

16. TRANSPORTATION

The location, layout and sheer number of roadways, pedestrian walkways, bicycle paths, and various forms of public transportation play an integral role in defining the character of a community and stimulating commercial and residential development. Wayland's road system is generally well designed and well laid out, but in some cases lacks sufficient capacity to move all the traffic in an efficient manner. Wayland is situated at a crossroads of several inter-Town roads and state road Route 20. Although the Town receives large amounts of "pass-through" traffic, Wayland residents have chosen to try to preserve the semi-rural character of the roadways rather than greatly expand their capacity to accommodate this externally generated traffic.

The Master Plan seeks to address Wayland's transportation needs in three ways. First, the Plan identifies a few potential infrastructure projects that the Town may want to investigate further (or, if they have already been studied, to implement). It is beyond the scope of the Master Plan to quantitatively evaluate or design specific transportation projects, so most of the projects suggested in this section will require further study. Second, the Master Plan recommends a range of policies and initiatives to enhance the local transportation system, including improvements to the Town's pedestrian and bicycle transportation network. Finally, the Master Plan integrates transportation-related issues into the community's overall physical planning process. This integration is essential, and is lacking in many transportation and land use plans. The land use recommendations in **Section 10** attempt to match the proposed land use(s) in each section of Town with the availability and capacity of existing transportation systems in that area.

With regard to transportation, the Master Plan is intended to guide future Town actions and policies and to clarify what the Town's interests are with regard to state and federal projects that may affect Wayland. Highway projects are one case, in particular, where state objectives (e.g., moving traffic quickly through a community) can clash with local objectives (e.g., maintaining a pedestrian friendly character or unrestricted access to local businesses on the roadway in question). **Box 16-1** identifies Wayland's general goals, preferences, and policies with regard to both Town-owned and state-owned roadways in Town. These objectives should be incorporated into future roadway design projects, especially in light of the recent state "Fix it First" policy (January 2003), which calls for community participation and "community friendly solutions" to transportation needs.

Box 16-1: Sample Wayland's Roadways Policy

The policy that follows is based on public input received during the Master Plan process as well as an assessment of Wayland's roadway network. The Policy should be used to guide all Town and State decisions regarding the construction, expansion, modification, and maintenance of roadways in Wayland.

A. Improvements:

Improvements to intersections or expansions to Wayland's road system may be justified under the following circumstances:

1. An existing intersection raises significant safety concerns based on accident data;
2. A new roadway segment or intersection is needed to accommodate new development or redevelopment.

The project design should seek to minimize potential negative impacts. And, in each case, the benefits of the proposed project should be weighed against potential negative impacts, including, but not limited to:

- a. Alteration or loss of the road's character-defining features;
- b. Decrease in the road's or intersection's pedestrian- and bicycle-friendliness;
- c. Tendency to attract additional traffic, especially pass-through traffic, to the area;
- d. Negative impacts to nearby properties such as additional noise, air pollution, and visual blight;
- e. Creation of additional safety concerns for the neighborhood and/or motoring public;
- f. Expenditure of Town funds that might better be used for other projects.

B. Preserving Rural Character:

As a general rule, the Town does not support widening, expanding, straightening or otherwise "improving" designated scenic roads. Roadway projects anywhere in Town should make the maximum possible effort to retain character-defining features such as the overhanging tree canopy, street trees and vegetation close to the road, stone walls, narrow cross-sections, and a road alignment that offers visual interest with curves and hills that break up long straight-aways.

C. Traffic Routing and Traffic Calming:

Traffic routing and traffic calming solutions may be used as ways of addressing problems of cut-through and speeding traffic. However, such solutions should be evaluated and implemented in a comprehensive manner so as not to shift a problem from one neighborhood to another. In addition, any such measures should take into account the need for safe passage of emergency vehicles and school buses, the need to facilitate snow removal and de-icing operations, and the need to maintain the roads in a cost-effective manner.

D. Maintenance:

Wayland will regularly monitor and maintain its roads so as to minimize the need for costly major repairs.

E. Inter-municipal Cooperation:

Wayland will actively work with other communities in its sub-region to encourage land use and transportation initiatives and policies that reduce vehicular traffic.

16.1 Roadway Infrastructure

Roadways are needed to move vehicles safely from one section of Town to another. They can be designed to facilitate swift movement of vehicles through an area or they can be laid out in a way that helps to create the type of village atmosphere that the residents of Wayland have stated they would like to pursue in the two village centers.

16.1.1 Wayland Center Roadway Projects

A state-funded traffic improvement project for Wayland Center is underway. The design has been approved by MassHighway and involves improved signalization at the main intersection of Boston Post Road (Route 20) and Cochituate Road (Routes 27/126), delineation of turning lanes, handicapped-accessible crosswalks, granite curbing, new sidewalks, and a redesign of the roadway layout at the intersection of Old Sudbury Road (Route 27) and Concord Road (Route 126) near the Library. In connection with this project, the Town has received an Enhancement Grant from MassHighway to landscape the area, delineate crosswalks with granite and brick-like

pavers, extend and upgrade the sidewalks from black-top to cement concrete with brick-like accents, and upgrade the traffic light poles to something that is aesthetically pleasing. This project will not only improve traffic flow through Wayland Center, the enhancements will also help to create a more pedestrian-friendly area and will improve the appearance of Wayland Center.

In order to create the type of village atmosphere that residents have suggested they would like to see in Wayland Center, the Master Plan considers schemes proposed in a 2001 Town Center plan and a 2002 Long-range Plan for Wayland Town Center¹ to create a partial “ring” around and through an area west of Cochituate Road. The “ring” would be made up of vehicular roadways, bicycle paths, and pedestrian walkways, see **Figure 15-1** by way of example. The idea is a concept only and further study by a professional transportation engineer and others would be necessary to evaluate the feasibility and vehicular traffic circulation implications of such a proposal.

16.1.2 Cochituate Roadway Projects

As discussed in **Sections 8.6.2** and **8.6.3**, two previous studies suggested needed improvements to two Commonwealth Road intersections in Cochituate that are currently traffic bottlenecks. The first is the intersection at Commonwealth Road/Route 30) and Main Street (Route 27) in Cochituate Center and the second is the intersection of Commonwealth Road (Route 30)/East Plain Street/School Street. The Town should consider pursuing improvements at these intersections to provide for a safer flow of traffic while also creating the type of village atmosphere that residents have stated they would like to retain and create in Cochituate.

16.1.3 Roadway Management and Maintenance

The cost to repair and maintain roads, bridges, and other infrastructure increases almost exponentially if their condition is allowed to deteriorate. In the long term, an aggressive maintenance schedule is a cost-effective approach to infrastructure maintenance. For this reason, the Town should continue its policy of: conducting a regular comprehensive review of the condition of all local roads, walkways, bicycle paths, bridges, and culverts; attending to needed small repairs; and prioritizing and scheduling when larger projects will be addressed.

16.2 Traffic Management Plan

A traffic management plan (TMP) is a comprehensive strategy to reduce the number of vehicles on the road, reduce the impact of traffic on a community, and improve traffic operations. A TMP can incorporate several tools including land use planning, site planning, transportation demand management (TDM), and traffic calming. Potential strategies for Wayland to pursue as part of a TMP are discussed below.

16.2.1 Land Use Planning

In transportation planning, it is important to realize that land uses are what generate traffic. People drive because they need to travel from their home to work, school, shopping, or other places. Consequently, it is possible to reduce the number of vehicle trips required and the length of vehicle trips by creating development patterns that encourage these various land uses to locate near one another and to take advantage of this proximity. It is also possible to minimize future traffic generation on a congested road segment by restricting

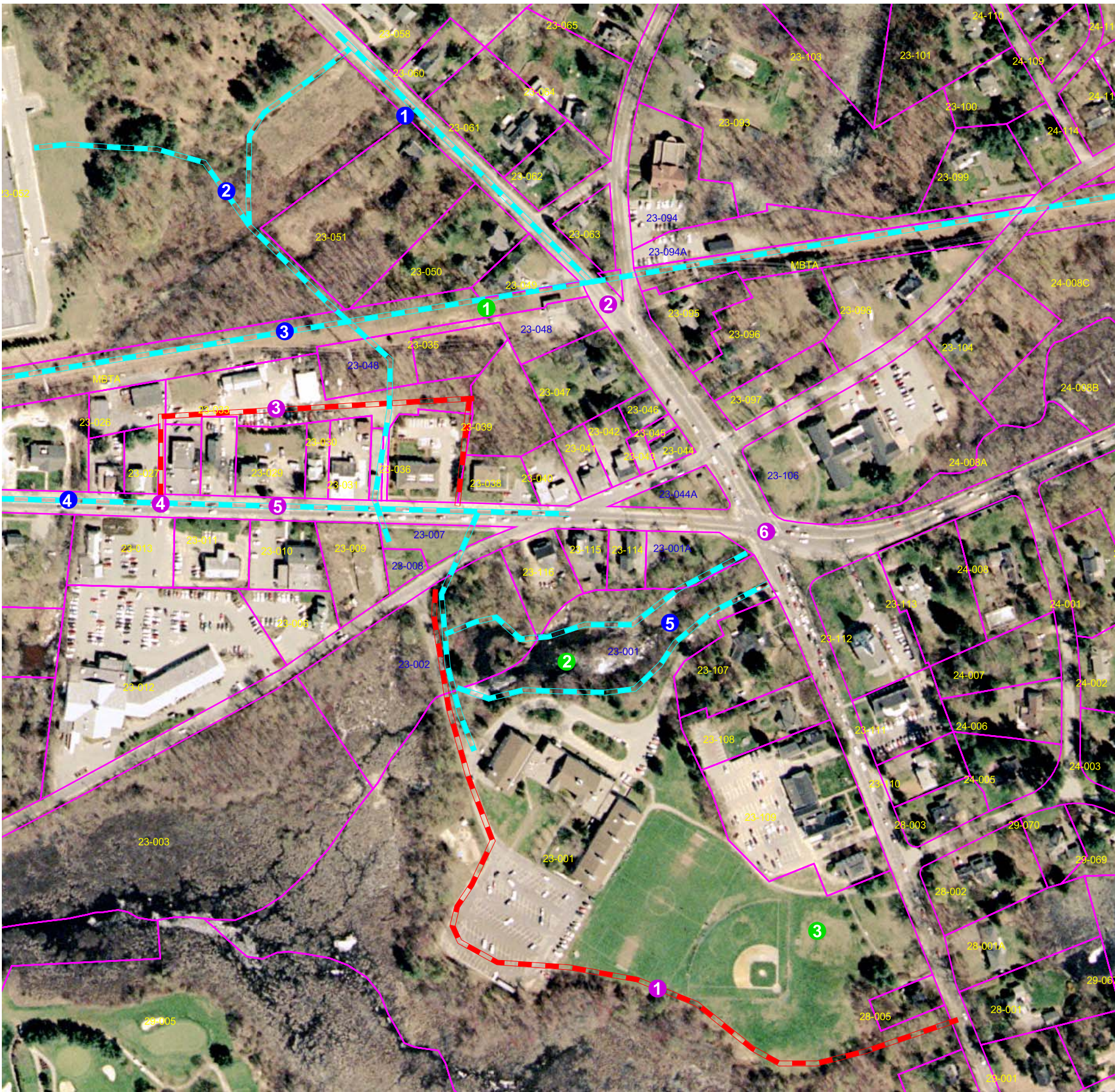
¹ Prepared by Wayland resident and planner Allen Benjamin, January 2002.

Potential Pedestrian Circulation Projects

- 1. Add sidewalk to the west side of Route 27 from the train depot to the furthestmost access road to the Wayland Business Center.
- 2. Provide pedestrian connections from the Wayland Business Center to Wayland Center.
- 3. Work with adjacent towns and rail trail advocates to construct a multi-use trail on the right-of-way.
- 4. Improve pedestrian accommodations by establishing continuous sidewalks buffered from the road and by narrowing and closing excessive curb cuts.
- 5. Construct pathways along both sides of the waterway in the Sanctuary. Add a sidewalk to one side of the access road from Pelham Island Rd. to Town Hall.

Potential Parks, Open Space, and Cultural Projects

- 1. Establish interpretive site on the history of the railroad in Wayland, using artifacts found here.
- 2. Clear overgrown vegetation in the Sanctuary and install pathways and seating areas on both sides of the waterways. Investigate building a wooden foot bridge.
- 3. Use this grassy space to create a formal town gathering place.



Legend

- Potential Vehicular Circulation
- Potential Vehicular Circulation and Parking Projects
- Potential Pedestrian Circulation
- Potential Pedestrian Circulation Projects
- Potential Parks, Open Space and Cultural Projects
- Parcel Boundaries
(Town-owned parcels are numbered in blue; private parcels are numbered in yellow.)

Scale 1" = 250 ft. 0 100 200 300 Feet

Potential Vehicular Circulation and Parking Projects

- 1. Investigate building a new half-ring road to improve pedestrian and vehicular access and create quieter spaces within Wayland Center. Consider one way circulation east bound from the Town Hall to Route 27.
- 2. Investigate facilitating pedestrian/bicycle crossing from the rail trail.
- 3. As redevelopment occurs, establish a rear service road and shared parking for businesses north of Route 20.
- 4. Investigate intersection controls here to allow for safer turning movements and a mid-block pedestrian crossing.
- 5. Work with businesses to narrow, consolidate, and close excessive curb cuts, both in the short term through a Town-sponsored initiative and over the long-term as sites are redeveloped.
- 6. Construct the intersection and sidewalk improvements currently programmed to begin in 2004.

It is the end user's responsibility to verify the accuracy and appropriateness of the data contained herein. Use of this map constitutes agreement with the terms of the Daylor GIS Data Disclaimer.

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Potential Wayland Center Improvements
Wayland Master Plan

Source: MassGIS, Town of Wayland, Daylor Consulting Group



Figure
15-1

land uses to those with relatively low traffic generation rates. The land use recommendations (see **Section 10**) incorporate these concepts in several ways. The most significant of these is the proposed restriction on building size in the Business A and Business B districts, which would prevent additional, new large retail and commercial uses from locating in congested Cochituate and Wayland Center. However, any such proposal could allow some expansion of the two major shopping centers in Town in order to keep important “anchor” stores such as grocery stores in the Town centers.

Non-Wayland growth in the region has the greatest impact on our traffic. Local traffic is almost trivial by comparison. Attention should not necessarily be turned to how we limit local commercial establishments, but on how to utilize them to provide effective traffic mitigators for our centers and major intersections.

The goal for land use planning for commercial purposes should not be simply to minimize the size and fundamental impact of proposals, but to establish a village atmosphere and provide incentives to provide this atmosphere. In this case some increase in density may be desirable; keeping single-building size appropriate is an important but separate constraint.

Within Town centers, but most relevantly in Cochituate, a village atmosphere is best created with buildings on the street, and parking for business in the rear. This creates not only a pedestrian-friendly atmosphere, but also serves as a natural traffic calming device, and reverses the regional tendency to build ever-wider and speedier roads to accommodate ever more traffic.

16.2.2 Site Planning

Effective site planning can minimize traffic impacts and prescribe how vehicles will safely enter and exit individual developments (whether residential, commercial, industrial, or public). Up to this point, the Town has tended to require individual curb cuts (driveways) for each commercial property/development. That creates much unnecessary in/out traffic on congested roads in the Town centers and is counterproductive to encouraging a pedestrian-friendly environment. The Town should consider ways of minimizing the number of curb cuts along a stretch of road by encouraging shared parking with internal service roads to connect several adjacent commercial establishments. This type of internal circulation can allow vehicles to travel from business to business without using busy roads like Boston Post Road (Route 20) and Commonwealth Road (Route 30), thus reducing congestion on heavily traveled main roads.

16.2.3 Transportation Demand Management and Inter-municipal Cooperation

Transportation Demand Management (TDM) involves working with developers and owners of specific parcels to encourage or require alternatives to single-occupancy vehicles traveling to and from a new development or use. Examples of TDM strategies include incentives to use public transit or carpools, efforts to encourage the employment of local residents, reduced parking requirements, and employer participation in shuttle services or other transit options. The Massachusetts Ridesharing regulation require every firm with more than 250 employees at a site to implement a ridesharing program that works toward reducing the number of “drive alone” commuters by 25%. If, for example, a large office or light industrial use occupies the Wayland Business Center site in the future, the Town should work with its developer and owner to devise strategies to reduce the number of vehicle trips to the site.

In addition, to institute TDM strategies more widely, Wayland should continue to participate in regional transportation demand management efforts. For example, the MetroWest/495 Transportation Management

Association offers its members (which include large employers as well as municipalities) services such as free use of available shuttle services, a ridematching service for carpools and vanpools, and a guaranteed ride home program for employees who are stranded at work after arriving by carpool, transit, bicycle, or foot. The Town should consider becoming a member of this organization so that its residents can take advantage of these programs. Becoming a member would also put Wayland in a stronger position to advocate for public transportation service in the Town. See **Section 16.4**, below.

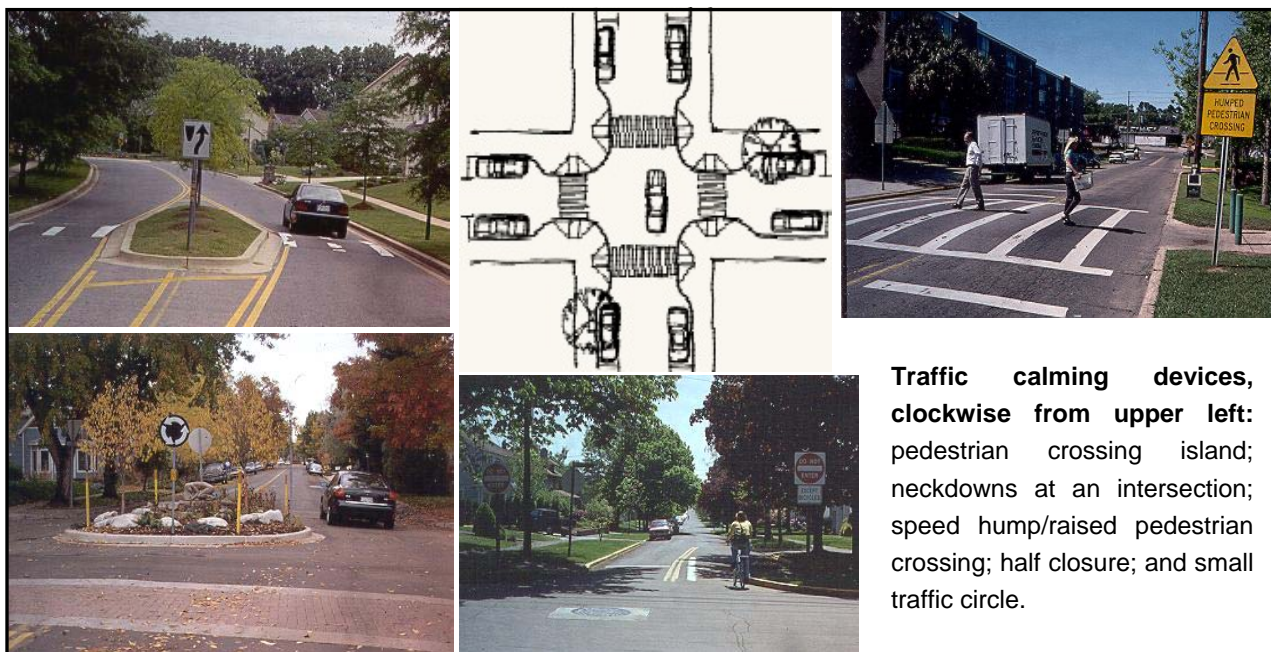
Other regional possibilities are to work with surrounding communities to address regional traffic concerns and to encourage respect between each community's transportation goals. Wayland should demonstrate to its neighbors that the Town's village areas are a priority and should be protected from traffic impacts. Another way to address traffic impacts is to try to assist neighboring Towns to route traffic for large-scale commercial development, away from Wayland's small villages. The Town can do this by working with these Towns to encourage them to seek funding to build better access to Route 9 and the Mass Pike, and other connectors and feeders which give motorists more incentive to use major highways, rather than roads such as Routes 30, 27, and 126.

A final idea to reduce congestion in the morning and mid-afternoon peak traffic hours would be to provide bus service to school children who live within one mile of the elementary schools (so that their parents do not need to drive them) and to consider a policy to reduce vehicular traffic to the middle school and high school by encouraging or requiring students to ride the bus or carpool to school. The benefits of these proposals must be evaluated in light of the preferences of students and their parents.

16.2.4 Traffic Calming

Traffic calming measures include a range of strategies to slow down traffic and deter the use of local residential roads for through traffic. Examples of traffic calming devices include one-way streets, time-of-day access restrictions, islands, neckdowns, small traffic circles, narrow travel lanes, raised crosswalks or intersections, pavement markings, rumble strips, or speed humps (see the photos below). Many of these devices are more suitable for urban environments and have been used in communities such as Boston, Cambridge, and Brookline. Non-structural traffic calming measures such as traffic law enforcement can also play an important role. Some of the streets and areas in Wayland where traffic calming may be appropriate include West Plain Street, Stonebridge Road, Bow Road, Glezen Road, Claypit Hill Road, Plain Road and near the entrances to Wayland's schools. However, traffic calming must be conducted in a comprehensive manner—not piecemeal—otherwise traffic might simply shift from one problem area to another.

Implementation strategies must also consider accessibility for emergency vehicles and snowplowing operations.



16.3 Pedestrian and Bicycle Transportation

Wayland already has a relatively good network of recreation paths and trails. However, pedestrian accommodations in the Town centers are spotty and could benefit from improvements. The Town should investigate opportunities to improve exiting pedestrian facilities and linkages to these systems. There may be improvement opportunities within the two centers to connect fragmented pedestrian networks thus improving access to goods and services, schools, and recreational opportunities. The Town could also examine the development of additional pedestrian, bicycle and recreational facilities to connect various areas of the Town and to provide an alternative to the vehicle. However, the details of providing additional pedestrian and bicycle facilities often present challenges because they would need to traverse private property or would disturb wetlands areas.

16.3.1 Pedestrian Facilities

As part of the Town's goal of improving Wayland Center and Cochituate, the Town may want to focus on improving the pedestrian infrastructure in these areas. In Cochituate, the sidewalk network is already quite good, however, sidewalks could be extended along Route 30 from Loker Street east to the new Loker Conservation Area and pedestrian crosswalks or markings could be improved in the area. In addition, pedestrian crossing signals should be installed at the intersection of Commonwealth Road (Route 30) and Main Street (Route 27), where the pedestrian crossing signals are outdated and confusing. However, pedestrian signal improvements should be done in the context of the overall intersection function and safety. Other improvements may need to be considered such as improved geometry, traffic signals, and configuration in order to provide for the safe movement of pedestrians through an intersection.

As businesses along Boston Post Road (Route 20) in Wayland Center are redeveloped, the Town could work with property owners to reduce the number of curb cuts by using shared access ways. The Town could also encourage placement of additional sidewalks, buffered from the road by a strip of vegetation and possibly street trees. On sites that are especially problematic, the Town could consider a program that offers small grants to property owners to install new curbs and sidewalks that will improve pedestrian safety.

Outside of the Town centers, pedestrian accessibility should also be promoted in new development, but in many cases can more appropriately be provided as meandering pathways either adjacent to or totally separate from the road network. As part of any development proposal outside of the Town centers, the Town should work with the applicant to identify trail connections that could form part of a Townwide trail system. The goal, over time, should be to create a network of pedestrian paths that access conservation lands and recreation areas. Along existing semi-rural roads, any sidewalks or walkways should be carefully designed to preserve the character of the road.

16.3.2 Bicycle Facilities

As discussed in **Section 8.4.3**, Wayland's roads have been evaluated for cycling and several have been recommended as bicycle routes. Where feasible, future roadway projects (widening, intersection improvements, etc.) should be evaluated and designed to facilitate use by bicyclists. Moreover, the Town should consider actively pursuing the creation of the Mass. Central Rail Trail—the multi-use path proposed for a 104-mile rail right-of-way that runs from Boston to Northampton. This trail could be a feasible route for bicycle commuting and could provide a safe alternative to cycling on Boston Post Road (Route 20). The Town should also pursue the use of the MRWA aqueducts for bicycle and pedestrian use. The decommissioning of the Weston and Hultman aqueducts represents an opportunity to secure the use of these facilities since they connect various areas of the Town to destinations such as schools, recreation areas, and shopping.

16.4 Public Transportation

Wayland currently has virtually no public transportation. Although most of Wayland is not densely developed enough to warrant even a minimal level of fixed-route bus service, the Town could investigate expanding its public transportation options in two ways. First, the Town could work with the MetroWest/495 Transportation Management Association to evaluate the feasibility of extending the route of the Natick Neighborhood Bus – northeast route to include a stop in Cochituate. This would allow Cochituate residents to take the bus to the Natick commuter rail stop for work, while also allowing Wayland employees to complete a “reverse commute” by public transportation, thus expanding the potential employee base for Cochituate businesses. In addition, Cochituate residents who do not drive (such as senior citizens and young people) could take the bus to shop in Natick.

In addition, the Town should monitor the success of the transportation programs being offered to senior citizens and disabled residents and, where necessary, seek to improve the transportation services offered.