

TRANSPORTATION AND CIRCULATION

DRAFT June 28, 2016

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This chapter identifies and describes the existing transportation system in Kittery and how it connects with the regional transportation system. It also identifies issues, opportunities and challenges surrounding them to be addressed in the recommendations of the Comprehensive Plan. The chapter begins with the introduction and background, followed by the inventory of the existing transportation conditions. The following elements are summarized in this Chapter:

- Travel Characteristics
- Roadway Functional Classification
- Scenic Roads
- Traffic Volumes
- Maintaining the Transportation Infrastructure
- Safety
- Pedestrian and Bicycle Facilities
- Transit
- Parking

INTRODUCTION AND BACKGROUND

The local transportation system should provide efficient and safe mobility for all transportation modes and connections to regional facilities. The availability and quality of the transportation system is important to residents, businesses, students, visitors, and emergency services. The maintenance and enhancement of the transportation system can be used to attract development and expand the tax base. In addition, the transportation system has impacts on resources, community character, and the quality of life.

Located approximately 51 miles from downtown Portland, Kittery is located within the York County and is the southernmost community of the Southern Maine Planning and Development Commission (SMPDC) region. The SMPDC region is referred to as the "Gateway to Maine" and contains both urbanized areas (such as Biddeford/Saco and Sanford), rural villages/towns, summer resorts and a coastline of approximately 300 miles. SMPDC is connected to a number of cities through I-95 and modes of public transportation, including the "Downeaster" Amtrak service.

Kittery Area Comprehensive Transportation System (KACTS) is the Metropolitan Planning Organization (MPO) for the Maine portion of the Portsmouth and Dover-Rochester, and New Hampshire urbanized areas. The KACTS MPO includes York, Kittery, Eliot, South Berwick, Berwick, and Lebanon.

Kittery is also part of the KEYS (Kittery, Eliot, York and South Berwick) Region, which serves four southernmost towns in Maine: Kittery, Eliot, York and South Berwick. These towns provide strong connections to New Hampshire. KEYS Coordinating Council conducted a planning process called Our Future By Design (OFBD) from 2004 to 2006, which looked at many topics, including transportation.¹

¹ KEYS Our Future by Design.
http://www.keysregion.org/keys_ofbd/intro.htm

INVENTORY OF EXISTING TRANSPORTATION CONDITIONS

The inventory of the existing transportation system in Kittery is used to identify deficiencies and needs and as the basis from which to evaluate future conditions and potential improvement measures. Figure 1 shows the roadway system in Kittery.

Key points of the existing transportation conditions in and around Kittery are summarized below followed by the detailed description of each element.

TRAVEL CHARACTERISTICS

Demographics and travel characteristics such as journey to work data, vehicles available per household, commute time, and mode share trends are discussed in this section.

DEMOGRAPHICS

Maine's population reached approximately 1,328,361 in 2010, an increase of approximately 4.2 percent since 2000 (1,274,923 total population), or about 0.4% annually. A similar trend was seen in the York County. The region's population increased from 186,742 in 2000 to 197,131 in 2010, a 5.6 percent increase in 10 years. Unlike statewide and region-wide population, Kittery experienced a decrease in population during that time period. The population in Kittery was 9,543 in 2000 and 9,490 in 2010 based on US Census

Bureau data, indicating growth rate of -0.06 percent per year (approximately one percent decrease in 10 years).²

SUMMARY OF KEY POINTS

Travel Characteristics

- Unlike statewide and region-wide population, Kittery experienced a decrease of 1% in population between 2000 and 2010.
- Kittery is the largest work destination for Kittery residents and for residents in the KACTS communities.
- Nearly 52% of Kittery workers work in Kittery and 28% in Portsmouth.
- 85% of Kittery households have one or two vehicles compared with the state average of 74%. Approximately 6% of households in Kittery have no vehicles.
- Approximately 71% of Kittery workers drive alone and 22% used other modes. The number of trips for all the modes has increased since 2000 except for the drive alone trips.
- Average commute time = 21 minutes, shorter than the national and state averages. Number of commuters travelling less than ten minutes has decreased since 2000.

JOURNEY TO WORK DAT

Kittery is the largest work destination for Kittery residents. It is also the largest work destination for residents in the KACTS

² U.S. Census Bureau 2000 and 2010.

KITTERY COMPREHENSIVE PLAN EXISTING CONDITIONS INVENTORY

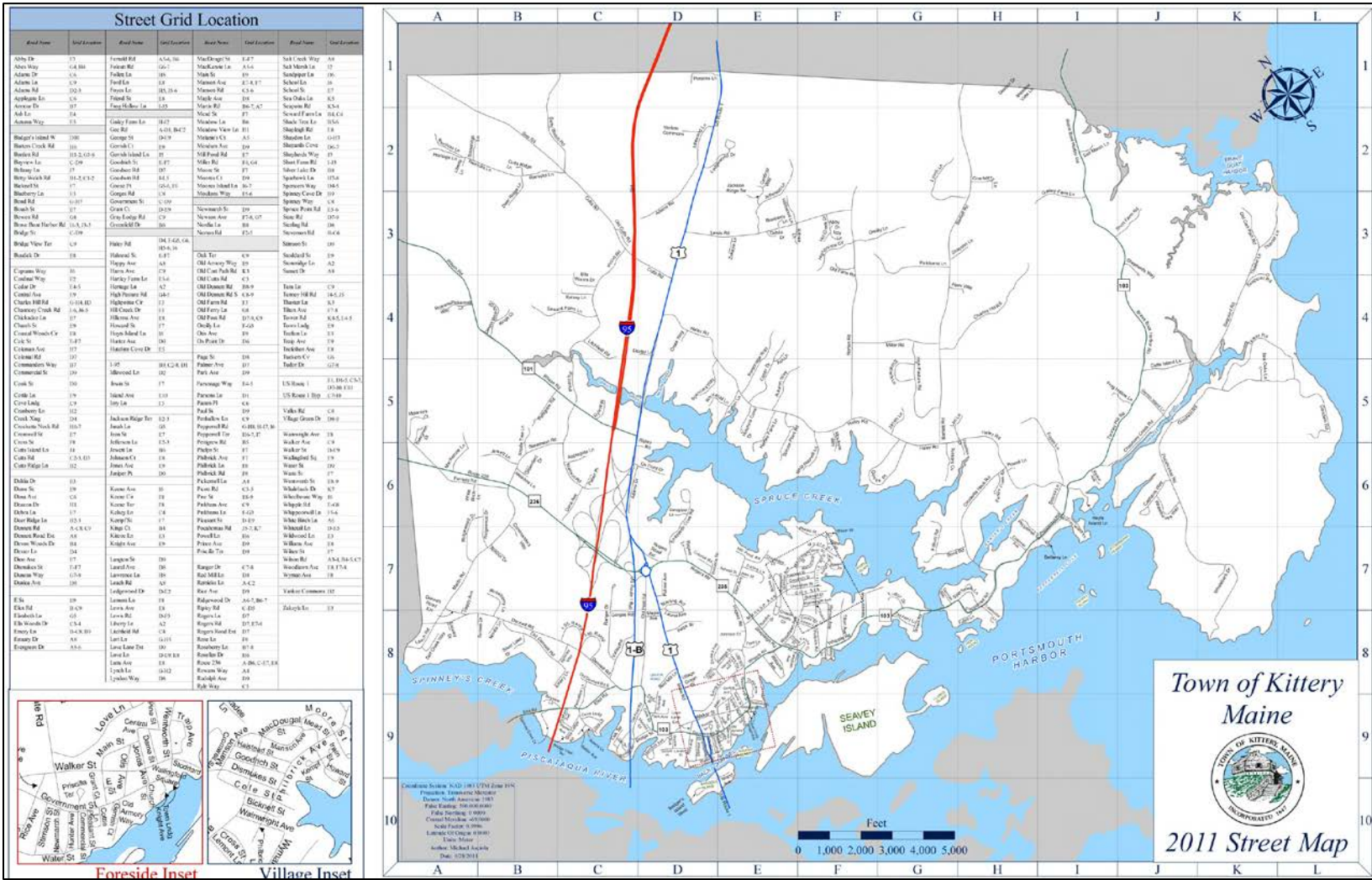


Figure 1: Roadway System in Kittery

Source: Town Maps. 2011 Street Map. Town of Kittery, Maine

communities. This is mainly because of the Portsmouth Naval Shipyard in Kittery. Approximately 25% of the Shipyard's total workforce is composed of residents living in the five KACTS communities. Although the Shipyard cutback its workforce in the 1990s, the worker population increased since 1999. Besides the Shipyard, Kittery also hosts a number of other large employers, and is the dominant employment center in the KACTS area.

Figure 2 shows major work destinations for Kittery residents based on U.S. Census Bureau, American Community Survey Five Year Estimates 2006-2010.³ As shown in the figure, 1,130 Kittery residents (approximately 52 percent of a total of 2,153 workers) work in Kittery. Approximately 28 percent of Kittery residents work in Portsmouth, New Hampshire (610 employees). York Harbor, Maine is the third largest work destination for Kittery residents, employing approximately 110 workers. All the other communities employed less than 5% of Kittery residents.

Figure 3 shows the major residence locations for people working in Kittery based on U.S. Census American Community Survey Five year Estimates 2006-2010. As shown in the figure, approximately 1,285 of a total of 5,214 people working in Kittery live in Kittery. Other communities with a large number of residents working in Kittery include Portsmouth, New Hampshire (500), South Eliot, Maine (415) and Dover, New Hampshire (350).

³ U.S. Census Bureau, American Community Survey 2006-2010 Five-year estimates. Special Tabulation: Census Transportation Planning.

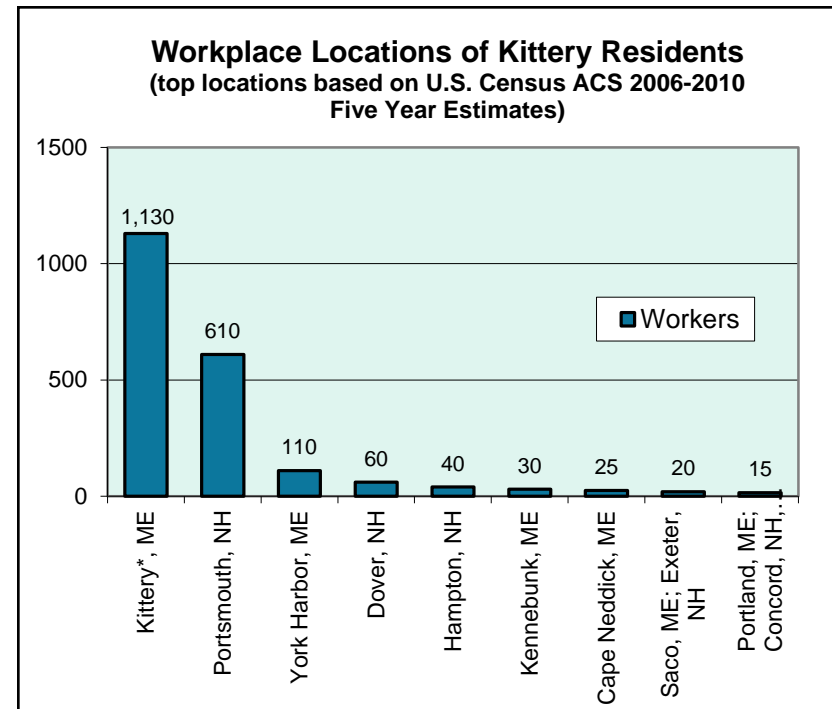


Figure 2: Workplace Locations of Kittery Residents Roadway System in Kittery

Note:

* Kittery also includes residents who work in Kittery Point, Maine.

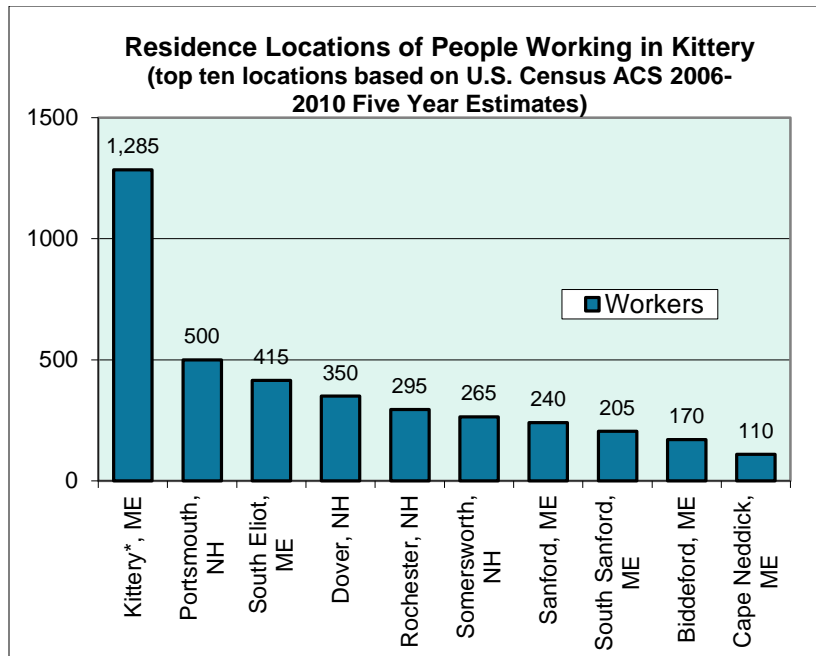


Figure 3: Residence Locations of People Working in Kittery

Note:

* Kittery also includes people with residence locations in Kittery Point, Maine.

VEHICLES AVAILABLE

Figure 4 shows vehicles available for households in Maine and Kittery for 2010-2014 based on American Community Survey (ACS) five-year estimates. It shows 74% of the households in Maine and

85% in Kittery had one or two vehicles. Kittery had fewer households with over 3 vehicles per household (9%) compared with the State (18%).

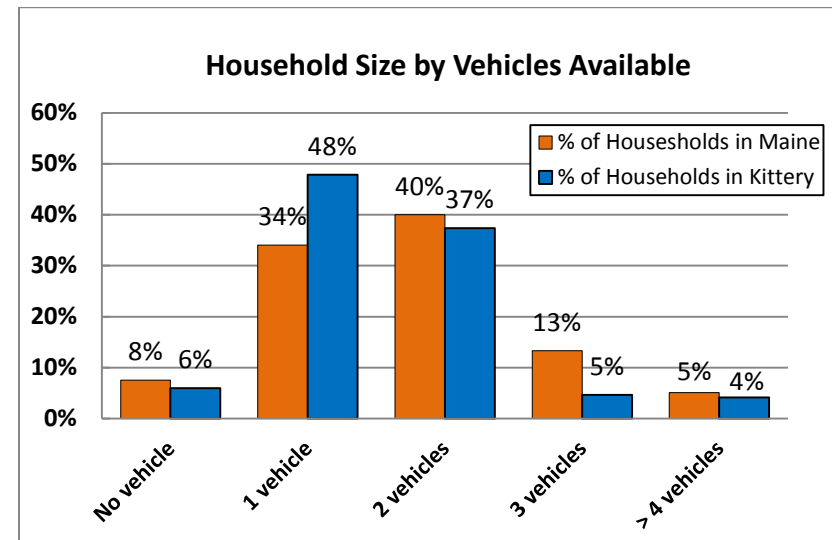


Figure 4: Household Size by Vehicles Available

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates. Table: Household size by vehicles available.

MODE SHARE

Table 1 summarizes mode share trends for the state of Maine and the Town of Kittery. Overall, it shows that the state experienced a decrease in the percent of people who drove alone, carpooled

and walked to work and increase in percent of people who used bicycle and other means. For Kittery, all the mode shares experienced an increase in 2010-2014 compared to 2000 except for the percent of people who drove alone, which decreased.

Table 1: Work Mode Share Comparison

Mode to Work	Maine Workers				Kittery Workers			
	2000		2010 – 2014		2000		2010 - 2014	
	No.	%	No.	%	No.	%	No.	%
Drove Alone	483,317	78.6%	494,250	78.1%	3,869	78.7%	3,636	70.7%
Carpooled	69,208	11.3%	65,134	10.3%	538	10.9%	591	11.5%
Public Transportation ¹	3967	0.6%	4,061	0.6%	16	0.3%	28	0.5%
Walked	24,700	4.0%	24,784	3.9%	235	4.8%	313	6.1%
Bicycle	1,402	0.2%	3,164	0.5%	23	0.5%	123	2.4%
Other Means ²	5,588	0.9%	7,493	1.2%	35	0.7%	53	1.0%
Worked at home	26,962	4.4%	33,871	5.4%	202	4.1%	402	7.8%
Total	615,144	100%	632,757	100%	4,918	100%	5,146	100%

Source: U.S. Census Bureau 2000 and 2010-2014 American Community Survey 5-Year Estimates.

1. Excludes taxicab
2. Includes taxicab, motorcycle and other means

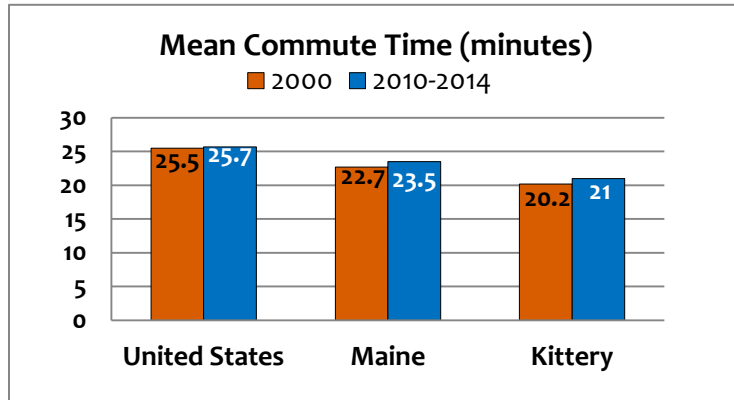
Compared to the state, Kittery observed a significant decrease (8 percent) in the percent of workers who drove alone to work in 2010-2014 (70.7 percent) compared to 2000 (78.7 percent). The percent of workers who drove alone decreased by only approximately 0.5 percent in the state over the same period. The percentage of workers that carpooled in Kittery increased from 10.9 percent in 2000 to 11.5 percent in 2010-2014, while carpoolers

in the state declined by one percent over the same period. In Kittery, use of bicycle increased significantly from 0.5 percent in 2000 to 2.4 percent in 2010-2014, which represents 100 additional commuters who biked. Both the state and Kittery observed an increase in the percent of workers who worked at home in 2010-2014 compared to 2000. In Kittery, the number almost doubled from 202 to 402.

COMMUTE TIME

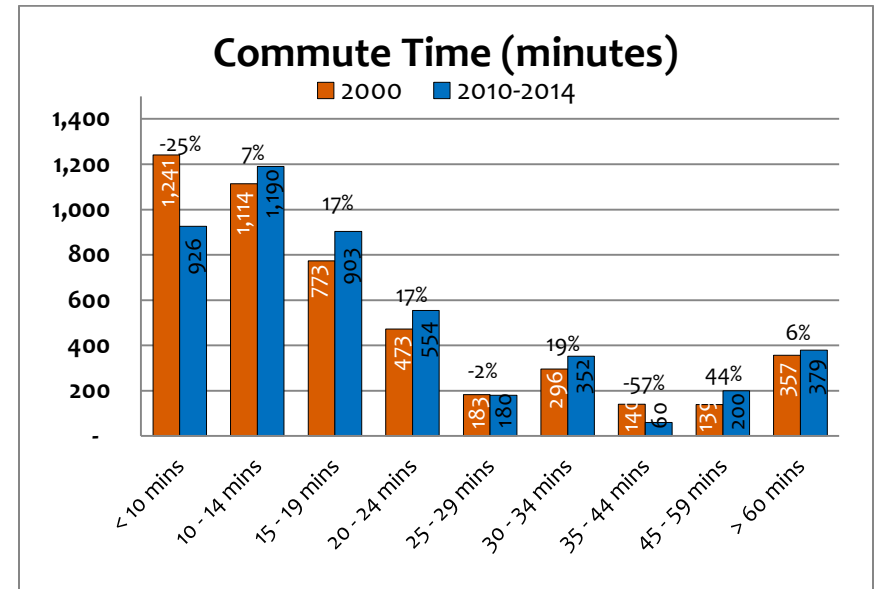
The nationwide commute time increased very slightly in 2010-2014 compared to 2000 (25.5 minutes in 2000 to 25.7 minutes in 2010-2014). The statewide commute time increased by 3.5% from 22.7 minutes in 2000 to 23.5 minutes in 2010-2014. Similar to the statewide commuting trend, mean commuting time for Kittery residents increased by approximately 4%. The commute time for Kittery residents was 21 minutes in the 2010-2014 five-year estimate period compared to 20.2 minutes in 2000.⁴ Figure 5 shows mean commute time for United States, Maine and Kittery for 2000 and 2010-2014.

⁴ U.S. Census 2000 and American Community Survey 2007-2011 Five-Year Estimates.

Figure 5: Mean Commute Time (minutes)*Figure 5: Mean Commute Time (minutes)*

Source: U.S. Census Bureau 2000 and 2010-2014 American Community Survey 5-Year Estimates.

Figure 6 presents the commute time for Kittery workers. In 2000 and 2010-2014, a total of 4,716 and 4,744 workers travelled to work, respectively. The figure shows that a significant number of Kittery workers have short commute times (under 20 minutes) to work. During both time periods, approximately 65% of the workers travelled under 20 minutes. The number of workers who traveled between 35-44 minutes experienced a significant decrease (57%) since 2000. Similarly, the number of commuters traveling less than ten minutes decreased by 25%. There was a significant increase in the number of commuters who travelled between 45-59 minutes and over 60 minutes in 2010-2014 compared to 2000.

*Figure 6: Commute Time (minutes) for Kittery Workers*

Source: U.S. Census Bureau 2000 and 2010-2014 American Community Survey 5-Year Estimates.

ROADWAY FUNCTIONAL CLASSIFICATION AND DESIGN STANDARDS

Vehicular travel involves movement through a network of roads. Functional classification is the process of grouping streets and highways according to the character of service they are intended to provide. This classification determines how travel can be guided within a road network in a logical and efficient manner

and is used to determine the long-term management and development of the Town's roadway network. The Maine Department of Transportation (MaineDOT) has classified roadways in Kittery as state and federal aid roadways for the purpose of roadway planning and maintenance. The Town of Kittery has modified this system of classification to suit its own roadway planning and maintenance programs. These two systems are for the most part consistent with each other.

SUMMARY OF KEY POINTS Functional Classifications

- The MaineDOT classifies roadways in Kittery as state and federal aid roadways. The Town of Kittery has modified this system of classification to suit its own roadway planning and maintenance programs.
- Kittery has 73.42 miles of roadways, including Interstate 95.
- Approximately 44 miles are designated as townway/seasonal roadways. State Aid Highway and State Highway in Kittery account for 13.47 and 11.32 miles, respectively. Interstate I-95 is approximately 4.22 miles long in Kittery.
- Highway interchanges account for approximately 1.5% of the total town land area.

The following sections summarize MaineDOT's and Kittery's roadway functional classification systems.

MAINEDOT FUNCTIONAL CLASSIFICATIONS

MaineDOT classifies roadways as follows: arterials, collectors, and local roads. In total Kittery has 73.42 miles of roadways, including Interstate 95.

ARTERIALS

Arterials, as designated by MaineDOT, are intended to provide a high degree of mobility, handle large volumes of traffic, and serve longer trips. Arterials are major roadways that connect with collector roadways to provide access to activity centers, such as downtown Kittery and the Kittery Mall Outlets on Route 1 corridor. They include Interstate 95, US Route 1 and US Route 1 Bypass. Arterials are capable of handling between 10,000 and 30,000 vehicles per day. Kittery has 18.95 miles of state designated arterial roadways.

Kittery's current roadway network consists of the following state and/or federal designated principal and minor arterials based on MaineDOT functional classification system:

Principal Arterials:

- Interstate 95 (Maine Turnpike)
- US Route 1
- US Route 1 Bypass

Minor Arterials:

- Dennett Road - West of I-95
- Route 103 - East of I-95

- Route 236 - East of I-95
- Government Street

COLLECTORS

Collectors link the arterial roadways with residential neighborhoods. Ideally, collectors are spaced conveniently to manage local road traffic and typically have two travel lanes; two parking lanes or six-to-eight foot shoulders and have a capacity to carry 8,000 to 10,000 vehicles per day. There are 8.74 miles of state designated collector roadways in Kittery.

Most collectors are under local jurisdiction. Kittery's current roadway network consists of the following state and/or federal designated collectors based on MaineDOT functional classification system:

Collectors:

- Route 103 – West of I-95
- Old Post Road
- Love Lane
- Manson Avenue
- Woodlawn Avenue
- Wainwright Avenue
- Haley Road (From Route 103 to Bartlett Road)
- Philbrick Avenue

LOCAL ROADS

Local roads are designed to have direct access to abutting properties, usually residential. They are relatively short and

discontinuous to limit the amount of traffic volume that can be carried. Local roads usually have two travel lanes and parking. Traffic volumes are minimal, usually under 1,000 trips per day. Kittery has 45.74 miles of local roads. It is typical for local roadways to comprise a majority of the roadways in a community.

KITTERY'S FUNCTIONAL CLASSIFICATION SYSTEM AND ROAD STANDARDS

The Kittery Public Works Department has developed a street classification system that defines the type of roadway by the level of traffic it can be expected to accommodate. This functional classification system is codified in the Land Use and Development Code of the Town of Kittery with design and construction standards for each class.⁵ The town classifies roadways as arterial highways, secondary arterials, primary collectors, secondary collectors, minor streets and private streets as described below. Although the town has accepted this approach to roadway classification, it is important to note that many of the older roads that have been assigned to a specific class may not meet the current standard(s). This system is seen as a starting point for a systematic roadway classification program and should be applied to all new roads in Kittery.

⁵ Town of Kittery. Title 16 Land Use and Development Code. Recodified on July 26, 2010 and latest amendment made on October 26, 2015.

http://www.kitteryme.gov/Pages/KitteryME_TownCode/Title%2016%20thru%2010-26-2015.pdf

ARTERIALS

Arterials include both arterial highways and secondary arterials.

Arterial highways are major traffic ways that provide connections with other thoroughfare or interstate roads. The average daily traffic (ADT) volume would be 9,001 or more trip ends. Primary arterials designated by the Town include Interstate-95, Route 1, Route 1 Bypass, Route 236 (including Rogers and Shapleigh Roads), Walker Street, and Bridge Street.

Secondary arterials carry relatively high volumes of traffic to and from arterial highways, adjacent communities, and through local residential areas, activity centers and minor commercial establishments. The ADT would be 3,001 to 9,000 trip ends. Designated secondary arterials include New Dennett Road, Route 103 from the Eliot town line through Kittery to the York town line, Haley Road, Government Street, and Wilson Road.

The Land Use and Development Code of the Town of Kittery states that street construction for roadways will generally be affected by the type of development and these types of roadways may require design and construction standards based upon special studies for required roadway improvements and/or construction.

Following is a brief description of primary arterials (Interstate 95, Route 1 and Route 236) in Kittery. These major roadways provide the greatest amount of mobility into, out of and through the Town.

- Interstate 95 (I-95) is a six lane, principal arterial with toll facility. It passes through southern Maine, including the Towns of Kittery and York, and crosses into New Hampshire. I-95 is a major commercial route within and between Maine and the rest of New England and is a major commuting corridor within the KACTS region. I-95 carries the largest volume of traffic in Kittery, approximately 37,500 vehicles per day (vpd) in 2014, though traffic volumes can vary depending on the time of year. In 2012, the average daily traffic volume at exit 7 was 46,965 vpd. During the month of August 2013, the average daily traffic volume peaked to a high of 66,438 vpd.⁶
- Route 1 is a four lane principal arterial in Kittery. It becomes a two lane arterial in parts of York, Ogunquit and Wells. In Kittery, Route 1 is mainly used by commuters and shoppers who utilize the outlet malls in Town and is used by seasonal travelers from New Hampshire through York County and on up to the northern part of the State. A short bypass segment that loops around the downtowns of Portsmouth and Kittery connects Route 1 to I-95. Average daily traffic volumes on Route 1 in Kittery ranged from 3,570 vpd to 16,930 vpd in 2013.
- Route 236 is a two lane arterial that connects Kittery, Eliot, South Berwick and Berwick. It is a major commuter corridor and carried average daily volumes ranging from 4,650 to 18,660 in 2013.

⁶ KACTS. Long Range Transportation Plan Update 2014-2040. Approved: September 08, 2014.

PRIMARY COLLECTORS

Primary collectors may be residential or business or both, and serve both as collectors to lesser residential streets and as connections to or between arterials. The ADT would be from 801 to 3,000 trip ends and in the interests of traffic and public safety must be owned and maintained by the Town. Designated primary collectors include Martin Road, Manson-Picott Roads, Dana Avenue, Cutts-Betty Welch and Chauncey Creek Road. Primary collectors in the urban area of Kittery include Old Post Road, Love Lane, Rogers Road, Woodlawn Avenue, Rogers Road Extension, Maple Avenue and Cook Street.

The Town's design and construction standards provide for 60 feet for right-of-way, 22 feet for travel pavement, 6 feet for sidewalk, paved shoulder (2 feet for walk side, 8 feet for opposite side), 2 feet for gravel shoulder on opposite side, and one side of street for parking.

SECONDARY COLLECTORS

Secondary collectors may be residential or business or both and connect to or between streets of a higher classification and/or may collect traffic from minor streets or private ways. The ADT would be 201 to 800 trip ends. Secondary collectors in Kittery include Stevenson Road, School Lane, Seapoint Road, Leach Road, Gerrish Island Lane, Cutts Island Lane, Fernald Road, Remicks Lane, Old Dennett Road (upper), and Spinney Way.

The Town's design and construction standards provide for 60 feet for right-of-way, 22 feet for travel pavement, 6 feet for sidewalk,

paved shoulder (2 feet for walk side, 8 feet for opposite side), 2 feet for gravel shoulder on opposite side, and emergency parking.

MINOR STREETS

Minor streets are predominantly single-family residential short or dead end streets which may have branching minor streets, private lanes, or private ways and connect traffic to streets of higher classification. This is the lowest of the public street in the hierarchy and must serve at least four dwelling units. The ADT would be 35 to 200 trip ends. Minor streets include Sunset Drive, Emery Lane, Bayview Lane, Harris Avenue, Folcutt Road, Armour Drive, and Meadow Lane. In the urban area such roads include Colonial Drive, Boush Street, Phelps Street, Paul Street, Pleasant Street, Otis Avenue, Palmer Avenue, and Rogers Lane.

The Town standards provide for 50-foot right-of-way, 22-foot travel pavement, 5 feet for sidewalk, paved shoulder (2 feet for walk side, 8 feet for opposite side), 2 feet for gravel shoulder on opposite side, and emergency parking.

PRIVATE STREETS

Private streets function exclusively as residential streets serving high density housing developments including clustered housing, apartments, elderly housing, and mobile home parks and may not be dedicated for public acceptance. Maintenance and improvements must be controlled by proprietorship, corporation, association, or deed covenants. The Land Use and Development Code of the Town of Kittery states that the ADT for private

streets would be 72 to 800 trip ends for Class III, 35 to 71 trip ends for Class II, and 12 to 35 trip ends for Class I private streets.

The Land Use and Development Code of the Town of Kittery states that design and construction of Class III private streets is to be in accordance with the applicable standards and specifications for public streets (Primary collectors, secondary collectors, and minor streets).

For Class II private streets, the Town's design and construction standards provide for 40 feet for right-of-way, 20 feet for travel pavement, 5 feet for sidewalk, gravel shoulder on both sides, and emergency parking.

For Class I private streets, the Town's design and construction standards provide for 40 feet for right-of-way, 18 feet for travel pavement (gravel), 5 feet for sidewalk, and no parking.

PUBLIC ROADWAY CENTERLINE MILEAGE

York County provides public roadway centerline mileage by municipality. Table 2 shows the public roadway centerline mileage for York County and Kittery. Kittery has 74.06 miles of roadway. Most of these (approximately 44 miles) are designated as townway/seasonal roadways. State Aid Highway and State Highway in Kittery account for 13.47 and 11.32 miles, respectively. Interstate I-95 is approximately 4.22 miles long in Kittery.

The highway interchanges in Kittery comprise of approximately 1.5% of the total town land area. The interchanges have a

significant impact on existing and future land use and development.

Table 2: Public Roadway Centerline¹ Mileage

	Interstate	State Highway	State Aid Highway	Townway/Seasonal	Other ²	Total
York County	40.43	258.68	341.8	1607.16	16.42	2264.49
Percent	2%	11%	15%	71%	1%	100%
Kittery	4.22	11.32	13.47	44.07	0.98	74.06
Percent	6%	15%	18%	60%	1%	100%

Source: York County. Public Road Centerline Mileage by Municipality as of 1/9/09.

Note:

- 1 A centerline mile is measured along the center of the road regardless of the number of lanes.
- 2 Other includes reservation and seasonal parkways. Reservation mileage is the sum of "National Military and Naval, Other National, State Forest, State Park and other State mileage."

The Land Use and Development Code of the Town of Kittery provides street and pedestrian ways/sidewalks site design standards.⁷ The standards require the design of streets to provide for proper continuation of streets from adjacent development

⁷ Town of Kittery. Title 16 Land Use and Development Code. Recodified on July 26, 2010 and latest amendment made on October 26, 2015. Pages 171-195.

and for proper projection into adjacent undeveloped and open land. The local road design standard does not include bicycle accommodations. The Land Use and Development Code includes:

- Street classification,
- Access control and traffic impacts regulations for vehicular access to a development and circulation in the lot,
- Dead-end streets regulations, and
- Street construction standards.

Recently built residential developments on the northern side of Kittery (for example, off of Haley Road) are characterized with longer dead-end streets (cul-de-sacs), which limit access and prevent connectivity to the roadway network.

SCENIC ROADS

The Town of Kittery has a number of roads that contribute to the community's scenic character and visual environment. These roads typically wind and change in elevation, may have mature trees, stonewalls or other visually defining characteristics, and provide a scenic experience to a person traveling along the road. Roads that have been rated as having the greatest scenic value for the community are designated as scenic roads.

SUMMARY OF KEY POINTS

Scenic Roads

Scenic roads as identified in the 1999 Comprehensive Plan are classified into three groups: Category One (those of the highest value), Category Two (those of very high value), and Category Three (those of high value).

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Category One Scenic Roads include:

- Route 103 including Whipple Road, Pepperrell Road, Tenney Hill Road, and Brave Boat Harbor Road
- Seapoint Road
- Chauncey Creek Road
- Hunter and Newmarch Streets
- Government Street
- Crockett Neck Road from Route 103 to Bond Road
- Old Ferry Lane
- Picott Road
- Wilson Road from Picott Road to the Eliot Line
- Haley Road from Route 1 to Hartley Farm Road

Category Two Scenic Roads include:

- Tower Road
- Love Lane
- Cutts Road from Picott Road to Betty Welch Road
- Goodwin Road
- Old Dennett Road west of I-95
- The half-mile of Bartlett Road near the York line
- Lawrence Lane
- Adams Road

Category Three Scenic Roads include:

- Miller Road

- The upper end of Norton Road
- Pocahontas Road Extension
- Litchfield Road
- Betty Welch Road

TRAFFIC VOLUMES

Traffic volume counts are one method used to evaluate traffic. Weekday daily roadway traffic volumes collected in 2010 and 2013 on select arterials, collectors and local roadways in Kittery are shown in Table 3 and in Figure 7. Table 3 also summarizes weekday daily traffic volume growth on the roadways. The following summarizes traffic volumes in Kittery:

- Interstate 95 (I-95), principal arterial with toll facility in Kittery, carried the largest weekday daily traffic volume with 37,500 vehicles per day (vpd) in 2014. Traffic volume on I-95 increased by 0.3% per year between 2010 and 2014.
- Daily volumes on US Route 1, ranged from 4,110 vpd to 16,930 vpd in 2013. US Route 1 experienced decrease in traffic volume by 3.2% to 6.1% per year between 2010 and 2013.
- Daily volumes on Rogers Road (State Route 236) ranged from 10,740 vpd to 18,660 vpd in 2013. As shown in Table 3, two segments on Rogers Road experienced increase in traffic volume while one segment experienced decrease in volume.
- Shapleigh Road (State Route 236) carried 10,340 vpd to 12,070 vpd. Daily traffic volume on Shapleigh Road increased up to 7.3% per year.

- Walker Street (State Route 103) experienced daily traffic volumes ranging from 8,110 vpd to 8,460 vpd in 2013. Traffic volume on Walker Street decreased by 0.6% to 1% per year between 2010 and 2013.
- Whipple Road southeast of Woodlawn Avenue experienced 8,830 vpd in 2013, a decrease of 2.6% from 2010 to 2013.
- Daily traffic volume on Government Street ranged from 1,970 vpd to 7,570 vpd in 2013. Government Street east of Hunter Avenue had the largest decrease in traffic volume (a decrease of 10.4% per year between 2010 and 2013).
- The remaining roadways in Kittery carried fewer than 5,000 vehicles per day.

SUMMARY OF KEY POINTS

Traffic Volumes

- I-95: 37,500 vehicles per day (vpd), Route 1: 16,930 vpd and Route 236: 18,660 vpd have the highest daily traffic volume.
- Most of the roadway segments experienced decrease in daily traffic volume between 2010 and 2013. Shapleigh Road increased up to 22% during this period.
- When I-95 experiences congestion, particularly during summer months, local roadways experience congestion and are used as cut-throughs.
- Route 103 is a narrow, winding roadway shared by vehicles, motorcycles, and bicyclists, particularly on warm weather weekends.

KITTERY COMPREHENSIVE PLAN EXISTING CONDITIONS INVENTORY

Additionally, daily traffic volume on US Route 1 Bypass ranged from 2,640 vpd southwest of US Route 1 to 15,670 vpd at New Hampshire state line at Sarah Mildred Long Bridge.

Route 103 is a narrow, winding roadway shared by vehicles, motorcycles, and bicyclists, particularly on warm weather weekends.

Table 3: Roadway Traffic Growth in Kittery

Location	Daily Traffic Volume on Roadways		Percent Change	Annual Percent Change
	2010	2013		
I-95 SB @ NH State Line ¹	37,010	37,500	1%	0.3%
US 1 SW/O SR 101 (Wilson Rd)	18,730	16,930	-10%	-3.2%
US 1 @ Spruce Creek BR #2553	17,650	16,260	-8%	-2.6%
US 1 NE/O Haley Rd	12,330	10,940	-11%	-3.8%
US 1 SW/O Rest Area Rd	11,080	9,820	-11%	-3.8%
US 1 (State Rd) S/O Traffic Circle	9,880	9,200	-7%	-2.3%
US 1 SB SW/O I-95 NB On Ramp	9,250	8,400	-9%	-3.1%
US 1 (State Rd) N/O Love Ln	9,790	8,390	-14%	-4.8%
US 1 NB S/O US 1 Bypass NB	7,040	6,470	-8%	-2.7%
US 1 (State Rd) N/O Traffic Circle	7,310	6,230	-15%	-4.9%
US 1 SB SW/O I-95 SB on RP from US 1 SB	5,000	4,560	-9%	-2.9%
US 1 (State Rd) NB S/O SR 103 (Walker St.)	5,030	4,110	-18%	-6.1%
Rogers Rd (SR 236) NW/O Martin Rd	17,990	18,660	4%	1.2%

Rogers Rd (SR 236) SE/O Stevenson	18,120	18,630	3%	0.9%
Rogers Rd (SR 236) E/O Traffic Circle	12,220	10,990	-10%	-3.4%
Rogers Rd (SR 236) N/O Dion Ave	11,570	10,740	-7%	-2.4%
Shapleigh Rd (SR 236) SE/O Rogers Rd	10,460	12,070	15%	5.1%
Shapleigh Rd (SR 236) NW/O Whipple Rd (SR 103)	8,490	10,340	22%	7.3%
SR 236 SB NW/O Traffic Circle @ Overpass	11,350	10,720	-6%	-1.9%
SR 236 NB SE/O Dana Ave	9,060	9,400	4%	1.3%
SR 236 NB NW/O Traffic Circle @ Overpass	8,510	7,520	-12%	-3.9%
Walker St (SR 103) E/O US 1 (State Rd)	8,690	8,460	-3%	-0.9%
Walker St (SR 103) E/O Main St	8,570	8,360	-2%	-0.8%
Walker St (SR 103) W/O Jones Ave	8,600	8,350	-3%	-1.0%
Walker St (SR 103) W/O SR 103 (Wentworth)	8,270	8,110	-2%	-0.6%
Whipple Rd (SR 103) SE/O Woodlawn Ave	9,590	8,830	-8%	-2.6%
Government St (SR 103) SE/O Bridge St	7,420	7,570	2%	0.7%
Government St NW/O Stimson St	1,750	2,040	17%	5.5%
Government St (OW) E/O Hunter Ave	2,860	1,970	-31%	-10.4%
Dennett Rd N/O I-95 SB On Ramp	3,200	3,890	22%	7.2%
Manson Ave E/O Shapleigh Rd (SR 236)	2,350	2,750	17%	5.7%
Haley Rd E/O US 1	2,710	2,660	-2%	-0.6%
Haley Rd N/O Crocketts Neck Rd	1,830	1,640	-10%	-3.5%

KITTERY COMPREHENSIVE PLAN EXISTING CONDITIONS INVENTORY

Tenney Hill (SR 103) W/O Chauncy Creek Rd	2,460	2,270	-8%	-2.6%
Cutts Rd N/O US 1	2,120	2,040	-4%	-1.3%
Government St NW/O Stimson St	1,750	2,040	17%	5.5%
Stevenson Rd NE/O Rogers Rd (SR 236)	1,650	1,750	6%	2.0%
Old Post Rd NE/O Cook St (SR 103)	2,060	1,730	-16%	-5.3%
Chauncy Creed Rd SE/O Tenny Hill (SR 103)	1,270	1,080	-15%	-5.0%

Source: Maine Department of Transportation. 2014 Maine Transportation Count Book.

Note:

1 For I-95, 2014 volume was available instead of 2013 therefore, 2014 volume was used.



TRAFFIC OPERATIONS

In Kittery, traffic congestion on local streets is experienced due to traffic generated by the Portsmouth Naval Shipyard (PNS). The Portsmouth Naval Shipyard has more than 5,000 employees⁸, who enter and exit the PNS through Gate 1 near Walker Street and Wentworth Street and Gate 2 at Whipple Road and Wyman Avenue. Traffic backing up into residential neighborhoods during the daytime shift change is a major issue. This Comprehensive Plan will help identify measures to manage and reduce traffic to Kittery's transportation system.

The PNS promotes carpooling and offers transportation via the COAST bus system. In Kittery, COAST provides year round limited transit services from PNS to towns in New Hampshire and Maine.

When I-95 experiences congestion, particularly during summer months, local roadways experience congestion and are used as cut-throughs.

⁸ KACTS. Long Range Transportation Plan Update 2014-2040. Approved: September 08, 2014.

KITTERY COMPREHENSIVE PLAN EXISTING CONDITIONS INVENTORY

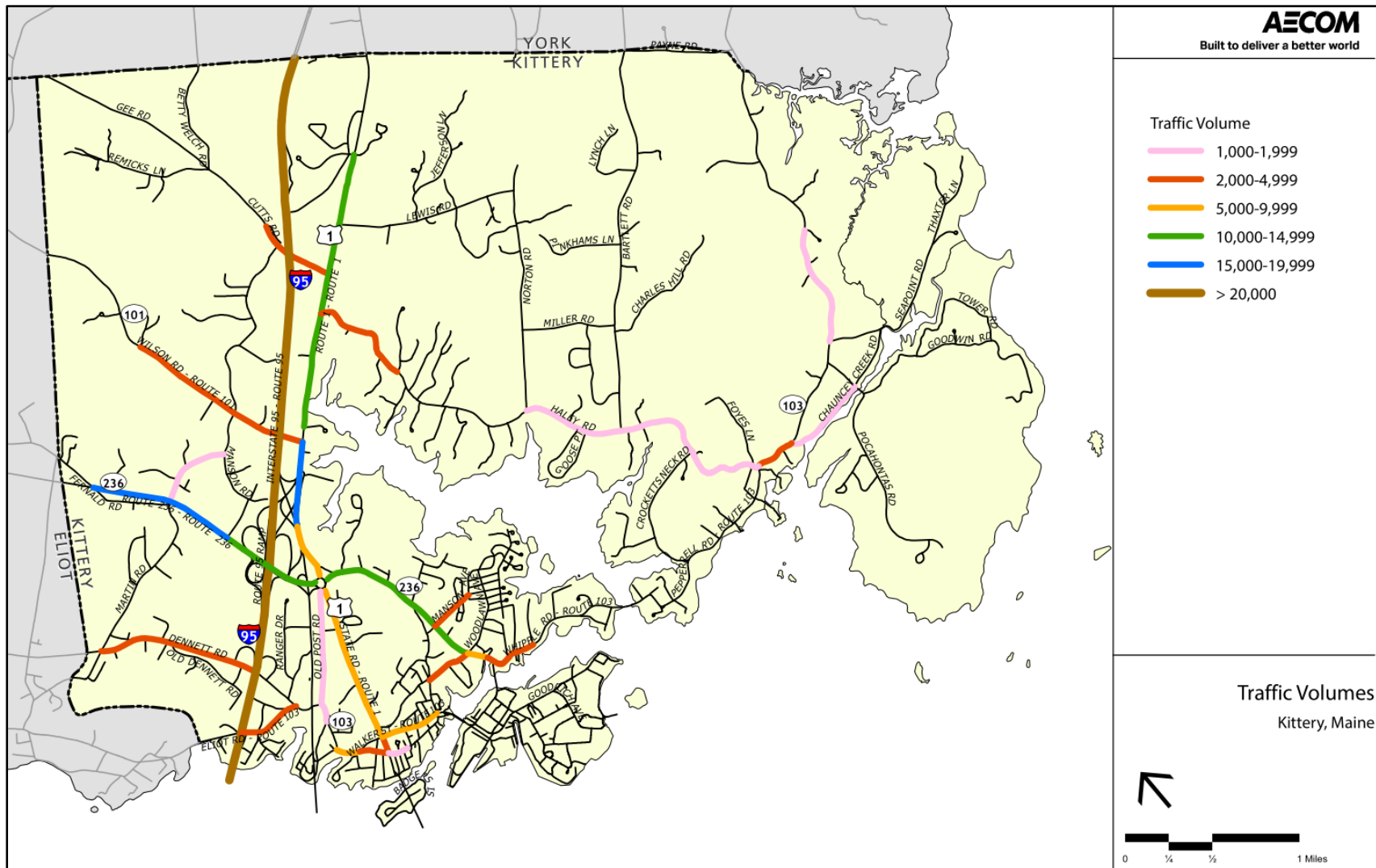


Figure 7: Existing Average Daily Traffic Volumes in Kittery

MAINTAINING THE TRANSPORTATION INFRASTRUCTURE

This section discusses transportation infrastructures, including pavement management, bridges and sidewalks.

SUMMARY OF KEY POINTS

Maintaining The Transportation Infrastructure

- The DPW conducts a full roadway inventory every three years and it is used as a basis for setting road maintenance priorities. Typically, the roadways with ratings of less than 50 would be on the priority list for maintenance in a given years.
- Most of the sidewalks in Kittery are along US Route 1 and in the urban downtown area.
- Most of the bridges in Kittery received a Federal Sufficiency Rating (SFR) above 50. Viaduct and Sarah Mildred Long Bridge have the lowest ratings of 16.4 and 21, respectively. Memorial Bridge replacement was completed in 2013.

PAVEMENT MANAGEMENT

The Department of Public Works (DPW) has established a policy for local roadway maintenance that is referred to as the Road Surface Management System. This system groups roadways into three categories: 1) State Aid Roads, 2) Local Collector/Connector Roads, and 3) Local Roads. Within each of these categories roadway segments are identified and for each segment a rating is given as well as the length of the roadway and the date of last

maintenance (i.e., sealed, paved, other). The inventory also identifies the specific repairs that are necessary.

The rating system is based upon a numerical rating from 1 to 100 where 100 is the highest rating. Such roadway conditions as deficient drainage, rutting, pot holes, cracks, and shoulder raveling are rated. The DPW conducts a full roadway inventory every three years and it is used as a basis for setting road maintenance priorities. Typically, the roadways with ratings of less than 50 would be on the priority list for maintenance in a given years.

Kittery's current budget for road maintenance and improvement includes \$ 900,000 in state aid and \$ 600,000 in bond money for paving.



Figure 8 “Road Surface Ratings and Repair Categories” illustrates the road surface repair categories.

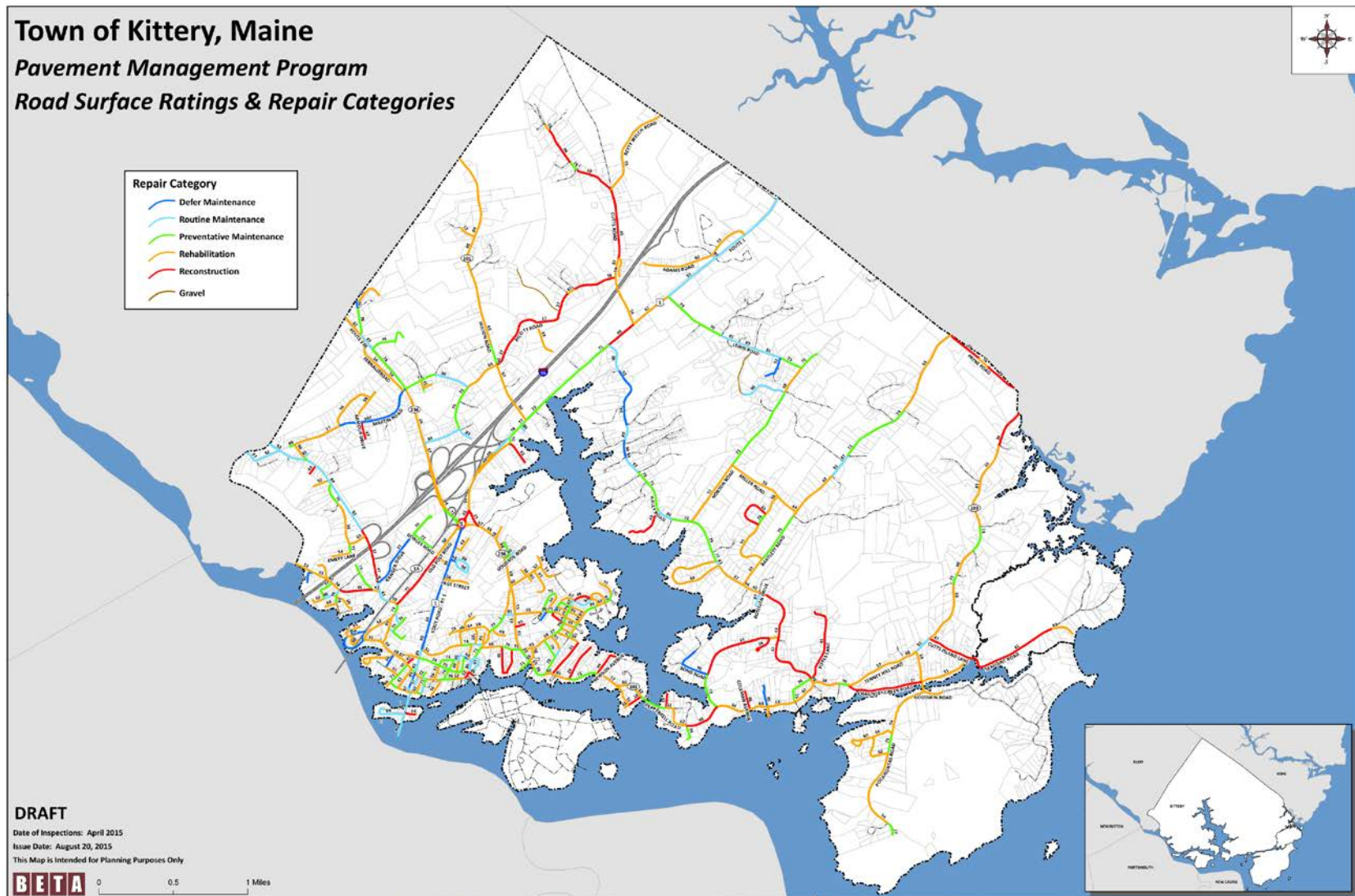


Figure 8: Road Surface Ratings and Repair Categories for Kittery

Source: Town of Kittery, Maine and BETA. August 20, 2015

SIDEWALKS

The Kittery Department of Public Works maintains an inventory of sidewalks in a Sidewalk Condition Report. Each sidewalk section is identified by type (paved or concrete) and length and condition (Excellent, Good, Fair, Poor).

Most of the sidewalks in Kittery are along US Route 1 and in the Foreside area. The sidewalks along Route 1 are located on Badger's Island and in the areas from Water Street to the south of traffic circle and the Kittery Mall Outlets. Large lengths of sidewalks in the Foreside and urban business districts are along Dana Avenue, Cook Street/Old Post Road, Government Street, Walker Street, Bridge Street, Dion Avenue, Manson Avenue, Rogers Road, Shapleigh Road, Whipple Road, Woodlawn Avenue and Pepperrell Road. Sidewalk is also present along short segment of Dennett Road (from Old Post Road to South Eliot Road).

The KACTS has completed a study with Kittery to identify opportunities to make the Route 1 Bypass more bike and pedestrian friendly, especially once the new Sarah Mildred Long Bridge is constructed.

Some recent sidewalk projects include:

- Repaving of the sections of Taylor parking lot and front sidewalk in 2012⁹;
- New sidewalks around the "When Pigs Fly" property in 2011¹⁰; and

⁹ 2011-2012 Annual Report for the Town of Kittery, Maine.

- Completion of Stevenson Road and sidewalk improvements in FY 2010-2011¹¹.

The Town of Kittery was awarded 1.5 million dollars to continue improving the Route 1 corridor, including the Memorial Traffic Circle rebuild, additional sidewalks, drainage, island reconstruction, culvert replacement, pavement overlays and other related work.¹² Construction is due to begin in summer 2017.

BRIDGES

The MaineDOT, the Maine Turnpike Authority, and the Kittery Department of Public Works are responsible for bridges in Kittery. There are approximately 20 bridges and ramp structures maintained by the state that are associated with Interstate-95, Route 1 and the Route 1 Bypass, including the bridges over the Piscataqua River. In addition, there are three state maintained "local" bridges, including the Kittery Point Bridge over Spruce Creek on Route 103, the Gerrish Island Bridge over Chauncey Creek and the Route 1 Bridge/Culvert over Spruce Creek. The state also owns and maintains the Route 103 overpass on the Boston and Maine spur and a Boston and Maine tunnel under an abandoned section of rail at the Route 1 Bypass.

Three bridges between Kittery and Portsmouth, New Hampshire: the Memorial Bridge (Route 1), Sarah Mildred Long Bridge (Route 1 Bypass) and the I-95 High Level Bridge provide important

¹⁰ Ibid

¹¹ 2010-2011 Annual Report for the Town of Kittery, Maine.

¹² 2013-2014 Annual Report for the Town of Kittery, Maine.

KITTERY COMPREHENSIVE PLAN EXISTING CONDITIONS INVENTORY

connections between Maine and New Hampshire. These three bridges are owned jointly by the MaineDOT and the New Hampshire DOT.

The Town of Kittery is responsible for bridge structures that are ten (10) feet or less in span. The Town is responsible for the following bridge structures:

- A box culvert on Wilson Road over Spruce Creek;
- A box culvert on Picott Road over Spruce Creek;
- The Cutts Island Bridge on Seapoint Road;
- A box culvert and causeway on Crockett's Neck Road over Barbers Creek; and
- Several smaller culverts where roads pass over water bodies.

The MaineDOT has a state-wide bridge inspection program that is based upon the National Bridge Inspection Standards (NBIS) system. All bridges are inspected at least every two years and depending on the location, use and, condition may be inspected on a less formal basis more frequently. In Kittery, the bridges were last inspected in 2011 and 2012 (see Table 4). Similar to roads, bridge condition is rated on a numerical system, called Federal Sufficiency Rating (FSR). Each FSR has a numeric indicator of the overall value of the sufficiency of the bridge, with rating form 0-100 where the higher the rating, the better the condition of the bridge. The FSR include both structural deficiencies as well as functional obsolescence. The state then establishes priorities for maintenance, repair and replacement of its own bridges.

As shown by the ratings of the bridges in Table 4, most of the bridges in Kittery received a rating above 50. Viaduct and Sarah

Mildred Long Bridge have the lowest ratings of 16.4 and 21, respectively.

Table 4: State-aid Bridges in Kittery

Bridge Number	Bridge Name	Federal Sufficiency Rating (FSR)	Last Inspected
1361	B&M Railroad Tunnel	56.5	1/23/2012
1362	Eliot Road Overpass	93.2	1/9/2012
1477	Piscataqua Maine Approach	84.0	10/23/2012
2031	Badger Island	65.6	12/5/2012
2546	Memorial	N/A	N/A
2553	Mill	71.4	4/27/2012
3013	Kittery Point	88.6	12/5/2012
3641	Sarah Mildred Long	21.0	12/29/2009
3783	Gerrish Island	88.1	1/9/2012
3860	Kittery Overpass	57.9	12/26/2012
5276	Viaduct	16.4	9/26/2012
5620	B&M Overpass	92.5	4/27/2012
6222	Ramp M-US 1/I-95 Ramp	76.5	1/18/2012
6223	Wilson Road Bridge	76.9	1/18/2012
6224	Spruce Creek	95.1	12/5/2012
6275	I-95/Dennett Road	83.0	1/23/2012
6276	Route 236 over I-95	87.5	1/23/2012
6277	Ramp H Bridge	99.6	4/30/2012
6278	Ramp J Bridge	97.8	1/23/2012
6330	I-95/Piscataqua River	76.0	1/27/2011

Source: KACTS MPO Long Range Transportation Plan Update 2014-2040. September 8, 2014.

The MaineDOT puts emphasis on maintaining health of “forever bridges”, which are high-value bridges which, when replaced, will create extraordinary impacts to customers or create significant funding needs that could severely impact bridge resources. These bridges must last at least 100 years or longer in some cases. “Forever bridges” in Kittery includes Memorial Bridge, Sarah Mildred Long Bridge, and I-95/Route 103 bridge over Piscataqua River.¹³

Recent bridge projects in Kittery include the Memorial Bridge replacement project that was completed in 2013. The original structure was a lift span bridge that was constructed in 1920. The bridge was replaced due to maintenance issues, serious structural deficiencies, and weight restrictions. The new bridge is still a lift span bridge and includes sidewalks and bike lanes on both sides of the bridge and several pedestrian overlooks. Ongoing bridge project includes planning for the reconstruction of the new \$180,000,000 the Sarah Mildred Long Bridge. It is scheduled to be replaced by 2017. The new bridge will include a bicycle lane but not sidewalks. Bridge improvement for I-95 is included in the MaineDOT’s 2015-2016-2017 Work Plan. The improvement would be on I-95/Piscataqua River Bridge over the Piscataqua River, located on the Maine-New Hampshire state line.¹⁴

¹³ MaineDOT. Keeping Our Bridges Safe. 2014 Report. <http://www.maine.gov/mdot/publications/docs/plansreports/kobs2014.pdf>

¹⁴ MaineDOT Work Plan. Calendar Years 2015-2016-2017. <http://www.maine.gov/mdot/projects/workplan/docs/2015/WorkPlan2015-2016-2017.pdf>

SAFETY

One measurement of safety is to evaluate the history of crashes on roadways and intersections. Town, Maine and KACTS are dedicated to reducing the number of crashes and fatalities on roads and support the federal *Toward the Zero Deaths* initiative.

SUMMARY OF KEY POINTS

Safety

- There were nine high crash locations (six of them are intersections and three are segments of roadway) in Kittery between 2013 and 2015, which are:
- According to the annual Town report for 2013, Kittery experienced a reduction in accidents by 10% compared to 2012.

MaineDOT uses crash data obtained from the State and local police to determine high crash locations (HCL). Every intersection (node) and section of roadway (link) is analyzed to come up with a Critical Rate Factor (CRF). The CRF is a comparison of actual crash rate on a link or at a node to the expected accident rate based on road type, vehicle miles of travel, and a statewide average of accident rates. A CRF greater than 1 on a link or at a node indicates a crash rate higher than should be expected at that location when based on statewide data.

In addition to determining the CRF, MaineDOT maintains data on all the crashes on the links and at the nodes. Reports are

produced at locations with CRF greater than 1 that have more than 8 crashes during a 3 year period. These locations are then called high crash locations. MaineDOT and municipalities use the High Crash Location data to make informed decisions about highway safety improvements. In order to qualify, High Crash Locations must be at locations that have had at least eight crashes in the same location for a three-year period. It also must exceed the Critical Rate Factor of crashes. A CRF is the average expected rate of crashes for a location.

Table 5 lists the high crash locations in Kittery based on MaineDOT analysis of crashes between 2013 and 2015. As shown in the table, there were nine high crash locations (six at intersections and three on roadway segments) in Kittery between 2013 and 2015. These locations are further illustrated in Figure 9.

Table 5: High Crash Locations in Kittery (2013-2015)

High Crash Location Description	Total Crashes	Critical Rate Factor (CRF)	Ranking State/County
Intersection (Node)			
Intersection of New State Road, Rogers Road, State Road	37	4.27	40/10
Intersection of Manson Road, Picott Road and Wilson Road	8	3.18	81/19

Intersection of Shapleigh Road, Whipple Road and Woodlawn Avenue	12	2.50	120/31
Intersection of Ramp off to Rogers Road Rogers Road South Bound	8	1.75	171/40
Intersection of Manson Avenue, Shapleigh Road	9	1.70	175/48
Intersection of State Road and Walker Street	16	1.06	228/60
Section of Roadway (Link)			
End of US 1 Bypass to Intersection of US 1 Bypass & US 1 Bypass South Bound	11	1.63	125/14
End of I-95 Southbound to Intersection of Exit 1 On-Ramp from I-95 North to Dennett Road I-95 SB	9	1.61	127/15
Intersection of Entrance to Maine Outlet/Entrance to Shop Center/US 1 to Intersection of Entrance to Mall/ US 1/Wilson Road	18	1.09	179/35

Source: MaineDOT – Traffic Engineering, Crash Records Section. High Crash Locations from 1/1/2013 to 12/31/2015.

KITTERY COMPREHENSIVE PLAN EXISTING CONDITIONS INVENTORY

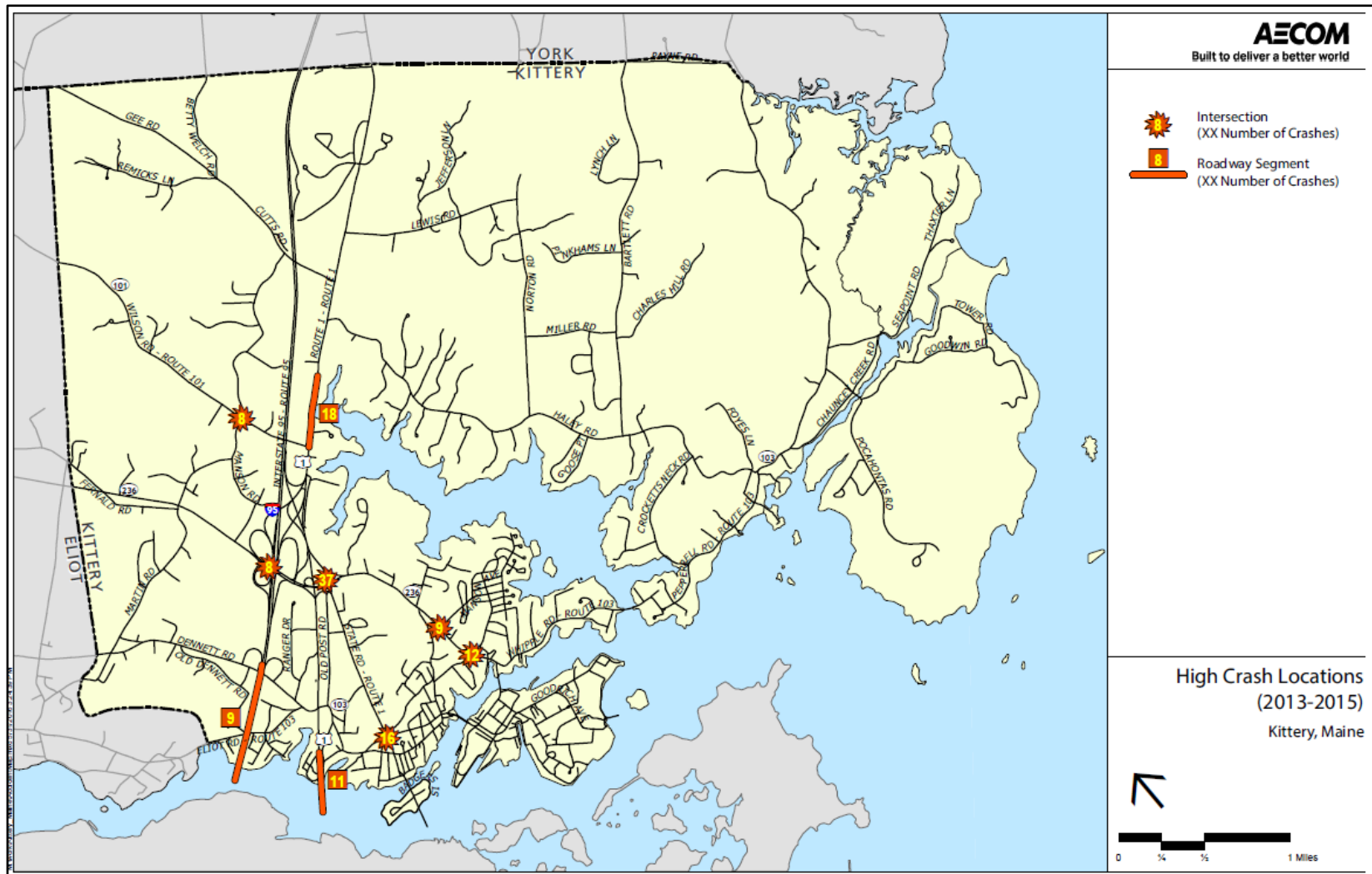


Figure 9: High Crash Locations in Kittery

Source for High Crash Locations: MaineDOT – Traffic Engineering, Crash Records Section. High Crash Locations from 1/1/2013 to 12/31/2015.

In 2013, Kittery experienced a reduction in crashes by 10% compared to 2012. According to the 2013-2014 Annual Town Report, Kittery's goal is to achieve 10% reduction in traffic accidents.¹⁵

In FY 2011-2012, the Kittery Police Department created a new position for bicycle officer. The bicycle officer patrols high pedestrian traffic areas, such as the malls, beaches, and parks, on a mountain bike. This has enabled the officer to interact with pedestrians and provide responses to areas where police vehicle cannot practically reach.

PEDESTRIAN AND BICYCLE FACILITIES

This section discusses the current level of pedestrian and bicycle facilities in Kittery including sidewalks, trails, paths and bike accommodations. Pedestrian and bicycle facilities are used for both commuting and recreational purposes. Common strategies to ensure pedestrian safety include providing sidewalks and controlled crossings in areas where pedestrian activity is significant or encouraged. Bicycle safety measures include providing at least four-foot (five-foot preferred) bike lanes on paved shoulder of a roadway.

The design and construction standards for streets and pedestrian ways provided in the Land Use and Development Code of Kittery

¹⁵ 2013 – 2014 Annual Report for the Town of Kittery, Maine. July 1, 2013 – June 30, 2014.

SUMMARY OF KEY POINTS Pedestrian and Bicycle Facilities

- Approximately 2.5-miles of the Eastern Trail runs through Kittery from the Maine State Line on the Memorial Bridge to Dennett Road after which it continues to the Town of Eliot. An alternative on-road trail route is also provided through South Eliot Road/Main Street/Route 103.
- The State designated Route 236 bike route runs through Kittery. Route 236 has adequate shoulder width to accommodate bicycle travel.
- The KACTS has completed a study with Kittery to identify opportunities to make Route 1 Bypass more bike and pedestrian friendly.
- Kittery does not participate in the MaineDOT Safe Routes to School (SRTS) Program.

provides design standards for sidewalks but does not provide standards for bicycle accommodations.¹⁶

BIKE ACCOMMODATION

ROUTE 236 BIKE ROUTE

The State designated Route 236 bike route was the only designated bicycle route in the KACTS area and Kittery until

¹⁶ Town of Kittery. Title 16 Land Use and Development Code. Recodified on July 26, 2010 and latest amendment made on October 26, 2015. Page 178.

recently when Eastern Trail began. The Route 236 bike route runs from Route 4 in South Berwick down Route 236 through Eliot and Kittery. Both of these roads have adequate shoulder width to accommodate bicycle travel.

EASTERN TRAIL

The Eastern Trail is a 65-mile section of the East Coast Greenway, a transportation-recreation greenway connecting Kittery, in southernmost Maine, to Casco Bay in South Portland.¹⁷ The Eastern Trail includes both off-road sections and scenic on-road route that mostly follows quiet country roads. In Kittery, the Eastern Trail is approximately 2.5-miles long and begins at the Maine State Line on the Memorial Bridge over the Piscataqua River and runs on-road through Hunter Avenue, Newmarch Street, Government Street, Cook Street, Old Post Road and Dennett Road after which it continues to the Town of Eliot. The alternative on-road trail route is also provided through South Eliot Road/Main Street/Route 103.¹⁸ This bicycle route also incorporates the existing bicycle route on Route 236 in other towns.

BICYCLE COALITION OF MAINE

The Bicycle Coalition of Maine is an advocacy group that works to make Maine a better place to bicycle. It was founded by a small

group of cyclists in 1992. Since then it has grown into one of the most effective bike advocacy groups in the country.¹⁹

The Bicycle Coalition of Maine's five-year strategic plan guides its work for expanding biking in Maine, improving bike safety, passing bike-friendly laws and spreading a love of cycling to children and adults. The group also manages the Maine Safe Routes to School (SRTS) Program in partnership with the Maine Department of Transportation. This federally funded initiative promotes safe walking and bicycling for Maine's school children. Since the start of the program in 2005, the Maine SRTS Program has worked with hundreds of local schools throughout the state to engage in walk and bike to school activities and projects. Currently, Kittery does not participate in the MaineDOT SRTS Program.



¹⁷ Eastern Trail Alliance. <http://www.easterntail.org/>

¹⁸ Eastern Trail Guide. "Welcome to the Eastern Trail in Southern Maine". 2nd Edition, 2014.
<http://www.easterntail.org/documents/etbooklet.pdf>

¹⁹ The Bicycle Coalition of Maine. <http://www.bikemaine.org/about>

BICYCLE AND PEDESTRIAN STUDIES/PROEJCTS

ROUTE 1 BYPASS BICYCLE AND PEDESTRIAN PLAN

The KACTS has completed a study with Kittery to identify opportunities to make the Route 1 Bypass more bike and pedestrian friendly, especially once the new Sarah Mildred Long Bridge is constructed. In late 2014, the KACTS and the Town retained Sebago Technics to conduct a neighborhood pedestrian and bicycle improvement plan for Route 1 Bypass from Memorial Circle to the Sarah Mildred Long Bridge and develop a long-term vision for improving bicycle and pedestrian safety. The study area consisted of the section of the Town bordered by US Route 1 (to the east), Memorial Circle (to the north), Bridge and Government Streets (to the south), and Dennett and South Eliot Roads westerly to the Maine Turnpike. The study provided three options for improvement.

ROUTE 103 BICYCLE-PEDESTRIAN TRAIL

The MaineDOT work plan for Calendar Years 2015-2016-2017 lists bicycle-pedestrian project on Route 103. It is listed as an on-road new construction project on Route 103 beginning at Old Ferry Lane and extending westerly 0.52 of a mile.²⁰

Additionally, MaineDOT and the Maine Office of Tourism have published 33 Loop Bike Tours in a book entitled “Explore Maine by Bike”. It includes Route 103 in Kittery in Tour 8 (Kittery Coastal

²⁰ MaineDOT Work Plan. Calendar Years 2015-2016-2017. January 2015. Pg. 135.

Signature Rides) with three tour loops that are 12, 17, and 22-mile long and extend from York to Nubble Light, Kittery to Elliot and York to Kittery, respectively.²¹

TRANSIT

This section describes transit services, paratransit service, private bus carriers and ride sharing program available in Kittery.

SUMMARY OF KEY POINTS

Transit

- In Kittery, the COAST provides year round limited transit services. Out of five COAST routes, four are express commuter routes.
- There used to be shuttle bus service that operated on Route 103 in Kittery, but it has not been provided for several years.
- Paratransit service, ridesharing program and van services are available to Kittery residents through various organizations.

FIXED – ROUTE BUS SERVICE IN KITTERY

Since 1983, the Cooperative Alliance for Seacoast Transportation (COAST) has provided public bus service to Portsmouth and

²¹ Explore Maine. Tour 8 – Kittery Coastal Signature Rides. <http://www.exploremaine.org/bike/beaches/kittery.shtml>

Berwick. In Kittery, COAST provides year round limited transit services from Portsmouth Naval Shipyard (PNS) to towns in New Hampshire and Maine. Currently, COAST operates five Routes: 2cc, 41cc, 100, 101 and 103 to and from the PNSY Gate 1. Route 2cc operates between PNSY Gate 1 to Rochester, New Hampshire. Routes 100, 101, 103 and 41cc are known as COAST's "Clipper Connection" express commuter routes. These bus routes begin in PNS and serve the communities of Portsmouth, New Hampshire (Route 41cc), Rochester, New Hampshire (Route 103), and Dover, New Hampshire (Route 101). Route 100 begins at PNS and serves Somersworth in New Hampshire, and Eliot, South Berwick, Berwick in Maine. The COAST service is open to the public, but serves primarily employees of the Navy Yard and Portsmouth. Monthly pass holders of the Clipper Connection service are eligible for the "Emergency Ride Home" program.



A shuttle bus service used to operate on Route 103 in Kittery, but it has not been provided for several years. Fair Tide has recently evaluated the need for shuttle bus service. At this time, it

appears that demand for the service is not large enough to be considered for grant guidelines. Fair Tide may consider applying in the future as condition and demand may change. Fair Tide was established in 1998 by a group of southern Maine and seacoast New Hampshire citizens. Fair Tide provides short-term affordable housing for people who are homeless, and individualized support services and referrals to community services. It also advocates on participants' behalf at both the local and state government levels.²²

PARATRANSIT SERVICE

York County Community Action Corporation (YCCAC) provides transportation services to all the KACTS towns. YCCAC currently operates demand-responsive service for the residents of Kittery and other York County towns. The service is mainly targeted for the elderly, disabled, and low income populations although it is also available for the general public. YCCAC provides four scheduled transit services to few towns and year round "Local Rides" service to all the communities in the York County. Local Rides routes provide services from home to the closest regional shopping and medical destinations for each town served. Riders are usually picked up at their homes with a return trip an hour or more later. Map and schedules for the Local Rides service are available in the YCCAC website. Towns are coded with different colors based on the day service is available for the town. Local Rides service in Kittery is available on Fridays, with destinations in Kittery, Portsmouth and Newington.²³ The York Hospital also

²² <http://www.fairtide.org/people/>

²³ York County Community Action Corporation. Local Rides. <https://www.yccac.org/index.php/local-rides>

provides a shuttle bus service for patients who need transportation to and from the hospital in the southern York County area, including Kittery.

Electric Vehicle (EV) charging stations may be part of the York Hospital's future plans.

PRIVATE BUS CARRIERS

There are several interstate private bus carriers that serve the Portsmouth-Kittery area. C & J (formerly C & J Trailways) offers service out of the Portsmouth Transportation Center located at the Grafton Drive entrance of the Pease International Tradeport, Dover and Durham. Greyhound Bus Lines provides limited service in Dover, New Hampshire. These bus carriers provide bus service to Boston and Logan Airport as well as Portland, Maine and other cities in northern New England.

RIDESHARING PROGRAM

GoMaine is a statewide commuter services program sponsored by MaineDOT and the Maine Turnpike Authority. GoMaine helps individuals find carpools for commuting to work and rides for events. While vanpools were previously operated by GoMaine, today they are operated by several private organizations and commuters. GoMaine has partnered with vRide and Enterprise Rideshare for vanpool. There are a couple of vanpools available from the Portsmouth Naval Shipyard in Kittery. By signing up with

the Go Maine NuRide program, commuters can get rewards including the "Emergency Ride Home" benefit.²⁴

VAN SERVICE

Kittery Community Center provides van service through town-owned four vans for special events. The Kittery Community Center also provides adult trips (for 18 years and over) to places of attractions in Maine, Massachusetts and New Hampshire, including Larz Anderson Auto Museum in Brookline, Massachusetts; Freeport Shopping and Lunch in Freeport, Maine; Bedrock Gardens in Lee, New Hampshire; Pickity Place in Mason, New Hampshire; Lake Sunapee Cruise in Sunapee, New Hampshire and Cabbage Island Clambake in Boothbay, Maine. Registrations are required to be done at the Community Center.

In addition to this, the State of Maine also provides van service to York County if a reservation is made ahead by phone. Durgin Pines, a nursing home located in Kittery just off the turnpike between York Hospital and Portsmouth Hospital, and Sentry Hill, a retirement community in York have their own vans.

OTHER TRANSPORTATION SERVICES

Other transportation services, including taxi service, rail service, airports, marine facilities and parking are summarized below.

²⁴ GoMaine. <http://www.gomaine.org/>

TAXI SERVICE

Kittery is not consistently served by taxi service. Portsmouth taxi companies provide limited coverage of the Kittery area. At one time, Kittery offered to implement a subsidized taxi service for the elderly and needy individuals, but due to lack of interest, discontinued the project.

RAIL SERVICE

Currently, there is no passenger rail service into Kittery. Amtrak Downeaster began providing passenger service between Portland, Maine and Boston, Massachusetts in 2000, which was extended to Freeport and Brunswick, Maine in 2012. The nearest stations from Kittery are Dover, New Hampshire and Wells, Maine. There is a freight service to the Portsmouth Naval Shipyard operated by the Boston & Maine Division of Guilford Transportation Industries.

MARINE FACILITIES

Kittery has some small harbor facilities in addition to the Portsmouth Naval Shipyard. They are located on the north side of the Piscataqua River basin and Portsmouth Harbor. A lighted whistle buoy, Whaleback Light, and the Portsmouth Harbor Light at New Castle mark the entrance to the harbor, and the channel is marked with buoys, lighted buoys, and day beacons. The primary activities on the smaller harbors are fishing and recreational boating. There are no docking facilities outside of the Portsmouth Naval Shipyard for working large ocean-going vessels. Refer to Chapter 8 for marine facilities.

AIRPORT

Boston, Massachusetts, Manchester, New Hampshire and Portland are the closest major air terminals, each approximately one hour from Kittery. Shuttle service is available to Boston and Portland from private carriers. Littlebrook Airport off Route 236 in Eliot has a 2,500-foot paved runway suitable for small planes. The Pease Development Authority located in Portsmouth, New Hampshire also provides regularly scheduled commercial air service flights for the Pease International Tradeport. The Tradeport also has a private charter service.

PARKING

There are generally very few off-street municipal parking lots in Kittery. However, parking provided at municipal buildings such as Rice Library and Taylor Building, is sometimes used by the public to shop/eat in the Foreside area. These lots serve as shared parking spaces for visitors on nights and weekends. Most public parking in the Foreside area is on-street parking, with the majority of off-street parking being private. With the recent addition of new restaurants and shops, parking demand has increased in the Foreside area. Some residents have indicated that it is difficult to park in this area during peak periods, particularly during the summer.

Additionally, during the summer parking is limited for non-residents who want to access the water.

SUMMARY OF KEY POINTS

Parking

- There is a parking shortage in the Foreside area and along the water during the peak summer season.

High demand for parking has also been indicated at access points to beaches (Sea Point) and public boat access to the harbor area. The Government Street public wharf has limited parking of approximately 5-6 spaces, with most of these typically used by local fishermen. The Traip Academy boat ramp also has very limited parking near the ramp with additional parking available at the Academy. Kittery Point Town Wharf has limited public parking.²⁵

The South Berwick Feasibility Study has recommended providing additional park-and-ride lots to serve the MPO communities and improve commuting traffic along the Route 236 Corridor. The study also recommended for using Transportation Demand Management (TDM) measures to serve the commuter shed for the Naval Shipyard in Kittery and the Pease International Tradeport in Portsmouth.

Recent parking lot projects include:

- Resurfacing of sections of the Taylor parking lot was completed in the FY 2012-2013 and 2013-2014; and

²⁵ The Kittery Comprehensive Plan Update Committee. 1999 Update of the Kittery Comprehensive Plan. Adopted by Council on 3/25/2002.

- Reconstruction of Traip parking lot in FY 2010-2011.

The Land Use and Development Code of Kittery lists parking standards for specific uses but it does not provide any parking standards for development in village or downtown areas.²⁶

IDENTIFICATION OF PRELIMINARY ISSUES, CHALLENGES AND OPPORTUNITIES

The following is a preliminary list of issues, challenges and opportunities posed by the findings of the inventory of existing conditions of Kittery's transportation and circulation system. Please note that these are subject to change with the preparation of goals and objectives, not yet drafted (at the time the inventory was prepared).

- Traffic issue around Portsmouth Naval Shipyard;
- No public transit service;
- Lack of parking in Foreside and shoreline areas;
- Need for more bicycle facilities;
- Provide pedestrian facilities with new infrastructure projects and develop pedestrian friendly environments; and
- Develop Complete Streets policy and evaluate roadway standards for complete streets.

²⁶ Town of Kittery. Title 16 Land Use and Development Code. Recodified on July 26, 2010 and latest amendment made on October 26, 2015. Page 193.
http://www.kitteryme.gov/Pages/KitteryME_TownCode/Title%2016%20thru%2010-26-2015.pdf