

# VI. TRANSPORTATION



2014

## Middletown, Rhode Island Comprehensive Community Plan

THE TOWN OF MIDDLETOWN WILL STRIVE TO PROVIDE A SAFE, EFFICIENT, AND SUSTAINABLE MULTI-MODAL TRANSPORTATION SYSTEM THAT REDUCES RELIANCE ON THE AUTOMOBILE AND MEETS THE DIVERSE NEEDS OF RESIDENTS, WORKERS, AND VISITORS WHILE MAINTAINING THE SCENIC QUALITY OF OUR COMMUNITY

# VI. TRANSPORTATION

## MIDDLETOWN, RHODE ISLAND COMPREHENSIVE COMMUNITY PLAN

### Supporting Documents

- Aquidneck Island Transportation Study, VHB for Aquidneck Island Planning Commission, 2011.
- Atlantic Beach District Master Plan, Town of Middletown, 2007.
- Colonel Robert F. Wood Airpark, Airport Master Plan, Rhode Island Airport Corporation, 2008.
- West Main / Coddington Development Center Master Plan, VHB & RKG for Town of Middletown, 2011.
- West Side Master Plan, Aquidneck Island Planning Commission, 2000.

### INTRODUCTION

An adequate transportation system is vital for Middletown to remain a desirable place to live, work, and visit. Planning for and making investments in our transportation system will be necessary to meet the future needs of the community and goals established in this Comprehensive Plan. In considering transportation policies and strategies, the town recognizes that:

- Transportation has a profound influence on residents' quality of life
- There exists a fundamental relationship between transportation and land use
- Regional and island transportation patterns affect the local transportation system and local decisions will have regional impacts

The Aquidneck Island Transportation Study, completed in 2011, was a two-year study culminating in the development of a Comprehensive Multi-Modal Transportation Master Plan for Aquidneck Island. Much of the data and recommendations from the study have been used to inform this local transportation element. The Transportation Element provides an assessment of the existing transportation system and recommendations to improve conditions and work towards achieving the goals and vision set forward.

**Transportation Vision Statement: The Town of Middletown will strive to provide a safe, efficient, and sustainable multi-modal transportation system that reduces reliance on the automobile and meets the diverse mobility needs of residents, workers, and visitors while maintaining the scenic quality of our community.**

## TRANSPORTATION SYSTEM BY MODE

### AUTOMOBILE

#### TRAFFIC VOLUMES

Much of Middletown lacks the residential density found in more urban areas that could support significant utilization of alternatives to the automobile for commuting and other daily transportation needs. As a result, the automobile accounts for the largest percent of total travel in town and our main roads often have heavy traffic volumes and congested intersections. Despite the town's suburban form and existing auto dependency, the town will take steps towards achieving a more balanced and sustainable transportation system.

Currently, the roadway network in Middletown is heavily defined by the major north-south travel corridors of West Main Road (Routes 114) and East Main Road (Route 138). Traffic volumes on West Main Road and East Main Road often exceed 25,000 vehicles per day over most segments. For a listing of roadways with the highest traffic volumes in Middletown refer to Table T-1 Traffic Volumes. There are distinct surges in traffic during the morning, midday, and evening periods with traffic notably higher in the evening peak period compared to the morning. Contributing to the congestion on the town's major roadways is a portion of cut-through where drivers that cross the island's bridges do not have an origin or destination on Aquidneck Island. This is due to the geographic position of the island in relation to the regional highway system.

TABLE T-1: TRAFFIC VOLUMES		
<i>Road</i>	<i>Segment</i>	<i>Vehicles Per Day</i>
West Main Road	North of Coddington Highway	32,200
East Main Road	South of Portsmouth Town Line	19,000
Coddington Highway	West of West Main Road	18,600
Valley Road	South of East Main Road	15,400
Aquidneck Avenue	Between East Main Road and Green End Avenue	11,800
Valley Road	North of East Main Road	10,300
Burma Road	North of Greene Lane	6,000

*Source: 72-hour Automatic Traffic Recorder (ATR) counts conducted by VHB in August 2009, RIDOT Permanent Count Stations, and previously published reports supplied to VHB.*

## JOURNEY TO WORK

Aquidneck Island is a net importer of jobs, meaning there are more jobs on the island than households (38,500 jobs compared to 26,100 households). The Naval Undersea Warfare Center (NUWC) in Middletown has approximately 2,500 federal employees making it the largest employer on Aquidneck Island (Source: Top 100 Employers in Rhode Island, Rhode Island Economic Development Corporation).

Much like other Rhode Island communities, there is a strong reliance on the automobile for commuting purposes in Middletown. Approximately 92 percent of Middletown workers drive to work either alone or as part of a carpool. The percentage of workers who utilize transit for their commute is about two percent and those who walk and/or bike to work have a mode share of only two percent. Telecommuters, those who regularly work from home, account for approximately three percent of workers. Table T-2 Journey – to – Work Mode Choice summarizes the journey-to-work patterns for people employed in Middletown.

TABLE T-2 JOURNEY-TO-WORK MODE CHOICE	
<i>Mode</i>	<i>Middletown Workers</i>
Single-Occupant Automobile	83%
Multiple-Occupant Automobile	9%
Public Transit	2%
Bicycle/Walk	2%
Work at Home	3%
Other	1%
Total	100%

*Source: US Census 2000, Transportation Planning Package, Part 2, August 2004.*

Some ridesharing activity does occur on Aquidneck Island and mostly consists of carpooling and vanpooling. However, there are very limited formal employer-sponsored Transportation Demand Management (TDM) programs that encourage transit use or carpooling. Currently, there is also no Island-wide Transportation Management Association (TMA) to promote TDM programs to employers, residents, and visitors.

## TRAFFIC SAFETY

The top priority for any transportation improvements should be safety. The top 10 crash locations in Middletown with the highest crash frequencies are as listed below in Table T-3 Top Ten Crash Locations in Middletown.

In an effort to improve traffic safety nearby schools, the town recently formalized school zones and invested in upgraded and more consistent signage.

<b>TABLE T-3 TOP TEN CRASH LOCATIONS IN MIDDLETOWN</b>				
<i>Rank</i>	<i>Road</i>	<i>Intersecting Road</i>	<i>Total # of Crashes (2006-2008)</i>	<i>Severity Index (Total Cost)</i>
1*	East Main Road	West Main Road	57	\$1,282,200
2*	Valley Road **	East Main Road	55	\$1,047,400
3*	Forest Avenue	West Main Road	51	\$688,200
4*	West Main Road	Coddington Highway	45	\$646,200
5*	East Main Road	Turner Road	40	\$666,400
6	West Main Road	Smythe Road	30	\$541,200
7	Browns Lane	West Main Road	29	\$644,600
8	Aquidneck Avenue	East Main Road	29	\$534,200
9	West Main Road	Woolsey Road	27	\$465,000
10	Broadway	West Main Road	27	\$465,000
<p><i>Source: RIDOT 2006-2008 Crash Database</i></p> <p><i>* denotes high severity locations</i></p> <p><i>**Crash data at East Main Road and Valley Road do not account for recent intersection improvements.</i></p>				

## **HEAVY VEHICLES**

During the Aquidneck Island Transportation Study, truck traffic was observed and recorded. Along West Main Road, the heavy vehicles during the morning peak hour ranged from 55 to 125 trucks, with the majority between Route 24 and Coddington Highway. This equates to between 3 and 6 percent trucks in the average daily traffic stream. Along East Main Road, there were approximately 40 heavy vehicles counted during the morning peak hour, or between 2 to 4 percent of the average daily traffic.

Access to Gate 17, the Navy's primary access point for heavy vehicles, was entered from West Main Road via Gate 17 Access Road by 70 percent of heavy vehicles, while only 30 percent used Burma Road.

## TRANSIT

### RHODE ISLAND PUBLIC TRANSIT AUTHORITY (RIPTA) PUBLIC BUS SERVICE

Public transportation service on Aquidneck Island is provided by the Rhode Island Public Transit Authority (RIPTA). Map T-I Public Transit System illustrates the bus routes in Middletown.

The bus routes that provide service in Middletown are described below:

**ROUTE 14: *West Bay*** – Route 14 is a fixed-route in Newport and Middletown that crosses the Pell Bridge to provide service to/from Providence.

**ROUTE 60: *Providence/Newport*** – Route 60 is the busiest fixed-route on the Island, running north/south through Aquidneck Island and extending from the Newport Gateway Center to downtown Providence crossing the Mount Hope Bridge. The West Main Road and East Main Road corridors are served by Route 60. West Main Road (Walgreens) is the most utilized bus stop in Middletown with approximately 60-80 average weekday daily boardings (RIPTA). The hours of operation for Bus Route #60 is highlighted in Table T-4 Bus Route Operations below.

TABLE T-4 BUS ROUTE OPERATIONS			
<i>Route 60</i>	<i>Inbound Hours</i>	<i>Outbound Hours</i>	<i>Frequency (min)</i>
Weekdays	4:40am-1:26am	5:30am-2:25am	20-55
Saturday	5:45am-1:15am	7:00am-1:44am	30
Sunday/Holidays	6:37am-11:58pm	6:20am-11:23pm	55

*Source: RIPTA*

**ROUTE 63: *Broadway/Middletown Shopping*** – Route 63, also known as the Purple Line, is a local fixed-route that extends from the Stop & Shop in Middletown to the Newport Gateway Center along West Main Road and Broadway.

**ROUTE 64:** Route 64 is a fixed-route service to/from Newport Gateway Center and the University of Rhode Island Kingston Campus.

**231 SOUTH AQUIDNECK FLEX SERVICE:** Flex Service offers passengers the option of calling a ride or picking up the Flex Vehicle at one of its regularly scheduled Flex Stops. The Flex Vehicle, typically a 16 passenger vehicle with space for two wheelchairs, travels within a geographically-limited zone known as a Flex Zone, picking up and dropping passengers off within the zone and connecting them to fixed-route bus service for travel outside the zone. The South Aquidneck Flex Zone is bounded to the east by Berkeley Ave/Paradise Avenue, to the west by Green End/Valley, East Main Road to the north, and Purgatory Road to the south.

Paratransit services are available for individuals with disabilities who are unable to use regular bus service. RIPTA provides Paratransit Services through the RIde Program, which RIPTA coordinates and manages statewide. All RIde service is door-to-door, as needed.

### **PRIVATE BUS SERVICE**

Peter Pan offers private bus service from Middletown to regional destinations, predominantly for commuting purposes. Approximately 100 commuters each day use the Peter Pan Bus Lines to/from Aquidneck Island with the majority commuting to Boston (AITS).

### **AIR TRANSPORTATION**

The Newport State Airport in Middletown, operated by the Rhode Island Airport Corporation (RIAC), serves the general aviation needs of the area. The airport currently houses 40 aircraft and there are approximately 21,500 operations (takeoffs and landings) annually. The airport is located on 223 acres of land accessed from Forest Avenue. A Master Plan was completed in 2008 and an Environmental Assessment (EA) was completed in 2009 to review environmental impacts to the area based on the completed Master Plan. The Plan specifies that no major expansion of the airport is planned. Current facilities will however, be upgraded and improved for safety and service. In addition to serving local general aviation traffic, Newport State Airport also serves the area's tourist destinations, corporate and local business aviation needs, and quick access to local harbors for both private boat owners and the ship building industry. T.F. Green Airport in Warwick, approximately 30 miles from Middletown, serves the commercial air transportation needs of residents and businesses.

### **RAIL INFRASTRUCTURE**

The existing Newport Secondary Line is a single-track railroad owned by the State of Rhode Island. The line extends along the west side of the Island for approximately 13 miles from the Sakonnet River Bridge to Newport. The connection to the mainland was discontinued in the late 1980's when the rail bridge across the Sakonnet River was damaged and later demolished. The Sakonnet River is a navigable channel and therefore has to allow for the unimpeded movement of waterborne vessels. Therefore, in order to re-establish a rail connection between the Island and the mainland, the bridge would need to be restored as a movable structure or provide the required vertical clearance for navigation. The construction of a new railroad bridge across the Sakonnet River would be a critical initial step toward restoring rail service between Aquidneck Island and the mainland. Potential impacts to restoring rail connection to the mainland should be studied at the appropriate time.

The town should support existing and encourage expanded intra-island rail service. Existing intra-island rail services include excursion trains such as the Newport Dinner Train, the Islander Touring Train, and the Old Colony and Newport Railway. In the area where the existing excursion service operates, the track is in Class 1 condition which allows passenger trains to operate at 15 mph. North of the limits of the excursion train, the track is classified as in "excepted condition", which means that the track is not suitable for the operation of

trains. The rail line would need significant rehabilitation before service could be restored. Discussions are currently underway to offer intra-island passenger rail services with a potential stop at the proposed Greene Lane Park. Potential impacts to providing this service within Middletown should be evaluated.

Regional rail services are provided by Amtrak with local stops at Providence, West Kingston, and Westerly, and the Massachusetts Bay Transportation Authority (MBTA) on the Providence/Stoughton Line connecting Providence to Boston. A new station and service to T.F. Green Airport in Warwick started in December of 2010 extending the MBTA line south of Providence. A commuter rail station with a large park and ride garage was added in 2012 with the opening of the Wickford Junction station in North Kingstown.

### **FERRY SERVICE**

Aquidneck Island currently has two active ferry routes that depart from Newport and offer seasonal tourism based service to Jamestown and Block Island. RIPTA operated a commuter ferry service between Newport and Downtown Providence, but the service was recently discontinued.

### **PEDESTRIAN / BICYCLE**

In 2010, the town conducted its first Sidewalk Condition Index to inventory the condition of all the sidewalks in town. Sidewalk conditions and widths vary across the town. Updates to this inventory are planned on an annual basis with data to be utilized for planning and funding decisions.

During data collection for the Aquidneck Island Transportation Study, pedestrian activity was observed the highest along West Main Road, south of Forest Avenue, with 10-99 pedestrians during the peak periods. Most other areas observed in northern Middletown had pedestrian activity of less than 10 pedestrians over the peak periods.

The State recently installed approximately five miles of new sidewalks along segments of West Main and East Main Roads. However, there still remain several important roadways serving pedestrian activity that lack sidewalks. Corridors with bus service in some areas lack sidewalks and/or coordinated crosswalks at bus shelters and stops.

The Sakonnet Greenway Trail is the nature trail on Aquidneck Island that also serves as a pedestrian transportation corridor connecting Middletown and Portsmouth. The Aquidneck Land Trust completed its final segment of the Sakonnet Greenway Trail in 2012 with its termination at the Middletown Recreational Complex on Wyatt Road. Possible on and off-road extensions of the trail system have been explored by the town and were submitted unsuccessfully for funding through the 2010 Safe Routes to School funding round and 2011 State Planning Challenge Grants.

In 2010, the Town Council enacted a resolution in support of a Complete Streets policy. Complete Streets policies change how streets are designed and built, so that residents of all ages and abilities can travel easily and safely along and across streets, whether they are walking, biking, or riding the bus. Conventional street design is often designed with just the automobile in mind and promotes traffic congestion, pollution, collisions, and discourages physical activity. Middletown should institute a complete streets policy which ensures transportation planners and engineers consistently design and operate the entire roadway with all users in mind - including bicyclists, public transportation vehicles and riders, and pedestrians of all ages and abilities.

The Defense Highway Commuter Bike Lane (Burma Road) currently is the only designated bicycle path on Aquidneck Island. Designated by RIDOT, the “most suitable” roads are those with adequate (wider) shoulders and “suitable” roads have less adequate (narrower) shoulders. There is no continuous north-south roadway that is designated as “most suitable” or “suitable” for bicycle travel in Middletown. Segments of several roadways in town including Burma Road, Aquidneck Avenue and Valley Road have been designated as a “most suitable” or “suitable” road for bicyclists (Guide to Cycling in the Ocean State, 2009-2010, RIDOT). Share the Road signs are posted along Aquidneck Avenue and Burma Road. BikeNewport has also identified suitable recreational bike routes in Middletown and across the island.

During the Aquidneck Island Transportation Study bicycle use was observed during peak periods. Aquidneck Avenue, West Main Road south of Gate 17 Access Road and Burma Road south of Greene Lane had between 15-35 bikes over the peak period. Much of the remainder of the roads observed had less than 10 bikes over the peak period.

Of the three bridges connecting the Island to the mainland, bicycles are currently permitted only on the Mount Hope Bridge. The new Sakonnet River Bridge has a shared use lane for bicyclists.

The town should prepare a bicycle circulation plan to encourage planned investment in bike lanes, shared use paths and bicycle facilities. Through the assistance of grants, the town was able to purchase and install bicycle racks on all town-owned parks and recreational properties. To expand upon the bicycle rack network, the town should consider requiring the installation of bicycle racks during the site plan review process.

See Map T-2 Pedestrian and Bicycle Transportation System for a map of the pedestrian and bicycle paths in town.

## ROAD SYSTEM DESCRIPTION & ISSUES

### FUNCTIONAL CLASSIFICATION

- *Principal Arterial* - A roadway carrying the major portion of longer distance trips through an area, generally serving the major movement of traffic not served by freeways.
- *Minor Arterial* - A roadway which forms the network of cross-travel within a community, generally serving shorter length trips and parallel to a principal arterial.
- *Collector* - An auxiliary or through roadway which serves to collect and distribute traffic between arterials and local roadways.
- *Local* - A roadway (street) which serves only to provide access to abutting properties.

Map T-3 depicts the system of highway classification for Middletown roadways (please note: 2014 update not yet available). Map T-4 Road Jurisdiction Map illustrates which roads in Middletown are under local, state, federal, and private ownership.

### PRINCIPAL AND MINOR ARTERIALS

WEST MAIN ROAD is a four-lane principal arterial under the jurisdiction of the RIDOT running in a north/south direction along the west side of Aquidneck Island. West Main Road serves as a major access point between Mount Hope Bridge/ Sakonnet River Bridge (Route 24) and Newport. In each travel direction, West Main Road is a two lane roadway with narrow 1-foot shoulders for the majority of its length. Land use is a mix of residential and commercial. The majority of West Main Road has a posted speed limit of 35 mph. The West Main Road corridor, north of Two Mile Corner, is one of the busiest on the island, carrying 32,200 vehicles per day.

EAST MAIN ROAD (Route 138) falls under the jurisdiction of the RIDOT and runs in a north/south direction along the east side of Aquidneck Island, linking the Sakonnet River Bridge (Route 24) to the north with Two Mile Corner to the south. In Middletown, East Main Road is a four lane principal arterial with two travel lanes and narrow 1-foot shoulders in each direction. The majority of East Main Road has a posted speed limit of 35 mph.

Major issues identified of the principal arterials, West and East Main Roads, include high traffic volume in which capacity has been exceeded. There is a lack of consistent pedestrian access and no provisions for bicycle transportation. Too many curb cuts provide access to the many commercial activities along the corridors. The presence of closely spaced driveways along these major corridors and the ensuing entering and exiting vehicle movements create conflict points for vehicles, pedestrians, and bicyclists. While necessary to provide access to abutting land uses, there are instances where access management, or a

consolidation of driveways to mitigate the conflict points, can be accomplished to improve mobility and safety.

**CODDINGTON HIGHWAY** is a principal arterial roadway under the jurisdiction of RIDOT. Coddington Highway runs primarily in an east/west direction linking West Main Road with JT Connell Highway. Coddington Highway serves as a major access point between West Main Road and Naval Station Newport, the Pell Bridge, and Newport. Coddington Highway has a travel lane and a shoulder in each direction and a center turn lane from West Main Road to the CCRI campus in Newport. From there the roadway is known as J.T. Connell Highway, and has one lane in each direction. Land use is a mix of residential and commercial. The posted speed limit is 25 mph.

**VALLEY ROAD (ROUTE 214)** is a two-lane principal arterial roadway under the jurisdiction of RIDOT. Valley Road runs in a north/south direction, linking West Main Road to Aquidneck Avenue, serving the Atlantic Beach District and Aquidneck Corporate Park. Valley Road consists of one travel lane with a shoulder 2 to 6-feet wide. Valley Road flares to two travel lanes at major intersections. Land use is primarily commercial to the north of East Main Road, a mix of residential of commercial between East Main Road and Green End Avenue, and commercial uses south of Green End Avenue. The posted speed limit is 35 mph north of Green End Avenue and 40 mph south of Green End Avenue. Reconstruction of the Valley Road and Green End Avenue intersection was completed in 2012.

**AQUIDNECK AVENUE (ROUTE 138A)** is a two-lane minor arterial roadway under the jurisdiction of RIDOT. Aquidneck Avenue runs in a north/south direction linking East Main Road with Memorial Boulevard and the Atlantic Beach District to the south. Aquidneck Avenue consists of one travel lane with a shoulder varying from 2 to 10-feet wide. The shoulder is signed “Share the Road” for bicyclists at various segments. Land use is primarily commercial north of Green End Avenue and south of Valley Road and primarily residential between Green End Avenue and Valley Road. The posted speed limit is 25 mph.

Issues identified with Aquidneck Avenue and Valley Road focus on seasonal travel, primarily destined for the beaches, which can sometimes double traffic volumes on these streets. Aquidneck Avenue and Valley Road lack consistent pedestrian access, bicycle accommodations are poor, volume is heavy, and a poorly planned mixture of commercial and residential uses exists.

## **COLLECTORS AND LOCAL STREETS**

**BURMA ROAD (DEFENSE HIGHWAY)** is a two-lane major/urban collector roadway under the jurisdiction of the United States Navy. Burma Road runs in a north/south direction, linking Stringham Road in Portsmouth with the Gate 17 Access Road. Burma Road serves as a major access point between Navy operations and West Main Road. Burma Road consists of one travel lane with a 4-foot shoulder in each direction and a posted speed limit of 35 mph. The shoulder is signed “Share the Road” for bicyclists for the entire length of the roadway. The Newport Secondary Rail Corridor runs parallel to the roadway. There is an at-grade crossing in the vicinity of the Wanumetonomy Golf and Country Club (north of the Gate 17

Access Road) where the railway then follows along the east side of Burma Road. Burma Road has the potential to add additional carrying capacity and serve as an additional north-south corridor on the island but currently is lacking connections that would make it a viable alternative. It has been envisioned as "Shoreline Drive", a scenic roadway, in the Aquidneck Island Planning Commission's West Side Master Plan.

MIANTONOMI AND GREEN END AVENUES provide the main east - west access in town. The "Y" intersection at Miantonomi and Green End Avenue is hazardous and has been the source of several accidents. A traffic study to provide solutions for intersection improvements is recommended. At a minimum, better signage is required for westbound traffic approaching the intersection on Green End Avenue.

PURGATORY ROAD AND SACHUEST POINT ROAD, which provide access to the beaches, are adequately designed to accommodate present and anticipated traffic demand. However, improvements need to be made to better accommodate pedestrian and bicycle traffic. Parking along these roads should not be allowed as it contributes to traffic congestion and restricts emergency vehicle access.

FOREST AVENUE, is a two-lane primarily residential collector road which experiences a significant amount of cut-through traffic as it is one of only three roadways in town which provides access between West Main Road and East Main Road. A portion of the road is the Forest Avenue School Zone which increases the importance of enforcing posted speed limits.

OLIPHANT LANE, provides a northern connection between West Main Road and East Main Road, and is characterized by a variety of land uses including residential, agricultural, and industrial.

Tourist traffic, although seasonal, places a significant demand on the collector roads that provide access to the beaches including Paradise Avenue. Not only does the seasonal traffic tax roadway capacities, it also introduces a safety hazard which affects the neighborhoods through which it traverses. Traffic on neighborhood roads to the beaches should be kept to a minimum.

For a number of reasons, permanent CUL-DE-SACS should be discouraged for the design of new roadways. A better integrated street network can provide shorter connections to shopping, services, and adjacent neighborhoods and encourage alternative modes of travel. Streets that are disconnected isolate land uses and force all trips on to the arterial street system without regard for their ultimate destination. Cul-de-sacs can hinder the orderly expansion and installation of sewer and water systems, impede circulation of public safety vehicles, and create a challenge in the winter months for snow removal and the treating of roads. New cul-de-sacs will be allowed to abut adjacent undeveloped land, only as a temporary expedient. When the adjacent land is developed, the cul-de-sac shall be eliminated and a through road constructed where abutting land use permits feasibility.

Construction of permanent cul-de-sacs in subdivisions abutting developed land shall be permitted only when:

- The cul-de-sac would abut a neighboring residential development and no agreement can be reached with said community to join or extend to an existing street.
- The cul-de-sac abuts wetlands or prevents the degradation of environmental resources.
- The property being developed cannot support more than one road access.
- There is no road or paper street on the adjoining developed land that can be extended to the new road.

## RECOMMENDATIONS FROM THE AQUIDNECK ISLAND TRANSPORTATION STUDY

Below is a summary of the recommendations by mode from the Aquidneck Island Transportation Study applicable to Middletown. More detailed recommendations as well as policy recommendations have also been incorporated into the goals, policies, and action items section of this element.

The **Roadway Improvements** alternatives target system-wide vehicle mobility/reliability and safety by reducing travel times and trip lengths, improving access, reducing delays/back-ups for vehicles at intersections, and reducing the number and severity of crashes. The following recommendations are included under the Roadway Improvements package in the Aquidneck Island Transportation Study:

- Optimize traffic signals
- Reconstruct Two-Mile Corner intersection
- Make localized intersection safety/capacity improvements including realigning the Aquidneck Avenue/Purgatory Road intersection to eliminate the slip lane
- Widen West Main Road to provide left-turn lanes at Oliphant Lane and Forest Avenue
- Extend existing left turn lanes at Gate 17 Access Road and Valley Road
- Construct new Burma Road connections to the north and south

The goal of the Burma Road Improvements Project is to transform Burma Road into a viable north-south corridor on the west side of the Island, with the potential to alleviate congestion along busy West Main and East Main Roads. Depending on the percentage of traffic shifted,

West Main and East Main Roads have the potential to operate more efficiently with fewer vehicles traveling the roads, resulting in reductions in VMT and VHT. A north extension of Burma Road to West Main Road and a southern extension of Burma Road to Coddington Highway are necessary for the viability of Burma Road as an alternate north-south corridor on the Island. The town will continue to work with the Navy on finding an acceptable solution for a southerly extension.

The Two-Mile Corner Improvements Project includes reconstruction of the signalized intersections, with the addition of turning lanes and cueing. In 2012 the Middletown Town Council voted in favor of signalized intersections over roundabouts at the Two-Mile Corner intersections, which had been proposed by RIDOT.

The **Transit Improvements** alternatives focus on making transit options more attractive, available, and efficient with an overarching goal of increasing transit utilization and reducing reliance on the automobile. The following recommendations are included under the Transit Improvements package in the Aquidneck Island Transportation Study:

- ❑ Encourage Transit Oriented Development
- ❑ Provide Additional Bus Service
- ❑ Establish Newport Jitney Service (with access to Middletown Beaches/Atlantic Beach District)
- ❑ Implement Rapid Bus Service
- ❑ Maintain Active Newport Secondary Rail Corridor
- ❑ Enhance the Transit Users' Experience
- ❑ Encourage Employers to Institute Transit Programs for Employees
- ❑ Create Park & Ride Opportunities
- ❑ Enhance Ferry Service

The **Pedestrian/Bicycle Improvements** alternatives are aimed at improving mobility for bicyclists and pedestrians by upgrading existing facilities and increasing walk/bike options. The bicycle improvements make up an Island-wide Bicycle Network that would ultimately be made up of existing “most-suitable” and “suitable” roadways, existing and proposed shared roadways, proposed wide shoulders/bike lanes along roadways, and proposed shared use paths. The bicycle network would ideally provide access to existing and proposed multimodal centers and large employers. The following recommendations are included under the Pedestrian/Bicycle Improvements package in the Aquidneck Island Transportation Study:

- Construct Shoreline Bikeway (Burma Road) Shared Use Path, a 10-mile off-road bicycle path along the Newport Secondary Rail and Navy ROW
- Connect Missing Links Between Suitable Roads for Bicycles
- Provide Destination/Guide Signing for Bicycles
- Construct East Main Road Shared Use Path, a 6-mile off-road shared use path along East Main Road from Turnpike Avenue in Portsmouth to Middletown Town Hall
- Construct West Main Road Shared Use Path, a 4-mile shared use path along West Main Road from Corys Lane to Greene Lane
- Upgrade Pedestrian Accommodations

**TRANSPORTATION - Goals, Policies, & Action Items**

**GOAL T-I: Promote safety as a top priority within all transportation strategies, infrastructure projects, and programs**

<b>Policies</b>	<b>Action Items</b>	<b>Responsible Department</b>	<b>Timeframe</b>
T-I.A. Reduce the number and severity of accidents occurring on our roads	T-I.A.1. Ensure appropriate levels of police traffic patrols to enforce speed limits	Police Department	Ongoing
	T-I.A.2. Encourage the state to provide traffic enforcement on state highways	Town Administrator; Police Department	Ongoing
	T-I.A.3. Coordinate with the state to implement an educational effort in high schools to improve safety on state highways and local streets	Police Department; School Department, Road Safety Audit Team (RSAT)	Short-term (1-2 years)
	T-I.A.4. Conduct Road Safety Assessments in cooperation with RIDOT where appropriate	Engineering; Planning Department; Police; RSAT	Ongoing
	T-I.A.5. Complete a traffic study for the Green End Avenue / Miantonomi Avenue intersection to identify potential solutions for safety improvements	Engineering; Police; RSAT	Short-term (1-2 years)
	T-I.A.5. Work with RIDOT in permitting and design of left-turn lanes along West Main and East Main Roads and extension of existing left-turn lanes where necessary	Engineering	Medium-term (3-5 years)
	T-I.A.6. Coordinate intersection improvements with RIDOT, including submission of town projects for inclusion on the state Transportation Improvement Program (TIP), focusing on projects that increase safety	Planning Department; Engineering	Medium-term (3-5 years)
	T-I.A.7. Ensure transportation system safety through maintenance of infrastructure, safe and consistent road surface conditions, and plowing and sanding of roads during and after winter storms	Public Works; Engineering; RSAT	Ongoing

<b>GOAL T-II: Provide a street network that allows for safe and efficient movement of vehicular traffic throughout the town</b>			
<b>Policies</b>	<b>Action Items</b>	<b>Responsible Department</b>	<b>Timeframe</b>
T-II.A. Alleviate congestion caused by regional traffic patterns	T-II.A.1. Remain involved with state and regional transportation planning efforts, including Statewide Planning, AIPC, and RIDOT	Planning Department	Ongoing
	T-II.A.2. Work with RIDOT in planning permitting and design of projects that improve traffic flow	Planning Department; Engineering; Public Works	Medium-term (3-5 years)
	T-II.A.3. Establish better communication and coordination between state and local agencies and utilities during development site plan reviews and RIDOT Physical Alteration Permitting.	Planning Department; Building Department; Public Works	Short-term (1-2 years)
	T-II.A.4. Work with regional and state agencies to promote a multi-modal transportation system as a means to alleviate traffic congestion generated by through traffic	Planning Department	Ongoing
	T-II.A.5. Support efforts to implement Transportation Management Associations (TMAs) for major employers and/or employment locations	Planning Department	Medium-term (3-5 years)
	T-II.A.6. Implement a wayfinding sign program targeted to visitors	Public Works; Town Administrator; MEDAC	Short-term (1-2 years)
T-II.B. Promote alternative north-south transportation routes.	T-II.B.1. Work with partners to enhance Burma Road as a viable alternative to East Main and West Main Roads, including improved connections at the north and south, while maintaining its two-lane cross-section	Planning Department; Town Administrator	Long-term (6-10+ years)
T-II.C. Promote the use of state-of-the-art technology for traffic management.	T-II.C.1. Support efforts to institute a comprehensive Intelligent Transportation System (ITS) and related technologies to manage traffic flows	Planning Department	Medium-term (3-5 years)

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T-II.D. Implement policies that support access management principles.	T-II.D.1. Minimize the number and location of curb cuts by creating an access management plan	Planning Department; Zoning Board	Medium-term (3-5 years)
	T-II.D.2. In cooperation with RIDOT, implement appropriate access management controls on arterial roadways, including limiting direct access to major roadways	Planning; Engineering	Ongoing
	T-II.D.3. Require new developments along East and West Main Roads and other state roads to use frontage roads with cross easements, or other collector streets that will access the highway at one curb cut	Planning Board; Town Council	Medium-term (3-5 years)
T-II.E. Support an interconnected local street system that allows for efficient movement of traffic	T-II.E.1. Require subdivision roads and new developments link with overall road system and provide adequate access when appropriate	Planning Board	Ongoing
	T-II.E.2. Encourage street and neighborhood connectivity by discouraging the use of cul-de-sacs	Planning Board	Ongoing
	T-II.E.3. Limit impact of traffic on local streets by utilizing traffic calming techniques where appropriate	Engineering; Public Works; Planning Board	Ongoing

<b>GOAL T-III: Provide for and promote the use of alternative modes of transportation</b>			
<b>Policies</b>	<b>Action Items</b>	<b>Responsible Department</b>	<b>Timeframe</b>
T-III.A. Provide a safe, convenient, and pleasant network of walkways	T-III.A.1. Investigate options to provide safe pedestrian crossings on West Main Road and East Main Road	Planning Department; Engineering; RSAT	Ongoing
	T-III.A.2. Upgrade existing sidewalks and install new sidewalks where appropriate, include sidewalk installation program as part of the capital improvement planning process.	Public Works; Engineering; Planning Department.; RSAT	Ongoing
	T-III.A.3. Require construction/rehabilitation of sidewalks as part of any roadway construction or reconstruction project where appropriate	Planning Department; Engineering; RSAT	Ongoing
	T-III.A.4. Promote a Complete Streets approach to design and renovation of infrastructure that ensures safety and mobility of all users are considered	Planning Department; Engineering; Public Works; RSAT	Ongoing

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<p><b>T-III.B. Encourage bicycle transportation through development of bike lanes, shared use paths, and bicycle facilities</b></p>	<p>T-III.B.1. Develop and implement a bicycle circulation plan for the town to provide dedicated bicycle facilities, including connection of missing links between suitable roads for bicycles</p>	<p>Planning Department; Public Works; RSAT</p>	<p>Medium-term (3-5 years)</p>
	<p>T-III.B.2. Support design, permitting and construction of Shoreline Bikeway (Burma Rd), an off-road shared use path along Newport Secondary Rail and Navy right-of-way (ROW).</p>	<p>Town Administrator; Planning Department</p>	<p>Long-term (6-10+ years)</p>
	<p>T-III.B.3. Support development of a dedicated shared use path along East Main Road</p>	<p>Town Administrator; Planning Department</p>	<p>Long-term (6-10+ years)</p>
	<p>T-III.B.4. Support construction of a shared use path along West Main Road</p>	<p>Town Administrator; Planning Department</p>	<p>Long-term (6-10+ years)</p>
	<p>T-III.B.5. Provide destination/guide signing for bicyclists</p>	<p>Planning Department; Public Works</p>	<p>Long-term (6-10+ years)</p>
	<p>T-III.B.6. Consider requiring installation of bike racks as part of site plan review process</p>	<p>Planning Board</p>	<p>Short-term (1-2 years)</p>
	<p>T-III.B.7. Submit bicycle facilities projects for inclusion in the State's Transportation Improvement Program (TIP)</p>	<p>Planning Department; Engineering</p>	<p>Medium-term (3-5 years)</p>
<p><b>T-III.C. Support enhancement of and marketing for water based transportation</b></p>	<p>T-III.C.1. Provide access locations to the East Passage of Narragansett Bay for kayaks and other small boats</p>	<p>Planning Department; Recreation</p>	<p>Medium-term (3-5 years)</p>

<b>GOAL T-IV: Promote the use and expansion of public transit to reduce traffic congestion and to improve air and water quality for the citizens of Middletown and Aquidneck Island</b>			
<b>Policies</b>	<b>Action Items</b>	<b>Responsible Department</b>	<b>Timeframe</b>
T-IV.A. Expand and improve public transit system and services and ensure that the system meets the mobility needs of all citizens	T-IV.A.1. Work with RIPTA to upgrade and expand bus service in town to include greater frequency and coverage of residential and commercial nodes of activity	Planning Department	Ongoing
	Specifically Encourage the Following Additional Bus Service:		
	· Off-Island limited stops or express service to T.F. Green Airport and Amtrak Stations		
	· Increase frequency of Bus Route 60 (West Main and East Main Roads)		
	· Expand Flex Service areas and allow for same day scheduling		
	T-IV.A.2. Support implementation of Rapid Bus Service through transit signal priority and consolidating or eliminating closely spaced bus stops	Planning Department	Long-term (6-10+ years)
	T-IV.A.3. Endorse the Newport Chamber of Commerce’s concept for a Newport Jitney bus-trolley service from the Gateway Center to the beaches and hotels	Town Council	Short (1-2 years) and Medium-term (3-5 years)
	T-IV.A.4. Support solutions to increase transportation access for individuals with disabilities and senior citizens	Planning Department; Senior Center	Ongoing
T-IV.A.5. Encourage development patterns that promote transit use	Planning Board	Ongoing	
T-IV.A.6. Submit transit-related projects for inclusion in the State’s Transportation Improvement Program (TIP)	Planning Department; Engineering	Medium-term (3-5 years)	

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T-IV.B. Enhance the public transit user's experience	T-IV.B.1. Work with RIPTA to provide benches and architecturally appropriate bus shelters	Planning Department	Medium-term (3-5 years)
	T-IV.B.2. Encourage RIPTA and RIDOT to make improvements in bus stop operations and safety such as bus pullouts and sidewalk/crosswalk upgrades, coordinate crosswalks with major bus stops	Planning Department	Ongoing
	T-IV.B.3. Encourage RIPTA to provide real-time bus information to mobile phones	Planning Department	Short-term (1-2 years)
T-IV.C. Promote the use of public transit among island commuters	T-IV.C.1. Encourage employers to support Transportation Demand Management (TDM) measures and institute transit programs and benefits for employees such as guaranteed ride home services, transit pass subsidies, on-site transit pass sales, parking cash out programs	Planning Department	Short-term (1-2 years)
	T-IV.C.2. Promote improved transit access to major employers	Planning Department	Ongoing
T-IV.D. Maintain active Newport Secondary Rail Corridor	T-IV.D.1. Support appropriate passenger rail uses of the rail line	Town Administrator; Planning Department	Ongoing
	T-IV.D.2. Promote the preservation of the Newport Secondary rail corridor	Town Administrator; Planning Department	Ongoing
	T-IV.D.3. Work with adjacent land owners as part of the local development approval process to eliminate existing or future encroachments into the rail right of way	Planning Board; Building and Zoning	Ongoing
	T-IV.D.4. Support efforts to continue track maintenance/grade crossing improvements to retain Class 1 rating	Town Administrator; Planning Department	Ongoing

<b>GOAL T-V: Maintain, preserve and extend the life and vitality of prior investments in the transportation system</b>			
<b>Policies</b>	<b>Action Items</b>	<b>Responsible Department</b>	<b>Timeframe</b>
T-V.A. Collect and analyze data to assist in identifying and prioritizing infrastructure upgrades and maintenance needs	T-V.A.1. Continue to maintain the Pavement Management Program and Sidewalk Condition Inventory	Engineering; Planning/GIS	Ongoing
	T-V.A.2. Utilize and update Geographic Information Systems (GIS) information to inventory intersections, catch basins, outfalls, utility access, locations, bike paths, curbs and sidewalks in the transportation system	Public Works, Engineering, Planning/GIS	Ongoing
	T-V.A.3. Maintain a "road database" with accurate information on all public and private roads	Public Works, Engineering, Planning/GIS	Ongoing
T-V.B. Track and coordinate investments in the transportation system to minimize duplicate efforts and costs	T-V.B.1. Include ancillary improvements with the repair schedule to minimize disruption on the road system. For example, if sidewalks, bicycle paths, drainage, curbs, sewers, etc. are planned, they shall be installed during the scheduled repair period for the road	Engineering; Public Works	Ongoing
	T-V.B.2. Coordinate with RIDOT and utility companies on any work to occur on town roads. Complete all utility and roadwork, including emergency repairs, so that the new road surface is consistent with the old surface	Public Works; Engineering	Ongoing

<b>GOAL T-VI: Make transportation decisions and policies that promote energy conservation, foster healthy communities, and protect environmental quality</b>			
<b>Policies</b>	<b>Action Items</b>	<b>Responsible Department</b>	<b>Timeframe</b>
T-VI.A. Avoid adversely affecting the environment and town's water quality with road and parking lot runoff	T-VI.A.1. Implement recommendations of the town's Phase II Stormwater Management Plan	Public Works; Planning Department	Ongoing
T-VI.B. Promote livable and sustainable communities through coordinated transportation/land use strategies	T-VI.B.1. Promote initiatives that reduce greenhouse gas emissions, such as low impact/smart growth development principles in zoning	Planning Board; Town Council	Short-term (1-2 years)
	T-VI.B.2. Continue to develop land use policies/zoning that supports transit-oriented development with housing, retail, and jobs collocated with each other near transit (focusing efforts on Two Mile Corner)	Planning Board	Ongoing