Ride Island

BIKE PLAN

AUGUST 2023

An initiative of the van Beuren Charitable Foundation, GrowSmartRI and Bike Newport

bike newport

vbcf

TOOLE DESIGN

GrowSmartRI
Sustainable Economic Growth & Quality of Place

This Plan is dedicated to the bicyclists who have lost their lives on Aquidneck Island roadways. Improved infrastructure will save lives.

Elias Velasquez Chavez
1980–2020

Art Weekley
1937–2014

Elliot Kaminitz
1946–2012

Michael Strickland
1970–2012

Acknowledgments

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Disclaimer

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Executive Summary

What Is Ride Island?

Aquidneck Island, Rhode Island is the perfect scale for a cohesive bicycle network. At five miles wide by 15 miles long, this compact and relatively flat island includes many nearby destinations. Out of all trips that begin and end on Aquidneck, 80% are four miles or less, and more than 50% are two miles or less. Unfortunately, the potential for active transportation on Aquidneck Island is not being realized today because there are very few places to safely ride a bike and there are few walkable neighborhoods on the island.

The Aquidneck Island Bicycle Network Implementation Plan, branded as Ride Island, seeks to change this by creating an island-wide network of paths for walking and biking. Ride Island will also unite previously conducted plans, studies, and projects intended to actualize an island-wide bicycle network, addresses gaps in previous work, and incorporates additional transportation data.

Who Was Involved?

Ride Island is led by Bike Newport and Grow Smart Rhode Island, with the financial support of the van Beuren Charitable Foundation, and the expertise of national active transportation professionals at Toole Design. This planning process was also bolstered through the engagement of traditionally under-represented stakeholders, and a robust Advisory Committee comprising community organizations, elected officials, business owners, and local champions for walking and biking.

Additionally, to fill in the gaps in community input from previous efforts, the Ride Island Project Management Team (PMT) hosted a series of focus groups with youth bicyclists, bicycle-dependent Spanish speaking residents, and Health Equity Zone community representatives. Bike Newport, a trusted agency with extensive involvement with Aquidneck Island stakeholder groups, identified participants, locations, and tailored invitations. In January 2023, we organized groups of 6-14 participants to meet in familiar and easily accessible venues to promote the events as safe, non-judgmental forums for open dialog.

Through the extensive community engagement process, the PMT developed a Mission and Vision Statement:

The mission of Ride Island is to make Aquidneck Island one of the most bike-friendly and walkable places in the United States. The connected network of protected paths will help achieve common local municipal goals while simultaneously preserving the island way of life, boosting the economy, and enabling the community to respond to the challenges of dynamic and disruptive change.

As such, the vision for Aquidneck Island is that people will choose to bike and walk for most short trips. Direct, intuitive, and inviting routes that are separated from traffic will enable people of all ages and abilities to feel safe and comfortable traveling on foot and bike.

What Comes Next?

The Proposed Bicycle Network

Today, most of the biking on Aquidneck Island takes place on roads and streets that are shared with traffic. The conditions vary widely, with low traffic/low speeds streets providing pleasant biking, but the major connectors and arterials are unpleasant and unsafe for riding. Aquidneck Island is also a self-contained community and the bridges to surrounding areas create a barrier such that most daily trips start and end on the island and are relatively short. As a result, there is enormous potential to convert the modes of a portion of these short distance trips from passenger cars to bicycles if comfortable infrastructure is provided.

The proposed future bike network includes a series of high priority corridors – which emphasize strengthening east-west connections to overcome the barriers created by East and West Main Roads – and bike infrastructure on the island's north/south corridors. There are also some routes that provide outstanding scenic recreational rides, such as the Ocean Loop. The complete network is proposed with consideration of:

- **Safety** – Where are people biking most exposed to hazardous and stressful conditions?
- **Connectivity** – Where do people need to ride to make everyday trips by bike?
- **Equity** – Ensure all islanders are served, including people of all incomes and backgrounds, and commuters for all types of work.

Action Steps

1

Align the State Transportation Improvement Plan's (STIP) local capital plans or paving plans with the Ride Island Plan.

- **East Main Road**
  Resurfacing can be a pilot test for roadway reconfiguration
- **Purgatory Road**
  This project could be redesigned to provide separated bicycle infrastructure or shared use path.
- **Aquidneck Avenue**
  This project could be redesigned to provide separated bicycle infrastructure or a shared use path.

2

Identify highest priority corridors in coordination with neighboring island municipalities.
Take a detailed look at the top priority projects. Talk to the people affected, review environmental conditions, and develop design concepts.

3

What is the best path forward for each project to become a reality?
Consider if they are suitable for:

- **Pilot Projects**
  Which are candidates for a short-term pilot? Pilot projects can run for a few hours, a weekend, up to several months to demonstrate an idea and refine a design.
- **Quick Build**
  Which are suitable for rapid implementation? (i.e., primarily pavement marking and signage on existing pavement, limited curb work)
- **Capital Construction**
  Which will involve more complex design and construction? (i.e., curbs are relocated; utility relocation or drainage work needed; new construction of path connections)

4

Demonstrate support. Show Aquidneck Island leaders and decisionmakers that the community supports investing in bike infrastructure for the island's well-being. Once a comfortable and connected bike network is in place, islanders will find it hard to remember what it was like before.

Bike Network Plan

Introduction

Aquidneck Island epitomizes the attraction of island living. Life is a little calmer once you leave the mainland and a breathtaking view across the Narragansett Bay or a stunning sunset is just around the next corner. Friends, family, and fellow islanders are never far away and share a special bond with each other, with the land, and with the historic communities of Newport, Middletown, and Portsmouth. You can be at work, on the beach, shopping, dining, or running errands within a matter of minutes. People know each other, look out for each other, and care deeply about their unique community.

Everything is close when you are on island that is five miles wide and 15 miles long. In fact, 80% of all trips on the island today are just four miles or less; more than half are two miles or less. This makes Aquidneck Island the perfect size and scale for an active, healthy, and sustainable lifestyle where walking and biking are the best ways to get around for many of those short trips. This is especially true in the busy summer months when that sense of community and connection can be tested by additional traffic.

Unfortunately, the potential for active transportation on Aquidneck Island is not being realized today because there are very few places to safely ride a bike and there are few walkable neighborhoods on the island. Ride Island seeks to change that by creating an island-wide network of paths for walking and biking.

Ride Island, the Aquidneck Island Bicycle Network Plan is based on more than two decades of previous plans, studies, and projects that have proposed elements of an island-wide bicycle network before. Ride Island addresses gaps in the previous work, incorporates additional transportation data, and bolsters the planning process with engagement of traditionally under-represented stakeholders and a coalition of Advisory Committee members.

Walking is also important, especially for local trips in the three island towns. The commercial and retail areas of Newport, Middletown, and Portsmouth depend on foot traffic; sidewalks and crosswalks are essential to community and neighborhood enjoyment. Generally, the more bike-friendly a place is, the more walkable it is, too. The bigger the buffer between the sidewalk and car lanes, the more comfortable it is. The presence of infrastructure and people on bike or foot sends a message to drivers that the transportation network serves all. Plus, proposed changes to major corridors like East and West Main Road include shared-use paths for people on foot and bike together.

Ride Island is a blueprint for action. It captures community enthusiasm for safe and comfortable bike infrastructure, channeling the momentum into a paradigm shift for Aquidneck's future. This document outlines a strategic, phased approach to implementing the network. The summary table outlines prioritized action steps, project relationships and timelines, and responsible parties. We've suggested a project sequence to make the most impact. Projects are prioritized based on which are most likely to receive grant funding for design and construction.' The recommended bike projects vary widely in scale and cost, which can be matched with a variety of possible funding mechanisms.

Meaningful change doesn't come easily. However, there is a unique opportunity right now to combine the commitment of key agencies, organizations, and elected officials with extraordinary funding to build the critical infrastructure needed to increase the safety, comfort, and ease of walking, biking, rolling, scooting, skating, and taking transit.

Once Aquidneck Island becomes the bicycle-friendly place it's meant to be, residents and visitors will wonder how it was ever anything else.

PLANS REVIEWED

Aquidneck Island West Side Master Plan (2005)

Aquidneck Island Transportation Study (2011)

Rhode Island Strategically Targeted Affordable Roadway Solutions (2011)

Aquidneck Island Transportation Study – Implementation Summary (2012)

Middletown Comprehensive Plan – Transportation (2014)

Middletown Comprehensive Plan – Land Use (2014)

Aquidneck Island Planning Commission – Strategic Plan (2016)

Newport Comprehensive Land Use Plan (2017)

Road Safety Assessment - East Main Road (2020)

Rhode Island Bicycle Mobility Plan (2020)

Road Safety Assessment - West Main Road (2021)

Newport North End Urban Plan (2021)

Portsmouth Comprehensive Community Plan (2021)

Keep Newport Moving (2022)

Keep Newport Moving – Existing Conditions Report (2022)

Rhode Island (RIDOT) State Transportation Improvement Program (2022-2031)

The Ride Island Team

Ride Island is led by Bike Newport and Grow Smart Rhode Island, with the financial support of the van Beuren Charitable Foundation, and the expertise of national active transportation professionals at Toole Design. The initiative is guided by a robust Advisory Committee made up of community organizations, elected officials, business owners, planners, and local champions for walking and biking; the group has deep roots in the Aquidneck Island community.

The van Beuren Charitable Foundation (vBCF) is a Rhode Island-based private family foundation dedicated to investing in the quality of life and place on Aquidneck Island and surrounding communities. Guided by a Board of Directors composed of van Beuren family members, vBCF invests its grants across four portfolios. These include supporting:

- **Healthy Lifestyles** for all residents
- **Strong Starts** for children and youth
- **Community Prosperity** generated by economic opportunity and planning for the future; and
- **Excellence in the Commons**, or those shared landscapes and built environments critical to quality of life and quality of place.

vBCF recognizes that the systems impacting the well-being of Aquidneck are not contained by geographic boundaries. Acknowledging the unrealized potential of a safe and connected island-wide bicycle network, the Foundation sought to further its impact by working with the Ride Island team. Together, they led a planning process to better understand existing conditions, to study the full array of factors (policy, workforce, organizational development, research, communications, advocacy, programs, and infrastructure) to create greater alignment between intention and outcome, and to outline the action steps to advance the bicycle network.

What We've Learned

This initiative began with a look at how people get around Aquidneck Island, and at the infrastructure available to serve the island's mobility needs. In order to honor past input and work that the island communities have done, the team thoroughly reviewed completed plans, projects, and studies (see list on previous page).

Outreach and Engagement

The primary goal of Ride Island is to leverage completed efforts and advance bicycle network implementation. Ride Island draws upon the extensive community engagement that precedes this work and averted asking the community for input on bicycle related programs or plans, as they've repeatedly provided feedback which is well documented in each of the plans.

Advisory Committee

We convened an Advisory Committee at the onset of this effort, which grew to about 90 individuals from wide-ranging disciplines and persepctives, to help guide Ride Island. Committee members shared knowledge, insights and institutional memory, identified significant barriers and charted a course around them, and served as ambassadors for a bike-friendly Aquidneck Island.

Focus Groups

Although many bicycling plans, studies, and projects have been successfully completed, we identified several gaps in community input from previous efforts. Ride Island elevated these perspectives by hosting a series of Focus Groups. Key groups included youth bicyclists, bicycle-dependent Spanish speaking residents, and Health Equity Zones community representatives.

YOUTH BICYCLISTS

FABNewport, a non-profit organization dedicated to building skills in youth, convened a group of middle and high school students who ride bikes. Following a discussion of biking in the area, the following suggestions were offered:

- Separated bike lanes on major arterials, such as West Main Road, to make riding safer and more comfortable.
- More bike parking options in residential areas (including multi-unit housing) and at key destinations.

PREDOMINANTLY-SPANISH SPEAKING BICYCLISTS

Another Focus Group engaged Newport's Spanish speaking residents who rely on bicycles for transport. Interpretation was kindly provided by Conexion Latina Newport staff. On average, participants ride their bikes five days per week as part of their everyday transportation although seasonal conditions impact riding frequency. Many articulated that they'd like to ride their bikes more, and offered the following ideas:

- Greater driver awareness of and respect for cyclists, as bicycle crashes are often due to the lack of driver attention and caution.

- Better bicycle infrastructure on major roadways and roundabouts including Broadway (especially near Newport Hospital), Van Zandt Street, East Main Road, West Main Road, Admiral Kalbfus Road, and Warner Street.
- Better lighting along roads and trails. Often, bicyclists will dismount and walk their bikes out of concern for personal safety.
- Better wayfinding signage.
- More bike parking at workplaces and residential areas. Bicycles are often stolen due to high demand, especially in the summer.

HEALTH EQUITY ZONES

The Newport Health Equity Zones (HEZ) mobilize the residents and resources of the Broadway and North End neighborhoods to create a place where everyone has the opportunity to thrive. This discussion with six women residents of the Newport HEZ centered on understanding their bicycling wants, needs, and desires. The lack of safe bicycling infrastructure, bike facilities, and safe bicycle storage at home and along their routes act as barriers that prevent riding more often. Suggestions to improve bicycling infrastructure and awareness include:

- Connect the entire island with safe bicycling infrastructure to alleviate traffic congestion and increase roadway safety.
- Invest in tourism-focused alternatives to driving, such as advertising bike rentals and including bike racks at hotels and other primary tourism destinations.
- Improve regional transit service and frequency.

THE POSITIVE CASE FOR THE RIDE ISLAND NETWORK

One reason that there is not a bike network on Aquidneck Island is because it is not an easy task. For any specific project, opposition can emerge from those who may resist change, and the greater benefits of a bike network are not always elevated in the conversation. Through a coordinated initiative, we can look for opportunities to overcome resistance against the mode shift to bicycling/walking/transit with accurate information and a compelling vision.

First, the mission and vision must center on empathy. Preservation of the Aquidneck Island way of life, economic concerns, and housing affordability are important to the community and should not be ignored. Objections should be both acknowledged and appropriately addressed. Second, stakeholders should be provided with relevant comparisons and first-hand experience wherever possible. Demonstrating the vibrancy and viability of a similar bicycle-friendly district can help highlight the benefits of active transportation without disruptive or destructive change to existing infrastructure. Finally, the mission and vision must position Ride Island as a solution that encompasses multimodal safety, health, economic and community development, livability, and sustainability – not just a bicycle network.

The case for Ride Island needs to be brought to the key stakeholders whose support and participation will be needed to make Ride Island happen. This includes the business community, which is not a monolithic entity,

and can bring helpful insights on the economic activity of the island, and how a bike network can benefit the local economy. This includes local governments, who are challenged by highly seasonal population fluctuations, aging infrastructure, tight budgets, and understaffed offices. This includes the State government, who can bring technical support and funding to help build Ride Island, and will to some degree respond to a strong community voice in support of the bike network. And this includes the Navy, who both have control of significant pieces of infrastructure, and would benefit greatly from a connected bike network that would be both useful for commuting and an asset that would attract top talent to Newport.

Aquidneck Island is ready for a bike network

Nearly 5,000 festival-goers rode their bikes to the Newport Folk Festival over 3 days in July, 2023, including a record-breaking 1,600 people for the first Friday. Imagine what would have happened if all those people had driven cars instead.

Even better, imagine if that many people choose to bike instead of drive every day because it is safe and easy to do so. What a difference that would make to traffic on the Island.

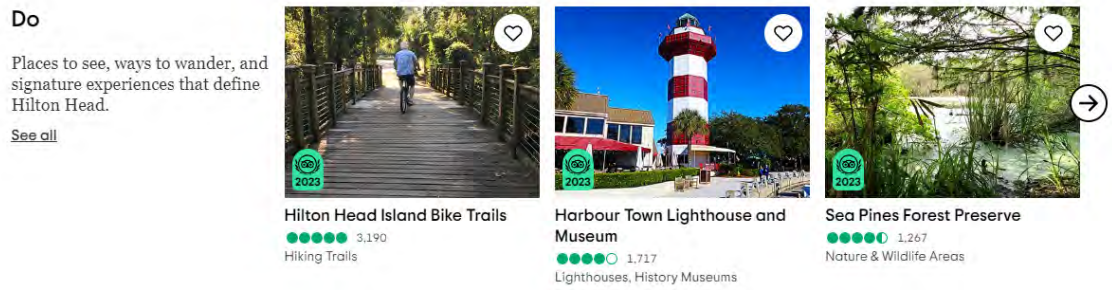
Where we can look for inspiration

Ride Island is inspired by places similar to Aquidneck Island where you can see that happening today – not Dutch or Danish towns and cities, but right here in the United States. Two islands that have built bike networks that can inspire Ride Island include Hilton Head Island and Nantucket.

Island	Aquidneck	Hilton Head	Nantucket
Length (miles)	15	12	14
Width (miles)	5	5	5
Area (square miles)	38	41	45
Population (year round)	60,000	39,000	14,000
Annual Visitors	3.5 million	2.5 million	200,000
Miles of separated bicycle infrastructure	2	125	35

HILTON HEAD ISLAND

Hilton Head Island has more than 125 miles of bicycle trails and shared use paths – 64 miles in the town of Hilton Head, more than 50 miles alongside roads in private developments, and a dozen miles of hardpacked sandy beaches that are perfect for riding. There are between 15,000 and 25,000 rental bikes on the Island, and it's common for the entire fleet to be rented out to visitors. The pathway network in this Gold-level Bicycle Friendly Community is regularly featured as the reason to visit Hilton Head in publications such as USA Today, Trip Advisor (see below) Discover South Carolina, and Conde Nast Traveler.



NANTUCKET ISLAND, MA

Nantucket has 35 miles of pathway including sidepaths alongside most main roads on the island. At least seven bike shops and rental locations on the island. Google StreetView provides images from the trails, captured as part of a 2022 Trail Condition Survey completed by MassDOT .

Other places we can look to for inspiration!

PROVINCETOWN, MA

The small (9.7 square miles) coastal town of Provincetown (known as P-town) has a permanent population of less than 4,000 but this can jump to 60,000 people on a typical summer day. P-town was awarded a Silver-level Bicycle Friendly Community designation in 2018 and was recently recognized as the #1 small city (out of 946) for biking in the United States by PeopleforBikes. P-town is very bikable because it has a tight-knit network of local streets that discourage driving and keep speeds low. There is only one major road (US Route 6) which has a parallel trail for almost half its length—and there is an active proposal to turn one-half of Route 6 into a pathway for most of the rest of the corridor. Provincetown's Commercial Street is similar to Newport's Thames Street in many ways, structurally and culturally.

SEVILLE, SPAIN

The city of Seville (pop. 688,000) in Spain is famous for its rapid transformation from a city with no tradition of cycling to a bicycle-friendly community. The City installed a network of more than 75 miles of separated bikeways (including 50 miles in less than two years) and saw daily bicycle use rise from 6,000 to 70,000 – an increase from 0.5% of all trips to 6% of commuter trips and 9% of all trips.

ANTIBES, FRANCE

Antibes in the south of France is an historic town with a strong sailing tradition and reputation as a low-key, chic town of 75,000. Several miles of streets in the old town are pedestrianized, either full-time or on weekends and during the evening. Streets along the ancient ramparts have been closed to traffic from 1:30pm to 2am this year, and 81% of residents support pedestrianization. When open, the streets have a 20kph (12 mph) speed limit and people on foot maintain priority.

Aquidneck Island's Bicycle Network Today

The development of the Ride Island bike network followed these steps:

1 **Understand current travel patterns**

2 **Map out current bike infrastructure**

3 **Analyze bicycle level of traffic stress and bike trip potential**

4 **Develop a draft proposed bike network**

5 **Share with the community for feedback**

The Ride Island Vision

The mission of Ride Island is to make Aquidneck Island one of the most bike-friendly and walkable places in the United States. The connected network of protected paths will help achieve common local municipality goals while simultaneously preserving the island way of life, boosting the economy, and enabling the community to respond to the challenges of dynamic and disruptive change. As such, the vision for Aquidneck Island is that people will choose to bike and walk for most short trips. Direct, intuitive, and inviting routes that are separated from traffic will enable people of all ages and abilities to feel safe and comfortable traveling on foot and bike. To measure the performance of the mission and vision statement, Ride Island sets the following goals for 2030:

Gold-level Bike- and Walk-friendly Community

300% walk/bike/transit share of all trips on the island

Zero traffic fatalities and serious injuries on the island

A **connected network** of bike paths on all Ride Island priority corridors

Let's Do This

Plans for bikeways on Aquidneck Island are nothing new. Indeed, Ride Island reflects proposed projects from the Statewide Bicycle Mobility Plan and the Newport Transportation Master Plan that are based on best practices, expert advice and public and community input going back many years.

There are three critical elements that make Ride Island different, timely, and an urgent call to action.

Ride Island focuses on the unique characteristics, context, and opportunities on Aquidneck Island. The Island is a perfect scale for bicycling; the individual communities are an ideal size for walking; and most trips start and finish on the Island.

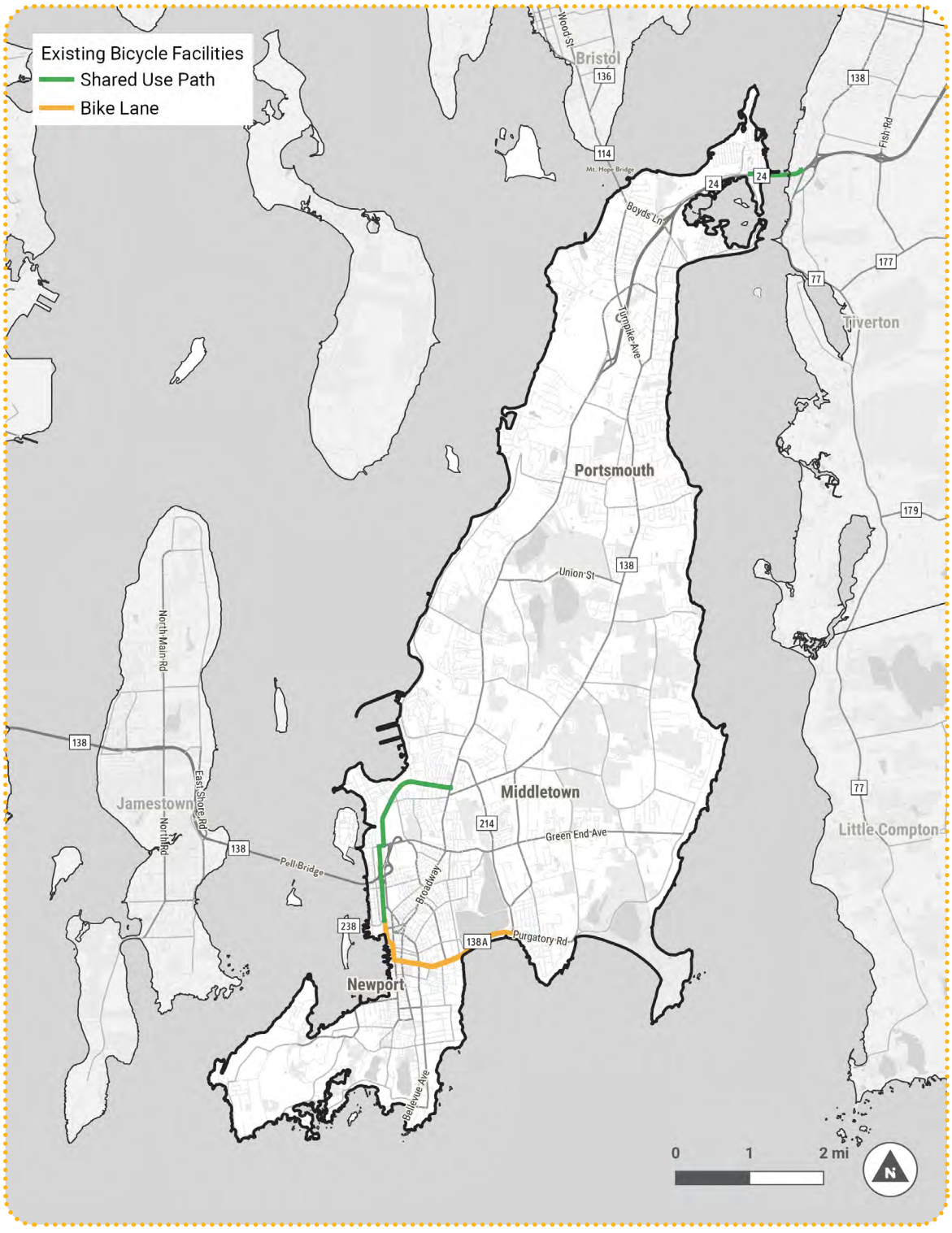
New transportation funding for safe and complete streets and active transportation projects is readily available, and the opportunity to use them is now.

Ride Island confirms the inescapable fact that there are a small number of critical bikeway projects along the busiest roads that will have a disproportionate impact on the overall safety, comfort, and convenience of people on bikes.

State and local elected officials should move forward with confidence to implement Ride Island.

Existing Bicycle Facilities

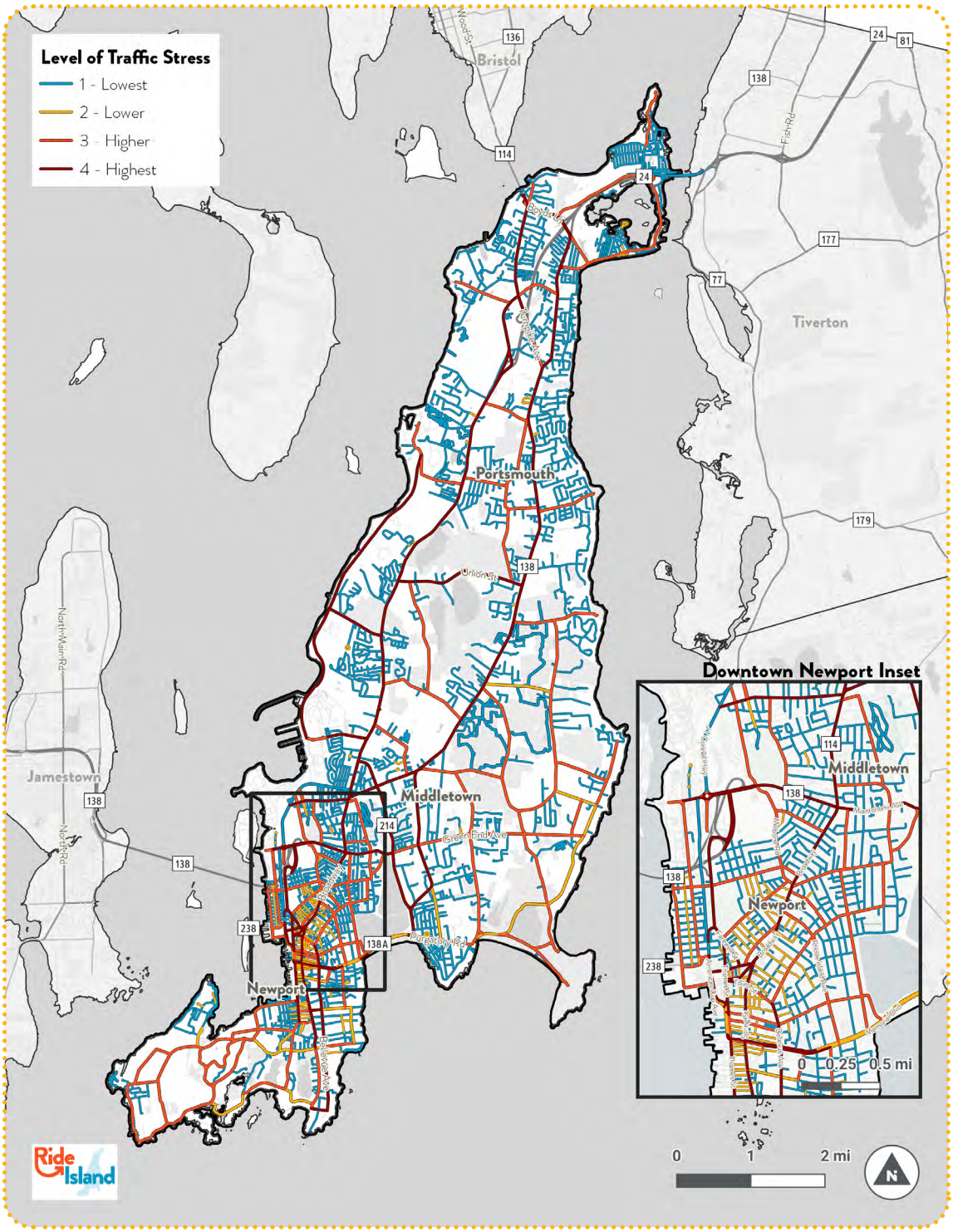
Bicycle infrastructure on Aquidneck Island is extremely limited, though the recent completion of the shared use path associated with the Pell Bridge ramp project had resulted in a notable increase.



Aquidneck Island's Existing Bicycle Infrastructure

Bicycle Level of Traffic Stress

Most biking on Aquidneck Island is on roads and streets that are shared with traffic. The conditions vary widely, with low traffic/low speeds streets providing pleasant biking, but the major connectors and arterials are unpleasant and unsafe for riding. Using a bike for everyday trips requires using the high stress (dark red) roads and streets.

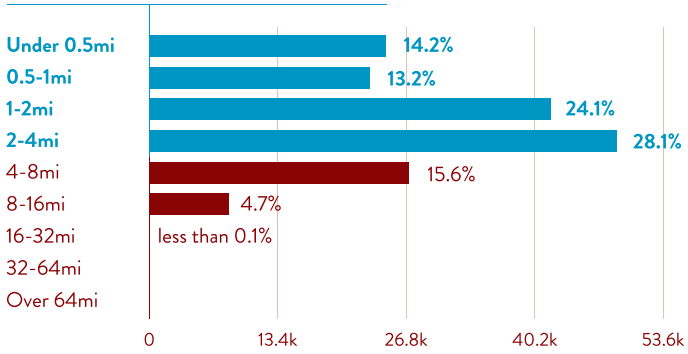


Aquidneck Island's Bicycle Level of Traffic Stress (BLTS)

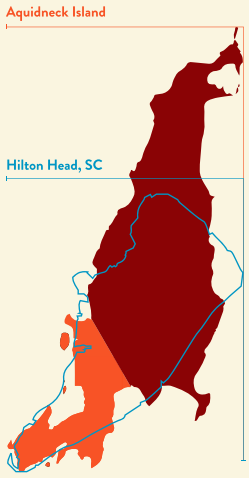
Potential for Multimodal Trips

Aquidneck Island is a self contained community. The bridges to surrounding areas create a barrier such that most daily trips start and end on the island, which means that they are relatively short – a great percentage of them are easy biking distance. There is enormous potential to convert a portion of bike distance trips to be made by bicycle rather than passenger car if high quality, comfortable infrastructure is provided. The map on the next page shows which routes have the greatest number of biking distance trips (i.e. 4 miles or shorter), which can help prioritize bike corridor projects.

Trip Distance (Miles)

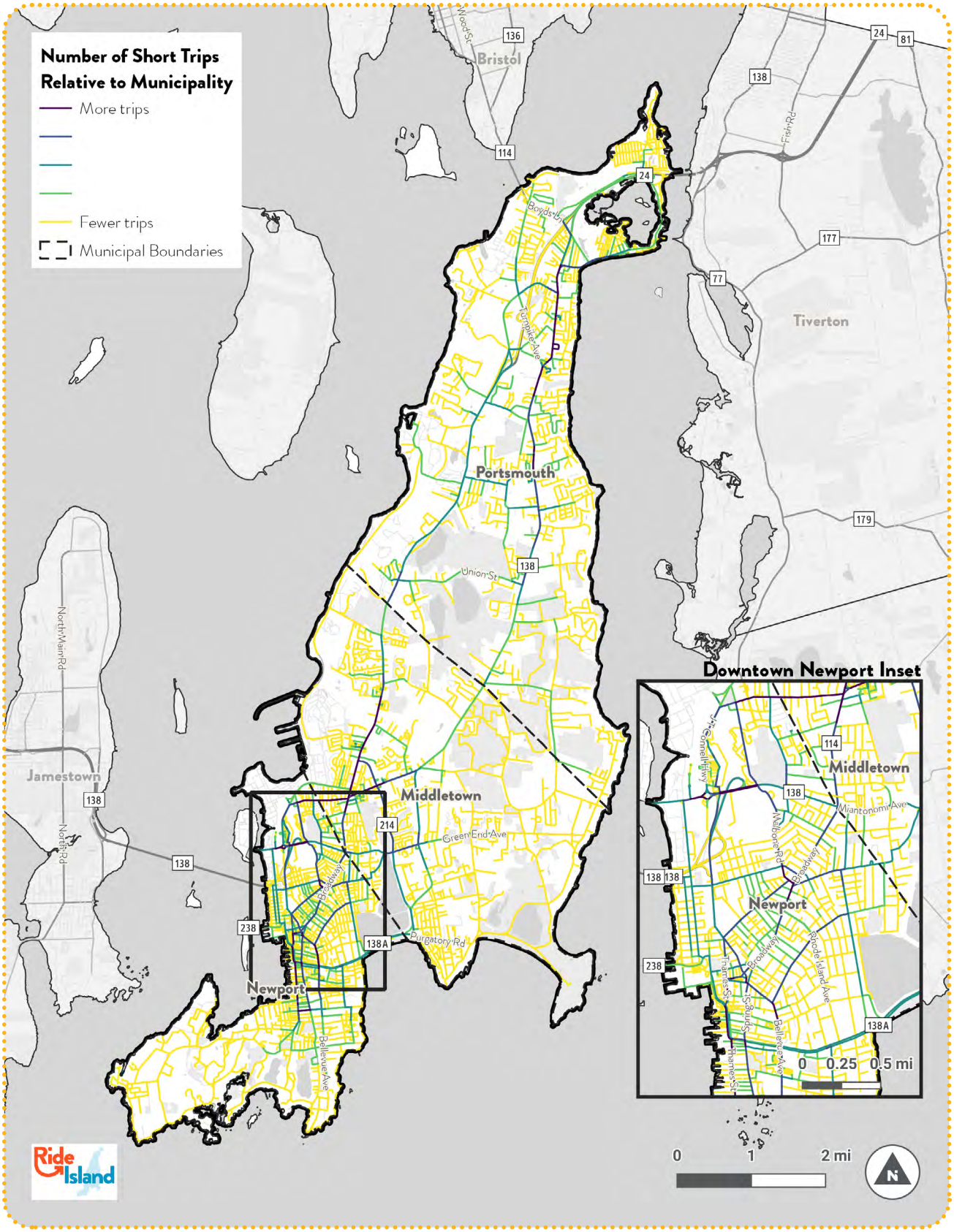


Distribution of length of all trips that start and end on Aquidneck Island
Source: Replica, Fall 2021



Aquidneck Island is **5 miles wide** and **15 miles long**.

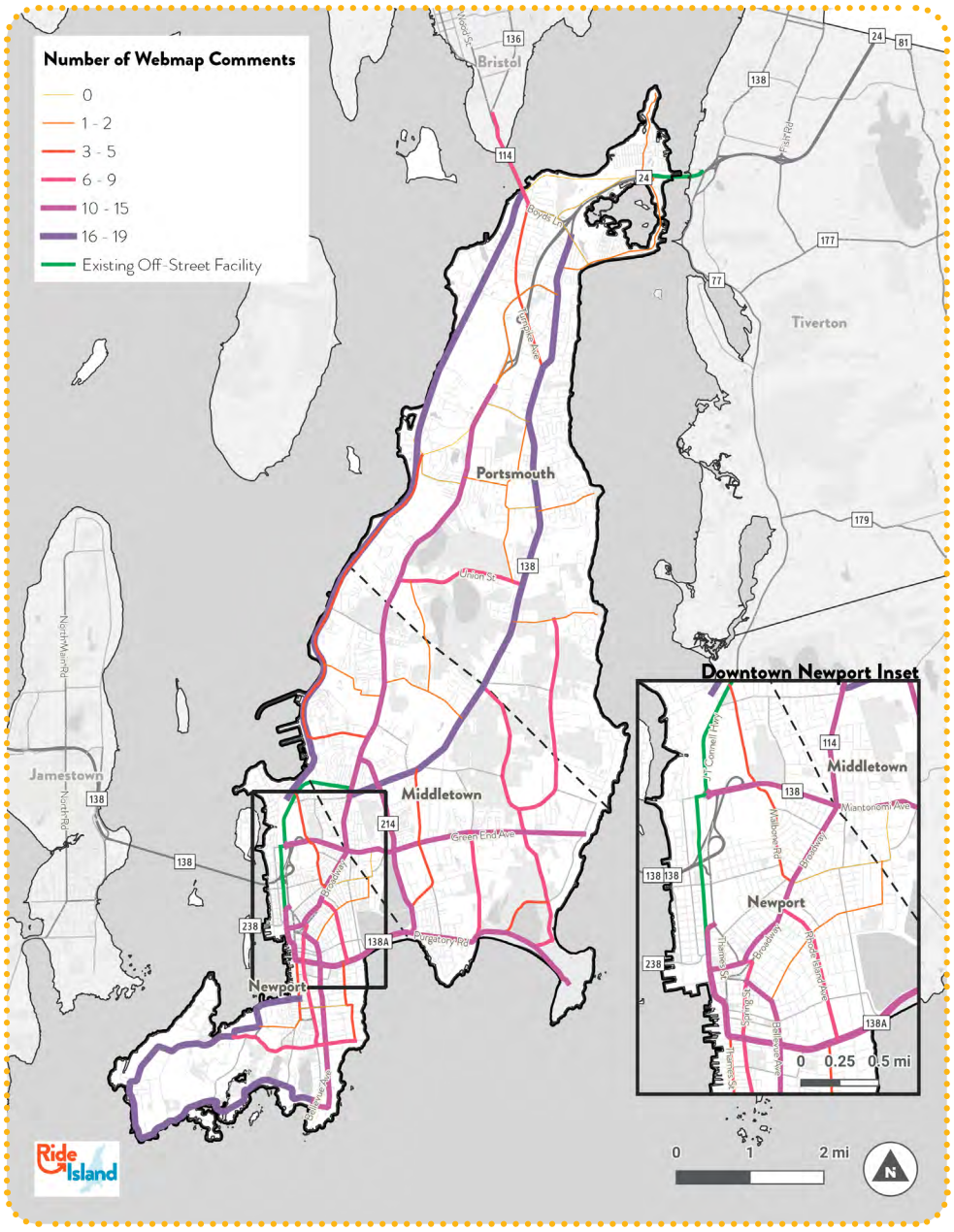
For comparison, Hilton Head, SC, is **5 miles wide** and **12 miles long**.



Trips of four miles or less on Aquidneck Island roads and streets

Interactive Map

Using the combination of bicycle level of traffic stress and the potential for biking based on short trips, a proposed bike network has been developed. A final step was to share this bike network with the public via an interactive web-based map. This yielded a number of comments that informed the final proposed bike network. Corridors with the greatest number of comments in support of bike infrastructure included East Main Road, the Railroad right-of-way, and the Ocean Loop.



Interactive map comment frequency

Planned Projects

The following table shows project listings for the FFY 2022-2031 STIP under the Active Transportation Program, which "aims to encourage the use of active, healthful, and environmentally conscious avenues for transportation [through] investments in sidewalks, shared-use-pathways, safety improvements for bicyclists and pedestrians, data collection, or support for other recreational facilities." The full project list, and additional information on the STIP, can be found here.

Aquidneck Island Bike Plan - FFY 2022-2031 STIP Project Dashboard						
Municipality	**STIP ID#**	**Project Name**	**Design ($)**	**Construction ($)**	**Other ($)**	**Description**
Newport	5106	Farewell Street Pavement Preservation and Sidewalk (America's Cup to Van Zandt)		$1,250,000		This project will resurface RI-238 Farewell Street in conjunction with sidewalk improvements. These improvements entail sidewalk repairs, new granite curbing, and additional accommodations for ADA accessibility.
	5107	Bellevue Ave ADA Sidewalk & Access Improvements (Kay St to Ocean Ave)		$11,500,000		This project will make sidewalk improvements to address ADA accessibility deficiencies through the installation of ADA curb access ramps and replacement of chip stone sealed sidewalks.
	5109	Safe Routes to School - Hillside Ave Sidewalks		$230,000		This project includes sidewalk improvements and/or new sidewalk installation on Hillside Ave from Bedlow Avenue to Maple Avenue. Wheelchair ramp repairs and upgrades are included in this project.

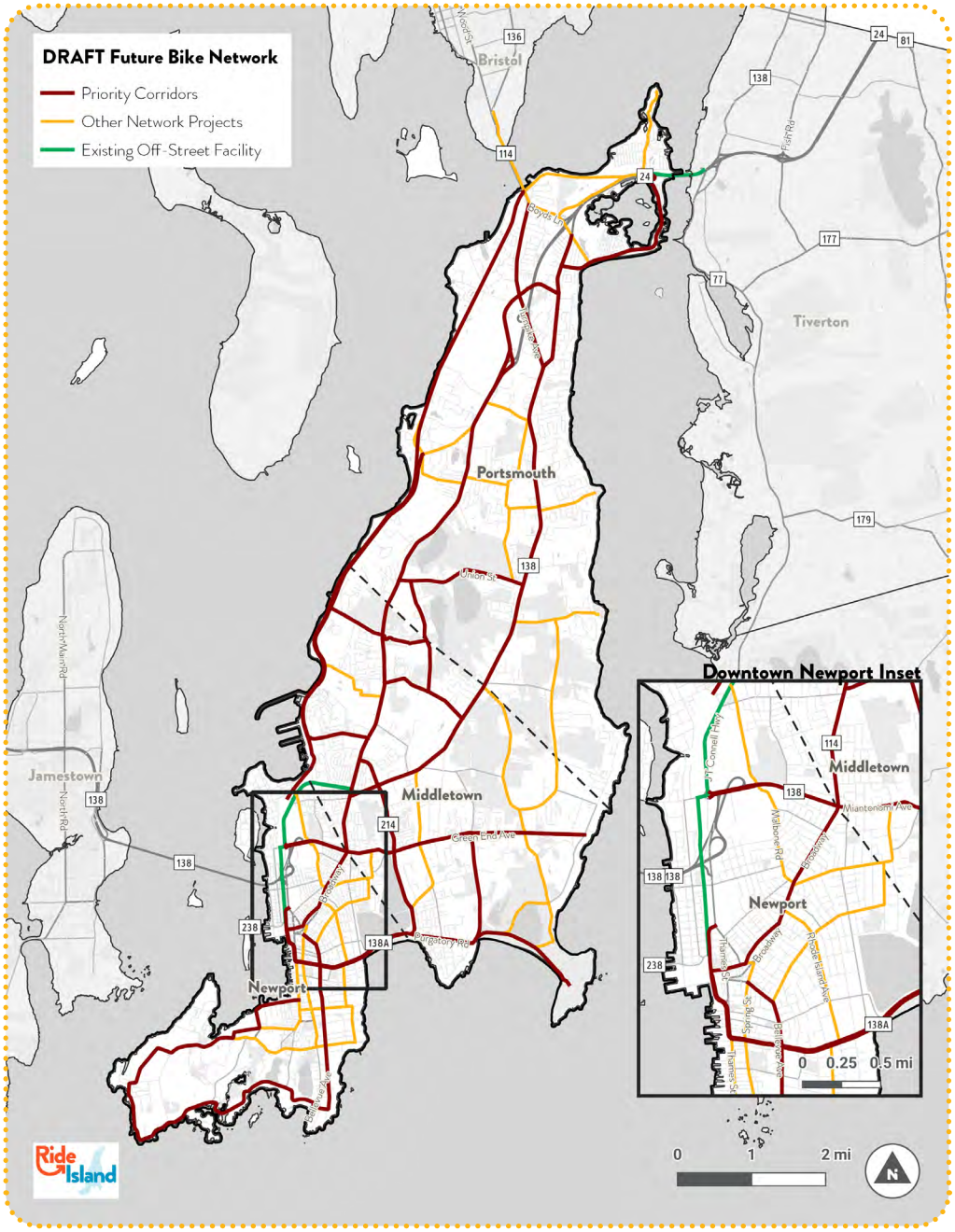
Aquidneck Island Bike Plan - FFY 2022-2031 STIP Project Dashboard						
Municipality	**STIP ID#**	**Project Name**	**Design ($)**	**Construction ($)**	**Other ($)**	**Description**
Middletown	1359	RI-214 Valley Rd (RI-138A Aquidneck Ave to RI-138 East Main Rd)	$350,000	$3,200,000	$200,000	This line item involves resurfacing of the roadway from Green End Avenue to RI-138 East Main Road. Sidewalk and handicapped ramp replacement will be performed for the entirety of the route, from Aquidneck Avenue to East Main Rd.
	5070	RI-138A Aquidneck Ave (Purgatory Rd to Green End Ave)	$400,000	$2,650,000	$200,000	This line item involves resurfacing of the roadway from Purgatory Road to Reservoir Avenue. Sidewalk and handicapped ramp replacement will be performed for the entirety of the route, from Purgatory Road to Green End Avenue.
	5072	Purgatory Rd Sidewalk Installation (Aquidneck Ave to Paradise Ave)		$820,000		Install a sidewalk along Purgatory Road between the Atlantic Beach District and Second Beach. This project received a $960,000 USDOT earmark in 2022.
	9005	East Main Road Shared Use Path - Phase 2 - Turnpike Ave. to Union St. and Sandy Point Ave. to Enterprise Ctr.	$750,000	$2,250,000		This project will create a shared-use path for pedestrians and bicyclists within the East Main Road (RI-138) corridor, from Turnpike Avenue to Union St and Sandy Point Ave to Enterprise Center, including signal improvements to intersections of Union St and Sandy Point Ave at East Main Road. The segment of RI-138 between Union Street and Sandy Point Avenue will be improved in Phase 1, TIPID 9004. This project may require additional funding beyond 2031.

Aquidneck Island Bike Plan - FFY 2022-2031 STIP Project Dashboard						
Municipality	**STIP ID#**	**Project Name**	**Design ($)**	**Construction ($)**	**Other ($)**	**Description**
Portsmouth	1377	Sprague St Resurfacing and Sidewalks (E. Main Rd to Bristol Ferry Rd)	$300,000	$1,650,000	$150,000	This line item involves resurfacing of the roadway and installation of new sidewalks and handicapped ramps. This project may also include additional improvements to traffic and pedestrian safety alongside improvements to stormwater drainage. The project will be coordinated with TIPIDs 1360 and 1376 in the Pavement Capital Program.
	5161	Aquidneck Island Bikeway - Melville Connector		$2,160,000		Design and construct a shared-use bicycle pedestrian facility linking West Main Road at Old West Main Road to Burma Road at Stringham Road in Portsmouth.
	5162	Mount Hope Bay Bicycle Improvements		$160,000		This project would provide for safety improvements and signage to Anthony Road and Boyds Lane in Portsmouth, and to the Mt. Hope Bridge to better accommodate and improve safety for bicyclists.
	9004	East Main Rd Shared Use Path - Phase I (Union St to Sandy Point Ave)	$300,000			This project will create a safe shared-use path along RI-138 from Union Street to Sandy Point Avenue and make improvements to handicap accessibility. This section of RI-138 was previously included under TIPID 9005, East Main Road Shared Use Path - Phase 2.

Bicycle Network Recommendations

A proposed future bike network is shown on this map. The network shows both high priority corridors and a complete network, which is proposed with consideration of:

- **Safety** – Where are people on bikes most exposed to hazardous and stressful conditions?
- **Connectivity** – Where do people need to ride to make everyday trips by bike?
- **Equity** – Ensure all islanders are served, including people of all incomes and backgrounds, and commuters for all types of work.

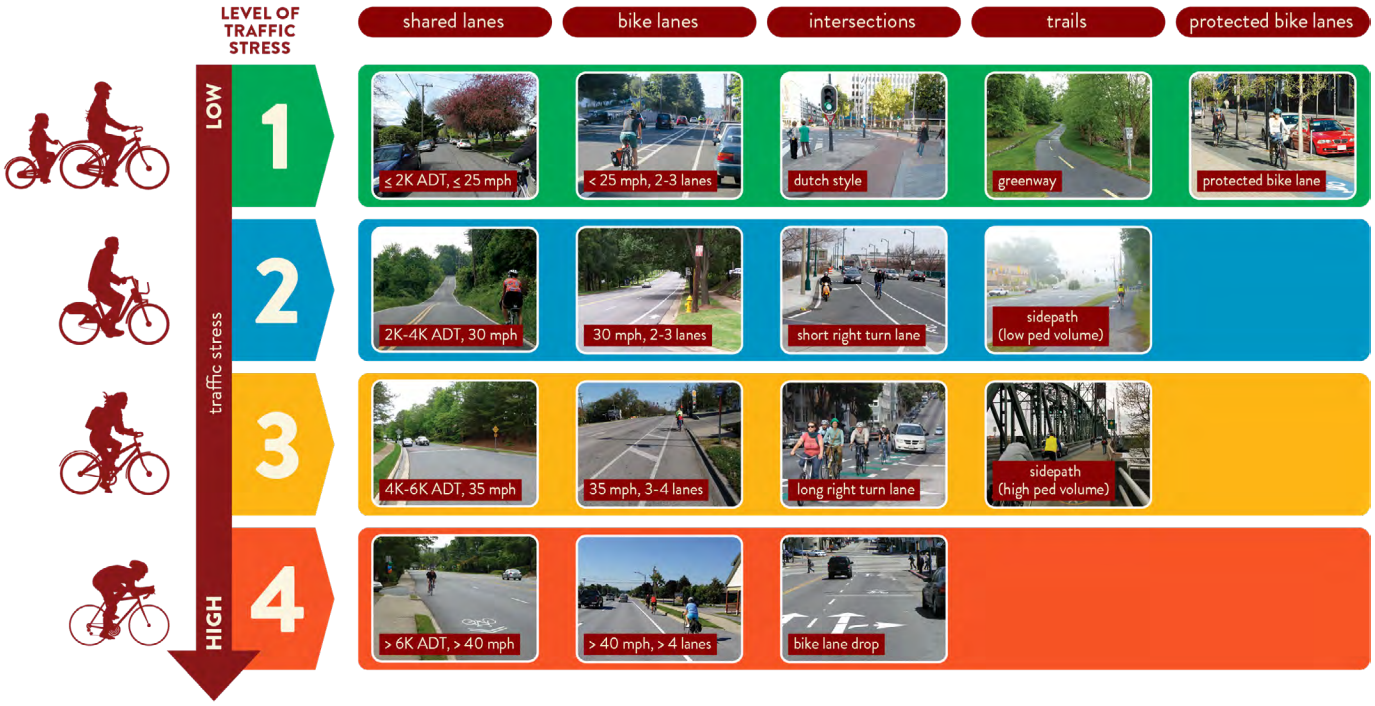


Aquidneck Island's Proposed Future Bike Network

Bicycle Facility Selection

The next step in planning the Ride Island network is to look at each corridor and determine the type of facility that is best suited to providing low stress biking.

Candidate Infrastructure Ranked by Stress Level



Excellent resources are available for bikeway facility selection:

- The level of traffic stress is based on combination of volume, speed and degree of separation from traffic
- Any of these three factors can be adjusted on a street in order to create a low stress bike route. For example, reducing traffic speeds or volumes through the use of traffic calming, can reduce the level of stress and create a more appealing bike route. However, on corridors with high volumes or speeds, separation is needed.
- While a variety of bikeway types can be considered for any specific corridor; ideally, a bike network will have a consistent level of comfort to make riding easier and more intuitive.

RESOURCES

Massachusetts DOT Municipal Resource Guide for Bikability

Bicycle Facility Toolbox (Cambridge, Massachusetts)

Bikeway Selection Guide (Federal Highway Administration)

Example Bicycle Facility Types

- **Bicycle Boulevard:** Bicycle boulevards (sometimes referred to as neighborhood greenways) are low volume, low speed routes achieved through interventions such as traffic diversion and/or calming to create a comfortable shared environment for cyclists. Advisory lanes, recommended for many corridors in the Rhode Island Bicycle Mobility Plan, are appropriate for low volume/low speeds streets. These facilities are typically appropriate for local streets that provide important connections within a larger bicycle network.

- **Buffered Bike Lanes:** Buffered bike lanes provide horizontal separation from vehicles for cyclists through a painted buffer without vertical separation. This facility type may be most appropriate for rural settings and long corridors where maintenance of barriers such as flex posts may be challenging.

- **Separated Bike Lanes:** Separated bike lanes provide vertical separation for cyclists through a physical barrier. These facilities may be implemented through quick-build materials such as paint and flex posts, or be fully constructed at sidewalk level or with a permanent raised barrier. Separated bike lanes may also be one-way or two-way facilities as required. Separated bike lanes are typically appropriate in urban settings along major roadways with high vehicle volumes and speeds.

- **Shared Use Path:** Shared use paths (or side paths) are separated trails alongside roadways that allow for two-way, shared use between cyclists and pedestrians. Shared use paths are most appropriate in rural or suburban areas where greater separation from vehicles may be needed, or in urban areas where pedestrian volumes are low enough to share space with cyclists safely.

Bike Network Recommendations

The following lists all of the streets in the recommended bicycle network. They range considerably in length, needs, and potential for mode shift. The priority corridors are shown in more detail on the following pages.

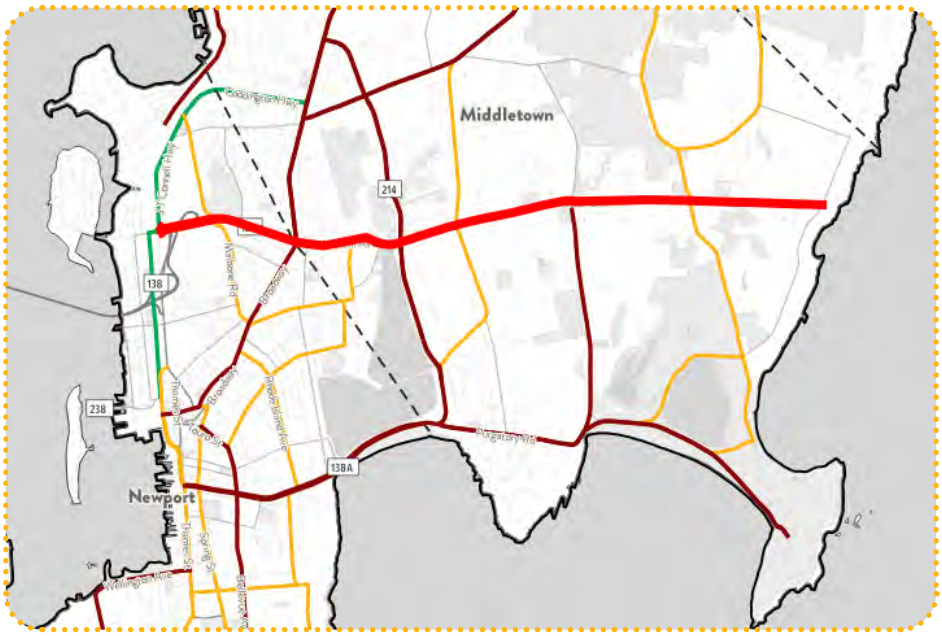
Network Corridor	Length (mi)	Bicycle Level of Traffic Stress	Bicycle Trip Potential	Vehicles per Day	Jurisdiction	Status	Priority?
Admiral Kalbfus/ Miantonomi/ Green End	4.4	4	very high	27,100	RIDOT/ Local	RIBMP	Y
America's Cup	1.3	4	very high	19,000	RIDOT	RIBMP	Y
Annandale Rd/Ochre Point Ave	1.1	3	high	2,800	Local		
Anthony Rd	1.2	3	medium	2,900	Local		
Anthony Rd/ Boyds Ln (Bridge to Bridge)	1.9	4	high	10,300	RIDOT/ Local	RIBMP	
Aquidneck Ave	2.0	4	very high	15,500	RIDOT	RIBMP	
Bellevue Ave/ Touro St	2.7	4	very high	13,100	Local	RIBMP	Y
Bliss Rd/Bliss Mine Rd	1.0	3	very high	2,900	Local		
Boyds Ln	0.8	4	high	10,200	RIDOT	RIBMP	
Marlborough St	1.4	4	very high	17,300	Local	RIBMP	Y
Browns Ln	1.0	1	high	500	Local	RIBMP	
Burma Rd/ Access Rd	5.2	4	very high	6,300	US Navy/ Local	RIBMP	Y
Carroll Ave/ Harrison Ave	0.6	3	high	2,700	Local		
E Main Rd	8.8	4	very high	26,900	RIDOT	RIBMP	Y
Girard Ave/ Malbone Rd	1.4	3	very high	3,600	Local	RIBMP	
Greene Ln/ Pasture Farm Dr	1.4	4	high	2,600	RIDOT/ Local		Y
Hanging Rock Rd	0.9	2	medium	900	Local		

Network Corridor	Length (mi)	Bicycle Level of Traffic Stress	Bicycle Trip Potential	Vehicles per Day	Jurisdiction	Status	Priority?
Hedly St	0.6	3	medium	2,400	Local	RIBMP	
Jepson Ln	1.5	3	medium	2,900	Local	RIBMP	Y
Kay St/Kay Blvd	1.3	3	very high	4,300	Local	RIBMP	
McCorrie Ln	0.8	3	medium	2,400	Local		
Melville Connector	0.8	n/a	medium	n/a	Local	RIBMP	
Memorial Blvd	3.7	4	very high	21,600	RIDOT	RIBMP	Y
Middle Rd	2.3	3	medium	3,000	RIDOT/ Local	RIBMP	
Mill Ln	0.6	3	high	2,400	Local	RIBMP	
Narragansett Ave	0.6	4	very high	7,800	Local	Newport TMP	
Newport Ocean Loop	6.8	3	high	5,800	Local	RIBMP	Y
Oliphant Ln	1.2	3	high	4,400	Local	RIBMP	Y
Paradise Ave	1.4	3	medium	4,400	Local		Y
Park Ave/ Hummocks Ave	2.4	3	high	2,400	RIDOT	RIBMP	Y
Purgatory Rd/ Hanging Rock Rd/Sachuset Point Rd	2.5	4	high	8,000	RIDOT/ Local	RIBMP	Y
Railroad Right of Way	10.6	n/a	medium	n/a	RIDOT	RIBMP	Y
Rhode Island Ave	1.0	3	high	3,000	Local	RIBMP	
Ruggles Ave/ Beacon Hill Rd/Wickham Rd/Brenton Rd	1.7	3	high	4,500	Local	RIBMP	
Sandy Point Ave	1.2	3	medium	2,900	Local		
Schoolhouse Ln	0.4	3	medium	2,900	RIDOT		
Spring St	1.7	4	very high	11,200	Local	RIBMP	

Network Corridor	Length (mi)	Bicycle Level of Traffic Stress	Bicycle Trip Potential	Vehicles per Day	Jurisdiction	Status	Priority?
Stringham Rd	1.3	3	medium	2,900	Local	RIBMP	
Thames St	0.8	4	very high	7,600	Local	RIBMP	
Third Beach Rd/Mitchells Ln	4.0	3	medium	4,400	Local		
Turnpike Ave/ Bristol Ferry Rd	2.3	4	medium	39,500	RIDOT	RIBMP	Y
Union St	1.8	4	medium	3,000	RIDOT	RIBMP	Y
Valley Rd	2.2	4	very high	13,000	RIDOT	RIBMP	Y
W Main Rd	9.4	4	very high	39,500	RIDOT	STIP	Y
Wapping Rd	2.9	3	medium	2,400	Local		

Priority Corridors

The following pages describe selected high priority corridors in the future bike network. These projects range in bikeway type, complexity and cost, but combined will form a functioning bike network that will get Aquidneck Island on its way to a truly bikeable island community, as shown in this map. There is emphasis both on strengthening east-west connections to overcome the barriers created by East and West Main Roads; and developing bike infrastructure on the island's north/south corridors. There are also routes that provide outstanding scenic recreational experiences, such as the signature Ocean Loop.



Cross-Town Connector

ADMIRAL KALBFUS/MIANTONOMI/GREEN END

CRITICAL DATA

Length	4.4 miles
Jurisdiction	Admiral Kalbfus: RIDOT Miantonomi/ Green End: Local
Roadway width (typical)	24’
Roadway width (minimum)	20’
Sidewalk?	Partial
Bicycle Level of Stress (max)	4
Posted speed	25
AADT (max)	27,100
Bicycle trip potential	Very High

Why This Corridor?

This corridor provides an important connector between important destinations in Newport and Middletown. A bikeway here will connect Newport’s north end, residential neighborhoods, the Health Equity Zones, schools, parks, and public waterfront access at Taggart’s Ferry Road. With limited parking, a bike route along this corridor will provide equitable and low impact access to the water. Conditions vary widely along the corridor; with sidewalks lacking along most of the corridor and a varying roadway width.

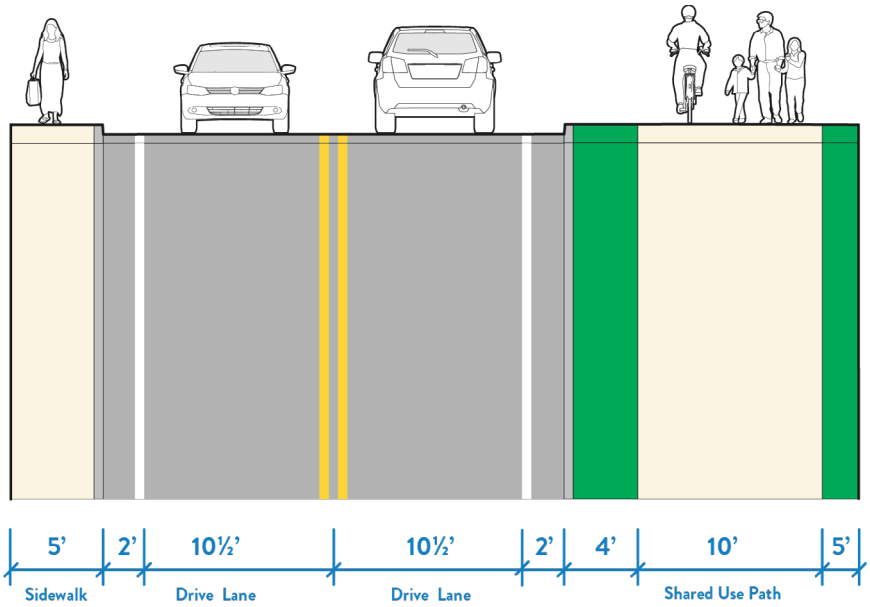
Bikeway Options

With the volumes and speeds of traffic along this corridor, hilly terrain combined with the lack of sidewalks along much of its length, a shared use path is recommended as it will serve both people walking and biking. The cross section shown below represents a typical treatment, though conditions will vary throughout the corridor.

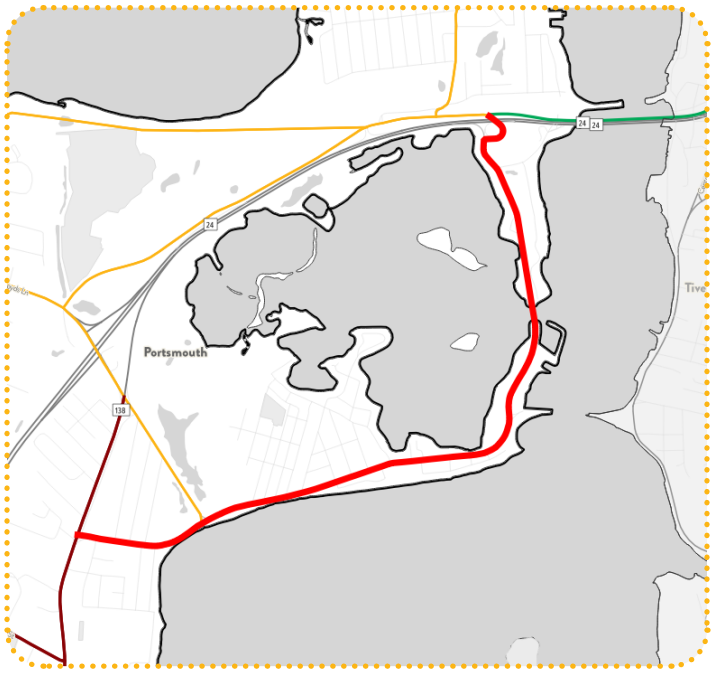
Existing conditions on Green End Avenue, Middletown

Implementation Considerations

- **Right-of-way:** typically about 50 feet wide, which will provide sufficient space for a shared use path, but may impact roadside features such as trees, or require curbing and drainage infrastructure in locations with constraints. Utility poles are likely to require relocation in some areas.
- **Cost and complexity:** High due to potential need for utility relocations, tree or stone wall impacts, drainage infrastructure, and environmental permitting.
- **Who needs to be involved?**
  - Leadership from the City of Newport and Town of Middletown will be required
  - RIDOT support is essential for Admiral Kalbfus due to RIDOT jurisdiction; funding may come through RIDOT depending on the source
- **Who will be impacted?**
  - Residents and destinations along corridor will see significantly improved bike and pedestrian access and safety
  - Landowners may see some impacts if work is required outside of the right-of-way
  - Coordination with utility companies will be required
- **Where to start?**
  - Quick build options can be explored on Admiral Kalbfus where width for bike lanes is available
  - Constructing a shared use path should begin with a design study coordinated by Middletown and Newport



Recommended typical cross section for Admiral Kalbfus/Miantonomi/ Green End



Island Park Multimodal Loop

PARK AVENUE/HUMMOCKS AVE

CRITICAL DATA

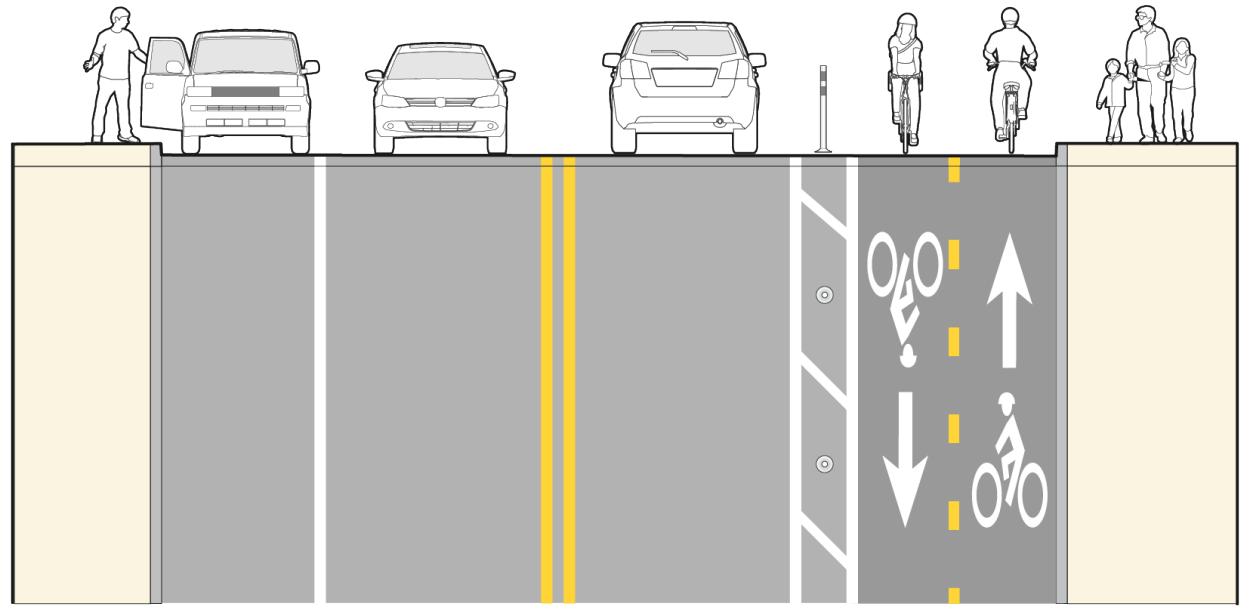
Length	2.4 miles
Jurisdiction	RIDOT
Roadway width (typical)	42’
Roadway width (minimum)	38’
Sidewalk?	Discontinuous
Bicycle Level of Stress (max)	3
Posted speed	25
AADT	2,450
Bicycle trip potential	High

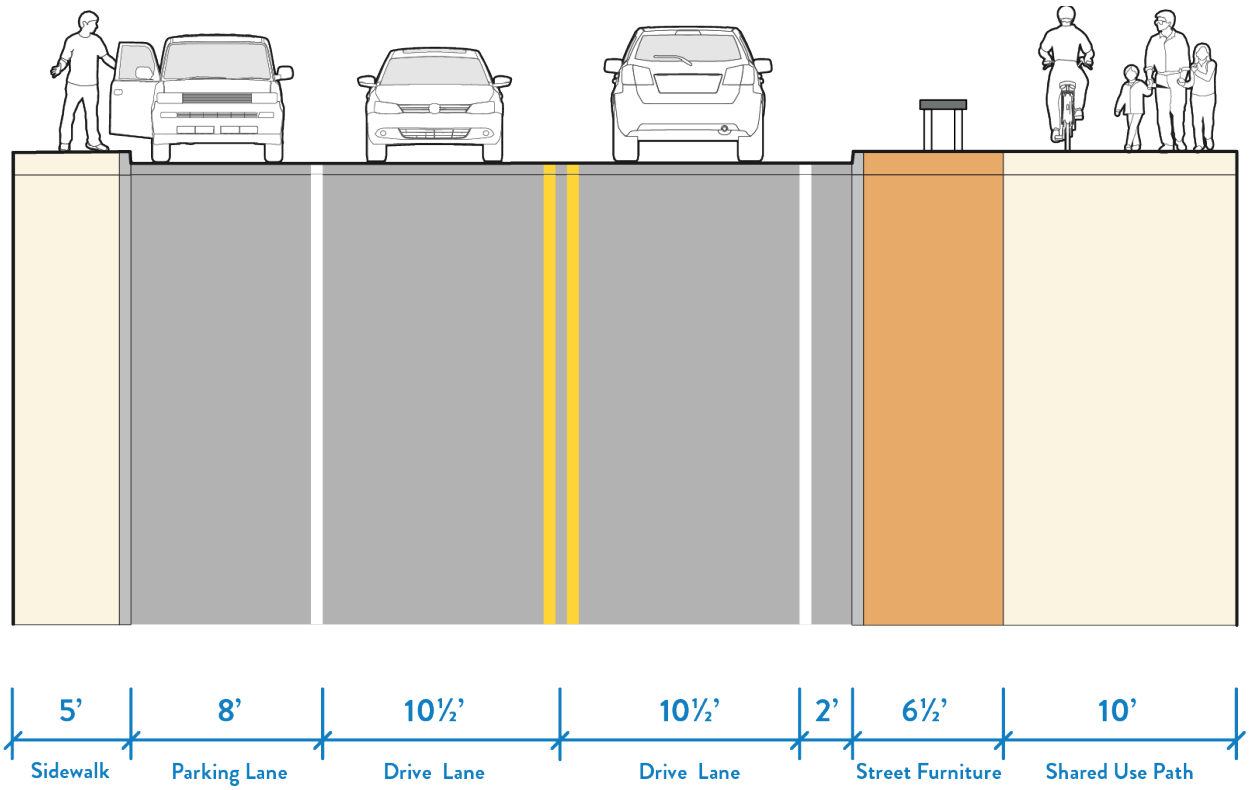
Why This Corridor?

Park Avenue/Hummocks Avenue extends from East Main Road to the Fall River Expressway, providing access to waterfront and beach areas as well as residences and businesses. A bikeway here will serve residents and visitors alike for recreation and connectivity to the greater bike network.

Bikeway Options

While volumes along this stretch are lower than many other corridors, providing separated bicycle infrastructure will allow for all ages and ability access to the beaches and restaurants in this area. This can be accomplished through removal of street parking on one side and implementation of a two-way separated bike lane, or by narrowing the roadway and including a wide shared facility at sidewalk level. In some short segments along the corridor where the available right-of-way is narrower, parking may need to be removed on both sides.



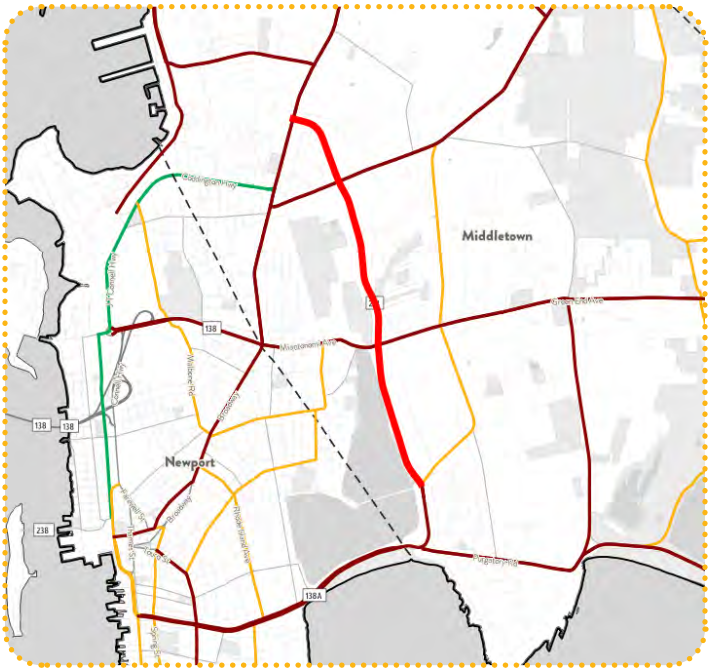


Cross sections for bikeway options

Existing conditions on Park Avenue

Implementation Considerations

- **Right-of-way:** typical 50 feet
- **Cost and complexity:** Medium
- **Who needs to be involved?**
  - Leadership from the Town of Portsmouth will be required
  - RIDOT support is essential due to RIDOT jurisdiction; funding may come through RIDOT depending on the source
- **Who will be impacted?**
  - Residents and destinations along corridor will see significantly improved bike access to a major focal point on Aquidneck Island
  - Reduced parking capacity along Park Avenue
  - Coordination with utility companies will be required
- **Where to start?**
  - The Town of Portsmouth is conducting a feasibility study of Park Avenue and several connecting routes to create a loop around Island Park.



North South Access and Safety

VALLEY ROAD

CRITICAL DATA

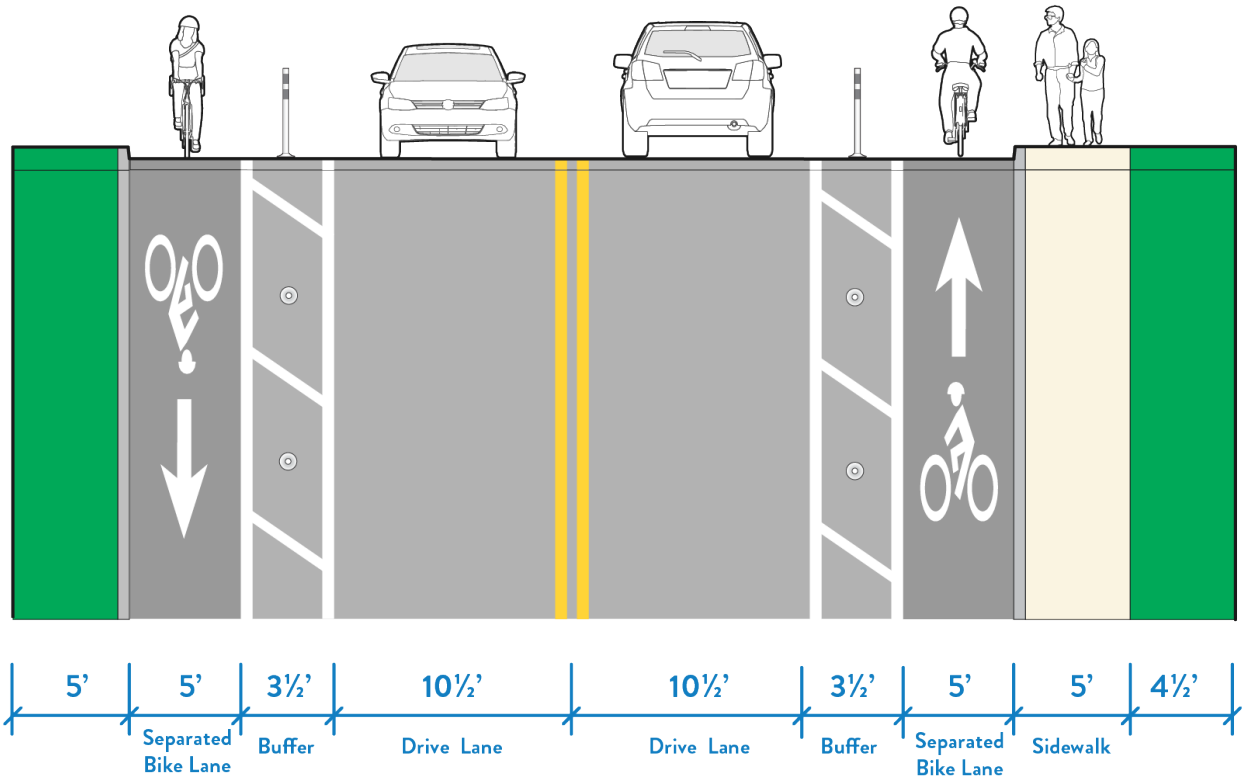
Length	2.2 miles
Jurisdiction	RIDOT
Roadway width (typical)	38’
Roadway width (minimum)	38’
Sidewalk?	Discontinuous
Bicycle Level of Stress (max)	4
Posted speed	35
AADT	13,000
Bicycle trip potential	Very High

Why This Corridor?

Valley Road provides a north-south connection through Middletown, connecting to both East and West Main Roads. There are also several commercial uses including the Newport County YMCA which can be served by bicycle infrastructure along this corridor.

Bikeway Options

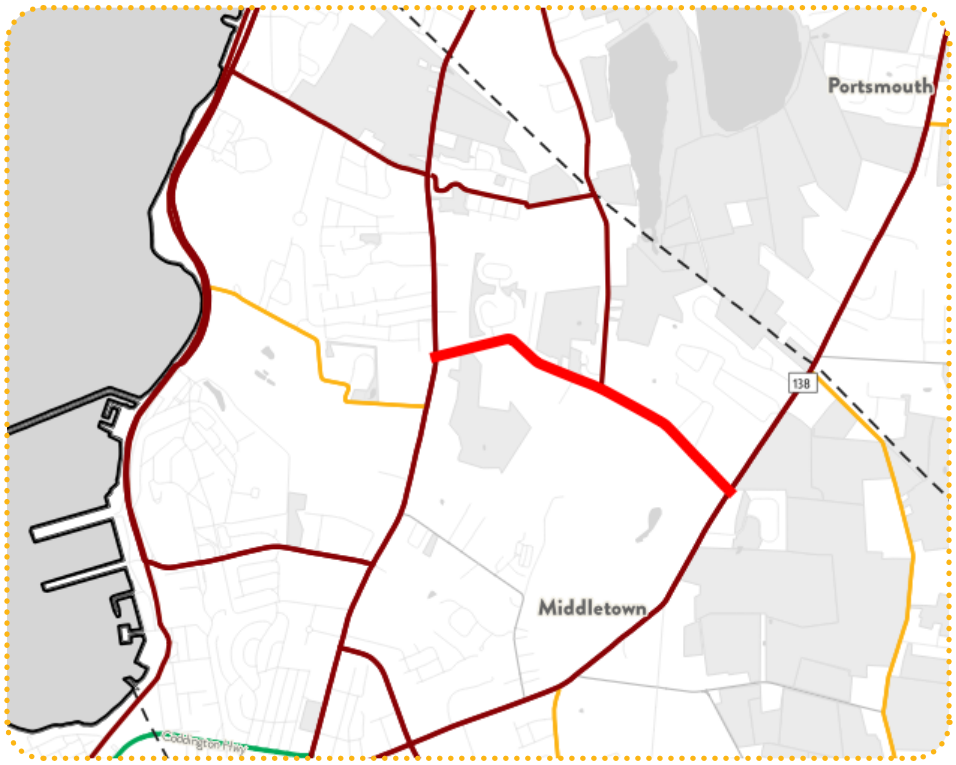
Due to higher speeds and volumes along this route, separated bicycle infrastructure is recommended. In the near-term, on-street separated bike lanes could be implemented without changing the overall width of the roadway.



Existing conditions on Valley Road

Implementation Considerations

- **Right-of-way:** varies, 90 feet or wider
- **Cost and complexity:** Low
- **Who needs to be involved?**
  - Leadership from the Town of Middletown will be required
  - RIDOT support is essential due to RIDOT jurisdiction; funding may come through RIDOT depending on the source
- **Who will be impacted?**
  - Residents and destinations along corridor will see significantly improved bike access
  - Landowners may see some impacts if work is required outside of the right-of-way
  - Coordination with utility companies will be required



Middletown Connector

OLIPHANT LANE

CRITICAL DATA

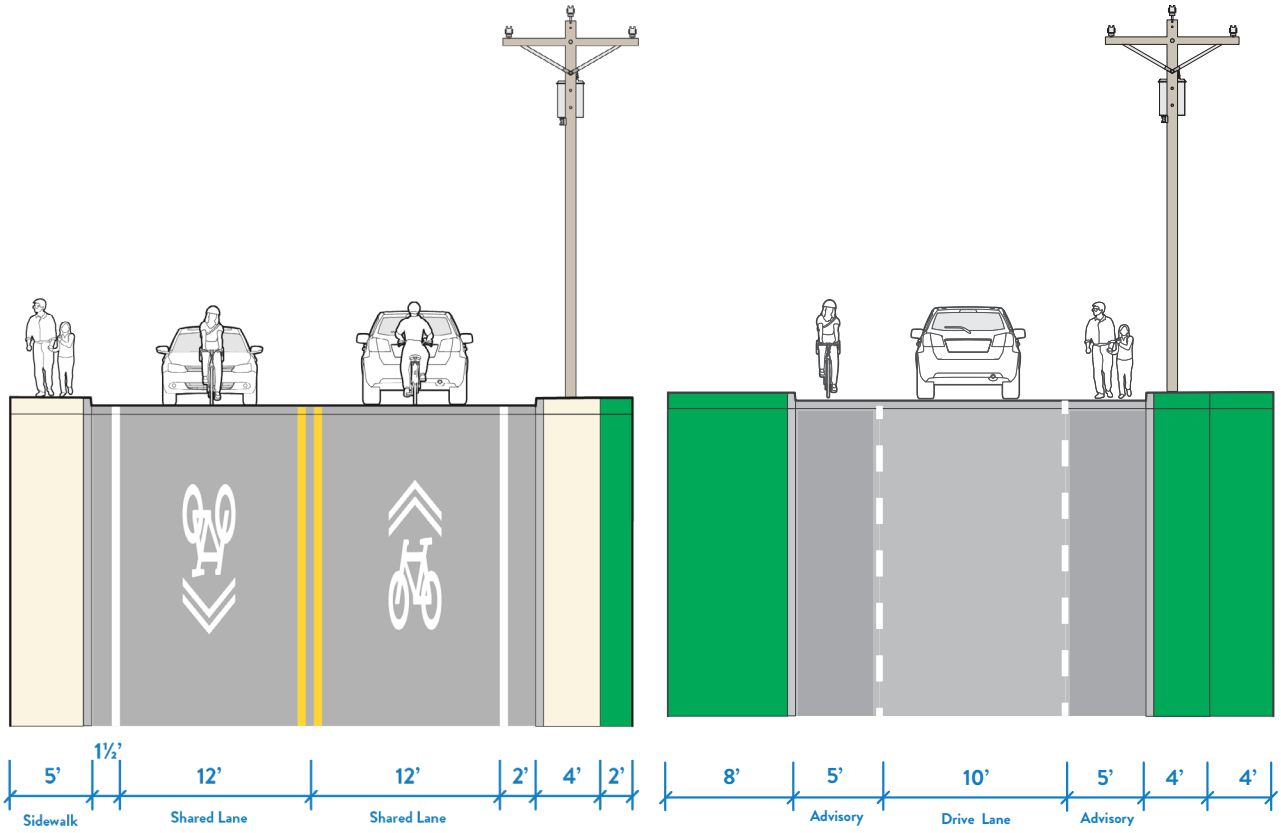
Length	1.2 miles
Jurisdiction	Local
Roadway width (typical)	20’
Roadway width (minimum)	20’
Sidewalk?	N
Bicycle Level of Stress (max)	3
Posted speed	25
AADT	4,450
Bicycle trip potential	High

Why This Corridor?

Oliphant Lane provides an important east-west connection in Middletown between East Main Road and West Main Road. The roadway serves residences and some commercial and industrial uses, and also provides access to Oliphant School.

Bikeway Options

Due to the constrained roadway width along this corridor and low vehicle volumes, a bicycle boulevard treatment could be implemented to provide a comfortable riding experience along this route. This would include measures to calm traffic and ensure operating speeds do not exceed the posted 25 mph limit. Alternatively, a shared use path could be implemented along one side, which may require the relocation of overhead utilities.

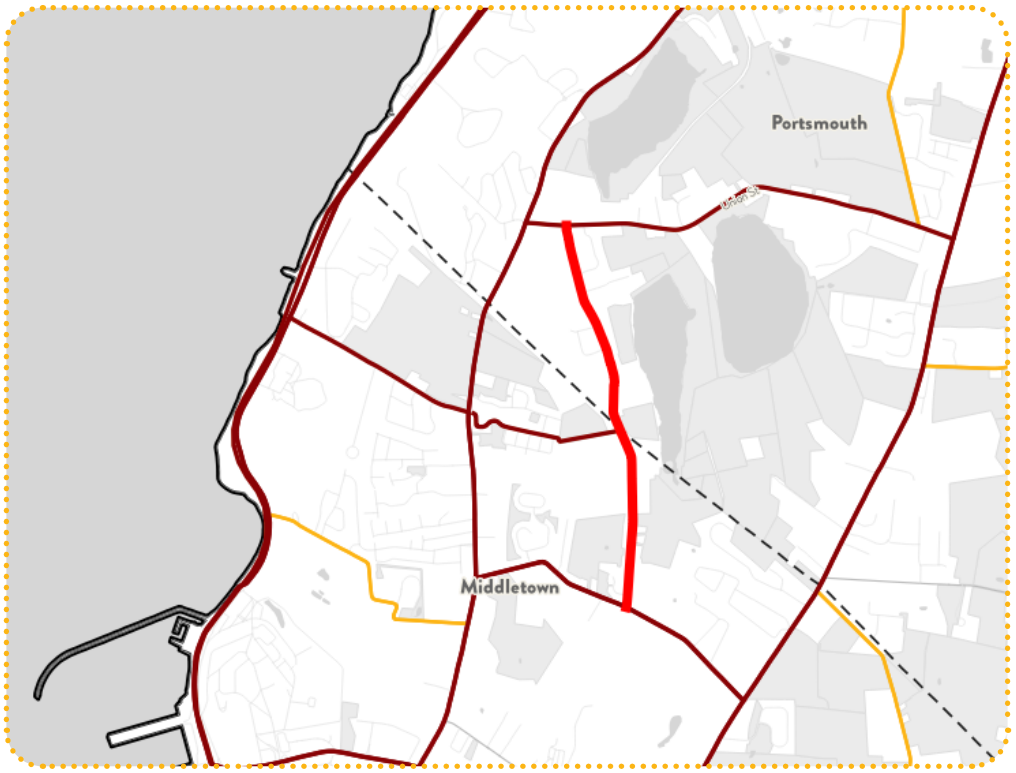


Recommended typical cross section for Oliphant Lane

Implementation Considerations

- **Right-of-way:** 42 feet +/-
- **Cost and complexity:** Low for shared street; medium for shared use path
- **Who needs to be involved?**
  - Leadership from the Town of Middletown will be required
- **Who will be impacted?**
  - Residents and businesses along corridor will see slower speeds and greater safety
  - Landowners may see some impacts if work is required outside of the right-of-way for the shared use path long term option
  - Coordination with utility companies will be required for long term option

Existing conditions on Oliphant Lane



Island Connector

JEPSON LANE

CRITICAL DATA

Length	1.5 miles
Jurisdiction	Local
Roadway width (typical)	22’
Roadway width (minimum)	22’
Sidewalk?	N
Bicycle Level of Stress (max)	3
Posted speed	25
AADT	2,890
Bicycle trip potential	Medium

Why This Corridor?

This corridor provides a spine along the island on a low speed, low volume street, connecting important east-west routes of Oliphant and Jepson. In addition, Portsmouth Middle School is served by this corridor, as well as residential neighborhoods.

Bikeway Options

This route is recommended for advisory lanes and traffic calming in order to ensure a low stress environment for biking. Traffic calming features will need to be selected in coordination with both Portsmouth and Middletown based on their maintenance practices and equipment.

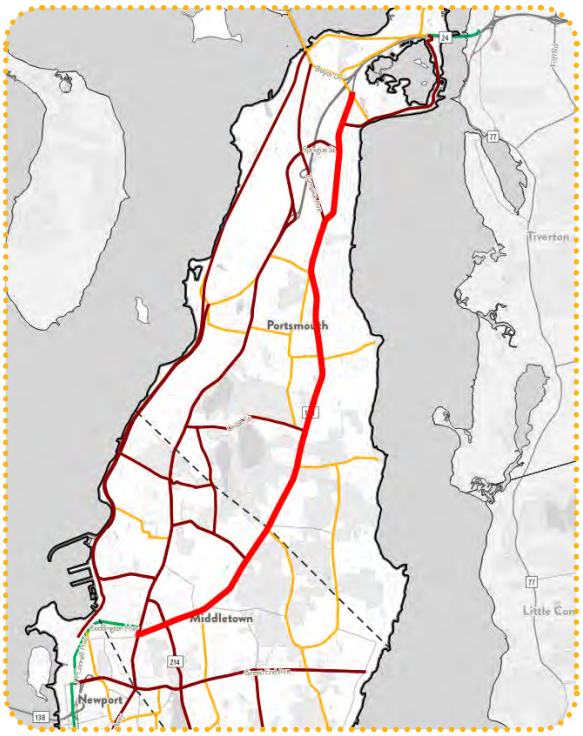
Implementation Considerations

- **Right-of-way:** 30 +/- feet
- **Cost and complexity:** Low
- **Who needs to be involved?**
  - Leadership from the Town of Middletown and Town of Portsmouth will be required
- **Who will be impacted?**
  - Residents and destinations along corridor will see lower speeds and improved bicycle access
- **Where to start?**
  - Bike route signage and simple traffic calming measures will encourage use of this valuable bike connection.

Existing conditions on Jepson Lane

East Side Access and Safety Project

EAST MAIN ROAD



CRITICAL DATA

Length	8.8 miles
Jurisdiction	RIDOT
Roadway width (typical)	38’
Roadway width (minimum)	38’
Sidewalk?	Mostly absent
Bicycle Level of Stress (max)	4
Posted speed	35
AADT	26,900
Bicycle trip potential	Very High

Why This Corridor?

East Main Road has among the highest bike potential in Aquidneck Island, along with Broadway and West Main Road. There is great potential for converting short auto trips to bike trips, but this corridor has among the most hostile conditions for biking. This corridor has significant needs for walking and transit, with complete lack of safe crossings to access bus stops. Any project on this corridor must consider these multimodal needs.

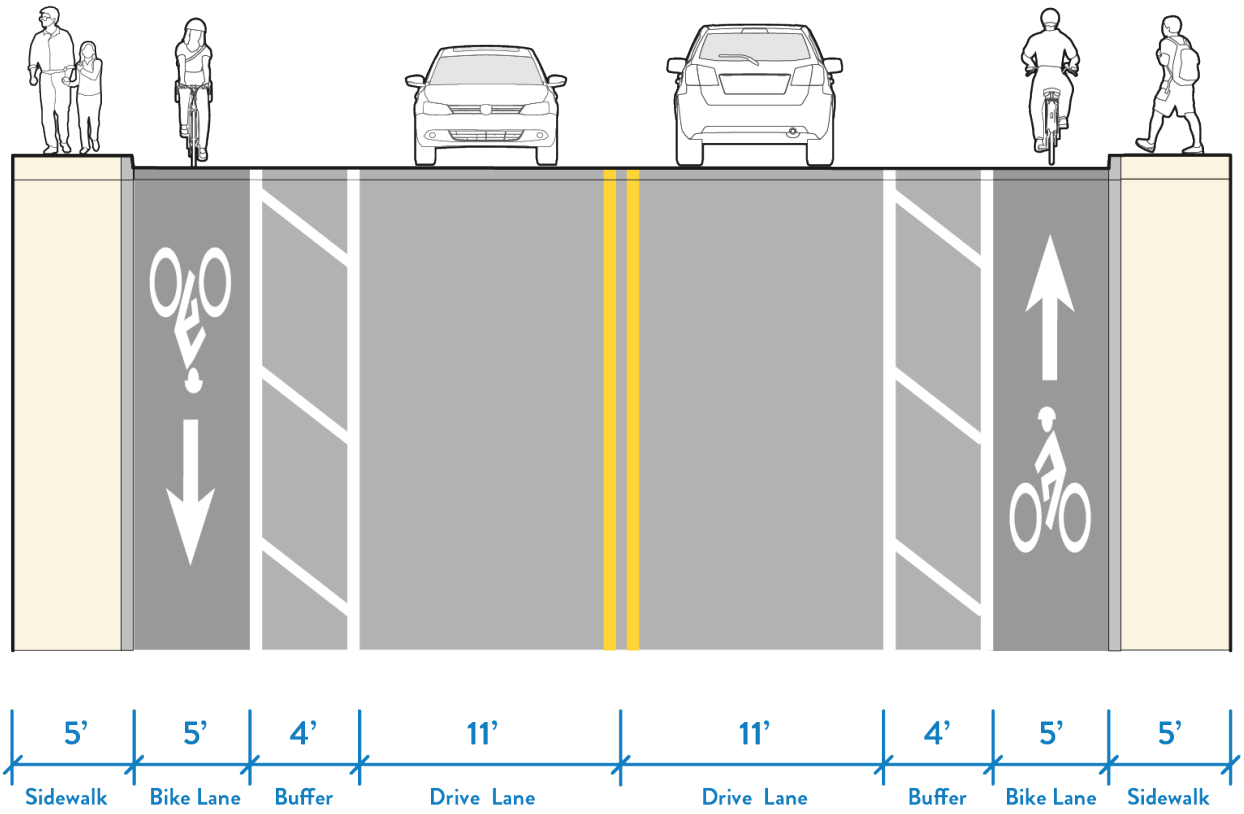
Bikeway Options

The options shown below both assume roadway reconfiguration from four to two or three lanes. The first option shown is a quick build bike lane treatment, where no changes to the existing curbs are required except at intersections where turn lanes may be required. The second shows an option for a fully separated shared use path, which also addresses pedestrian needs in segments where sidewalks are lacking.

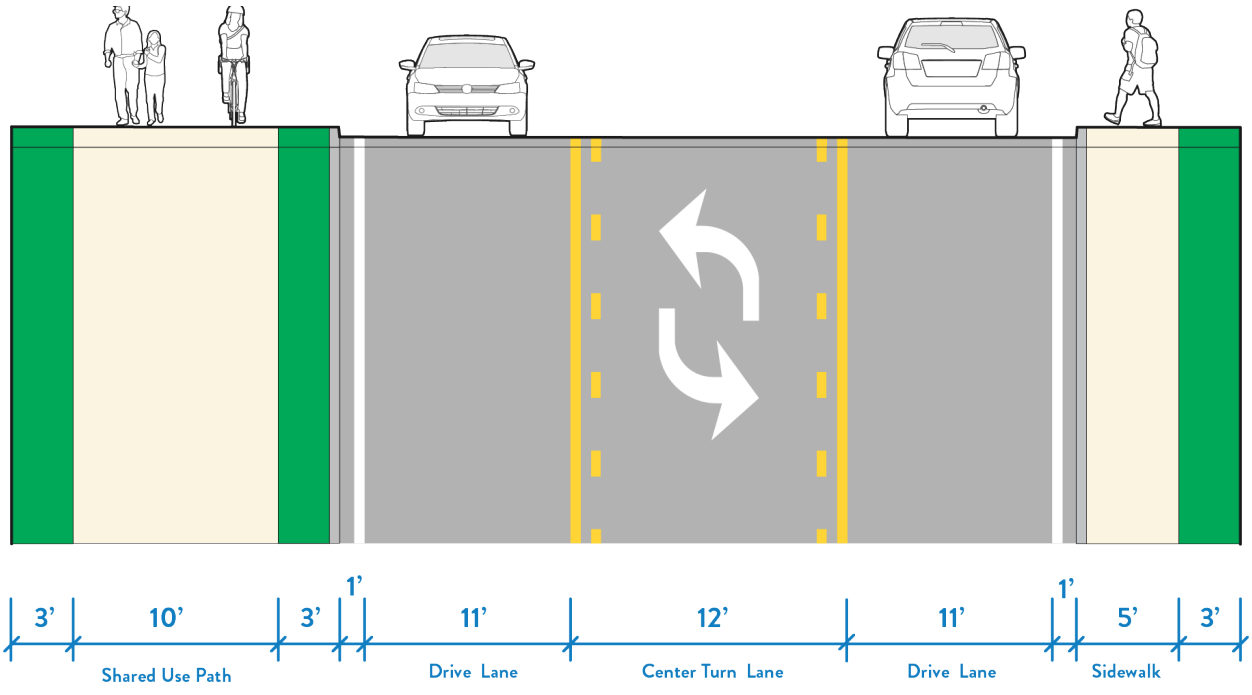
East Main Road has frequent RIPTA service, but lacks sidewalks and accessible bus stops.

There are few opportunities to cross East Main Road as a pedestrian.

Bikeway options for East Main Road



Quick Build Buffered Bike lanes



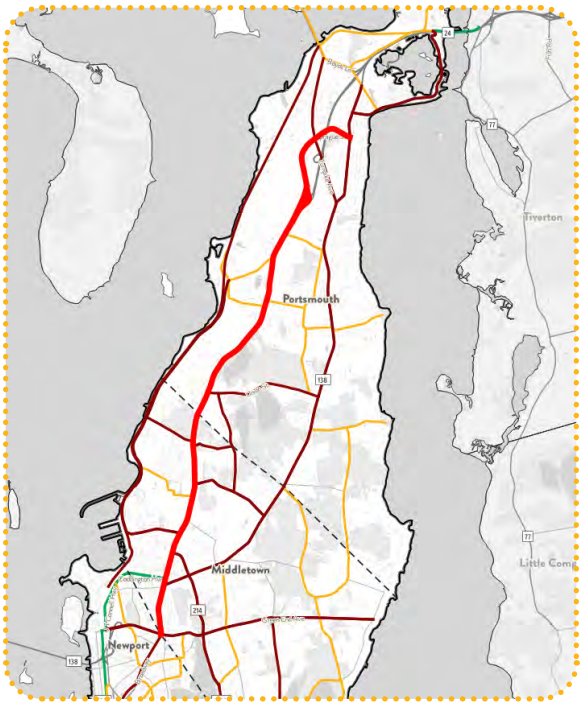
Shared Use Path

Implementation Considerations

- **Right-of-way:** varies; 60 feet typical
- **Cost and complexity:** Medium for quick build, High for long term
- **Who needs to be involved?**
  - Leadership from the Town of Middletown and Town of Portsmouth will be required
  - RIDOT support is essential due to RIDOT jurisdiction; funding may come through RIDOT depending on the source
- **Who will be impacted?**
  - Residents and destinations along corridor will see significantly improved bike access, and pedestrian access for option 2.
  - Landowners may see some impacts if work is required outside of the right-of-way
  - Biking and walking access to RIPTA service will be enhanced
  - Coordination with utility companies will be required for option 2
- **Where to start?**
  - Test reconfiguration of East Main Road as part of the upcoming RIDOT resurfacing project. The reconfigured pavement markings can be applied to the base course of pavement, and observations and adjustments can be made before the final pavement surface is applied.
  - Two short segments of East Main Road should be advanced for early implementation: Between Turner Road and Oliphant Lane in Middletown and between Sandy Point Road and Union Street in Portsmouth. Both these critical links will provide safe access along East Main Road to connect a bike network on local streets.
  - The reconfiguration of East Main Road should prioritize safety for walkers and bikers above the convenience of commuters. Traffic congestion can be tolerated for short periods of the day as a tradeoff for safety and livability benefits that accrue 24 hours a day, seven days a week.

West Side Access and Safety Project

WEST MAIN ROAD



CRITICAL DATA

Length	8.2 miles
Jurisdiction	RIDOT/Local
Roadway width (typical)	44’
Roadway width (minimum)	40’
Sidewalk?	Discontinuous
Bicycle Level of Stress (max)	4
Posted speed	25-45
AADT	24,000 to 46,000
Bicycle trip potential	Very High

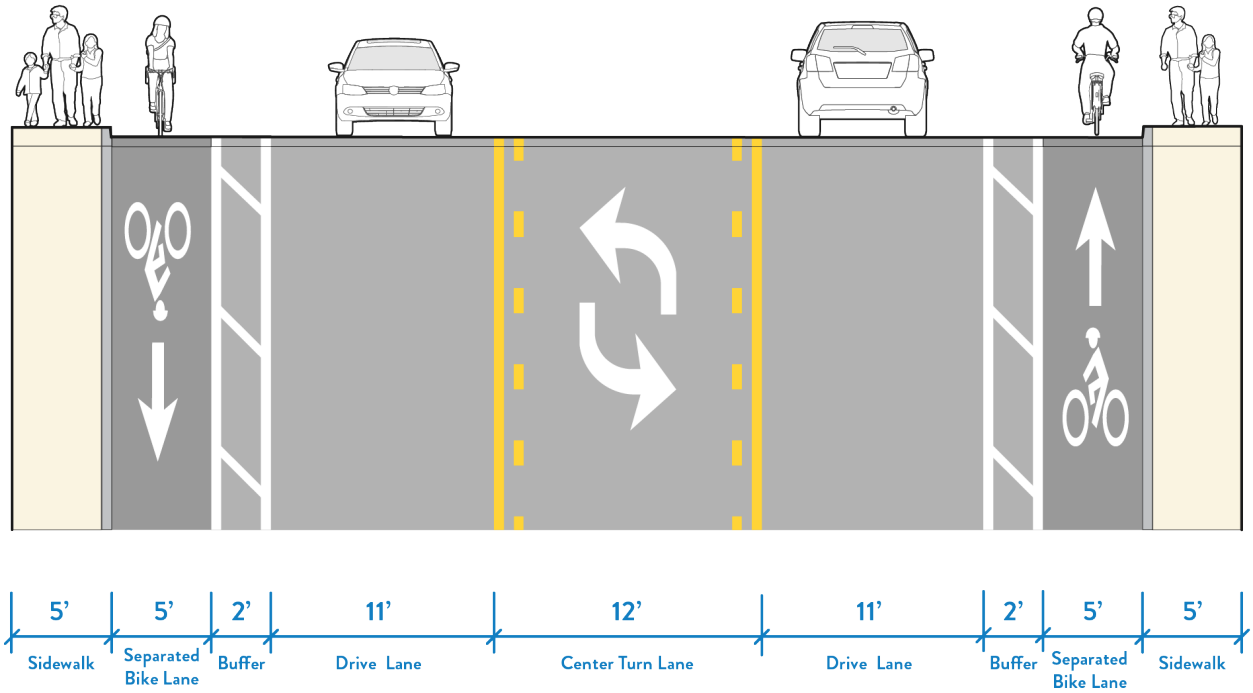
Why This Corridor?

With the highest bike potential on Aquidneck Island, this corridor has numerous destinations and serves many trips that could potentially be converted to bike trips. This corridor also has the highest vehicular traffic volumes on the island, and high posted speeds.

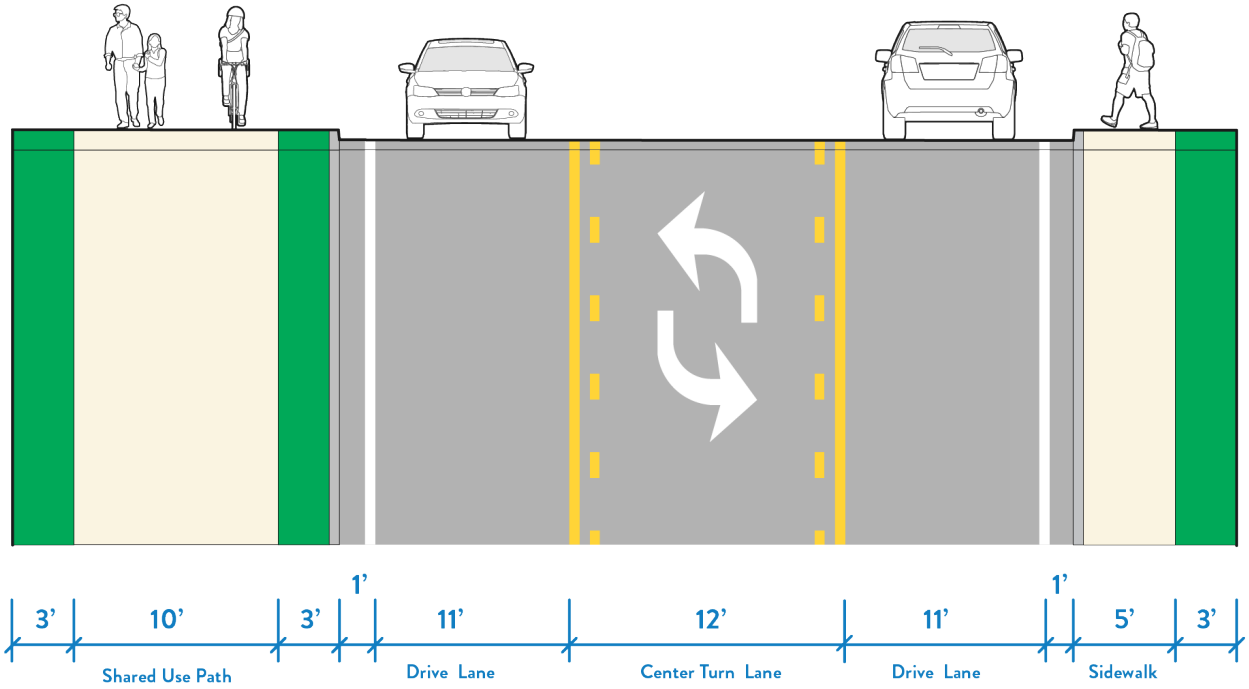
Bikeway Options

Completely separated facilities are warranted on West Main Road due to the high speeds and volumes. The design will vary along the corridor depending on if the volumes are compatible with a road diet, and whether or not a sidewalk is present. Buffered bike lanes can be provided within the existing paved area where a road diet is feasible and sidewalks exist as a short term measure, but this does not provide the separation that is needed on this busy corridor. In the northern sections, where there are generally no sidewalks, a shared use path should be constructed on one side (option 2).

Bikeway options for northern portions of West Main Road



Quick build buffered bike lanes



Shared Use Path

Implementation Considerations

- **Right-of-way:** typical 66 feet
- **Cost and complexity:** High
- **Who needs to be involved?**
  - Leadership from the Town of Middletown and Town of Portsmouth will be required
  - RIDOT support is essential due to RIDOT jurisdiction; funding may come through RIDOT depending on the source
- **Who will be impacted?**
  - Residents and destinations along corridor will see significantly improved bike access, and pedestrian access for option 2.
  - Landowners may see some impacts if work is required outside of the right-of-way
  - Biking and walking access to RIPTA service will be enhanced
  - Coordination with utility companies will be required for option 2
- **Where to start?**
  - Two segments of West Main road should be advanced for early implementation: Between Valley Road and Chases Lane in Middletown and between Union Street and Oliphant Lane spanning Middletown and Portsmouth. These two critical links will provide safe access along and across West Main Road to connect a bike network using local streets.
  - Study the reconfiguration of West Main Road as a four-to-three road diet (see below). While it is likely that volumes in the southern end of the corridor exceed the capacity, based on a review of RIDOT data, it appears that diminish considerably north of Oliphant. This option was not evaluated in the Road Safety Assessment conducted by RIDOT. Developing biking and walking infrastructure will be much more feasible, less costly, and accomplished with fewer right-of-way and property impacts if West Main Road is reconfigured with three lanes.

ROAD DIETS ON EAST AND WEST MAIN ROADS?

RIDOT conducted a Road Safety Assessment for the Portsmouth portions of East and West Main Roads. The focus of this study was to identify short and long term safety improvements that could address the unusually high crash rates along the corridor. It was found that a reconfiguration of East Main Road, from four travel lanes (two in each direction) to three travel lanes (one in each direction plus left turn lanes) would reduce crashes significantly, which could save lives, prevent injuries, and mitigate damage from crashes. However, the recommendation for a road diet is not currently being pursued because of concerns about traffic congestion, though the report does not contain any information about the traffic.

A Road Safety Assessment is not a comprehensive corridor plan, and does not consider options to address the serious, dangerous deficiencies for people walking and biking on East Main Road. From the perspective of community health and well being, a road diet would have a number of benefits. Besides the obvious benefits of fewer crashes, these potentially include:

- More orderly traffic flow and less stressful driving (no need to decide which lane to be in, and no need to switch lanes quickly to avoid being blocked by a left turn vehicle)
- More space to install needed biking and walking infrastructure and more opportunity to save the treasured historic landscape of East Main Road (mature street trees, stone walls)
- A more walkable, sociable public realm for Portsmouth and Middletown residents and visitors to enjoy active travel

It is likely that the study did not give adequate consideration to the fact that left turns at unsignalized intersections from East Main Road often block a lane of traffic during the wait for a gap. During these times, there is effectively only one lane of traffic, and the result is many stressful lane changes for drivers. As such, the change in capacity from a road diet may not be very noticeable.

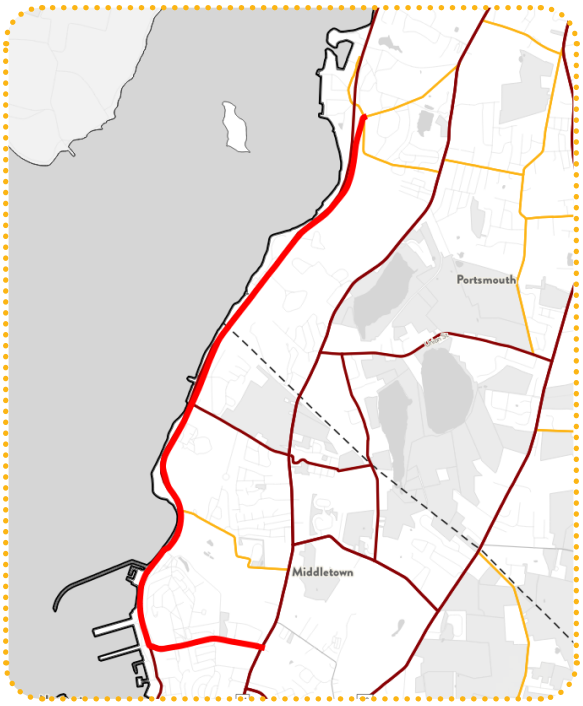
The additional commute time that would result from a road diet is likely to be under ten minutes during peak traffic hours, and much less throughout the rest of the day. While this poses some inconvenience, this tradeoff must be considered against the very significant safety benefits and the opportunity to build safe walking and biking infrastructure in a way that is cost effective and saves the unique historic landscape of East Main Road. A more comprehensive planning study of East Main Road is needed to evaluate these tradeoffs, and ensure that the community's values are reflected in the decisions.

On West Main Road, the southernmost portion near the naval station has volumes that exceed the threshold recommended for road diets. However, from Oliphant to the north, volumes diminish, according to data provided by RIDOT, and are within the threshold where a road diet should be considered to provide a safer corridor and affordable bicycle infrastructure in the near term.

A final consideration that should be incorporated into a study is the phenomena of Induced/Reduced demand. When we reduce capacity on a street, "traffic evaporation" occurs as people choose different routes, different modes, during different times of day.

West Coast Multimodal Connector

BURMA ROAD



CRITICAL DATA

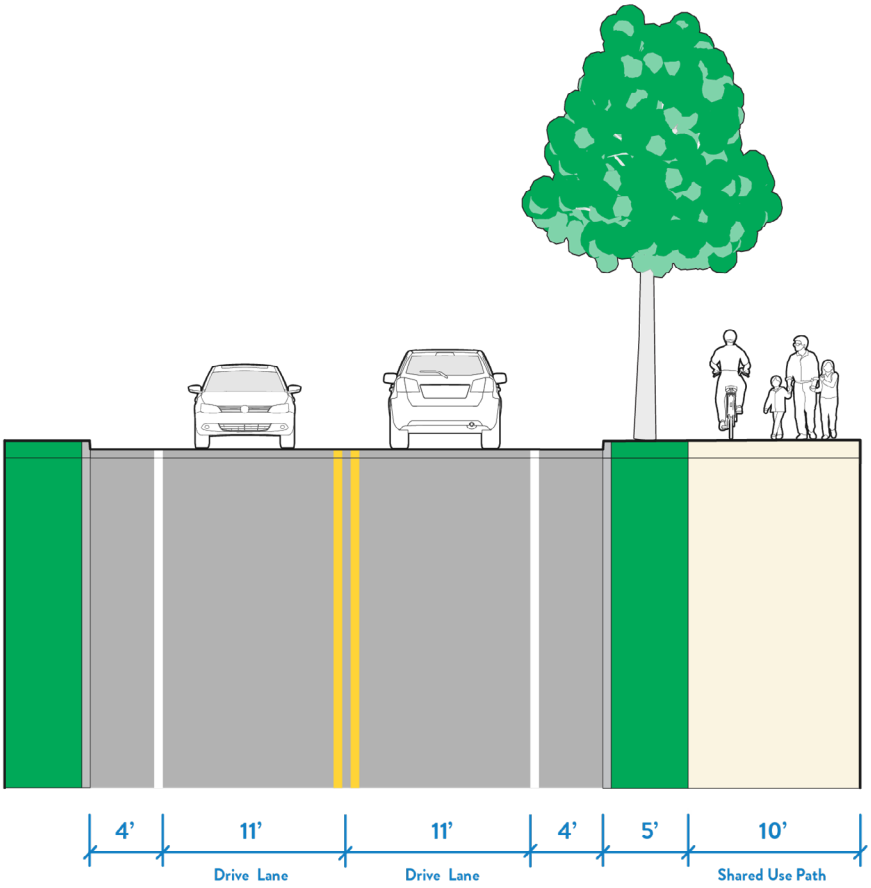
Length	5.2 miles
Jurisdiction	RIDOT/Local
Roadway width (typical)	24’
Roadway width (minimum)	22’
Sidewalk?	No
Bicycle Level of Stress (max)	4
Posted speed	40
AADT	6,290
Bicycle trip potential	Very High

Why This Corridor?

Burma Road is a workhorse commuter route that serves major employers including Raytheon, the US Navy and points south in Newport. Additionally, it is valued as a recreational riding loop with occasional views of Narragansett Bay.

Bikeway Options

With a lack of sidewalks along much of this corridor, developing a shared use path is recommended that will serve riders of all abilities as well as people walking. Shoulders of four feet wide can be retained on Burma Road to serve the highly confident bike commuters.



Implementation Considerations

- **Right-of-way:** 55 +/- feet
- **Cost and complexity:** High
- **Who needs to be involved?**
  - Leadership from the Town of Middletown and Town of Portsmouth will be required
  - The US Navy has jurisdiction on some parts of the corridor and will be a key stakeholder
- **Who will be impacted?**
  - The US Navy will have concerns about the design and operations of a bike route
  - Destinations accessed from this corridor will see significantly improved bike access
  - Landowners may see some impacts if work is required outside of the right-of-way
  - Coordination with utility companies may be required
  - Environment impacts to wetlands will need to be reviewed and permitting required

Rail corridor looking north from Van Zandt Ave

West Side Rail-trail

CRITICAL DATA

Length	12 miles
Jurisdiction	Newport & Narragansett Bay Railroad
Roadway width	50’
Bicycle trip potential	Very High

The active rail corridor on the west side of Aquidneck Island presents an extraordinary opportunity for a rails to –trails conversion. The rail corridor offers unrivalled views of the Narragansett Bay, goes through some of the least accessible natural areas on the island, and has the potential to serve as a car-free connection between major activity centers and destinations. Some of the most challenging sections, through the Pell Bridge area south to the Newport Gateway Center, are already complete. This rail corridor, which could be developed as as either a rail-to-trail or rail-with-trail project, could be an immensely attractive destination in itself, and a critical north-south spine for the Aquidneck Island bike network. While this concept is not new, a concerted effort to explore options and resolve the barriers will be needed to move forward.

Bikeway Options

Options for this section include a rail-to-trail, or a rail-with-trail.

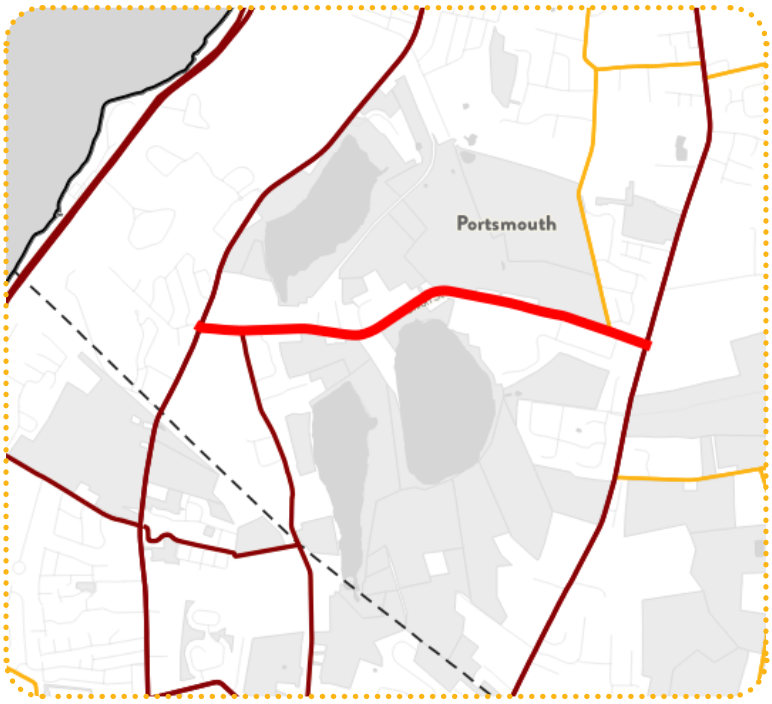
Rail-to-Trail

Rail-to-Trail

Implementation Considerations

- **Right-of-way:** varies, minimum 50+/- feet
- **Cost and complexity:** High
- **Who needs to be involved?**
  - Leadership from the City of Newport, Town of Middletown and Town of Portsmouth will be required
  - The US Navy, RIDOT, and the Railroad are partners
  - Operators of tourist uses of railroad corridor
- **Who will be impacted?**
  - Residents and visitors will have a spectacular separated bike corridor of statewide significance
  - Landowners may be concerned about the changes in use of the mostly inactive corridor
  - Current or potential future railroad operators will require design features to ensure safe operations

Trail under construction from Van Zandt Ave looking south to downtown Newport



Mid-Island Connector

UNION STREET

CRITICAL DATA

Length	1.8 miles
Jurisdiction	RIDOT
Roadway width (typical)	24’
Roadway width (minimum)	24’
Sidewalk?	N
Bicycle Level of Stress (max)	4
Posted speed	30
AADT	3,000
Bicycle trip potential	Medium

Why This Corridor?

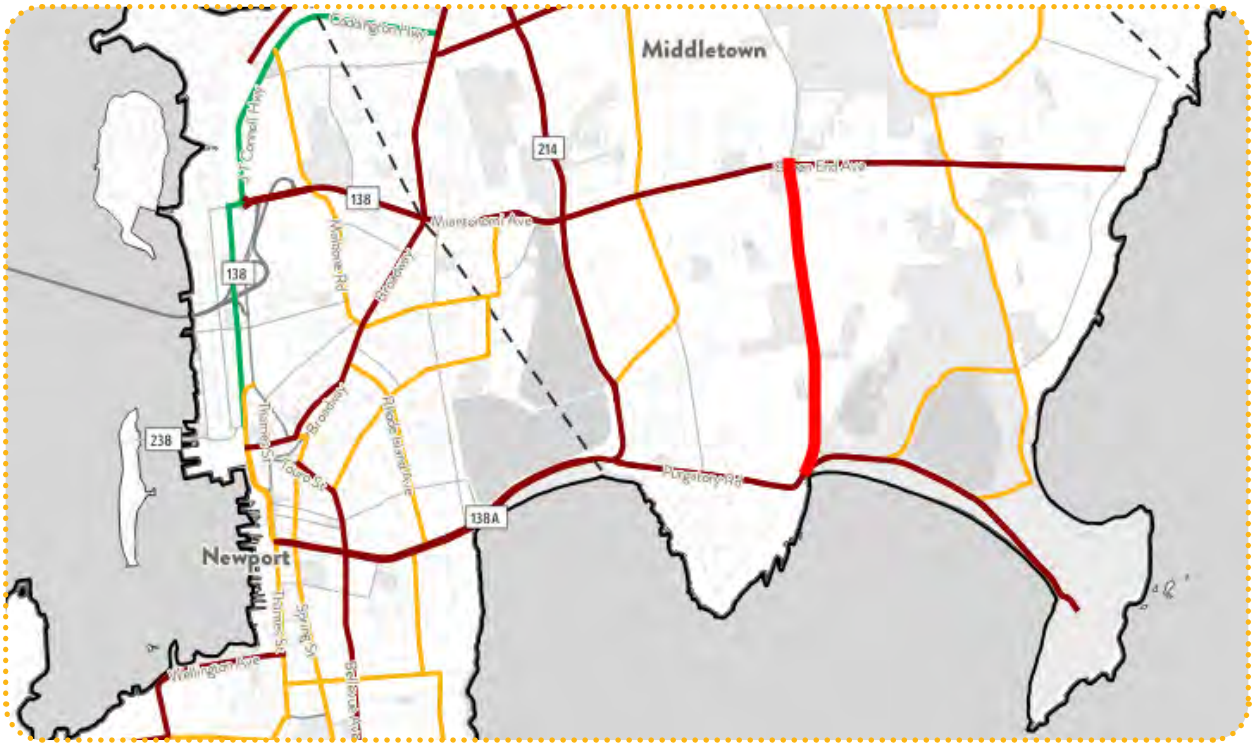
Union Street is a scenic connection between East and West Main Road. It can provide connectivity to Sandy Point Beach when combined with improvements along a short stretch of West Main Road. Long term options to consider a connection to the west to Burma Road can also be explored.

Bikeway Options

The volumes and speeds suggest that narrowing the lanes and widening the shoulders for bicycle use could be implemented in the near term. In the long term, a shared use path or separated bike lanes could provide a high comfort route on this important link while also serving pedestrians.

Implementation Considerations

- **Right-of-way:** varies 36-44 feet
- **Cost and complexity:** Low for short term bike lane option; high for shared use path due to narrow right-of-way, roadside features, and utilities
- **Who needs to be involved?**
  - Leadership from the Town of Portsmouth will be required
  - RIDOT support is essential due to RIDOT jurisdiction; funding may come through RIDOT depending on the source
- **Who will be impacted?**
  - Residents and destinations along corridor will see significantly improved bike access
  - Landowners may see some impacts if work is required outside of the right-of-way
  - Coordination with utility companies will be required
- **Where to start?**
  - Town of Portsmouth can restripe with shoulders for biking
  - Begin a conceptual design study for a shared use path, which will identify costs, impacts, permits required, and funding sources.



Paradise Connector

PARADISE AVE

CRITICAL DATA

Length	1.4 miles
Jurisdiction	Local
Roadway width (typical)	20’
Roadway width (minimum)	20’
Sidewalk?	N
Bicycle Level of Stress (max)	3
Posted speed	25
AADT	2,000
Bicycle trip potential	Medium

Why This Corridor?

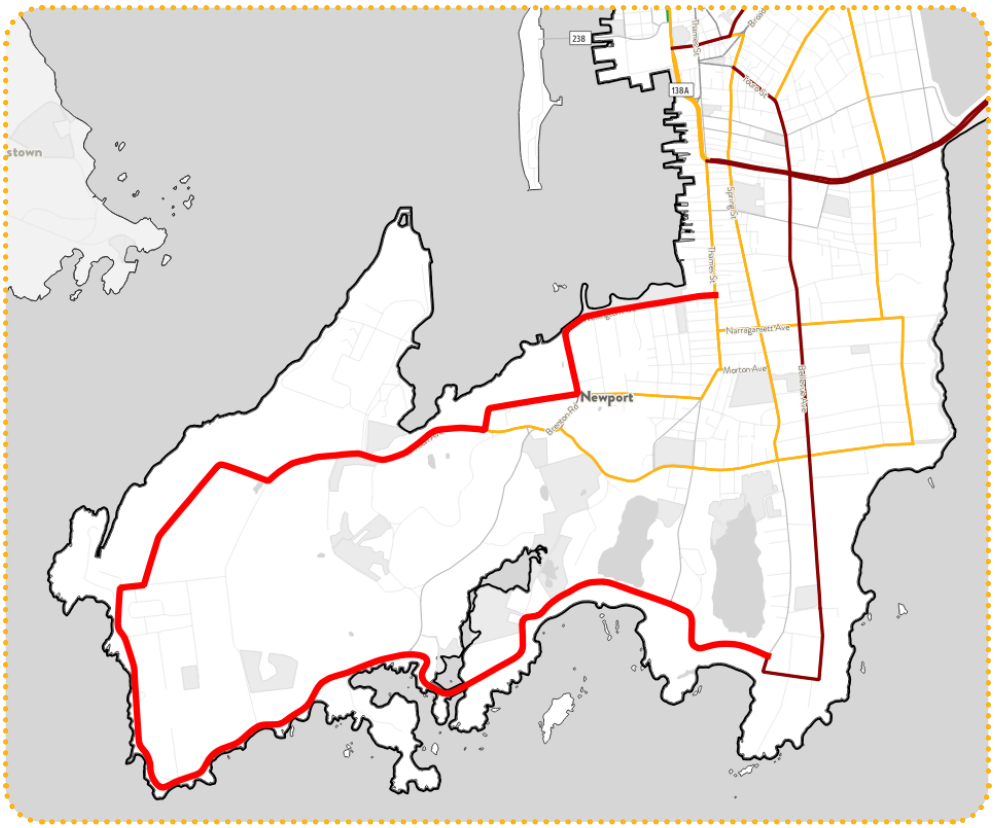
This north-south connection provides access between Green End Avenue and Second Beach, and also forms part of a recreational loop that will provide safe, scenic riding.

Bikeway Options

This route is recommended for traffic calming in order to ensure a low stress environment for biking. Traffic calming features will need to be selected in coordination with Middletown based on their maintenance practices and equipment.

Implementation Considerations

- **Right-of-way:** 50 feet
- **Cost and complexity:** Low
- **Who needs to be involved?**
  - Leadership from the Town of Middletown will be required
- **Who will be impacted?**
  - Residents and destinations along corridor will see significantly improved bike access
  - Landowners may see some impacts if work is required outside of the right-of-way
  - Coordination with utility companies will be required
- **Where to Start?**
  - The Town of Middletown can develop and implement a traffic calming plan to reduce speeds, and wayfinding signage to provide guidance for people biking on this corridor.



Ocean Loop

HARRISON AVENUE/RIDGE ROAD/OCEAN AVENUE

CRITICAL DATA

Length	6.8 miles
Jurisdiction	Local
Roadway width (typical)	24’
Roadway width (minimum)	24’
Sidewalk?	Y
Bicycle Level of Stress (max)	3
Posted speed	25
AADT	6,000
Bicycle trip potential	High

Why This Corridor?

The Ocean Loop, comprised of Harrison Avenue, Ridge Road, and Ocean Avenue provides access to Fort Adams State Park and Benton Point State Park, and is a recreational and tourist attraction due to the great views it offers. It has traditionally been considered a scenic route for both driving and biking. With some design adjustments, it could reach its potential as a bicycle destination for Aquidneck Island.

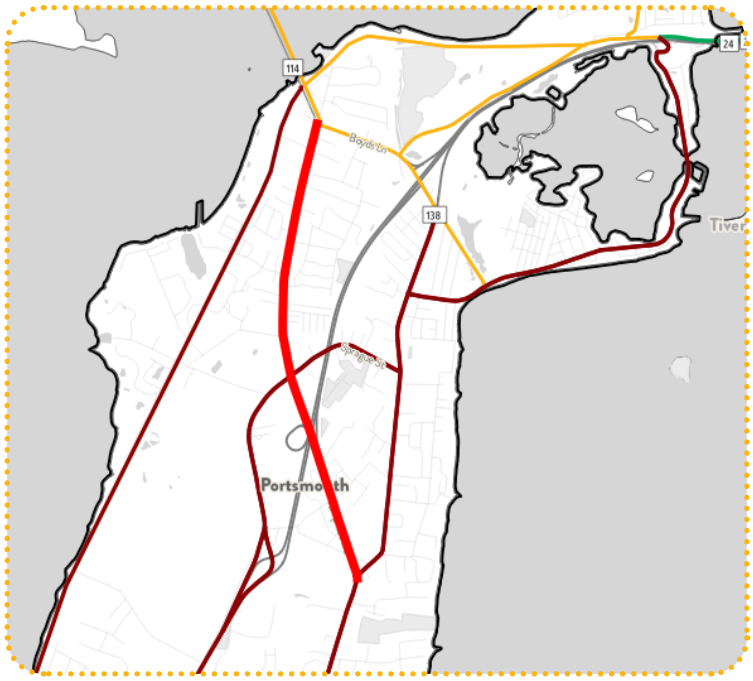
Bikeway Options

Traffic calming treatments can by applied to the Ocean Loop in the near term to ensure a comfortable experience for all users. This includes addressing roadside hazards for people biking, such as the abrupt edge of pavement and the white rocks placed along the roadside to prevent parking. In selected locations, there is sufficient paved width to provide a separated facility through the use of curb separators. In the longer term, a separate Shared Use Path facility could be pursued, however additional Right-of-Way may be required in some constrained segments. In addition to low stress bicycle facilities, waypoints with bike service stations and other amenities (i.e. water, restrooms) can further enhance the enjoyment of this route. One option to explore could be to designate selection sections of Ocean Loop as one-way streets, which provides room on the paved area for separated bicycle facilities.

Implementation Considerations

- **Right-of-way:** varies, 25 to 50 feet
- **Cost and complexity:** Medium
- **Who needs to be involved?**
  - Leadership from the City of Newport will be required
  - Partner support from the recreation and tourist industry, chamber of commerce, and other organizations can help to build momentum to achieve the vision of a bike-friendly Ocean Loop.
- **Who will be impacted?**
  - Residents along corridor will see significantly improved bike access
  - Landowners may see some impacts if work is required outside of the right-of-way
- **Where to start?**
  - Initiate a feasibility study to explore short and long term options for how to make Ocean Loop appealing for all ages and abilities

Trail under construction from Van Zandt Ave looking south to downtown Newport



Northern Connector

TURNPIKE AVE/BRISTOL FERRY ROAD

CRITICAL DATA

Length	2.3 miles
Jurisdiction	RIDOT
Roadway width (typical)	44’
Roadway width (minimum)	34’
Sidewalk?	Y
Bicycle Level of Stress (max)	4
Posted speed	40
AADT	39,500
Bicycle trip potential	Medium

Why This Corridor?

Turnpike Avenue provides a connection from East Main Road to West Main Road in Portsmouth, while Bristol Ferry Road helps connect to Bristol to the north. While the Mount Hope Bridge currently has signage that prohibits bicycles, there is interest in exploring how the bridge can be made safe for all users.

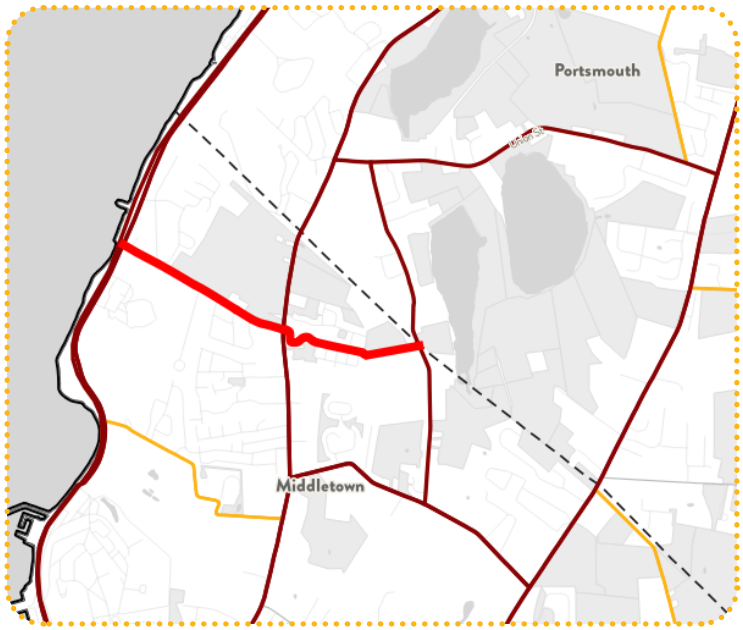
Bikeway Options

In the near term, a road diet could be applied to Bristol Ferry Road to remove the center left turn lane and allow for separated bike lanes within the existing roadway space. The existing shoulder width along Turnpike Avenue will also allow for buffered bike lanes to be implemented in the near term. In the long term, one of the existing sidewalks could be widened by narrowing the roadway width to allow for a Shared Use Path. The Route 24 interchange creates a potential hazard on this corridor, and should be reconfigured to reduce speeds as part of a bicycle and pedestrian safety project.

Implementation Considerations

- **Right-of-way:** 55 feet
- **Cost and complexity:** Low for short term options; Medium for shared use path, if roadway lanes are narrowed
- **Who needs to be involved?**
  - Leadership from the Town of Portsmouth will be required
  - RIDOT support is essential due to RIDOT jurisdiction; funding may come through RIDOT depending on the source
- **Who will be impacted?**
  - Residents and destinations along corridor will see significantly improved bike access
  - Landowners may see some impacts if work is required outside of the right-of-way
  - RIPTA access for biking and walking will be enhanced
  - Coordination with utility companies will be required
- **Where to start?**
  - Monitor RIDOT resurfacing projects and request reconfiguration for bike safety
  - Initiate a feasibility study for a shared use path

Existing conditions on Turnpike Avenue



Greene – Pasture Connector

GREENE LANE/PASTURE FARM ROAD

CRITICAL DATA

Length	1.5 miles
Jurisdiction	Greene Lane – RIDOT Pasture Farm - Local
Roadway width (typical)	40’
Roadway width (minimum)	26’
Sidewalk?	Discontinuous
Bicycle Level of Stress (max)	3
Posted speed	40 (Greene)
AADT	2,600
Bicycle trip potential	High

Why This Corridor?

This route provides a connection between Jepson Road and Burma Road that is mostly along existing streets, and will require a new pathway of approximately 1,400 feet in length between the end of Pasture Farm Road and Jepson Road, largely through Narragansett Electric Company lands. This concept has been discussed and endorsed locally, and contacts with the electric utility are optimistic.

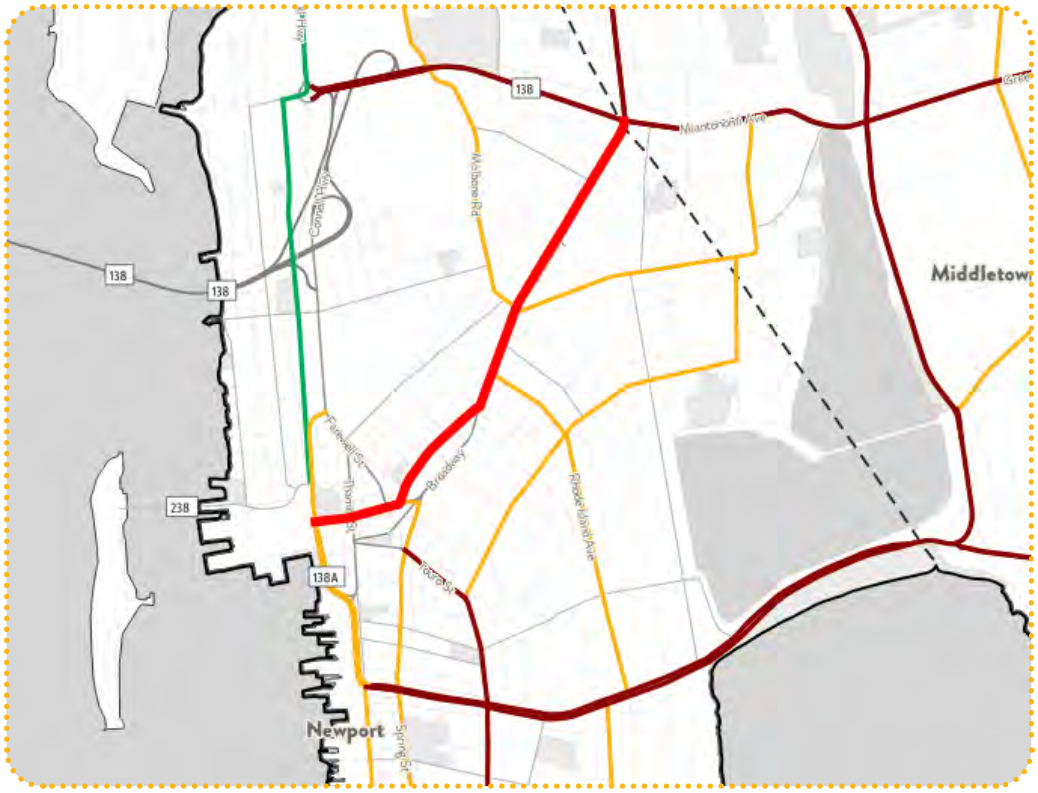
Bikeway Options

Greene Lane was recently repaved with sidewalk upgrades implemented; the existing shoulders can be repurposed as bike lanes through additional signage and pavement markings. Pasture Farm Road is a low volume neighborhood street that can comfortably accommodate bicycle use through bike boulevard treatments. Additional crossing treatments should be applied at the West Main Street intersection to ensure a safe connection through this location.

Implementation Considerations

- **Right-of-way:** 26-40 feet
- **Cost and complexity:** Medium
- **Who needs to be involved?**
  - Leadership from the Town of Middletownwill be required
  - RIDOT support is essential due to RIDOT jurisdiction; funding may come through RIDOT depending on the source
- **Who will be impacted?**
  - Residents and destinations along corridor will see significantly improved bike access
  - Landowners may see some impacts if work is required outside of the right-of-way
  - RIPTA access for biking and walking will be enhanced
  - Coordination with utility companies will be required
- **Where to start?**
  - Continue conversations with Rhode Island Electric Company to determine a feasible path alignment. An additional landowner at the end of Pasture Farm Road may also be affected, and require consideration of path alignment alternatives.

Existing conditions on Greene Lane (left) and Pasture Farm Road (right)



Broadway Bikeway

BROADWAY/DR. MARCUS WHEATLAND

CRITICAL DATA

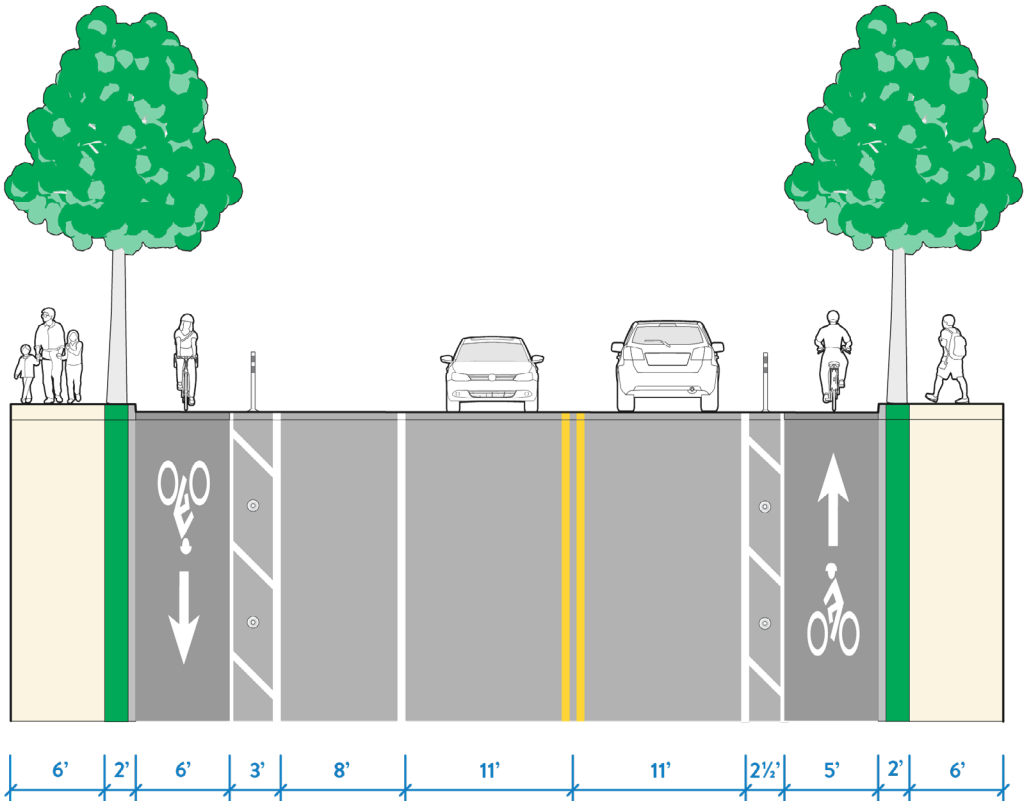
Length	8.2 miles
Jurisdiction	RIDOT/Local
Roadway width (typical)	52’
Roadway width (minimum)	42’
Sidewalk?	Y
Bicycle Level of Stress (max)	4
Posted speed	45
AADT	28,400
Bicycle trip potential	Very High

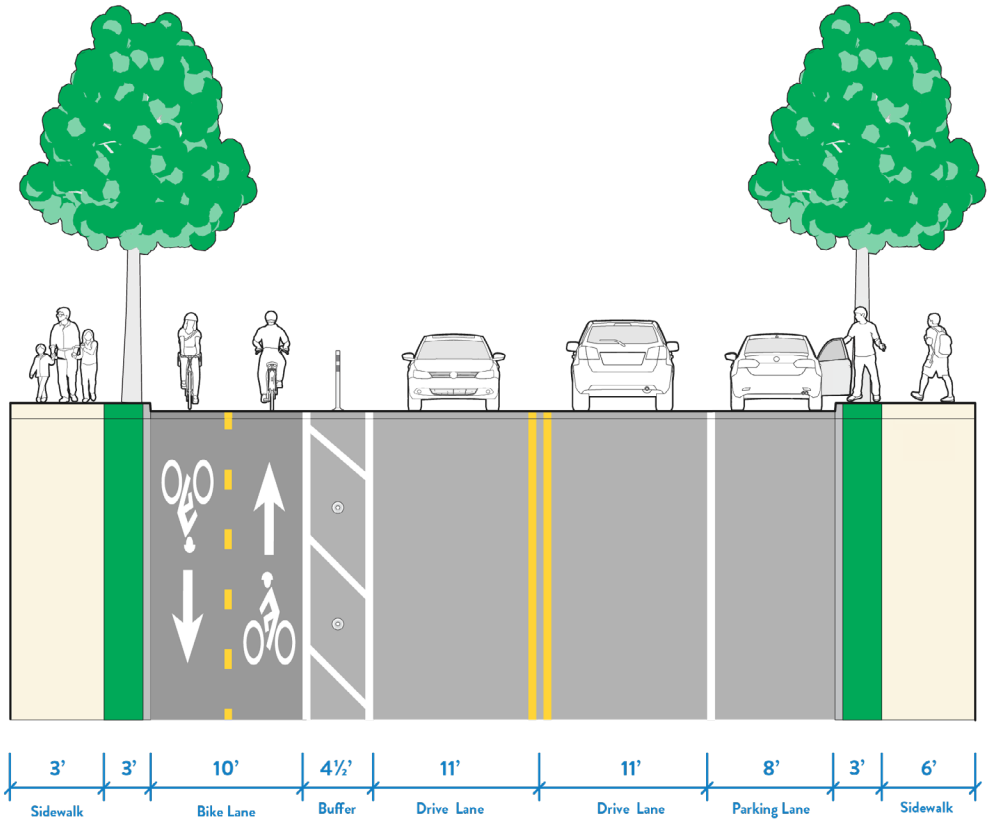
This corridor is discussed in greater detail in the Newport Transportation Master Plan, which recommends separated bicycles lanes from the Newport City line to Cranston Avenue. The bike route includes Dr. Marcus Wheatland Boulevard as an optional route, where low volumes and speeds allow for a shared street with traffic calming and wayfinding.

Bikeway Options

Due to high vehicle volumes, full separation for cyclists is preferred for the Broadway corridor. This can be achieved through consolidating parking to one side of the street and implementing one-way or two-way separated bike lanes.

Bikeway Options for Broadway





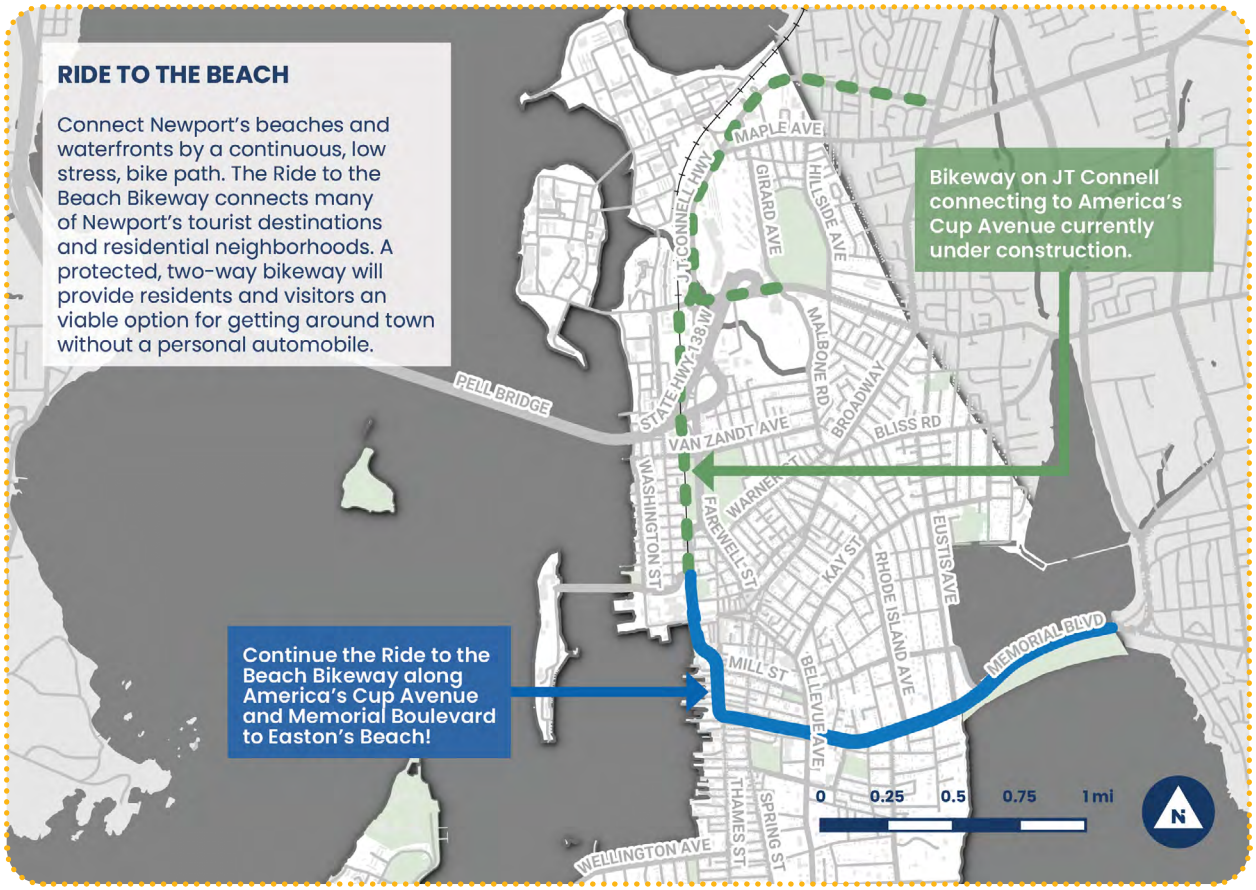
Implementation Considerations

- **Right-of-way:** varies, 42–50 feet
- **Cost and complexity:** Medium
- **Who needs to be involved?**
  - Leadership from the City of Newport will be required
  - RIPTA has frequent service along the Broadway corridor, requiring close coordination with the project design.
- **Who will be impacted?**
  - Residents and Destinations along corridor will see significantly improved bike access
  - On-street parking will be affected on Broadway
- **Where to start?**
  - Work with the affected stakeholders to explore options, and understand the tradeoffs.
  - Track upcoming resurfacing projects for this corridor and look for implementation opportunities for a quick build or pilot project.

Ride to the Beach

AMERICA'S CUP AVENUE AND MEMORIAL BOULEVARD (NEWPORT TRANSPORTATION MASTER PLAN)

This corridor connects the Gateway Transportation Center, the Ferry Dock, and downtown Newport with First Beach. Currently, this route has incomplete bicycle infrastructure but tremendous opportunities with the new shared use path approaching the transportation from the north nearing completion. The traffic volumes on Memorial Boulevard will allow for reconfiguration with one travel lane in each direction and turning lanes where needed, providing room for bicycle infrastructure. The traffic patterns and options for a shared use path along America's Cup are currently being evaluated. This project is discussed in greater detail in the Newport Transportation Master Plan.



What's Next

Action Steps

1. Identify projects that are on the STIP, local capital plans or paving plans, and align with the Ride Island Plan. The following projects are examples that can be reviewed and modified to support the Ride Island network:

    a. **East Main Road** – resurfacing provides an opportunity for a pilot test on the base course of pavement for roadway reconfiguration

    b. **Purgatory Road** – can project be modified to provide high comfort bike infrastructure?

    c. **Aquidneck Avenue** – can this project be modified to include separated bike lanes?

2. For all corridors, identify highest priorities in coordination with neighboring island municipalities. Explore the top priority projects, develop design concepts and cost estimates. Consider if they are suitable for:

    a. **Pilot projects** – which are candidates for a short term, temporary pilot?

    b. **Quick Build** – which are suitable for rapid implementation? (i.e. primarily pavement marking and signage on existing pavement, limited curb work)

    c. **Capital Construction** – which will involve more complex design and construction? (i.e. shared use path construction where curbs relocation, utility relocation or drainage work is required)

3. Ride Island will support implementation of this plan through 2024 for coordination with planners, decision-makers, funders, and stakeholders to support projects advancement, address barriers, share information, and track progress. This will incude inter-municipal meetings of planning staff and the Bicycle Pedestrian Advisory Committees.

How to pay for a bike network?

As noted in this plan several times, unprecedented funding is available to help build the Ride Island network. Federal grant programs are expanding, and there are initiatives in Rhode Island to provide funding to build the projects in the Bicycle Mobility Plan. It is clear from the current state of bicycle infrastructure on Aquidneck Island that the past spending prioritizes automobile infrastructure, and a significant shift in investment priorities going forward will be needed.

Planning, designing and building active transportation projects using federal funds can be frustratingly slow, because these projects must follow the same process as major highways, even though the environmental impacts are much lower and economic benefits much higher. Places that have been able to make rapid progress on building a bike network often use a combination of local, state and federal funds.

While federal grants of various types may be available to provide funding for design and construction, they generally require 20% matching funds from the municipality, which can be a challenge for a small community. Further, federal funds come with procedural requirements that seemingly increases the project delivery time (time between concept development and construction). For less costly projects, the island's municipalities can consider financing the investment in the island's bicycle network locally.

Bicycle projects have been demonstrated to have positive outcomes – economic and health being particularly compelling. By raising funds locally, or financing projects through mechanisms such as the RISIB (Rhode Island State Infrastructure Bank), Aquidneck Island communities can enjoy the myriad benefits a bike network sooner, and avoid the future escalation of construction costs. Some tips from other communities on how to justify a significant investment in a bike network are applicable for Ride Island:

- Promote what is gained for the projects – safety, better access, economic development. Potential impacts, such as reduced number of travel lanes or parking spaces, can be put into perspective as a worthwhile tradeoff for overall benefit to the community.
- Engage the community in the design process, and be flexible. Take advantage of pilot projects to build support. Look for changes that can be made relatively inexpensively but have a big positive impact.
- Integrate climate resiliency and adaptation into project design to broaden their benefits, appeal, and value.
- Compare the lower cost of biking and walking to more expensive roadway projects. For example, building a new parking garage in Newport to address traffic growth can be compared with building a bike network to allow people to enter the city without their cars. A bike network will bring huge benefits along so many dimensions, making the investment easy to justify.

There is significant research that has been exploring the benefits of investing in biking and walking infrastructure. Researchers at Boston University found the safety benefits alone have a huge societal benefit. At Portland State University, researchers documented that bike lanes have a positive economic impact. StrongTowns has reported on the tax benefits of walkable, bikable communities. Additional examples abound, and support the conclusion that investing in bike infrastructure increases community health and wealth.

Federal Funding Sources

There are numerous Federal funding sources that are available to help state and local agencies implement Ride Island. Some of these are grant programs administered directly by the US Department of Transportation, others are formula programs that flow through RIDOT. Each of the programs has a particular focus and set of eligibility factors that will need to be matched to specific segments of the network. Funds are available for the planning, design, and construction phases of projects; the ultimate source of funding may influence the speed with which sections of the Ride Island network can be built. Some of the funding sources may allow for pilot, demonstration, or quick-build projects that can be implemented on a shorter timeline.

Acronym	Funding Program
NHPP	National Highway Performance Program*
Bridge	Bridge Formula Program*
TAP	Transportation Alternatives Set-aside program*
STPBG	Surface Transportation Program Block Grant*
CMAQ	Congestion Mitigation and Air Quality Improvement Program*
SPR	Statewide Planning and Research*
FLHP	Federal Lands Highway Program
MetPlan	Metropolitan Planning
HSIP	Highway Safety Improvement Program*
CRP	Carbon Reduction Program*
PROTECT	Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation*
RAISE	Rebuilding American Infrastructure with Sustainability and Equity
SS4A	Safer Streets and Roadways for All

Programs marked with an * are administered by RIDOT

The table on the next page offers suggestions on which funding sources are best suited for the Ride Island priority corridors.

Corridor	Project Name	NHPP	Bridge	TAP	STPBG	CMAQ	SPR	MetPlan	FLHP	HSIP	CRP	PROTECT	RAISE	SS4A
Admiral Kalbfus/ Miantonomi/ Green End	Newport-Middletown Cross-town Connector	x	x	x	x	x	x	x		x	x	x		
Bellevue Ave/Touro St	Historic District Multimodal Access			x	x	x				x				
Broadway/ Wheatland/ Marlborough	Broadway Multimodal Access and Safety	x	x	x	x	x	x	x		x	x	x	x	x
Burma Road	Oceanfront Commuter Route			x	x	x							x	
East Main Rd*	East Side Access and Safety Improvement	x	x	x	x	x	x	x		x	x	x	x	x
Greene/Pasture Farm	Green Pasture Farm Connector			x		x				x				
Jepson Ln	Middletown-Portsmouth North-South Connector		x	x	x		x	x		x	x	x		
Memorial Blvd	Ride to the Beach		x	x	x	x	x	x	x	x	x	x		
Harrison Ave/ Ridge Road/ Ocean Ave	Ocean Loop		x	x	x	x	x	x		x	x	x		
Oliphant Ln	Middletown Connector		x	x	x		x	x		x	x	x		
Paradise Ave	Middletown Beach Access			x	x				x					
Park Ave/Hummocks Ave	Island Park Cove Loop		x	x	x	x	x	x		x	x	x		
Railroad Right-of-way	West Side Rail-trail			x	x		x	x					x	
Turnpike Ave/Bristol Ferry Rd	Mt Hope Bridge Connector	x		x	x	x				x	x	x		
Union St	Mid-Island Connector		x	x	x		x	x		x	x	x		
Valley Road	North South Access and Safety	x	x	x	x		x	x	x	x	x	x	x	x
West Main Rd	West Side Multimodal Enhancement	x		x	x	x				x	x	x	x	x

ADDITIONAL FEDERAL FUNDING SOURCES

The US Department of Transportation is expected to announce details of a new Active Transportation Infrastructure Investment Program in the late summer of 2023. The competitive grant program will have $45 million available to support projects that connect active transportation networks and accelerate local and regional plans for active transportation infrastructure.

Members of Congress can request Congressionally Directed Spending projects that set aside Federal funds for specific projects in their state.

Federal agencies other than the US DOT may have relevant funding programs to support projects that contribute to implementation of the Ride Island network, including Housing and Urban Development (e.g., Community Development Block Grants), the Environmental Protection Agency, Health and Human Services, and the Interior Department.


Ride
Island