

Element I. CIRCULATION

VI: Circulation

M. GOALS/POLICIES/IMPLEMENTATION I-16

a).....Discussion..... I-16

b).....Policy I-16

c).....GOAL I: Safe and Efficient Street Network..... I-16

d).....GOAL II: Minimize Number of Curb Cuts I-17

e).....GOAL III: Reduce Accidents on East And West Main Roads I-18

f).....GOAL IV: Provide Safe Road Surface..... I-19

g).....GOAL V : Provide Sidewalks I-21

h).....GOAL VI: Provide Bus Service..... I-21

i).....GOAL VII: Promote Mass Transportation..... I-22

j).....GOAL VIII: Control Road Runoff I-23

k).....GOAL IX: Provide Alternate (Second) Access I-24

l).....GOAL X: Plow and Treat Streets..... I-25

m).....GOAL XI: Improve Safety..... I-25

n).....GOAL XII: Improve Traffic Patterns I-26

o).....GOAL XIII: Create Bicycle Trails and Water Trails I-27

p).....GOAL XV: Reduce Road Congestion..... I-28

- Deleted: I-18
- Deleted: I-20
- Deleted: I-18
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- Deleted: I-18
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VI: Circulation

List of Tables and Figures

Figure I-1 Highway Functional Classification..... I-5
Figure I-2 Public Bus Routes..... I-10

- Deleted: I-7
- Deleted: I-7
- Deleted: I-6
- Deleted: I-13

Table I-1 Accidents in Middletown..... I-7
Table I-2 Roads Experiencing the Greatest Number of Accidents I-7
Table I-3 Months* when Most Accidents Occur in Middletown (number/percent of total) I-7
Table I-4 Traffic Counts at Key Town Intersections I-8

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- Deleted: I-9
- Deleted: I-8
- Deleted: I-9
- Deleted: I-9
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CIRCULATION

A. REFERENCES

- a) AIPC Corridor Study TBD
- b) West Side Master Plan
- c) Newport State Airport (Colonel Robert F. Wood Airpark, Airport Master Plan, 2008)

B. INTRODUCTION

The primary focus of this element is local level. However, Aquidneck Island, regional and state transportation patterns and needs affect local transportation goals and objectives. Thus, an understanding of the present and future transportation system is required to define Middletown transportation goals.

The Aquidneck Island comprehensive traffic study, now in process, will provide the analysis and framework for defining Island and Middletown transportation challenges and goals. Elements of the study will be incorporated in this Element as they are available and appropriate.

C. TRANSPORTATION MODES

1. Definitions

The customary unit used in travel analysis is the "trip", defined as a one-way journey that proceeds from an origin to a destination by a single type of vehicular transportation. The "purpose" of the trip is the reason for making the journey. The type of transportation used is the "mode". The mode is often influenced by the trip purpose. Middletown's transportation system is frequented by several different modes of transportation which include:

2. Automobile

This mode accounts for the largest percent of total travel on transportation systems. In the Northeast approximately 85 percent of the population owns automobiles. In May 2003, 15,603 vehicles were owned by residents of Middletown; representing approximately 90 percent of the town's population¹. Taxi service is a subcategory of the automobile mode. There are four taxi companies that provide service in the Middletown area.

¹ Based on RI Statewide Planning's 2004 population estimate.

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VI: Circulation

3. Bus

Rhode Island Public Transit Authority (RIPTA) provides daily bus service within the town and from Newport to Providence. Additionally, Bonanza Bus Lines provides daily service to Providence, Boston, Fall River and New York City.

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4. Water

No water transportation originates in Middletown. Access to the waterfront along Middletown's western shore is limited.

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5. Aircraft

The Colonel Robert F. Wood Airpark, located in Middletown is part of the Rhode Island general service airport system. The Newport Airport Master Plan, completed in 2008 provides a complete description of the airport, its current and planned use. The Plan specifies that no major expansion of the airport is planned. Current facilities will however, be upgraded and improved for safety and service.

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Deleted: Its service level is listed as an Air Carrier Airport- Commuter Service. The airport is classified as a General Service Airport. Passenger air traffic averaged 23,292 movements between 1970 and 1979 and decreased to an average of 22,089 between 1980 [10]

6. Trucks

The demand for truck transport service is directly related to the intensity and type of economic activity in town. Active marketing, coupled with positive economic variables will encourage expansion of trucking as these districts are developed and service needs for this sector increase. The ability of the roadway network to support increased truck traffic will affect the extent of future expansion within the commercial and industrial sectors of town.

Comment [RPA2]: What does this add? Combine with cars.

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7. Railroads

The single rail line on the west side of Aquidneck Island is currently used for tourist and entertainment trains. Possible use of the rail corridor for other purposes will be included in the Island Transportation Study. There is no plan to connect Aquidneck Island to the rail network.

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8. Pedestrian

This mode, normally is not considered a "trip" in typical transportation systems analysis. Pedestrian access and safety do however, directly affect system costs as well as the community's quality of life.

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9. Bicycle

D. See the Aquidneck Island Transportation Study for analysis of potential bicycle routes. ROADWAY HIERARCHY

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Highways/streets are divided into the following four major categories:

VI: Circulation

1. Principal Arterials

- A. Carry a major of the longer distance trips passing through the urban area.
- B. Serve the longer distance movements within urbanized areas, such as between the Providence central business district and outlying city and town centers of built-up areas.
- C. Carry a high proportion of the total urban area traffic on a minimum of road mileage.
- D. Frequently, carry important intra-urban as well as inter-city bus routes.
- E. Provide continuity for all rural arterials that pass through the urban area.
- F. Include all limited access and most (although not all) roads that have interchanges with Interstate Highways.
- G. Typically, speeds are 45 mph or greater except in built-up areas
- H. East and West Main Roads along with Coddington Highway are Connecting links of Rural Principal Arterials. Other Principal Arterials are Valley Road and Aquidneck Avenue (from Valley Road to Newport City Line).

2. Minor Arterials

- A. These form the network or backbone of cross-travel within a community.
- B. May carry local bus routes.
- C. Often, carry traffic through a large portion of a city or town.
- D. Often, feed traffic from collectors into the principal arterials.
- E. Preferably, do not penetrate neighborhoods.
- F. Provide the urban connections to rural collector roads.
- G. May parallel a principal arterial and carry shorter length trips, connecting built-up areas and traffic generators in one or more towns.
- H. May connect outlying smaller town centers and built-up areas with routes of higher classification.
- I. May carry the heaviest volume cross-traffic between two principal arterials that closely parallel each other.
- J. Aquidneck Avenue (from Valley Road to East Main Road and Miantonomi Ave are minor arterials.

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VI: Circulation

3. Collector Streets

- A. Are spaced at intervals to collect traffic from local streets and channel it to the arterial system. (In built-up areas, often are the cross-streets along arterials that have signalized intersections).
- B. Provide both land access service and traffic circulation to residential areas, as well as commercial and industrial areas. May carry traffic from a major industrial area or regional facility (i.e. institutional complex, landfill) to an arterial.
- C. Almost always are fed by two or more local streets. The exception would be a street connecting an arterial to a transportation terminal (which is still feeding travelers, but from another mode).
- D. May pass through neighborhoods
- E. Collector streets in Middletown include portions or all of the following: Berkley Avenue, Bliss Mine Road, Biss Road, Burma Road, Forest Avenue, Gate 17 Access Road, Green End Avenue, Hanging Rock Road, Indian Avenue, Maple Avenue, Mitchell's Lane, Oliphant Lane, Peckham Avenue, Purgatory Road, third Beach Road, Walcott Avenue, Wapping Road, and Wyatt Road.

4. Local Streets

- A. Serve primarily to provide direct access to abutting land.
- B. Offer the lowest level of travel mobility. Through traffic movement is usually discouraged.
- C. Usually carry no bus routes.
- D. Comprise all streets not on the higher functional systems.
- E. Colony Drive is a local street.

Source: Criteria for Highway Classification System, R.I. Department of Administration, Division of Planning Feb 1988.

Figure I-1 Highway Functional Classification depicts the highway system classification and the street system in Middletown. Ownership also connotes relationships between function and classification. The main categories are State owned, State aided, Town owned, or private.

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VI: Circulation

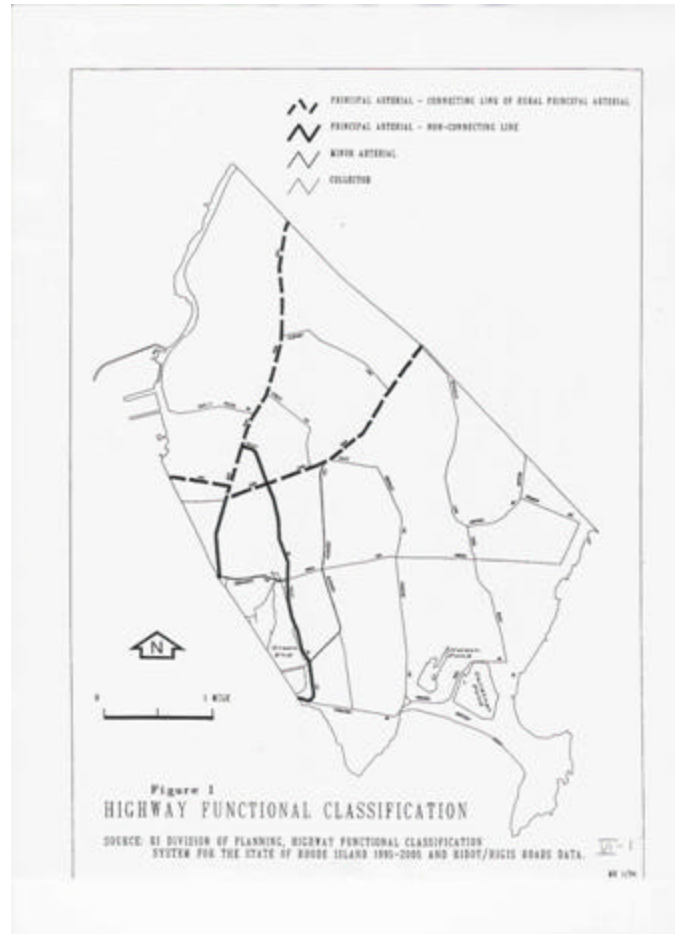


Figure I-1 Highway Functional Classification

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VI: Circulation

E. TRAFFIC COUNTS

Traffic counts taken by the Rhode Island Department of Transportation (RIDOT) in 1999 provide average daily traffic volumes throughout the state. In Middletown, the greatest flows of traffic in Middletown occur along West Main Road (SR 114) and East Main Road (SR 138). The highest traffic volume is present in a concentric zone where (SR 114, SR 138) and Coddington Highway all intersect. The most congested travel zone extends from the intersections of Access Highway at West Main Road (SR 114) and Valley Road at East Main Road, both which converge at the Two Mile Corner and head in a southerly direction toward Newport. (see Figure 1 or 2) Several factors that contribute to the congested traffic situation are:

- A. The Newport Bridge traffic transiting Admiral Kalbfus Road and turning north to head off the island.
- B. The traffic from industrial activity at the naval base area.
- C. Increased tourist traffic from the north.
- D. The concentration of commercial/retail/service activities within a two mile radius of the Two Mile Corner.
- E. Increased recreational beach traffic.

F. ROADWAY CAPACITIES

The capacity of a roadway system is directly influenced by traffic demand and highway design standards. Roadway capacity is measured by volumetric design and the level of service (traffic flow effectiveness ability) Levels of service range from a high of A to a low of F. Level C service is generally used to establish capacity design criteria for roadway systems.

West Main Road (SR 114) and East Main Road (SR 138) are principal arterial roads which play an essential role in north-south traffic flow on Aquidneck Island. Scattered roadside development and heavy traffic flow have seriously taxed the functional ability of both routes. A good deal of the town's commercial development has converged in strip fashion along these roads, especially towards the south, placing an unanticipated demand on both roads' functional design. These roads not only serve through traffic but double as access media to local businesses. This situation introduces direct on and off traffic access to highways which were primarily designed to accommodate through traffic, thereby creating a conflict between design and usage. Specific traffic problems on these routes include:

- F. The intersections of SR 114 at Access Highway, Valley Road, Coddington Highway and Admiral Kalbfus Road are frequent locations of traffic congestion and accidents.
- G. Posted traffic speeds range from 25 to 40 mph, but actual traffic speeds on the northern portions of these routes generally range upward to 50 mph.

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Increased traffic flows on roadways has greatly taxed the design capacities and safety of travel in Middletown. Problems relating to increased traffic movement may be attributed to increasing tourism and through traffic on the arterials and to continued business development along commercial strips.¶

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VI: Circulation

H. Congestion varies greatly based on both time of day and season, with summer beach traffic causing some of the most severe problems.

G. ROADWAY SAFETY

The key symptom of unsafe highways is accident history. From 1996 to 2001, Middletown averaged 1,245 vehicle accidents per year. The low est numbers of accidents were recorded in 1997 at 1,168 while the highest number 1,292 were recorded in 1998. The average number of fatalities, in a year was one. Data on accidents for the years 1996 to 2001 are combined in the following tables:

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Comment [RPA6]: Needs full revision and data update. The data presented do not necessarily prove that Middletown's intersections are any worse than other RI towns.

Table I-1 Accidents in Middletown

	1996	1997	1998	1999	2000	2001
Accidents	1,251	1,168	1,292	1,258	1,218	1,285
Fatalities	1	1	2	1	1	1

Source: Middletown Police Department

Table I-2 Roads Experiencing the Greatest Number of Accidents (number/percent of total)

Road	1996	1997	1998	1999	2000	2001
West Main Road	497/39.7	497/42.5	493/38.1	473/37.5	423/34.7	445/34.6
East Main Road	296/23.6	265/22.6	300/23.2	312/24.8	329/27.0	299/23.2
Aquidneck Ave	85/ 6.7	72/ 6.1	111/78.6	120/ 9.5	97/ 7.9	104/ 8.0
Valley Road	62/ 4.9	56/ 4.7	80/ 6.1	63/ 5.0	61/ 5.0	88/ 6.8
Green End Ave	29/ 2.3	34/ 2.9	22/ 1.7	25/ 1.9	34/ 2.7	44/ 3.4

Source: Middletown Police Department

Table I-3 Months* when Most Accidents Occur in Middletown (number/percent of total)

MONTH	1996	1997	1998	1999	2000	2001
June	122/ 9.7	138/11.8	142/10.9	132/10.4	118/ 9.6	120/ 9.3
July	114/ 9.1	124/10.6	140/10.8	118/ 9.3	121/ 9.9	132/10.2
August	126/10.0	111/ 9.5	111/ 8.5	125/ 9.9	125/ 10.2	116/ 9.0
October	122/ 9.7	94/ 8.0	125/ 9.6	99/ 7.8	105/ 8.6	110/ 8.5
December	110/ 8.7	111/ 9.5	124/ 9.5	103/ 8.1	111/ 9.1	108/ 8.4

* 5 highest months

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VI: Circulation

Table I-3 Months* when Most Accidents Occur in Middletown (number/percent of total)

Source: Middletown Police Department

H. INITIATIVES TO IMPROVE TRAFFIC FLOW AND SAFETY

1. Roadway Improvements

North South Through Traffic: Future arterial highway improvements must focus on the town's two main roads: East Main and West Main Road. Both roads provide north-south access from Newport to Route 24 and into Massachusetts. Both roads serve a dual function of carrying through traffic and providing access to abutting properties. Of the two, West Main Road is by far the more heavily developed, providing much of the town's local commercial business. East Main Road is highly developed at its southern end, but less so to the north. Average Daily Traffic volumes on West Main Road exceed those of East Main Road. Table 4 provides a comparison of the traffic counts, for representative years, at the most heavily traveled intersections in town.

Table I-4 Traffic Counts at Key Town Intersections

Location	1990 AADT	1995 AADT	Percent Change
East Main & Aquidneck Ave	32,100	49,450	+54.1
East Main Rd & Valley Rd	38,250	63,850	+67.5
West Main Road & East Main Rd.	43,500	66,100	+52.6
West Main Rd & Adm Kalbfus	25,550	36,600	+20.3
West Main Rd & Coddington Hwy	38,000	41,800	+10.4
West Main Rd & Valley Rd	38,550	58,980	+53.7
Valley Rd & Green End Ave	26,750	35,310	+32.7
Aquidneck Ave & Green End Ave	21,500	24,800	+17.3

SOURCE: RIDOT Turning Movement Reports

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Comment [RPA7]: This section should be eliminated and incorporated in goals. The traffic count data should be included in the previous section.

The potential for upgrading and/or widening either East or West Main Road is restricted by the available right-of-way width and the amount of land abutting the right-of-way which may be taken by condemnation for roadway expansion. Studies conducted by RIDOT indicate a limited capability for expansion on both roads in the existing built-up areas. Transportation Improvement Programs through RIDOT will offer transportation alternatives and roadway improvements that are expected to ease the town's traffic congestion. These projects include study and development of improvements along Route 138, improvements at the Valley Road and East Main Road intersection, and the realignment of the Two Mile Corner intersection. The following policies should be adopted:

West Main Road should become the major four-lane highway for through traffic with local access for existing land uses but with restrictions on future major commercial or residential development. In addition, West Main Road should be redesigned for local access traffic. This should include consideration of the following measures:

Comment [RPA8]: These are goals or Necessary Steps

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VI: Circulation

- A. Center turning lanes, or "fifth lanes;"
- B. Synchronized traffic signals
- C. Jug-handle turnarounds;
- D. Parallel service roads or consolidation of existing driveways
- E. Improved pedestrian access.

East Main Road should become a principle highway for through traffic with local access for existing land uses, but with restrictions on future major commercial or residential expansion. This should include consideration of the following measures :

- A. Synchronization of traffic signals
- B. Additions and improvements of sidewalks along commercial areas
- C. Parallel service roads or consolidation of existing driveways
- D. Designated bike lanes along busy interchanges

Land use control ordinances should be reviewed to provide on site traffic and parking controls for new or expanding businesses. The use of frontage roads or streets intersecting West Main Road should be required, wherever possible, to avoid adding additional direct accesses curb cuts onto West Main Road.

2. Arterial Linking Streets

Valley Road (SR 214) and Aquidneck Avenue (SR 138A) provide links from East Main Road and West Main Road to Memorial Boulevard in Newport. They perform the function of providing southerly access to the City of Newport and to the beaches of Middletown. Seasonal travel, primarily destined for the beaches, can sometimes double traffic volumes on these streets. Troublesome intersections occur where Valley Road intersects with West Main Road, East Main Road and Green End Avenue. Tourist traffic, although seasonal, also places a significant demand on the collector roads that provide access to the beaches. In some instances, local roads are subjected to extremely high traffic usage, given their functional design. 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.

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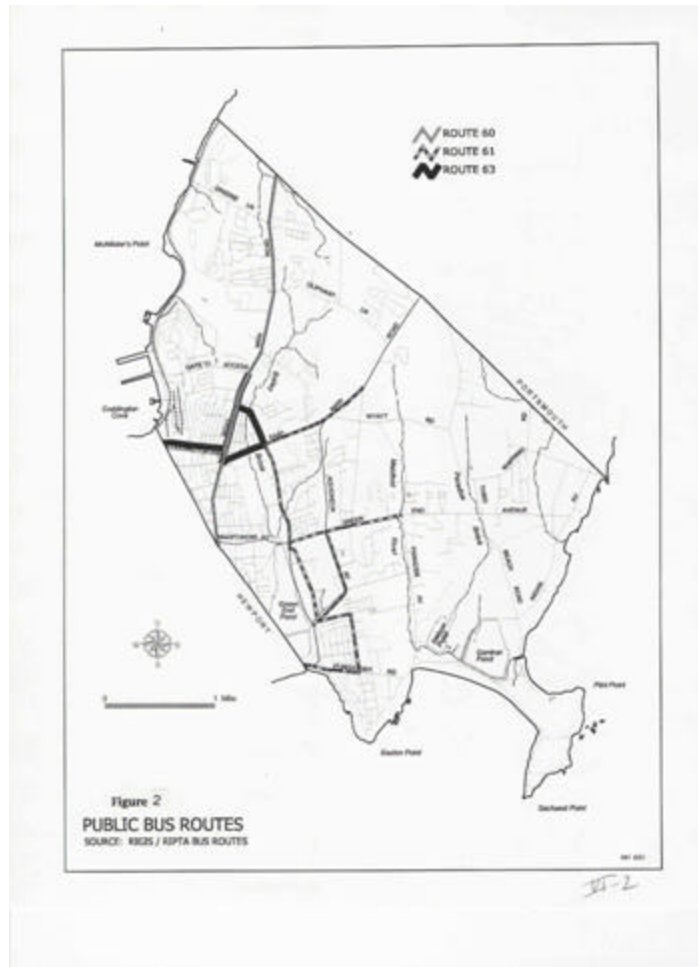


Figure I-2 Public Bus Routes

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I. SUMMARY OF CIRCULATION PROBLEMS/OBSERVATIONS

1. Principal Arterials

West Main Road and East Main Road

- A. High traffic volume. Capacity has been exceeded.
- B. Lacks consistent pedestrian access throughout its length. Where sidewalks exist, their condition is fair to poor.
- C. No provisions for bicycle access. Use of roadway by bicyclists is extremely hazardous. Lacks consistent sidewalks.
- D. Too many commercial activities with direct on-off access (curb cuts).

2. Minor Arterials/Non Connecting Links

a) Valley Road

- A. Traffic volume is increasing as a result of seasonal traffic
- B. Lacks consistent pedestrian access.
- C. Bicycle access along road is fair. Painted "bicycle only" lane should be provided on one side of road.
- D. Poor mixture of commercial and residential zones.

b) Aquidneck Avenue

- A. Traffic volume is heavy.
- B. Lacks consistent pedestrian walkways.
- C. Lacks bicycle access.
- D. Poor mixture of commercial and residential zones.

c) Oliphant

- A. Traffic volume generated by vehicles using as a by-pass to commercial development
- B. Possesses no pedestrian access
- C. No safe bicycle path exists

Comment [RPA9]: Some of this is OK, but mostly it seems to me it's not very useful. Observations on unenforced speed limits are inappropriate.

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The future use, demand, and design of Middletown's circulation system are dependent on future land use. Being highly interrelated proposed circulation design must be planned in conjunction with desired and anticipated future land use. ¶
Analysis of new subdivision locations and their proposed density must include an evaluation of the existing roadway serving the development. The use of the Aquidneck Island Traffic Modeling Program should be used in this regard. Each proposal should be evaluated on the ability of the existing roads to handle the additional traffic demands. This type of rational decision making will ensure that inappropriate and/or unreasonable demands will not be placed on town services. In the cases where the existing infrastructure cannot support additional demands, impact fees should be considered to provide the improvements needed to support new development. ¶

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VI: Circulation

- D. Speed limits are ignored
- E. Major artery from East Main Road to West Main Road (and vice versa) commercial areas

d) Turner Road

- A. Traffic volume generated by vehicles using as a by-pass to commercial development and beaches.
- B. Moderate to heavy traffic and added seasonal congestion
- C. Limited pedestrian access
- D. No safe bicycle path exists
- E. Heavy commercial vehicle use
- F. Speed limits are ignored

e) Green End Avenue

- A. Primary East-West connector
- B. Varies from heavy traffic near residential and commercial areas to moderate in rural sections
- C. Lacks consistent pedestrian access
- D. No safe bicycle access
- E. Speed limits are ignored

f) Forest Avenue

- A. Traffic volume generated by vehicles using as a by-pass to commercial development
- B. Provides only access to Colonel Robert F. Wood Airpark.
- C. Moderate to heavy traffic flow
- D. No sidewalks for pedestrian access
- E. No safe bicycle path
- F. Major artery from East Main Road to West Main Road (and vice versa) commercial areas

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3. Arterial Intersections

West Main Road at Valley Road, West Main Road at Miantonomi Avenue, East Main Road at Valley Road, Valley Road at Green End Avenue, East Main Road at West Main Road, West Main Road at Coddington Highway, Aquidneck Avenue at East Main Road and Aquidneck Avenue at Green End Avenue.

- A. Excessively high traffic counts.
- B. High number of accidents.
- C. Drivers neglect signals.
- D. High speeds.
- E. No pedestrian crosswalks or sidewalks
- F. Poor lane markings contribute to congestion

4. Collector and Local Streets

a) Purgatory Road, Crescent Road, High Street and Boulevard

- A. Intersection and roads designed poorly to circulate high traffic volume.
- B. Lacks adequate signage/signals.
- C. Lacks safe pedestrian walkways

b) Miantonomi Avenue and Green End Avenue

- A. Principal east-west access road.
- B. Inadequate pedestrian walkways.
- C. No provisions for bicycle access.
- D. High traffic counts.

5. Other Local and Collector Streets

- A. Lack safe pedestrian walkways throughout many residential neighborhoods.
- B. Lack adequate bicycle access.
- C. Lack of adequate sight lines

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J. COMMENTS/RECOMMENDATIONS

1. Principal Arterials.

West Main Road and East Main Road are the primary north-south arterials for the town and Aquidneck Island. Congestion and safety hazards are characteristic of each route. West Main Road should be considered the primary north-south arterial for the town and Aquidneck Island.

Intersections of West Main Road at Valley Road, Coddington Highway and East Main Road must be improved to accommodate expected traffic volumes.

2. Minor and Non-Connecting Arterials.

Turner, Oliphant, Forest Avenue and Green End Avenue, serving as connector links to West Main and East Main Roads, and Aquidneck Avenue and Valley Road, may be subjected to increased demand by beach traffic from the upgraded East Main Road and Valley Road intersection. A method to disperse beach traffic through other town streets must be devised.

3. Arterial Intersections.

West Main Road and its intersections at Valley Road, Coddington Highway, Two Mile Corner and Miantonomi Avenue are all considered hazardous. Valley Road intersections, where it intersects with East Main Road and Green End Avenue, are also considered extremely hazardous. Most accidents that occur at these intersections result from driver negligence and a lack of proper traffic signals or poor design. Obviously the accident probability along these roads is directly related to the traffic loading. Since travel demand cannot be reduced, improved intersection design and synchronization could lower accident probability and occurrence.

4. Collector Streets.

Seasonal beach traffic must utilize several roads to access town beaches to prevent overloading Purgatory Road with traffic from Valley Road and Aquidneck Avenue. Use of innovative traffic routing could provide safe, efficient access to the beaches while protecting the integrity of the adjoining residential areas. Strict speed limit enforcement must be required.

Sachuest Point Road, which provides access to the beaches, is adequately designed to accommodate present and anticipated traffic demand. Improvements need to be made to accommodate pedestrian and bicycle traffic. Parking along this road must not be allowed. It not only contributes to traffic congestion, but also restricts emergency vehicle access. Strict enforcement of the parking regulations and the speed limit along this road is essential to the public's general welfare.

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. At a minimum, better signage is required for westbound traffic approaching the intersection on Green End Avenue. Eastbound intersection improvements here and at Valley Road are needed.

Comment [RPA10]: Seems to me this material belongs in Goals or Necessary Steps, or eliminated.

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5. Local Streets.

Middletown continues to be the island's commercial center and along with its popularity as a recreation, conservation, and tourist focal point is putting pressure on collector and local streets. There is now evidence to warrant rehabilitation of many local streets. Public Works Department should pay close attention to local road conditions, especially on the heaviest traveled roads. Ongoing repair and preventative maintenance will avoid costly reconstruction projects and provide safe and efficient access throughout town. A well maintained road system would surely encourage frequenters of these areas to return, thereby aiding the town's economy.

The town's subdivision regulations were completely revised in 1995, and should provide for the effective and orderly development of future local streets in the town. The street design specifications, delineated in the 1995 subdivision regulations, which provide for a 50 foot right of way, 26 feet of pavement and a sidewalk on one side of the street, are adequate and should be continued as the standard for future town roads until such time as new subdivision standards are adopted to establish a hierarchy of roads in accordance with the "Land Development and Subdivision Review Act of 1992." The Planning Board should monitor the effectiveness of these Regulations and make amendments as required. In anticipation of increased pressures from development on circulation, consideration should be given to enacting an Impact Fee Ordinance that would deal with, among other things, road improvements that would be required to handle additional traffic.

K. ISSUES

1. Cul-de-sacs

Too many cul-de-sacs are allowed as part of subdivision design. Currently there are approximately 55 cul-de-sacs and 59 dead end streets and/or stub roads in the town, some of which are impediments to vehicular traffic circulation (personal, fire, rescue, police, and highway department vehicles)(See Appendix I for a list of cul-de-sacs and dead end streets). Cul-de-sacs also hinder the orderly expansion and installation of sewer and water systems, when applicable, to the portions of the town not served by creating private strip barriers through which utilities may not be installed.

2. Highway Access and Frontage Development

There is a need to control access from frontage development onto East and West Main Roads. The issue of frontage control is a key to improving safety conditions on our busy highways.

3. Pavement Management Program

Execution of the **Pavement Management Program (PMP)** is needed to ensure safe useable circulation on town roads. Good road construction in New England has a life expectancy of twenty (20) years. Using this as a basis, the town should resurface 5 per cent of its approximately 100 miles of roads each year on average, in addition to routine preventative maintenance and repair.

Comment [RPA11]: For sure this belongs in Goals and/or Necessary Steps. If "issues" need to be addressed by policy, they belong in Policy section, Goals/Necessary Steps or in Planning Board Regulations, or town ordinances.

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A Mapped Street Ordinance is needed to enable the town to publish an accurate official town map.¶

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Comment [RPA12]: Does this program actually exist?

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4. Safety

Traffic on East and West Main Roads poses a significant safety hazard, due to an increase of vehicular traffic and lack of pedestrian safety features.

5. Public Transit

There is a need for improved public bus transportation serving Middletown. Other alternative modes of transportation should be addressed at the island or state level.

6. Emergency Vehicle Access

In order to respond to emergencies in a timely manner the town requires easy access to all properties.

L GOALS/POLICIES/IMPLEMENTATION

a) Discussion

The preceding sections of this plan discussed the situation the town faces on all highways within its borders. With this in mind, this section deals principally with local streets but will address issues on state roads where plans to improve them are not already underway or anticipated by RIDOT.

b) Policy

It shall be the policy of the Town of Middletown to promote efficient intermodal transportation on Aquidneck Island.

c) GOAL I: Safe and Efficient Street Network

Goal	Necessary Steps	Responsible Department	Status
Provide a street network that allows for safe and efficient movement of vehicular traffic throughout the town.	New cul-de-sacs will be allowed (and built) 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.		

Comment [RPA13]: Redundant

Deleted: <#>Ownership¶
 A complete, publicly accessible and accurate record of the classification of roads/streets in Middletown does not exist. Presently no accurate information source exists with information on ownership of streets, (public or private), or when the streets were built and accepted. There are many roads in town which are thought to be public but in fact are private and vice versa. In some cases, private roads are being maintained by the town (for safety reasons) and might be considered as public. Presently, there is no accurate listing or legal determination specifying ownership of many town roads.¶

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Comment [RPA14]: Redundant

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 Traffic congestion and the resulting degradation of air and water quality creates unacceptable conditions in the town.¶

<#>Water Quality¶ [16]

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Goal	Necessary Steps	Responsible Department	Status
	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 land/water conservation policies.		
	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.		
	Implementation of this goal will require a change to the Rules and Regulations for the Subdivision of Land.		
	Amend Zoning Ordinance and Subdivision Regulations as needed.		

d) GOAL II: Minimize Number of Curb Cuts

Goal	Necessary Steps	Responsible Department	Status

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Goal	Necessary Steps	Responsible Department	Status
Minimize the number and location of curb cuts providing access to the lots fronting on East and West Main Roads.	Require new developments along East and West Main Roads to use existing frontage or other collector street that will access the highway at one curb cut. Implementation of this goal will require a change to RIDOT policies regarding curb cuts along state highways. Efforts shall be made to consolidate the number of curb cuts servicing properties along town streets. This will require a change to the Zoning Ordinance and actively lobbying RIDOT to change its policies.		
	Work in cooperation with RI DOT to require shared curb cuts.		
	Amend Town regulations to require use of shared curb cuts.		

e) GOAL III: Reduce Accidents on East And West Main Roads

Goal	Necessary Steps	Responsible Department	Status
Reduce the number and severity of accidents occurring on East and West Main Roads.	Coordinate intersection improvements with RIDOT and maintain a Transportation Improvement Program (TIP) for the town focusing on projects that increase safety.		
	Improve Burma Road/Shoreline Drive so that it becomes a viable alternative to East and West Main Roads		

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Goal	Necessary Steps	Responsible Department	Status
	Obtain a commitment from the state to install sidewalks on East and West Main Roads at Oliphant Lane, Brown's Lane, and Forest Avenue. Synchronize traffic signals.		
	Evaluate, design and construct left turn lanes in strategic locations along West Main Road. Investigate options to provide safe pedestrian crossings on West Main Road and East Main Road intersections where pedestrian traffic is consistent.		
	The Town Planner and the Planning Board will be responsible for coordinating intersection improvements with RIDOT and for maintaining the Transportation Improvement Program the town.		

f) GOAL IV: Provide Safe Road Surface

Goal	Necessary Steps	Responsible Department	Status
Provide for safe and consistent road surface conditions on all	Continue to maintain the Pavement Management Program. (PMP).		
	Develop an accurate record of all streets/roads.		

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Goal	Necessary Steps	Responsible Department	Status
town roads.	Implementation of a PMP will require updating and maintenance of a database of local roads and in the development of useful life criteria used in maintaining the roads (i.e. patching, resurfacing, and reconstruction).		
	Maintain a "road data base" with accurate information on all public and private roads. Will be used as a basis from which to prepare an annual plan and be updated on an annual basis.		
	Develop a Mapped Street Ordinance.		
	Fund the PMP as a line item in the town's Annual Budget.		
	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.		
	Separate maintenance and operational expenditures.		
	Complete all utility and roadwork, including emergency repairs, so that the new road surface is consistent with the old surface.		
	Utilize GIS information related to intersections, catch basins, outfalls, utility access, locations, bike paths, curbs and sidewalks in the program.		

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g) GOAL V : Provide Sidewalks

Goal	Necessary Steps	Responsible Department	Status
Provide sidewalks throughout the town.	Create a sidewalk program to complement neighborhoods and that will provide for pedestrian safety.		
	Require construction/rehabilitation of sidewalks as part of any roadway construction or reconstruction project (except portions of scenic roads that are poorly situated for pedestrian traffic).		
	Sidewalk installation should be included as part of the capital improvement planning process.		

h) GOAL VI: Provide Bus Service

Goal	Necessary Steps	Responsible Department	Status
Provide for improved public bus transportation serving Middletown.	The Town should take an active role in promoting the expansion of public transportation in Middletown.		
	This issue must be monitored by Town Officials to ensure that service is not lost. To determine the need for expanded transit service, coordination is required on the local, state and regional levels.		
	Determine the public transportation needs of Middletown residents.		

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Goal	Necessary Steps	Responsible Department	Status
	Request service improvements of the appropriate agencies to serve the Town's needs.		
	Continue to evaluate public transportation needs to determine additional transit service requirements, as growth increases.		

i) GOAL VII: Promote Mass Transportation

Goal	Necessary Steps	Responsible Department	Status
Promote the use of mass transportation to reduce traffic congestion and to improve air and water quality for the citizens of Middletown and Aquidneck Island.	The town endorses alternative modes of transportation as a means to alleviate traffic congestion.		
	Lobby RIPTA to upgrade and expand bus service in town to include greater frequency and coverage of residential and commercial nodes of activity. Make improvements to include aesthetically lighted bus shelters, mini buses, park and ride lots, and designated bus only rights of way where possible.		
	Support the Aquidneck Island Planning Commission's efforts to reestablish the Secondary rail system including:		
	A connection with the MBTA via the existing rail line over a new multi-modal Sakonnet River bridge.		
	Train stops (shelters, stations, and depots) which link with other forms of mass transportation.		

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Goal	Necessary Steps	Responsible Department	Status
	The town shall support the AIPC's efforts to reestablish rail service on the island. The cooperation, coordination, and action of local, state and federal officials will be necessary.		
	The town shall strive to ensure that all forms of public transportation are available to its citizenry.		
	The town shall enlist the assistance of the private (employers) and public sectors to provide incentives that will encourage the use of the system.		
	Regularly reevaluate mass transit needs of citizens to provide upgraded and additional services.		

j) GOAL VIII: Control Road Runoff

Goal	Necessary Steps	Responsible Department	Status
Avoid adversely affecting the town's water quality with road runoff.	The Town should fund implementation of recommendations of the Phase II SWMPP.		
	Implementing this goal will require changes to the town's Zoning Ordinance and Subdivision Regulations to include an emphasis on the quality of storm water runoff as well as on controlling the quantity of stormwater runoff with innovative techniques and technology.		

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Goal	Necessary Steps	Responsible Department	Status
	Investigate funding options for implementation of recommendations which may include:		
	Requiring surface runoff from newly constructed subdivision streets to flow through a sedimentation filtering structure		
	Identifying salt control areas in the Water Protection Districts		
	Developing best management practices and other alternative to abate chemical pollution.		
	Encouraging the use of pervious surfaces for driveways and walking paths in new subdivisions.		

k) GOAL IX: Provide Alternate (Second) Access

Goal	Necessary Steps	Responsible Department	Status
Provide an alternate (second) access in all new developments, wherever feasible.	Require all new developments (residential, industrial, commercial, etc) to have two accesses. When developments abut or are between two existing roads, access will be from both roads.		
	Implementation of this goal must coincide with current subdivision regulations and zoning. Amend subdivision regulations as necessary.		

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l) GOAL X: Plow and Treat Streets

Goal	Necessary Steps	Responsible Department	Status
Make the streets of Middletown safe during and following winter storms and icy conditions.	The streets of Middletown shall be kept plowed and sanded during and after snowstorms and icy conditions.		
	Mixtures for sanding and deicing should be environmentally sensitive in the Watershed Protection Districts as required in Element VIII.		
	Implementation of this goal will require funding in the budget which is adequate to allow the Public Works Department the flexibility to have its men and equipment out early enough to stay ahead of the severe weather that often hits this area.		
	Continue to keep roads safe during and after storms through sanding and plowing.		

m) GOAL XI: Improve Safety

Goal	Necessary Steps	Responsible Department	Status
Improve safety on town highways and streets.	Increase police traffic patrols on local streets.		
	Obtain a commitment from the state to provide additional traffic enforcement on state highways.		
	Coordinate with the state to implement an educational effort to improve safety on state highways and local streets.		

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Goal	Necessary Steps	Responsible Department	Status
	Implementation of this goal requires close coordination with state officials. Since most of the town's serious accidents occur on state highways, a commitment must be obtained from the state to provide the law enforcement assets needed to enforce traffic laws on state highways.		
	Secure funding and provide additional personnel and equipment as needed.		
	Contact appropriate state officials to request increased enforcement on state roads. Establish a traffic safety education program.		
	Enforce speed limits and institute doubling of fines for speeding on designated scenic roads.		

n) GOAL XII: Improve Traffic Patterns

Goal	Necessary Steps	Responsible Department	Status
Improve local traffic patterns.	Continue efforts to identify and improve traffic trouble spots.		
	Encourage alternatives to automobile travel.		
	Determine problem streets and intersections and provide recommended solutions using the AIPC Traffic Modeling Program.		

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Goal	Necessary Steps	Responsible Department	Status
	Improve bicycle transportation through development of bikeways or bike lane.		

o) GOAL XIII: Create Bicycle Trails and Water Trails

Goal	Necessary Steps	Responsible Department	Status
Create bicycle trails and water trails around Aquidneck Island and link with the East bay Bike Path.	Develop, with Newport and Portsmouth, and with assistance of the East Coast Greenway Association a plan for the establishment of a system of bicycle paths around the Island linking with the East Bay Bike Path and Tiverton Bike Path.		
	Support Development of a “Blue Trail” as envisioned by the West Side Master Plan.		
	Coordinate with neighboring communities, AIPC, and RIDOT through the TIP process.		
	Extend new bike lanes as part of roadway improvements where adequate width is available, such as along Coddington Highway.		
	Evaluate and designate qualifying segments of street and roads for “share the road” bikeways.		
	Support expansion of ferry and water shuttle service along the West Side of Aquidneck Island.		

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Goal	Necessary Steps	Responsible Department	Status
	Provide access locations to the East Passage of Naragansett Bay for kayaks and other small boats.		

p) GOAL XV: Reduce Road Congestion

Goal	Necessary Steps	Responsible Department	Status
Reduce road congestion on arterial roads.	Endorse a multi-modal transportation system as a means to alleviate traffic congestion generated by through traffic.		
	Promote alternative north-south transportation routes.		
	Promote the use of state-of-the-art technology for traffic management.		
	Coordinate with RIPTA to provide incentives to make alternative modes of transportation attractive.		
	Provide improved bike and pedestrian facilities.		
	Upgrade segments of Burma Road (Defense Highway) to achieve attractive travel times and to draw traffic from West Main Road.		
	Create the Shoreline Drive (Burma Road) connection to Coddington Highway and the Gate 17 Access Road via an extension of Simonpietri Drive through Naval Station Newport.		

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Goal	Necessary Steps	Responsible Department	Status
	Remain involved with state and regional transportation planning efforts, including the Statewide Planning and AIPC.		
	Support efforts to institute a comprehensive Intelligent Transportation System (ITS) and related technologies to manage traffic flows.		
	Support efforts to implement Transportation Management Associations (TMAs) for Naval Station Newport and possibly for other major employers and/or employment locations.		
	In cooperation with RIDOT, implement appropriate access management controls on arterial roadways, particularly West Main Rd.		
	Plan, design and create remote parking at stations and stops in conjunction with the West Side transit strategy.		
	Support on-island rail service enhancements by protecting the long-term capacity and entire alignments of the existing rail corridor from Newport’s Gateway center to the Sakonnet River Bridge.		

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In an energy conscious age, roadway design should provide safe and efficient access for pedestrians, along with other alternative modes of transportation. Adequate curbing, sidewalk conditions, crosswalk signals and roadway layout are crucial design considerations, which may either support or constrain pedestrian mobility. Middletown's schools were originally planned on the neighborhood concept, but due to changing physical road design characteristics, approximately 90 percent of school children use bus transportation. A significant number of those riding the buses do so because of a lack of sidewalks and unsafe walking conditions prevalent throughout many neighborhoods.

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Page I-2: [10] Deleted Richard Adams 9/29/2009 10:01:00 AM

Its service level is listed as an Air Carrier Airport - Commuter Service. The airport is classified as a General Service Airport. Passenger air traffic averaged 23,292 movements between 1970 and 1979 and decreased to an average of 22,089 between 1980 and 1989 (a 5% decrease). Between 1990 and 2000 air traffic operations averaged 10,230, peaking at 12,012. Colonel Robert F. Wood Airpark is ranked sixth of the six state airports in passenger air traffic, accounting for less than 4 percent of the state total. The RI Airport

Corporation is conducting a study of the 223-acre site to clear 13 acres of land and remove obstructions.

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Richard Adams

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There is one rail facility able to provide passenger service on Aquidneck Island. The Newport Secondary Track is owned by RIDOT, which maintains rail passenger service in Newport County. Currently, this rail line is used only as a tourist attraction. Positive efforts should be undertaken to expand the existing use of the railroad as a means to reduce vehicular traffic. Currently RIDOT has two on-going studies related to the Secondary Rail:

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Richard Adams

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Sakonnet River Bridge

Light Passenger Rail

A study to determine the demand for light passenger rail services and rail infrastructure requirements both on the island and between Newport and Fall River. The study will also determine the feasibility of incorporating a shared use bike path adjacent to the existing track.

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Richard Adams

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Middletown has no specific pathways for bicycle travel besides Burma Road on the west side of town. Safety is a primary consideration in bicycle usage and, with planning, can be integrated into the existing transportation system. Bicycle paths along existing streets could and would provide safe access to desirable areas (such as beaches). Improvement and/or upgrading of roads in town should include modifications to accommodate safe and efficient bicycle use.

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Richard Adams

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Where did this listing come from? Need to be compared with RIDOT planning.

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Richard Adams

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Highways are functionally designed and problems result when capacities and/or use vary from design purposes. An understanding of a roadway's function and design characteristics will enable a reasonable evaluation of demand pressures and prevent misuse of the system.

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Richard Adams

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Air quality

Traffic congestion and the resulting degradation of air and water quality creates unacceptable conditions in the town.

Water Quality

As development increases and additional road surfaces are constructed, care must be taken to keep pollutants from getting into the groundwater (feeding wells) and the surface runoff which feeds fresh water reservoirs.

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Sanding and Snow Removal

Historically, the Middletown Public Works Department has had an excellent reputation for its ability to make Middletown's streets safe during and following winter storms.

Accidents in Middletown

Safety on our highways is directly related to enforcement of traffic laws.

Local Traffic Congestion

Bicycle and Water Trails

Bicycles and boats provide an efficient means of transportation and create a recreational asset

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Richard Adams

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Commuter transportation and traffic congestion

Traffic congestion caused by traffic transiting through Aquidneck Island creates unacceptable conditions on Routes 114 and 138.