclists, including commuters. The bike trail is owned by RIDOT and maintained by the RI Department of Environmental Management.

In Barrington, the Bike Path is centrally located and directly connects local neighborhoods with a range of destinations including Haines State Park, Bicknell Park, the Bayside Y and Veterans Park, and the downtown Barrington and Bay Spring areas.

The Town has just one street with in-street (unprotected) bike lanes – on Kent Street, about a half mile in length. The Town also striped "sharrows" (share the road) markings in the travel lanes of Wood Avenue, about 600 feet in length, as part of the 2018 Village Center Streetscape Project.

Sidewalk System
Barrington has approximately 17 miles of sidewalks on public roads. As shown in Map C-3, the sidewalks are primarily along major thoroughfares and in the vicinity of the schools, commercial areas, and the Government Center.

The Town requires sidewalks to be included in new projects within commercial areas and in subdivisions located near schools. In 2012, the Town revised the Zoning Ordinance to allow the Planning Board to require a payment-in-lieu of providing sidewalks to provide funding for off-site sidewalk improvements, in cases where requiring a sidewalk is not warranted.

Trail System
Barrington's trail system can help achieve Complete Streets objectives by providing alternative off-road access for pedestrians and cyclists. These opportunities are site-specific. For example, the main trail at St. Andrew's Park extends between the end of Fountain Avenue to Middle Highway – a safe route to school for Middle School and Primrose Hill School students.

Another example is the Hampden Meadows Greenbelt trail extending between Linden Road to Kent Street, and Kent Street to the rear of Sowams School. Trailhead locations, and associated parking areas, are shown on Map OR-2.

Public Transportation
The only means of public transit serving Barrington is the R.I. Public Transit Authority (RIPTA) bus service. Senior Services also offers transportation to residents aged 60 and above. RIPTA's Route 60 serves Route 114 in Barrington as it travels between Providence and Newport. There are about 14 bus stops located between Massasoit Avenue and the Warren Bridge. There are also a few stops on Route 114 north of Massasoit, although the presence of guardrails present obstacles for bus riders needing to cross the roadway. Bus shelters are located at the White Church, East Bay Mental Health Center, Police Cove and just north of Town Hall. Route 61X provides an additional daily bus trips.

RIPTA several years ago eliminated bus service that extended into West Barrington. The closest bus service for residents in this part of Town is at the Shaw's shopping center in Riverside (RIPTA Route 33).

There are two park-and-ride commuter lots in Barrington, a 100-space lot at the "White Church" (Barrington Congregational Church) and a 36-space lot at Police Cove Park by the Barrington River bridge. The Town owns the Police Cove lot, while the church allows for use of their privately owned parking under a lease agreement with the RI Department of Transportation. The Police Cove location has a bus pull-out to allow traffic on Route 114 to pass stopped buses.

The Senior Center bus is free and available to local senior citizens on weekdays for transportation to and from the Senior Center (Center for Adult Enrichment), weekly shopping trips and local appointments, when possible. Reservations must be made in advance.

B. Recent Projects

Recent projects completed in Barrington that included multimodal elements include the following:

- Nayatt Road Reconstruction: The plans for the reconstruction of Nayatt Road included 10-foot-wide travel lanes with a minimum 1-foot shoulder, crosswalks, and ADA-compliant sidewalks with granite curbing. The project rebuilt approximately 3,950 linear feet of sidewalk on the north side of Nayatt Road between Rumstick Road and Broadview Drive. Completed in 2019.

- Village Center Streetscape Project: This project, with funding from a $1.6 million bond, included construction of new sidewalks on Wood Avenue, West Street and Cottage Street, reconstruction of sidewalks on the north side of Maple Avenue, new crosswalks, and striping of "sharrows" on Wood Avenue (see **Figure 3.2** below).

Figure 3.2: "Sharrows" on Wood Avenue

- Barrington Middle School: The State built a new sidewalk on the west side of Middle Highway between Seven Oaks Drive and the East Bay Bike Path as part of a Safe Routes to School project. The construction of the new Middle School, completed in 2019, included reconstruction of the sidewalk along the Middle Highway frontage, the installation of bike racks at the front and rear of the school, a multi-use path on the southerly portion of the property between Middle Highway and Roberta Plat, and a separate bus dropoff area in front of the school.

- Off-Site Improvements: Sidewalks built since 2019 by developers to comply with Planning Board requirements include: 700 feet on Sowams Road between Coach Murgo Lane and Zompa Road;

200 feet on Waseca Avenue west of Wood Avenue; and 200 feet on Bay Spring Avenue at 60 Bay Spring Ave.

Bus system improvements within Barrington since 2015 include expansion of the Police Cove Park parking lot / park and ride lot from 20 to 36 spaces, and reconstruction of the bus shelter on County Road at Barrington Congregational Church.

C. Data and Trends

Means of Transportation

Estimates from the Census Bureau show Barrington's reliance on the automobile, with nearly 84 percent of all commuters driving to work alone, plus another 5.6 percent who carpool (see **Table 3.1**). Just 2.8 percent regularly use public transportation. In 2019, an estimated 1.0 percent of residents walked to work, about the same as in 2000 (0.8 percent).

The mean commute time to work has grown by about four minutes since 2000, to 27 minutes as of 2019, according to Census Bureau estimates. Of the estimated 8,222 residents in the workforce, 26 percent work in Barrington, Warren, or Bristol. About 1,315 (16 percent) work outside Rhode Island—a number influenced by Barrington's proximity to Massachusetts.

Barrington residents are working from home at an increasing rate, due to evolving workplace telecommuting policies driving higher utilization of virtual meeting technology. Based on the American Community Survey 5-year estimate calculated for 2019, about 6.8 percent of Barrington residents work from home – higher than in 2000 when census data estimated 4.5 percent of the working population worked from home. This number should continue to grow due to the impact of the COVID-19 pandemic that started in 2020, in which many people were forced to or chose to work from home.

Table 3.1: Means of Transportation (Workers 16 and Over)

	2000 Census		2019 ACS*		Change: 2000 to 2019	
	Number	Percent	Number	Percent	Change	%Change
Total:	7,805	100.0%	8,222	100.0%	417	5.3%
Car, truck, or van:	7,147	91.6%	7,334	89.2%	187	2.6%
- Drove alone	6,621	84.8%	6,877	83.6%	256	3.9%
- Carpooled	526	6.7%	457	5.6%	-69	-13.1%
Public transportation	178	2.3%	230	2.8%	52	29.2%
Walked	64	0.8%	80	1.0%	16	25.0%
Other means	61	0.8%	20	0.3%	-41	-67.2%
Worked at home	355	4.5%	558	6.8%	203	57.2%
Mean Travel Time to Work (minutes)	23.6	--	27.1		4	14.8%

*American Community Survey 5-Year Estimates (2019)

The Town lacks comprehensive pedestrian and bicyclist activity data. However, biking and walking data were collected from students at Hampden Meadows School (grades 5 and 6), 297 New Meadow Road, as part of an assessment of a Safe Routes to School project completed at and near the school. These numbers provide some insight on how the distance between home and school impacts transportation choices for households. The survey results are summarized in **Table 3.2**.

Table 3.2: Hampden Meadows School Student Survey Results (October 2010)

School Arrival						
Distance	**Number within Distance**	**Walk**	**Bike**	**School Bus**	**Family Vehicle**	**Carpool / Other**
Less than 1/4 mile	19	79%	21%	0%	0%	0%
1/4 mile up to 1/2 mile	13	8%	46%	15%	31%	0%
1/2 mile up to 1 mile	21	14%	38%	19%	29%	0%
1 mile up to 2 miles	58	2%	7%	67%	21%	3%
More than 2 miles	124	0%	6%	67%	23%	3%
Don't know / no response	25					
School Departure						
Distance	**Number within Distance**	**Walk**	**Bike**	**School Bus**	**Family Vehicle**	**Carpool / Other**
Less than 1/4 mile	19	79%	21%	0%	0%	0%
1/4 mile up to 1/2 mile	13	31%	46%	15%	8%	0%
1/2 mile up to 1 mile	21	24%	38%	38%	0%	0%
1 mile up to 2 miles	56	2%	5%	79%	13%	2%
More than 2 miles	116	1%	6%	73%	16%	3%
Don't know / no response	35					

The data indicate more than half of the students who live within one mile of Hampden Meadows walk or bike to or from school. Fewer than 10% of the students living one to two miles from school biked or walked at the time of the survey. Beyond 2 miles, biking was an option for about 6 percent of students.

A limited bike/ped survey (24 responses) conducted of parents whose kids attended Primrose Hill School (grades K-3) in November 2013 provided some information on the barriers to walking and biking to and from school for that age group. Twenty-one out of the 24 people responding lived within one mile of school. Just one student walked, and three students biked two to four times a week. Nine walked "occasionally;" 14 "never." Two biked "occasionally;" and 19 biked "never." Issues preventing walking and biking included: age of student, condition of sidewalks, traffic speeds, and distance from home to school.

These surveys were taken prior to the completion of new sidewalks and other improvements at both schools, designed to encourage more students to walk or bike to school. Additional walking-biking surveys for additional schools would help the Town plan infrastructure projects to enhance safety and encourage additional students to walk and bike to school.

Traffic volumes held steady or grew slightly since the late 1980s. Annual average daily traffic (AADT) for County Road in the vicinity of the commercial district increased only slightly between counts taken in 1988 and 2004 to 2008, when the AADT south of Maple Avenue totaled 22,100. Counts taken at other locations in Barrington are shown in **Table 3.3**.

Table 3.3: Traffic Counts—Annual Average Daily Traffic (AADT)

Road	Segment	AADT	AADT	AADT
		1988	**2000**	**2013**
RI 114 Wampanoag	North of RI 103 County Rd		25,400	27,700
RI 114/103 County Rd	South of Maple Ave	21,000	22,800	22,500
RI 114/103 County Rd	Between Rumstick & Lincoln Av		18,900	20,600
RI 114/103 County Rd	Between Mathewson & Sowams Rd		18,400	20,000
RI 103 County Rd	West of Hemlock		10,100	12,500
Massasoit Ave	East of RI 114, at bridge		8,800	
Rumstick Rd	Between Nayatt & County Rd		8,400	
Maple Avenue	Between Middle Hwy and Princess Hill Rd			6,100
New Meadow Rd	Between Christine & Briarwood	3,650	4,300	5,600
Middle Hwy	Between County & Old County Rd	5,500	6,000	4,300
Nayatt Rd	Between Rumstick & Terrace	2,850	3,300	
Washington Rd	Between County Rd & Crown Av		4,100	3,000
Lincoln Avenue	Between College Lane & Edgewood			2,400
New Meadow Rd	Between Massasoit & Linden Rd		3,700	2,200
Sowams Rd	Between Christine & Briarwood	2,500	3,000	2,200
Rumstick Rd	100 ft south of Highland Ave			2,000
Washington Rd	Between North Lake & S Lake Rd	1,850	1,600	1,900
Middle Highway	Between College Ln & Edgewood		1,800	
George Street	At the RI/MA state line			400

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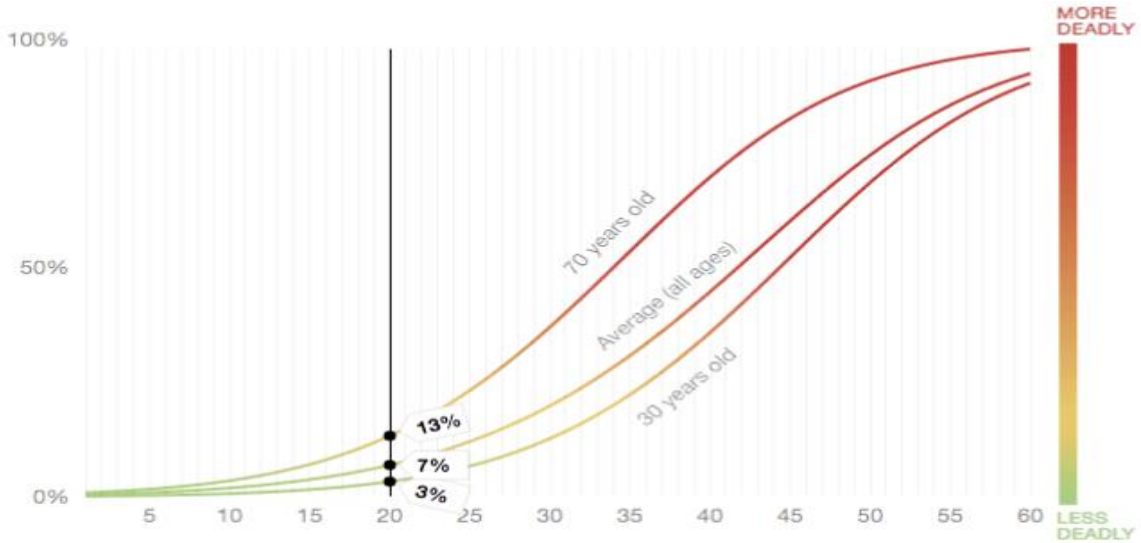
CRITICAL ISSUES

1. Pedestrian and Bicycle Safety

Despite many streets lacking sidewalks, Barrington has an excellent pedestrian safety record, with zero pedestrian deaths in the past 60 years. In comparison, 122 pedestrians were killed in Rhode Island from 2009 to 2018 – a 10-year period when pedestrians killed in motor vehicle crashes increased by 55 percent in the United States. Barrington likely benefits from the fact that most streets have speed limits of 25 mph, with some major collector streets at 35 mph. The only road with a speed limit over 35 mph is Wampanoag Trail, with a speed limit of 40 to 45 mph (see Map 2), a street where very few people walk or bike.

Motor vehicles are an ever-present threat to pedestrians and bicyclists, with the risk of death increasing rapidly above speeds of 20 mph. Figure 1, from the State of Rhode Island's Bicycle Mobility Plan, illustrates this threat to life. Older residents are the most vulnerable, with an estimated 50 percent of cyclists at the age of 70 killed when impacted by a motor vehicle traveling at 35 mph. Even at speeds of just 20 mph, the average cyclist has a 7 percent chance of being killed in a crash involving a motor vehicle; it increases to 13 percent for cyclists who are 70 years old.

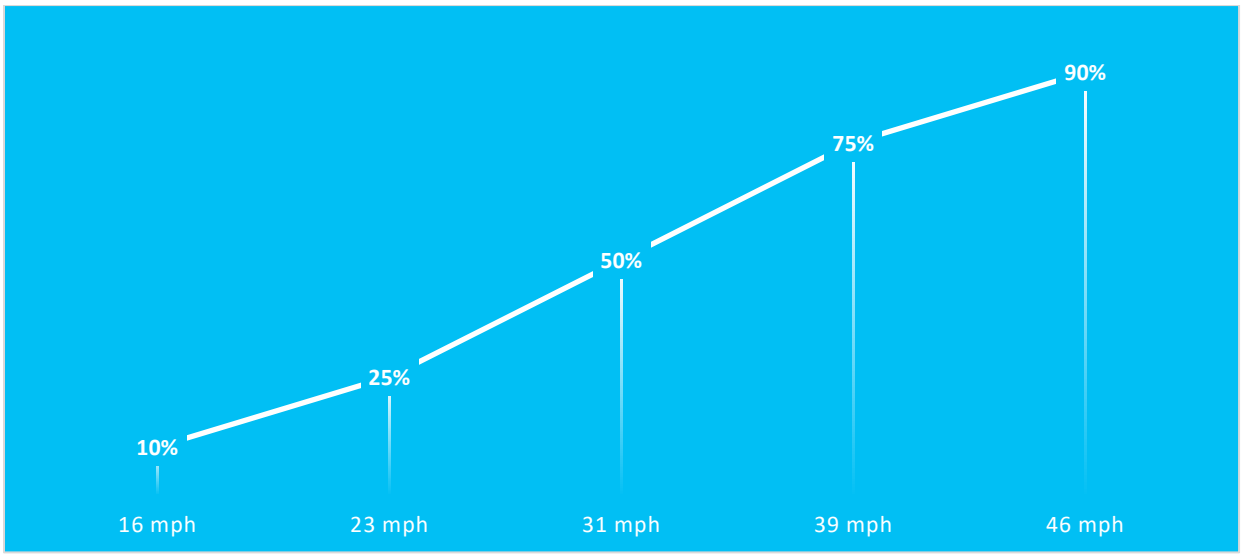
Figure 4.1: Risk of Death for Cyclists in Crashes Involving Motor Vehicles



Source: ProPublica and RI Bicycle Mobility Plan

A 2011 study by the AAA Foundation for Traffic Safety assessed the risk of severe injury or fatality for pedestrians of all ages, when hit by vehicles traveling at certain speeds. The study found that 10 percent of pedestrians suffered a severe injury when struck by a car traveling at 16 mph; the rate increases to 90 percent at 46 mph.

Figure 4.2: Risk of Severe Injury for Pedestrians Struck by a Vehicle



Source: AAA Foundation for Traffic Safety

A report by the National Highway Traffic Safety Administration's National Center for Statistics and Analysis from 2019 evaluated national statistics on pedestrian fatalities, concluding the following:

- Eighteen percent of the fatalities occurred at intersections, 73 percent at locations that were not intersections, and the remaining 9 percent at other locations including roadsides/shoulders, parking lanes/zones, bicycle lanes, sidewalks, medians/crossing islands, driveway accesses, shared-use paths/trails, non-traffic way areas, and other sites.
- More pedestrian fatalities occurred in the dark (76%) than in daylight (21%), dusk (2%), and dawn (2%).

While Barrington has been recognized for its pedestrian safety record, the town has had some close calls over the years, with dozens of vehicle crashes involving pedestrian and cyclists since 2011. From 2011 through June 2022, Barrington Police responded to 49 pedestrian and 47 and bicyclist (96 total) motorist-involved accidents in town. These incidents often resulted in injury, some serious, according to the Police Department. **Map 3** shows the locations of these crashes. Almost 30 percent (28 out of 96) of the incidents took place at crossings of the East Bay Bike Path (see Table 4.1 on the next page). The bike path crossing at County Road had the most incidents (9), followed by Bay Spring Avenue (6) and Washington Road (4). Other locations with multiple incidents included County Road between the Bike Path and Maple Avenue, the Barrington Shopping Center, and the Massasoit Avenue-County Road intersection.

Table 4.1: Crashes at Bike Path Crossings in Barrington – 2011-2021*

Intersection	Bike Incidents	Pedestrian Incidents
County Road (25 mph zone)	4	5
Bay Spring Avenue (25 mph zone)	5	1
Washington Road (35 mph zone)	1	3
Sowams Road (30 mph zone)	3	0
North Lake Drive (25 mph zone)	1	2
West Street (30 mph zone)	0	1
New Meadow Road (25 mph zone)	1	1
TOTAL	**14**	**13**

*Through August 2021

Several pedestrian and bicycle incidents occurred within proximity of the Middle School, with three pedestrian and four cyclist incidents within ¼ mile of the school, and the High School, with six pedestrian and one cyclist incident within ¼ mile of the school. Three of the seven incidents near the High School occurred at the Massasoit Avenue/County Road intersection. County Road at this location has a 35-mph speed limit, with traffic averaging approximately 20,000 vehicles per day.

2. Gaps in Sidewalk System

The Town has made progress toward adding sidewalks along critical transportation corridors, with more 1.25 miles of new sidewalks built within Barrington since 2015 (**see Table 4.2**). Overall, there remain significant gaps in the town's sidewalk system, limiting the community's access to safe, connected pedestrian environment. One of the main objectives of this Plan is to identify and prioritize projects to focus on the critical sidewalk needs first – such as in the vicinity of schools, commercial areas, and mixed-use districts.

Table 4.2: New Sidewalks (Built Since 2015)

Street	Location	Linear Ft.	Built By	Funding Source
Bay Spring Ave.	At 60 Bay Spring.	200	Developer	Developer
Sowams Rd.	Coach Murgo Ln to Zompa Rd.	700	Developer	Developer
Sowams Rd.	Zompa Rd. to Crossways St.	300	Town	Fee In Lieu Fund
Coach Murgo Ln.	Entire length of street	1,090	Developer	Developer
Waseca Ave.	West of Wood Ave.	190	Developer	Developer
West Street	Maple Ave. to Bike Path	790	Town	Streetscape Bond
Cottage St.	Hamilton Ave. to Maple Ave.	235	Town	Streetscape Bond
Wood Ave.	Entire length	1,235	Town	Streetscape Bond
Middle Hwy.	Bike Path to Seven Oaks Dr.; Western Ave. to Sherwood Ln.	1,475	State	Safe Routes to School Grant
Lincoln Ave.	Middle Hwy. to BMS driveway	540 (paved)	Town	Middle Sch. Bond
TOTAL		**6,755 ft.**		

Source: Town of Barrington

An example of a high priority is Lincoln Avenue adjacent to the new Middle School. The new school was built closer to Lincoln, which has changed the walking and biking routes for students living in Roberta Plat and other neighborhoods to the north and west of the school. This has resulted in more students walking and biking along Lincoln Avenue – on an old asphalt walkway on the north side of the street, or in the grass along the south side of Lincoln up to Roberta Drive. **Figure 4.1** shows Middle School students walking in this area after dismissal in February 2022.

Figure 4.1: Lincoln Avenue after Middle School dismissal, February 2020

Photo by: Town of Barrington

Another priority is Massasoit Avenue and New Meadow Road north of Christine Drive, where students are in the school walk zone, but walking and biking to and from school on these routes can be dangerous due to a lack of a sidewalk and narrow shoulders. Building these sidewalks is the responsibility of the State, which has scheduled the projects for construction in 2028, per the 2022-2031 State Transportation Improvement Program.

3. Sidewalk Maintenance

Since 2015 approximately 1.6 miles of rebuilt sidewalks have been completed in Barrington by the Town and State (see **Table 4.3**), with funding coming from local bonds and a Safe Routes to School grant. This work has fixed sidewalks in some of the highest priority areas, but there remain many sidewalks in need of repair or replacement throughout town. (See Action Plan on Page 22.)

Table 4.3: Rebuilt Sidewalks (Since 2015)

Street	Location	Linear Feet	Built By	Funding Source
Maple Ave.	Wood Ave. to Prince's Hill Ave.	1,665	Town	Streetscape Bond
Middle Hwy.	St. Andrew's Farm to Western Ave.; in front of Primrose Hill School	1,995	State	Safe Routes to School Grant
Middle Hwy.	Along frontage of Middle School property	950	Town	Middle School Bond
Lincoln Ave.	Middle Hwy. to Upland Way	2,540 (paved)	Town	Road Bond
Maple Ave.	Middle Hwy. to Barrington Ave.	1,210 (paved)	Town	Road Bond
TOTAL		**8,390 ft.**		

Source: Town of Barrington

Sidewalk reconstruction projects often require engineering to ensure the work complies with ADA standards, meets the Town's design criteria, and manages stormwater, as drainage patterns can be impacted with the installation of new curbing and changes in grade.

An example is the sidewalk on the north side of Lincoln Avenue across from the Middle School. This highly traveled pedestrian path serves as a route for many students at the Middle School and the High School. In addition to the surface being in very poor condition (see **Figure 4.2** on the next page), the walkway abuts the shoulder of Lincoln Avenue at grade – with no curb separating walkers from the roadway. Rebuilding this section of sidewalk, including adding curbing, will raise the grade and alter how stormwater flows off the surface of the roadway. It also would require adjusting the grade behind the sidewalk where abutting homes have lawns, landscaping, or driveways.

Figure 4.2: Sidewalk on North Side of Lincoln Avenue Near Middle School

On a smaller scale, spot repairs of sidewalks are essential to eliminate tripping hazards. For example, the Town replaced sections of sidewalk on Bay Spring Avenue near Atria Bay Spring Assisted Living, after tree roots raised up several sidewalk slabs. The Town has added handicap warning devices at

intersections as part of infrastructure projects and through leveraging off-site improvements from developers as part of planning approvals.

An example is the addition of handicap ramps at the northwest corner of Washington Road and Bay Spring Avenue, which the Planning Board required as part of the approval of the conversion of 187 Washington Road into four apartments.

4. Limited Bike Facilities

Barrington has a significant bike facility that cuts through the center of town – a 3.5-mile section of the East Bay Bike Path. Other than the Bike Path, the Town has few formal off-street bike routes for getting around town by bike or on foot. These consist of paths that pass through Town parks or open space, connecting one part of town with another. Examples include: a path from Broadview Drive through Veterans Memorial Park to West Street; the Hampden Meadows Greenbelt trail between Linden Road and Kent Street; the central path at Saint Andrews Farm, between Middle Highway and the end of Fountain Avenue; and the portion of South Lake Drive that has been closed to automobile traffic, connecting Washington Road with North Lake Drive.

The Town has had plans to build a walking/biking path along Federal Road, between Upland Way and Middle Highway, but the project has not proceeded past the early conceptual engineering phase.

Figure 4.3: "Share the Road" Sign on Massasoit Avenue

Other than the East Bay Bike Path, the only formal bike facilities are:

- A paved path between the East Bay Bike Path and Waseca Avenue (250 feet)
- A paved path between the Bike Path and County Road at Police Cove Park (460 feet)
- "Sharrows" (a bike symbol with an arrow) painted in the travel lanes of Wood Avenue, a route that is about 600 feet in length
- Bike lanes are striped along the shoulder of Kent Street, about 4,200 feet in length; however, the bike lanes are only 4 feet in width, with the vehicular travel lanes at 11 feet. In addition, vehicles parked on the side of Kent Street often block the eastbound bike lane, further limiting its functionality.

The State added a "Share the Road" sign on Massasoit Avenue (see Figure 4.3) at the same time as the White Church Bridge replacement project. Massasoit lacks a sidewalk and has almost no shoulder.

Share the Road signs and Sharrows are the simplest bike infrastructure measures available to the the Town or State to implement. More effective improvements would be the establishment of bike lanes and improvement of off-road bike/pedestrian paths. The safest and most user-friendly bike lanes are physically separated from vehicles but these are more costly and require more right of way width compared to simply striping bike lanes. These should be considered in high-traffic bike/ped areas (such as Lincoln Avenue) but other factors such as cost, maintenance and impact on snow plowing operations need to be considered before implementation.

Figure 4.4: County Road South of the Presbyterian Church

The Town should capitalize on opportunities to construct off-road multiuse bike/ped paths where feasible. A priority is South Lake Drive between North Lake Drive and Washington Road, which was closed to traffic in 2021 due to the poor condition of the roadway surface. While South Lake remains open to cyclists and pedestrians, the Town is exploring options to improve this corridor, including an engineering assessment of the roadway conditions.

Other examples of off-road multiuse facilities include the path between the Veterans Park gravel parking lot and Broadview Drive, the main trail through St. Andrew's Farm between the end of Fountain Avenue and the St. Andrew's Farm parking lot, and the trail adjacent to Prince's Hill Pond between County Road and Landfill No. 4. (See **Map 6**.)

Reduction of lane widths to 10 feet, for example, in 25 mph zones would slow traffic and provide wider outside shoulders that could also be formally striped as bike lanes (minimum width of 5 feet). As part of an upcoming repaving project, the State should consider adding bike lanes on County Road between Massasoit Avenue/Federal Road and Hilltop Avenue (see **Figure 2**, previous page), where the pavement width is about 36 feet curb to curb. The design should consider bike lanes or sharrows from Hilltop Ave. to Police Cove Park, balanced against the potential benefit to the business district of wider sidewalks and on-street parking – which would require elimination of the center turn lane.

The Town should build on the bike network concepts recommended in this plan and complete a more in-depth analysis of the Town's roads and off-road facilities to complete a long-range, data-driven plan for Barrington's bicycle network. This analysis should include an evaluation of existing conditions factoring in bicyclist comfort and perception of safety factoring in roadway design, traffic volumes, and motor vehicle speeds. The study should invite input from the public, such as through residents of varying ages and physical abilities bicycling around town in groups to assess conditions.

5 FACILITY TYPES

Implementation of Complete Streets will require funding and engineering beyond a typical road paving project to include elements such as new/rebuilt sidewalks and ADA ramps, crosswalks, additional signage, and other improvements. Complete Streets Facility Types listed below establish a design goal based on Facility Type, starting with the highest priority, Road Type 1, which includes the Town's "Village Center," mixed use streets and areas near senior and affordable housing developments. The Town may defer Complete Streets improvements based on cost, availability of funding, complexity of the project, or any other factors.

Facility Type	Description	Facilities (Goal)
Road Type 1	"Village Center"; mixed-use areas, senior and affordable housing areas	Sidewalks, ADA ramps, on-street parking, bike facilities, crosswalks, signage
Road Type 2	Major walking/biking routes within one-half mile of a school	Sidewalks, bike facilities, ADA ramps, crosswalks, signage, safety enhancements at critical crossings
Road Type 3	Major transportation corridors with existing sidewalks / areas within one-half to 1 mile of a school	Where necessary: add sidewalks to fill in gaps, add ADA ramps for compliance; consider striping, crosswalks, and signage for safety
Road Type 4	Walking/biking routes to parks, Town Beach, etc.	Utilize shoulder for biking/walking; signage/striping; enhance alternative routes (trails, paved paths)
Road Type 5	Major transportation corridors with no sidewalks, important local road connectors	Evaluate opportunities for narrower lanes to widen shoulders, decrease speeds, provide safe crossings
Road Type 6	All other streets	No walking/biking infrastructure is necessary. Evaluate existing signage for upgrades ("No Parking," speed limit signs, etc.). Assess street light levels.
Trail Type 1	Off-Road Bike Routes that provide safe, bike- and pedestrian-friendly alternative routes to schools, other destinations.	Maintain at 8-foot minimum width, while minimizing puddling/muddy surface through improved surfaces, raise walkways
Trail Type 2	Nature trails that serve as routes to schools, other destinations	Maintain as nature trails. Minimal maintenance. Wet areas may need to be re-routed or require raised structures.

6 ACTION PLAN

The Action Plan (**Table 6.1**) proposes actions designed to achieve the four main objectives of the Town's Complete Streets Policy:

1) Remove or reduce barriers that limit access to destinations.
2) Connect destinations.
3) Create safe routes to schools.
4) Promote linkages to trail network, Town Beach, access points to the shore.

The Action Plan identifies not only infrastructure projects but also policies and strategies for making the Town more accessible and safer for pedestrians, cyclists, and transit users.

Table 6.1: Complete Streets Action Plan

Action	Timeframe	Type	Source	Cost
1. Implement multimodal projects in accordance with the Complete Streets Objectives Table in Appendix I (Table I.1) to promote walking and biking to school, safe access to school bus and RIPTA stops.	1 to 20 years	Capital	Town Bond	$ to $$$$
2. Secure a commitment from the State to complete the replacement of the East Bay Bike Path Bridges over the Barrington and Warren Rivers by the end of 2025. The bridge clearance shall be based on sea level rise projected to occur during the design life of the bridges.	<1 year	Capital	State TIP	$$$$
3. Consider adopting a *25-mph town-wide speed limit unless otherwise posted* policy; install signage to this effect.	1 to 2 years	Policy	N/A	N/A
4. Develop a long-range Complete Streets plan for RI 114 from East Providence to Warren, focusing on multimodal transportation facilities, resilience, land use and economic development. Objectives include:	2 to 3 years	Study	Capital Budget	$$

Continued next page

Table 6.1: Complete Streets Action Plan (continued)

Action	Timeframe	Type	Source	Cost*
a. Proposing innovative design concepts for mitigating the threat of sea level rise on RI 114 and RI 114/103.				
b. Remaking County Road as a walkable "Main Street" with enhanced multimodal access, to include widening sidewalks, adding on-street parking, closing curb cuts where feasible, and improving bicycle infrastructure.				
c. Expanding public parking in addition to on-street parking within the Town Center.				
d. Proposing revisions to the Zoning Ordinance and Land Development & Subdivision Regs to allow for well-designed infill development, replacing extraneous off-street spaces in private parking lots. Consider adopting form-based zoning and reducing off-street parking requirements.				
5. Petition the State to lower speed limits to 25 mph on all State Roads, except for Wampanoag Trail (max. of 45 mph) and that section of County Rd. (RI 114/103) between Wampanoag Trail and Manning Drive (max. of 35 mph)	1 to 2 years	Study	N/A	N/A
6. Adopt a policy that establishes roadway lane widths based on the street's speed limit. For example, a standard lane width of 10 feet within 25 mph zones.[1]	1 to 2 years	Policy	N/A	N/A
7. Complete a Town-wide Bicycle Network Plan.	1 to 5 years	Plan	Capital Budget	$
8. Include funding in the Capital Improvement Program for retrofitting sidewalk ADA ramps, based on an assessment by the Department of Public Works.	Ongoing	Plan, Capital	Capital Budget	$ to $$
9. Assess and improve street lighting where needed to enhance pedestrian and bicyclist safety.	Ongoing	Plan, Capital	Capital Budget	$
10. Install signage such as flashing pedestrian-in-crosswalk signs and flashing stop signs in vicinity of schools.	Ongoing	Capital	Capital Budget	$
11. Install wayfinding signage on bike path and within the Town Center (County Rd.-Maple Ave.-Waseca Ave.)	1 to 2 years	Capital	Capital Budget	$
12. Upgrade existing bike/pedestrian trails to encourage the use of safe, off-road alternative routes. Priorities include:	Ongoing	Capital	Capital Budget, Rec. Maintenance Fund	$ to $$
a. South Lake Drive – convert road into an ADA-accessible path for pedestrians and cyclists				

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Table 6.1: Complete Streets Action Plan (continued)

Action	Timeframe	Type	Source	Cost*
b. Veterans Park from West Street to Broadview – improve surface, maintain adequate width				
c. Hampden Meadows Greenbelt trail from Linden Road to Sowams School – improve surface, maintain adequate width				
d. St. Andrew's Farm, from end of Fountain Avenue to parking lot – improve and widen width; provide for adequate drainage to reduce erosion				

[1] This would match the 10-foot lanes striping on Nayatt Road, which has a 25-mph speed limit as part of the Nayatt Road reconstruction project completed by the State in 2020.

*Cost: $ = less than $25,000; $$ = $25,000 to $100,000; $$$ = $100,000 to $500,000; $$$$ = $500,000+; N/A = no cost