

# TRAFFIC AND TRANSPORTATION

## INTRODUCTION

The state statute that deals with Master Plans, RSA 674:2, III, calls for a transportation section “which considers all pertinent modes of transportation and provides a framework for both adequate local needs and for coordination with regional and state transportation plans.” In addition to roads, the Town may consider park and ride facilities, bicycle paths and community transportation alternatives. Good transportation planning is important because of its capital-intensive nature: streets and highways typically represent the most significant public investment in a town’s infrastructure.

The primary goal of this section, then, is to identify current issues and/or needs crucial to orderly development and the safe and efficient movement of traffic. A corollary purpose is to assist the Town of Jaffrey in fully participating in all levels of transportation planning. Transportation infrastructure is heavily dependent on public funds, and the NH Department of Transportation (DOT) sets the priorities for spending through the development of a statewide Transportation Plan and Transportation Improvement Program. Both of these are required under federal legislation that prescribes the disbursements to states; in order for New Hampshire to qualify for its full allocation of funds, the NH DOT must comply with federal planning requirements.

To accomplish this task, the NH DOT requires each of the nine regional planning commissions in the state to develop a regional transportation plan that describes existing state road conditions within its region, identifies problems and concerns, declares goals and objectives for the regional network, and makes specific recommendations for improvements or new construction. Any local concerns relative to state-maintained roads must be addressed through the Regional Transportation Plan in order to be included in the State Plan. This section, therefore, takes the regional issues into account in the process of developing local goals for a safe and efficient transportation network. The Southwest Region Transportation Plan can be found here (create link) and the State’s Ten Year Plan is found here ([NH TYP 2014](#))

## ROAD CLASSIFICATIONS

### STATE CLASSIFICATIONS

Public roads are defined by DOT by the type of service they provide and/or by the funding that is available to build, maintain, and repair them. New Hampshire statute RSA 229:5 specifies the following roads within the state system:

- Class I: Trunk Line Highways. These belong to the primary state highway system, and the state assumes full control and responsibility for construction and maintenance.
- Class II: State Aid Highways. These belong to the secondary state highway system. The DOT assumes full control and responsibility for construction and maintenance.
- Class III: Recreational Roads. These consist of all roads leading to and within state reservations designated by the NH Legislature. The DOT assumes full control and responsibility for construction and maintenance.
- Class III-a: Boating Access Roads. These consist of roads that lead to public waters from any existing highway. The DOT assumes full control and responsibility for these roads.

- Class IV: Town and City Streets. These consist of all sections of road that fall within urban compact areas of towns and cities with populations greater than 7,500. The municipality assumes full control and responsibility for construction and maintenance.
- Class V: Rural Highways. These consist of all other maintained roads that are not in the state system. They are town-owned and maintained.
- Class VI: Unmaintained Highways. These are all other existing public roads that are not maintained by the town and have not been for at least five years. The road may be closed subject to gates and bars, but it continues as a public roadway.<sup>1</sup>

Of these seven state road classifications, Jaffrey roads fall into five, as follows: Route 202 is the only Class I highway; Route 124, Route 137, and Dublin Road are Class II state highways; Poole Road is a Class III Recreation Road; all other roads in town are Class V and Class VI town roads. These are illustrated on the accompanying map, and the number of miles comprised by each classification is described below.

### ROAD MILEAGE BY STATE CLASSIFICATION

Road Classification	Mileage
Class I	4.643
Class II	16.318
Class III	0.793
Class IV	0.000
Class V	60.652
Class VI	10.519
<b>Total Mileage:</b>	<b>92.925</b>

Source: NH DOT

### Functional Classification

A functional classification system identifies roads by the type of service provided and by the role of each highway within the state system, based on standards developed by the US DOT. The purpose of using such a system is to correlate the land planning and traffic planning functions of the Master Plan. Recognition of the principal function that any road is intended to serve can reduce potential conflicts between land use activities and traffic movements. For rural areas such as Jaffrey, the following categories are identified by the US DOT:

### Other Principal Arterial/Controlled Access

These consist of Interstates and some primary state routes. They are designed to move large volumes of truck and car traffic through and between population centers without disturbing local traffic and land uses. Controlled Access is a means of minimizing the number of curb cuts, thereby controlling the amount of

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<sup>1</sup> The Class VI designation is frequently applied to roads that have been abandoned or discontinued, which often leads to confusion as to the ownership of the road. If a vote was taken at Town Meeting to formally discontinue a road, that road is no longer public – it then belongs to the abutting landowners. If it is closed subject to gates and bars, it means that the landowner may enclose premises (historically this was done to contain cattle), but may not lock out the public, which still has the right to pass. These class VI roads are an asset to our community in terms of recreational access.

turning movements along the roadway. There are no Principal Arterials located in Jaffrey or in the Southwest Region.

### **Arterial System – Major and Minor.**

These are the streets and highways that connect communities and regions. They are designed to move large volumes of traffic to and from large traffic generators without disturbing local traffic and land uses. Minor arterials distribute traffic to smaller geographic areas, and place more emphasis on providing land access than the major arterials.

There are no arterial highways in Jaffrey. Routes 12 (south of Keene), 101 and 9 are the only rural arterials in the Southwest Region.

### **Collector System – Major and Minor.**

Major Collectors are designed to move medium traffic volumes at low speeds between or within communities. They differ from the Arterial system in that collector streets go through residential neighborhoods, distributing traffic from the arterials through the area to its ultimate destination. Minor Collectors provide alternate routes to Major Collectors.

In Jaffrey, Route 202 is a major collector and Routes 124 and 137 are minor collectors.

### **The Local Street System.**

This consists of all streets not classified in one of the other higher systems. Its primary function is to provide direct access to abutting properties and to other roads and highways. It offers the lowest level of mobility.

## **SCENIC ROADS**

In addition to the state and federal classifications, RSA 231:157 allows towns, by a vote at Town Meeting, to designate any road other than a Class I or II highway as a Scenic Road. The effect of this designation is that, except in emergency situations, there shall be no tree cutting or alteration of stone walls within the right-of-way without approval of the Planning Board, after a duly-noticed public hearing. The law does not affect the rights of individual property owners; nor does it affect land uses as permitted by local zoning. The statute also authorizes towns to adopt provisions dealing with Scenic Roads that are different from, or in addition to, those that are spelled out in the law. One road has been approved as a scenic road by a vote of the Town, Thorndike Pond Road from Gilson Road to the Dublin town line; this road was formerly known as Slade Road.

## **Traffic Patterns**

### **TRAFFIC COUNTS**

Information on traffic volume is collected by the NH DOT through the placement of traffic counting devices at various locations around the state. Some of these are permanently installed under the roadway and provide figures based on a full year count, while others are set out on a rotating basis for varying lengths of time – generally during the months of May to October for a seven-day period. Permanent counters are used only on state roads, while the temporary counters are used on both state and local roads. Table 19 presents average annual daily trips (AADT) counts for traffic at 18 locations in Jaffrey.

**TABLE 19. AVERAGED ANNUAL DAILY TRAFFIC COUNTS, 2006-2014<sup>2</sup>**

Location	Functional Classification	2005*	2006	2007	2008	2009	2010	2011	2012	2013	2014
NH 124 WEST OF HIGHLAND AVE	Minor Arterial (Rural)	*	*	5,100	*	*	4,900	*	*	5,100	*
NH 124 WEST OF GILMORE POND ROAD	Minor Arterial (Rural)	*	*	*	*	*	*	*	*	*	*
NH 124 AT TROY TL	Minor Arterial (Rural)	1,913	*	1,700	*	*	2,000	*	*	2,000	*
NH 137 AT DUBLIN TL	Minor Arterial (Rural)	1,178	*	*	*	1,000	*	*	1,000	*	*
US 202 AT PETERBOROUGH TL	Major Arterial (Rural)	7,793	*	*	*	7,700	*	*	7,800	*	*
NH 124 AT SHARON TL	Minor Arterial (Rural)	3,245	*	3,400	*	*	3,400	*	*	3,400	*
FROST POND RD AT DUBLIN TL	Local Street	*	*	*	*	*	*	*	*	*	*
US 202 & NH 124 EAST OF NH 137	Major Arterial (Urban)	12,440	*	16,000	*	*	13,000	*	*	13,000	*
PRESCOTT RD AT MILL POND OUTLETT	Local Street	*	*	*	*	2,200	*	*	3,500	*	*
DUBLIN RD NORTH OF FIRST TAVERN ROAD	Minor Collector	*	*	860	*	*	1,000	*	*	970	*
NH 124 EAST OF DUBLIN RD	Minor Arterial (Urban)	*	*	3,500	*	*	3,600	*	*	3,500	*
OLD FITZWILLIAM RD WEST OF FITZWILLIAM RD	Local Street	*	*	*	*	*	*	*	*	*	*
SQUANTAM RD EAST OF STRATTON RD AT SILVER RANCH (HUNT RD)	Minor Collector	*	*	*	*	*	*	*	*	*	*
ANNETT RD EAST OF SQUANTAM RD	Local Street	*	*	*	*	*	*	*	*	*	*
GILMORE POND RD SOUTH OF SAWTELLE RD	Local Street	*	*	*	*	980	*	*	640	*	*
OLD PETERBORO RD (NUTTING RD) OVER THE CONTOOCCOOK RIVER	Minor Collector	*	*	*	*	2,000	*	*	1,900	*	*
FITCH RD OVER CONTOOCCOOK RIVER	Local Street	*	*	*	*	330	*	*	390	*	*
HADLEY RD OVER CONTOOCCOOK RIVER	Local Street	*	*	*	*	90	*	*	60	*	*

Source: NHDOT – AADT counts 2006-2014

<sup>2</sup> The highlighted roads no longer have traffic counts.

Population increases in the southwest region of New Hampshire between 1997 and 2005 resulted in increased demand on state highways and local streets. Roads with the highest 7-day traffic volumes, as shown in Table 19, include: US 202/NH 124 east of US 202/NH 137, US 202 north of NH 124, US 202 at the Rindge town line, and US 202 south of NH 124. As population has stabilized between 2005 and 2014 traffic shows minor changes at these locations. Additional traffic counts and turning movements are planned for 2015/2016.

## **COMMUTING PATTERNS**

The US Census collects information on commuting patterns of the labor force – that is, where people go to work from their town, and where people come from to work in a particular town. According to these 2010 Census figures, Jaffrey has an estimated 3,004 workers; of these, 1,631 (54.3 %) commute out of town to work. The number of all people who work in Jaffrey, regardless of residence, is estimated to be 3,231; of these, 1,858 (57.5 %) commute into Jaffrey from somewhere else. The following tables illustrate where Jaffrey residents go to work, and where nonresidents working in Jaffrey come from.

TABLES 20 A-D  
COMMUTING PATTERNS  
COMMUTING IN (3,231)

TABLE 20 A

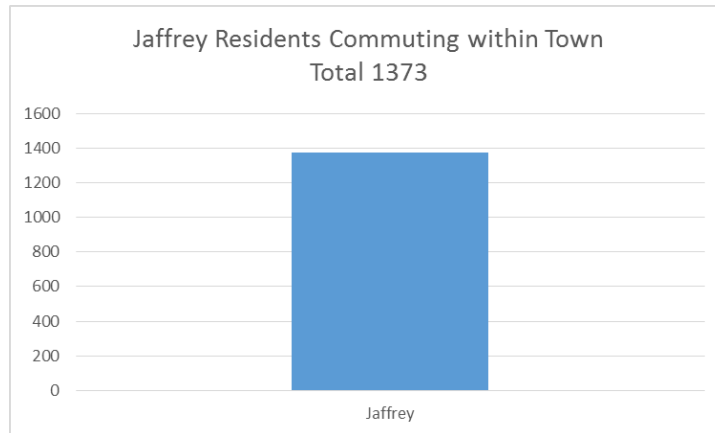


TABLE 20 B

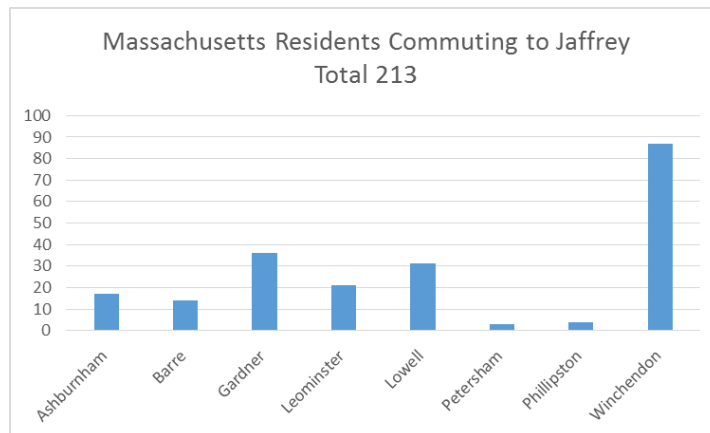
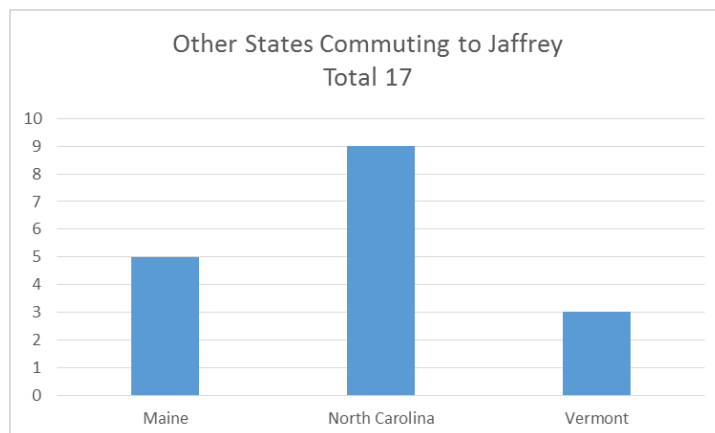
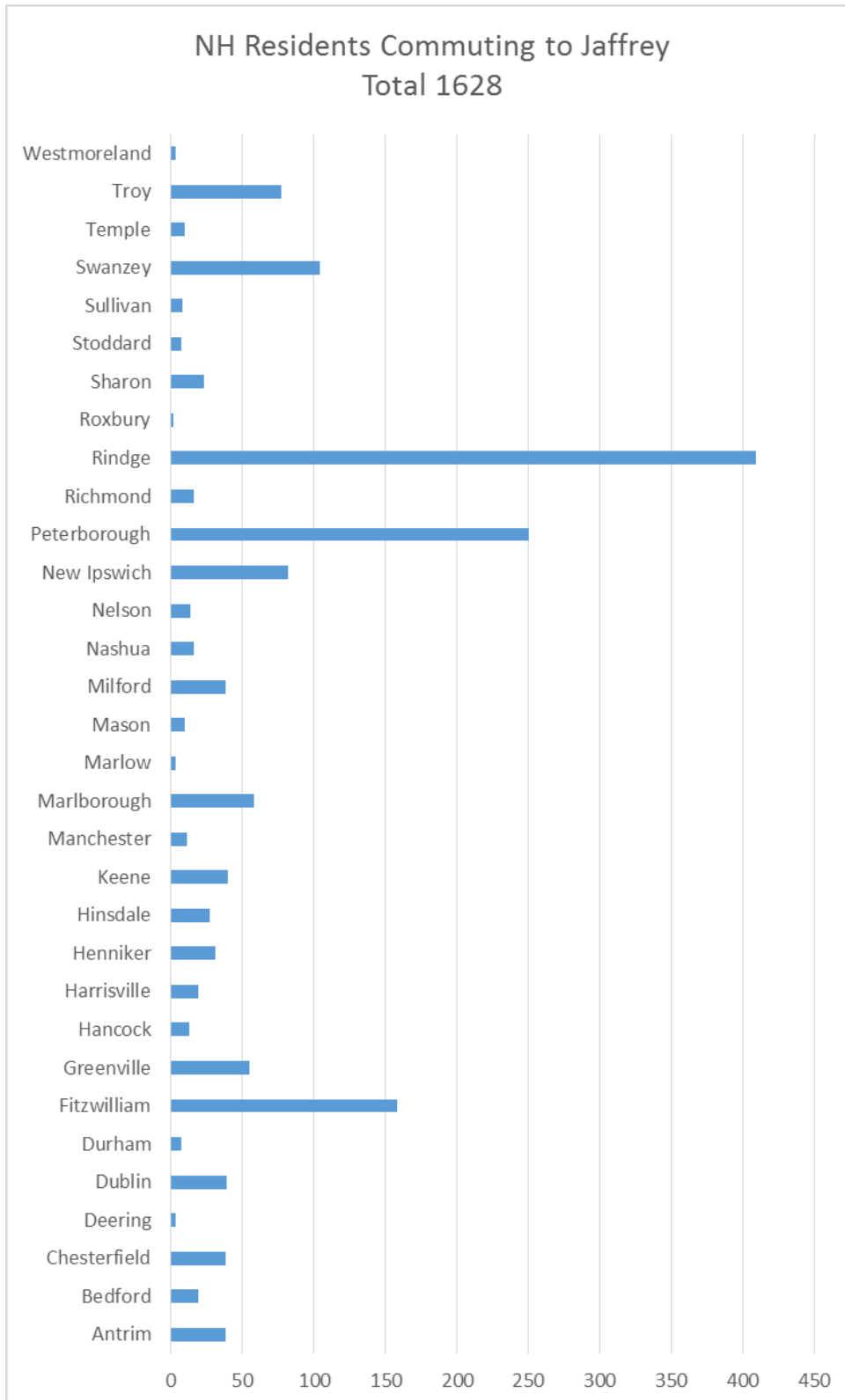


TABLE 20 C



Source: US Census, 2010  
Commuting Patterns:  
Journey to Work and  
Place of Work.

TABLE 20 D



TABLES 20 E-F  
 COMMUTING PATTERNS  
 COMMUTING OUT (1,631)

TABLE 20 E

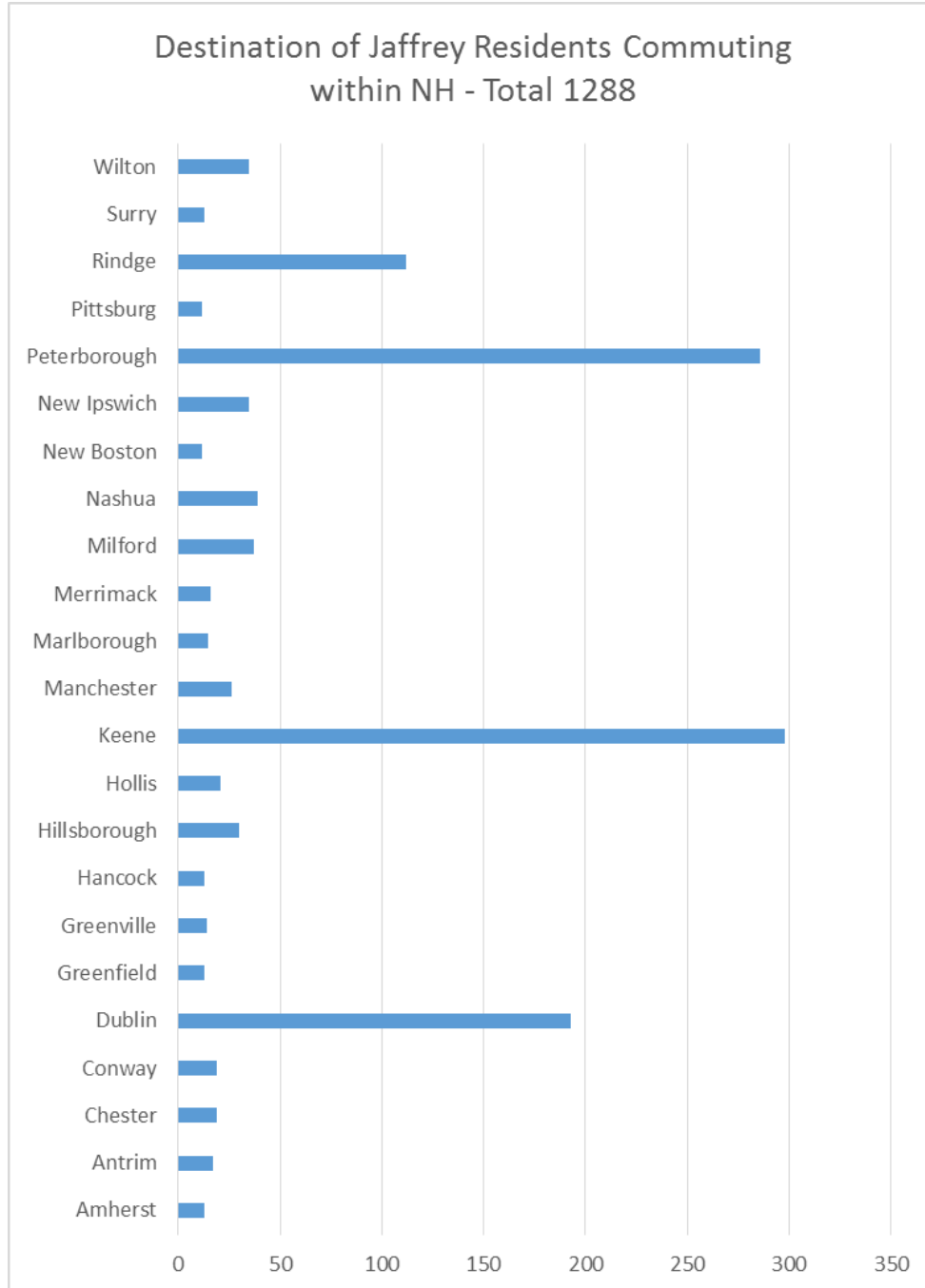
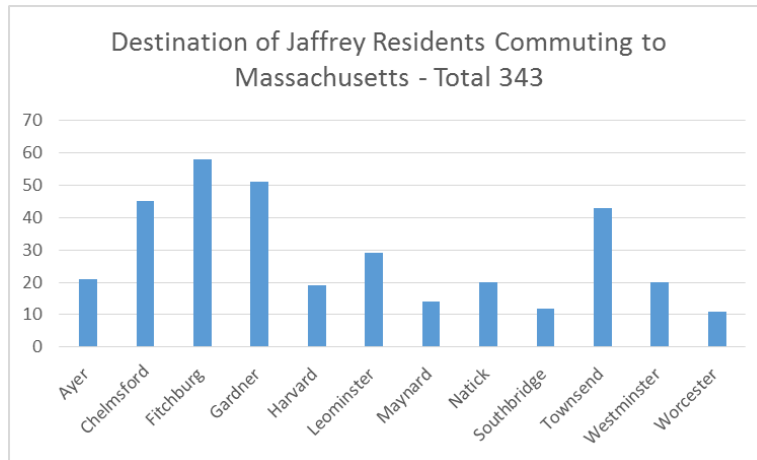




TABLE 20 F



As the figures in Table 20 illustrate, the largest percentage of Jaffrey's workers commuting out of town go to Keene and Peterborough. 35.8% of all commuters. While the majority of commuters who commute in from a single town 22%, are from Rindge. It would appear that Route 124 and Route 202 carry the greatest amount of commuter traffic each day - both in and out of town (US Census 2010, Commuting Patterns: Journey to Work and Place of Work).

## TRAFFIC GENERATORS

Travel can be defined by a wide variety of characteristics, including the purpose of the trip, the time the trip was made, the mode that was used, and the length of the trip. A starting point in all transportation studies is the number of trips generated for a particular land use. This measure is called trip generation and is usually described in terms of person trip generation or vehicle trip generation.

A trip is one way movement from origin to destination. Each trip has two trip ends. Although the term round-trip is often used to describe travel that starts and ends at home it is not a technical term and is considered to be two or more separate trips. Trip generation is always given for a specific period of time which is generally a single hour (normally a peak hour) or a full day. Trip generation may be given for a weekday and/or a weekend day. Since the vast majority of travel is conducted by automobile, most trip generation data are provided in terms of vehicles trips. Vehicle occupancy varies by the purpose of the trip. Work trips tend to have low occupancies which relates to the high percentage of commute trips which are drive-alone types.

Most of Jaffrey's traffic is residential, since that is the primary land use in Town. There is of course some amount of truck/ commercial traffic that services the businesses, as well as travel through Jaffrey to and from neighboring towns; Routes 124 and 202, in fact, carry a significant amount of through truck traffic.

In 2004, DES developed a statewide GIS coverage to identify appropriate indicators for sprawl and changing development patterns in New Hampshire. SWRPC together with DES, UNH, and OEP developed a methodology to generate data on destinations and city/town/village centers for each community. Below are the destinations identified for the Town of Jaffrey.

**TABLE 21. DESTINATIONS (See Map)**

<b>Destination Type</b>	<b>Destination Name</b>
Recreational Trails 	Rail Trail
	Mount Monadnock
	Children's Woods
	Cheshire Pond Conservation Area
	Annette State Park
Camping 	Monadnock State Park (2 areas)
Historic Resources 	Jaffrey Center
	Squantum Village
	East Jaffrey (Downtown)
	Cemeteries
Beaches 	Thorndike Pond
	Gilmore Pond
	Contoocook Pond
Recreational Fields 	Humiston Field/Rink
	Community Field
	American Legion Field
Schools 	Jaffrey Grade School
	Jaffrey-Rindge Middle School
	Conant High School
	Victory High School
Civic 	Town Office
	Library
	Police Department
	Post Office
	Fire Department
Industrial Parks 	Drumlin
	Stone Arch Bridge
	Turnpike Road
	Webster Street
	Squantum

Aside from the residential and local business traffic, Jaffrey has a few large traffic generators, including EMD Millipore, located on Route 124 east of the downtown, which employs 700 people. Other top employers include the Jaffrey-Rindge School District with 264 employees, TFX Medical, Inc. with 303 employees, DD Bean & Sons with 51 employees, Good Shepard Nursing Home with 69 employees, and Belletetes with 55 employees. While New England Wood Pellets employees 39, it generates significant traffic from Old Sharon Road north and southbound on Route 202.

## **ROAD AND BRIDGE CONDITIONS**

### **SURFACE WIDTHS & CONDITIONS**

Roads in Jaffrey are of varying widths and surface conditions. The width of a road is not necessarily related to the ownership – i.e., the state roads are not always wider than the town roads, although they are more likely to have wider shoulders.

The NH DOT has developed standards for road construction, published in December 2003, titled “Suggested Minimum Design Standards for Rural Subdivision Streets”. The specifications recommended for minimum width and materials are based on average daily traffic – in other words, the more traffic a road carries, the wider the traveled way and shoulders, the deeper the base and top coat, etc.

According to these standards, the minimum width for the least-traveled road should be 18 feet, plus a two-foot shoulder; this is for a road carrying no more than 50 vehicle trips per day. Most roads in New Hampshire towns do not meet this standard and, even with new construction, many small towns will approve an 18-foot width for a Class V town road carrying more than 50 vehicle trips per day.

Jaffrey DPW is currently working on a road pavement and maintenance plan which will aid in the prioritization of repairs and reconstruction of town maintained roads.

Some of the narrower roads in Jaffrey contribute to the Town’s rural character. Consequently, even though these narrow roads are shown to be of deficient width, there is no apparent reason to widen the more scenic and less traveled roads.

### **BRIDGES**

Bridges present an ongoing maintenance and repair concern for all towns, oftentimes accounting for a large portion of local highway budgets. Bridges also present the potential for a number of safety hazards in instances where they are severely deteriorated or are significantly narrower than the road they serve. Bridges are rated by the DOT, using a system based on federal standards for type of construction, widths, surface condition, and ability to handle traffic volume, etc. Table 23 points out the problems concerning the bridge network.

### **ACCIDENT LOCATIONS**

The NH DOT collects data from the local Police Departments on accident locations throughout the state. The most recent years for which this information is available for the Town of Jaffrey is 2003 - 2014; nearly 40% of all accidents occurred in the town center along US 202 or Main St. See Table 22.

**TABLE 22:  
JAFFREY ACCIDENTS BY INTERSECTION 2003 -2014**

<b>Intersection</b>		<b>Total # of Accidents</b>
US 202	NH 124	35
US 202	Nutting	43
US 202	US 202	31
NH 124	Goodnow	22
NH 124	Milliken	53
NH 124	Fitzwilliam	4
US 202	Charlonne	31
US 202	Gilmore Pond	8
US 202	Lacy	5
US 202	Webster	18
NH 124	Prescott	15
US 202	Hillcrest	8
NH 124	Dublin	14
NH 124	Fitzgerald	7
NH 137	Parker	1
US 202	Cross	15
US 202	Tyler Hill	7
NH 124	Charlonne	0
NH 124	Sawtelle	12
Dublin	Gilson	0
NH 124	Witt Hill	7
NH 137	Crestview	2
Nutting	Letourneau	2
US 202	Adams	3
US 202	Stratton	5
<b>Total</b>		<b>348</b>

## **PROBLEM AREAS**

The Jaffrey Public Works Director, Fire Chief and Police Chief responded to the planning committee request to update the Transportation Problem Matrix (Table 23 below) which documents existing transportation problems in Town and ranks those problems in order of priority. The matrix focuses on the problem and location, description, additional comments, and possible solutions to problems such as road width, surface type, speed limit, accidents, other safety hazards, bridge deficiencies, drainage, pedestrian access, parking, vehicle class, snow and ice, and other maintenance issues. Table 24 presents a summary of recommended transportation management projects which address town-wide maintenance needs rather than location-specific hazards. Additional information regarding transportation hazards and problem areas can be found in the Town's Hazard Mitigation Plan.

**TABLE 23:  
TRANSPORTATION PROBLEM MATRIX**

	<b>Problem</b>	<b>Location</b>	<b>Description</b>	<b>Additional Comments</b>	<b>Possible Solutions</b>	<b>Priority (High, Med., Low)</b>
<b>1</b>	Volume, level of service, pedestrian movements	Main Street: 4- way and 5-way intersections	<ul style="list-style-type: none"> <li>• Traffic/pedestrian interaction needs attention</li> <li>• Very limited time for pedestrians to cross the street</li> <li>• Tight turning corner (especially for trucks)</li> <li>• 3 state routes converge</li> <li>• Cars cut through back streets to avoid back-up</li> </ul>	<ul style="list-style-type: none"> <li>• Concerns regarding a possible roundabout for pedestrian safety</li> <li>• NHDOT is initiating a traffic study</li> </ul>	<ul style="list-style-type: none"> <li>• Install "DO NOT BLOCK INTERSECTION" signs</li> <li>• Reconfigure Rte. 202 to by-pass intersection/re-routing to new bridge – considering road geometry and terrain.</li> <li>• Consider closing, or changing Stratton Road to one-way out of intersection</li> </ul>	High
<b>2</b>	Traffic/ pedestrian concentration	Stratton Road in front of middle and high school campuses	<ul style="list-style-type: none"> <li>• High level of pedestrian activity</li> <li>• Off-site student parking with rush of traffic</li> <li>• Buses and vehicles</li> </ul>	<ul style="list-style-type: none"> <li>• Morning less of an issue</li> <li>• Limited resources to police high volume times</li> <li>• Added crossing guard (2004) to assist pedestrians across Stratton to the only sidewalk</li> </ul>	<ul style="list-style-type: none"> <li>• Provide sidewalks on both sides of street (ROW assessment for work is planned).</li> <li>• Provide second crossing guard during school dismissal</li> </ul>	High
<b>3</b>	Volume and speed of traffic, pedestrian movements	Goodnow Street from Rte. 137 to Rte. 124; Main Street to Charlonne	<ul style="list-style-type: none"> <li>• Used as a by-pass to Rte. 124 (W), Rte. 202 via School St.</li> <li>• Accidents at Main and Goodnow Streets (poor sight lines)</li> <li>• Periods of pedestrian traffic (school dismissal)</li> <li>• Downtown parking movements</li> <li>• Traffic backs up from River Street to St. Pat's</li> </ul>	<ul style="list-style-type: none"> <li>• Visibility is poor when turning onto Main Street from Goodnow and Charlonne because of parking spaces on Main Street</li> <li>• Limited sight distance turning from River St onto Charlonne St.</li> </ul>	<ul style="list-style-type: none"> <li>• Remove one parking space each side of Main Street at Goodnow and Charlonne.</li> <li>• Make Goodnow Street one-way away from Main Street (Northbound only) – this would allow for increased (angle) parking</li> <li>• Close Goodnow from Main to Town Office parking lot, turn that stretch into a parking lot.</li> <li>• Modify grade in yard at Main Street and Charlonne</li> </ul>	High
<b>4</b>	Volume of traffic	River Street (US 202) from Main Street to Gilmore Pond Road	<ul style="list-style-type: none"> <li>• Concentration, speed and volume of traffic</li> <li>• Narrow sidewalk</li> <li>• Limited site distance</li> </ul>	<ul style="list-style-type: none"> <li>• Shoulder is very narrow</li> </ul>	<ul style="list-style-type: none"> <li>• Build sidewalks both sides of street</li> <li>• Re-route 5-way intersection</li> </ul>	Medium

	<b>Problem</b>	<b>Location</b>	<b>Description</b>	<b>Additional Comments</b>	<b>Possible Solutions</b>	<b>Priority (High, Med., Low)</b>
<b>5</b>	Level of service, speed	Old Sharon Road, Nutting Road intersection onto US 202	<ul style="list-style-type: none"> <li>Heavy truck traffic off Old Sharon Road</li> <li>Location of town transfer station, New England Woodpellets, and commercial/industrial traffic.</li> <li>Speed on US 202</li> </ul>	<ul style="list-style-type: none"> <li>Trucks waiting to turn onto Rte. 202 from Old Sharon Road slow movement through intersection</li> <li>Trucks using Hadley Road to bypass intersection and Rte. 202 hill</li> </ul>	<ul style="list-style-type: none"> <li>Install "NO TRUCKS" signs at Hadley Road and Davidson Road</li> <li>Install flashing caution light (may not be justifiable based on traffic data)</li> <li>Reduce Rte. 202 speed limit to 45 mph</li> </ul>	Medium
<b>6</b>	Volume, non-local users unfamiliar with conditions	Mountain Road	<ul style="list-style-type: none"> <li>Poor pavement and road camber</li> <li>Hilly/curves—inclement weather</li> <li>Variations in speed limits</li> <li>Mt. Monadnock visitors (3,000-5,000 per day in the Fall)</li> </ul>	<ul style="list-style-type: none"> <li>Requires significant patrol</li> <li>No shoulder</li> <li>DOT does not permit additional signage even seasonal</li> </ul>	<ul style="list-style-type: none"> <li>Work with NHDOT to rebuild the road</li> <li>Additional signage</li> <li>Speed monitor trailer – Jaffrey Ctr</li> <li>Additional traffic enforcement during peak periods</li> </ul>	Medium (Higher during inclement weather)
<b>7</b>	Concentration of traffic	Peterborough Street from Main Street to MacDonald's	<ul style="list-style-type: none"> <li>Concentration of cars and pedestrians</li> <li>Number of car turning movements</li> <li>Speed</li> </ul>	<ul style="list-style-type: none"> <li>Transition of rural area to commercial</li> <li>lack of familiarity with area</li> <li>Police priority, speed reduced</li> </ul>	<ul style="list-style-type: none"> <li>Build sidewalks both sides of street</li> <li>Relocate / add crosswalks to reduce jay-walking</li> <li>Traffic calming devices (i.e. islands) might mitigate</li> </ul>	Low-Medium
<b>8</b>	School-related traffic, cut-thru Mountain Road to River Street	School Street	<ul style="list-style-type: none"> <li>Traffic speeding by elementary school to get to River Street; limited visibility due to road width, resident parking</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Install "15 MPH DURING SCHOOL HOURS" sign with flashing yellow</li> <li>Install speed bumps during non-snow months</li> </ul>	Medium
<b>9</b>	Visibility, speed, pedestrian crossing	Turnpike Road	<ul style="list-style-type: none"> <li>Summer traffic and pedestrians at Kimball's Farm</li> <li>Millipore shift change increases volume</li> </ul>	<ul style="list-style-type: none"> <li>Witt Hill Road and Prescott Road sight lines need work</li> <li>Speed recently reduced along portion of road</li> </ul>	<ul style="list-style-type: none"> <li>Post "NO PARKING" signs on north side of road at Kimball's, and enforce, to eliminate pedestrians crossing there.</li> <li>Cut embankment at Witt Hill Road to increase sight lines.</li> </ul>	Medium, Low
<b>10</b>	Design of intersection	Prescott and Squantum Roads	<ul style="list-style-type: none"> <li>Roads meet at oblique angles</li> <li>Commercial park businesses adding to traffic</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Rebuild Prescott Road to frame into Squantum Road at a right angle.</li> </ul>	Low

	<b>Problem</b>	<b>Location</b>	<b>Description</b>	<b>Additional Comments</b>	<b>Possible Solutions</b>	<b>Priority (High, Med., Low)</b>
<b>11</b>	Speed	Gilmore Pond Road, 1 <sup>st</sup> ¼ mile off River Street	<ul style="list-style-type: none"> <li>• Concentration of homes requires significant police attention</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Speed control</li> <li>• Additional patrols</li> </ul>	Low
<b>12</b>	Seasonal volume, design of Intersection	Hunt/Stratton and Howard Hill and Squantum intersections	<ul style="list-style-type: none"> <li>• Seasonal traffic volume (June-Sept.)</li> <li>• Homes in close concentration in Rindge must use these roads for access</li> </ul>	<ul style="list-style-type: none"> <li>• At intersection difficult to tell who has the right of way versus stop requirement</li> </ul>	<ul style="list-style-type: none"> <li>• Add "STOP AHEAD" signs</li> <li>• Add 3-way stop signs at these intersections</li> </ul>	Low

## **Public/Alternative Transportation Modes**

### **Public Transportation**

Public transportation plays a very small role in the overall service network. Community transportation for special needs populations is available from a number of social service organizations on an as-needed basis; some of these services are also open to the general public.

### **BICYCLE/PEDESTRIAN TRAVEL**

The focus of this analysis has been on vehicular, private transportation. Alternative travel is limited in this region, although it has certainly seen resurgence over the last several years. Most roads were designed and built with little or no consideration for anything but vehicles; pedestrians and bicyclists must share the road with cars and trucks. In recent years there has been an increase in both pedestrian and bicycle traffic, and with it a recognition of the potential dangers of mixing these activities with vehicular traffic. These issues can be partly addressed at the local level by designing new roads with attention to alternative traffic. With existing roads the problems are more difficult, since the Highway Department is dealing with a circumscribed width in most cases; warning signs and speed limits are the traditional techniques for ameliorating the conflicts, although not always effective.

### **RAIL/TRAILS**

The Monadnock railroad was acquired by NH DOT for use as a recreational trail from the Massachusetts state line in Rindge through Rindge and Jaffrey. The trail continues through Peterborough and into Hancock. The rail trail essentially parallels US 202 through Jaffrey and passes through downtown at the intersection of NH 124, US 202 and Stratton Road at the east end of the “202 dogleg”. The rail trail is used through four seasons by walkers and cyclists, cross country skiers and snowmobiles. Though not a problem unique to Jaffrey, rail trail use by ATV’s can create conflicts among trail users and trail abutters. Currently the trail is missing one bridge to cross a stream crossing of a tributary to Cheshire Pond across US 202 from the rest area at the Pond.

### **SIDEWALKS**

Walking is the most basic form of transportation. Every trip we make, even by car, we begin and end as pedestrians. Sidewalks serve as critical links in the transportation network by providing pedestrian access to commercial districts, schools, businesses, government offices, and recreation areas. Sidewalks with curb ramps and benches invite strolling and shopping. In addition, a broader range of consumer, social, and recreational opportunities are available in areas catering to pedestrians.

Villages with well-designed sidewalks are generally safer because more people are out walking in the community. In addition, the safety and convenience of pedestrian travel is an important factor in quality of life. Downtown Jaffrey has good potential for sidewalks on main streets. Jaffrey’s ongoing downtown enhancements include completed and planned pedestrian improvements such as crossing signals, benches, curb ramps.



## **OTHER TRANSPORTATION SERVICES**

Many human service agencies in southwestern New Hampshire provide transportation to elderly, low-income and disabled residents. Most of the need is to access agencies' services or for employment, medical appointments, shopping, etc. Agencies such as Home Health Care, Red Cross, New Hope/New Horizons provide such transportation. Many agencies feel that their transportation service to their own clients is limited because of the costs in the frequency of service (service is usually weekdays only) and in geographic coverage (residents in outlying communities cannot be as frequently transported).

Thomas Transportation Services, Inc. offers service to airports and throughout the Northeast. Service is available 24 hours, including private vehicle service, courier service, charter and connections. Thomas Transportation provides approximately 20,000 round trips annually, employing 45 persons in the region.

Contoocook Valley Transportation Company provides of volunteer rides and ride share opportunities. Currently 400 to 500 trips are provided monthly. Clients are businesses and corporations with some medical trips to regional hospitals (Dartmouth-Hitchcock-Keene and Massachusetts General Hospital). Monadnock at Home also provides rides as well as other services through a membership model.

Student Transportation of America provides service for public school in Cheshire County (excluding Westmoreland) including special transportation for handicapped students (20 vehicles), sports and extra-curricular activities.

Community Transportation serving the Jaffrey Rindge communities carries 1,453 students on 40 vehicles. Their fleet includes 7 wheelchair vans. Adventure Limousine & Transportation, located in Swanzey, offers limousine and mini-van service for corporate clients and special events with 4-5 trips/week (50/50 corporate/special events). Regarding its future, Adventure reports a potential for increased demand for inter-city service (e.g. Keene to Jaffrey).

Swanson Limousine Service, located in Keene, provides stretch limousines for weddings, special events and airport trips (corporate customers) averaging six trips/month. Demand is highest in May and October, and lowest in January.

## **RESULTS OF A COMMUNITY SURVEY “GETTING AROUND TOWN”**

Over this past summer (2015) the Planning Board through its Master Plan subcommittee distributed a survey to solicit feedback on transportation issues and access to downtown. It was available through direct email solicitation, Facebook shares and was posted on the Town website. In addition print copies were available at the Library, Civic Center and Chamber of Commerce. The survey was tallied through Survey Monkey and the paper copies were hand entered into the database. Of the 193 survey responses, 18.1% were non-residents who visit town on a regular basis.

When responding to the question of how easy is it to get to downtown destinations, in general the responses to the rating scale ranged from moderately easy to extremely easy. But in examining the question further through more specific follow-up questions, as in how easy is it for schoolchildren or the disabled to get around downtown, the answers began to skew toward moderately easy to not at all easy, particularly for the disabled. When asked about the sufficiency of bicycle paths downtown, the responses clearly indicated an interest in developing additional access.

In terms of the perception of traffic congestion, 75% of respondents indicated moderate to extremely congested conditions while 25% indicated slightly to not at all congested conditions downtown. To further explore respondents' sense of traffic impact and accessibility two open ended questions were

asked. In general the responses were that either the respondents didn't have a business or the traffic flow did not impact business to a great extent. However, there were indications for needed additional parking, and better pedestrian access. Further, regular commuters reported avoiding downtown intersections due to traffic tie-ups. The follow up question asking whether accessibility limited participation in downtown events revealed that about half of the respondents did not feel that downtown had limited accessibility. However, the remaining half had specific concerns about access to parking, handicapped accessibility, and traffic impact on pedestrian access at lights and crosswalks.

The concluding questions asked what changes would most improve downtown and if the respondent had any other comments. Of the 151 respondents to the question of what changes would you like to see downtown, the primary response (70) was addressing traffic flow through the route 202/124 intersection (dogleg). Ancillary comments included a need for additional parking (26 responses) and improvements to sidewalks and bike lanes (24 respondents). A need for improving the appearance of downtown buildings and facades was evident as well as bringing in more local shops, a grocer and services (37 respondents). Eight respondents identified no change is needed. The final question asking for additional comments reinforced the results of the earlier questions. The survey results are attached to this chapter as an appendix.

## **TECHNIQUES FOR ADDRESSING TRANSPORTATION ISSUES**

### **PLANNING STRATEGIES**

#### **☐ FOCUS DEVELOPMENT IN THE DOWNTOWN.**

Concentrate the mixed uses and higher densities in the Downtown rather than in the outlying parts of Town.

#### **☐ IDENTIFY APPROPRIATE LAND USES.**

Existing land uses can be monitored and the Zoning Ordinance consulted to ensure that development will be compatible with the road system. Applications for development must always be reviewed with the scale of proposal relative to the road network and abutting land uses in mind.

#### **☐ PLAN FOR PEDESTRIAN AND BICYCLE CONNECTIONS.**

The Town can make sure that it is always at the table when the NHDOT is considering plans involving the state routes, and make every effort to see that all due consideration is given to the accommodation of non-motorized traffic.

#### **☐ DEVELOP AND ADOPT A ROAD POLICY.**

The Planning Board, in conjunction with the Board of Selectmen, can develop a road policy that would guide development in town based on the status of existing roads and any future plans for roads. This can go far to ameliorate potential questions and problems when applications are submitted for the upgrading of a road, or for a building permit on a Class VI road.

## ☐ **CAPITAL IMPROVEMENTS PROGRAM.**

A Capital Improvements Program (CIP) that sets forth the planned capital expenditures over a six year period can also help to guide road development. In conjunction with a Road Policy, the CIP can set the schedule as well as the degree and type of road improvements.

## ☐ **SWRPC TRANSPORTATION ADVISORY COMMITTEE**

Participation in this Committee provides an opportunity for the Town to be involved in the development of the Region's 10-Year Highway Plan.

Encourage citizen participation in the Monadnock Region Transportation Management Association and Monadnock Region Coordinating Council.

## **REGULATORY STRATEGIES**

### ☐ **ROAD STANDARDS**

Included in the Subdivision Regulations administered by the Planning Board are standards for road construction. These were updated in 2014 to address minor subdivisions, development on private roads and class VI roads. The standards address width of the traveled way, width of shoulders, type of materials to be used and depth of each level, it is very important that all road design undergo an intensive review by the Planning Board before the subdivision receives approval.

### ☐ **DRIVEWAY STANDARDS**

The Planning Board is allowed by state statute to adopt and administer regulations for the construction and permitting of driveways along public and private roads. The NH DOT regulates curb cuts on state roads; towns are allowed the same authority for town roads. Also updated in 2014, the driveway regulations encourage safe and efficient transportation corridor management through provisions that:

- reduce the number of curb cuts along a road;
- separate curb cuts and intersections;
- provide for safe sight distance of at least 200 feet;
- relate driveway design such as width, length and curb radii, to travel speed and traffic volumes;

### ☐ **DEVELOPMENT OF BACKLOTS**

Backlot development is a zoning technique that allows the subdivision and/or development of lots that cannot meet the frontage requirement for the district. Jaffrey allows for this type of development which gives the town the opportunity to set standards for the access that serve these backlots, and require that the backlot share an access with the front lot, when appropriate.

## ☐ **SCENIC ROADS**

Jaffrey has one scenic road, Thorndike Pond Road from Gilson Road to the Dublin town line. This designation, in and of itself, does not affect land use or traffic along the road, but it could serve as the basis for developing a Scenic Road Corridor, in which land use and traffic would be reviewed in concert with the objectives of the designation.

## ☐ **ACCESS MANAGEMENT TECHNIQUES**

These techniques range from various driveway standards and requirements to the use of medians, signalization and signage. Access is managed through the town Site Plan and Subdivision regulations and Driveway regulation.

## **SUBDIVISION AND SITE PLAN CONSIDERATIONS**

During the subdivision or site plan review process the Planning Board has an opportunity to review all proposals based on the transportation issues identified in this section. Some of the pertinent issues include:

### ☐ **VIEWING THE WHOLE PARCEL**

It is always important to step back from an individual plan and look at it in relation to the neighboring properties and land uses. If the lot fronts on more than one road, decisions can be made about which roads would better serve as access, how the parking should be laid out, etc.

### ☐ **LOT LAYOUT**

When the opportunity presents itself through a multi-lot subdivision, the subdivision design should consider shared driveways or an interior street, with lots fronting off of the interior rather than the main roads.

### ☐ **PARKING LOT LOCATION AND DESIGN**

There are a number of issues with parking lots for commercial uses, such as:

- locating the building(s) close to the road and putting the parking on the side or in the rear of the parcel;
- requiring shared parking, when feasible;
- planning for future shared parking by designating reserved areas on the plan;
- prohibiting parking and loading that requires backing out onto the street; and
- the use of vegetative buffers between parking lots and roads.

The Town updated the Design Guidelines for non-residential development along the gateways and general business district in town in 2014.

**TABLE 24:  
RECOMMENDED TRANSPORTATION MANAGEMENT PROJECTS**

	<b>Project</b>	<b>Description</b>	<b>Comments</b>	<b>Priority (High, Med., Low)</b>
<b>1</b>	Implement Main Street/Route 202 “through-pass”	Re-route 202 dogleg from Main Street	From a transportation standpoint the single most significant issue facing the town of Jaffrey is the Main Street/Route 202 “dogleg”. Survey results confirm the earlier Master Planning efforts which seek a solution to the dogeg.	High
<b>2</b>	Maintenance and upgrade of Class V roads	Upgrade and reconstruction needed	Develop cost effective, equitable, fair maintenance process, through DPW Pavement Management Plan	Medium-High
<b>3</b>	Develop a Sidewalk Management Program	Plan for new sidewalks Maintain and repair existing	Participate in the Complete Streets Program and Transportation Alternatives funding program of DOT	Medium-High
<b>4</b>	Continue Rails to Trails from Webster Street to Peterborough town line	Enhancing some of the downtown paved portion. Extending to Old Sharon Rd. Extending to Peterborough town line	Continue efforts to secure funding possible low-level lighting will promote safe travel between businesses and shopping. Complete bridge requirements Enlist help from recreational clubs	Medium
<b>5</b>	Develop a GIS Inventory of Transportation Infrastructure	Complete GIS inventory of infrastructure (signs, culverts, bridges, sewer, waterlines, etc;) Ensure accurate base maps for planning purposes	Helpful for understanding municipal transportation inventory and more accurately estimate cost of repair, maintenance, and new construction  Will assist with gauging development projects and proposed projects	Medium

