

TRANSPORTATION NETWORK

Transportation Network:

Dudley has a well-developed transportation network, although the current network bears little resemblance to the Town's historical transportation pattern when Dudley Hill was the center of Town. West Main Street (Route 197) now represents the Town's main thoroughfare. Dudley does not have direct access to any of the region's interstate highways. Dudley residents need to travel north to access the Massachusetts Turnpike (I-90); east through neighboring Webster to access I-395 (and eventually I-290 in Auburn); and west to reach I-84, the main thoroughfare to Hartford, Connecticut.

Roadways (maintenance responsibilities):

MassHighway, the State's transportation department, is responsible for maintaining the majority of Route 197, although the Town is responsible for its maintenance from the Webster town line to a point just beyond its intersection with Schofield Avenue (a length of approximately 1,500 feet). MassHighway maintains the entire length of Route 131 (Southbridge Road), as well as a portion of Route 12 (Schofield Avenue) from its intersection with Brandon Avenue all the way to the Connecticut border. Route 31 (Dresser Hill Road) is also considered a State-numbered route, however, the Town handles its day-to-day maintenance.

State Roads/Bridges (planning for improvements):

In many cases, transportation projects are planned for at the regional level. The Central Massachusetts Metropolitan Planning Organization (MPO) is the decision-making body responsible for planning and funding transportation projects in this region. The regional MPO is made up of representatives from four organizations: MassHighway; the Executive Office of Transportation Construction (EOTC); the Central Massachusetts Regional Planning Commission (CMRPC); and the Worcester Regional Transit Authority (WRTA). The CMRPC transportation staff does the planning for the MPO. The MPO prepares an annual Transportation Improvement Program (TIP) for the region. Each annual TIP lists projects six years into the future. The improvements included in the TIP are paid for through Federal-Aid funds provided to MassHighway by the Federal Highway Administration (FHA).

The most recent TIP (years 2000-2005) lists three projects for Dudley. One is for the resurfacing of Route 31 through Charlton and the length of Dudley (estimated cost of \$2.3 million). Another project will replace the bridge over the channel along Lower Perryville Road (\$350,000). The third TIP project for Dudley will replace the bridge over the canal along Perryville Road (\$460,000). MassHighway has begun the bridge design phase of the Lower Perryville Road channel project. The Perryville Road canal project may be scrapped altogether in favor of using this area for a pedestrian walkway.

According to MassHighway, there are 649 bridges in the Central Massachusetts Planning Region. All of the bridges have been evaluated for structural integrity according to standards set

forth by the American Association of State & Highway Transportation Officials (AASHTO). According to the AASHTO bridge evaluations, there are 58 bridges in the region that are structurally deficient. There are two such bridges in Dudley: the Oxford Avenue bridge crossing the French River (8th lowest rating in the region); and the previously described bridge along Lower Perryville Road that spans a small channel (16th lowest rating in the region). MassHighway has obligated the necessary Federal Aid to re-construct the Oxford Avenue bridge, although construction has yet to begin.

The AASHTO bridge evaluations also identify those bridges considered to be functionally obsolete, that is, those bridges in need of modernization. There are 174 such bridges have been identified in the region. There are five functionally obsolete bridges in Dudley:

- Peter Street Bridge crossing the French River;
- Tracy Court Road Bridge crossing the French River;
- West Dudley Road Bridge crossing the Quinebaug River;
- Perryville Road Bridge crossing a canal (TIP project - estimated repair cost: \$460,000); and
- Brandon Road Bridge crossing the French River.

If the Town of Dudley wants to pursue federal/state funding for repairing the bridges identified above, they should work through CMRPC and MassHighway to explore this possibility.

State Aid for Local Roads:

Every year, Mass Highways distributes roadway repair/maintenance money to Massachusetts municipalities through Chapter 90 of the Massachusetts General Laws. Since 1994, the State has distributed approximately \$150 million per year to cities and towns through Chapter 90. Dudley's Chapter 90 appropriation for the past five years has averaged approximately \$300,000 per year, with \$326,474 being disbursed for the 98/99 fiscal year. Although the State does have some guidelines as to how Chapter 90 funds are to be used, it is up to each individual city and town to decide how to spend its Chapter 90 allotment. In Dudley, it is the Highway Superintendent who decides how to spend the Town's Chapter 90 annual allotment. The activities of the Highway Department are overseen by the Dudley Board of Selectmen acting under their capacity as Highway Commissioners. It should be noted that the State Legislature has recently approved an across-the-board 44% cut in Chapter 90 funds. Thus, Dudley can expect a 44% cut in next year's Chapter 90 disbursement.

Road Classifications and Federal-Aid Eligibility:

MassHighway maintains an inventory of local roadways as reported by the municipalities. MassHighway also maintains an inventory of those State-maintained roads that are considered to be part of the Federal-Aid System. The Federal-Aid System has a three-tier functional classification system for roads:

- Arterial Roads: roads that serve through traffic. Arterial roads are the highways of the

Interstate Highway System, such as I-395, I-84, etc.

- Collector Roads: roads that link local roads to arterial roads. Collectors are heavily traveled local roads and those roads associated with the State highway network (Routes 12 & 197).
- Local Roads: roads primarily used to access the community's housing stock.

MassHighway classifies Dudley's roads in the following manner:

Rural Minor Arterial Roads: Route 131 (Southbridge Road) is the only such road in Dudley, and is eligible for Federal-Aid.

Rural Major Collector Roads: Route 31 (Dresser Hill Road); Route 12 (from Webster town line to the Route 197 intersection, as well as Schofield Avenue); Route 197 (West Main Street); Dudley Center Road; and Dudley-Oxford Road. These roads are eligible for Federal-Aid.

Rural Minor Collector Roads: Oxford Avenue; Mason Road; Dudley-Southbridge Road; Dudley Hill Road; Pierpoint Road; Village Street; Charlton Road; Brandon Road; Mill Street and Pine Street. These roads are eligible for Federal-Aid.

Local Roads: All other roads in Dudley. These roads are not eligible for Federal-Aid.

Dudley officials can compete for limited federal funding to repair their Federal-Aid eligible roads above roads through the annual TIP process. Roads classified as "Local" are maintained solely by the municipalities and are not eligible for Federal-Aid. Local roads are eligible for State Highway funds under Chapter 90 (previously described).

Current Condition of Local Roads:

CMRPC conducted a Local Pavement Management Study for Dudley in the summer of 1997, with a summary report issued to the Town in December of 1997. CMRPC worked with MassHighway and the Dudley Highway Superintendent to define the Town's road network for this project. CMRPC then drove along each segment of roadway in Dudley, collecting detailed pavement condition information using a specialized computer program. The CMRPC roadway analysis incorporated the severity and extent of the following types of pavement distress:

- potholes
- cracking (block, alligator, transverse and longitudinal cracking)
- rutting
- surface wear and raveling
- corrugations, shoving and slippage

The collected data allowed CMRPC to evaluate each roadway's pavement condition (segment-by-segment), and determine an estimated repair cost. A pavement condition index (PCI) was calculated for each roadway segment. The PCI rated each road on a scale from one (extreme

distress - substantial repair work needed) to 100 (no need of repair). Slightly more than half of Dudley's roads (41 road miles out of a total of 78 road miles) received PCIs of less than 70, and the average PCI for all of Dudley's roadway segments was 68. Listed below are the top ten roads with the worst pavement conditions in Dudley, according to the 1997 Pavement Management Study:

Table TR-1

Roads With the Worst Pavement Conditions in Dudley (Top 10)

<u>Rank</u>	<u>Road Name</u>	<u>Length</u>	<u>PCI Score</u>
1	Maynard Road	0.29 miles	12
2	Fish Road	0.35 miles	18
3	School Street	0.91 miles	25
4	Sylvester Road	0.44 miles	26
5	Mason Road	1.02 miles	27
	(from Putnam Road to Sunrise Shores)		
6	Dresser Hill Road	1.17 miles	27
	(from Dudley-Southbridge Road to Healy Road)		
7	Lyons Road	0.79 miles	28
8	Saw Mill Road	0.93 miles	29
9	Ramshorn Road	2.80 miles	29
10	Marsh Road	1.08 miles	29

Source: CMRPC Local Pavement Management Study for Dudley, Massachusetts, December 1997.

The 1997 Pavement Management Study also estimated the cost of repairing the identified roadway deficiencies. Listed below are the top ten most expensive roadway improvement projects as identified in the 1997 Study:

Table TR-2

Top Ten Most Expensive Roadway

Improvement Projects in Dudley

<u>Rank</u>	<u>Road Name</u>	<u>Length</u>	<u>Estimated Repair Cost</u>
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1	Dresser Hill Road (five distinct segments)	4.11 miles	\$532,849
2	Ramshorn Road	2.80 miles	\$295,740
3	Hayden Pond Road	1.45 miles	\$170,133
4	Corbin Road (from telephone pole #9 to Ramshorn Road)	1.69 miles	\$158,631
5	Mason Road (eight distinct segments)	2.42 miles	\$155,775
6	West Dudley Road	1.15 miles	\$114,693
7	Saw Mill Road	0.93 miles	\$109,111
8	Marsh Road	1.08 miles	\$101,369
9	Flaxfield Road	0.65 miles	\$99,147
10	School Street	0.91 miles	\$96,100

Source: CMRPC Local Pavement Management Study for Dudley, Massachusetts, December 1997.

The 1997 Pavement Management Study identified a total of approximately one million dollars worth of improvements for all of Dudley's Federal-Aid eligible roadways, and a total of roughly \$2.9 million dollars worth of improvements for all of Dudley's local road network. Thus, a grand total of approximately **\$3.9 million dollars** of roadway improvements were identified for the Town's transportation network. The 1997 Pavement Management Study developed three future funding scenarios for the Town:

- Scenario A: If the current level of funds (both Chapter 90 funds and local funds - roughly \$320,000 per year) continues to be allocated for pavement repair and maintenance, Dudley's roadway network will likely deteriorate from an average PCI of 68 in 1997 to an average PCI of 57 in the year 2007.
- Scenario B: In order to maintain the condition of Town's roadway network at its current level of performance (average PCI = 68) through the year 2007, approximately \$525,000 in annual funds should be allocated for pavement repair and maintenance.
- Scenario C: If \$775,000 were spent annually on pavement repair and maintenance, the condition of Dudley's roadway network would likely improve to an average PCI of 92 by the year 2007.

It is clear from the 1997 Pavement Management Study that Dudley will need to increase its annual roadway maintenance/repair allocation just to maintain the current condition of its road network. Even more money will need to be allocated if the Town wishes to improve the network's current condition. It is also abundantly clear from the Master Plan citizen survey that

the citizens are unhappy with the current condition of Dudley's roadways. According to the survey, the condition of the roads was the number one reason people found undesirable about living in Dudley. Clearly, more needs to be done regarding the Town's maintenance and repair of its roadway network. The situation will be even more pronounced next year when Dudley's Chapter 90 allotment is reduced by 44%.

Roadway Volume/Capacity and Levels of Service:

CMRPC conducts traffic counts throughout the region on an ongoing basis. Traffic counting machines are placed along a roadway and they record the number of vehicles travelling in each direction over a 24-hour period. The Daily Traffic Volume Map on the following page shows the total number of vehicles (i.e., both directions) travelling on Dudley's roads during a 24-hour period. The volumes shown on the map are taken from a series of traffic counts conducted throughout the 1990's. Most of Dudley's local roads handle less than 1,000 cars a day. The more heavily traveled roads have the following ranges of daily traffic volume:

1,000 - 2,500 vehicles per day: Dudley Hill Road, a portion of Dudley-Oxford Road, and portions of Mill Street and Pine Street.

2,500 - 5,000 vehicles per day: Schofield Avenue (Route 12), Brandon Road, Airport Road, Charlton Road, a portion of Mill Street, and a portion of Dudley-Oxford Road.

5,000 - 10,000 vehicles per day: The entirety of Southbridge Road (Route 131) and West Main Street (Route 197) from Airport Road to the Connecticut state line.

10,000 - 15,000 vehicles per day: West Main Street from Mason Road to Airport Road.

Over 15,000 vehicles per day: Route 12 from the Webster town line to its intersection with West Main Street, and West Main Street from the Route 12 intersection to Mason Road.

The Daily Traffic Volume Map indicates that a substantial number of vehicles are using some of the roads in northeast Dudley to get in and out of town, particularly Charlton Road, Dudley-Oxford Road and Oxford Avenue. The heavy volumes of traffic along Village Street, Mill Street and Pine Street indicate that vehicles are using these roads as a shortcut to Webster locations in an effort to avoid the traffic delays of downtown Webster.

It should be noted that all of Dudley's roadways are projected to have moderate increases in their traffic volumes over the next twenty years. CMRPC has developed a Regional Traffic Simulation Model that projects travel demands through the year 2020. According to the model, Dudley's roadways will experience a volume increase between 10% to 20% (depending on the road) over the next twenty years.

As part of CMRPC's 1997 Regional Transportation Plan, numerous transportation corridors were evaluated for their Level-Of-Service (LOS), i.e., the existing volume (V) of vehicles using the road versus the road's theoretical capacity (C). If the volume (V) is the same or greater than the theoretical capacity (C), then the road's Level-Of-Service gets a failing grade. A road's Level-Of-Service is graded similar to a school report card: LOS "A" (low volumes and minimal congestion) through LOS "F" (high volumes and significant travel delays).

The 1997 Plan evaluated two roadways in Dudley: Route 12 from the Webster town line to its intersection with Route 197; and Route 197 to the Connecticut state line. In addition to calculation V/C ratios, CMRPC also looked at average observed travel time and average observed travel speeds along these two roadways.

As discussed previously, Route 12 and Route 197 are considered "collector" roads. The theoretical capacity for these two collector roads is 1,000 vehicles per hour (each lane of traffic). The true capacity of these roads, as well as the other collector roads in the region, has never been determined. Determining the true capacity of a collector road would involve such factors as the number of signalized intersections, the number of curb cuts (driveways) along the road, the curvature of the road, and the road's structural integrity. Determining the true capacity of a roadway is an expensive proposition and, as such, was above and beyond the scope of CMRPC's 1997 Plan. Theoretical capacity is sufficient for this level of analysis.

West Main Street (Route 197): Volume vs. Capacity:

For a meaningful analysis of a roadway's volume/capacity, the peak travel hours should be evaluated because that is when the highest percentage of traffic is using the road. The morning peak is from 7:00 AM to 9:00 AM, and the evening peak is from 4:00 PM to 6:00 PM. As the evening peak period traffic counts for Route 197 were slightly higher than the morning peak period traffic counts, the PM peak period counts will be analyzed here. During the PM peak period, West Main Street averaged 608 vehicles per hour in the westbound lane and 517 vehicles per hour in the eastbound lane. Both traffic counts are well below the road's theoretical carrying capacity of 1,000 vehicles per hour.

Using this basic analysis method, a roadway's Level of Service receives a "B" grade when it is at 60% of its carrying capacity (as is the case with West Main Street's westbound peak period volume). When a roadway is at less than 60% of its carrying capacity (as is the case with West Main Street's eastbound peak period volume), its Level Of Service receives an "A" grade. Thus, West Main Street's Level Of Service, all told, is around the A-to-B range. West Main Street is the only road in Dudley that is even close to reaching its capacity during peak hour periods.

Volume of Heavy Trucks on West Main Street:

CMRPC's traffic counts along West Main Street provide another interesting bit of information regarding the percentage of heavy trucks using the roadway during the AM and PM peak hour periods. During the morning peak period (7:00 AM to 9:00 AM), trucks make up roughly 4% of the total traffic along West Main Street; while during the evening peak period (4:00 PM to 6:00 PM), trucks make up less than 2% of West Main Street's total traffic.

West Main Street (Route 197): Average Travel Time/Speed:

In general, observed speeds along Route 197 can be considered acceptable and are consistent with the posted speed limits (20-40 mph). The lowest speeds (20-30 mph) were observed between Brandon Road and the Dudley/Webster town line. The lower observed speeds can be attributed to the geography of the road (a curving road going uphill/downhill) as well as the Route 12 signalized intersection. This signal caused stopped delays along this segment, the longest observed being 27 seconds. It appears that the low travel speeds may be related to the intersections east of this segment in Webster. The average travel speed increases to 35 mph and

greater from the Brandon Road intersection to the Connecticut state line. In an effort to address the slower traffic speed and associated delay from the Webster town line to the Brandon Road intersection, the CMRPC 1997 Regional Transportation Plan made two recommendations, neither of which have been implemented at this time:

1. Investigate the potential of signal coordination between the Route 12/197 intersection in Dudley and the Route 12/Lake Street intersection in Webster.
2. Conduct a Corridor Planning Study along this roadway in both Dudley and Webster.

Traffic Safety and High Accident Intersections :

In 1996, the Dudley Police Department instituted a computerized tracking system for response calls at the various roadway intersections in Town. This has allowed the Department to track the number of motor vehicle accidents occurring at each intersection in Dudley. Listed on the following page are the top five intersections for traffic accidents in Town:

1. Intersection of Route 12, West Main Street and Village Street: **30 accidents** since 1996.
2. Intersection of West Main Street and Brandon Road: **11 accidents** since 1996.
3. Intersection of Schofield Avenue and Brandon Road: **11 accidents** since 1996.
4. Intersection of Ramshorn Road and Dudley-Oxford Road: **8 accidents** since 1996.
5. Intersection of Pine Street and Oxford Avenue: **7 accidents** since 1996.

Although the majority of these accidents were minor fender-benders, there were a few serious accidents resulting in people being injured. Clearly, the Route 12/West Main Street intersection has the highest accident occurrence in Dudley. It is very difficult to turn left in any direction, and vehicles travelling east on West Main Street often have to utilize the adjacent parking lane in order not to hit traffic making a left turn.

Although the majority of Routes 12 and 197 (West Main Street) are State maintained, this particular intersection is maintained by the Town. In fact, the traffic light at this intersection was paid for and installed by the Town. Considering that the traffic volumes at this intersection are expected to increase over the next twenty years, it stands to reason that the number of accidents will increase here as well.

Since both Route 12 and West Main Street are eligible for Federal-Aid funds, the Town should work with MassHighway and CMRPC to get this intersection improvement project into the annual TIP. Coordinated signalization, as suggested in the CMRPC 1997 Regional Transportation Plan, should be considered as part of the intersection improvement project.

The Town may also want to monitor the Brandon Road/West Main Street intersection to see if it warrants a traffic light. Currently, there is only a stop sign at this location. Any signalization of this intersection should be coordinated with the Route 12/West Main Street traffic signal.

One of the most difficult intersections to navigate in Dudley is the Ramshorn Road/Dudley Center Road/Dudley Oxford Road intersection (#4 on the High Accident Location list). There are

actually two intersections at this location, one right after another. The sight distance is limited, and with two stop signs in close proximity, it can be hard to figure out who has the right of way. Local residents know this is a troublesome intersection and drive accordingly. However, non-residents often have a hard time navigating this intersection. Since Dudley Center Road and Dudley-Oxford Road are eligible for Federal-Aid funds, the Town may want to work with MassHighway and CMRPC to pursue an intersection improvement project at this intersection as well.

Pedestrian Safety and Sidewalks:

According to an interview with the Police Department, there are several roadways in Dudley where pedestrian safety could be improved through the installation of sidewalks:

- School Street leading to the Intermediate School. Children walking to school have to walk along a narrow road with no sidewalks.
- Charlton Road and Pine Street west of the School Street intersection. Once again, children walking to the Intermediate School have to walk along a heavily traveled road with no sidewalks.
- Oxford Avenue north of its intersection with Pine Street. The existing sidewalk at this location only continues up Oxford Avenue for a short distance.
- East side of Mill Street at the Stevens Mills Overpass: Currently, the sidewalk ends at the overpass and children have to walk in the street until reaching the other side of the overpass.
- West Main Street (Route 197) at two locations: There are no sidewalks on the south side of West Main Street from Williams Street to Brandon Road; and there are no sidewalks on the south side of West Main Street from Brandon Road to Prospect Street, even though this is a Business district and there are several active businesses along this side of the street. There *are* sidewalks on the northern side of West Main Street, however, residents from the Brandon Road neighborhood are unlikely to cross the street to use the sidewalk, and then cross the street again to get to the businesses on the south side of West Main Street.
- Mason Road north of Mason Road School. Currently, the only sidewalk leading to the School starts at West Main Street and stops before the school building. Students walking to the school from the north have no sidewalks whatsoever. This is also a factor for children walking to the High School from Mason Road.
- Dudley-Oxford Road north of its intersection with Mason Road. There are sidewalks along this road south of the Mason Road intersection, however, there are numerous residential streets that empty out onto the northern portion of Dudley-Oxford Road and students from this area should have a sidewalk from Wayne Avenue all the way down to the Mason Road intersection.

The Town should allocate a sum of money each year for new sidewalk construction. The Board of Selectmen, acting under their capacity as Highway Commissioners, should work with the

Police Department to develop a list of sidewalk construction priorities.

Another potentially hazardous pedestrian safety issue occurs when the Little League teams use the ballfields at the Intermediate School. Cars park along Pine Street and School Street, causing pedestrians to walk in the road to get to the ballfields. Dudley Little League officials should work with the Board of Selectmen (Highway Commissioners) and the Police Department to address this situation. Perhaps the old vacant school property could be used for new parking. A major limitation here is that disabled residents could not access the ballfields from this site. Perhaps handicapped parking could be provided at another nearby location that would provide easier disabled access to the ballfields.

Mass Transit Alternatives:

Mass transit can be loosely defined as a public transportation service designed to move groups of people from one place to another. Such services include: busses; trains; planes; and boats for some areas of our nation. Typically, mass transit serves persons who would find it difficult to make their trip by any other mode. Such persons include: the elderly, people with disabilities, young people, and people living on limited incomes. Mass transit opportunities are essentially non-existent in Dudley, however, such opportunities can be found at the regional level.

Bus Service: The regional bus service provided by the Worcester Regional Transit Authority (WRTA) continues to play a small but vital role in central Massachusetts. The WRTA currently has 32 bus routes, all of which radiate from downtown Worcester. Overall, the WRTA serves approximately 1% of all person travel trips in the region. The CMRPC estimates that on any given business day, there are 1,620,000 person travel trips in the region. A 1999 study conducted for the WRTA identified 16,000 riders per weekday, or roughly 1% of the region's total person travel trips.

The number of people served by the WRTA is expected to increase due to the region's non-attainment status with regard to federal air quality standards. An increase is also expected due to the fact that the WRTA system leads into downtown Worcester, which serves as the region's commerce center and is the site of several large-scale development projects. Although Dudley has been a member of the WRTA since 1982, there are no fixed bus routes that serve Dudley directly. However, the WRTA does have a fixed route (Bus Route #42) that extends into downtown Webster, whose terminus is in front of the Dunkin Donuts shop along Main Street (Route 12). Although Dudley does not have the population density to support fixed route bus service, Dudley elders and residents with disabilities do have access to weekday paratransit (van) service funded by the Worcester Regional Transit Authority and provided by S.C.M. Elderbus. Close to 5,000 trips are provided annually.

There are also two interstate bus services operating out of downtown Worcester: Peter Pan and Greyhound. These carriers provide transportation to Boston and various points out of state.

Train Service: Worcester's historic Union Station will soon serve as the region's primary rail passenger hub. The station currently provides inter-city train service through Amtrak, and

commuter service through the Massachusetts Bay Transportation Authority (MBTA). Amtrak is the region's sole railroad passenger service provider, and Worcester is the region's only stop along Amtrak's New York-to-Boston route.

There is an extensive freight rail network in central Massachusetts that is currently utilized by five freight rail providers. The Providence & Worcester Railroad Company (P&W) maintains an active rail line beginning in southeast Connecticut and terminating in downtown Worcester. This rail line enters Massachusetts in Webster and extends north directly parallel to the French River. This active rail line extends into east Dudley for about a half a mile, just east of Oxford Avenue.

P&W also owns an inactive rail line, known as the Southbridge Branch, that extends into Dudley at two points. Beginning with its intersection with the active rail line in downtown Webster, the Southbridge Branch extends into southeast Dudley for a little over a mile before entering Thompson, Connecticut. This rail line curves through Thompson and back into Dudley in a northwesterly direction, paralleling the Quinebaug River. This section of the inactive Southbridge Branch traverses slightly less than three miles through southwest Dudley. The rail line terminates in downtown Southbridge. All told, the abandoned Southbridge Branch is roughly eleven miles in length.

It should be noted that the State is interested in acquiring the inactive Southbridge Branch railbed for use as a recreation trail (hiking/biking). The Massachusetts Department of Environmental Management (DEM) has surveyed the condition of the railbed and has been negotiating a sale price with P&W intermittently over the last decade. Support for this effort has been documented in the 1988 Dudley Open Space and Recreation Plan, the 1997 Southbridge Open Space and Recreation Plan, and the 1999 French-Quinebaug Watershed Plan prepared by UMass Amherst on behalf of DEM. The P&R is currently asking \$1.4 million for the eleven-mile railbed, while DEM is currently offering \$910,000. Negotiations continue as this document was prepared.

It should also be noted that the railbed originally planned for the "Grand Trunk" railroad is located on the eastern side of the Quinebaug River, near the inactive Southbridge Branch rail line. The Grand Trunk railroad was originally envisioned as a rail line linking Providence, Rhode Island to Palmer, Massachusetts. Although a great deal of land was cleared for this project during the early 1900's, no tracks were ever laid for this line. The land for the Grand Trunk line has since reverted to the adjacent property owners.

Air Travel: Worcester Regional Airport represents the only inter-state air travel provider for central Massachusetts, however, there are five local airports that are designed to accommodate smaller, lighter, general aviation aircraft. These local airports include: the Oxford Airport (located in east Oxford near the Millbury town line); the Southbridge Municipal Airport (located in the northwest corner of town); the Spencer Airport (simply a gravel runway for small planes); the Hopedale Industrial Park Airport; and the Tanner-Hiller Airport in New Braintree. The Southbridge Municipal Airport was substantially upgraded in 1996.

Transportation - Goal

Maintain an efficient and safe system of transportation for vehicles, bicycles, and pedestrians that is consistent with the Town's rural character and natural environment.

Transportation and Pedestrian Safety - Recommendations

1. The Town should develop a town-wide roadway improvement program. There are numerous roads in Dudley in need of repair, and neither the Highway Superintendent, nor the Board of Selectmen (Highway Commissioners) have a prioritized plan for addressing the needed improvements. Currently, roadway improvements are made on an as-needed basis, and are often not coordinated with other municipal departments (particularly sewer and water). This has led to a band-aide approach to roadway repair and an inefficient use of what little money is appropriated for this purpose. Clearly, this approach has not been successful as the Master Plan survey respondents gave the Highway Department the lowest rating of all of the Town's municipal services.

A coordinated and comprehensive approach to roadway repair is needed, and the Board of Selectmen need to involve the water and sewer departments in this planning process. The CMRPC 1997 Local Pavement Management Study would be a good starting point for preparing a town-wide roadway improvement program. Any highway improvement program needs to address how to pay for identified roadway improvements. The Town should work with MassHighway and CMRPC to include eligible Dudley roads in the region's annual Transportation Improvement Project (TIP). Many of Dudley's worst roads would be eligible for Federal-Aid. In addition, the Town may need to increase the amount of local tax revenues used for highway maintenance. Substantial roadway improvement projects should be designed and construction overseen by a licensed civil engineer. This would require some outside help as such expertise does not currently exist within the Highway Department. Responsible Municipal Entity: the Board of Selectmen, acting under their capacity as Highway Commissioners, and the Highway Department. Once a roadway improvement program has been developed, the Town's Board of Selectmen need to request that eligible Dudley projects get included the annual TIP.

2. The Town should address its problem intersections. The first priority here is obviously the Route 12/197 intersection. As stated previously, this is Dudley's highest accident intersection with 30 accidents occurring here since 1996. Since both Routes 12 and 197 are eligible for Federal-Aid funds, the Town should work with MassHighway and CMRPC to get an intersection improvement project into the annual TIP. Coordinated signalization, as suggested in the CMRPC 1997 Regional Transportation Plan, should be considered as part of the intersection improvement project. Once an improvement plan has been finalized, Dudley should work with the MPO to obtain construction funding through the annual TIP process. Responsible Municipal Entity: the Board of Selectmen, acting under their capacity as Highway Commissioners, and the Highway Department. The Police Department should periodically share their intersection accident report data with the Selectmen.

3. The Town should address its structurally deficient and functionally obsolete bridges. As mentioned previously, Dudley has two structurally deficient bridges and five functionally obsolete bridges. The Town should work with MassHighway and CMRPC to obtain Federal-Aid bridge repair funds through the TIP process for those eligible bridges, and State highway aid for those bridges that are not eligible for Federal-Aid. Responsible Municipal Entity: the Board of Selectmen, acting under their capacity as Highway Commissioners, and the Highway Department.

4. The Town should prepare a sidewalk improvement plan. As mentioned previously, there

are several roadways in Dudley where the lack of sidewalks have the potential to imperil pedestrian safety. The Town should allocate funding every year for new sidewalk construction. Responsible Municipal Entity: The Board of Selectmen (Highway Commissioners) should work with the Police Department to develop a list of sidewalk construction priorities. Funding these efforts should be supported by the Board of Selectmen.

5. The Town should address the pedestrian safety issues at Intermediate School Site. As mentioned previously, pedestrian safety issues have been identified at this site when the Little League uses the ballfields at the Intermediate School at the end of School Street. Cars park along Pine Street and School Street, causing pedestrians to walk in the road to get to the ballfields. This situation becomes even more dangerous during night games because of the darkness. Responsible Municipal Entity: Dudley Little League officials should work with the Board of Selectmen (Highway Commissioners) and the Police Department to address this situation. Perhaps the old vacant school property could be used for new parking. A major limitation here is that disabled residents could not access the ballfields from this site. Perhaps handicapped parking could be provided at another nearby location that would provide easier disabled access to the ballfields.

6. The Town should continue its membership in the Worcester Regional Transit Authority (WRTA) and support its efforts to provide public transportation alternatives on a regional scale. A viable para-transit system keeps cars off the roads, which in turn helps to reduce congestion and facilitate circulation. Responsible Municipal Entity: The Board of Selectmen and Dudley's representatives to the WRTA.

7. The Town's representatives to the WRTA and the CMRPC should continue to brief the Board of Selectmen on regional transportation projects and issues that may have relevance to Dudley.

8. The Town should ensure that utility companies who dig up town-maintained roads for the placement of their utility lines incur the full cost of repairing the roadway to its previous condition. Responsible Municipal Entity: the Board of Selectmen, acting under their capacity as Highway Commissioners, and the Highway Department.