

OPEN SPACE AND RECREATION

OPEN SPACE AND RECREATION

Introduction

A coherent and comprehensive open space network can serve as an effective unifying element in a person's perception and experience of the Town. Such a network could connect the various open spaces, recreation and conservation lands, streams and other public lands such as school grounds. An open space network, or *system* of open spaces that links many of these disparate parcels has the potential to increase access to open space for all members of the community and to heighten public awareness of the extent of the Town's open space system. Additionally, the completion of an Open Space and Recreation Plan could possibly identify open space access and recreation deficiencies on both a Town-wide basis and for the various neighborhoods. In this way, resources can be focused where the most serious deficiencies exist.

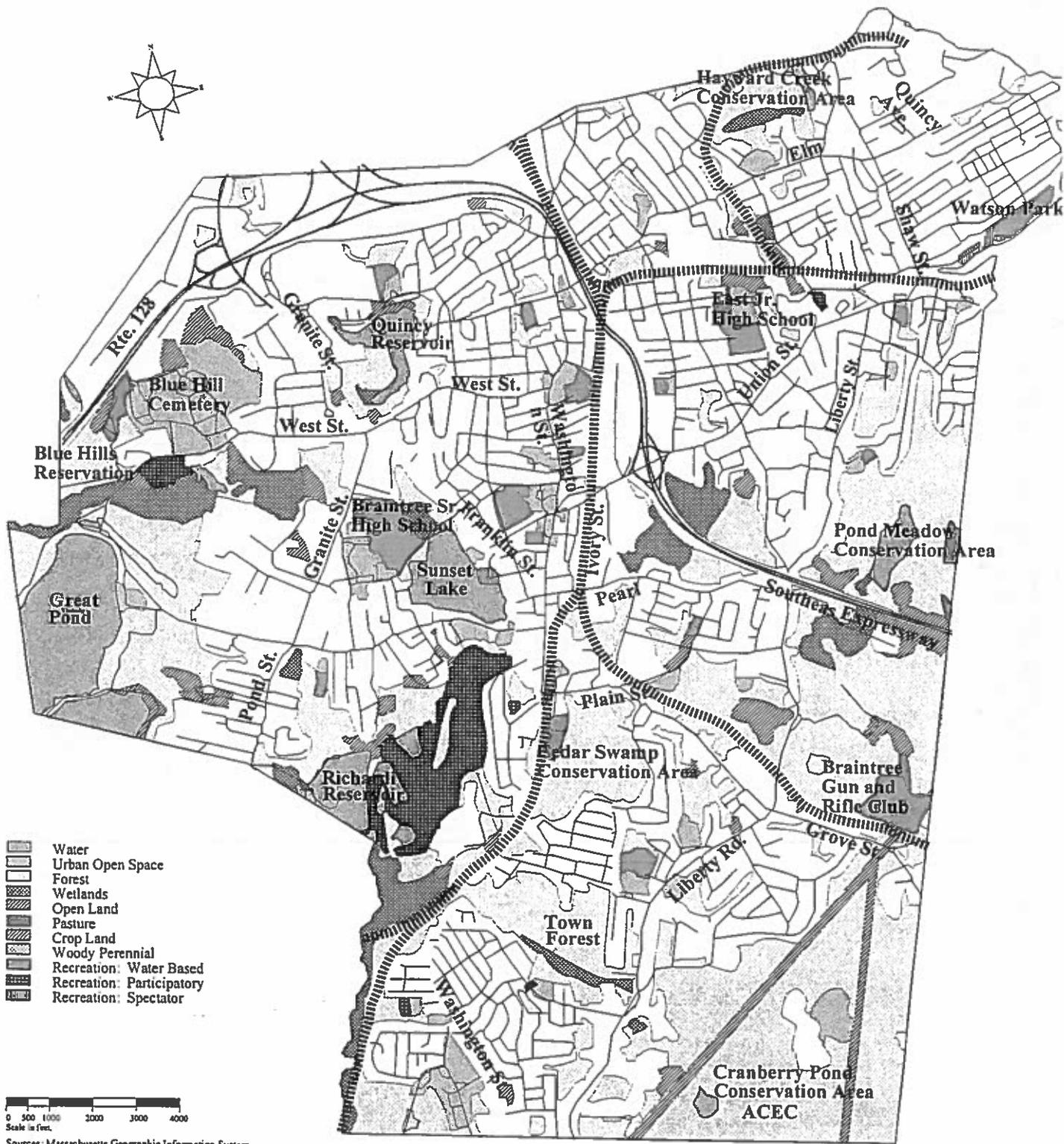
Overview

According to the Town's Open Space Plan Compilation, 25 percent (2300 acres) of the land area within the Town is open space. This figure includes both public and private land. (See the Appendices for a complete inventory and assessment.) In actual fact, even more open space is protected when the Conservation Commission Easements are taken into consideration. (See the Appendices.) Various departments within the Town own and maintain approximately 1800 acres. There are an additional 278 acres of other publicly-owned land, and 222 acres of privately-owned land used for recreation. Although the Town of Braintree owns about 1800 acres, the public does not have access to a significant portion of it. Land associated with the public water supplies and watersheds are protected, thereby eliminating their use for public recreational activities. Through the development of an Open Space Recreation Plan, areas currently restricted from recreational use, but potentially suitable for recreational use may be identified. An Open Space and Recreation Plan is a tool to increase access and identify suitable uses that meet Braintree's residents' recreational needs. The State Department of Environmental Management under its Statewide Comprehensive Outdoor Recreation Plan Supply Inventory (SCORP) has made what can be used as a beginning point for a more specific assessment of open space and recreational facilities. This assessment identified Cranberry Pond, the Great Pond Area, Pond Meadow Park, School Department Land and the Town Forest as underused natural environment areas.

Existing recreation facilities, particularly athletic fields, are heavily used and in constant demand. The demand level is sufficiently high so that rotational facilities are not available. This has resulted in worn fields which need ongoing maintenance. Demographic studies indicate an increase in the number of school-age children is expected. This factor, in addition to projected increases in the population of residents in their 30's and 40's and senior citizens, indicates future rises in the demand for both more active and passive recreation facilities. Due to the current high use levels, there is little opportunity for the expansion of existing facilities. The need clearly exists for new facilities ranging from neighborhood playgrounds to athletic fields to trail systems in natural areas. This might be done through the acquisition of additional space, as well as the development of currently underutilized publicly-owned open space.

The Recreation and Open Space Inventory (found in the Appendices) along with a completed Open Space Plan can provide the basis for identifying what recreation and open space deficiencies exist not only Town-wide, but also on the neighborhood level. This can

Open Space and Recreation



serve as the basis for improving access to facilities for all Town residents, and linking the large amount of open space in Braintree into a coherent network of open spaces and play fields.

Throughout Braintree there are privately-owned parcels, or portions of parcels, that are wetlands within the floodplain, or are considered environmentally sensitive. The completion of an open space recreation plan is an initial step in the process of identifying priorities for conservation, and pursuing funding for open space and conservation land acquisitions. The potential exists to tie Braintree into regional open space and bikeway systems by working in conjunction with local, regional and state-wide associations.

Approach

The intent of the Open Space and Recreation section is to present a Conceptual Open Space Plan which provides guidance in protecting and enhancing the quality of open space and conservation land within the Town, while improving the quantity and quality of recreation facilities. There are three interrelated elements that underlie proposed Open Space and Recreation goals, objectives and actions. These elements are: 1) environment-related; 2) recreation-related; and, 3) land use mitigation-related. While some of these proposals are more specifically related to one of these elements, all are integral to an overall Open Space and Recreation system.

The concept underlying the proposed approach is the use of the extensive stream network with associated open spaces to provide the basic connecting element among the system of open space and recreation areas in Town.

The proposed open space system would play a number of roles in preserving and enhancing natural resources. Among these are the mitigation of flood hazards along floodplains and other flood prone locations; protection of the public water supply at Great Pond and Richardi Reservoir; protection of ground water recharge areas that are not located within protected floodplains and wetlands; and protection of sensitive natural areas such as the Cranberry Brook watershed (ACEC). Other environmental benefits extend to area wildlife by protecting and improving the quality of habitat and wildlife corridors.

Additionally, open space is suitable for mitigating development impacts, including improving retention and percolation of storm runoff; and buffering more intensive uses from less intense uses, and/or non-complementary uses.

The development of an integrated open space system also provides a variety of recreation activities throughout a Town. Among needs such a system can meet are: improved access to open space and recreation facilities for all residents; focused development of recreation facilities in under-served neighborhoods; a means to identify and upgrade both active and passive recreation facilities and opportunities; the opportunity to provide nature education experiences within an urbanized setting; and the potential to meet the need for additional water-based recreation opportunities. It is important to note that a critical component of the successful functioning of such a system is an effective longterm management and maintenance strategy. In Braintree, such a strategy should be employed by each of the Town offices with jurisdiction over open space.

Open Space and Linkages

Many potential options exist for creating an integrated open space system within the Town of Braintree. Not all links need to be made physically through the connection of open spaces. A professionally designed signage system located along more pedestrian friendly

streets would be an important part of the system. Such a signage system would serve the dual purpose of establishing an identity for the parks system, and reinforcing linkages where the potential for physical connections is weak.

It is important to note that an open space system is not intended to necessarily allow access to all open space lands. Some areas need greater protection such as reservoirs that comprise the public water supply, ground water recharge zones and areas of exceptional environmental importance such as portions of the Cranberry Brook Watershed which is designated as an Area of Critical Environmental Concern. The following discussion identifies a series of potential linkages.

Northeast Braintree

- Open space and facilities for potential inclusion in Town-wide system: Hayward Brook Conservation Area, G. Murray Smith Beach, Braintree Electric Light Department surplus facility, Watson Park, future Peterson Pool, Pond Meadow Conservation Area, East Junior High School, Morris School and Weymouth Landing.
- Possible area linkages include the proposed Riverfront Walkway. This corridor could potentially link Hayward Brook Conservation Area to the Monatiquot River and East Junior High grounds. The Monatiquot River can provide a means to connect Weymouth Landing and the areas linked by the Riverfront Walkway to the Town-wide open space network. Smelt Brook could potentially link Pond Meadow to Weymouth Landing and from there to the Town-wide system via the Monatiquot River.
- Link to Town-wide open space system: Monatiquot River.

Southeast Braintree

- Open space and facilities for potential inclusion in Town-wide system: Cranberry Pond Conservation Area, lands associated with Devon Wood conservation easements, Town Forest, Cedar Swamp, Cochato River Conservation Areas, Foster School, South Junior High School, Highland School, Kendal Road Parkland.
- Possible area linkages include Cranberry Brook, Cochato River which can serve to link areas into Town-wide system via Monatiquot River and Farm River.
- Cedar Swamp offers options for linkage to the open space system via the Monatiquot River, or south to the Town Forest and Cranberry Brook.
- Cranberry Brook links Cranberry Pond Conservation Area and Town Forest to the Cochato River. Other linkages can include calmer elements of the street system to link smaller parcels that are not directly associated with the stream system.

Southwest Braintree

- Open space and facilities for potential inclusion in Town-wide system: Great Pond Area, Richardi Reservoir Area, Braintree Senior High School, Sunset Lake, Hollingsworth Park and South Braintree Square.
- Possible area linkages include the Cochato, Farm and Monatiquot Rivers.

- The Farm River offers the opportunity to link directly into Blue Hills Reservation. Other linkages can include calmer elements of the street system to link smaller parcels that are not directly linked to the stream system.

Northwest Braintree

- Open space and facilities for potential inclusion in Town-wide system: Blue Hills Reservation, Blue Hills Cemetery, Quincy Reservoir and Lakeside School.
- Within this part of Braintree fewer opportunities exist for direct linkages into a Town-wide open space system. The linkages within this part of Town will by necessity require linkage along a few unbuildable greenways (drainage ways), and the street system. For this reason, a well designed open space network signage system and traffic calming strategies in areas where major roads are crossed is imperative.

Potential Open Space and Recreation Opportunities

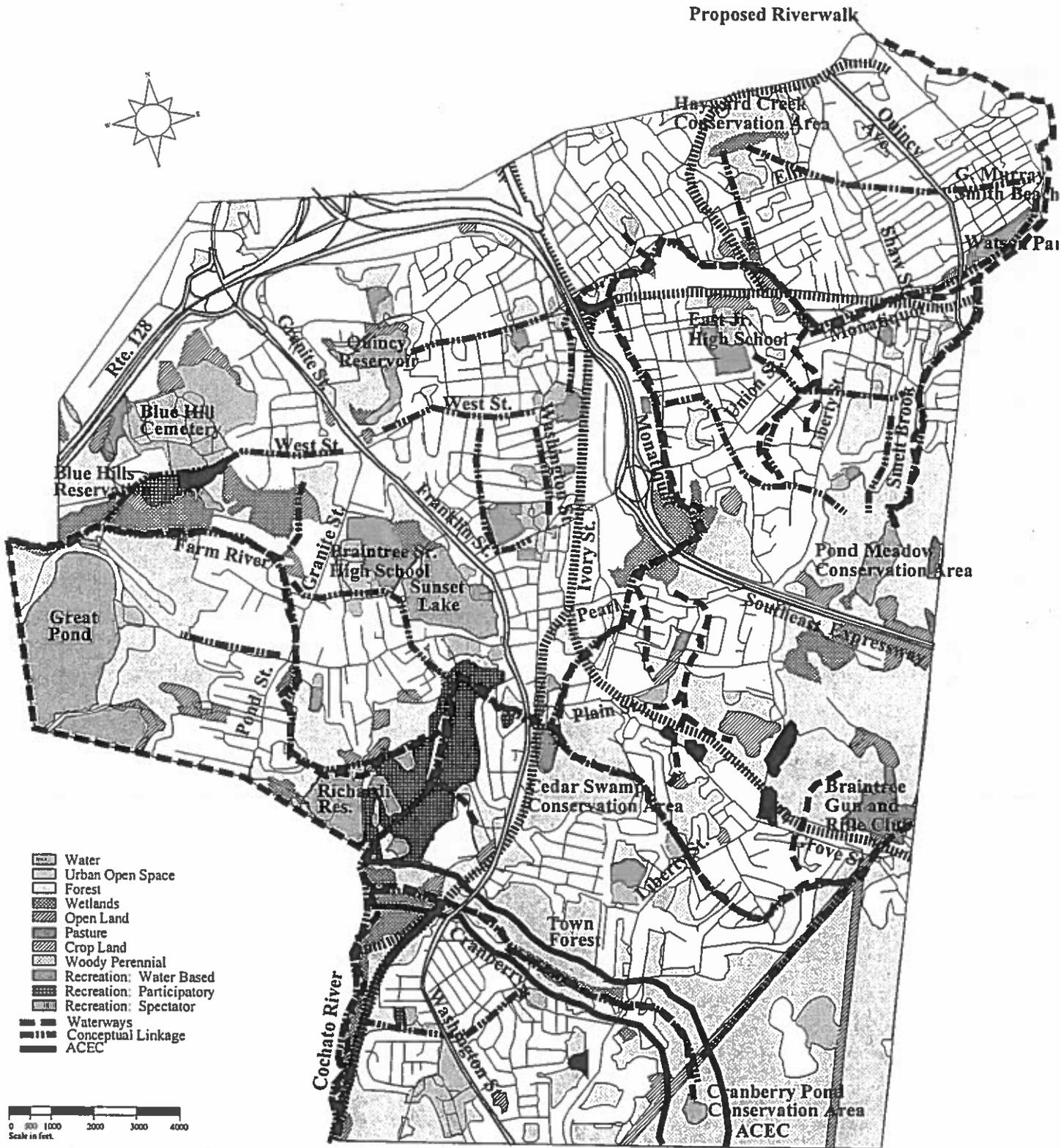
The demand for both active and passive recreation opportunities in Braintree is undeniable. Moreover, all indicators suggest that such demand will be sustained at least at current levels throughout the duration of the five year Master Plan timeframe. Given the demographic trends in Braintree it is more than likely that such demand will continue to increase. In light of this growing demand, it is recommended that the Town proactively explore options for addressing this need. Specifically, the Town should determine the feasibility of developing for recreational purposes such areas as the School Trust property, the Town landfill site, and some of the property acquired by the Conservation Commission at the County Hospital. It should be noted in this regard, that the Town has taken a first step in planning walking trails for the latter site.

Guiding Principles

The proposed Conceptual Open Space Plan is driven by a set of guiding principles aimed at the creation of an open space system that meets the Town's goals and needs to improve and expand open space and recreation opportunities. These guiding principles should continue to guide decision making with regard to Open Space and Recreation. They are:

1. Use existing stream corridors to provide a system of open space linkages between larger open space areas, through the use of existing open spaces and potential open space elements (e.g. through the purchase of property, open space and conservation easements).
2. Associate recreation facilities with areas of greatest demand (i.e. most dense and underserved neighborhoods).
3. Use institutional facilities as centers (nodes) for an improved and expanded recreation system (e.g. schools, existing recreation facilities).
4. Locate large scale facilities/uses and parking in least sensitive areas to minimize environmental impacts (e.g. away from identified sensitive areas, wetlands, steeper slopes, floodplains, ground water recharge areas, established forest lands).

Conceptual Open Space and Recreation System



5. Restrict large scale facilities and uses, require large scale earth moving, to less sensitive areas.
6. Provide parking in least sensitive areas.
7. Whenever possible, locate facilities where existing parking may be shared (e.g. school facilities which could accommodate school parking during the day and recreation parking on evenings and weekends).
8. Design techniques and guidelines to minimize grading.
9. Use existing open spaces along stream system as an organizing element of Town-wide system.
10. Link open space through natural areas where possible.
11. Locate other linkages along less busy elements of the street system.
12. Restrict most sensitive areas and corridors to passive recreation, while emphasizing pedestrian access.
13. Provide pedestrian crossing protection where greenway links cross more heavily used streets.
14. Maintain wildlife corridors and habitat.
15. Do not fragment natural landscapes and wildlife corridors.
16. Provide open space uses and access associated with future village centers.
17. Coordinate signage to create an identity for the open space system and to highlight open space and recreation facilities, as well as open space opportunities and linkages (green links).

Open Space and Recreation Action Plan

The proposed Action Plan has been developed in support of the Open Space and Recreation Objectives agreed upon in the course of this planning process, namely:

- *Provide for increased opportunities for active recreation to match changing demand within the Town.*
- *Provide for increased facilities where they can cost-effectively enhance the quality of life of residents.*
- *Develop additional recreational opportunities for children.*

- *Provide for the adequate maintenance of all public open space.*
- *Provide for increased appreciation and understanding of the existing open space resources to further their use and enjoyment.*

Objective: Pursue strategies to protect publicly-owned and acquire or otherwise protect privately-owned open space.

Actions:

- Complete and file with the Executive Office of Environmental Affairs the Town's Open Space Study which will position Braintree to be eligible for state funding for acquisition of additional open space.
- Provide incentives for owners of large undeveloped areas of open land totaling 222 acres across Town to continue to maintain such areas as open space. Such incentives might include tax breaks, or purchase or receipt of conservation restrictions or easements by the Town or a land trust.
- Discuss the potential for re-zoning by mutual consent several important properties, which the Town has inventoried as "protected open space" to ensure this protected status. Such sites include The Rifle and Pistol Club (currently zoned commercial), Thayer Academy (currently zoned as Residential B), and the Norfolk County Hospital (currently zoned as Residential B). Several of these parcels might more appropriately be zoned under a new category of institutional or cultural uses.
- Formalize existing criteria used by the Town for the acquisition of open space.
- Acquire BELD property to integrate with Watson Park.

Objective: Increase access to existing public open spaces for passive recreation.

Actions:

- Explore the potential for increased access, through signage and other physical improvements, to the following underused open spaces:
 - Pond Meadow Park
 - School Trust Land
 - Town Forest
- Develop a plan for addressing the issue of handicapped accessibility Town-wide.

Objective: Increase opportunities for active recreation.

Actions:

- Assess the potential for the development of new active and passive recreational facilities, such as:
 - School Trust Land
 - Peterson Pool
 - Riverfront Walkway
 - Town Landfill Site.

- Assess the potential for expanding existing facilities at:
 - Henry Mattulina Park
 - Jonas Perkins Park
 - Marion Leary Park.
- Take steps to resolve Peterson Pool stalemate.
- Determine the feasibility of acquiring additional property.
- Explore opportunities for regional cooperation with regard to active recreation facilities.

Objective: Allocate investment to upgrade and maintain publicly owned open space and recreational facilities.

Actions:

- Promote public awareness of the extent of the demand for open spaces and recreational facilities, as well as the budgetary requirements of upgrading and maintenance.

Objective: Pursue connections to area-wide bikeways, greenbelts and other regional open space systems.

Actions:

- Explore the potential for involvement in the such initiatives as the Massachusetts Area Planning Council's Regional Bikeway and Pedestrian Plan, and the East Coast Greenway Alliance.
- Implement Plans for the Riverfront Walkway from Weymouth Landing along Route 53 to Watson Park.
- Explore with the MDC the potential for additional opportunities in Braintree, such as the concept of connecting the Blue Hills Reservation to the Neponset River system and on to Castle Island.
- Explore the potential for collaboration with the City of Quincy in planning for a bikeway along Furnace Brook Parkway.

SERVICES AND FACILITIES

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Public Facilities - Overview

The Town of Braintree has in place a five-year Capital Plan which is updated annually by each of the relevant Town departments. A copy may be found in the Findings Report. In addition, many of the Town departments also have in place a capital planning process. This Master Plan recommends that a townwide capital planning process and budget be an integral element of the implementation of this Master Plan. This Master Plan recommends that the Town's General By-Laws be amended to formalize the coordination between the Master Plan and the capital budgeting process.

In order to gather information on the extent and condition of public facilities in the Town of Braintree, The Cecil Group distributed a survey to all Town departments. The survey solicited information on the age and condition of each of a department's facilities, its adequacy in meeting current and projected needs, its accessibility to the handicapped, and opportunities for coordination with neighboring communities for the provision of shared services or joint facilities. Completed surveys may be found in the Appendices of The Findings Report. The information summarized below has been drawn from those completed surveys.

The overall approach to public facilities and services was guided by the following Services and Facilities Objectives:

- *Upgrade, repair and maintain the infrastructure systems to ensure high standards of service.*
- *Improve the Town's water supply, distribution and sewer systems.*
- *Maintain and enhance the quality of the Town's school system through appropriate capital investment to match the changing school-age population.*
- *Enhance accessibility in public facilities and in all public improvements.*

Braintree Electric Light Department

The Braintree Electric Light Department provides electric service, generation, transmission and distribution. The Light Department normally conducts a five-year facilities plan to determine what facilities will be needed for the distribution of electricity. The Light Department continues to review its five-year plan each year. The loss of addition of any large customer has a direct effect on our plans for facilities as well as purchases of power. There is currently no coordination with neighboring communities. For the most part, the BELD's various facilities are adequate to meeting expected needs within the timeframe of the Master Plan. Detailed summaries of each facility are included in the Appendices.

Library Department

The Braintree Library Department uses three facilities in the provision of a full range of library services, including books, audio visual materials, programs, and a variety of automated services, including the internet. The Library Department provides its services to all segments of the population -- from pre-schoolers to senior citizens.

The Library Department does long and short-range (maintenance and repair projects) facilities planning. This planning is conducted by the Library Director, consultants

including architects, and the Library Trustees. For example, the Director wrote the Long Range Plan, FY 95 - 98 and the building program for the new main building. The Library Department does have a capital plan.

With regard to coordinating their efforts with neighboring communities, the Library Department is already a member of the Eastern Regional Library system and the Old Colony Library Network, which provide inter-library loan of materials.

The Main Library Building is soon to be replaced with a new building. Both branch libraries are considered to be less than adequate in meeting the Library Department's needs. Summaries of these facilities are in the Appendices.

Public Safety

Police

The Town of Braintree has one, 21-year-old police station, which was the focus of a special Building Committee review several years ago. As a result of that report, some of the building's more serious problems were addressed. The Department does have a capital plan, which is included in the Appendices.

The building is deemed to be in fair condition and inadequate in meeting the Police Department's needs. With no storage room, and offices that are too small, the Police department is felt to be "bursting at the seams." The Police Station is now handicapped accessible and is considered to be effective in meeting the community's public safety needs. The Police Station's auditorium-style training facility is a community resource, and is used by different community groups for meetings.

The Police Department has recently engaged in a regional lock-up agreement with the Norfolk County Sheriff's Department.

Looking forward over the next five years, the most pressing problem is space and storage. With continued expansion of police services and resources the Police Department is finding the lack of space to be an increasingly serious concern. The Police Department would welcome an inspection by an engineer and/or an architect for guidance in ways to maximize the use of the facility.

Fire

The Braintree Fire Department has three facilities. The department does little facility planning, rather it generally responds to changes in the fire service and individual situations as they become apparent. The Fire Department does have a capital plan, as well as a plan developed with the Capital Planning Committee. In general, the Fire Department's planning capabilities are considered to be limited due to budgetary constraints, some resulting from Proposition 2 1/2 and others attributed to the inexperience with Fire Department-related issues of those overseeing the allocations of funds. Headquarters is considered to be in fair condition, and less than adequate in meeting current needs. East Braintree Fire Station is considered to be in good condition and adequate in meeting current needs. The Highlands Fire Station is considered to be in excellent condition and more than adequate in meeting current needs. Detailed summaries of each facility is in the Appendices.

Braintree Public Schools

The Braintree Public School Department has a total of 14 facilities: 1 kindergarten center; 2 middle schools (6-8); 1 high school (9-12); 7 elementary schools (K-5); 2 unused elementary schools (currently being rented for other uses); and 1 maintenance building.

The School Department conducts yearly planning related to budgeting for the maintenance of its facilities. They also conduct an annual update of their five-year capital plan. (Please see the Appendices.)

With regard to coordination with neighboring communities, there is currently sharing of some specialist positions such as occupational therapy or physical therapy.

The School Department's facilities range in condition, but nearly all of the facilities are in need of some updating. These facilities are for the most part adequate in meeting *current* Town needs. It is anticipated, with regard to a number of facilities, particularly elementary schools, however, that additional space would be required if student enrollment increases. Both middle schools are in fair condition and in need of updating. The high school is in good condition, and in need of some updating. However, it is deemed to be more than adequate to meet the School Department's needs. Of all of the School Department's facilities, only the High School meets ADA accessibility standards. Detailed summaries of each facility is in the Appendices.

The School Department has one school, The Torrey School on Pond Street, which is not currently under the jurisdiction of the school department. The Town has leased it to the John Hancock Company. If the birth rate and the number of children in families moving to Braintree increase, it may be necessary to reoccupy the Torrey School in the future.

Services and Facilities Action Plan

Objective: Commit sufficient investment to ensure adequate public safety.

Actions:

- Continue the careful monitoring and capital planning efforts of the Fire and Police Departments.
- Monitor of the changing nature of the demands on public safety services (e.g. with the re-opening of the Old Colony line, and an aging population), and the cost requirements of these demands.

Objective: Ensure continued adequate supply of electrical power.

Actions:

- Continue the careful monitoring and capital planning of the Braintree Electric Light Department.

Objective: Concentrate investment in the Town's school system.

Actions:

- Continue the School Department's careful monitoring and capital planning efforts.

- Promote public awareness of the cost requirements of the School Department and changing nature of demand for School Department services.

Objective: Ensure adequate services and facilities for the growing elderly population.

Actions:

- Working with the Council on Aging, create a forum for informing relevant Town agencies of the current and projected needs of Braintree's growing elderly population.
- Provide a range of housing opportunities to accommodate this growing segment of the population. (See Housing Section)

Water Supply System - Overview

There are two problems involved with Braintree's water system which impact the community's quality of life. The most important of these problems is the limited water supply. The second problem is inadequate service. While many residents experience problems, they are not experienced town-wide. The residential areas where low pressure exists include Fabiano Drive/Pond Street, Fallon Circle/Peterson Road, and Herbert Street/Mt. Vernon Street areas.

To address this problem, a separate study conducted for the Town recommended replacement of all 4-inch water mains in Braintree with 8-inch water mains. Additionally, that report identifies deficits in the capacity of storage facilities in Braintree which need to be corrected to provide adequate pressures throughout the system during periods of high demand and fire flows. Other actions to address pressure related problems include cleaning lines and replacing some 6-inch lines over time.

The more serious and pressing issue facing Braintree, however, is water supply. The Town of Braintree is part of a Tri-Town Commission which also includes Randolph and Holbrook. The Tri-Town Commission's water supply consists of three large reservoirs: Great Pond Upper Pond, Great Pond Lower Pond, and the Richardi Reservoir.

The three communities shared source of drinking water (the three reservoirs) has a safe yield of 5.6 million gallons a day (MGD) of which Braintree is allotted 50 percent (2.8 MGD). The overall basin surrounding the reservoir system has an estimated safe yield of 10.5 MGD. Combined, the three communities have an average day demand of 7.8 MGD. Hence, combined water demand exceeds the safe yield. This situation is serious enough that the Massachusetts Department of Environmental Protection has directed that the supply problem be addressed. The Town's initial response to this direction was to begin planning for the dredging of the Great Pond Upper Reservoir. This action involves the removal of approximately 1.4 million cubic yards of material from the reservoir. Upon its completion, the volume of water that the reservoir can hold will be increased. However, even with this increase, staff of the Braintree Sewer and Water Department anticipate that the Town's water demands will continue to exceed supply in high demand months.

The dredging project was anticipated to begin during the late summer of 1997. As of December 1997, this project had not begun due to the lack of several necessary environmental permits. At this time, the project is anticipated to receive the remaining permits in January 1998. This project is anticipated to require up to five years to complete.

While important, the five-year dredging project to increase the storage capacity of the Great Pond Upper Reservoir is only the start of the effort to increase the availability of water throughout the community.

Because of the long time frames involved in any project which can significantly increase Braintree's supply of water the community must focus on the next steps in addressing its water limitations in a continuous and a persistent manner.

Water Supply System Action Plan

Objective: Improve Braintree's quality of life by identifying a water supply which will meet the community's needs for the near and long term.

Actions:

- Continue the dredging of the Great Upper Pond Reservoir as expeditiously as possible.
- Conduct a detailed study which identifies all reasonable options available to the community regarding increasing the supply of water. Potentially, these options include expanded dredging of the reservoir system, use of the Cochato River, groundwater wells, and membership in the MWRA. Once defined, the study should complete a cost/benefit analysis of the options.
- This evaluation should highlight the trade off between the one-time up-front cost of permanent supplemental MWRA service connection (estimated at approximately \$2.75 million), which can be repaid over a long period of time, and the cost of all other potential actions. Importantly, setting the initial cost aside, it is likely the actual cost of water from the MWRA will be very similar to the current cost of water in Braintree. Currently, one million gallons of water costs approximately \$2,600. The wholesale cost of one million gallons of water from the MWRA to member communities is \$950. This wholesale price is then increased by local communities to reflect the cost of maintaining the water delivery system and services. Of the 46 communities currently receiving MWRA water, the median retail cost per one million gallons of water is approximately \$2,400. Consequently, it is likely that the day by day cost of MWRA water will not significantly exceed the current cost of water in Braintree. However, with permanent supplemental MWRA water service in place, Braintree's water demands will be brought into balance with an available supply of water.

This balancing of supply and demand (whether by the MWRA or other actions), would be a substantial improvement to the community's quality of life and a significant tool which the community can use in its decision making process regarding future land use. Ultimately, adequate infrastructure is in the community's best interest. Attempts to limit growth through maintaining an inadequate infrastructure ignores the impact of existing demands on the community's quality of life and the ability to plan Braintree's future based upon what is best for the community rather than which future can be supported by limited infrastructure.

- Regarding the Cochato River, although it passes a known hazardous waste site, actions to remediate this site have occurred and the Braintree Water and Sewer Department, along with the Tri-Town Commission, has established that the river water's quality is well within required standards. Even so, there is a public

perception that the quality of the river's water is not acceptable. However, with millions of gallons of the Cochato River's water flowing through Braintree daily, this represents a potential source of water which should not be dismissed without further study.

- In the absence of the Town's ability to secure additional sources of water (MWRA, Cochato River, groundwater wells), Braintree should expand its reservoir dredging program to include the Great Lower Pond Reservoir and the Richardi Reservoir as rapidly as possible.

Wastewater System Overview

The Town of Braintree's existing wastewater collection system consists of 135 miles of gravity sewers ranging in size from 8 inches to 36 inches in diameter. Portions of the sewer were constructed in the 1930s. Approximately 95 percent of the pipelines were constructed with vitrified clay pipe having oakum/mortar joints.

While Braintree has not solved the problem, it is clear that a solution requires commitment and funding. In order to improve the community's quality of life, the Town must maintain an on going effort to repair broken joints between pipes. These broken joints allow groundwater to enter the sewer system (infiltration and inflow), which in high water events causes the pipes to fill sooner than they otherwise would. Once full, raw sewage can back up from the system into homes. While a total solution to this problem also involves several actions, which are underway by the MWRA, Braintree must do all in its power to address this issue. Additionally, because the MWRA bases its bills to Braintree on total flow out of the system (including the groundwater in the pipes), the cost to the Town are artificially inflated by this groundwater infiltration.

Wastewater System Action Plan

Objective: Improve the quality of life for Braintree residents and decrease the cost of sewer service by repairing Braintree's wastewater system.

Actions:

- Continue to make repairs to the wastewater system as recommended in separate study conducted for the Town by Beta Engineering.
- Prioritize repairs to the stormwater system in those sections of Braintree known to experience wastewater back-ups.
- Maintain close coordination with the MWRA to expedite MWRA projects designed to alleviate wastewater back-ups (intermediate pump station).

CIRCULATION

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Overview

Braintree has over 145 miles of public roads, nearly 20% of which are privately-owned. Approximately 95 % of Braintree's streets are two-way two-lane facilities. Two major highways, Route 3 -- serving Massachusetts South Shore communities -- and Route 128, the inner beltway of the Boston metropolitan highway system -- converge in Braintree.

Braintree's local street system has a state and local functional classification systems. The local system includes four categories including arterials (<5,000 vehicle trips per day), collectors (2,000 to 5,000 vehicle trips per day), subcollectors (1,000 to 2,000 vehicle trips per day), and residential (<1,000 vehicle trips per day). The State's system has seven categories ranging from Urban Interstate to Locals.

Between 1988 and 1995, Braintree's traffic grew at 3-4 % per year, a relatively high rate of growth. Braintree's major street system is experiencing significant demands during the AM and PM peak hours. Observations indicate that traffic volumes are generally not exceeding capacity conditions, but several locations are experiencing traffic demands higher than may be acceptable to local residents, particularly during the AM and PM peak hours. Approximately 95 % of Braintree roadways are two-way, two-lane roads with varying shoulder widths.

According to the latest (1995) Metropolitan Area Planning Council (MAPC) Pavement Management Report for the Town of Braintree, approximately 42% of Braintree's roadway pavements were in fair to poor condition as of 1994. MAPC projects that unless the Town allocates an average of 5 times more than has traditionally expended annually on roadway pavement maintenance -- approximately \$1.75 million per year vs. \$400,000 per year -- within five years Braintree's overall pavement quality will degrade from an existing 'fair/good' condition to 'fair/poor' condition. Without relief, the degradation of Braintree's pavement infrastructure will adversely affect Braintree's residents and businesses by increasing motorist and pedestrian discomfort in riding or walking on Town streets, and ultimately degrading the safety of Braintree's street system.

Table 1 provides a summary of sidewalks missing from the portions of Braintree's major arterial and collector street system according to a January 1997 video inventory.

Braintree has 38 existing traffic signals, 4 of which are pedestrian-actuated only. The Town maintains a total of 17 signals, while the Massachusetts Highway Department maintains 21 signals.

Table 1
Locations of Sidewalks Missing from Braintree Arterial/Collector Roads*

Both sides of West Street between the Randolph line and Braintree 5 corners intersection;

Both sides of Granite Street (State Route 37) between the Randolph line and Armstrong Circle;

West side of Granite Street between Town Street and approximately 500 feet north of Andersen Road;

Both sides of Granite Street between Forest Road and the Route 128 interchange;

East side of Tremont Street between Central and Hobart Avenues;

South side of Prospect Street between Cochato Road and Washington Street;

North side of Commercial Street between John Paul Circle and Erickson Street;

South side and portions of the north side on Central Avenue;

North side of Adams Street between Commercial and Elm Streets;

South side of Elm Street between Cedar and Middle Streets;

East side of John Maher Highway between Plain and Pearl Streets;

North side of Pearl Street between Liberty Street and approximately 1,200 feet westerly;

East side of Middle Street between Lisle Street and Norfolk Streets;

West side of Middle Street between Norfolk Street and Liberty Streets;

East side of Liberty Street between Middle Street and Lincoln Street;

Both sides of Liberty Street between the MBTA Old Colony Plymouth line and Plain Street;

North side of Plain Street between Liberty Street and Grove Street;

South side of Plain Street between Liberty Street and approximately 800 feet south/southwest of Kendall Avenue;

North side of Grove Street between Plain and Hemlock Streets;

South side of Grove Street between Plain and approximately 200 feet west of Grove Circle;

South side of Grove Street between Columbian Street and approximately 200 feet west of Grove Circle;

South side of Columbian Street between Grove Street and the Weymouth line;

North side of Grove Street between the O'Toole Terrace and the Weymouth line;

South side of Peach Street between Candlewood Lane and Liberty Street;

The MBTA provides three types of public transportation services within Braintree -- rapid transit (one Red Line station), four local bus routes, and the RIDE special needs services. A fourth transit option, commuter rail via the Old Colony Restoration Project, has been made adjacent to the existing Red Line Braintree Station. The Greenbush branch is not likely to be activated during the next five years. The new Old Colony service is expected to be beneficial to Braintree traffic conditions by diverting traffic from Braintree's local street system back to Routes 3 and 128 during hours when Routes 3 and 128 would otherwise be congested. However, a new active railroad grade crossing on Plain Street just west of Hancock Street is expected to increase delays at the Hancock, Plain, and Washington Streets intersection. While it has considered it in the past, the MBTA is not actively considering expanding the Braintree garage due to local opposition to past garage expansion proposals. Closer toward the Boston core area, the MBTA is expanding its Quincy Adams and Quincy Center garages.

Residents in several of Braintree's residential neighborhoods adjacent to its major highway system of arterial and collector streets are concerned about the impact of 'cut-through' and speeding traffic and that local and regional traffic growth will degrade their quality of life and pedestrian safety.

From a regional standpoint, during the next 5 years, re-use of the Quincy Fore River shipyard and the Weymouth Naval Air Station are most likely to be the largest new traffic generators to affect Braintree. In both cases, these areas were once very substantial traffic generators. In its heyday, the Quincy Fore River shipyard employed 32,000 people. At this time, it appears that redevelopment of the area could create up to 5,000 new jobs. Similarly, the Town of Weymouth is about to adopt a comprehensive re-use plan for the Weymouth Naval Air Station site. While not as likely to develop significantly during the next 5 years -- the Weymouth Naval Air Station site could be redeveloped to produce 6,000-8,000 new jobs and nearly 2,000 new residents over the next 20 to 40 years.

A Project Justification Report is currently being prepared for submission to the MHD on behalf of the Town of Braintree for the following two projects:

- Washington Street improvements between Pearl Street and the Route 3 southbound off-ramp. This involves an approximate 1.3 mile segment of Washington Street and includes full depth reconstruction and improvements to 7 traffic signals at an estimated cost of \$1.5 million to \$1.6 million.
- Union Street improvements between the Route 3 Rotary and Liberty Street, an approximate 1 mile segment, at an estimated cost of \$1.1 million. The projects involve a general full depth reconstruction and signal upgrades as necessary.

Both projects are approved for funding under the South Shore Road Project of Massachusetts Transportation Bond Bill. Pending rapid completion of design, the projects could be advertised in 1999 and completed by the year 2001. Four of Braintree's locations on the MHD's top 1,000 high Accident Locations list will be addressed under these two projects.

This will make a significant contribution to the situation in Braintree, and one the benefits of which might be maximized by seeking funding for related improvements. For example, the Town should consider applying for a Public Works Economic Development grant from EOTC in the amount of \$1.0-1.5 million for upgrading the streetscapes of Braintree North and Braintree South Squares (around Town Hall) and providing a sidewalk on Central

Street between Franklin and Washington Streets. The MHD is assuming responsibility for the construction of the South Shore Roadway Project that includes the Washington Street and Union Street projects. The addition of improved public walking and bicycling spaces through a streetscape improvement project would strengthen the effectiveness of the Washington Street improvements, which, as we understand it, is primarily a street reconstruction job. Both the PWED and the South Shore Roadway Project should be closely coordinated with one another to minimize disruption and the duration of construction.

Braintree might also consider applying to the Executive Office of Transportation and Construction for a State funded Public Works Economic Development (PWED) grant to improve one or more of the Braintree intersections which are on the State's top 1,000 high accident locations list (see Table 2 below). The PWED program is a competitive program that specifically targets roadway improvements to economic development. It is one of several State funding options which should be considered by Braintree. The earlier a grant is applied for, the sooner it will be considered.

Table 2
Braintree Locations on State's High Accident List
Four Year Accident Summary (1990-1993)

Major Street	Intersecting Street	Total	Property Damage		Number of Number		Weighted Average
			Only	Injury	Injuries	Killed	
Route 128	Route 37	67	36	31	43	0	191
Route 128	Route 3	76	50	26	26	0	180
Union Street On-Ramp	Route 3	60	39	21	28	0	144
Washington Street	Union Street	32	19	13	17	0	84
Union Street	Liberty Street	20	10	10	13	0	60
Franklin St.	Route 37	21	14	7	9	0	49
Washington St.	Elm Street	24	18	6	8	0	48
Granite St. (Rte. 37)	Forbes Street	16	9	7	11	0	44
Haywood St.	Quincy Avenue	14	7	7	10	0	42

Source: Massachusetts Highway Department Bureau of Transportation Planning and Development

Circulation Action Plan

The approach to circulation issues was grounded in the following objectives:

- *Ensure that future street and roadway improvements are consistent with the land use and other goals of the Master Plan.*
- *Provide a comprehensive approach to future development mitigation to reinforce Town-wide priorities for traffic, parking and circulation.*
- *Establish strategies for reducing through-traffic; this traffic is neither conducive to livable neighborhoods nor is it helpful to businesses in Braintree.*

- *Support regional and local actions that increase transit ridership and reduce unnecessary automobile traffic within the Town.*
- *Minimize any indirect negative impacts due to improvements in the regional commuter rail system.*
- *Enhance opportunities for safe and convenient circulation by pedestrians and bicyclists.*

Objective: Ensure effective monitoring and mitigation of negative traffic impacts of new developments.

Actions:

- Continue to condition new development, to the extent necessary, to mitigate negative traffic impacts it will create.

Objective: Approach Circulation Issues as a comprehensive whole.

Actions:

- Consider a community-wide comprehensive traffic management plan to integrate future short term (i.e. within the next five years) -- Town investments in circulation improvements with the availability of public and private funding sources. Alternatively, consider corridor access studies to address future traffic problems associated with traffic generated from new developments. A model Scope of Services is in the Appendices.
- The intent is to ensure that the goal of an efficient and effective transportation circulation system is met and maintained over time. The traffic management plan must not only identify the priorities for circulation enhancement projects, but their maintenance requirements and clear maintenance responsibilities. A Town-wide traffic study is estimated to cost approximately \$100,000 and would require approximately 1 year to implement. Alternatively, if the Town opted to hire a transportation professional, whose job was to develop and implement such a program, costs could potentially be lower.
- Create a position for a professional Transportation Engineer or Planner, whose job it would be to monitor and really take responsibility for coordinating circulation-related issues facing the town, including development projects in adjacent communities, potential funding opportunities, etc.

Objective: Use Regulatory tools to the extent feasible to strengthen effective management of traffic.

Actions:

- Consider replacing the Street definitions with the Commonwealth of Massachusetts Bureau of Transportation Planning and Development functional classification designations with the following adjustments:

Urban Other Principal Arterials will be Suburban Other Principal Arterials and would replace a portion of the Towns current Arterial designation;

Urban Minor Arterials will be coincidental with Suburban Minor Arterials and would replace the remaining Town roadways designated as Arterials;

Urban Collectors will be two categories; Suburban Commercial Collectors and Suburban Residential Collectors that would also replace the Town's current Collector and Subcollector designations. The difference between Suburban Commercial Collectors and Suburban Residential Collectors would be the land uses along them. Collectors with adjacent land uses primarily residential in character would be classified as Suburban Residential Collectors. Collectors with adjacent land uses primarily commercial or industrial in character would be classified as Suburban Commercial Collectors.

Locals would replace the Town's current Residential designation.

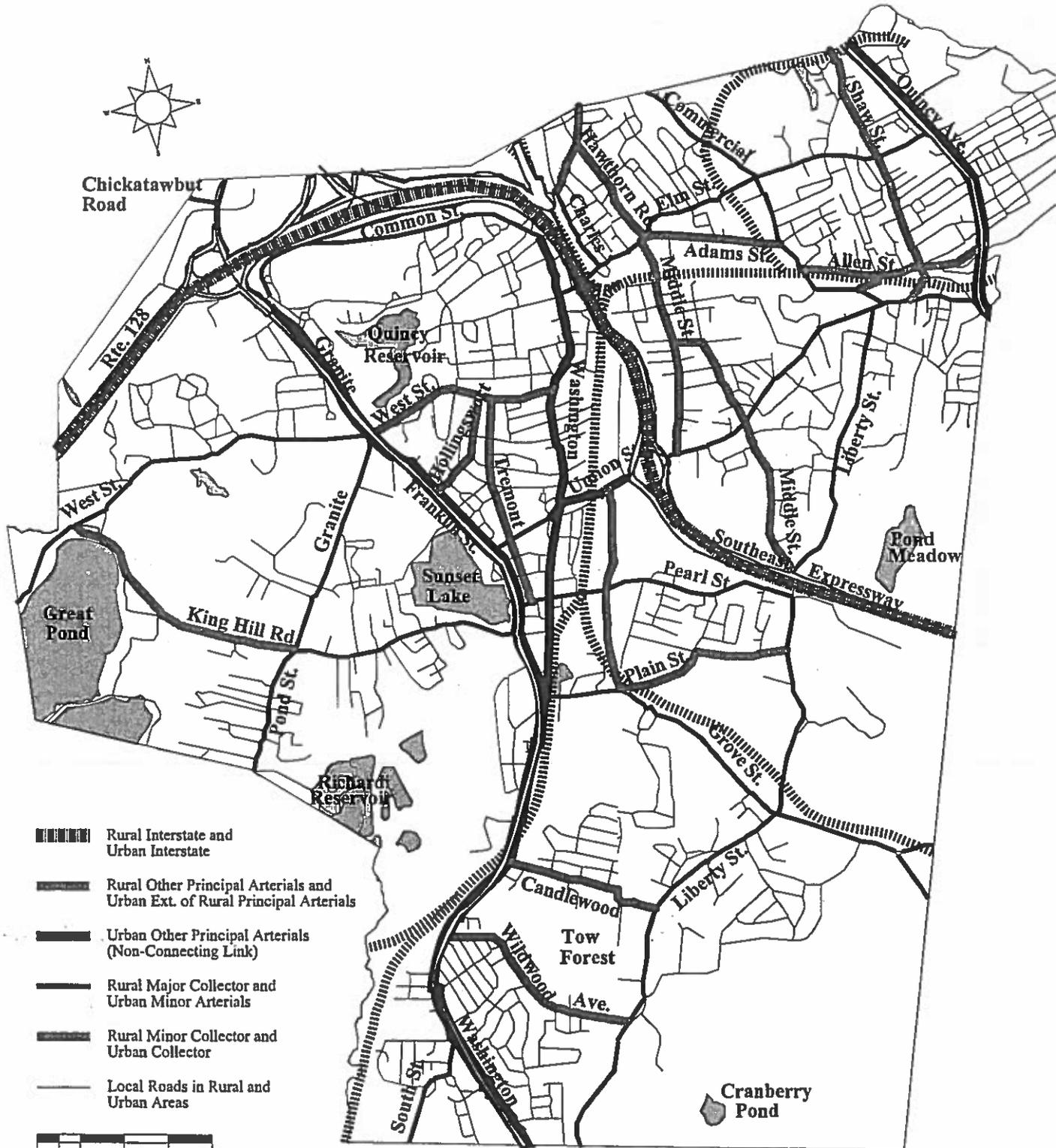
The purpose of adopting the functional classification system listed above is to define the use, not the volumes, of streets. The arterial designations usually mean that more than 75% of the traffic on a street is through traffic. The collector designation means that 25%-75% of the traffic on a street is through traffic, while a local designation means that less than 25% of the traffic on a street is through traffic. Without specifically designating volume ranges, the volumes on local streets, consistent with Braintree's current functional classification system, tend to be less than 1,000 vehicles per day; collectors (and subcollectors) tend to have volumes between 1,000-5,000 vehicles per day, and arterial volumes tend to be greater than 5,000 vehicles per day. However, the designations of Collector and Arterial should not be specifically defined by volume, as arterials in certain situations can carry more traffic than collectors and vice versa and still comply with the through to local traffic proportions identified above.

The Town's 'quality of life' issue is not specifically addressed by the functional classification designations cited above. By definition, however, one could survey local or collector streets to see if they met the criteria listed above (i.e., less than 25% of through traffic for local streets; and 25%-75% of through traffic for collector streets). The quantity of trips generated by land uses along the street could be estimated. It is suggested that the Townwide Traffic Management Study (refer to the attached Scope of Services) be used to develop such a standard.

In the meantime, prior to the Townwide Traffic Management Study, the Town should consider adopting a policy that will require mitigation on *Local* designated streets for quality of life reasons if it can be demonstrated that development in the vicinity of such a designated street will cause the maximum generated traffic on the street to increase by more than 25% over the street's *base traffic generation*, where base traffic generation is defined as follows.

The maximum amount of trips expected to be generated on the street plus other Local designated streets feeding into it prior to connection to the collector/arterial system. The maximum amount of trips must be estimated for individual streets in accordance with 1) the current maximum zoning potential along the street and 2) the trip generation rates for the uses along contained in the ITE Trip Generation report (1997 or latest Edition). Such a standard must be applied consistently to locally-approved functional classification system and the Town's zoning bylaw if it is to become the grounds for approving or denying a project.

Proposed Roadway Functional Classification



Source: Massachusetts Geographic Information System
Town of Braintree

It is noted that the Town has an excellent mapping resources to identify the zoning potential along streets in question. It is appropriate to consider requiring the impacting project proponents to conduct such an analysis.

Also, as mentioned previously, consider changing King Hill Road and Hollingsworth Avenue from *Suburban Collector* to *Local* designations in keeping with local land use preferences.

Objective: Improve pedestrian and bicycle safety and access

Actions:

- Consider completing missing sidewalks on arterial and collector system and, as funds permit, on the local roadway system.
- Working with accessibility groups, consider a focused program of corner curb cut modifications to comply with 521 CMR Architectural Access Board requirements. The first priority should be on arterials and collector streets, new local streets, and existing local streets.
- Working with local bicycle clubs and groups, consider establishing a town-wide bicycle access enhancement program to identify key bicycle circulation deficiencies, designate routes (concurrent and separate facilities), and identify public bicycle storage facility needs.
- Consider increasing the number and availability of public bicycle storage facilities

Objective: Allocate resources for necessary roadway repairs and improvements.

Actions:

- Seek to add privately owned local streets to roadway system. This will make the provision of municipal services available to a larger number of Braintree residents.
- Maximize the use of available public and private funding sources including:
- Federal funds for FY98 are unclear at this time due to the fact that the Intermodal Surface Transportation Efficiency Act (ISTEA) expires this year. Braintree officials must follow the impacts of impending legislation on the successor to ISTEA and must be prepared to apply for funds, which are to be authorized probably sometime early in 1998. It appears likely that Massachusetts will not receive as much funding assistance as it has been provided under ISTEA. It is imperative that Braintree place its most needed projects on the Metropolitan Area Planning Councils (MAPC'S) Transportation Improvement Program (TIP) as soon as practical. At this time, only the Elm Street improvement project is on the TIP. Pending the new legislation, Federal funding sources may include:

National Highway System (NHS)

Intelligent Transportation Systems

Enhancement funds for meeting air quality attainment, pedestrian projects, and highway beautification

Safety audit funding

Private sector partnerships

Discretionary mass transit and formula funds

- Federal funds for FY98 are unclear at this time due to the fact that the Intermodal Surface Transportation Efficiency Act (ISTEA) expires this year.
- Consider increasing the current funding level of \$400,000 per year for roadway maintenance to at least \$1.75 million per year either by re-shuffling existing funding priorities or obtaining additional State and local funds (e.g., through a Proposition 2 and 1/2 over-ride).
- Consider applying to the Executive Office of Transportation and Construction for a State funded Public Works Economic Development (PWED) grant to improve the Five Corners intersection or the following intersections which are on the State's top 1,000 high accident locations list.

Objective: Develop strategies to minimize 'cut through' traffic in residential neighborhoods

Actions:

- Consider adopting from the Bay State Roads Program the approach to residential traffic management identified in *A Guidebook for Residential Traffic Management*, Washington State Department of Transportation, Trans Aid Service Center, Northwest Technology Transfer Center, Final Report December 1994. This report is currently available for reproduction without limitations and has a straightforward and proven implementation approach.
- Target 'neighborhood traffic controls' for areas where most 'cut through traffic' and speeding complaints are received. Pro-actively address neighborhoods where new development in or adjacent to Braintree will create pressures for traffic to divert from arterials and collector roads to local streets (e.g., the Granite Plaza neighborhood bounded by Granite Street to the east and West Street to the south).
- Explore federal and state funding sources for designing and implementing traffic calming strategies.
- Consider establishing designated neighborhood superblocks, for example, as follows:

West Braintree: bounded by Granite Street to the east; Route 128 to the north; and the Quincy and Randolph lines to the south and west.

North Central Braintree: bounded by Granite and Franklin Streets to the west; Route 128 to the north; 200 feet north of Central Street to the south and Washington Street to the south.

Central Braintree: bounded by Franklin Street and 200 feet north of Central Street to the north; Washington Street and the MBTA's Old Colony Railroad Middleborough line to the east; Granite Street to the west; and the Randolph line to the south.

East Braintree: bounded by the Quincy line to the north; the Weymouth line to the east; and Route 3 to the southwest.

South Braintree: bounded by Washington Street and the MBTA's Old Colony Railroad Middleborough line to the west; Plain and Grove Streets to the south; Route 3 to the north, and Weymouth to the east.

Braintree Highlands: bounded by Hancock Street and the MBTA's Old Colony Railroad Middleborough line to the west; Plain and Grove Streets to the north, the Weymouth line to the east, and the Holbrook line to the south.

- Consider a series of meetings within each of these superblock neighborhoods, subject to local concurrence to:
 1. Discuss the relative importance of through traffic impacts and speeding on designated local streets;
 2. Discuss the pros and cons of the techniques that are available including impacts on emergency and municipal services (e.g., plowing and trash removal); and
 3. Determine the need for and priority of implementation of neighborhood traffic controls and traffic calming. The fundamental goal is that neighborhood areas between the superblocks be protected from the intrusion of through traffic by employing neighborhood traffic control or traffic calming strategies acceptable to at least 80% residents living within each of the superblocks.
- It is most important for proponents of neighborhood traffic controls and traffic calming measures to recognize that impacts on through traffic can and are often also detrimental to themselves and their neighbors.
- Some of the long list of available neighborhood traffic control and traffic calming techniques include:

Entry signs; e.g., No Through Traffic 7-9 AM and 4-6 PM Strictly Enforced.

Changes in street patterns; e.g., make streets one-way opposite one another to create circuit breakers in the street system, thereby causing through (and neighborhood) traffic to travel a longer route through a neighborhood.

Gateway treatments; e.g., narrow choke points or channelizing islands at intersections with collector and arterial streets augmented by a sign to provide a visual cue that through traffic is discouraged.

Traffic diverters; e.g., modifying an intersection by splitting it diagonally such that it forces movements to the left or right, thereby causing through (and neighborhood) traffic to travel a longer route through a neighborhood.

Alternate side parking to discourage speeding on neighborhood streets by forcing traffic to use a serpentine pattern while negotiating neighborhood streets.

Speed humps and speed tables to discourage speeds. Note that speed bumps have long been recognized as being dangerous to bicyclists and pedestrians. Speed tables and speed humps have limited applicability.

Curvy alignments tend to reduce speeds, but are difficult to implement in mature neighborhoods.

Neckdowns are largely implemented at intersections between locals and arterials and/or arterials and collectors to reduce pedestrian crossing areas and discourage parking at corners for improved sight lines.

Modern roundabouts are implemented at intersections of collectors and locals or locals and locals to discourage speeding and as a replacement to all-way stop sign control or traffic signals. Not many modern roundabouts have been implemented in the US; most are located in western US and Canada.

- Coordinate signals to encourage traffic to stay on arterial and collector routes (e.g., on Quincy Avenue). Review signal operations to determine locations where signal modifications are needed to better serve turning movements.
- Determine which neighborhood traffic control options are acceptable for implementation through neighborhood meetings. A prototype neighborhood might be considered as a first step.
- Consider implementing neighborhood traffic controls or traffic calming strategies as part of new development mitigation obligations.
- Apply for available funding to design and implement neighborhood traffic controls or traffic calming strategies within a prototypical area of one superblock which meets the criteria discussed above of acceptability by the affected superblock community.
- Integrate traffic calming strategies as mitigation for new development.

Objective: Increase public parking supply

Actions:

- Ensure that zoning parking requirements by land use are adequate to accommodate new development.
- A review of zoning parking requirements indicates the space requirements, if enforced are generally adequate.
- Consider on-street parking modifications which will either increase the supply or encourage more rapid turnover, which will increase the supply. Generally, it is essential to conduct parking turnover studies prior to initiating such changes. When new development is proposed in parking-constrained areas, require the proponent to address impacts on the public parking supply if an off-street parking waiver is being sought.

Objective: Monitor development in adjacent towns and develop regional strategies to address traffic impacts in Braintree.

Actions:

- Consider addressing developments that have regional traffic impacts from a regional perspective.
- This might be accomplished by establishing a Braintree, Weymouth, and Quincy (Tri-community) organization for exchanging traffic impact information about major developments in the three communities and pursuing the implementation of mutually acceptable traffic mitigation strategies.

Objective: Increase availability of MBTA services to Braintree residents.

Actions:

- Consider increasing the supply of parking at Braintree garage by negotiating with the MBTA Planning or Real Estate departments to establish a designated area in the expanded garage exclusively for Braintree residents.
- The objective of the negotiations should be to ensure that Braintree is monetarily compensated such that the net impact on Braintree's MBTA assessment is neutral or reduced.

IMPLEMENTATION PLAN

IMPLEMENTATION PLAN

Overview

The Town of Braintree has a history of planning for its future as evidenced in the Downe Master Plan of 1963 and the Connery Associates Master Plan of 1985. In many ways this 1998 Master Plan, as the Connery Master Plan also notes, is a direct descendent of its predecessors. Many of the goals and objectives are the same, as are even some of the recommendations which went unimplemented. A distinguishing characteristic of this Master Plan, however, is a focus on *implementation*.

This focus on implementation is borne out in having structured the body of this plan as a series of action strategies aimed at achieving the Town's goals and objectives. Moreover, this section of the Master Plan lays out a strategy for the Town to follow in order make this plan a reality. This Master Plan does not resolve every outstanding issue facing the Town. But wherever possible, options are laid out clearly enough for the Town to reach consensus on a reasonable course of action. A critical component of this focus on action, results and implementation is recognition of the need for the Town to understand what its choices are, understand what the implications and costs involved are and establish priorities in the context of the Town's overall vision for its future.

A second key aspect of this approach involves using this Master Plan, not as a static document, but as a real resource against which progress is monitored and mid-course adjustments made if necessary. This requires *sustained commitment* -- on the part of Department Heads, members of the Planning Board, the Zoning Board of Appeals and other Town Officials. Necessarily this commitment extends beyond the walls of Town Hall to citizens and members of the business community in a number of collaborative initiatives including a renewed Economic Development Committee, a strengthened Fair Housing Committee, and the Capital Planning Committee, whose requirements should be strengthened and formally introduced into the Town's By-Laws and regulations as appropriate. This notion of collaborative commitment also extends to the idea of creating a regional mechanism, such as a Task Force, whose charge would be to monitor development and planning initiatives in the region and bring them to the attention of relevant Town officials. This sustained commitment is also embodied in several new professional positions created to provide overall monitoring and day-to-day focus and support in several key areas. This includes a Transportation Planner or Engineer, as well as a Community Development Planner, responsible for housing, economic development and grant writing. Under the guidance of the Planning Director, the Community Development Planner might also be responsible for implementation issues associated with the Master Plan.

Implementation Objectives

The following Implementation Objectives were developed in the course of the Master Planning Process, and guided the approach to this element of the Master Plan.

- *Ensure that land use goals are implemented through enforceable growth management mechanisms.*
- *Ensure that existing land use controls are properly enforced.*
- *Ensure that the Town's land use regulations and decisions are consistent with the Master Plan.*

- *Improve communication among Town departments and the citizenry on issues addressed by the Master Plan.*
- *Establish a clear timetable and allocate responsibilities and resources to ensure implementation of the Master Plan.*

In support of these objectives, this component of the Master Plan includes a set of Recommendations, a Table of Implementation Actions and an approach to assessing progress on an annual basis.

Recommendations

The recommendations outlined below are organized according to the general categories of the Master Plan and fall under the general heading of either *regulatory* or *non-regulatory* recommendations.

Land Use

Regulatory Recommendations

The most effective tools at Braintree's disposal in ensuring the implementation of the Master Plan are the Town's regulatory controls, namely the Town's General By-Laws, its Zoning By-Laws, and the "Rules and Regulations Governing the Subdivision of Land and the Improvement of Land in the Town of Braintree." The latter two documents were reviewed as part of this Master Planning Process, and a number of recommended changes are described in this section.

Re-Zoning

Re-zone two parcels (1 and 2 on the Conceptual Land Use Plan) from Highway Business and Commercial respectively, as Cluster II residential. Explore the possibility of incentives such as density bonuses for the development of desired types of housing such as senior or assisted living to respond to the housing needs of the increasing aging population, while at the same time minimizing the fiscal burden of residential development.

Limited Commercial Re-Development Zones

Re-zone as prototypical Limited Commercial Redevelopment Zones 3 parcels (shown as 3, 4 and 5 on the Conceptual Plan.) Such a designation would no longer allow uses such as public utility or public works storage or repair yards; solid waste disposal facilities; heliports; open storage, boats or recreational vehicles; parking facilities; or marine-dependent uses.

Highway Business

Refine the current zoning category of Highway Business into Highway Business 1 (Office) and Highway Business 2 (Retail). The latter category would be comprised of two areas: the South Shore Plaza area and the area around Grossman Drive.

Neighborhood Commercial Districts

Re-zone the three neighborhood commercial districts, i.e. Braintree Square, South Braintree Square and Weymouth Landing, as Village Center Ordinance Overlay Districts, in order to encourage the compact mixed-use development historically characteristic of this

type of center and promote the viability of small businesses and pedestrian-scale environments. It is further recommended that a Main Street program be established, with a single Main Street Coordinator for these three centers as a group.

Site Plan Review

To the greatest extent possible, all business and commercial uses should be subject to Special Permit review with full disclosure of development impacts and the specification of evaluation criteria according to use. To this end, it is recommended that the Town amend the Town Zoning Code to include a more detailed Site Plan Review Process. The proposed Site Plan Review process is found in the Appendices. Under such a review process, upon notification of a proposed project, the Planning Board would issue a scoping determination outlining the development review requirements for the specific project with regard to a number of components. Such a review process would facilitate the assessment by the Town of the project's relative burdens and benefits to the public in the course of their approval process. By requiring disclosure of a range of impacts of a proposed project, this regulation would make the development approval process predictable for developers and at the same time enable the Town to more closely control development in the Town.

Landscape Standards and Buffer Zones

Develop new Landscaping standards aimed at improving the quality of landscaping. Revise language of the section of the Zoning By-Law which addresses the issue of Buffer Strips so that requirements may be more responsive to specific contexts and impacts.

Table of Principal Uses

The Table of Principal Uses of the Zoning By-Law should be reviewed and revised to adequately reflect existing land uses in the Town. Categories should be expanded and further refined to allow for a more fine-grained understanding of the nature and scale of uses allowed in various districts. It is recommended that the Planning Board review and update the Use Table annually to maximize its efficacy. The first round of revisions are incorporated on the Proposed Use Table and indicated in bold type.

Additional Revisions to the Zoning By-Law

- Sections addressing Environmental Standards and Earth Removal should be reviewed and revised to reflect a comprehensive approach to these issues.
- A section should be added addressing the issue of telecommunication towers. Text is in the Appendices.
- Language should be added to control the removal of trees in the course of development. Text is included in the Appendices.

Non-Regulatory Recommendations

- Initiate a public/private collaboration to mount a campaign to market Braintree as a great place to live and work using a variety of means.
- Implement the proposals of the Town's Historic Preservation Consultant.

- Encourage close working relationships between Town agencies and the local business community to address mutual concerns, such as parking, signage guidelines, perhaps design themes and community programs and events.
- Establish a Main Street Program for the three neighborhood commercial districts.
- Develop a GIS-based land management data base.

Housing

Regulatory Recommendations

- Develop housing guidelines to measure impact of proposed construction of scale and character of existing residential neighborhoods.
- Assess the feasibility of transferring development rights or the Town's purchasing of development from property owners intending to develop infill projects.
- Establish as a long-term goal, mechanisms to allow density bonuses for development of desired housing types, multi-family, senior housing and affordable housing.
- Consider incentives, applicable to new market-rate development, commercial and multi-unit residential development, which could encourage the development of alternative housing options.

Non-Regulatory Recommendations

- Support initiatives (e.g. of Civic Associations) to improve the appearance of residential neighborhoods.
- Promote historic preservation efforts.
- Create a position for a professional Community Development Planner, as staff for Fair Housing Committee.
- Develop and/or associate with agencies that provide information regarding available financing opportunities for first time home buyers (reduced down payment requirements and reduced interest rates), for senior households (reverse equity mortgages), for families that earn less than the area median income (reduced down payment requirements and reduced interest rates). Efforts such as these are aimed at promoting a range of housing opportunities in Town.
- Identify specific locations that might have development potential in meeting Braintree's affordable housing needs.
- Consider public policies and initiatives which would protect the affordability of Braintree's housing stock by broadening the range of housing opportunities, in response to the current trend toward the construction of larger, more expensive new homes. This might include expanding the use of accessory apartments, or authorizing additional dwelling units in existing houses, as a means to continue to offer housing affordable to Braintree residents.
- Increase the numbers of units of assisted elderly and family housing in designs and locations acceptable to residents and neighbors.

- Explore potential locations for housing specifically geared toward an older population, e.g. independent living communities.

Economic Development

Non-Regulatory Recommendations

- Provide shuttle service for elderly residents from neighborhood commercial districts to senior centers, rental developments, etc.
- Strengthen and re-invigorate the Economic Development Committee.
- Create a position for a professional Community Development Planner.

Natural and Cultural Resources

Non-Regulatory Recommendations

- Develop a long term conservation and open space strategy (Open Space Plan).
- Provide incentives for owners of large undeveloped parcels to continue to maintain them as open space.
- Promote the enforcement and public awareness of conservation issues.
- Maintain park and conservation lands according to explicit maintenance standards and site-specific maintenance plans.
- Promote the planting of public shade trees on both public and private property throughout Town.
- Update Wetlands By-Law and regulations to address such issues as the impacts of fertilizers, pesticides and other chemicals on water resources.
- Create a central inventory of all sources of pollution (21 E Sites).
- Develop a program for enforcement and penalties for pollution violations.
- Develop greenways and wetland and wildlife corridors.
- Develop a program to promote the public awareness in the area of household hazardous waste management and disposal, resource conservation, recycling and waste reduction.
- Protect Great Cedar Swamp from further environmental degradation.
- Complete the Historic Commission's inventory of historic resources currently in process.
- Consider recommendations of Historic Commission's preservation consultant.
- Consider a variety of means of promoting the Town's historic resources, e.g. as themes for neighborhood commercial districts, adding pictures to the written descriptions currently on the internet, as the themes for public events.

Open Space

Regulatory Recommendations

- Revise definition of Open Space Category so as not to include all Town-owned properties for the purpose of heightening the accuracy of this definition.
- Explore the potential with relevant property owners for re-zoning by mutual consent several key properties, which the Town has inventoried as "protected open space" to ensure this protected status.

Non-Regulatory Recommendations

- Complete and file with the Executive Office of Environmental Affairs the Town's Open Space Study.
- Explore the potential for improving access, through signage and other physical improvements to underused open spaces, including:
 - Pond Meadow Park
 - School Trust Land
 - Town Landfill Site
 - Town Forest
- Develop a plan for addressing the issue of handicapped accessibility town-wide.
- Assess the potential for the development of new active and passive recreational facilities such as:
 - Peterson Pool
 - School Trust Land
 - Riverfront Walkway
- Explore the potential for involvement in the such initiatives as the Massachusetts Area Planning Council's Regional Bikeway and Pedestrian Plan, and the East Coast Greenway Alliance.
- Implement Plans for the Riverfront Walkway from Weymouth Landing along Route 53 to Watson Park.
- Explore with the MDC the potential for additional opportunities in Braintree, such as the concept of connecting the Blue Hills Reservation to the Neponset River system and on to Castle Island.
- Explore the potential for collaboration with the City of Quincy in planning for a bikeway along Furnace Brook Parkway.

Services and Facilities

Non-Regulatory Recommendations

- Continue the careful monitoring and capital-planning efforts of the Fire and Police Departments.
- Promote public awareness of the changing nature of the demands on public safety services (e.g. with the re-opening of the Old Colony line, and an aging population), and the cost requirements of these demands.

- Continue the dredging of the Great Upper Pond Reservoir as expeditiously as possible.
- Conduct a study which identifies all reasonable options available to the community regarding increasing the supply of water. Potentially, these options include expanded dredging of the reservoir system, use of the Cochato River, ground water wells, and membership in the MWRA. Once defined, the study should complete a cost/benefit analysis of the options.
- Continue the careful monitoring and capital planning of the Braintree Electric Light Department.
- Continue the School Department's careful monitoring and capital-planning efforts.
- Working with the Council on Aging, create a forum for informing relevant Town agencies of the current and projected needs of Braintree's growing elderly population.
- Continue the careful monitoring and capital planning efforts of the Fire and Police Departments.
- Continue to make repairs to the wastewater system as recommended in separate study conducted for the Town by Beta Engineering.
- Prioritize repairs to the stormwater system in those sections of Braintree known to experience wastewater back-ups.
- Maintain close coordination with the MWRA to expedite MWRA projects designed to alleviate wastewater back-ups (intermediate pump station)

Circulation

Regulatory Recommendations

- To Article XIV, Rules and Regulations for Traffic, Section 135-1402, Definitions, consider adopting the Commonwealth of Massachusetts Bureau of Transportation Planning and Development functional classification designations (refer to Master Plan Findings Report). In doing so, consider changing King Hill Road and Hollingsworth Avenue to Local designation in keeping with the local land use preferences.

Non-Regulatory

- Monitor for possible future signalization or geometric improvements intersections noted in Circulation Action Plan.
- Consider a community-wide comprehensive traffic management plan to integrate future short term – i.e. within the next five years -- Town investments in circulation improvements with the availability of public and private funding sources. Alternatively, consider corridor access studies to address future traffic problems associated with traffic generated from new developments.
- Work cooperatively with abutting communities of Quincy and Weymouth, to develop a regional traffic management strategy that will aggressively pursue obtaining state and federal funding resources for major transportation system investments that will achieve mutual benefits.

- Consider completing missing sidewalks on arterial and collector system and, as funds permit, on the local roadway system.
- Working with accessibility groups, consider a focused program of corner curb cut modifications to comply with 521 CMR Architectural Access Board requirements. The first priority should be on arterials and collector streets, new local streets, and existing local streets.
- Working with local bicycle clubs and groups, consider establishing a town-wide bicycle access enhancement program to identify key bicycle circulation deficiencies, designate routes (concurrent and separate facilities), and identify public bicycle storage facility needs.
- Consider increasing the number and availability of public bicycle storage facilities.
- Seek to add privately owned local streets to roadway system in order to make the provision of municipal services available to a larger number of Braintree residents.
- Consider increasing the current funding level of \$400,000 per year for roadway maintenance to at least \$1.75 million per year either by re-shuffling existing funding priorities or obtaining additional State and local funds (e.g., through a Proposition 2 and 1/2 over-ride).
- Target 'neighborhood traffic controls' for areas where most 'cut-through traffic' and speeding complaints are received.
- Explore federal and state funding sources for designing and implementing traffic calming strategies.
- Consider a series of meetings within each of the series of designated 'superblock' neighborhoods, subject to local concurrence, as a forum for discussion the need for and potential impacts of a variety of neighborhood traffic controls and traffic calming.
- Coordinate signals to encourage traffic to stay on arterial and collector routes (e.g., on Quincy Avenue). Review signal operations to determine locations where signal modifications are needed to better serve turning movements.
- Determine which neighborhood traffic control options are acceptable for implementation through neighborhood meetings. A prototype neighborhood might be considered as a first step.
- Consider implementing neighborhood traffic controls or traffic calming strategies as part of new development mitigation obligations.
- Apply for available funding to design and implement neighborhood traffic controls or traffic calming strategies within a prototypical area of one 'superblock' which meets the criteria discussed above of acceptability by the affected 'superblock' community.
- Integrate traffic calming strategies as mitigation for new development.
- Consider on-street parking modifications which will either increase the supply of parking or encourage more rapid turnover.
- Consider increasing the supply of parking at Braintree garage by negotiating with the MBTA Planning or Real Estate departments to establish a designated area in the expanded garage exclusively for Braintree residents.

- Pursue funding for improving one or more of the Town's intersections which are in the State's top 1000 high accident locations.

Implementation

Incorporate in the Town's General By-Laws requirement for compliance of regulations and the Capital budgeting process with the Master Plan.

This Master Plan proposes that the Town's General By-Laws be revised to further ensure the implementation of the recommendations in the Master Plan. This recommendation seeks to ensure that the policies, procedures and decisions of the various offices of Town government are consistent with the Master Plan. Language might be inserted stating that Zoning, Subdivision Rules and Regulations, Health and other Land Use regulations shall be consistent with the Master Plan. Within one or two years the Selectmen shall present to Town Meeting for approval a program for the full implementation of the Master Plan including capital budgeting. Text is in the Appendices.

Coordination with the Master Plan of Actions of the Board of Appeals and Special Permit Granting Authorities

It is critical that the Town maintain a certain degree of flexibility with regard to the implementation of the Zoning By-Law. The granting of variances and Special Permits affords the Town this flexibility. It is recommended that, in addition to currently required findings, the Board of Appeals, in granting variances and the Special Permit Granting Authority in granting Special Permits, should make the additional finding that their action is consistent with the Master Plan and after adoption, the Implementation Plan. Such a stipulation is intended to promote the assessment of any proposal within the overall framework of the objectives of the Master Plan. Text is in the Appendices.

Implementation Actions

The following Tables of Implementation Actions represent a compilation of action steps from each of the following sections. The tables indicate the party with primary responsibility for the action and a likely timeframe for its implementation. Whenever possible, information is provided on costs and potential funding sources. The first table outlines those steps to be taken immediately. The second lays out a series of steps to be taken in a longer time frame as indicated in the table.

SHORT TERM IMPLEMENTATION TABLE

Action	Lead Agency	Year	Cost
Implementation			
Present Master Plan for adoption at Town Meeting	Planning Board	5/1998	Low
Add compliance with Master Plan and Capital Budgeting process to General By-Laws	Planning Board	10/1998	Low
Amend Zoning By-Law to require coordination with Master Plan in granting of variances and Special Permits	Planning Board	10/1998	Low
Land Use			
Amend Zoning By-Law to include Limited Commercial Re-Development Zones and Village Center Overlay Districts	Planning Board	1998	Low
Revise Highway Business Zoning category	Planning Board	1998	Low
Revise Buffer Strip article of Zoning By-Law	Planning Board	1998	Low
Revise Site Plan Review section of Zoning By-Law	Planning Board	1998	Low
Develop new Landscape Ordinance	Planning Board	1998	Low
Review and revise Use Table	Planning Board	1998	Low
Add section on telecommunication towers to Zoning By-law	Planning Board	1998	Low
Develop a GIS - based land management data base	Planning Board	1998	Mod
Housing			
Amend Zoning to encourage more affordable housing	Planning Board	1999	Low
Create position for Community Development Planner as staff for the Fair Housing Committee	Board of Selectmen	1998	High
Economic Development			
Establish Main Street Program	Planning Board	1998	High
Apply for PWED funding for Washington St. Improvements	Planning Board	1998	Low
Natural and Cultural Resources			
Develop long term conservation and open space strategy (Open Space Plan)	Conservation Commission	1999	Low-mod
Provide incentives for owners of large undeveloped parcels to maintain them as open space	Conservation Commission	Ongoing	Mod
Promote the enforcement and public awareness of conservation issues	Planning Board, Conservation Commission	Ongoing	NA

Promote the planting of shade trees	Conservation Commission, Parks and Playgrounds Commission	Ongoing	Low - High
Develop greenways and wetlands and wildlife corridors	Planning Board, Conservation Commission	1998	Low
Implement preservation consultant's recommendations	Historic Commission	Ongoing	Low-Mod
Consider a variety of means to promote historic resources	Historic Commission	Ongoing	Low
Open Space			
Complete and file Open Space Study	Conservation Commission	1998	Low
Explore potential for connections with regional bikeway systems	Parks and Playgrounds	Ongoing	Low
Implement Plans to develop Riverfront Walkway	Parks and Playgrounds, Cons Comm, Fore River Watershed Assoc.	1998	High
Acquire BELD property to integrate with Watson Park	Parks and Playgrounds	1998	Low
Facilities and Services			
Complete current space needs survey	Allen Street Committee	Current	Low
Continue dredging of Great Upper Pond Reservoir	Water and Sewer Dept.	1998 - on	High
Assess feasibility of other water sources, such as:	Water and Sewer Department	1998 - on	
• Cochato River			High
• MWRA			High
• Ground water wells			High
Circulation			
Adopt Commonwealth's functional classification designations	Highway Dept., Planning Board	1998	Low
Create Transportation Engineer or Planner position	Highway Dept.	1998	High

<p>Create program of traffic calming strategies</p> <ul style="list-style-type: none"> • Consider citizen participation program to discuss neighborhood traffic controls and calming • Coordinate signals to keep traffic on arterial and collector routes • Develop prototypical neighborhood traffic controls 	<p>Board of Selectmen, Engineering Dept., Planning Board</p>	<p>1998</p>	<p>Low</p>
<p>Pursue PWED funding for intersections in the State's top 1000 high accident locations</p>	<p>Board of Selectmen, Planning Board, Engineering Dept.</p>	<p>1998</p>	<p>Low</p>
<p>Implement Braintree's portions of State's South Shore Roadway Project</p>	<p>Board of Selectmen, Planning Board, Engineering Dept.</p>	<p>1998 - on</p>	<p>High (state funded)</p>

IMPLEMENTATION TABLE

Action	Lead Agency	Year	Cost
Implementation			
Present Master Plan for adoption at Town Meeting	Planning Board	5/1998	Low
Add compliance with Master Plan and Capital Budgeting process to General By-Laws	Planning Board	10/1998	Low
Amend Zoning By-Law to require coordination with Master Plan in granting of variances and Special Permits	Planning Board	10/1998	Low
Conduct annual assessment of Master Plan in coordination with Capital Budgeting process	All Departments	ongoing	Low
Land Use			
Re-zone identified parcels	Planning Board	1998	Low
Amend Zoning By-Law to include Limited Commercial Redevelopment Zones and Village Center Overlay Districts	Planning Board	1998	Low
Revise Highway Business Zoning category	Planning Board	1998	Low
Revise Buffer Strip article of Zoning By-Law	Planning Board	1998	Low
Revise Site Plan Review section of Zoning By-Law	Planning Board	1998	Low
Develop new Landscape Ordinance	Planning Board	1998	Low
Review and revise Use Table	Planning Board	1998	Low
Add section on telecommunication towers to Zoning By-law	Planning Board	1998	Low
Develop a GIS - based land management data base	Planning Board	1998	Mod
Housing			
Develop Housing guidelines	Planning Board	1998	Low
Establish long term goal to allow density bonuses for development of desired housing types	Planning Board	1998	Low
Review Zoning to encourage more affordable housing	Planning Board	1999	Low
Create position for Community Development Planner as staff for the Fair Housing Committee	Board of Selectmen	1998	High
Develop/associate with agencies providing information on non-traditional financing opportunities	Fair Housing Committee/ Planning Board	Ongoing	Low
Identify specific locations with potential to meet affordable and elderly housing needs	Fair Housing Committee/ Planning Board	Ongoing	Low
Consider policies and initiatives to protect the affordability of housing stock	Fair Housing Committee/ Planning Board	Ongoing	Low
Support public and private initiatives to improve the appearance of residential neighborhoods	Townwide	Ongoing	Low-Mod

Economic Development			
Reinvigorate Economic Development Commission	Board of Selectmen	1998	Low
Establish Main Street Program	Planning Board	1998	High
Encourage working relationships between public and private sectors on issues of mutual concern, including "campaign" promoting Braintree	Economic Development Commission, Planning Board	Ongoing	Low
Providing shuttle service for elderly residents to neighborhood commercial districts	Economic Development Commission, Planning Board	1998	High
Natural and Cultural Resources			
Develop long term conservation and open space strategy (Open Space Plan)	Conservation Commission	1999	Low-mod
Provide incentives for owners of large undeveloped parcels to maintain them as open space	Conservation Commission	Ongoing	Mod
Promote the enforcement and public awareness of conservation issues	Planning Board, Conservation Commission	Ongoing	NA
Maintain lands according to explicit maintenance standards and site-specific plans	Cons. Comm., Parks & Playgrounds Tree Warden	Ongoing	High
Promote the planting of shade trees	Conservation Commission, Parks and Playgrounds Commission	Ongoing	Low - High
Update Wetlands By-Law and regulations to protect water and wetlands resources	Planning Board, Conservation Commission	Ongoing	Low
Create central inventory all sources of pollution (21 E Sites)	Fire Dept., Conservation Commission, Board of Health	1999	Mod
Develop a program for enforcement of pollution violations	Board of Health Fire Dept.	1999	Low - Mod
Develop greenways and wetlands and wildlife corridors	Planning Board, Conservation Commission	1998	Low
Complete current inventory of historic resources	Historic Commission	1998	Low-Mod

Implement preservation consultant's recommendations	Historic Commission	Ongoing	Low-Mod
Consider a variety of means to promote historic resources	Historic Commission	Ongoing	Low
Open Space			
Complete and file Open Space Study	Conservation Commission	1998	Low
Develop and Implement Signage System	Conservation Commission, Parks and Playgrounds Commission	1999-on	High
Develop plan to address handicapped accessibility	Conservation Commission, Parks and Playgrounds Commission, Commission on Disabilities	1999- on	High
Explore with MDC potential for additional opportunities in Braintree	Parks and Playgrounds, Conservation Commission	Ongoing	Low
Explore potential for connections with regional bikeway systems	Parks and Playgrounds	Ongoing	Low
Assess potential for developing School Trust Land for recreation	Parks & Playgrounds School Trust	1998	Low
Implement Plans to develop Riverfront Walkway	Parks and Playgrounds, Cons. Comm., Fore River Watershed Assoc.	1998	High
Acquire BELD property to integrate with Watson Park	Parks and Playgrounds	1998	Low
Assess feasibility of redevelopment of Hollis Field/Alice Daughraty Gymnasium	Parks and Playgrounds	Ongoing	High
Implement access and other improvements to:	Parks & Playgrounds, Cons Comm.	1999 - 2002	
• Pond Meadow Park	Reg. Dist. Comm.		High
• Town Forest	Parks and Playgrounds, Town Forest Committee		Mod-High

Take steps to resolve Peterson Pool stalemate	Parks and Playgrounds, Peterson Pool Committee	1998	Low
Assess feasibility of improvements and expansion:	Parks and Playgrounds	Ongoing	
• Berwick Playground (additional play equipment only)			Mod
• Grossman's Park			High
• Kimball Road Parkland			High
• Erwin Davis Playground			Mod
• Henry Mattulina Park			Mod-High
• Marion Leary Park			Mod-High
• Braintree Public School Outdoor Athletic Facilities	Parks and Playgrounds, School Department		High
Facilities and Services			
Continue careful monitoring and capital planning of Fire and Police	Fire Dept., Police Dept., Capital Plan. Financial Ctte.	Annual	Low
Continue careful monitoring and capital planning of BELD	BELD, Capital Plan. Financial Committee	Annual	Low
Continue careful monitoring and capital planning of School Dept.	School Dept., Capital Plan. Financial Committee	Annual	Low
Develop with Council on Aging forum for monitoring and responding to needs of elderly	Council on Aging, Planning Board	Ongoing	Low
Complete current space needs survey	Allen Street Ctte.	Current	Low
Continue dredging of Great Upper Pond Reservoir	Water and Sewer Dept.	1998 - on	High
Assess feasibility of other water sources, such as:	Water and Sewer Department	1998 - on	
• Cochato River			High
• MWRA			High
• Ground water wells			High
Continue repairing wastewater system	Water and Sewer Dept.	per Beta Eng. study	High

Prioritize repairs to stormwater system	Water and Sewer Dept.	Ongoing	High
Maintain close coordination with MWRA projects to alleviate wastewater back-ups	Water and Sewer Dept.	Ongoing	
Circulation			
Adopt Commonwealth's functional classification designations	Highway Dept., Planning Board	1998	Low
Create Transportation Engineer or Planner position	Highway Dept.	1998	High
Monitor for possible future signalization or geometric improvements intersections noted in Action Plan	Highway Dept.	Ongoing	High
Consider Town-wide comprehensive traffic management plan or corridor access studies	Highway Dept., Planning Board	1998 - on	Mod - High
Work with abutting towns to develop a regional traffic management strategy	Highway Dept, Planning Board	1998 - on	Mod - High
Complete sidewalks on arterials and collector system as funds permit	Highway Dept. Sidewalk Ctte.	Ongoing	High
Develop program of corner curb cut modifications to increase accessibility	Highway Dept., Commission on Disabilities	1999 - on	High
Develop town-wide bicycle access enhancement program	Highway Dept., bike groups	1998 - on	Low - High
Seek to add private roads to roadway system	Highway Dept.	Ongoing	NA
Increase roadway maintenance levels	Highway Dept.	Ongoing	High
Create program of traffic calming strategies <ul style="list-style-type: none"> • Consider citizen participation program to discuss neighborhood traffic controls and calming • Coordinate signals to keep traffic on arterial and collector routes • Develop prototypical neighborhood traffic controls 	Board of Selectmen, Engineering Dept., Planning Board	1998	Low
Consider on-street parking modifications that will effectively increase the supply	Board of Selectmen, Planning Board	1998	Low-Mod
Increase parking supply for Braintree residents at MBTA garage	Board of Selectmen, Planning Board	1998	Low
Pursue PWED funding for intersections in the State's top 1000 high accident locations	Board of Selectmen, Planning Board, Engineering Dept.	1998	Low
Implement Braintree's portions of State's South Shore Roadway Project	Board of Selectmen, Planning Board, Engineering Dept.	1998 - on	High (state funded)

Master Plan Assessment and Update

Overview

To be useful to the citizens and Town Officials of Braintree, this Master Plan must not be seen as a static document, "cast in stone." Rather it should be used as a framework to guide the decision-making of various Town departments, and against which progress may be assessed. It should also be responsive to reality as it changes over the five-year timeframe of this plan. It is not possible to predict every challenge that will face the Town, nor new solutions as they emerge. Thus, this Master Plan should serve as a flexible and responsive tool for the Town over the next five years. As such, this section outlines a process for monitoring progress and making any "mid-course" adjustments to the plan as well as updating the plan, as the changing context dictates. Such an incremental approach will not only contribute to the continued relevance of the Master Plan over its five-year timeframe, but may extend its useful life to the Town.

Annual Departmental Assessments

To assist the Planning Board in its responsibilities, increase responsiveness to departmental needs, and encourage town-wide, interdepartmental coordination, the Master Plan recommends that each Town department be required to conduct an assessment of their needs and progress in the context of the Master Plan, on an annual basis. In order to maximize departmental response, forms might be developed and distributed. Such an assessment would incorporate departmental capital budgeting information as currently organized. In addition to documenting a department's capital needs, the form would track the department's progress relative to projected accomplishments over the previous year. Obstacles to implementation would be identified, as well as the approach to overcoming those obstacles that the department employed. The form would also request information on the Town's projections for the coming year. The Planning Board would work with the Capital Planning and Financial Committee to review the forms, modify the Master Plan as appropriate, and take steps to address key issues identified in the assessment process.

Master Plan Update

In addition to an annual assessment on a departmental basis, various sections of the Master Plan should be updated in response to changes in the regional context, as well as development, demographic and other changes within the Town. The kinds of information that would benefit from periodic updating include: the documentation of existing conditions found in the Findings Report; the Town's Goals and Objectives; and the Implementation Plan.

Current information on existing conditions within Braintree should be maintained. This should include demographic information as well as development-related information. The GIS-based land management system recommended would greatly assist the Town in this regard. Through the various means recommended in this Master Plan, the Town should remain informed of economic, growth-related and transportation-related issues of significance on a regional basis. The Master Plan should be adjusted as necessary in response to changing existing conditions. For example, an unanticipated demographic increase in the cohort between ages one and five, would signal to the Town additional capital planning needs by the School Department.

The Planning Board should also review and modify as necessary the Goals and Objectives guiding the Master Plan. This should be done in a manner that involves the public. One idea might be an annual public meeting that focuses on this issue.

Finally, the Implementation portion of the Master Plan should be evaluated for its efficacy on an annual basis by the Planning Board. In much the same way that each department assesses its progress, the Planning Board should examine both the regulatory and non-regulatory objectives that were established for the year, and determine which were achieved, which were not, and why that was the case. The Implementation Plan should also be evaluated and adjusted in response to new existing conditions information and revised goals and objectives.