Transportation

I. Issues, Goals & Recommendations

Transportation networks have an indelible impact on the physical form of cities and towns. Since roadways supply access to land, they are as central to a master plan as zoning regulations or the type and location of a community's natural resources. Over the past 20 years, transportation planning has changed considerably. Today, a city or town master plan rarely encourages building new roads such as the one proposed in Charles Eliot's Hamilton Master Plan (1969). Aside from the enormous cost of building streets, there are often environmental and social costs that exceed the intended transportation benefits of new roadways. Instead, planners and policy analysts have shifted their focus to managing traffic volume and speed, providing for non-vehicular modes of travel, and making strategic connections between land use, design and transportation.

Hamilton's development pattern is framed by a simple circulation system. Here, roadways are an integral part of the town's visual image, and the absence of streets in some parts of Hamilton reflects the endurance of substantial tracts of land used for agriculture, horseback riding and conservation. The town's 56 miles of roads are comprised mainly of accepted public streets and a number of small, inconspicuous private ways, but roads are not the only transportation feature in Hamilton. The town also has a wonderful network of riding and walking trails and an unusual complement of bridges. These elements are important to the town, and each one presents unique challenges for a master plan.

Important Questions

- What are the distinctive features of Hamilton's roadway system?
- Is the town's transportation network safe and accessible for all users?
- Where are Hamilton's critical traffic locations, and what factors make them critical?
- To what extent does the transportation network support or conflict with Hamilton's long-term development goals?
- What opportunities exist for Hamilton to improve its transportation system and address or resolve transportation needs?
- What is local government's responsibility for transportation facilities?

Discussion

Few features do more to convey the impression of a town than its roads. Commercial strips framed by endless curb cuts, large parking lots and a succession of traffic lights are common fare for many suburbs, but Hamilton is different. Here, scenic tree-lined streets carry local and regional traffic through town. Although congestion occurs in some locations before and after school and during peak-period commuting hours, Hamilton is hardly overwhelmed with traffic. The road network is generally adequate for supporting a small population's mobility needs, and Hamilton has done a commendable job of maintaining its streets. The first impression formed by driving around Hamilton is that the town is rural, beautiful, affluent and quiet. The second impression is that in many areas, the town's pastoral image masks conditions that are unsafe for drivers, pedestrians, bicyclists and equestrians. At times, transportation conflicts in Hamilton seem to express larger uneasiness about growth, such as competition between cars and farm tractors for space on the road.

Ironically, the undifferentiated land use pattern along Hamilton's outlying roads is a potential safety hazard because it offers few visual cues to conditions that warrant lower travel speeds or caution. In addition, most development in Hamilton consists of individual house lots on primary and secondary roads. As a result, the town's roads perform two functions: local streets for those who live on them, and conduits for in-town and regional trips. Hamilton has few options for separating local from non-local traffic, so customary activity on local roads – walking, bicycling, and the social exchanges that occur during routines such as crossing the street to a mailbox – involves a higher risk than in communities with more well-defined road hierarchies. Traffic calming measures, or techniques to reduce travel speeds and volume, should be considered in several critical traffic areas: at the intersections of Woodbury and Essex Streets, Asbury and Highland Streets, Asbury Street and Bay Road, Sagamore and Bridge Streets, and Walnut Road approaching Bay Road. These roads carry the highest daily traffic volumes in Hamilton, and it is not surprising that a majority of the town's accidents happen on them.

Gravel roads are among Hamilton's most charming transportation features, but they are not problem-free. All of Winthrop Street and portions of Cutler Road and Chebacco Road remain unpaved and many residents would like to keep them that way. Since the surface of a gravel road is usually unstable, drivers have to travel slowly and exercise more caution than on paved roads. Rural character, low traffic speed and relatively few cars make gravel roads endearing to those who live along them, yet the gullies, frost heaves, mud, and deep, often imperceptible ruts on unpaved roads invoke the wrath of other drivers and the public safety personnel who must respond to emergencies. Residents do not agree about the desirability of Hamilton's unpaved streets, and similar tensions exist within town hall. Driver and pedestrian safety should never be subordinate to image, yet advocates on both sides – those who argue for asphalt and those who insist on gravel – cite public safety as a point in their favor. The DPW tries to keep the roads in passable condition, but a gravel road does not withstand the wear and tear caused by cars and when overused, it deteriorates. Unpaved roadways are historic resources and Hamilton is fortunate to have them. Without adequate maintenance, however, they can easily become generators of nonpoint source pollution for nearby wetlands, brooks and streams. Hamilton has to decide how important it is to protect these gravel roads because preserving them requires a regimen of best management practices and constant public education.

Downtown is Hamilton's only commercial area and a crucial gateway into the community. Though appealing, the district needs sidewalks, parking, bicycle racks and public realm improvements to accommodate the multiple modes of transport that converge there on a daily basis. In some parts of the downtown area, the existing sidewalk network is uneven and poorly delineated. These

conditions compromise pedestrian safety and make the downtown inaccessible to persons with mobility impairments. Its compact street grid and commuter rail facility, combined with the sheer attractiveness of so many small businesses clustered together, make the entire area a key transportation node. Attention to circulation design is critical: without safe, equitable ways to accommodate cars, delivery trucks, walkers and bicyclists, downtown can be a chaotic environment. To promote a thriving business zone, Hamilton has to provide for those who must drive to the downtown area and at the same time, encourage more non-vehicular access. Logical, inviting, walkable connections between businesses and on both sides of Bay Road are essential for public safety as well as downtown's vitality.

Hamilton's Road Safety Committee has made many recommendations to create safe transportation alternatives in town. These recommendations should be implemented, but the future of road safety does not end with carrying out one committee's work. Adequate, flexible funding for roadway maintenance and other transportation improvements will remain an issue for every community in the Commonwealth, including Hamilton. As proposed in the Community Facilities and Services element, Hamilton needs an effective capital planning process and transportation safety must be a central part of it. In addition, public education is the key to successful transportation plans. Non-structural solutions to road safety are much less expensive than structural solutions, yet they are more difficult to implement because they require public buy-in. The reason: visitors and non-local commuters are not the only ones who must change the way they drive. Many transportation studies reinforce that residents – people who travel on a town's roadways every day – are more likely than outsiders to speed and be less attentive to the street simply because they are familiar with it.

There is tremendous concern on the part of residents and local officials that as Hamilton grows, development will gradually interrupt and fragment the town's established network of riding and walking trails. Updated land use regulations should be instituted to reduce the risk of lost trail corridors, but from a transportation perspective, the situation in Hamilton is more complicated. Unlike many suburbs in which development is broadly distributed throughout town, Hamilton has a higher-density village core surrounded by a great deal of open space and agricultural land. This pattern defines Hamilton's physical form and it is essential to the visual character of the town. It also sheds light on Hamilton's fairly low number of vehicles per person compared to many suburbs in Massachusetts, including those with commuter rail stations. In Hamilton today, 40% of all households and 33% of the population live on 12.5% of the town's land. A decade ago, 45% of all households and 38% of the population lived in the same geographic area: South Hamilton and several neighborhoods in East Hamilton. As more growth extends into Hamilton's outlying rural areas, the town may lose not only its rural trail system, but also the benefits of having so much of its population concentrated close to community services.

Transportation Goals

1) Provide and maintain trails, sidewalks and bicycle paths to promote non-vehicular travel throughout the town.

2) Identify and address high-priority traffic safety areas, considering vehicular, pedestrian, bicycle and equestrian activity.

3) Evaluate and strengthen the town's scenic road policies, emphasizing the desirability of street trees and other features that contribute to Hamilton's visual character.

4) Recognize the cultural, scenic and environmental value of Hamilton's unpaved roadways and protect them accordingly.

5) Work effectively with regional, state and federal officials to assure that transportation development policies respect the character of Hamilton's bridges.

6) Coordinate public and private efforts to assure an adequate supply of parking in downtown Hamilton.

Transportation Policies

1) Roads and Community Character. Hamilton's network of minor regional roads, local streets and bridges is very important to the scenic beauty of the town. To the maximum extent possible, Hamilton will preserve mature trees, open views and stone walls on all roads under the town's jurisdiction, assuring that local government, landowners and developers work in partnership to preserve the character of town roads.

2) Unpaved Roads. The enduring presence of unpaved roadways contributes to Hamilton's rural image. The town will commit appropriate resources to maintaining gravel roads, including street classification policies, capital outlays, signage, and other alternatives to paving.

3) Equestrian Trails. Bridle paths and trails have historic, agricultural and recreational significance in Hamilton and the town considers them to be a critical community resource. Using its powers under zoning and subdivision control, local government will make every effort to protect these resources from alteration, discontinuation or loss of public access. Agricultural land with equestrian facilities shall be a high priority for open space acquisitions financed in whole or in part with town funds.

4) Land Use and Transportation Policy. Public facilities, shopping areas and services will be concentrated in or close to the town's more densely settled areas as part of a comprehensive plan to protect outlying open space from development and reduce the volume of locally generated traffic on Hamilton roads. Hamilton strives to be a walkable, bicycle-friendly community and it will encourage land use options that help to achieve that end.

5) Pedestrian and Bicycle Facilities. Hamilton is committed to providing and maintaining a safe, cross-town system of walking and bicycle paths. Through its own expenditures and developer contributions, the town will assure that safe, accessible, clearly delineated areas exist alongside established collector roads to facilitate non-vehicular circulation. Where appropriate, a modest expansion of pavement width will be considered to support alternative modes of transportation.

6) Downtown Hamilton. Land use, transportation and public safety strategies in Downtown Hamilton must be integrated to assure safe, efficient access to property, improve pedestrian safety and enhance the public realm. Downtown Hamilton's civic vision anticipates both a vibrant business district and the town's primary gateway. Toward these ends, the town will work in partnership with businesses, property owners, developers and state agencies to design, build and maintain accessible, attractive pedestrian walkways throughout the downtown area.

7) Traffic calming. Whenever possible, traffic calming will be given preference over conventional traffic control measures, signalization or road widening to address the needs of critical traffic locations in Hamilton. Traffic calming options will be planned by the town's public works and public safety personnel, working cooperatively with residents, business and institutional establishments.

Transportation Recommendations

Bylaws and Regulations

1) Establish a Scenic Corridor (Overlay) District along key local roads in order to minimize the potential for adverse impacts on roadside open space, agricultural features and mature vegetation. Within the Scenic Corridor District, modify the zoning bylaw's existing reduced frontage provisions to require a conservation restriction over open space at the road.
2) Provide regulatory incentives to preserve, connect and extend existing equestrian and walking trails on Hamilton's large parcels and farms if they are developed or converted to another use.
3) Adopt new parking and site plan standards to require reasonable off-street parking, coordinated access to private property, landscaping and pedestrian improvements that will implement a coherent civic vision for Downtown Hamilton.
4) Adopt a general bylaw that governs all curb cut review, including upon changes in tenancy.
5) Adopt regulations to subordinate parking to commercial buildings in Downtown Hamilton, particularly when older properties are assembled and redeveloped to support new, more viable uses.
6) Amend applicable portions of the Zoning Bylaw to incorporate by reference both the Master Plan Update and the (proposed) public realm plan for Downtown Hamilton.

Policy, Program and Capital Investment Actions

1) Enlist town officials and the public in a formal street classification study to identify and distinguish roads for higher volumes of traffic from roads that should serve primarily local needs. The town should use its street classification plan to prioritize annual transportation improvement expenditures.
2) Downtown Hamilton's current and long-term desirability will be enhanced by a safe, accessible sidewalk system. The town should prepare a public realm for the downtown area, considering walkways, landscaping, lighting, pedestrian amenities, and off-street parking locations, design standards and treatments.
3) In addition to their scenic and cultural value, unpaved roads involve lower construction costs than paved roads, they require less equipment and fewer skilled operators, and they generate lower speeds. However, dirt and gravel roads require regular maintenance to keep them passable and safe. If the town determines that its long-standing gravel roads can no longer support daily traffic loads, Hamilton should plan for road improvements that comply with MassHighway's Low Speed-Low Volume Design Standards (1997) instead of conventional road design criteria.

Implementation Capacity

1) Provide technical assistance to town staff, boards and committees in methods of maintaining and managing the use of gravel roads.
2) Appoint an ad hoc committee to assist the Department of Public Works and Police Department in developing a town-wide street classification plan.
3) Form an interdepartmental team (e.g., public works, public safety) to seek grants for the design and construction of bicycle lanes and paths along designated roadways.

II. Transportation Analysis

Among Hamilton's many advantages is its convenient access to highway, rail and air transportation service. A small, quiet town that belies its close proximity to Boston, Hamilton has a strikingly simple road network, several bridges and a well-preserved system of equestrian and walking trails. Generally, the roads in Hamilton appear to be in good condition, a perception shared by most residents who responded to the master plan survey in 2002. Except for Moulton and Essex Streets, all local roads have been repaved or rebuilt within the last ten years, the most recent being Bridge Street (2003).

Roadways

Hamilton has about 56 miles of roads, 88% of which are locally accepted streets controlled and maintained by the town.[1] On average, the surface width of a two-lane roadway is about twenty-three feet, although the character of Hamilton roads varies considerably. Some of the newer subdivision roads are wider, nearly thirty feet. According to the Public Works Department, streets such as Blueberry Lane and Juniper Road were originally slated for sidewalks but the developers did not build them, resulting in an unusually wide paved width. In contrast, the streets in Downtown Hamilton are narrower, with an average width of twenty to twenty-two feet. Most of the town's roads have yellow centerline stripes and white fog lines along both sides.

Transportation planners characterize roads by functional classification, or a roadway's purpose and use within the local and regional highway network. The network consists of a hierarchy of streets and highways designed to move traffic safely and efficiently from origin to destination. In urban areas, the hierarchy consists of four tiers: principal arterials, minor arterials, collector streets and local roads. As the conduit for federal highway funds to their districts, regional planning commissions classify streets and highways, using standard rating criteria. Table 8 summarizes the functional classification of Hamilton roadways.

Table 8: Functional Classification of Hamilton Roadways

Classification	Miles	Examples
Local	38.82	Willow, Linden Streets
Minor arterial	3.39	Bay Road
Major collector	9.68	Highland Street, Walnut Road, Essex Street
Minor collector	4.53	Asbury Street
Total	56.42	

Source: MassHighway (2003).

Hamilton's major thoroughfare is Route 1A, which connects with Route 128 at Exit 20A in North Beverly (see Map 13) and winds northward through Wenham. Technically classified as a "minor arterial," Route 1A serves the dual purposes of carrying regional traffic between urban nodes such

[1] Unless otherwise noted, data used to classify and analyze Hamilton's roadway network were obtained from a database developed and maintained by MassHighway and distributed by MassGIS as "mhdroads_arc_inventory.dbf" (2003).

as employment and shopping areas, and providing local or in-town access. A two-lane road that runs in a north-south direction through Hamilton, Route 1A is maintained by the Commonwealth and the town does not have jurisdiction over improvements within the state's right-of-way.[2] In Hamilton, Route 1A is called Bay Road, which began as a Native American trail from Boston to Ipswich Bay and was first laid out in 1640 through property owned by Matt and John Whipple. It extends from Hingham through Boston to Newburyport, following the Kings Highway that connected the early colonial settlements, and it was the first state road in Massachusetts.[3] Over time, Bay Road has accommodated many types of transportation: stagecoaches, mail carriers on horseback, bicycles, pedestrians and automobiles.

A second state-numbered highway, Route 22, runs generally in a north-south direction through the eastern end of Hamilton. Route 22 is known locally as both Essex Street and Woodbury Street, and it serves as a major collector: a roadway that carries significant amounts of traffic in areas not directly connected to the larger regional highway network. On its journey through Hamilton, Route 22 provides access to several natural features, including Chebacco Lake and Beck, Round and Gravelly Ponds, conservation land owned by the Hamilton-Wenham Open Land Trust and numerous trails and pathways. It is a two-lane road that supports travel between Route 128 in North Beverly (Exit 18) and Essex, where it eventually joins with Route 133. The intersection of Woodbury Street and Essex Street in Hamilton, also called the "Four Corners," is reportedly the town's most accident-prone area because of poor visibility and narrow shoulder width.[4]

Several other roads collect and move traffic from Hamilton's neighborhoods to Routes 1A and 22 or local destination points, mainly Highland Street, Asbury Street, Bridge Street, and Walnut Road. Highland Street, which becomes Arbor Street in Wenham and Mill Street in Ipswich, runs in a north-south direction along the western end of Hamilton and often carries a considerable amount of peak-period traffic as commuters try to avoid congestion at the railroad crossing in South Hamilton.[5] Locally, it provides access to the Pingree School, Asbury Grove and Bradley-Palmer State Park, and connects with Asbury Street by the Asbury Grove Camp Meeting Ground. Asbury Street runs perpendicular to Bay Road and Highland Street, and it extends across the western half of town, terminating at Ipswich Road in Topsfield. Bridge Street, an east-west road through East Hamilton, crosses the Miles River and supplies a connection between Routes 1A and 22. Finally, Walnut Road in Downtown Hamilton is important because it serves as an alternate route between Bay Road and North Beverly, where it reconnects with Route 1A. According to state sources, each of these roadways carries between 2,500-7,200 vehicles per day.

All other roads – from the way into a subdivision to the interconnected through streets around South Hamilton – are classified generically as local roads. Since they function mainly as access ways to adjacent property, local roads are designed to carry small amounts of traffic, e.g., 100-700 cars per day. An interesting feature of Hamilton's road network is the extent to which local roads and collectors serve overlapping purposes. Since much of the town's development pattern consists of large house lots with driveway access to a main road, collector streets carry not only through traffic

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[2] Ibid

[3] Annette V. James, Images of America, Hamilton, 2002

[4] Steve Kenney, Director of Public Works, to Mary M. Coolidge, Community Opportunities Group, 14 February 2003.

[5] Open Space and Recreation Plan (1997), 3-12.

to highways and state-numbered routes, but also local traffic: trips between home and downtown, the schools, library, parks, and so forth. Residents along minor collector roads are more likely to experience traffic from in-town and regional development than residents of self-contained neighborhoods, yet they have the same need for safe places to walk, bicycle and congregate.

Recent traffic counts recorded by the Hamilton Police Department and MassHighway shed light on the demands placed on local roadways that intersect Route 1A, particularly in the western half of town. Cutler Road, a portion of which is unpaved, carries relatively few cars each day even though it provides the only direct connection between Bay Road and Highland Street across the northern end of town. Linden Street, which runs along the southern edge of the Business District between Bay Road and Highland Street, absorbs higher volumes of traffic and probably sees more today than when traffic counts were taken two years ago because it intersects with Union Street near the new library. Asbury Street carries the most substantial traffic volumes across the western part of Hamilton, a fact explained by its length, condition and relationship to other roads in the region. Asbury Street and Highland Street form a triangle from Hamilton to Ipswich/Topsfield Road, which in turn provides important links to U.S. Route 1 and Route 97 in Topsfield. As the only road that runs continuously from Route 1A into Topsfield, Asbury Street is destined to move cars, and it does. In addition, its convergence with Bay Road in South Hamilton is a busy intersection surrounded by high traffic generators: a community park, a community center and an elementary school, and it also serves as a gateway into the downtown area.

Table 9: Traffic Counts by Location

Road	Year	Weekly Total	Daily Average	Average Speed
Cutler Road	2002	1,164	166	30 mph
Linden Street	2002	6,158	880	31 mph
Asbury Street	2002	33,233	4,747	31 mph
Bay Road (1A) S. of Railroad Ave.	2002	N/A	23,400	N/A
Asbury Street	2001	N/A	7,800	N/A
Cutler Road	1997	N/A	190	N/A

Sources: Officer Donovan, Hamilton Police Department, MassHighway. "N/A" means not available.

Unpaved Roadways

Hamilton has three unpaved roads that have aesthetic and symbolic importance to local residents: Winthrop Street, Cutler Road and Chebacco Road. In Eastern Massachusetts, gravel roads are a rare and admired characteristic because of their association with rural development. The Public Works Department reports that Chebacco Road and Winthrop Street will most likely be paved in the future because of safety issues for emergency vehicles, pedestrians and automobile operators.[6] Moreover, some local officials would like to see the former town landfill property recycled for development and access to the site is available only from Chebacco Road.

[6] Steven Kenney, 10 February 2003.

Cutler Road Bridge (2003)

The status of Cutler Road is less certain, however. The unpaved section extends west from the Cutler Road Bridge toward Highland Street. Surrounded by open space, farmland and a few residences, the gravel portion of Cutler Road befits the character of adjacent land uses and preserves a rural image that matters deeply to many in Hamilton. In addition, the lack of pavement helps to control travel speeds and reduce the amount of through traffic between Bay Road and Highland Street. MassHighway had scheduled improvements to the Cutler Road Bridge this year, but after the structure was demolished local officials learned that the project would be delayed. Public safety concerns led the Board of Selectmen and Public Works Department to suggest that MassHighway pave the gravel portion of Cutler Road, only to be met with considerable resistance from neighborhood residents and the Planning Board. Ultimately, the town asked MassHighway to stabilize the roadbed and install new gravel – at least as an interim measure to assure that the police and fire departments can reach the neighborhood this winter.[7]

While many in Hamilton want to preserve these roads, others disagree. The Public Works Department reports that local and non-local motorists often complain about safety hazards and the poor condition of Hamilton's gravel roadways, particularly during the winter and early spring. At times, the condition of the roads has been so poor that mail, fire and plowing trucks could not cross them. Each summer, the Public Works Department maintains and repairs the roads by crowning them, adding more gravel, smoothing out the ruts and bumps with a grading machine. Each year, the town spends between $9,000-$12,000 to maintain Hamilton's gravel roads. According to the Public Works Department, the cost to maintain Chebacco Road, Winthrop Street and Cutler Road as unpaved roadways is about the same as the cost to pave them. [8]

Bridges

Another unique feature of Hamilton's transportation network is the presence of five bridges, all located on the streets for which they are named: Winthrop Street, Highland Street, Cutler Road, Gardner Street, and Moulton Street. With the exception of the Cutler Road Bridge, Hamilton maintains the bridges on its own or with neighboring Ipswich. State law requires that bridges over twenty feet in length meet National Bridge Inspection Standards, and that they be inspected at least every two years. Bridges smaller than twenty feet are not formally inspected by the state, and

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[7] Steven Kenney, by letter to MassHighway, 30 October 2003; Planning Board, by memorandum to Board of Selectmen (undated).

[8] Steve Kenney, Director, Department of Public Works, to Mary M. Coolidge, Community Opportunities Group, Inc., September 18, 2003.

Table 10: Hamilton Bridge Inventory

Bridge Name	Location	Year Built	Structure Type & Length	Functional Class	Maintenance Performed	Average Daily Traffic - 2001
Cutler Road *(Formally Webbers Bridge)*	Cutler Road	1891	Steel Girder & Floorbeam 48.8 feet	Rural/Local	1928 - superstructure raised to increase vertical clearance; new timber planking added 1942 - floor beam, stringers & planking replaced 1942-1969 - cosmetic repairs to superstructure 1975 - fire charred north truss & destroyed boards housing it which was then rebuilt 1980 - reconstructed	650
Winthrop Street *(Formally Willowdale Bridge)*	Winthrop Street	1895	Timber Stringer/Girder 32.1 feet	Rural/Local	1975 - major repairs, deck & steel stringers replaced 1989 - reconstructed 1997-1998 - bridge rebuilt	390
Highland Street *(Formally Norwood Mills Bridge)*	Highland Street	1833	Masonry Arch Deck 28.8 feet	Major Collector	1937 - bridge widened 2004 - to be repaired by Hamilton & Ipswich	3,000
Moulton Street	Moulton Street	1850	Concrete Slab Culvert 34.1 feet	Rural/Local	1935 - reconstructed 2000 - reconstructed	2600 *(1997 count)*
Gardner Street	Gardner Street	N/A	N/A	N/A	N/A	N/A

Note: Similar information is not available for Gardner Street Bridge because it is < 20 feet in length.

municipalities are responsible for maintaining them.[9] In Hamilton, the Public Works Department maintains the bridges under local jurisdiction and two years ago, residents approved funds to reconstruct the Moulton Street Bridge, which crosses the Miles River. Reconstruction efforts, completed in October of that year, made the bridge wider and higher to increase safety and discourage beaver dam activity along the side. At the time, the town decided to dedicate the bridge to the Poole family for their service as police officers and firefighters.[10] Hamilton shares maintenance responsibility for the Highland Street Bridge with the Town of Ipswich, and both communities have committed to repairs in 2004. Winthrop Street Bridge was rebuilt in 1997-1998, and like the Highland Street Bridge, it crosses the Ipswich River.

Rail Service

Hamilton and Wenham residents have direct access to the Newburyport and Rockport commuter lines to North Station in Boston. Today, a one-way trip from the Hamilton/Wenham stop into Boston costs $4.00 while 12-ride and monthly passes can be purchased for $44.00 and $136.00 respectively.[11] The train platform, formerly in South Hamilton at the intersection of Bay and Walnut Roads, was recently rebuilt and relocated just over the town line in Wenham to help relieve traffic congestion on Route 1A and improve public safety. The new station is accessible to persons with disabilities. MBTA sources indicate that since 1990, ridership at the Hamilton/Wenham rail stop has increased by 138%, as shown in Table 11.

Table 11: Commuter Rail Ridership at Hamilton-Wenham Station

Year	Boardings Per Day	Year	Boardings Per Day
2002	489	1994	306
1998	449	1990	205
1996	378	1984	170

Source: Joseph Cosgrove, Director of Planning, MBTA, April 1, 2003

Rail service in Hamilton has a rich historical background. In 1839, the Eastern Railroad Company completed the Boston/Ipswich line by way of Hamilton and Salem and a year later, service was extended to Portsmouth, NH.[12] Rail transport had replaced roads as the primary means of travel and provided access to the Commonwealth's rural outposts. As a result, many coastal communities in Massachusetts began to attract seasonal residents and in Hamilton, one outcome of rail service north of Boston was the development of Asbury Grove Camp Meeting Ground by the Methodist

[9] Doug Consentino, District 4 Bridge Inspection Engineer, MassHighway, to Mary M. Coolidge, 25 March 2003.

[10] Town of Hamilton, Annual Report, 2000-2001.

[11] Massachusetts Bay Transportation Authority "Hamilton/Wenham (Newburyport Line)," available at http://www.mbta.com/traveling_t/schedules_commuter_station.asp, INTERNET [accessed 10 March, 2003].

[12] The Public Archaeology Laboratory, Inc., "Intensive Archaeological Survey & Historic Architectural Assessment MBTA Hamilton/Wenham Station & Parking," (March 1998): 39; Frank Pulsifer, Thomas Richard Pulsifer, "Transportation for Hamilton," (1967) 12.

Church. The influx of people led Eastern Railroad to build a branch or leg from the main line at Hamilton/Wenham to Asbury Grove. The Asbury-bound branch opened in August of 1871. After the town of Essex expressed interest in a connection to the Boston/Ipswich line, another branch was built between Hamilton/Wenham and Essex in 1872, bringing two additional stations into Hamilton. One was located on Bridge Street near the Miles River, known as the Hamilton Center stop (about ¼ mile from Town Hall), and the second, Woodbury's Crossing, was near Essex Street in East Hamilton.

The Boston and Maine Railroad acquired the Eastern Railroad Company in 1890. At the time, Eastern Railroad ran two routes to Portland, the eastern and western divisions. The western division was designated as the primary route from Portland to Boston in 1920, and the decline in distance trains through Hamilton eventually led to the closure of three of the four branch lines. The Boston to Ipswich line was acquired by the Massachusetts Bay Transportation Authority (MBTA) in 1976 and remains an important commuter route today.[13]

Electric trolley cars were introduced to Hamilton in 1895, offering a quality of service that the railroad could not. In addition to providing amenities for patrons, such as a waiting station and refreshment stand near Asbury Grove, the trolley stopped at a passenger's desired destination. Electric trolley cars became so popular that in 1901, the Boston and Maine Railroad abandoned the Asbury Grove rail leg. During the 1920s, trolley and rail service began to give way to the automobile as car manufacturing and roadway improvements made travel by car more appealing.

Critical Traffic Locations

Although few roads in Hamilton carry large volumes of traffic, the town has several critical traffic locations: areas that are often congested or present an elevated risk to drivers and pedestrians. Among the indicators of a critical traffic location is an unusually high number of accidents (see Table 12). For example, at the intersection of Essex Street (Route 22) and Woodbury Street, higher-speed traffic and visual impairments contribute to unsafe driving conditions. According to the police department, drivers traveling west on Woodbury Street have difficulty seeing traffic on Essex Street until they advance from the stop sign into the intersection. Numerous road signs, traffic islands, narrow road widths and surrounding suburban development make the area confusing and difficult for drivers to negotiate. Route 22 is a through road to Wenham, Beverly and eventually, Route 128. Since 2000, there have been 11 reported accidents at this location.[14]

Highland Street in Hamilton also qualifies as a critical traffic area, particularly at the Highland-Asbury Street intersection. Safety risks associated with higher-speed traffic and the curvature of the roadway were recently addressed by the addition of sidewalks and a flashing traffic light. Another problem spot along Highland Street is near the Pingree School. Since portions of the road receive little direct sunlight because of shade from surrounding vegetation, Highland Street is often slippery during the winter. Drivers traveling at 40-45 mph, especially inexperienced high school drivers, slide off the road. There have been eight accidents at this location under similar weather conditions since 2000.

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[13] Public Archaeology Laboratory, "Intensive Archaeological Survey," 56.

[14] Available accident statistics were supplied by Matt Donovan, Hamilton Police Department, to Mary M. Coolidge, 27 February, 2003.

Bay Road includes several critical traffic nodes because it carries a large volume of regional traffic through areas that generate significant amounts of local traffic, both vehicular and pedestrian. The most critical traffic areas include the stretch of Bay Road that passes by Miles River Middle School and Hamilton-Wenham High School, South Hamilton from the town line to Patton Park, and sections of Bay Road that absorb excess parking when church lots fill up on Sundays. Traffic issues at the high school include both safety and congestion. In the morning before school is in session and in the afternoons when students are dismissed, traffic on Bay Road often backs up all the way to Town Hall. The congestion stems from school bus, staff and student drivers entering and leaving the school grounds on one hand, and parents dropping off and picking children up on the other hand.

In South Hamilton, several factors converge to create critical traffic conditions. An intricate street network, many commercial businesses, residential land uses, community facilities and a railroad crossing make Route 1A very busy and at times, confusing. Drivers traveling north on Route 1A enter Hamilton through the downtown area. The first major intersection is the MBTA railroad crossing where Walnut Road meets Bay Road. When the gates are down because of an approaching or departing train, traffic becomes backlogged, particularly during the morning commute. Finally, parking along Bay Road on Sunday mornings not only creates congestion, but also increases risk for pedestrians as they try to cross from parked cars to church grounds on a busy state roadway.

Table 12: Summary of Recent Accident Statistics in Hamilton

Year	Street	Number of Accidents	% Total
2000	Essex Street	10	12.5%
2000	Woodbury Street	5	6.3%
2000	Asbury Street	8	10.0%
2000	Highland Street	8	10.0%
2000	Bay Road	23	28.8%
2001	Essex Street	14	13.3%
2001	Woodbury Street	7	6.7%
2001	Asbury Street	6	5.7%
2001	Highland Street	18	17.1%
2001	Bay Road	24	22.9%
2002	Essex Street	9	10.3%
2002	Woodbury Street	1	1.1%
2002	Asbury Street	9	10.3%
2002	Highland Street	12	13.8%
2002	Bay Road	25	28.7%

Source: Officer Matt Donovan, Hamilton Police Department, February 2003

Sidewalks, Trails & Bicycle Paths

Trails, bike lanes, sidewalks, pathways and pedestrian and equestrian road safety have taken center stage in Hamilton in the past seven years. A fatal accident involving a local boy, just over the town line in Ipswich, led to the formation of the Hamilton Road Safety Committee, appointed by the Board of Selectmen. The committee was asked to examine ways to make roads in Hamilton and surrounding towns safer and friendlier for modes of travel other than the automobile. Ultimately, the committee's goal was to finish a Road Safety Master Plan, which includes several components:

- Public awareness development program
- Inventory of existing sidewalks and bikepaths and plans for improvement
- Coordinating with the Department of Public Works' long-term road improvement program, and
- Identifying areas of critical concern, which may need new roadside paths.

The Road Safety Master Plan identifies three top-priority corridors:

- Bay Road (Route 1A) from the Wenham Town line to the Ipswich Town line
- Bridge Street from Bay Road to Essex Street (Route 22) and Woodbury Street from Bridge Street to Essex Street, and
- Essex Street from Woodbury Street to the Essex Town line.

In March 2000, the Hamilton Road Safety Committee completed a study to locate existing sidewalks in Hamilton. This initiative defined where pathways needed to be created and existing sidewalks reconstructed.[15] The committee's main goal was to ensure that pedestrians would have safe access to Cutler, Winthrop and Buker Elementary Schools, Hamilton Wenham Regional High School/Miles River Middle School, to Patton and Pingree Parks and to the town library. Accordingly, Union Street and Asbury Street became focal points of the study. Both streets have recently reconstructed or new sidewalks. Another area of concern was supplying a connection for East Hamilton residents to Route 1A via an appropriate sidewalk system. Bridge Street, which runs in an east-west direction, provides the link. A five-year plan has been formulated in support of this potential pathway.[16]

Several equestrian or multi-purpose trails exist in Hamilton, Ipswich, Topsfield and Wenham.[17] The Myopia Hunt Club and Appleton Farms limit access to their riding trails to members of the Essex County Trail Association. In addition to equestrians, other users include patrons who walk, jog and ski along the same paths (see Table 13). The 10-mile Discover Hamilton Trail begins in the Hamilton Center Historic District and continues through Appleton Farm Grass Rides, Bradley Palmer State Park, Harvard Forest, Pingree Reservation and Willowdale Mill Reservation. The trail was developed by the Hamilton Conservation Commission and connects with Ipswich's Bay Circuit Trail, which is part of a larger greenway initiative around Boston. In the future, it is likely that a trail at Appleton Farms will be extended to connect the farm, the Bay Circuit Trail and Crane Beach. A trail has been proposed and the legislature appropriated $150,000 in 2000 to connect Route 1A to the southeast corner of Hamilton via Woodbury Street in the form of a pathway.

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[15] Open Space and Recreation Plan, 4:16.

[16] Steve Kenney, 14 February 2003.

[17] Essex County Trails Association "Trails," available at http://www.ayerfamily.org/ecta/e_trails.htm, INTERNET [accessed 4 March, 2003].

Table 13: Major Trail Systems in Hamilton & Surrounding Communities

Property	Users	Rules	Access	Ownership
Appleton Farms (Ipswich/Hamilton)	Walkers, joggers, skiers, equestrians Equestrians must be ECTA members to use the property	Follow posted signs. Walking and trotting only for horses.	Open all year (in mud season, use discretion)	The Trustees of Reservations
Winthrop Farm (Ipswich/Hamilton)	Equestrians	Follow posted trails	Open Spring through Fall	Winthrop Family
Biolabs (Ipswich/Hamilton)	Equestrians, walkers, joggers, skiers	Stay off soccer fields	Open all year	New England Biolabs
Scott Property (Ipswich)	Equestrians	Closed during mud season (March-April)	Open all year except during mud season	Private
Bradley Palmer – Willowdale (Ipswich/Hamilton/ Topsfield)	All passive recreation	Follow state regulations	Open all year	Commonwealth of Massachusetts
Crane Beach (Ipswich)	Equestrians	ECTA rules of etiquette	September 30-March 31	The Trustees of Reservations
Pingree Reservation (Hamilton)	All passive recreation	ECTA rules of etiquette	Open all year	Essex County Greenbelt Association
Myopia Hunt Club (Hamilton)	ECTA members only Equestrians	Golf trails only	Spring/Summer/Fall	Private
Myopia Schooling Field (Hamilton)	Equestrians	Schooling, trotting, cantering	Closed in winter and mud season	Private
Harvard Woods (Hamilton)	All passive recreation	ECTA rules of etiquette	Open all year	Harvard University
Sagamore Hill (Hamilton)	Equestrians	Stay in established trails	Seasonal	Private
Ledyard Farm (Wenham)	Equestrian	ECTA rules of etiquette	Seasonal	Private

Source: Essex County Trails Association "Trails," available at http://www.ayerfamily.org/ecta/e_trails.htm, INTERNET [accessed 4 March 2003].

Finally, Hamilton wants to expand its network of bike lanes. Whenever possible, the DPW addresses the need for sidewalks and wide shoulders to accommodate bicyclists, joggers and pedestrians.[18] All of Hamilton's main roads currently have these facilities and the DPW is committed to maintaining them with adequate funds from the town. The Pedestrian and Bicycle Transportation Analysis and Feasibility Study by Greenman-Pedersen, Inc., commissioned by the town in 2000, investigated the potential for a regional bicycle network along public roadways. The study specifically looked at the feasibility of three corridors.

- Corridor 1 – Route 22 – Martin Street and Western Avenue in Essex to Essex Street and Woodbury Street in Hamilton, to Rubbly Road, Grapevine Road and Essex Street in Wenham, and finally Essex Street in Beverly to downtown, a distance of nine miles.
- Corridor 2 – Route 133 – John Wise Avenue in Essex, to Essex Road, Country Road, South Main Street and ending on Market Street in Ipswich a distance of five and a quarter miles.
- Corridor 3 – Route 133 – Martin Street in Essex – Route 22 along Main Street to Southern Avenue connecting to School Street in Manchester and continuing to the MBTA Station via Central and Summer Streets to Beach Street a distance of five and a half miles.[19]

Recommendations for Hamilton's portion of these proposed bike lanes (Essex Street & Woodbury Street) include widening the paved width of the road, edge striping at a four-foot offset, posting "Bike Route" signs and establishing a formal prohibition against on-street parking. The estimated cost for these recommendations is $600,000.[20]

Past and Current Planning Initiatives

1965 Master Plan

In the 1965 Master Plan, Charles W. Eliot spoke of the intimacy of "country roads" and suggested some ways to preserve that image. The town subsequently adopted some of Eliot's suggestions, such as encouraging roadside tree planting on private property and opening, connecting major streets as properties are subdivided, and requiring underground installation of utility lines for electricity and telephone services in all new subdivisions. His other transportation proposals were not formally adopted or implemented, in part because local officials at the time disagreed with Eliot and in part because transportation planning principles have changed since 1965. In addition, several of Eliot's ideas required funding that never became available. For example, he advocated for concentrating traffic on a limited number of through routes, and widening and straightening Highland and Essex Streets.

1997 Open Space and Recreation Plan

The most recent Open Space and Recreation Plan (1997) evaluates priorities and actions to promote open space goals identified throughout the document. One of the seven goals is to "preserve and

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[18] Steve Kenney, 14 February 2003.

[19] Greenman-Pederson, Inc. "Six Community Pedestrian & Bicycle Transportation Analysis/Feasibility Study," Page 1.

[20] Ibid.

add to the trail system in Hamilton." Objectives for this goal include planning for the preservation of Hamilton's trail system and planning for better opportunities for biking and running.

CAPC Community Survey (2002)

In March 2002, the Citizens Action Planning Committee completed a survey that was distributed to Hamilton residents. The survey was designed to help measure public opinion on specific topics relevant to the new master plan. Although transportation, traffic and circulation were not addressed specifically, the related topics of bicycle lanes, trails and roadway conditions were represented. Sixty-seven (67%) of respondents thought that more bicycle paths and/or lanes should be constructed in Hamilton. Bike trails and bike lanes also received high marks for being the most important recreational facility in town. Further support was given for bicycle lanes when 66% of respondents said that they should be sponsored or developed on key connector roads throughout Hamilton. In addition, 59% thought that more trails for passive uses like walking, horseback riding and cross-country skiing should be added to the trail network. In response to a question about scenic roads, 56% of the respondents thought that the number of scenic roads with restrictions on tree cutting, stone walls and fences should be increased.

Interestingly, most respondents did not think the town should spend more money on road maintenance and drainage. They also did not think that more sidewalks should be built in residential neighborhoods. According to the survey, residents think the downtown area needs more short-term parking spaces and more parking for commuters. Currently, there are 101 parking spaces on Railroad Avenue, Bay Road and in off-street parking lots on Railroad Avenue and Bay Road. There are also 200 parking spaces at the new MBTA lot, including six accessible to persons with disabilities, and users are asked to pay $1.00 per day to park in the MBTA's facility. The Hamilton Shopping Plaza has 226 parking spaces, six of which are accessible. Finally, Hamilton residents think the downtown area needs better access for pedestrians and cyclists. The survey responses suggest that if residents could determine how their tax dollars are spent, 47% would spend more on building additional walking and bicycle paths.

Master Plan Update (2002)

One outcome of the Master Plan-Phase I process was the identification of goals and priority setting for Phase II. Toward that end, the CAPC developed objectives for each element of the Master Plan, some of which apply to more than one element. Goals for traffic and circulation include:

- Provide and maintain trails, sidewalks and bicycle paths to promote non-vehicular travel throughout the town.
- Identify and address high-priority traffic safety areas, considering vehicular, pedestrian, bicycle and equestrian activity.
- Evaluate and strengthen the town's scenic road policies, emphasizing the desirability of street trees and other features that contribute to Hamilton's visual character.
- Recognize the cultural, scenic and environmental value of Hamilton's unpaved roadways and protect them accordingly.
- Work effectively with regional, state and federal officials to assure that transportation development policies respect the character of Hamilton's bridges.
- Coordinate public and private efforts to assure an adequate supply of parking in downtown Hamilton.

Issues

Unpaved Roadways

For many years, the town has maintained three streets that are wholly or partially unpaved: Winthrop Street, Cutler Road and Chebacco Road. The surface of an unpaved road is usually composed of sand, gravel, pebbles or crushed stone. Like most New Englanders, Hamilton residents like gravel roads and they would like to preserve the three that exist in their own community. However, DPW and police personnel report significant safety concerns for motorists, pedestrians and others. The town's gravel roads provide access to major connector streets, and they are often used as a faster means of travel by people familiar with the area. Seasonally, these roads are vulnerable to potholes and frost heaves that make travel dangerous, especially for emergency vehicles such as ambulances and fire engines. According to the DPW, the town spends about as much money each year to keep the roads passable as it would spend to pave them. Safety improvements on Winthrop Street, Chebacco Road and Cutler Road may be addressed in several ways:

- Reduce wear-and-tear on the roads by motivating drivers to use alternate routes.
- Convert one or more of the gravel roads to paved streets.
- Consider more intensive techniques for unpaved road maintenance, following models developed in Berkshire and Franklin Counties to preserve rural roadways in Western Massachusetts.

Downtown Sidewalks

Downtown Hamilton serves as both a commercial area that provides goods and services to residents and as a gateway for incoming travelers. People have access to the downtown area by train, automobile, bicycle and foot. However, the poor condition of some sidewalk and roadway sections reduces safety and security for both pedestrians and bicyclists. Near the MBTA Commuter Rail tracks at the corner of Walnut Road and Bay Road, the sidewalks by Railroad Avenue obviously narrow and slowly begin to deteriorate, making safe travel across the tracks difficult. On the Shopping Plaza side of the tracks, the sidewalk is discontinued and turns into a parking lot near Talbot's. As this stretch of roadway narrows, a combination of entering and turning traffic and the train create potentially dangerous conditions for pedestrians and bicyclists.

According to published results of the Hamilton Downtown Business Survey (2002), 63% of respondents felt that pedestrian and bicycle access in the downtown area should be improved. Fifty-six percent (56%) of the respondents to the CAPC's Survey (2002) also said access should be enhanced. Pathways of all kinds are important not only to the town's character, but also to its environmental quality because they encourage non-vehicular modes of transportation.

The town should consider several safety improvements in the downtown area:

- Encourage the Road Safety Committee to evaluate Hamilton's downtown sidewalk/bicycle lane network and recommend "next steps."
- Identify potential funding sources to rehabilitate, improve and expand sidewalk and bicycle facilities.
- Visit other suburban downtowns of comparable scale, inspect their pedestrian and bicycle access systems, and consult with local officials about their approach to design, construction financing and maintenance.

- Consider installing bicycle racks at several locations in the downtown area, and require bicycle facilities as part of site plan review.

Transportation Alternatives

The Road Safety Committee has been committed to creating and improving safe transportation alternatives in Hamilton. For the committee's efforts to have lasting value, its recommendations need to be implemented. However, the future of road safety awareness does not end there. An issue for Hamilton and other small towns is capacity to sustain a long-term financial commitment to road maintenance and alternative modes of transportation. One goal of the master plan's community facilities element is to establish and implement an effective capital improvement plan (CIP) process, which should include transportation facilities. Maintenance, repair and improvements need to be performed on a regular basis to trails, bicycle lanes, pathways and sidewalks, existing today or created in the future. It will be important for the town have an active capital planning committee and a CIP for these and other purposes. The Road Safety Committee has also been active with public education. Future endeavors for the Road Safety Committee or its successor should include:

- Investigate and consult with communities that are engaged in similar road safety and pedestrian safety initiatives and determine opportunities for regional collaboration
- Work with the DPW to ensure that transportation needs are adequately addressed in the CIP.
- Explore larger opportunities such as connecting to the Eastern Trail, not only for transportation alternatives but also for potential economic development benefits, e.g., bringing bicyclists and walkers into Hamilton.
- Work with the Police Department to identify and implement additional ways to educate residents and school children about roadway safety.