PAXTON, MASSACHUSETTS
2008 COMMUNITY MASTER PLAN

CHAPTER 7

TRANSPORTATION

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Paxton's transportation system consists of three State numbered routes, Routes 56 and 122 traveling north/south and Route 31 traveling east/west, a few minor rural connectors and a number of local residential roads. These roads total approximately 45 miles. According to the State Department of Revenue they are categorized as follows; 5.38 miles of Mass. Highway Department maintained roads, 37.85 miles of Town accepted and maintained roads, 0.44 miles of State Park roads and 1.28 miles of private roads.

Traffic Patterns

Paxton has historically been a bedroom community with very few commercial uses. The limited presence of retail and service establishments means that Paxton contains few large traffic generators. With few large traffic generators, the majority of Paxton's traffic consists of local residents traveling within town and to work and residents of neighboring towns passing through to reach a destination. Table T-1 below indicates that more than eighty-five percent (85%) of Paxton's workforce leaves the Town for work everyday. Additionally, the 2000 Census indicates there are 229 self-employed residents in Paxton. This number may account for a large percentage of those who list Paxton as their place of employment; however, home-based occupations may require travel to clients or jobs sites and may generate traffic that leaves Paxton. Increased growth to the north has contributed to an increase in traffic through Paxton to places of employment to the south and west, particularly in the City of Worcester and the interstate highway system. The result of these factors is that during peak travel periods traffic is fairly heavy along the few major routes through Town.

Table T-1 -Workforce Place of Employment for Paxton Residents

Place	Number of People	% of Workforce
Worcester	1,006	46.3%
Paxton	313	14.4%
Holden	85	3.9%
Spencer	74	3.4%
Auburn	52	2.4%
Marlboro	42	1.9%
Fitchburg	41	1.9%
Millbury	37	1.7%
Shrewsbury	32	1.5%
Gardner	28	1.3%
Southbridge	27	1.2%
Other	436	20.1%
Total	**2,173**	**100%**

Source: 2000 US Census

Table T-2 indicates the increase in the number of vehicles registered in Paxton over the last fifteen years. The number of cars registered has been growing steadily for the past fifteen years and has begun to grow even more rapidly over the last ten years. In the two previous five-year periods the number of cars increased by 18.4% and 17.7% respectively. The increase from 1990 to 2000 was 26.5% or 3 times the population growth (8.6%). This trend is not specific to Paxton alone but is indicative of society's increased dependence on the automobile. This increase means there are more vehicles per household, which suggests less carpooling or trip-chaining, likely resulting in an increase in overall vehicle miles traveled. This should be of particular concern to Paxton due to the lack of services and public transit in Town, coupled with growth of housing in communities to the north that will continue to funnel traffic through Paxton.

Table T-2 - Number of Registered Vehicles by Year

Year	Number of Vehicles	# Change	% Change
1990	2,841		
1995	3,036	+195	+6.9%
2000	3,594	+558	+18.4%
2005	4,229	+635	+17.7%

Source: Massachusetts Department of Revenue

Traffic Volumes

According to traffic volume counts maintained by the Central Massachusetts Regional Planning Commission (CMRPC), traffic on Paxton's roads has increased over the last eight years, with six of these years indicated in Table T-3. It should be noted that the increased flow is not evenly distributed among the roads listed. Route 31 (West St.) and Route 56 (Richards Ave. north of Route 31) had the highest percentage increase (29% and 42% respectively). This increase does

not appear to be caused by any single factor. New development in Paxton and Rutland, an increased number of young drivers with their own vehicle, lack of services within Paxton, and increased employment opportunities in neighboring communities are all contributing factors. Due to the availability of highway access and the location of employment centers, much of Paxton's traffic is oriented toward Worcester. This is supported by the most recent traffic counts that indicate Route 122/56 South of Paxton Center has nearly twice the daily volume of traffic than any other road in Town. This is not surprising since three State numbered roads (Route 122, Route 56 and Route 31) converge at Paxton Center.

Table T-3 - Total Traffic Volumes on Major Road Sections

Road Section	1998	2001	1998-2001		2004	2001-2004	
			# Change	% Change		# Change	% Change
Route 122/56 (Pleasant St.) South of Route 31	10,392	10,524	132	+1%	No Count	N/A	N/A
Route 31 (West St.) West of Route122 (Pleasant St)	5,327	5,192	-135	-3%	6,692	1,500	+29%
Route 122 (Pleasant St.) North of Route 31 (West St)	4,650	5,137	487	+11%	No Count	N/A	N/A
Route 31 (Holden Rd.) @ the Holden Town Line	4,754	5,038	284	+6%	5,210	172	+3%
Route 122 (Pleasant St.) @ the Rutland Town Line	*3,741	4,645	904	***+24%	4,544	-110	-2%
Route 56 (Richards Ave) @ the Rutland Town Line	**2,774	2,837	63	***+2%	3,220	383	+14%
Route 56 (Richards Ave) North of Route 31(Maple St.)	3,325	3,302	-23	-1%	4,671	1,369	+42%

*Counted in 1992 ** Counted in 1991 ***These percentages cover longer periods of time and are for illustrative purposes only Source: CMRPC Traffic Counts

Table T-4 below illustrates the traffic volumes at the morning peak travel period (7AM to 9AM) on Paxton's major roadways. This table indicates that traffic destined south and west has increased substantially, a result to be expected due to the concentration of workplaces in these directions. This increase is representative of the trend of people moving further from employment centers for a better quality and more affordable way of life, as well as the increase in residential development to the north of Paxton. In fact, the only area where traffic has decreased during the morning commute is northbound on Route 122 (Pleasant St.) at the Rutland Town line. Although the observed traffic volumes have only decreased by eighteen (18) car trips it represents a nearly eight percent (8%) decline. This could represent the loss of an employment center to the north or may indicate that those who work north of Paxton have moved north or elsewhere to be closer to work. Interestingly, the traffic on Route 56 (Richards Ave) north of Route 31 increased substantially in both directions (+58% northbound and +74% southbound), while traffic on the same road at the Rutland Town line was up only 5% northbound and 20% southbound. The increase southbound is most likely due to recent residential construction in the area. However, the increase in the northbound traffic may be an anomaly but could be attributed to students traveling to Anna Maria College via Streeter Road.

Table T-4 - AM Peak Travel Period Traffic Volumes

Road Section	Direction	2001	2004	# Change	% Change
Route 31 (West St.) West of Route122 (Pleasant St)	Eastbound	716	860	144	+20%
	Westbound	299	500	201	+67%
Route 122 (Pleasant St.) @ the Rutland Town Line	Northbound	236	218	-18	-8%
	Southbound	570	700	130	+23%
Route 56 (Richards Ave) @ the Rutland Town Line	Northbound	176	185	9	+5%
	Southbound	397	478	81	+20%
Route 56 (Richards Ave) North of Route 31(Maple St.)	Northbound	200	301	115	+58%
	Southbound	350	580	260	+74%

Source: CMRPC Traffic Counts

Table T-5 shows the evening peak travel period (4PM to 6PM) traffic volumes. These volumes show a very different picture than the morning peak travel period. Traffic traveling westbound out of Paxton on Route 31 west of Route 122 grew at a faster rate than traffic traveling eastbound into Paxton; however Route 122 @ the Rutland Town line and Route 56 @ the Rutland Town line lost volume traveling north while the southbound traffic increased during evening peak travel period. This is opposite of what one would expect given the morning peak travel period trend of more traffic traveling south than north. This could be explained by people returning home from work in a less regular pattern than they travel to work, working longer (or shorter) days or perhaps using commercial amenities available in the vicinity of their workplace, thus reducing the number of trips out of Town. Traffic on Route 56 (Richards Ave.) north of Route 31 has increased significantly in both directions (10% northbound and 74% southbound). As with the morning peak travel period, the southbound increase seems to be without a definitive cause but may also be due to an increase in students attending classes at Anna Maria College.

Table T-5 - PM Peak Travel Period Traffic Volumes

Road Section	Direction	2001	2004	# Change	% Change
Route 31 (West St.)	Eastbound	394	531	137	+35%
West of Route122 (Pleasant St)	Westbound	680	986	306	+45%
Route 122 (Pleasant St.)	Northbound	715	590	-125	-18%
@ the Rutland Town Line	Southbound	349	363	14	+4%
Route 56 (Richards Ave)	Northbound	416	409	-7	-2%
@ the Rutland Town Line	Southbound	234	299	65	+28%
Route 56 (Richards Ave)	Northbound	493	544	51	+10%
North of Route 31(Maple St.)	Southbound	240	418	178	+74%

Source: CMRPC Transportation Counts

Road Conditions

The major issues facing Paxton, as identified by the current DPW Superintendent, revolve around the traffic situation at the center of Town, the need to reconstruct aging roads, and the lack of sidewalks throughout Paxton.

First, the center of Paxton has five roads intersecting in a triangle of two-way streets with one traffic signal, at the intersection of Routes 31 and 122. This, combined with the steady increase in traffic moving through Town, may pose challenges with increased traffic volumes. These could include not only congestion but also potential safety issues. The historic resources of this area, including the Town Common, are a major part of Town character that is important to many residents. As such, this may preclude any major reconstruction or changes without in-depth study and public process to identify acceptable design options. This would involve a commitment to a process that encourages transportation officials to collaborate with community stakeholders so the design of the project reflects the goals of the people who live, work and travel in the area. Such collaboration, referred to as Context Sensitive Design, results in creative and safe transportation solutions.

Currently the majority of Paxton's roads are in fair to good condition as the Town has been able to keep up with the needed repairs in recent years. According to the Superintendent these repairs generally consist of resurfacing projects. Though the roads appear well maintained the surface work does not address the underlying structure of the roads, and in the long term, there will likely be an increasing need to do more comprehensive repairs. The Town does recognize this need and is beginning to address it through long range planning. For instance, Paxton has submitted a Project Notification Form to the Central Massachusetts Metropolitan Planning Organization (CMMPO) for full depth reconstruction and widening of Route 31 (Maple Street and Holden Road) with the hope that this will be funded by the State as part of the CMMPO's Transportation Improvement Program (TIP). The Maple Street portion of this project was denied by the CMMPO and the Town of Paxton resurfaced the road using Chapter 90 money in the summer of 2007. The Holden Road portion of the project was denied as a TIP project but the CMMPO saw some benefit and committed to the project as "book job". This term means that the MassHighway will aid the Town in some of the engineering needs for the resurfacing but there will not a full survey or full depth reconstruction.

Additionally, the Department of Public Works has indicated that Marshall Street, a minor rural connector road that links Leicester and Spencer though Paxton, is carrying progressively more traffic and is deteriorating. This traffic includes large commercial trucks that have begun to use Soumi Street and South Street (both minor residential streets) as a connector to Rt. 31 en route to the interstate system. Soumi Street and South Street are both in need of widening with the addition of sidewalks to accommodate their use as connectors between Route 31 (West Street) and Marshall Street; however, there are right of way issues that will increase the cost significantly. The current highway department budget is $539,738; this amount *covers* maintenance, repairs, snow removal and other road-associated costs. Paxton also receives $115,000 in Chapter 90 money through Mass Highway for street improvements. This budget has been adequate to keep Paxton's roads in acceptable condition but does not offer sufficient funds to reconstruct heavily traveled roads and add sidewalks, which are lacking throughout the Town.

Currently Paxton's Subdivision Rules and Regulations require that new developments install sidewalks on both sides of the street. However, many of the existing streets do not have sidewalks and those that do exist are in substandard condition. Routes 122, 56 and 31 all are high traffic volume roads that link many of the residential areas in Paxton, but they are not particularly pedestrian friendly. Grove St. is the only major road with modern sidewalks, and these were only recently installed as part of the road reconstruction project. These sidewalks run the entire length of the street but have no connectivity to any other sidewalks.

Regional Transportation Projects

There are currently seven projects in Towns surrounding Paxton that are listed on the TIP. Four projects have been programmed, while the other three have not.

- The first is the Route 122 Scenic Byway Project, which began in the fall of 2006. This *study* will begin at the Paxton/Worcester line and include communities along the byway to Route 2 in Orange. The study committee will identify the scenic qualities of the road and write a management plan that will outline a strategy to protect, preserve and enhance these features. This planning project will be a two-year effort and will include significant public outreach.
- In 2007 the Mill Street Bridge in Holden is currently scheduled to be replaced over the Quinapoxet River.
- Route 56 (the Huntoon Highway) in Leicester will receive pavement rehabilitation.
- Spencer's Route 31 (Maple St.) reconstruction project is currently listed on the TIP for FY08.

The three projects that have not been programmed include:

- Route 56 (Pommogussett Road) in Rutland, to receive pavement rehab with sidewalk construction;
- Route 31 (Charlton Road) in Spencer, to receive resurfacing and minor box widening, and
- Route 31 (Pleasant Street) in Spencer, to receive milling and resurfacing.

These projects (excluding the Scenic Byway project) will have little impact on Paxton's roads and traffic in the long term but may produce some short-term effects while motorist seek alternate routes during construction.

Safety

While vehicle crashes will never be eliminated completely, on Paxton's roads they are relatively infrequent and often minor. Regrettably, there have been several fatalities in the recent past due to speed and inclement weather. However, the majority of reported crashes in Paxton are minor fender benders and single car crashes with no injuries reported. Additionally, many of these crashes occur while traffic volumes are high during the peak travel periods, and are more likely a result of driver error rather than inherent problems with the road conditions. A review of the crash data available for the most recent 3-year period indicate that there are no intersections in Paxton that have repetitive crash issues.

Although the data indicates there are no problem intersection the citizen survey conducted by the Master Plan Steering Committee indicated a number of intersections that cause concern. The highest number of responses dealt with the area around the Town Common and included speeding on Richards Ave. and Maple St., the timing of the traffic lights, lack of sidewalks and the Highland Ave./Richards Ave. intersection. Sight lines were noted as challenging at the intersections of Grove St. and Holden Rd., Pleasant St. and Reservoir Rd. and Marshall St. and Red Oak. Finally, speeding was also noted as a concern on the following streets: Grove Street, Pleasant Street (north and south), West Street and Brooks Road

Public Transportation

Paxton is not a member of the Worcester Regional Transit Authority (WRTA) and receives no fixed route bus service. Since 2002 cities and towns in the outlying areas of Boston (beyond the 78 communities that surround the city) that are served by or abut communities that are served by commuter rail have been assessed an annual fee by the Massachusetts Bay Transportation Authority (MBTA). Each town's assessment is based on the latest Census population for the community, with a credit for the assessment charged by its regional transit authority. This new program will be phased in over a 5 year period with an additional 20% assessed each of the following 4 years. Currently Paxton is paying $27,846 to the MBTA in assessments because it abuts Worcester, which is served by the commuter rail.

Airport

The Worcester/Boston Regional Airport is located just south of the Paxton/Worcester line with an entrance situated from Route 122 in Worcester. Currently the airport has no commercial carriers and thus is not a significant traffic generator. The future of the Airport is uncertain, although Worcester and Massport are committed to implementing measures intended to create a multi-purpose airport. Commercial service is likely to return one day. When this happens, Paxton may see a notable increase in traffic as those who live to the north would likely travel through Paxton to access the airport. The magnitude of this increase would be directly related to

the number of airlines present, the number of flights, and the destinations offered. As Airport traffic grows, Paxton should participate in regional discussions designed to mitigate these traffic increases on the regional road network.

Summary of Principal Findings

- The majority of traffic in Paxton is carried by 3 roads (Routes 31, 56 and 122), and is primarily oriented to destinations outside of Paxton.
- The greatest percentage increase in traffic over the last three years occurred on Route 56 (42%) followed by Route 31 (29%).
- Paxton's roads appear to be in good condition but long term planning is needed to ensure continued functionality of the road system.
- Currently, Paxton's roads have low crash rates but increased traffic could raise the risk of crashes.
- With modest growth expected for Paxton, development in surrounding communities could greatly influence future traffic patterns and volumes on Paxton's roads (i.e. growth in air traffic at Worcester Regional Airport, housing growth north of Paxton, and commercial development south of Paxton.)

Transportation- Goal

- To provide a transportation system that is adequate, safe and well maintained for all users, while working to increase safety and reduce noise.

Transportation - Objectives

- Ensure that Paxton's transportation system has sufficient capacity to handle projected use.

- Increase pedestrian safety through the construction of a more comprehensive sidewalk network and fund its continued maintenance and repair.

- Reduce the use of local roads for cut through purposes by large commercial trucks in order to increase pavement life and safety for pedestrians and bicyclists.

- When reconstructing roads Paxton should address the condition of the roads' substructure, the need for widening and the inclusion of sidewalks where applicable.

- Support and implement the findings and recommendations of the Rt. 122 Scenic Byway Management Plan.

- Increase enforcement of local and state traffic laws in order to increase safety.

- Encourage the expansion of regional mass transit options in an effort to reduce traffic congestion and increase mobility for all residents of Paxton.

Transportation Recommendations

1. Prepare a Pavement Management Program: A Pavement Management Program identifies pavement issues through a systematic process of data collection and analysis, develops recommendations to address the issues, and monitors the effectiveness of improvement projects after they are implemented.

   In general, a successful program defines a roadway network, identifies the condition of each segment of the network, develops a list of needed improvements, and balances those needs with the available resources of the Town.

   The Town should prepare a Pavement Management Program. This Program's report will analyze the condition of Paxton's roads and prioritize maintenance projects using the data collected. Also, depending on the methodology chosen, the Program's reporting system can predict deterioration and the cost of repairs over time allowing the Town to forecast projected capital needs for up to ten years in the future. Responsible Municipal Entity: The Highway Department

2. Formalize the Town's Roadway Improvement Plan: Similar to a Capital Improvement Plan a formalized plan will allow Paxton to look at future expenditures for roadway maintenance and reconstruction. The plan should look 5 years into the future and be based on the Pavement Management Program. As repairs are made or as priorities shift the Roadway Improvement Plan would be adjusted or modified to reflect new needs and conditions. The Roadway Improvement Plan should also address the construction of new sidewalks in areas that are currently lacking especially those areas where some sidewalks currently exist. Responsible Municipal Entity: The Highway Department and the Finance Committee.

3. Investigate the Possibility of Regional Mass Transit: Paxton should monitor the Worcester Regional Transit Authority (WRTA) and consider membership in the future. Currently Paxton is paying $27,846 to the Massachusetts Bay Transportation Authority (MBTA) in assessments although it is not a member of the WRTA. Future WRTA membership may allow Paxton access to certain funding streams for paratransit and any assessment paid to the WRTA for membership will be deducted from the MBTA assessment that Paxton pays yearly.

   With both the population growth in towns to the North and local roadway traffic projected to increase over the next decade, it would serve Paxton well to encourage mass transit alternatives wherever possible. Towards this end, it is recommended that the Town pursue:

   Bus Service: The Town should pursue its membership to the WRTA and support efforts to provide public transportation alternatives on a regional scale. A viable 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 Town Manager

4. Address Problem Intersections: The Town should take a proactive approach to addressing its problem intersections. The most noted problems include: poor sightlines, the

"Massachusetts" or rolling stop, traffic signal timing, and failure to stop at the marked stop line. Some examples of these problem intersections are Maple Street/Grove Street intersection; Pleasant Street/Reservoir Road intersection; Pleasant Street/Grove Street intersection and in the area of the Town Common. Responsible Municipal Entity: Highway Department

5. Explore Further Trail Development: The Town should investigate the identification and future development of a trail system(s), both on and off road, that link residential areas with destination points such as the town center area, public parks and Moore State Park. These trails should be sufficient to service pedestrians, bicyclists and other non-motorized modes of transportation and may include sidewalks, Multi-Use Paths or traditional hiking paths. Responsible Municipal Entity: The Conservation Commission in conjunction with the Highway Department, Board of Selectmen and Town Manager.

6. Investigate the Creation of Truck Exclusion Zones: Truck Exclusion Zones can only be authorized only if a suitable alternate route is available for truck traffic. The alternate route must be wide enough to accommodate trucks and the pavement able to withstand truck traffic. In addition, if there are bridges along the route, they must provide adequate height clearance and weight allowance for trucks.

   An exclusion zone may be justified if trucks account for at least five percent of the street's total traffic and if they reduce the safety and carrying capacity of the street. Exclusion of trucks may also be warranted when pavement condition is so poor that repeated heavy wheel loads would cause severe deterioration. By law, trucks cannot be excluded from a state highway or any main highway leading from one town to another.

   In Massachusetts setting up a Truck Exclusion Zone requires the permission of the Massachusetts Highway Department. This in turn requires a study that documents truck traffic levels and justifies excluding trucks from affected streets. CMRPC can aid Paxton in evaluating truck traffic problems and developing strategies for dealing with them. Additionally, CMRPC can assist local officials in performing the study required if truck exclusion appears to be a reasonable solution. Responsible Municipal Entity: The Highway Department in conjunction with the Board of Selectmen

7. Work with The Route 122 Scenic Byway Advisory Committee (or its successor in interest): This Committee is comprised of representatives from all the communities that host a portion of Route 122 from the Paxton/Worcester town line to the Petersham/New Salem town line. Currently this group in collecting data about scenic, historically, culturally and archeologically significant places with a proximity to Route 122 and using this data will draft a management plan. The Plan will conclude with a set of guiding policies for the byway's management plan along with a set of recommendations intended to enhance and improve the byway's existing intrinsic qualities. These recommendations will include regulatory and non-regulatory ideas as well as on-the-ground physical improvement projects along the byway. The plans prepared as part of this component will include a strategy for maintaining and enhancing the byway's intrinsic qualities; an implementation schedule that lists all of the stakeholder responsibilities in implementing the corridor plan (this will include a description

of existing enforcement and review mechanisms, including a schedule for the continuing review of how well those responsibilities are being met); a plan to accommodate commerce while maintaining a safe and efficient level of highway service; a signage plan that enhances the byway visitor's experience (this will include a demonstration of compliance with all existing local, State and Federal laws on the control of outdoor advertising); a discussion of design standards relating to any proposed modification of the roadway; a plan for making improvements to enhance the byway experience (including a demonstration that intrusions on the visitor experience has been minimized to the extent feasible); and a description of plans to interpret the significant resources of the scenic byway.

The Byway Advisory Committee will ultimately become a 501(c)(3) and begin to operate as an independent entity, which could prove to be a beneficial ally in the future. This group will seek funding through grants and other means to implement the projects put forth in the management plan and will be amending and adjusting this plan as time progresses. The Town of Paxton has a major stake in how the future of Route 122 develops and should take every chance it has to voice its concern and be a part of that future is shaped. Responsible Municipal Entity: The Board of Selectmen, Historical Commission, and Highway Department.