

## TRANSPORTATION

### **Purpose and Vision:**

Transportation has an innate relationship with development. Where there are roads, railways or airports, development will follow. Because of this relationship, the Transportation Chapter of the Master Plan is a key chapter that offers a vision of what the community would like for transportation and how it relates to past trends and current conditions.

In 2006 the Master Plan was updated to include a Vision Chapter. Within the chapter, there were several statements which pertained to the existing and future transportation services of the community. The statements identified the concerns residents have with the increasing traffic volume, loss of rural character and sprawling development that is vehicle centric. These statements were translated into a single goal within the Vision Chapter, Goal 6, which is repeated in bulleted form below:

#### **The Planning Board seeks to secure a safe, well-designed, maintained and policed local street network suited to Fremont's character.**

- The Visioning sessions revealed several issues with the Town's road network. Issues that the Planning Board should review include:
  - traffic mitigation on NH RT 107
  - the safety of pedestrians with an emphasis on school children
  - the possibility of sidewalks within the Village District
- It is also the duty of the Planning Board to review and update the road specifications and maintenance schedules. These should be written and rigidly enforced to ensure that new streets are constructed, and existing roadways are rebuilt to suit anticipated levels of use.
- As an initial step the Town should develop an updated and concise inventory of its road network and a program to monitor increases in traffic volume.

### **ROADWAY NETWORK**

This section will detail the characteristics and functions of the existing roadway portion of Fremont's transportation network. First, the section will discuss the purpose and type of classification of the roadway system.

#### **State and Federal Roadway Classification**

New Hampshire State law adopted in the 1940s serves as the basis for the State Road System Classification that is still in use today. This classification scheme has eight categories of public roads; each roadway is grouped based on the role of the roadway as well as on the entity responsible for its maintenance. Fremont is served by State-classified Class I, II, V and VI roadways, as shown in **Table 1** and **Map 1**.

**TABLE 1: ROAD MILEAGE BY  
STATE CLASSIFICATION**

<b>STATE CLASS</b>	<b>2008</b>
Class I (State-maintained)	4.73
Class II (State-maintained)	3.42
Class III (Recreational Roads)	0
Class V (Town-maintained)	36.87
Class VI (Non-maintained)	5.86
Private Roads	3.52
<b>TOTAL</b>	<b>54.30</b>

Class I roads are State-maintained trunk line or primary highways. In Fremont, the Class I road is Main Street (NH 107). Class II roads are State-maintained secondary highways and these consist of Brentwood Road (NH 111A), Danville Road (NH 111A) and a portion of Beede Hill Road, from NH 107 continuing north to the intersection with North Road. According to the NH DOT roads database, the portion of Beede Hill Road from the Piscassic River to the North Road intersection is Class II, but not State maintained. Class III roads, otherwise known as Recreational Roads, are roadways that lead to or are within State Reservations designated by the Legislature. These roadways are owned and maintained by the State of New Hampshire. Fremont has no Class III roads. The most predominant class of road in Fremont is Class V, or Town owned and maintained roads. In Fremont this

represents the largest percentage of the Town's roadway network (roughly 57.5% of mileage). These roads make up the bulk of Fremont roadways such as North Road, South Road, Scribner Road, and many others. New residential subdivision streets that are turned over to the Town become Class V roads once they are accepted by the governing body.

Class VI roads are non-maintained roadways belonging to the Town. All other existing public ways including all highways discontinued as open highways and made subject to gates and bars, and all highways which have not been maintained and repaired by the Town in suitable condition for travel thereon for five (5) successive years or more. There are five (5) Class VI Roads in Fremont that have been closed, subject to gates and bars:

- (1) Shirkin Road; closed by Town vote (Raymond and Fremont) in 1935.
- (2) Paradise Drive; originally the southwest branch of Shirkin Road, closed by Town vote in 1935.
- (3) Loon Way; originally the western branch of Shirkin Road, closed by Town vote in 1935.
- (4) Squire Road; originally part of Shirkin Road, closed by Town vote in 1935.
- (5) Old Ridge Road; was closed in 1928 from 113 Old Ridge Road to Tavern Road (formerly Ridge Road); in 1985 500 feet of the closed road was reopened to 135 Old Ridge Road, Tavern Road from 144 Tavern Road to its' intersect with Meeting House Road and Meeting House Road from this intersect south to Poplin Drive.

In addition to these roads that were closed by Town vote Fremont has two (2) roads that are not town-maintained. These include Tavern Road from 144 Tavern Road to its' intersect with Meeting House Road and Meeting House Road from this intersect south to Poplin Drive. While the portions of these roads are not travel-able; there are no indications that they have been formally closed to "gates and bars". It has been the practice with the Town of Fremont that no development building or improvements are allowed on these Class VI roads or the unmaintained portions noted above without Board of Selectmen review and approval.

Class VI Roads have serious implications for future development. According to RSA 674:41, development cannot occur on a lot whose access is a Class VI highway unless the local governing body votes to authorize it, and, even then, only if the owner records a statement in the registry of deeds which says the Town is not responsible for maintaining the road or is liable for damages from its use.

New Hampshire case law has all but explicitly said that a landowner who wishes to substantially increase the value of his land (along a Class VI highway) and will likely substantially increase the amount of traffic on the road and the need for municipal services, he will probably not be permitted to do so without bringing the road up to Class V status.

Currently, the Fremont Zoning Ordinance states that all newly created lots must have at least two hundred (200) feet of frontage on a federal, state or Town highway. The ordinance is silent on the issue of developing land abutting a Class VI highway; it could be interpreted that a Class VI highway, being a Town road, could be developed. This issue should be clearly spelled out within the Zoning Ordinance. The current practice in Fremont is that for all development (building) upon properties located on Class VI road requires approval of the Board of Selectmen.

### **Unpaved Roads**

Fremont has several unpaved (dirt) road that serve the Town. These roads are private in some cases but Town maintained, and therefore class V, in others. The private unpaved roads include: Gates Lane, LeBlanc Road, and Pollinger Road. The Town maintained unpaved roads are: Kelly Lane, a short section of Squire Road off of Beede Hill Road and eight hundred (800) feet of Tavern Road. The Class VI roads in Fremont are also not paved.

### **Private Roads**

Fremont has paved private roads that service the mobile home communities in Town. These roads include: Christopher Lane, James Road, Country Lane and Georges Lane in Countryside Estates. In the private roads include Tarah Way and Linda Lane. Fremont contains some private roads that are approved but not constructed. In the Governor's Forest, Sharon Way is approved but not constructed. Black Rocks Village (Approved one hundred and twelve (112) unit age-restricted housing) contains approved but not constructed private roads: Fuller Way, Hall Road, Chase Road, Hoyt Way and Gordon Lane.

### **Paper Roads**

Paper roads for the purpose of this document are roads that are approved on subdivision or site plans that are not constructed yet. These roads differ from the roads in the preceding paragraph because it is the intent of the builder that these roads become Town accepted roads at some point. Currently, LeBlanc Road and the connecting roads and cul-de-sacs on Copp Drive and Gristmill Road and Cross Road (connecting the two) would be considered paper roads.

## **SCENIC ROADS**

In an effort to preserve the scenic character of a community's more rural roads, many municipalities have made use of RSA 231 to designate "scenic roads". Such a designation must occur at an annual or special Town meeting.

In terms of utilizing the land on either side of a designated scenic road, the RSA has the following effect: stonewalls and trees having a circumference of fifteen (15) inches or more at a point four (4) feet from the ground cannot be removed or altered without the consent of the Planning Board, unless they are within three (3) feet of the traveled surface and interfere with public safety. The Road Agent may, in emergency circumstances, cut and remove trees with only the permission of the Board of Selectmen.

Scenic road designation does not preclude the paving or widening of the road, nor does it necessarily limit the development potential of abutting property. Thus far, North Road is the only highway in Fremont to obtain scenic road designation.

## **BONDING**

Bonding of roads is an issue that needs to be addressed in the Fremont Regulations. Below is a bulleted summary of the road bonding requirements for the excavation, site plan review and subdivision regulations. These requirements should be reviewed by the Planning Board and set of regulations, consistent across the three set of regulations, should be drafted. The regulations should also be reviewed to determine if the roads near new gravel operations, subdivisions or development sites should be bonded as insurance from possible damage due to trucking the gravel from the excavation sites, or other road damage for large construction vehicles.

### **Gravel Regulations**

- prior to issuance of permit
- sufficient to guarantee compliance with restoration
- based on acreage of the project or approved phases
- include bonding for possible deterioration to Town roads
- released upon final site inspections
- cash escrow or irrevocable letter of credit
- bond shall not expire until eighteen (18) months after the end of the permit
- restoration within one year and/or Town may declare bond forfeited to reclaim the site

### **Site Plan Review Regulation**

- cover proposed improvements – to include landscaping, drainage, etc
- improvements to be completed within one (1) year of occupancy and/or within two (2) years of date of building permit released upon written consent of Planning Board

**Subdivision Regulation**

- cover cost of all related construction and. Site improvements
- time limitations on completion of the site shall be imposed
- cash escrow or irrevocable letter of credit releases subject to minimum amount of current cost PLUS twenty (20%) percent of original surety performance maintenance bond required for two (2) years after acceptance and in the amount of not less than ten (10%) percent and no more than twenty (20%) percent of improvement cost.

The Town of Fremont has a policy for the constructions of new roads that is 'Build it or Bond it'. After receiving approval from the Planning Board, a developer has the option of bonding the roadway improvements (as per Article IV Section 4-K of the Subdivision Regulations) and recording the approved plan at the Registry of Deeds. The other option a developer has is to build the road to Town specifications and not pull building permits until the road is complete and has received approval from the Town's engineer. This policy has lead to subdivisions roads that are slow to be completed and applicant returning to the Planning Board to request extensions to the plan's conditions of approval. The Planning Board should review it's procedures on road bonding and determine if it is in the Town's best interests to continue with the current policy or require all new roads to be bonded.

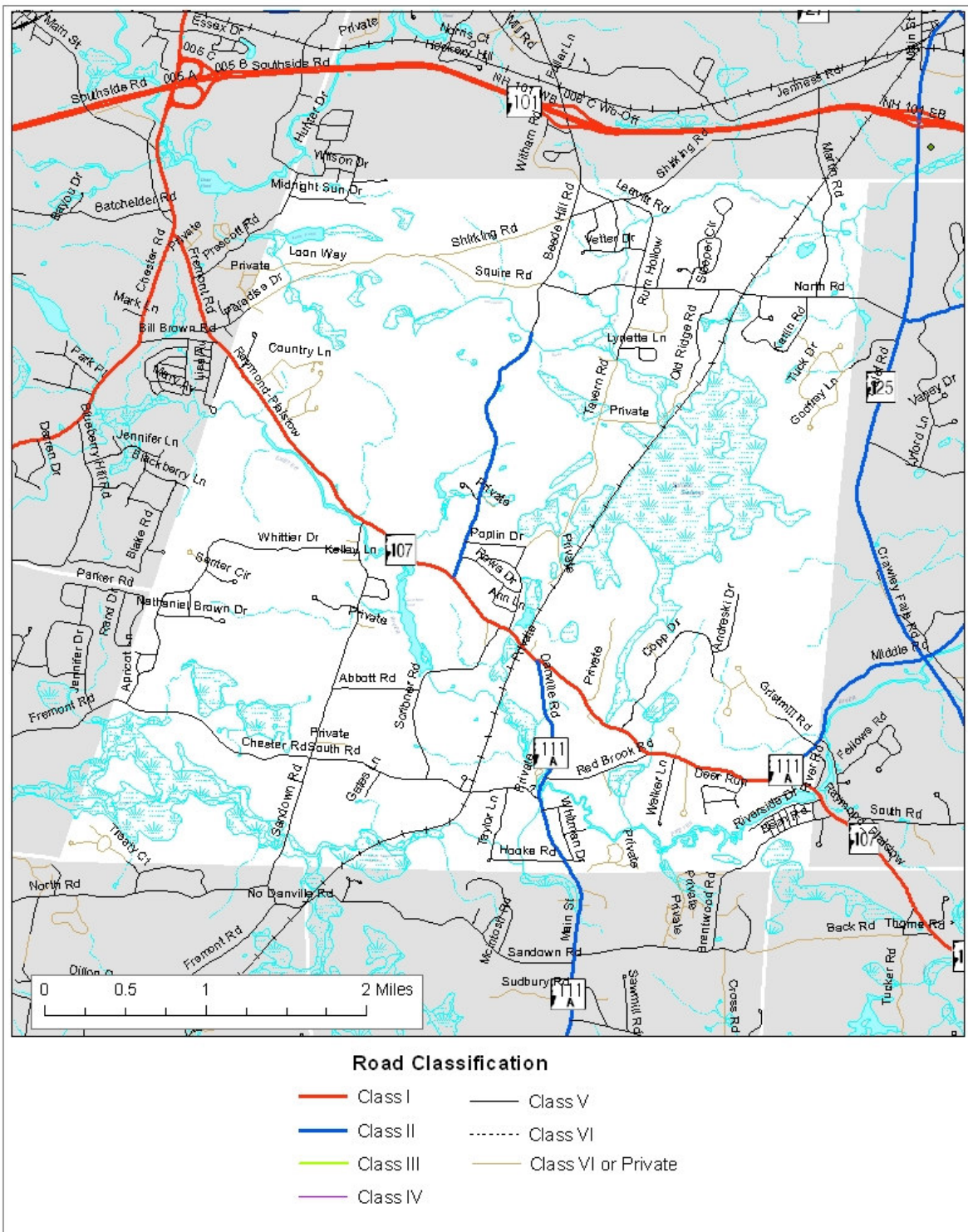
**THROUGH TRUCKING**

Pursuant to the authority conferred by New Hampshire Revised Statutes Annotated, Chapter 31:39, in order to promote the general welfare of the citizens of the Town of Fremont, an Ordinance was enacted to regulate through trucking on certain roads. These roads include:

- Abbott Road Bean Road
- Leavitt Road Martin Road
- North Road Scribner Road
- Whittier Drive

No through trucking is allowed on the above listed roads, except under one of the following conditions:

1. When the motor truck is being operated from point to point in Fremont for the purpose of local deliveries.
2. When the motor truck is being operated to a designated point in Fremont to make a delivery.
3. When the motor truck is being operated from a permanent base of operation in Fremont to a designated truck route.



**Map 1: Fremont Road Network**

## **ROADWAY CONDITIONS**

Roadways in Fremont are maintained on a cycle of one-half (1/2) to one (1) mile of resurfacing or rebuilding each year. Transportation planners have long held that sound roadway management involves rebuilding a road every twenty years. Once a roadway is built, it usually takes twenty years before it has deteriorated to the point of requiring reconstruction. For the past several years, the Fremont Highway Department has been allotted enough money to rebuild a half (1/2) mile of roadway per year, however, the department would need to rebuild two (2) miles of roadway per year in order to maintain the recommended twenty (20) year road reconstruction program. The yearly adoption of new subdivision roads will only exacerbate this problem.

Many Roads have been resurfaced or rebuilt in the past several years. A review of the Town Reports from 2000 through 2008 has been completed and the information is displayed in table 2 below.

**Table 2: Recent Roadway improvements**

<b>Road Name</b>	<b>Year of repair</b>	<b>Comments</b>
Birch Haven	2008	Resurfaced
Rock n' Pine	2008	Resurfaced
Pulaski Drive	2008	Resurfaced
Sandown Road	2008	Resurfaced from Rt. 107 to Whittier Drive
North Road	2007	Resurfaced from Karlin Road to the Brentwood Town line
Sandown Road	2007	Resurfaced from South Road to Boggs Bridge
South Road	2007	Resurfaced from Sandown Road to Gates Lane
North Road	2006	Resurfaced from Leavitt Road (Four Corners) to Old Ridge Road
North Road	2006	Resurfaced short section to the Brentwood Town Line
Shirkin Road	2006	Resurfaced a short section from the Epping Town line 400' into Fremont
Sawmill Lane	2005	Resurfaced
Barrell Run Road	2005	Resurfaced
Wildwood Drive	2005	Resurfaced
Tibbetts Road	2005	Rolled, graded, and paved 1,100 feet of previously unpaved road
Pine Street	2004	Paved with 3" of hot top (was this rebuilt in 2003 like the other 4?)
Pigeon Lane	2004	Paved with 3" of hot top
Bruce Avenue	2004	Paved with 3" of hot top
Shady Lane	2004	Paved with 3" of hot top
Beach Street	2004	Paved with 3" of hot top
Riverside Drive	2004	Resurfaced
Pigeon Lane	2003	Rebuilt, rolled and graded (not paved)
Bruce Avenue	2003	Rebuilt, rolled and graded (not paved)
Shady Lane	2003	Rebuilt, rolled and graded (not paved)
Beach Street	2003	Rebuilt, rolled and graded (not paved)
North Road	2002	Resurfaced from Beede Hill Road to Leavitt Road
Beede Hill Road	2002	Shim and hot top from NH DOT section to Shirkin Road
Vetter Drive	2002	Shim and hot top

Sunny Lane	2002	Grade and pave with 3" of hot top
Abbott Road	2002	Resurfaced
Tavern Road	2001	Resurfaced from North Road to Lynette Lane
Lynette Lane	2001	Paved to house number 105 (not in road agent report, was it done?)
Red Brook Road	2001	Resurfaced from Rt. 107 to Rt. 111A
Martin Road	2001	Resurfaced from North Road to the new section (?)
Scribner Road	2001	Resurfaced from House #55 to Abbott Road, and 1" wearing course from Abbott to South Road
Martin Road	2000	Shim and hot top 2"
Sandown Road	2000	Resurfaced with wearing course
Tibbetts Road	2000	Paved 800' in from Rt. 107 (previously dirt)
Prescott Road	2000	Resurface 1,105' concurrently with Raymond and Epping

The Road Agent of Fremont provided information about what roads were in need of repair, resurfacing (RS) or rebuilding (RB). Table 3 was generated from his response:

**Table 3: Road in need of resurfacing or rebuilding**

Road	RS	RB	Comments
Rogers Road	x	x	
Shirkin Road	x	x	starting at Leavitt Road and easterly to the Epping Line
Kelsey Drive	x		
Deer Run	x		
Walker Lane	x		
Shirkin Road	x		starting at Rogers Road and westerly to Beede Hill Road. Planned overlay for 2009 budget year but defeated by vote at Town Meeting
Hooke Road	x		
Ann Lane	x		
Rowe Drive	x		
Louise Lane	x		
Meetinghouse Road	x		
Whittier Drive	x		portions of the roadway totally approximately one thousand (1000) feet
Leavitt Road	x	x	starting at North Road and northerly to Vetter Drive
Bean Road	x		
Old Ridge Road	x	x	Currently dirt road in its' entirety and would need base and top coat with some reconstruction
Kelly Lane	x	x	Currently dirt road in its' entirety and would need base and top coat with some reconstruction
Tavern Road	x	x	Currently dirt road at the end with eight hundred (800) feet unpaved and without a proper cul-de-sac and would need base and top coat with some reconstruction
Squire Road	x	x	Currently class VI dirt road with development for approximately three hundred (300) feet unpaved and without a proper cul-de-sac and would need base and top coat with some reconstruction
Leblanc Road			Currently private road with an active subdivision approval requiring owner/applicant to bring road to Town specifications which would include construction, paving, and a proper cul-de-sac
Andreski Drive	x	x	Cul-de-sac currently dirt and would need base and top coat with some reconstruction



It could prove valuable to the Town if a Road Surface Management Plan (RSMP) were created. An RSMP is essentially a computerized inventory of the local road network, identifying such relevant factors as existing road width, surface conditions and design capacities. This could also house data on when the last roadwork was completed on each road, what that improvement was, and when future improvements should be required. The first step of this plan could be a GIS (Geographic Information System) mapped version of Table 2 above. The data in the GIS could be used to determine how much roadway is being improved in each year, and provide a visual representation of the work completed over the last several years. Intersection concerns as identified below could also be incorporated into the plan.

### **INTERSECTION CONDITIONS**

There are currently five intersection of concern in Fremont:

- Leavitt & Shirkin
- Rogers & Shirkin
- Rogers & Beede Hill Road
- Red Brook Road & Route 107/Main Street
- Abbott and Scribner

The first four (4) of these intersections have a similar problem that the angles of the intersections are not near ninety (90) degrees. To improve safety and functionality these intersections should be rebuilt to intersect closer to ninety (90) degrees. Rogers Road is listed as a road in need of reconstruction in Table 3 above. During the reconstruction the intersections with Shirkin and Beede Hill Roads could be improved. These intersections are also in close proximity to the intersection of Leavitt and Shirkin Roads and a project that could repair all of the issues for Rogers Road and the three (3) intersections would be possible. The last of these four (4) intersections is the intersection of Red Brook Road and Route 107/ Main Street. There is currently no timeline to address this issue.

The intersection of Abbott and Scribner (hill/incline) Roads is a known poor intersection but it not likely that it becomes a project of concern in the near term as to the limit options available for reconstruction or improvement of the situation.

### **FLOODING AND DRAINAGE ISSUES**

During the spring of 2006 and 2007 Southern New Hampshire experienced several large rainstorms. The Mother's Day Flood of 2006 was particularly damaging to several roads in Fremont. Scribner Road at Turner's Dam was virtually destroyed by flooding and has hence been rebuilt. Other roadway flooding occurred on Main Street near Fuller's Way, on Main Street where it crosses Red Brook, on Red Brook Road near the intersection with Main Street, and at the gravel pit across from the beginning of Red Brook Road, at the intersection of Beede Hill

Road and Main Street (in front of the Fremont Historical Museum), and on Main Street near the intersection with Louise Lane. The Sandown Road Bridge (Boggs Bridge) was also impassible due to flooding from the Exeter River. The Bridge on Route 111A near the old campground was also flooded. Extensive flooding occurred on and near Tibbetts Road including submerging portions of the homes on Tibbetts Road and flooding across Route 107 near the intersection with Tibbetts Road. These areas of Flooding were documented by the Fremont Building Official.

The Road Agent recommended that a flooding issue be addressed at the stream crossing on Sandown Road in the vicinity of Victoria Farms Road. This existing built-up box culvert is too small and needs to be repaired/replaced for its entirety across Sandown Road.

Certainly a Town-wide drainage ditch maintenance effort would benefit Fremont, as well as a review of the drainage, stormwater runoff and erosion control provisions of the Town's Subdivision Regulations and Site Plan Review Regulations.

The use of heavy trucks has also become a problem for Fremont's road network. Due to the large amount of stratified drift material within Fremont, there are a number of active and abandoned gravel excavation operations scattered throughout Town. The heavy trucks associated with these pits can cause a strain on the local road network during the spring months when the water content of the soil is at its greatest, thus making the roads more vulnerable to damage. The Town has the ability to enact regulations on through trucking during seasonally wet periods. This will be discussed further in the recommendations section.

The Town should review the existing stormwater regulations to determine if they are adequate, and providing a safe and effective road network that is free from flooding issues to the furthest extent possible. This might include review of the storm events that are used to calculate the required drainage for new developments, determining if the amount of onsite infiltration provided by new development is enough or are flooding problems being exacerbated, and/or exploring new techniques and technologies that reduce the amount of impervious surfaces at new developments therefore reducing the amount of stormwater runoff.

## **FINANCING ROAD IMPROVEMENTS**

### **Funding Sources**

The Town of Fremont's road network is eligible to receive four forms of financing made available by the Federal and State governments:

#### **1. State**

##### **State Aid Construction Funds:**

They are provided for improvement of uncompleted sections of state secondary, Class II highways. The ratio of state to Town matching funds is based on the assessed valuation of the municipality and varies from a 2 to 1 ratio in small towns to a 1 to 1 ratio in the large municipalities. Application must be made to the Administrator, Bureau of Municipal Highways by May 1<sup>st</sup> of each year, but preliminary discussions

about such projects should begin well in advance of this date (RSA 235).

#### State Aid Reconstruction Funds

They are available for improvement of completed sections of state secondary, Class II highways when the Town or city wishes to advance the priority of construction for special types of work such as improved drainage, riding surface or elimination of sharp curves. The matching ratio is the same as for State Aid Construction Funds and application is made in the same manner (RSA 235).

## 2. Federal

#### Highway Block Grant Aid Funds

They are apportioned to all cities and towns on a yearly basis for the construction, reconstruction, and maintenance of Class IV and V highways on the following basis:

Apportionment A. These funds are allocated from an annual apportionment of not less than twelve (12%) percent of the total highway revenues collected the preceding fiscal year. The amount distributed is based on one-half (1/2) mileage and one-half (1/2) population as the City/Town factors bear to the state total.

Apportionment B. These funds are allocated from an annual apportionment of four hundred thousand (\$400,000) dollars; the amount available to towns is based on a formula using equalized valuation and Class V mileage designed to give the greatest benefit to the low valuation towns with high road mileage.

Block Grant Aid payments are made as follows: thirty (30) percent in July; thirty (30) percent in October; twenty (20) percent in January; and twenty (20) percent in April. Unused balances may be carried over to the following municipal fiscal year (RSA 235.)

#### Federal Bridge Replacement Funds

Federal Aid Bridge Replacement Funds are available for replacement or rehabilitation of Town bridges over twenty (20) feet in length. Bridge Aid funds may be used for matching these funds. Application is made to the Administrator, Bureau of Municipal Highways in the same manner as aid under the Bridge Aid Program.

### **LOCAL FUNDING**

One of the biggest issues facing transportation planning on a local level is a lack of any additional local resources to make improvements to the system within a community. There are however, a number of options for communities to raise funds that can be used to perform maintenance or improvement work and to provide local matching funds for the variety of State or Federal programs.

**Local Property Taxes:** Each Town and city in NH is required by law (RSA 231:57) to raise and appropriate an amount that equals at least one-quarter of 1% of its total tax valuation for repair of highways and bridges. This appropriation is capped a fifty (\$50) dollar per mile of Class IV or Class V road. So for example a Town with fifty (50) miles of class V road can appropriate twenty five hundred (\$2,500) dollars for road repair. Additionally, through a Town Warrant Article or the Capital Investment Program (CIP), the community can raise additional funds to specifically fund a transportation project or group of projects.

**Local Option Fee For Transportation:** Is one means of generating funding via local vehicle registration fees. A New Hampshire law passed in 1998, commonly referred to as HB 648, allows a municipality to collect an additional motor vehicle registration fee of up to five (\$5.00) dollars for the purpose of supporting a municipal transportation improvement fund. Of the amount collected, up to ten (10) percent, but not more than fifty (50) cents of each fee paid, may be retained for administrative costs. The remaining amount will be deposited into the municipal transportation improvement fund to fund improvements in the local or regional transportation system including roads, bridges, bicycle and pedestrian facilities, parking and intermodal facilities and public transportation. This money can be used for any transportation related purpose.

In 2008 fifty two hundred and seventy (5,270) cars were registered in Fremont. If the local option fee had been in place twenty six thousand, three hundred and fifty (\$26,350) dollars would have been collected for use on local transportation projects.

**Impact Fees and Developer Exactions:** Municipalities may utilize impact fees on developments or require off-site improvements as a condition of site approval, as long as the required improvements are reasonably related to the proposed development. These fees/exactions need to be proportional to the impact of a proposed development on the community and are increasingly being relied upon by communities in the region to get needed system improvements completed quickly.

## **STATE AND REGIONAL TRANSPORTATION PLANS**

### **Rockingham MPO- Plans**

In 2007, there was a realignment of the Seacoast Metropolitan Planning Organization and the Salem/Plaistow MPO, to create one MPO for all of the communities in the Rockingham Planning Commission, including Fremont. The new Rockingham MPO is in charge of compiling a list of Long Range Transportation projects recommended to be completed within twenty five (25) years. From the Long Range Transportation Plan, a four (4) year Transportation Improvement Program (TIP) is developed. The TIP is used to help NHDOT and the Governor's Advisory Council on Intermodal Transportation (GACIT) who develop a statewide TIP.

Fremont currently has only two projects on the Long Range Transportation Plan. Both of the projects are "Red List" bridges that need to be repaired or rebuilt: Martin Road over the Piscassic River and Scribner Road over the Exeter River.

The NH DOT Highway safety improvement program currently has two (2) projects that affect Fremont. The Plan calls for constructing traffic signals at the intersections of Route 111A and Route 125, and North Road and Route 125. These projects are proposed to begin in the summer of 2009.

### **COMMUTING PATTERNS**

Fremont Commuting patterns are tracked during the 2000 Census. This data provides two useful pieces of transportation planning information: where Fremont residents are commuting and what mode of transportation Fremont commuters take. The top twenty (20) destinations for Fremont commuters are shown in Table 4.

**Table 4: Fremont commuter destinations, source 2000 census**

	Destination Town	Count
1	Fremont Town Rockingham Co. NH	181
2	Exeter Town Rockingham Co. NH	101
3	Haverhill City Essex Co. MA	98
4	Andover Town Essex Co. MA	88
5	Manchester city Hillsborough Co. NH	85
6	Salem Town Rockingham Co. NH	78
7	Brentwood Town Rockingham Co. NH	77
8	Hampton Town Rockingham Co. NH	71
9	Kingston Town Rockingham Co. NH	61
10	Portsmouth City Rockingham Co. NH	58
11	Boston city Suffolk Co. MA	56
12	Hampstead Town Rockingham Co. NH	54
13	Plaistow Town Rockingham Co. NH	54
14	Seabrook Town Rockingham Co. NH	50
15	Londonderry Town Rockingham Co. NH	49
16	Amesbury Town Essex Co. MA	46
17	Raymond Town Rockingham Co. NH	39
18	Lawrence City Essex Co. MA	37
19	Nashua city Hillsborough Co. NH	34
20	Stratham Town Rockingham Co. NH	34

These data are only the top twenty (20) destinations and only account for thirteen hundred and fifty one (1351) of the 1982 workers over sixteen (16) that were identified in Fremont in 2000. Without the data to determine where the other six hundred and thirty one (631) commuters travel, some patterns are still visible. The table shows that 13.4% (181/1351) of commuters stayed within Fremont, 24.1% commuters travel to Massachusetts, 23.25 of commuters travel to another community within Rockingham County, and 8.8% of commuters travel to Hillsborough County.

How Fremont residents choose to commute to work was also documented in Table 5.

**Table 5: Fremont Commuter modes, source 2000 census**

<b>Workers 16 years and over</b>	<b>1982</b>	<b>100%</b>
Car, Van or Truck- Drove Alone	1634	82.40%
Car, Van or Truck- Carpooled	284	14.30%
Public Transportation (including Taxi)	3	0.20%
Walked	20	1%
Other Means	6	0.30%
Worked at Home	35	1.80%

These data indicate that the vast majority of Fremont residents commute alone in a car, truck or van. This table also shows that there is little use of alternative modes of transportation including walking biking or public transportation, totaling less than two (2%) percent of the total commuters.

### **Public Transportation**

Fremont is a rural community and currently does not provide any regularly scheduled bus or other public transit service.

### **Demand-Response Service**

Fremont is served by Lamprey Health Care provides a weekly shopping run to Fremont, Raymond and Epping on Fridays. They also provide service for medical appointment on other days.

### **New Hampshire Rideshare Program**

NH Rideshare is a free commuter matching service provided by the NH Department of Transportation and dedicated to finding an alternative way for commuters to travel to and from work. Driving alone is not only expensive, but it also contributes to increased traffic congestion and air pollution. To help commuters cut costs and to reduce traffic congestion and air pollution, NH Rideshare uses Geographical Computer Matching to provide commuters with information and assistance about ridesharing and alternatives to the single occupancy vehicle including carpools, vanpools, buses, and trains. To save time, money, and the environment simply register with the NH Rideshare Program at <http://www.nhrideshare.com>.

### **Park and Ride**

Although not in Fremont, a park and ride lot is located south of the intersection of Route 125 and Route 101. This lot can be used to park your car and travel by carpool or vanpool. The lot has two hundred and forty six (246) spaces, has lights, bike racks and a public phone.

## **Pedestrian and Bicycle Travel**

### **Pedestrian Travel**

In the Seacoast of New Hampshire, pedestrian facilities vary considerably from community to community. Many of the rural communities have few if any sidewalks. In those communities, residents are compelled to use the roadway for foot travel. This is made somewhat safer when shoulder lanes are available for use. In general, the more rural communities in the region give pedestrian issues less consideration, with the exception of facilities for recreational use. Fremont is no exception to this, as there are virtually no sidewalks currently in the Town although there is a significant desire to construct some that can interconnect the school, library, and other community facilities.

Construction of sidewalks is not inexpensive, and many communities lack sidewalks because they lack adequate local funding to build them. Since 1991, Transportation Enhancement Funds have been used to construct sidewalks and other pedestrian facilities in many towns in the region.

### **Safe Routes to School**

The Safe Routes to School (SRTS) program is a nationwide effort encouraging children in kindergarten through eighth grade to walk or ride bikes to school. The N.H. Department of Transportation (NHDOT) is participating with support from the Federal Highway Administration under the Federal Transportation Bill, known as SAFETEA-LU. New Hampshire has been allocated one (1) million dollars per year for five (5) years, most of which will be used to reimburse one hundred (100) percent of local expenses for infrastructure and non-infrastructure projects. The advantages of SRTS are clear. Children who gain an appreciation of walking and biking are more likely to remain active and physically fit into adulthood. Encouraging children to walk or pedal will also reduce traffic congestion around schools and contribute to clean air and a healthier environment. The state SRTS coordinator collaborates with local schools, municipal and regional officials, parents, students and community groups to identify the best ways to encourage walking and biking. Working together, they identify any barriers to safe walking and biking and then find solutions.

It was identified during the visioning session that the Community would like there to be safer, walkable connections for use by the children of Fremont. This program may be an excellent first step in create sidewalk connects between the School, Library and Town fields. More information is available from John W. Corrigan, the coordinator of the N.H. Safe Routes to School Program.

E-mail: [jcorrigan@DOT.state.nh.us](mailto:jcorrigan@DOT.state.nh.us)

Website: <http://www.nh.gov/dot/org/projectdevelopment/planning/srts/index.htm>

The Town of Fremont is currently (summer, 2009) looking for volunteers to join a Safe Routes to School Task Force. The contact for this project is Mrs. Carol Foley ([cfoley@sau83.org](mailto:cfoley@sau83.org)), the Gifted and Talented Coordinator at the Ellis School.

## **Rockingham Recreation Trail**

In 1973, the Bureau of Trails was created as part of House Bill 10 and was originally known as the "Bureau of Off Highway Vehicles" which administered only to OHRV organizations. Since beginning in the early seventies, the Bureau's responsibilities have grown substantially and have kept in tune with the times. In 1993, the Bureau's name was changed to keep up with its variable responsibilities. Today, New Hampshire's Bureau of Trails administers trails on state and federal lands and assists organizations, municipalities and OHRV clubs with the development of trails on both public and private lands.

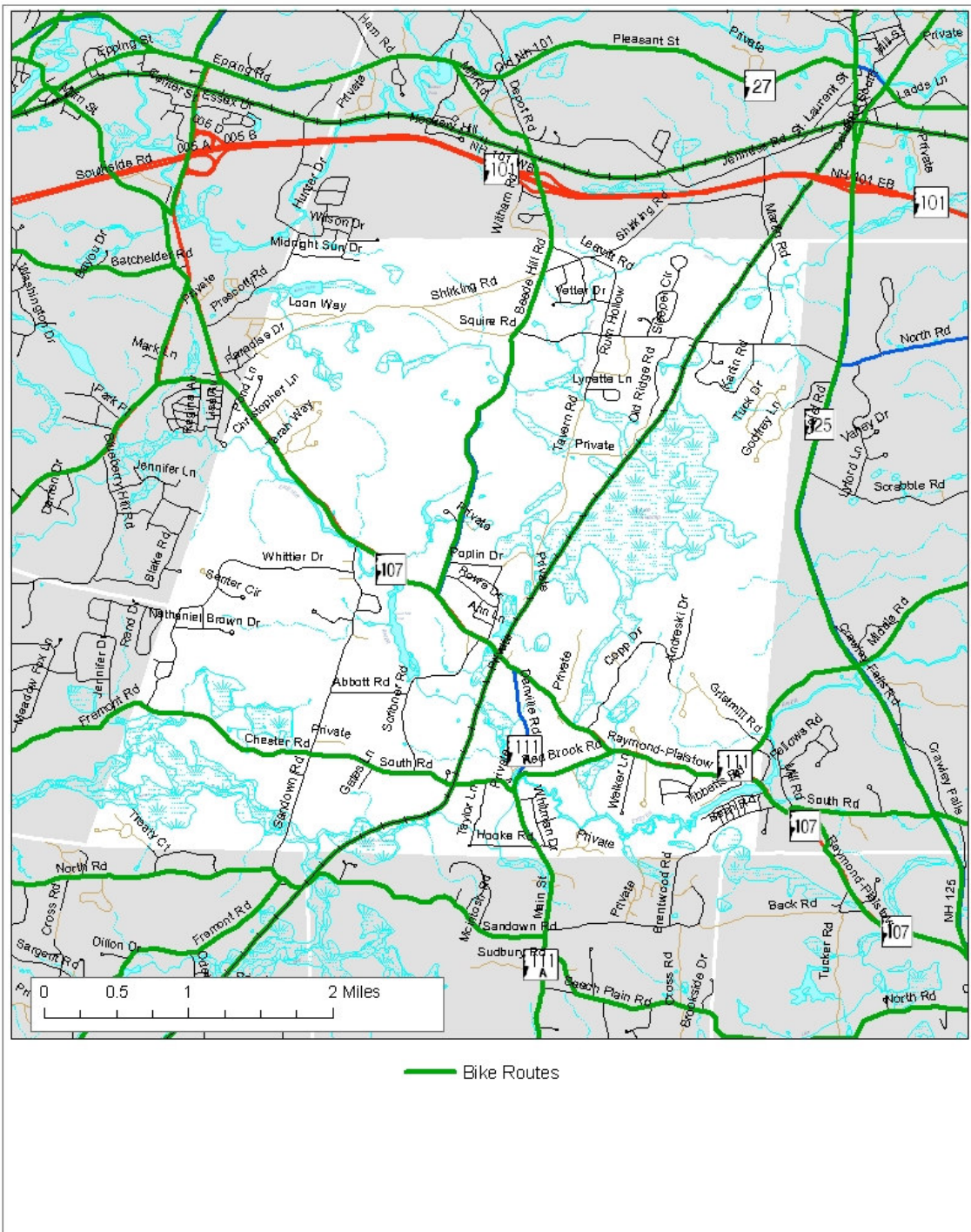
The Bureau manages nearly three hundred (300) miles of State-owned rail-to-trail conversions (which were purchased by the New Hampshire Department of Transportation). These "once active" rail lines are now being transformed into multi-use trails for year 'round recreational use, serving a myriad of trail interests. The Bureau of Trails also currently administers over two hundred and fifty (250) miles of ATV and trail bike trails on state, federal, and private lands in fourteen locations in the state. Incidentally, ATV/trail bike use on many of New Hampshire's snowmobile trails during the winter months is unique in the northeast.

In Fremont the recreation Trail follows the railroad bed for the old Boston and Maine line. The trail can be divided into two distinct portions: north and south of Route 107. To the north of Route 107 the Recreation Trail travels through Spruce Swamp, then crosses North Road and continues northeast, and out of Town into Epping. On this portion of the trail the following uses are allowed: pedestrians, horseback riding, cross-country skiing, biking, dogsled, and snowmobile. To the south of Route 107, the Recreation Trail allows the same uses listed above and the additionally ATV's and motor cycles are allowed.

## **Bicycle Travel**

There is significant bicycle transportation planning going on at the State and Regional Levels. In the spring of 2000, the NHDOT updated its Statewide Bicycle and Pedestrian Plan, an element of the State's Long Range Statewide Transportation Plan. One of the plans primary goals is to recognize, support and encourage bicycling and walking as alternatives to motorized forms of transportation. The state recognizes regional planning commissions and other agencies as important partners to assist meeting and carrying out this and other plan goals. The plan includes a "Statewide Bicycle Route System," which was adopted as the most suitable network of existing roads to serve the needs of inter-regional bicycle trips. Fremont has many roads that designated as part of the statewide bicycle route, and they are displayed in Map 2 below.





Map 2: State Bicycle Routes

## **Transportation Tools:**

The Planning Board has many tools at its disposal to deal with current and future transportation issues. Below are four (4) types of ordinances or regulations that can be adopted by the Planning Board or at Town Meeting, which can improve traffic and pedestrian safety throughout town.

### **Access Management**

Over the past few decades access management has emerged as a popular technique to address the conflicts between through traffic and traffic generated from development and is a major element of any transportation plan.

Access management is the local oversight of all means of vehicular access onto major transportation corridors in order to maintain the safety and efficiency of the thoroughway. For the Town of Fremont the access management tools described would be best suited for Route 107, though the efficacy of access management extends beyond busy transportation corridors. The goal of access management is to limit the number of conflict points (at driveways medians and intersections) along a transportation corridor.

The NH Department of Environmental Service, NH Office of Energy and Planning and the Regional Planning Commissions have worked on a model access management ordinance for communities to adopt. The ordinance was part of their work with the Regional Environmental Planning Program (REPP) to create a guidebook of innovative land use ordinances. It offers a summary of the concepts of access management and is a great resource for the Town of Fremont to use in developing an access management plan for Route 107 and other roads deemed to be important.

### **Traffic Calming**

As the traffic increases on the network of roads, there is an increase risk of accidents. To reduce the potential for these accidents, traffic calming techniques can be used to reduce the speed of the vehicles. Examples of traffic calming techniques include signage for crosswalks, bump-outs for crosswalks, speed bumps, creation of curves and narrowing of a road, median islands, etc... The Town has addressed the desires to increase pedestrian access as a mode of transportation. As the Town moves forward with these planning goals, traffic calming techniques should be used to create safe walk conditions for pedestrians.

### **Impact Fee**

Many communities across the country, including ones in New Hampshire, are utilizing road impact fees. These are fees collected from the developer to pay for part of the cost of infrastructure, in particular roads. The recent trend of shifting the burden to the private sector can be attributed to not only reduced federal assistance but also to the realization by municipal officials that new development is not paying its way, resulting in the burden being placed upon

the residents of a community instead. Under RSA 674:21, Innovative Land Use Control, municipalities are permitted to impose such fees. The right of municipalities to impose these fees was upheld by the NH Supreme Court in the case of *Caparco v. Town of Danville* and *Drowne v. Town of Sandown*. The opinion stressed the importance of the Town to conduct a thorough methodological study in determining the impact fee.

### Traffic Study

Traffic studies can be used to analyze the impacts development will have on existing road infrastructure. These studies are useful because they can determine what offsite improvements will be needed to accommodate the increase traffic caused by the development. By transferring this burden onto the developer, it helps to alleviate the burden the municipalities have to upgrade the roads. This strategy is becoming increasingly important as concerns for transportation funding grow at the NHDOT.

### Road Way Interconnections

The use of cul-de-sacs or loop roads with only one (1) outlet in many neighborhoods built in the past twenty (20) years forces residents to travel many blocks, or even miles, out of the way on the street to reach a destination that may be only a short distance away as the crow flies. Faced with this, residents will often choose to drive for a trip that could easily be accomplished on foot or bicycle if a path or a better-connected street system was in place. Potential strategies for addressing the connectivity problem include:

Require that streets in new subdivisions connect to adjacent subdivisions. Requiring interconnection of new streets with existing and planned future streets encourages people to walk or bicycle by providing a variety of route options. It limits the problem of having to take long circuitous routes to travel short distances as described above. Connected street networks are also important in that they provide multiple ways for emergency vehicles to reach a particular location, and multiple evacuation routes. Connected street systems also encourage slow, cautious driving in residential areas, as drivers encounter intersections with other traffic at frequent intervals. Fremont has no current requirement for road interconnections.

Set a maximum length for cul-de-sacs. Cul-de-sacs and other dead end streets, particularly long ones, hinder connectivity and should be avoided whenever possible. As described above they can require long circuitous trips to reach destinations that are nearby. To the extent that cul-de-sacs are permitted, local codes should limit their length and require dedication of right of way for eventual through streets for later connection. These rights of way can be used in the interim for paved public accessways so that pedestrians and cyclists do not need to take a long circuitous route to reach nearby destinations. These accessways can also be designed for emergency vehicle access but blocked at both ends with bollards or gates to prevent general automobile use. Fremont

currently has a requirement that cul-de-sacs be only eight hundred (800) feet long inclusive of the turnaround. But the Planning Board is allowed to increase the length to fifteen hundred (1500) feet if a “near future connection, as determined by the sufficient evidence presented to the Planning Board, may be possible”. This requirement has been waived in the past. The regulations should be reviewed to determine how new development can most appropriately be held to this standard.

## **RECOMMENDATIONS**

1. The Town should encourage developers to minimize their impacts on the existing road network through the use of interconnected interior subdivision roads.
2. The Town should encourage developers to minimize their impacts on the existing road network through the use of Open Space Conservation Developments. The Town of Fremont recently adopted Open Space Conservation Developments as an allowed use, but as of the drafting of this chapter update the Ordinance has not been used.
3. The Planning Board should require traffic impact studies for large-scale development projects as a matter of course. Currently the Planning Board may ask for a traffic impact study for site plans if it is “deemed necessary by the Board due to size, location or traffic-generating characteristics of the proposal.” In the Subdivision Regulations the Planning Board may ask for “estimates of traffic generation” in order to properly evaluate a subdivision plan. The Town should review its current site plan review regulations and consider adding specific triggers for traffic impact studies, and traffic impact study requirements and triggers for subdivision applications.
4. Regarding new and renewed excavation operations, new subdivisions and site plans, the Town should review its existing regulatory framework to ensure that the bonding provisions are adequate, and the concerns of road damage, erosion control and stormwater management are factored into bond estimates. Town
5. The Planning Board should conduct a review of the drainage, stormwater runoff and erosion control provisions of the Town's Subdivision Regulations and Site Plan Review Regulations to make sure that they reflect current best management practices.
6. The Town should develop a long-range plan for establishing and maintaining proper drainage swales and culverts along existing Town roads to alleviate flooding and erosion problems.
7. The Board of Selectmen should actively enforce RSA 47:17, which empowers local communities to "...make special regulations as to the use of vehicles upon particular highways, except as to speed, and to exclude such vehicles altogether from certain ways; to establish stop intersections, erect and provide for the control of traffic by, stop signs or

other traffic devices or signals...".

This allows the Town to adopt ordinances which restrict vehicles above certain weights (to be determined by the Town's road agent or engineering consultant) from designated roadways during seasonally wet periods of the year. The Town should evaluate its road system and the operations which use the system for heavy trucking to determine what load limits would be appropriate for certain roads. Once the roads are posted, the Town should make the effort to enforce the load limits.

8. The Town should maintain an up-to-date Capital Improvements Plan (CIP) which addresses the public safety problems created by Fremont's: dirt and/or otherwise substandard roadways, intersections of concern and draining and flooding issues. These roadways and intersections are listed in the body of this chapter and are summarized here as being:

*Dirt or Substandard Roads:*

- Old Ridge Road,
- Tavern Road (approximately eight hundred (800) feet)
- Squire Road (less than four hundred (400) feet)
- Gates Lane
- LeBlanc Road
- Kelley Lane

*Intersects of Concern:*

- Leavitt & Shirkin
- Rogers & Shirkin
- Rogers & Beede Hill Road
- Red Brook Road & NH 107/Main Street
- Abbott and Scribner

*Drainage and Flooding Issues:*

- Main Street near Fuller's Way
- Main Street where it crosses Red Brook
- Red Brook Road near the intersection with Route 107/Main Street
- Gravel pit across from the northeast intersection of Red Brook Road and Route 107
- The intersection of Beede Hill Road and Route 107/Main Street (in front of the Fremont Historical Museum)
- Main Street near the intersection with Louise Lane
- Boggs Bridge on Sandown Road near the Fremont/Sandown Town line and The Bridge on Route 111A near the old campground were impassible due to flooding from the Exeter River during the Mother's Day floods

- Extensive flooding has occurred on and near Tibbetts road including submerging portions of the homes on Tibbetts Road
  - Flooding across Route 107 near the intersection with Tibbetts.
  - Stream crossing on Sandown Road
  - Box culvert in the vicinity of Victoria Farms Road is too small and needs to be repaired/replaced for its entirety across Sandown Road.
9. The Town's Zoning Ordinance should be revised to clearly spell out the Town's policy regarding development of land along Class VI highways. The Fremont subdivision regulations clarifies this intent by further stating that all subdivisions must provide for frontage and access on a minimum of Class V roadway; and the current practice in Fremont is that for all development (building) upon properties located on Class VI road requires approval of the Board of Selectmen.
  10. The Town should initiate a Road Surface Management Plan (RSMP) which is essentially a computerized inventory of the local road network, identifying such relevant factors as existing road width, surface conditions and design capacities. This document can provide a starting place for this plan if the Planning Board maintains Tables 2 and 3, which track roadway improvements and needed improvements, and appendix A the table of existing roadways.
  11. Create regulations or propose ordinance changes that will result in a safer traffic flow on Rt. 107, for vehicles and pedestrians. This goal is called out in the vision section of the Master Plan and repeated in the Purpose and Vision section of this chapter.
  12. Develop a plan to make pedestrian travel safer, with an emphasis on school children walking to and from school. This may include proposing sidewalks between destinations such as the school, library, and Town fields. This goal is called out in the vision section of the Master Plan and repeated in the Purpose and Vision section of this chapter.
  13. Evaluate other roads in Fremont to determine if any warrant pursuit as scenic roads.
  14. The Town should develop a map of roadway interconnections that they would like to see as the existing road network is expanded. The subdivision regulations already require that the “arrangement and character of all streets conform to the Master Plan, and shall compose a safe and convenient system in relation to the other existing and planned streets...”

Appendix A: Fremont Roads

STREET	Length (miles)	Length (Feet)	Function Class	System Class	SC Legend	Leg. Class	Route Number	Maintenance	Surface Type	Pave Width	Access Con.	Lanes	Lane Width	Shoulder Type	Shoulder width R	Shoulder width L	Median Type	Median Width
Abbott Rd	0.55	2845	9	55	Local	V		Local	2	16	3	2	8	1	0	0	4	0
Andreski Dr	0.43	2283	9	55	Local	V		Local	2	24	3	2	12	1	0	0	4	0
Ann Ln	0.28	1496	9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Apricot Ln	0.14	710	9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Barrell Run	0.30	1565	19	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Beach St	0.12	629	9	55	Local	V		Local	1	14	3	2	7	1	0	0	4	0
Bean Rd	0.57	2988	9	55	Local	V		Local	1,2	6-18	3	1,2	6-9	1	0	0	4	0
Beede Hill Rd (local)	1.00	5288	9,19	25, 55	Local	II, V		Local	2,4	20-22	3		10-11	1,5	0-2	0-2	4	0
Beede Hill Rd (State)	1.69	8897	9	22	State/Local			District	4	20	3		10	5	2	2	4	0
Birch Haven Rd	0.10	531	9	55	Local	V		Local	2	24	3	2	12	1	0	0	4	0
Blue Fish Dr	0.22	1179	9	55	Local	V		Local	4	24	3	2	12	5	3	3	4	0
Brentwood Rd	0.33	1709	7	22	State	II	111A	District	4	24	3	2	12	5	2	2	4	0
Brown Brook Cir	0.48	2552	9	55	Local	V		Local	4	24	3	2	12	5	2	2	4	0
Bruce Av	0.10	532	9	55	Local	V		Local	1	10	3	1	10	1	0	0	4	0
Cavil Mill Rd	0.38	2026	9	55	Local	V		Local				2	12	5	2	2	4	0
Chester Rd	1.32	6975	9	55	Local	V		Local				2	9	1	0	0	4	0
Christopher Ln	0.26	1356	0	0	Private	0		Other	3	28	3	2	12	1	0	0	4	0
Clough Crossing	0.08	447	9	55	Local	V		Local				2	10	1	0	0	4	0
Clough Crossing	0.20	1053	0	0	Private	0		Other	1	12	3	2	6	1	0	0	4	0
Cooper Dr	0.14	731	9	55	Local	V		Local				2	12	1	0	0	4	0
Copp Dr	1.58	8327	0,9	0, 55	Private/Local	V		Local				2	12	1	0	0	4	0
Country Ln	0.31	1644	0	0	Private	0		Other	3	24	3	2	12	1	0	0	4	0
Cross St	0.28	1452	0	0	Private	0		Other	1	0	0	2	0	0	0	0	4	0
Dakota Dr	0.23	1223	0	56	Local	V		Local	3	24	3	2	12	3	2	2	4	0
Danville Rd	1.40	7348	8	22	State	II		District	4	24	3	2	12	5, 6	4	2-4	4	0
Deer Run	0.41	2148	9	55	Local	V		Local					12	1	0	0	4	0
Dexter Ct	0.15	806	0	56	Local	V		Local	3	24	3	2	12	1	0	0	4	0
Emerson Dr	0.14	755	9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Folsom Meadow	0.42	2233	0	0	Private	0		Other	1	12	3	2	6	1	0	0	4	0
Frost Lane	0.00	0	0	0	Private	0			0	0	0	0	0	0	0	0	0	0
Fuller Way	0.00	0	0	0		Bnd							0	0	0	0	0	0
Gates Ln	0.19	969	9	55	Local	V		Local	1	14	3	2	7	1	0	0	4	0
Georges Ln	0.09	497	0	0	Private	0		Other	3	24	3	2	12	1	0	0	4	0
Godfrey Ln	0.52	2752	0	56	Local	V		Local	3	24	3	2	12	1	0	0	4	0
Grapevine Dr	0.14	737	9	55	Local	V		Local					12	1	0	0	4	0
Gristmill Rd	0.62	3239	0,9	0, 55	Private/Local	V		Local					0, 12	1, 3	0	0	4	0
Hawthorne Dr	0.11	581	9	55	Local	V		Local					12	1	0	0	4	0
Hooke Rd	0.51	2694	9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Ingalls Ln	0.20	1064	0	56	Local	V		Local	3	24	3	2	12	1	0	0	4	0
Jackie Bernier Dr	0.15	784	0	0	Local	V		Other	1	26	3	2	13	1	0	0	4	0

STREET	Length (miles)	Length (Feet)	Function Class	System Class	SC Legend	Leg. Class	Route Number	Maintenance	Surface Type	Pave Width	Access Con.	Lanes	Lane Width	Shoulder Type	Shoulder width R	Shoulder width L	Median Type	Median Width
Jacob's Cove	0.12	628	0	0	Private	0		Other	1	10	3	1	10	1	0	0	4	0
James Rd	0.15	767	0	0	Private	0		Other	3	28	3	2	12	1	0	0	4	0
Karlin Rd	0.99	5196	9	55	Local	V		Local	4	24	1	2	12	5	2	2	4	0
Kelley Ln	0.11	593	0	0	Local	V		Other	1	8	3	1	8	1	0	0	4	0
Kelsey Dr	0.29	1523	9	55	Local	V		Local	4	26	3	2	12	1	0	0	4	0
Kenniston Ln	0.17	909	0	0	Local	V		Local	3	0	0	0	0	0	0	0	4	0
Kimball Way	0.00	0	0	0	Private	0			0	0	0	0	0	0	0	0	0	0
Kingman Ct	0.20	1057	0	56	Local	V		Local	3	24	3	2	12	1	0	0	4	0
Kristen's Landing Rd	0.06	311	9	55	Local	V		Local	4	26	3	2	12	1	0	0	4	0
Leavitt Rd	0.67	3497	19	55	Local	V		Local	2	16	3	2	8	1	0	0	4	0
LeBlanc Road	0.10	537	0	0	Private	0		Other	1	12	3	2	6	1	0	0	4	0
Linda Ln	0.29	1541	0	0	Private	0		Other	3	0	3	0	0	0	0	0	4	0
Loon Way	0.49	2573	0	56	Not Maintained	VI		Other	1	6	3	1	6	1	0	0	4	0
Louise Ln	0.16	843	9	55	Local	V		Local	2	24	3	2	12	1	0	0	4	0
Lyford Dr	0.16	837	9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Lynette Ln	0.45	2398	9	55	Local	V		Local	4	24	3	2	12	5	2	2	4	0
Martin Rd	0.75	3962	9	55	Local	V		Local	2	16	3	2	8	1	0	0	4	0
Meeting House Rd	0.41	2149	0, 9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Merrill Ln	0.16	843	9	55	Local	V		Local	2	24	3	2	12	1	0	0	4	0
Middle Rd	0.10	508	9	55	Local	V		Local	1	12	3	2	6	1	0	0	4	0
Midnight Sun Dr	0.35	2437	9, 19	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Mill Rd	0.04	194	9	55	Local	V		Local	2	16	3	2	8	1	0	0	4	0
Moose Meadow	0.00	0	0	0	Local	V		Local	0	0	0	0	0	0	0	0	0	0
Nathaniel Brown Dr	0.49	2571	9	55	Local	V		Local	2	24	3	2	12	1	0	0	4	0
North Rd	1.98	10404	9, 19	55	Local	V		Local	2	18	3	2	8-9	1	0	0	4	0
Old Ridge Rd	0.63	3306	9	55	Local	V		Local	1	18	3	2	9	1	0	0	4	0
Old Ridge Road	0.73	3833	0	0	Not Maintained	VI		Other	1	10	3	1	10	1	0	0	4	0
Paradise Dr	0.62	3256	0	56	Not Maintained	VI		Other	1	6	3	1	6	1	0	0	4	0
Pidgeon Rd	0.13	654	9	55	Local	V		Local	1	14	3	2	7	1	0	0	4	0
Pine St	0.13	664	9	55	Local	V		Local	1	14	3	2	7	1	0	0	4	0
Pollinger Rd	0.08	421	0	0	Private	0		Other	1	6	3	1	6	1	0	0	4	0
Pond Ln	0.31	1620	9	55	Local	V		Local	2	20	3	2	10	1	0	0	4	0
Poplin Dr	0.38	1983	9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Pulaski Dr	0.14	724	9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Raymond-Plaistow	4.73	24798	7	11	State	I	107	District	4	22	3	2	11	2	3	3	4	0
Red Brook Rd	0.68	3593	9	55	Local	V		Local	2	20	3	2	10	1	0	0	4	0
Rislove Way	0.51	2679	0	0	Local	V			3	24	3	2	12	1	0	0	4	0
River Front Dr	0.04	199	9	55	Local	V		Local	4	26	3	2	12	1	0	0	4	0
Riverside Dr	0.43	2303	9	55	Local	V		Local	2	12	3	2	6	1	0	0	4	0
Robinson Ct	0.15	781	9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Rock N' Pines	0.15	800	9	55	Local	V		Local	4	20	3	2	10	1	0	0	4	0
Rogers Rd	0.24	1231	19	55	Local	V		Local	2	14	3	2	7	1	0	0	4	0
Round Robin Loop	0.15	777	9	55	Local	V		Local	4	24	3	2	12	5	2	2	4	0



STREET	Length (miles)	Length (Feet)	Function Class	System Class	SC Legend	Leg. Class	Route Number	Maintenance	Surface Type	Pave Width	Access Con.	Lanes	Lane Width	Shoulder Type	Shoulder width R	Shoulder width L	Median Type	Median Width
Rowe Dr	0.44	2323	9	55	Local	V		Local	2	24	3	2	12	1	0	0	4	0
Rum Hollow	0.19	990	9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Sandown Rd	2.25	11858	9	55	Local	V		Local	2	18	3	2	9	1	0	0	4	0
Sawmill Ln	0.09	498	19	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Scribner Rd	1.30	6844	9	55	Local	V		Local	2	16	3	2	8	1	0	0	4	0
Senter Cir	0.27	1405	9	55	Local	V		Local	4	24	3	2	12	5	3	3	4	0
Shady Ln	0.12	622	9	55	Local	V		Local	1	10	3	1	10	1	0	0	4	0
Shirkin Rd	1.49	7801	0	56	Not Maintained	VI		Other	1	6	3	1	6	1	0	0	4	0
Shirkin(g) Rd	0.65	3424	19	55	Local	V		Local	2	16	3	2	8-10	1	0	0	4	0
Sleeper Cir	0.60	3156	9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
South Rd	1.50	7886	9	55	Local	V		Local	2	18	3	2	9-11	1	0	0	4	0
Spaulding Road	0.00	0	0	0		0			0	0	0	0	0	0	0	0	0	0
Squire Rd	0.73	3851	0	56	Not Maintained	VI		Other	1	6	3	1	6	1	0	0	4	0
Sunny Ln	0.12	637	9	55	Local	V		Local	1	14	3	2	7	1	0	0	4	0
Susan's Way	0.26	1377	0	56	Local	V		Local	3	24	3	2	12	3	2	2	4	0
Tarah Way	0.52	2739	0	0	Private	0		Other	3	0	0	0	0	0	0	0	4	0
Tavern Rd	1.21	6342	0	56	Not Maintained	VI		Other	1	12	3	2	6	1	0	0	4	0
Tavern Rd (local)	0.49	2543	9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Tavern Road	0.33	1763	0	0	Not Maintained	VI		Other	1	8	3	1	8	1	0	0	4	0
Taylor Ln	0.46	2440	9	55	Local	V		Local	2	22	3	2	11	1	0	0	4	0
Thunder Road (?)	0.00	0	0	0	Private	0			0	0	0	0	0	0	0	0	0	0
Thunder Road (?)	0.00	0	0	0	Private	not built			0	0	0	0	0	0	0	0	0	0
Tibbetts Rd	0.38	2016	0, 9	55, 56	Local	V		Local						1, 5	0-2	0-2	4	0
Treaty Ct	0.42	2235	0	56	Local	V		Local	3	24	3	2	12	3	2	2	4	0
Tuck Dr	0.71	3755	0	56	Local	V		Local	3	24	3	2	12	1	0	0	4	0
Vetter Dr	0.44	2325	19	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Victoria Farm Rd	0.36	1904	9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Walker Ln	0.48	2508	9	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0
Whitman Dr	0.35	1819	9	55	Local	V		Local	4	24	3	2	12	8	0	0	4	0
Whittier Dr	2.21	11657	9	55	Local	V		Local	2	24	3	2	12	5	2	2	4	0
Wildwood Dr	0.32	1700	19	55	Local	V		Local	4	24	3	2	12	1	0	0	4	0

The NHDOT Roads GIS layer was used to generate the preceding table. It was edited by RPC staff to correct any errors in the NHDOT database that were identified by the staff and volunteers in Fremont. Not all of the fields in the original roads layer were used, only those deemed pertinent to planning in Fremont were retained. The following ‘roads’ data dictionary describes the fields in the proceeding table.

### **‘Roads’ Data Dictionary**

The following is a data dictionary describing the fields used in the attributes of the NHDOT Roads layer. If you have any questions about the fields or the coding used, or you discover errors in the data, please contact the Road Inventory section at NH Dept. of Transportation, Bureau of Planning and Community Assistance at (603) 271-3344.

Please note that codes in ***bolded italics*** are currently not in use, but may be used in the future.

#### **Description of Codes**

**STREET:** Street name as provided by municipality or Emergency 911 system.

**LENGTH (miles):** Length of the roadway section, in miles, measured to the nearest 0.001 mile. This data is from the GPS road inventory conducted for the NHDOT by the Rockingham Planning Commission.

**LENGTH (feet):** Length of the roadway section, in miles, measured to the nearest foot. This section was added by the Staff at the Rockingham Planning Commission. It is a measurement of the roads to the nearest foot, as determined by the GIS used to create the maps for this document.

**FUNCTION CLASS:** A FHWA code describing the use of the roadway, according to the character of service they are intended to provide. Function class codes have two classifications; Rural and Urban.

#### Rural:

<u>Code</u>	<u>Description</u>
0	Non-Public roads Example; Class VI & Private
1	Principal Arterial - Interstate
2	Principal Arterial - Other
6	Minor Arterial
7	Major Collector
8	Minor Collector
9	Local

#### Urban:

<u>Code</u>	<u>Description</u>
0	Non-Public roads Example; Class VI & Private
11	Principal Arterial - Interstate
12	Principal Arterial – Other Freeways and Expressways.
14	Principal Arterial - Other
16	Minor Arterial
17	Collector
19	Local

**SYSTEM CLASS:** The States roadway system and class description.

<u>Code</u>	<u>Description</u>
11	State maintained primary system
14	State primary system within a compact that is maintained by the Town or City (Urban extensions of Class I highways).
19	On the State primary system, maintained by the State Turnpike Authority.
22	State maintained secondary system.
24	State secondary system within compact maintained by the Town or City (Urban extensions of the Class II highways).
25	Extensions of the designated State secondary system, uncompleted and Town maintained.
27	<b><i>Designed State secondary system. Uncompleted and maintained by the Federal agencies.</i></b>
29	On the State secondary system, maintained by the State Turnpike Authority.
33	State-maintained recreation roads.
44	<b><i>Town and City maintained streets within compact areas.</i></b>
55	Regularly maintained Town streets and roads outside of compact.
56	Town or City streets <b>not</b> regularly maintained.
58	<b><i>Town roads, or City streets maintained by Special Legislation.</i></b>
77	Federal agencies roads, maintained by the Federal agencies.
81	National system of Interstate and Defense highways, State maintained.
89	National system of Interstate and Defense highways, maintained by the State Turnpike Authority.
99	<b><i>Other highways and expressways not on the state primary or secondary systems maintained by the State Turnpike Authority.</i></b>
0	Other toll roads not on the State Turnpike System, i.e. private, Mt. Washington Toll Rd, Monadnock Toll Rd.

**SC LEGEND:** (System Class Legend) Code used for mapping purposes to simplify the System Class coding. (State, Local, Private, Not Maintained, or Federal)

**LEG. CLASS:** Legislative Class

The Legislative Class attribute was added by GRANIT/Complex Systems Research Center, University of New Hampshire. It was populated from the System Class, based on guidelines provided by the NH Dept. of Transportation, Bureau of Planning and Community Assistance.

<u>Code</u>	<u>System Class</u>
I.	Class I highways shall consist of all existing or proposed highways on the primary state highway system, excepting all portions of such highways within the compact sections of the cities and towns listed in RSA 229:5, V, provided that the portions of the turnpikes and the national system of interstate and defense highways within the compact sections of these cities and towns shall be class I highways.
II.	Class II highways shall consist of all existing or proposed highways on the secondary state highway system, excepting all portions of such highways within the compact sections of the cities and towns listed in RSA 229:5, V.
III.	Class III highways shall consist of all recreational roads leading to, and within, state reservations designated by the legislature.
	III-a. Class III-a highways shall consist of new boating access highways from any existing highway to any public water in this state. All class III-a highways shall be limited access facilities as defined

in RSA 230:44. Class III-a highways shall be subject to the layout, design, construction, and maintenance provisions of RSA 230:45-47 and all other provisions relative to limited access facilities, except that the executive director of the fish and game department shall have the same authority for class III-a highways that is delegated to the commissioner of the department of transportation for limited access facilities. A class III-a highway may be laid out subject to the condition that it shall not be maintained during the winter months. A class III-a highway may be laid out subject to gates and bars or restricted to the accommodation of persons on foot, or certain vehicles, or both, if federal funds are not used. The executive director of fish and game may petition the governor and council to discontinue any class III-a highway.

- IV. Class IV highways shall consist of all highways within the compact sections of cities and towns listed in RSA 229:5, V. The compact section of any such city or Town shall be the territory within such city or Town where the frontage on any highway, in the opinion of the commissioner of transportation, is mainly occupied by dwellings or buildings in which people live or business is conducted, throughout the year and not for a season only. Whenever the commissioner reclassifies a section of a class I or class II highway as a class IV highway, the commissioner shall prepare a statement of rehabilitation work which shall be performed by the state in connection with the turn-back. No highway reclassification from class I or II to class IV shall take effect until all rehabilitation needed to return the highway surface to reputable condition has been completed by the state. Rehabilitation shall be completed during the calendar year preceding the effective date of the reclassification. A copy of the commissioner's statement of work to be performed by the state shall be attached to the notification of reclassification to class IV, and receipt of said statement shall be acknowledged, in writing, by the selectmen of the town, or the mayor of the city, affected by the reclassification.

- V. The commissioner of transportation may establish compact sections in the following cities and towns:

Amherst Keene  
Bedford Laconia  
Berlin Lebanon  
Claremont Londonderry  
Concord Manchester  
Derry Merrimack  
Dover Milford  
Durham Nashua  
Exeter Pelham  
Franklin Portsmouth  
Goffstown/Rochester  
Hampton Salem  
Hanover Somersworth  
Hudson

Class V highways shall consist of all other traveled highways, which the Town has the duty to maintain regularly, and shall be known as Town roads. Any public highway which at one time lapsed to Class VI status due to 5-years' non-maintenance, as set forth in RSA 229:5, VII, but which subsequently has been regularly maintained and repaired by the Town on more than a seasonal basis and in suitable condition for year-round travel thereon for at least 5 successive years without being declared an emergency lane pursuant to RSA 231:59-a, shall be deemed a Class V highway.

- VI. Class VI highways shall consist of all other existing public ways, and shall include all highways discontinued as open highways and made subject to gates and bars, except as provided in paragraph III-a, and all highways which have not been maintained and repaired by the Town in suitable condition for travel thereon for 5 successive years or more except as restricted by RSA 231:3, II.

## VII. Federal Highways

**ROUTE NUMBER:** Assigned Interstate Route Number

**MAINTENANCE:** Maintenance entity. (Turnpikes, Local, District, or Other)

**SURFACE TYPE:** The surface or pavement type of the roadway.

<u>Code</u>	<u>Description</u>
1	Unpaved
2	Low Type Bituminous treatment (Chip Seal)
3	Surface Treated Gravel (STG)
4	High Flex Bituminous (HBP) (Brick, Stone, Wood)
5	<b><i>High Type Rigid (Concrete)</i></b>
6	<b><i>High Type Composite (Bituminous Pavement over Concrete)</i></b>

**PAVE WIDTH:** Total width of pavement, in feet, from edge of pavement to edge of pavement. Includes travel lanes, paved shoulders, parking, and designated bike lanes.

**ACCESS CONTROL:** Designates the access control of traffic movement on to or off highways.

<u>Code</u>	<u>Description</u>
1	Full Access Control. Access only with interchanges
2	Partial Access Control. At-Grade crossings and drives are limited.
3	No Access Control

**LANES:** Number of lanes that carry through traffic.

**LANE WIDTH:** Prevailing traffic lane width (through lanes) to the nearest even foot.

**SHOULDER TYPE:** Code for the predominant type of shoulder for the section. If the left shoulder and the right shoulder differ, the right shoulder should be considered the predominant type.

<u>Code</u>	<u>Description</u>
1	None - No shoulders or curbs exist.
2	Surfaced with Bituminous or other hard material.
3	Stabilized – A gravel or other granular material.
4	Combination – combination of two or more surface types.
5	Earth – Natural earth with or without turf.
6	Barrier Curb exists.

**SHOULDER WIDTH:** Measured width of right or left shoulder shoulder, in direction of inventory, to the nearest foot.

**MEDIAN TYPE:** A code describing the median type. A positive barrier would normally consist of guardrail or concrete (Jersey type barrier), but could consist of a line of closely spaced (large) trees or of thick, impenetrable shrubbery on most of the section. Turning lanes or bays are not considered medians unless a median exists on the major portion of the roadway, and the turning lanes/bays are cut into the median at intersections, entrances to commercial enterprises, etc.

<u>Code</u>	<u>Description</u>
1	Curbed
2	Positive Barrier
3	Unprotected
4	None

**MEDIAN WIDTH:** The predominant width of the median, measured to the nearest foot. If Type is coded as “4”, then width coded as “0”. If width is greater than 100 feet, then it is coded as “999”.