

# COMPREHENSIVE MASTER PLAN

**TOWN OF BRIDGEWATER, MASSACHUSETTS**

**NOVEMBER 2002**

**Prepared by:**

**The Bridgewater Master Plan Study Committee**

**&**

**Dufresne-Henry, Inc.**

**40 Broad Street**

**Boston, MA 02109**

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<sup>1</sup> Adapted from the *Draft Bridgewater Open Space & Recreation Plan, 2002*

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MASTER PLAN PARTICIPATION

Bridgewater Master Plan Study Committee

Herb Lemon, Chair, Advisory Committee Appointee  
Ellen Gasson, Vice Chair, Town Moderator Appointee  
James Nihan, Board of Selectmen Appointee  
Fawn Sances, Water & Sewer Commission Appointee  
Katherine Doherty, Town Moderator Appointee  
Bruce Dyer, Planning Board Appointee  
Joseph Rebello, School Committee Appointee  
Richard Kranes, Conservation Commission Appointee  
Dave Morwick (Ex-Officio), Bridgewater State College Appointee  
Peter Pepe (Ex-Officio), Bridgewater Correctional Complex Appointee

Bridgewater Board of Selectmen

Gerald P. Chipman  
James A. Nihan  
Herb Lemon  
Allan R. Chiocca  
Dennis C. Gallagher

Bridgewater Planning Board

Bruce S. Dyer, Chair  
Gregory J. Feroli, Vice Chair  
David Post  
Stephen Elliot  
Ronald Emma  
Bob Iafrate (Associate Member)

Town Staff

Paul Sullivan, Municipal Administrator  
Christine Stickney, Community Development Director (former)  
Kimberly Williams, Assistant Community Development Director  
David Matton, Transportation Engineer  
Anne Tavaras, GIS Planner  
Lillian Primavera, Administrative Assistant

Dufresne-Henry, Inc.

Ted Brovitz, Project Manager & Senior Planner  
Peter Jackson, Senior Landscape Architect  
Stephen Breitzka, Junior Landscape Architect  
Eric Anspach, Junior Landscape Architect

# CHAPTER 1 – EXECUTIVE SUMMARY & GENERAL APPROACH

The Master Plan is a document intended to be a guide and a blueprint for the future of Bridgewater. The conceptual ideas expressed in the Master Plan are not binding and in no way usurp the review process of any town of Bridgewater governmental entity, board or committee.

## 1.1 Background

This Master Plan represents the work of many local residents, business owners, civic leaders and public officials. Each contributed in developing a comprehensive growth management strategy for the Town of Bridgewater. The Plan's main objective is to protect the community's natural resources while providing a balance for future growth in municipal services, cultural resources, and economic opportunities through specific land-use strategies.

Bridgewater was chartered in 1656 and grew as an agricultural and manufacturing center. Foundries were developed in the northern area of downtown where iron was produced for the Revolutionary and Civil Wars. Shoe, nail and brick manufacturing businesses emerged in the late 1800s, employing hundreds of former agricultural workers from the region and immigrants.

Bridgewater today is a growing community of over 25,000 people. Its central location at the interchange of State Route 24 and Interstate 495 provides convenient access to Boston, Providence and Cape Cod. The Town is bordered by East Bridgewater and West Bridgewater on the north, Halifax to the east, Middleboro to the south, and Raynham to the west. Bridgewater is located eight miles south of Brockton, 27 miles south of Boston, and 29 miles northeast of Providence.

The Town also hosts the oldest and largest state college and correctional institute in the Commonwealth. Bridgewater State College (BSC) has a full-time enrollment of almost 10,000 students and 700 employees. The Bridgewater Correctional Complex (BCC) has approximately 2,000 inmates and 1,300 employees. They are two of the largest employers in Town.

The community has changed dramatically over the past 20 years. Significant growth and migration of new residents resulted in an 18% increase in population (nearly 8,000 new residents) between 1980 and 2000. It is one of the fastest growing communities in Plymouth County and consistently exceeds the State average for municipal growth.

## 1.2 Why a Town Plan?

Bridgewater's natural beauty, educational resources and convenient access to major highways and urban areas has made it a desirable place to live. Between 1990 and 2000 a total of 6,513 residential, commercial, industrial and institutional building permits were issued, resulting in an estimated conversion of over 1,000 acres of open space and farmland. The average annual residential permits alone numbered 128 over the past 10 years. The median home sales price has increased significantly in recent years (approximately \$270,000 for a single family home in 2002 according to Banker & Tradesman). To address this explosive growth, strain on municipal services, and loss of open space, the Town considered writing a new Master Plan. While the Town has been working hard to address growth concerns through recent plans and studies, it had not assembled them into a comprehensive strategy for the community's future.

### **Bridgewater's Past Planning Efforts**

The first comprehensive growth study of Bridgewater was completed in 1974 with assistance from the Old Colony Planning Council (OCPC). The study became synonymous with the Master Plan and was again updated in 1984 by OCPC. This was the last time Bridgewater had updated its Master Plan.

At the 1999 Annual Town Meeting a consensus was reached that a Master Plan update was needed to manage growth in three different areas: residential, commercial, and Bridgewater State College. A nine-member Master Plan Study Committee was created that incorporates members of the Planning Board, Conservation Commission and Board of Selectmen, as well as local citizens and ex-officio members from the Community Development Office, BSC, and BCC.

The main purpose of this Master Plan is to provide the community with information and specific strategies to address growth issues and their impact on natural resources, economic development, municipal facilities and services, cultural and historic resources, and the transportation system. These strategies are integrated into a long-term land use plan to guide development over the next 10 years and fulfill the community's vision for the future.

The Master Plan will serve as a policy guide in many ways. Most directly, it will serve as the basis for land use regulations. It may also be used to bolster local and state grants for various community projects, and guide private decision making on new development and business growth. Finally, the Master Plan will be used to identify issues that require further investigation, planning or design, and it will provide a framework of specific actions to take in carrying out these projects.

The Master Plan is also intended to help the citizens of Bridgewater learn more about their community. Too often individuals know only those aspects of the community that affect their personal lives. This planning process provides citizens and other “stakeholders” an opportunity to know how the future of their community can be influenced.

The innovative approaches and techniques incorporated into the Master Plan enables the community to effectively manage growth and improve the quality of life of its residents over the next 10 years.

### 1.3 General Approach

The Master Plan process got underway in the spring of 2001. The Master Plan Study Committee invited several Town departments and organizations, state institutions (Bridgewater State College, Bridgewater Correctional Complex and the MBTA), and members of the public (primarily through the *Town-wide Community Survey*) to provide a broad cross-section of expertise, experience and objectives.

The Master Plan is organized into broad subject areas as they relate to the various aspects of growth and change in the community. Each of these elements contains the most up-to-date statistical, material and background information available. Numerous independent studies and reports that have been completed recently by the Town are incorporated into the plan. Additionally, the community-wide survey is an integral part of the Plan and lays the foundation for recommended strategies and actions. (Appendix 1).

### 1.4 Visioning & Public Participation

Facilitating public participation was the first step in the master planning process. Broad and consistent citizen participation throughout the process was the key to developing a Master Plan that is embraced and ultimately would be implemented by the Community.

The Master Plan Study Committee held three public meetings during the Master Plan process to facilitate a general discussion of survey results and to develop an approach for carrying out the master plan. A general visioning exercise was used to encourage the public participation process, and the survey results and public meeting discussions were incorporated into the goals and objectives of the Master Plan. Additionally, a series of neighborhood meetings were held to discuss various sections of Bridgewater as defined in the Land Use Management Districts. (See Chapter 9 – Land Use Plan).

Other forms of public participation included the following:

**Office Hours** - In order to facilitate broad public participation, better access to Town staff, and a general understanding of the local issues, regular weekly office hours were held in the Bridgewater Town Offices during the term of the project. This opportunity was used to meet with department heads, committee members, and the general public to obtain information and opinions on the community’s future.

**Cable Television** - Master Plan updates were televised on “What’s Up”, Bridgewater’s local cable community issues television show. These presentations were well received and led to many calls from local residents.

**Interviews** - Interviews were conducted collectively and individually with representatives of the Master Plan Study Committee, Planning Board, Conservation Commission, department heads, the Bridgewater Business Association, Bridgewater State College, Bridgewater Correctional Complex, MBTA and other local officials and entities during the course of the project.

**Committee and Public Meetings** - Regular monthly meetings with the Master Plan Study Committee and biweekly meetings with the Community Development Director and Committee Chair were held during the course of the master planning process. Additional meetings were held with the Planning Board, Conservation Commission, Selectmen and other officials to obtain input on the Master Plan. Presentations were also made to various local community interest groups including the Bridgewater Natural Resource Trust and the Bridgewater Business Association.

**Master Plan Presentation** - The Draft Master Plan was presented in compliance with MGL Chapter 41, Section 81D at a public hearing with the Planning Board, Study Committee and general public present for review and suggestions. After the public hearing and comments from the various committees, a revised Master Plan was presented to the Study Committee for consideration. With the Committee’s approval, the Final Master Plan was presented to the Planning Board and Selectmen for final approval. The Final Master Plan was also presented to the citizens of Bridgewater at the Fall 2002 Town Meeting. (*Anticipated presentation schedule*).

### 1.5 Summary of Findings

**Population and Housing** – Bridgewater is the third fastest growing town in Plymouth County with a current population of about 25,185. Over the past 20 years, Bridgewater’s population has increased at a significantly higher rate than Plymouth County and the State. Between 1990 and 2000 alone, Bridgewater grew by 18.5% compared to 8.6% in Plymouth County and 5.5% in the State. Residential and institutional population growth has strained municipal services and facilities. Housing development over the past 10 years has consumed over 1,000 acres of active farmlands and open space. Over 90% of new housing developments in the last 20 years have been single-family homes typically in conventional subdivisions. Less than 10% of the new homes since 1990 have been connected to municipal sewer service, indicating a pattern of suburban type development beyond the traditional and established neighborhoods in Town.

Only 2.7% of Bridgewater’s housing stock is considered “affordable” by the State’s standards (10% is required), and none of the homes built over the past 10 years meet this standard. In 2002, the affordability gap between the median single-family home cost (\$237,000) and household income (30% for home costs) was about \$3,500 per year. Further deterring the production of affordable housing is the restriction of multi-family homes in Bridgewater.

**Municipal Facilities and Services** - High residential growth has significantly increased the demand for municipal services such as schools, and fire and police protection. A new elementary school was recently built and is already over capacity. The influx of residential development and resulting pressure on municipal services has initiated an economic development effort to broaden the tax base.

**Natural, Cultural and Historic Resources** - Once an area of extensive agricultural lands and open spaces, Bridgewater has become one of the fastest growing residential communities in Massachusetts. This has led to a significant reduction in active farming operations and over 1,000 acres of open space lost within the last decade. Furthering the impact created by these changes in its rural character, is the role of Bridgewater as host community for the facilities of BCC and BSC, as well as the re-introduction of commuter rail service, linking this community to the greater Boston area.

Bridgewater has many natural and cultural assets. The historic downtown area is viable, and the community has worked hard over the past 10 years to preserve open space, cultural and historic lands, and buildings through various acquisitions and grants. A major theme of the Master Plan is to continue this effort vigorously.

**Economic Development Opportunities** - While residential growth is expected to continue at a rapid pace, the Town is very interested in attracting quality commercial and industrial development to balance the tax burden and provide local employment opportunities.

Bridgewater is well positioned for economic development. Some attractive amenities include access from major highways (including Route 24 and I-495), the JJ Moakley Technical Conference Center, Bridgewater State College, MBTA service to Boston, Lake Nippenickett Recreation Area, and Scotland Links Municipal Golf Course. Certain types of commercial uses however are still lacking. These include hotels or inns, restaurants, and professional offices.

There are several areas in Town designated under zoning bylaws for commercial and industrial development. The best potential sites are located in the western section of Town near the major highways (routes 104, 24 and I-495). Additionally, there is development and redevelopment potential in the Central Business District and the south end of Town along Route 28.

The major constraint to development in all of these areas, however, is the limited availability and capacity of municipal water and sewer service combined with aquifer recharge and wetland areas. Another constraint is the vast amount of State-owned land between Bridgewater State College, the Bridgewater Correctional Complex (BCC), and Lake Nippenickett Recreation Area.

The Town recognizes the need to service designated economic development areas with utilities and is developing sewer and water extension plans. However, these are costly projects and the Town has had limited success in obtaining State funds to implement the expansion.

**Transportation and Circulation** - The transportation system is an important factor in the overall quality of life in Bridgewater. Current transportation planning efforts are proactively addressing issues brought on by residential, institutional and commercial growth. This growth has been fueled in part by the re-

activation of MBTA commuter rail service on the Old Colony Line. Commercial development and residential growth have led to increased traffic on Bridgewater's roadways.

Other factors influencing the town's development are planned capital improvements at Bridgewater State College (BSC) and employment at MCI-Bridgewater. BSC is largely a commuter college and improvements at the college will impact travel patterns on and near the campus. Both institutions have partnered with the Town to address access and parking issues for the institutions as well as general town-wide transportation issues.

To address the growing traffic concern the Town commissioned the *Town-wide Comprehensive Transportation Study and Management Plan* (2002). The Plan projects local and regional traffic volumes for Bridgewater's traffic network in the year 2010.

Once existing and future conditions were established, improvement alternatives for roadway and intersection infrastructure were considered. All would allow the Town to better manage existing and future travel demands. The Recommended Action Plan includes various alternative approaches to address the transportation needs identified from the existing and future conditions analyses. These alternatives include immediate, short-term and long-term improvements. The recommendations included the following:

- Intersection Improvements
- Traffic Management
- Traffic Calming Measures
- Bridgewater State College Parking and Traffic Management Measures
- Downtown Parking Improvements
- Transportation Demand Management Measures

A total of 10 immediate action measures, four short-term improvements and seven long-term improvements were developed. An assessment of the impact of each improvement on projected levels of service and an estimate of the cost were also developed.

In addition to the proposed intersection improvements, recommendations were also made for:

- Upgrading Elm Street as future industrial development takes place, to consider a variety of traffic calming measures described in the plan to discourage cut-through traffic and speeding on neighborhood streets.
- Identifying areas for future parking expansion downtown.
- Encouraging adoption of a transportation demand management program for Lakeshore Corporate Center.

**State Institutions** - Bridgewater hosts two major state facilities: BSC and BCC. Additionally, the community is connected to another major public service - the Massachusetts Bay Transit Authority (MBTA), which provides commuter rail service into Boston. These are integral part of the community historically, culturally, economically, and in terms of public facilities and services provided.

The BSC campus covers approximately 235 acres; the BCC about 1,500 acres. Combined, these state institutions own approximately 25% of the land in Bridgewater. The Town provides municipal services to both facilities in areas such as ambulance, fire, police, and certain inspection services. Between BSC and BCC, the State has far more employment, building square footage, and land mass than all other public agencies or private businesses.

There is a direct correlation between the Town's population growth and state institutions in the community. Significant population growth over the last 30 years in Bridgewater is due to a large degree from expansion of BSC and the five facilities comprising the BCC, as well as the introduction of commuter train service in 1997.

The number of students residing on campus at BSC has grown by 735 since 1970 (a 61% increase). During the same period, the inmate population at BCC grew by over 2,400 (or 243%). Planned expansion of both institutions indicates a potential increase of 18% of the BSC population and 29% of the BCC population by the year 2010.

Concerns have been raised in the community regarding growth at the state institutions and the consequent demand on town services. Additionally, much speculation has been made regarding the institutions' combined land holding and the potential they may hold if they were available for commercial and industrial development. The key issue for the Town is to work cooperatively with state institutions to ensure that daily operations and long-term plans are beneficial to the entire community.

**Land Use Plan** - To provide the best opportunity for Bridgewater to effect sustainable development, protect important natural resources, and guide growth and development, the plan divides the community into individual land use management districts based on natural attributes, public facilities and existing regulations which reflect the general vision of various areas of Town as it stands today.

The Land Use Plan takes into account the analysis made in previous chapters concerning growth and its impact on man-made and natural resources. From here, we look ahead to Bridgewater's vision for the future. In doing this we establish a comprehensive land use plan and policies that project the community's goals for development and conservation over the next 10 years. The underlying theme for the Land Use Plan is as follows:

- Address particular growth issues in a specific and innovative way.
- Balance community concerns of land rights, economic opportunities, and land stewardship
- Encourage appropriate development in targeted areas to create new economic and residential opportunities, thereby enhancing the overall quality of life for local residents.

- Control the impacts of growth on municipal infrastructure, schools, public safety, and cultural and natural resources.

**Implementation Plan** - This element lays out a specific strategy for carrying out goals, actions and strategies, and maintaining the Master Plan as a useful and accurate guide to making future growth decisions in Bridgewater.

# CHAPTER 2 – COMMUNITY ISSUES, GOALS & VISION STATEMENT

## 2.1 The Foundation

The Master Plan builds off of significant interest and support for community development issues demonstrated by the citizens, town boards, state institutions, and elected officials. One of the main goals of the Master Plan Study Committee was to create a plan founded on community participation, recognizing and integrating the diversity of opinions on various issues, and ultimately influencing future decisions about town-wide issues.

## 2.2 Evaluation of Town-Wide Resident Survey

The Master Plan Study Committee issued the Town-Wide Resident Survey<sup>1</sup> in May of 2000. Over a full year, 1,559 surveys out of a total of 7,000 distributed by mail were returned. This represents an excellent return rate of over 22%.

The survey asked residents their opinions and priorities on various aspects of community growth and development. The results of the survey were an integral part of developing the Master Plan and formulating future policy and development objectives.

**Survey Respondents Residency in Bridgewater**

| Yrs. In Town | Respondents | Ave. Residency | Percent of total |
|--------------|-------------|----------------|------------------|
| 0-5          | 333         | 3.0            | 21.6             |
| 6-10         | 315         | 7.9            | 20.5             |
| 11-15        | 186         | 13.2           | 12.1             |
| 16-20        | 135         | 18.3           | 8.8              |
| 21-25        | 123         | 23.2           | 8.0              |
| 26-30        | 114         | 28.3           | 7.4              |
| 31-35        | 79          | 32.9           | 5.1              |
| 36-40        | 56          | 38.2           | 3.6              |
| 41-45        | 45          | 43.4           | 2.9              |
| 46-50        | 31          | 48.8           | 2.0              |
| Over 50      | 71          | 66.1           | 4.6              |
| Total        | 1540        | 29.4           | 100              |

**Demographic Results** – Survey respondents tended to be relatively new residents to Bridgewater. More than 20% resided in Town for five years or fewer, and more than 40% had been living in Town for 10 years or fewer. Overall, the median residency was 14 years and the mean residency was just over 20 years.

The vast majority of respondents were homeowners. Out of 1,546 responses, 1,406 (91%) were homeowners while only 77 respondents (9%) were renters. This is

consistent with housing patterns in the community, which offers a limited supply of rental apartments.

<sup>1</sup> The full Bridgewater Town-Wide Resident Survey Form is included in Appendix 1

Fifty-three percent of respondents were between the ages of 31 and 50. A relatively low number of 18 to 30 years-olds responded, accounting for 5.6% of the total survey. The respondents were fairly evenly split between genders, with 702 female respondents (45.5%) and 838 males (54.4%).

**Employment Status** - A relatively high percentage of respondents indicated that they were retired. Of 1,472 responses to this question, 327 were retired (22.2%) while 1,145 were not (77.8%).

A significant number of working respondents (980) indicated that they did not work in Bridgewater. When compared to all working respondents (subtracting retirees and non-working respondents) this represents a total of 80%.

**Age of Survey Respondents**

| Age Group | No. of Respondents | % of Total |
|-----------|--------------------|------------|
| 18-30     | 85                 | 5.6%       |
| 31-40     | 383                | 25.0%      |
| 41-50     | 431                | 28.2%      |
| 51-60     | 275                | 18.0%      |
| 61-70     | 176                | 11.5%      |
| 71-80     | 129                | 8.4%       |
| Over 80   | 52                 | 3.4%       |
| Total     | 1,531              | 100%       |

**Respondents Working in Town**

| Work in Town       | No. of Respondents | % of Total |
|--------------------|--------------------|------------|
| Yes                | 245                | 15.7%      |
| No                 | 980                | 62.9%      |
| Retired/Don't Work | 334                | 21.4%      |
| Total              | 1,559              | 100%       |

**Travel Distance to Work**

| Miles to Work | No. of Working Respondents | % of Total |
|---------------|----------------------------|------------|
| 0-10          | 255                        | 31.0%      |
| 11-20         | 215                        | 26.1%      |
| 21-30         | 193                        | 23.4%      |
| 31-40         | 114                        | 13.8%      |
| Over 40       | 46                         | 5.5%       |
| Total         | 823                        | 100%       |

Of the working respondents who do not work in Town, a large number travel a fair distance to work as indicated above. The average distance to work indicated by working respondents was 21.6 miles. The large number of working residents who commute out of town is consistent with demographic trends in Bridgewater over the past 20 years according to the U.S. Census. While residential growth has been substantial since 1980, only a modest amount of commercial and industrial growth has occurred. This has led to limited new employment opportunities in Bridgewater.

The byproduct of dramatic residential growth and limited job growth has been an increase in local traffic as residents commute in and out of Town for work and other daily needs. Additionally, significant residential

development in the northeast quadrant of Bridgewater requires the majority of auto commuters to travel through the most congested areas in Town (Central Square) on their way to work.

Only 28% of survey respondents (441) said that they used the MBTA service but over 80% of these respondents use it at least once a week. Over 63% indicated that they do not use commuter rail service.

**Municipal Services** – When asked what Town government administration and services should be added to, improved upon or expanded, the top priority named was the public schools followed by the Fire Department, Water and Sewer departments, and the Conservation Commission. However, most respondents had “No Opinion” on this question.

**Municipal Service Improvements Needed**

| Service               | Total Votes | % Of Total |
|-----------------------|-------------|------------|
| Assessor's Office     | 43          | 2.8        |
| Board of Health       | 86          | 5.5        |
| Selectmen             | 136         | 8.7        |
| Clerk's Office        | 24          | 1.5        |
| Conservation Comm.    | 230         | 14.6       |
| Elderly Services      | 128         | 8.2        |
| Fire Department       | 271         | 17.4       |
| Highway Department    | 160         | 10.1       |
| Inspections Dept      | 58          | 3.7        |
| Library               | 114         | 7.3        |
| Planning Board        | 186         | 11.9       |
| Police Department     | 250         | 16.0       |
| Recreation Dept.      | 163         | 10.5       |
| Schools               | 351         | 22.5       |
| Tax Collector's Dept. | 24          | 1.5        |
| Veteran's Affairs     | 53          | 3.4        |
| Water & Sewer Dept.   | 254         | 16.3       |
| No Opinion            | 389         | 25.0       |
| Other Services        | 31          | 2.0        |

Over 32% of respondents indicated that they had children in the public school system and the most common response was two children per respondent. A general concern for public schools commonly voiced in the written responses was the need to upgrade facilities.

Survey respondents were asked what their three major concerns about the school system were and 868 responded as follows:

1. Large class size and growing population
2. Quality and retention of good teachers
3. Lack of new staff to cover growth

Other concerns included the safety of students and maintenance of buildings, as well as technological curriculum and equipment. For those respondents having children in the public school system, nearly 80% felt that overcrowding in classrooms was a major issue.

The majority of respondents felt that the Town needs a youth center (62% or 967) while 18% (294) felt this is not needed, and 298 (19.1%) had no opinion.<sup>2</sup> The majority in favor (over 53%) also supported using tax dollars to build one.

There was general concern with municipal water and sewer services, which respondents felt needs to be upgraded and expanded. Developing and protecting municipal water sources was also a primary concern among survey respondents.

**Economic Issues** – Respondents were asked where they do most of their shopping. A slim majority of those who responded indicated that they do most of their shopping in Bridgewater. For those who do

<sup>2</sup> The Youth Center was completed in 2002

most of their shopping outside of Bridgewater the preferred locations were the following: (1) Raynham/Route 44; (2) Taunton/Silver City Galleria; (3) Brockton/Westgate Mall; and (4) Braintree/South Shore Mall. Also mentioned were the surrounding towns of West Bridgewater, East Bridgewater, Halifax and Middleboro.

| Most Shopping      | Total | Percent |
|--------------------|-------|---------|
| In Bridgewater     | 774   | 49.6%   |
| Not in Bridgewater | 732   | 46.9%   |
| No Answer          | 53    | 3.5%    |

The trend for residents to shop in other towns is indicative of the limited commercial development in Bridgewater compared to the significant residential growth. More and more residents appear to be seeking services, particularly retail, outside of Town. Associated with this trend is the growing traffic issue and limited tax base growth.

**Amount of Shopping in Town**

| Shopping Amount In Bridgewater | Total Count | % of Total Responses |
|--------------------------------|-------------|----------------------|
| 0%                             | 3           | -                    |
| 5%                             | 6           | -                    |
| 10%                            | 24          | -                    |
| 20%                            | 382         | 27.8%                |
| 30%                            | 2           | -                    |
| 40%                            | 325         | 23.7%                |
| 50%                            | 9           | -                    |
| 60%                            | 362         | 26.4%                |
| 70%                            | 3           | -                    |
| 80%                            | 310         | 22.6%                |
| 90%                            | 6           | -                    |
| 95%                            | 1           | -                    |
| 100%                           | 5           | -                    |
| Other                          | 58          | 4.2%                 |

A total of 1,370 people responded that the most popular shopping items they purchase outside of Bridgewater were the following:

1. Clothing
2. Household/Home Improvement and Appliances
3. Food
4. Department Store/General Merchandise

Respondents also indicated that they shop outside Bridgewater for such things as entertainment, gifts, cars, and garden supplies.

When asked what types of businesses they would most like to see encouraged in Town, 1,199 respondents identified the following priorities:

1. Retail
2. Business/Commercial
3. Light Manufacturing including software, hi-tech, and R&D

| Downtown Parking        | Response | % of Total |
|-------------------------|----------|------------|
| There is enough parking | 515      | 33%        |
| Not enough parking      | 872      | 55.9%      |
| No opinion              | 172      | 11%        |
| TOTAL                   | 1559     | 100%       |

The types of businesses least favored were as follows:

1. Fastfood (pizza, subs, etc.) including chains and franchises
2. Bars, liquor stores, nightclubs
3. Retail and manufacturing
4. Adult entertainment and pornography

A major economic concern for respondents was the revitalization of Central Square. The majority of those surveyed felt that the biggest deterrent to business development in this area was the limited amount of

downtown parking. The majority of residents surveyed (62%) also indicated that they would support a split tax rate between residential and commercial/industrial property.

| The Split Tax Rate Question       |                  |                  |
|-----------------------------------|------------------|------------------|
| Tax Rate                          | No. of Responses | Percent Of Total |
| Split Rate between Res. and Comm. | 967              | 62%              |
| No Split Rate                     | 267              | 17.1%            |
| No Opinion                        | 325              | 20.8%            |
| TOTAL                             | 1559             | 100%             |

in the community.

**Growth Issues** – Residential growth was a for survey respondents. The overwhelming that residential development was growing

When asked if they would support an would slow and/or phase growth for building a total of 1,472 responded, with 1,314 (89.2%) favoring such a measure and 158 (10.7%) opposed to phased residential growth.

| Residential Growth              | Total Responses | Percent Of Total |
|---------------------------------|-----------------|------------------|
| Growing at about the right rate | 197             | 12.8%            |
| Growing too rapidly             | 1278            | 83.4%            |
| Not growing fast enough         | 8               | <1.0%            |
| No Opinion                      | 47              | 3.0%             |
| TOTAL                           | 1531            | 100%             |

| Commercial Growth         |                 |                  |
|---------------------------|-----------------|------------------|
| Commercial Growth         | Total Responses | Percent Of Total |
| Growing at the right rate | 550             | 36.7%            |
| Growing too rapidly       | 340             | 22.7%            |
| Not growing fast enough   | 477             | 31.9%            |
| No Opinion                | 128             | 8.5%             |
| TOTAL                     | 1495            | 100%             |

**State Institutions** – Survey respondents were split on the type of impacts BSC and the BCC have on the community. For most respondents, BSC has a positive impact on Bridgewater while the perceived impacts of BCC were unclear. Several respondents (as well as public officials) were concerned about traffic increases and public sewer/water usage by the College, but BSC is generally well accepted and appreciated

| Impact on the Community | BSC  | Percent Of Total | BCC  | Percent Of Total |
|-------------------------|------|------------------|------|------------------|
| Positive Impact         | 983  | 63%              | 343  | 22.0%            |
| Negative Impact         | 217  | 13.9%            | 288  | 18.4%            |
| No Impact               | 71   | 4.5%             | 537  | 34.4%            |
| No Opinion              | 288  | 18.4%            | 391  | 25%              |
| TOTAL                   | 1559 | 100%             | 1559 | 100%             |

major issue majority felt too rapidly.

initiative, that residential

The majority of survey respondents were concerned with the amount of residential growth and associated traffic congestion, and its impact on municipal facilities and services. However, with regard to commercial growth in Bridgewater, most survey respondents indicated that the rate was about right or not fast enough. Again, most residents were concerned about the limited commercial opportunities and the quality or types of businesses that currently exist.

**Open Space and Recreation** – Open space protection and recreational facilities are very important to Bridgewater residents. The vast majority of survey respondents indicated that Bridgewater needs more open space. Moreover, they said, the town should take action to protect these lands from further development and use tax dollars to acquire open space if necessary.

| Open Space & Recreation                                 | Yes  | % Yes | No  | % No  | No Opinion | % N.O. |
|---------------------------------------------------------|------|-------|-----|-------|------------|--------|
| Is additional open space needed?                        | 1169 | 74.9% | 255 | 16.3% | 135        | 8.6%   |
| Are additional recreational facilities needed?          | 932  | 59.7% | 477 | 30.5% | 150        | 9.6%   |
| Should additional tax dollars be spent to acquire land? | 974  | 62.4% | 290 | 18.6% | 295        | 18.9%  |
| Should Town protect open space from development?        | 1330 | 85.3% | 124 | 7.9%  | 105        | 6.7%   |
| Protect open space even at additional expense to Town?  | 1087 | 69.7% | 172 | 11.0% | 300        | 19.2%  |

**Housing Issues** – Housing was considered a significant issue for survey respondents. This was not surprising considering the limited amount of housing types and the gap between the median income and median cost of a home in Bridgewater

| People who Need Housing   | Total | Percent |
|---------------------------|-------|---------|
| Singles/Apartment Dweller | 215   | 13.7%   |
| First Time Homebuyers     | 458   | 29.3%   |
| Families                  | 385   | 24.6%   |
| Special Needs             | 152   | 9.7%    |
| Affordable for Families   | 253   | 16.2%   |
| Empty Nesters             | 133   | 8.5%    |
| Elderly                   | 390   | 25.0%   |
| Others                    | 0     | 0       |
| Total                     | 1559  | 100%    |

When asked what groups of people in the community were most in need of housing, survey respondents identified first time buyers followed by elderly residents. However, the majority of respondents (839 or 53.8 %) did not think the Town should financially support affordable housing programs. Only 18% agreed with Town support and over 28% had no opinion. On the other hand, respondents were concerned about the rate of residential growth and impact on municipal services. With the limited amount of affordable housing in Bridgewater (2.7% of the 10% required by the State), the community is vulnerable to comprehensive permits where local control over size and density of subsidized housing developments is limited. It appears from the survey responses that affordable housing is desired in the community, particularly for first time homebuyers, but not if it's

subsidized or publicly sponsored.

Respondents were asked what types of new housing are most favored in Bridgewater. The responses were adult retirement communities followed by accessory apartments. Mobile homes and multifamily units were the least favored housing types. Respondents were split on the issue of home occupations. Only 37% (580 respondents) would like to see more opportunities for in-home occupations. Almost half had no opinion on this issue.

| New Housing Types Favored by Survey Respondents |      |       |      |       |            |        |
|-------------------------------------------------|------|-------|------|-------|------------|--------|
| Type of Housing                                 | Yes  | % Yes | No   | % No  | No Opinion | % N.O. |
| Rental Properties                               | 315  | 20.2% | 779  | 49.9% | 465        | 29.8%  |
| Accessory/In-law Apts                           | 502  | 32.2% | 450  | 28.8% | 607        | 38.9%  |
| Mobile Home Units                               | 114  | 7.3%  | 1099 | 70.4% | 346        | 22.1%  |
| Planned/Condo Units                             | 293  | 18.7% | 811  | 52%   | 455        | 29.1%  |
| Residential Clusters                            | 284  | 18.2% | 840  | 53.8% | 435        | 27.9%  |
| Multifamily                                     | 155  | 9.9%  | 960  | 61.5% | 444        | 28.4%  |
| Adult Retirement Villages                       | 623  | 39.9% | 535  | 34.3% | 401        | 25.7%  |
| TOTAL                                           | 1559 | 100%  | 1559 | 100%  | 1559       | 100%   |

**Transportation** - From the survey respondents' perspective, the major traffic and intersection problems in Bridgewater occur in the following areas:

1. Route 18 and High Street
2. Pleasant Street and South Street
3. Central Square
4. Winter Street and Route 18

Respondents also felt that the following roads were inadequate to serve existing traffic: 1) Route 104 2) Route 18 and 3) Central Square.

**Future Community Concerns** – According to survey respondents, the most serious issues facing Bridgewater over the next five years were the following:

1. Overbuilding and population growth
2. Municipal water and sewer
3. Traffic congestion

Most respondents (862) wanted to maintain the “small town” atmosphere of Central Square with new shops and building renovations which add charm and maintain character. Respondents (766) also wanted more community park and recreation facilities, and municipal water and sewer services expanded and improved. Many respondents (535) wanted to eliminate/discontinue the following:

1. Growth and home building
2. Fast food restaurants and bar expansions
3. Mobile home building

### 2.3 Community Vision Statement

Based on the results of the Town-Wide Resident Survey, public meetings, interviews with community representatives, and research for the plan, a Community Vision Statement was prepared. This statement articulates Bridgewater's overall goal for the community over the next 10 years. It also serves as the theme for all of the proceeding chapters of the Bridgewater Master Plan.

#### Community Vision Statement

Bridgewater is a diverse community with a small-town atmosphere. It has abundant natural and cultural resources, which define the current landscape and is an integral part of the community's quality of life. Bridgewater is a town striving to improve and enhance municipal facilities, infrastructure and services to meet the needs of a growing population. The Town is focused on expanding local economic and cultural opportunities while balancing housing, land use, transportation, educational, and recreation needs. Bridgewater is committed to working in partnership with local residents, state institutions, community groups and other parties to fulfill this vision for the future.

## CHAPTER 3 – OUR NATURAL, CULTURAL & HISTORIC RESOURCES

### 3.1 Background

Prompted by community-wide concern for the loss of farmland and open space, the Town of Bridgewater has initiated a focused effort to counter the negative impacts of development trends and preserve remaining resource areas. Integral to this goal is the updated Open Space & Recreation Plan (OSRP), which seeks to provide direction for the community through the inventory of past land-use management practices, present conditions, and future scenarios associated with the recommendations contained herein. This Chapter adapts the *Draft 2001 Open Space & Recreation Plan* to fit the context of the overall Master Plan. Other sections of the OSRP are adapted to other chapters of the Master Plan and are noted as such.

A primary municipal concern is the emerging regional influence on resource areas located within Bridgewater, in addition to the local land use practices that have historically occurred. The impacts of these activities upon existing infrastructure and resource capabilities within Town are significant issues that must be addressed through the implementation of local land use policies, as well as interaction with state and regional agencies. This chapter of the Master Plan is one component of a much larger effort to provide a balanced rate of growth and the ability for the Town to maintain its rural character.

### 3.2 Recent Resource and Open Space Accomplishments

Significant and continuing local effort to manage growth is a natural extension of the 1988 and 1995 Open Space and Recreation Plans. Over the past 10 years actions recommended in these previous plans and their successful accomplishment are as follows:

- Construction of Olde Scotland Links, a municipal 18 hole golf course on the former Chaffee Farm near the intersection of Vernon Street and Spruce Streets;
- A local wetlands protection bylaw that provides greater authority to the Bridgewater Conservation Commission in addition to its authority granted under state law (Section 40 of Chapter 131 MGL);
- An “Open Space Community Development” zoning bylaw allowing cluster development within residential districts by special permit;
- Zoning dimensional controls requiring a minimum building setback from wetlands and minimum contiguous upland area within lots;

- Aquifer Protection bylaw to protect the Town’s potable water supply. This bylaw was recently amended to reflect new standards promulgated by the Massachusetts Department of Environmental Protection (DEP) and include neighboring communities Zone II on the Town Zoning Map;
- Three (3) successful self-help grants for the purchase of 157 acres of land along the Town and Taunton rivers, thus increasing the permanent protection of this greenway, and the establishment of Neighborhood Stewardship Groups created to assist in long-term planning and management of these properties;
- The establishment of a joint Town River Fishery Committee between West Bridgewater and Bridgewater, for the restoration, protection, and management of the herring fishery;
- Acquisition of the historic Iron Works Site in the Stanley section of Town (now on the National Register of Historic Places), for passive recreation (a river greenway) and municipal Highway Department use;
- Initial design for a sustainable and linked park system for passive recreation on selected parcels of town-owned conservation land;
- Increased environmental education / public outreach projects through the local school system; and
- Updated Planning Board Rules and Regulations for drainage design and compliance with DEP’s Best Management Practices.

Additionally, the 1991 construction of the Rainbow’s End Playground on Flagg Street by 651 volunteers serves the growing recreational needs of children. The same can be said for the more recent expansion of the soccer fields and the currently proposed installation of a baseball field with expanded parking facilities adjoining the playground.

Some of the members of the 1995 Open Space Subcommittee of the Growth Advisory Committee (GAC) formed a 501 (c) (3) nonprofit community-based land trust, incorporated in 1998 as the Natural Resources Trust of Bridgewater (NRTB). The NRTB is a supportive, private nonprofit partner to the Town of Bridgewater.

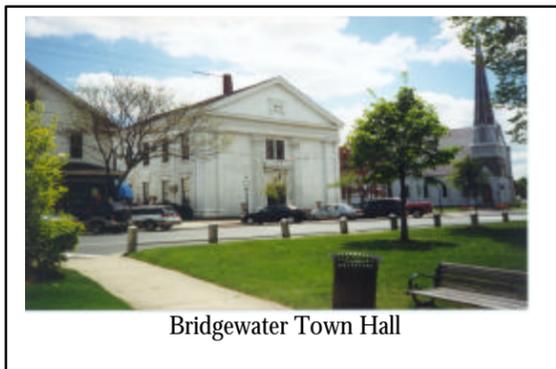
Under the direction of the Community Development Office, a consultant was hired in 2001 to begin updating and revising the Town’s Open Space & Recreation Plan. Ideas and concepts for the revised plan were discussed at public forums with the local land trust, Bridgewater Recreation Commission, the Master Plan Study Committee (whose community-wide public survey was used extensively to garner opinion), the various Neighborhood Stewardship Groups monitoring the new linked park system, civic groups including the Bridgewater Garden Club, and members of the Bridgewater Improvement Association.

### 3.3 Community History<sup>1</sup>

Bridgewater was the first inland settlement in Massachusetts, established in 1656 by Miles Standish, Samuel Nash and Constant Southworth from Duxbury. They met Chief Ousamequin, Sachem of the County of Poconomket, at a place called Sachems Rock located just north of Sprague Hill in present day East Bridgewater. There they traded seven coats, nine hatchets, eight hoes, ten knives, four moose skins and 10 yards of cotton for a tract of land called Satucket. The deed was dated March 23, 1649 and signed by Ousamequin by a signature in the shape of a hand. The Satucket tract extended seven miles to the north, southeast and west of the Indian Fish Weir located at Sachems Rock.

In future years, through dealings with other Indian chiefs, Old Bridgewater eventually covered an area of 96 square miles. In 1706, Abington broke away from Old Bridgewater, followed years later by what are now East Bridgewater, West Bridgewater and Brockton, which was formerly known as North Bridgewater.

Bridgewater continued through the early 19<sup>th</sup> century to serve as an important agricultural and manufacturing center. Farms as large as several hundred acres were common in the outlying areas of the Town. As early as the eighteenth century, foundries were operating along the Town River where iron forging produced cannons for the Revolutionary and Civil Wars.



Bridgewater Town Hall

A century later, shoe manufacturing entered this area, due in part to the crossing of what are now Routes 18, 28 and 104 within Central Square. Commercial development within the Square and north along Broad Street soon followed. Today, structures of traditional architectural styles built in the late nineteenth and early twentieth centuries remain clustered around Bridgewater’s Central Common. In 1986, Bridgewater created the *Historic District* containing approximately 96 existing structures that are located in the common area. This district is listed on the National Register of Historic Places, and several

significant buildings are illustrated and described in greater detail in Figure 3-1 below<sup>2</sup>.

<sup>1</sup> The late Town Historian, Kenneth Moore, researched historic documents and contributed significantly to the historic profile presented in the Chapter.

<sup>2</sup> Much of the Town’s historical information and memorabilia is available at the Old Bridgewater Historical Society in West Bridgewater and in the Bridgewater Public Library.

New development, largely residential in character, has increasingly radiated out from the downtown area especially since the 1960s with the completion of Route 24. The crossing of Route 24 with Interstate 495 during the 1980s on the southwest edge of Bridgewater hastened the construction of new homes in outlying areas. Faced with increasing land values and tax burdens, many whose families managed farms for generations were eventually attracted to or compelled to sell their land for development.

With the help of the Historical Commission and the Open Space & Community Preservation Commission, the Town is working to complete a comprehensive Heritage Landscape Inventory. A number of historic and beautiful homes and buildings could potentially change ownership in the near future, and there is a great need to document the historical and archaeological significance of various structures.

In terms of the built environment, the concentration of historic properties is particularly noticeable downtown and along the river networks. In 2001, public concern arose with the demolition of two older homes in the heart of downtown, for the proposed construction of a new commercial building. This incident triggered the review of existing permitting regulations for the Central Business District. The two homes were located at 9 and 19 Summer Street and are described below:

COLONEL ABRAM WASHBURN HOUSE (#20 on Figure 3-1) – Abram Washburn, a Colonel in the Bridgewater Militia Company, built this house in 1822. At one time, it is told, he transported 200 maple seedlings from Vermont to Bridgewater in a chaise. One of these “seedlings” is on the extreme right front corner of the Washburn property.

NAHUM STETSON HOUSE (#21 on Figure 3-1) – A superintendent of the Bridgewater Iron Works and an owner of considerable land around Town are two facts known about Mr. Nahum Stetson. Stetson Street is named in his honor. Supposedly the columns from the second building of the First Parish Church were incorporated into the double doorway in the large front living room of the house.

According to the community-wide survey in 2001, Bridgewater residents desire a harmonious design in the historic downtown area and a much-needed thriving Central Business District. To reach this goal, the community must balance its colonial heritage with healthy economic development, especially as the population continues to increase.

### 3.4 Landscape Character

The natural setting of Bridgewater has long been complemented by efforts to preserve and beautify a variety of public lands within the community. However, development over the past 20 years has claimed several farms and acres of forested land. Residential growth has claimed the Imhoff Farm, Homenook, portions of the Perkins land, McIntyre Farm, Poole Farm, woodlands on Pine and Conant Streets, and several other former agricultural and forest lands.

**FIGURE 3-1: CENTRAL SQUARE HISTORIC DISTRICT & SIGNIFICANT BUILDINGS**

**Around the Common:**

1. BRIDGEWATER COMMON – Measuring 425 feet long and 55 feet wide when it was laid out in 1822, the Common, like other neighboring commons in New England, was once used as a grazing area for various farm animals. Like other New England town commons, the Bridgewater Common is said to have been laid out according to the Biblical dimensions for Noah’s Ark.
2. TOWN HALL – Built in 1843, this is the second town hall of Bridgewater. The first building stood on the opposite corner where the New Jerusalem Church now stands.
3. BRIDGEWATER ACADEMY – the Bridgewater Academy, so named because it was once a private academy, was first built in 1799 near the present little common. This burned in 1822. With the new common and turnpike (now Route 18/28), a new building was constructed at the present location in 1868. Over the years various alterations have taken place on the building. In 1877 it was rented to the Town for use as a public high school. The last class to graduate from this building was the class of 1951. It is now used for municipal offices.
4. OLD LIBRARY – This Civil War Memorial is most likely the only such memorial in the State that is used as an actual building. Once the home of the Bridgewater Public Library, the Town has restored this beautiful old structure and is using it for municipal offices.
5. WENTWORTH HOUSE – Located behind the Old Library building, attention is drawn to this house because its rare old Duplex-Style Cape design.
6. CONGREGATIONAL CHURCH – In 1836, a Congregational Church was built on this spot and in 1860 it burned. The present church was designed by Solomon K. Eaton and was built by Ambrose Keith in 1862.
7. TORY HOUSE – Built in 1716, this house was the home of Benjamin Allen, first minister of the First Parish Church. Later, it was the residence of Josiah Edison, a Harvard graduate and man distinguished in public affairs. Because of his British leanings, he left home and family in 1774 and joined the British. Shortly, thereafter, he died. The restored home is now a boarding house.
8. OLD POST OFFICE – At one time the Post Office was housed downstairs in this building while the Savings Bank and office of the Cotton Gin Works was upstairs. It presently serves as commercial office space.

**Along Summer Street and Plymouth Street, to School Street:**

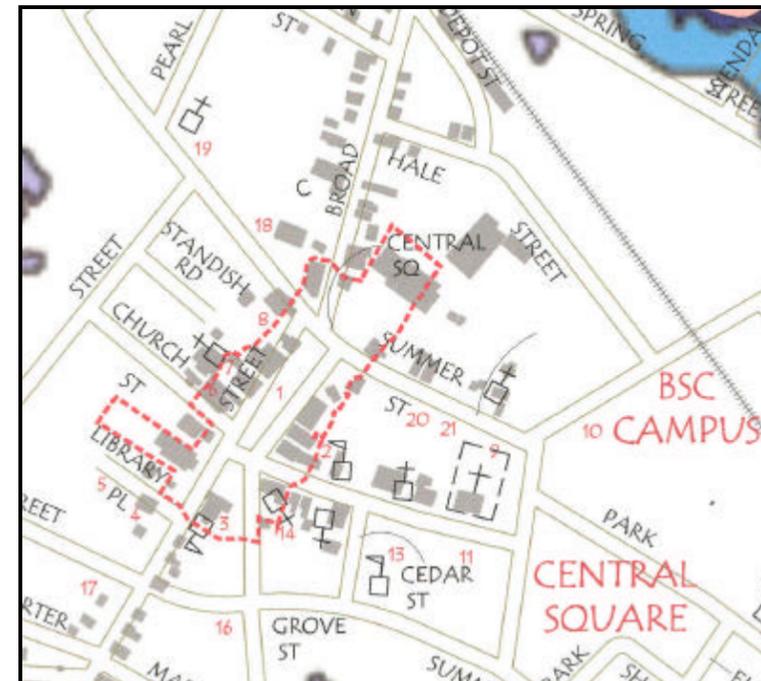
9. FIRST PARISH CEMETERY – This cemetery, established in 1716, shelters the graves of Bridgewater Revolutionary Soldiers and is the oldest known cemetery in Town.
10. HONORABLE S.A. SHAW SITE – On this land stood the home of Reverend Shaw, second minister of the First Parish Church. Reverend Shaw was influential in educating young men for college. On the site now is the home of the late Mr. & Mrs. Walter S. Little, most worthy and generous citizens of Bridgewater.
11. SITE OF THE FIRST NORMAL SCHOOL BUILDING IN AMERICA – As one walks uphill on School Street toward the Common, a plaque memorializes the site of this old building, built in 1846 and later burned to the ground.
12. FIRST PARISH CHURCH – This church was established in 1716 and after two previous buildings, the current church was constructed in 1845. The Christopher Wren Steeple and Paul Revere Bell toppled in Hurricane Carol in 1954.
13. SAMUEL GATES HOUSE – Originally this house was built across from the Hunt School on School Street, then later moved to Grove and Cedar Streets. Mr. Samuel Pearly Gates was a prominent businessman, being treasurer and a stockholder of the Eagle Cotton Gin Works. He held a clerkship in the Water Department during the Civil War and was a Public Library Trustee. The home is now used for Administration purposes at Bridgewater State College.
14. NEW JERUSALEM CHURCH – The Old Jerusalem Church was what is presently the Methodist Church Parish House on Cedar Street. The present church, known as the New Jerusalem Church was built in 1871. A fire in 1996 necessitated the rebuilding of the steeple, which now houses well-disguised cellular communications transmitting antenna.

**South of the Common:**

15. FORBES HOUSE – At one time Maple Avenue was a long dirt lane from Bedford Street, with the Forbes Family living at the end. This house, with its circular cellar, is the oldest house on Maple Avenue.
16. L. HOLMES HOUSE – Located on the corner of Bedford and Grove Streets, little information can be found about this fine example of an Old Cape house.
17. NOAH FEARING HOUSE – Doctor Noah Fearing, son of General Israel Fearing of Wareham, was a physician who practiced in Bridgewater for 29 years. After graduating from Harvard in 1791 he built this house (1796) for his bride, Anne, daughter of Major Isaac Lazell, on the corner of South and Mt. Prospect Streets. Today a practicing pediatrician owns the home.

**North on Main Street to High Street:**

18. PAUL REVERE’S HOUSE – In this elegant house lived a Paul Revere, believed to be the fifth generation descendent of the Paul Revere of American Revolution fame. The house was built in 1790, and today serves as commercial office space for a family-owned insurance company.
19. LAZELL PERKINS IRON WORKS – First permitted by an Act of State Government in 1695. By 1865 it was the second largest steel rolling mill in America in 1865. Currently, the site is the centerpiece of the Bridgewater Iron Works Historic District<sup>3</sup> and the first park site in a linked Greenway along 17 miles of the Town and Taunton Rivers. The Iron Works Park is also a connecting ‘Jewel’ in the Bay Circuit Trail System.



<sup>3</sup> Listed on the National Register of Historic Places in 2002

- Significant Remaining Agricultural Land in Town
- Hansons' Farm (Pleasant and North Streets)
  - Cumberland Farm Parcel (Elm Street)\*
  - Cumberland Farm Parcel (Curve Street)\*
  - Leachs' Land (South Street)
  - Lehtola Farm (Auburn Street)
  - Pawlowski Farm (Swift Avenue)
  - Murray's Farm (North Street)
  - Old State Farm (Summer and Flagg Streets)\*
  - Cherry Street
- \* Not in Chapter 61 Agricultural Program

In spite of tremendous pressure for residential growth, Bridgewater has still been able to retain some of its openness and rural character. The Town purchased the Hogg Farm in 2000 for municipal and recreational use, and Wyman Meadow in 2000 for use as a future municipal well site and conservation land.

The community was also awarded self-help funding for two other purchases, the Stiles & Hart property in 1999 (home of the Plymouth County Agricultural Fairgrounds in the 1800's and subsequent clay-mining industry during the early 1900's) and a woodland site in 1998 known as Tuckerwood. These two properties and the Wyman Meadow property are on the Town and Taunton rivers, adding many acres and many miles to the protected river greenway in Bridgewater.

The character of streets bordering many of these scenic lands often enhances the public's appreciation of them. Curvilinear layouts, relatively modest widths and the blending in with the general topography typify many of the collector streets within Bridgewater. Unfortunately these same characteristics do not readily serve the increasing traffic demands of adjoining new subdivisions.

- Bridgewater Scenic Ways\*
- Auburn Street
  - Spruce Street
  - Summer Street (South of Flagg St.)
  - Elm Street (Northern portions)
  - Plymouth Street (East of Pond St.)
  - South Street (South of South Dr.)
  - Lake Nip Area Roads
- \* Not officially designated by Town Meeting

The greatest concentration of pristine lands, some private and some public, are now found further away from public view along major rivers and water bodies. Expansive wetlands and forests of red maple trees and similar vegetation predominate in such remote areas. These resources are most appreciated by sportsmen and those engaged in such passive recreational activities as canoeing and hiking.

In contrast, landscaping has played an important role in providing a distinctive appearance to Bridgewater's downtown. Tree-lined streets and plantings at major intersections greet travelers as they enter Central Square.

Once there, the efforts of the Bridgewater Improvement Association and other civic organizations draw the visitor's focus to the meticulously maintained Central Common, which hosts seating areas and memorials.

This feeling of connected parklands is carried through along Summer and School streets, incorporating other peaceful and scenic resting places with the beautifully landscaped campus of Bridgewater State College. It is a short walk from here to the Carver's Pond Park<sup>4</sup>. It is part of the Town's vision to link pathways to the Stiles & Hart Conservation Area, thereby pulling this passive resource site into the

<sup>4</sup> Carver's Pond and surrounding area is part of a protected town-owned water resource area.

downtown community landscape and further connecting this portion of the park system to the river greenway.

### 3.5 Natural Resources Inventory & Assessment

**Watersheds and Rivers** - The Town of Bridgewater lies within the Taunton River<sup>5</sup> Watershed, the second largest watershed in Massachusetts. Eight sub-basins (smaller brooks, streams and wetlands draining into the Town, Matfield, and Taunton River) collect the runoff from Bridgewater. The southwesterly flowing Taunton River begins at the confluence of the Town and Matfield Rivers north of Mill Street and eventually empties into Mount Hope Bay. Riverways are the most predominant hydrographic feature within Bridgewater as depicted on Map 3-1. These three rivers nearly encircle the community.

The 14-mile-long Town River flows from the Hockomock Swamp north of Lake Nippenicket through West Bridgewater and back into the northeastern side of Bridgewater. It meanders east, past the Campus Plaza area until it meets the Matfield River flowing south from East Bridgewater. At that point, both rivers converge and form the Taunton River, which defines the eastern and southern boundaries of Bridgewater.

Priorities to protect riverways and significant tracts of sensitive lands often expand beyond the corporate boundaries into adjoining communities. The Hockomock Swamp Area of Critical Environmental Concern (ACEC) comprises 16,800 acres located in the towns of Bridgewater, Easton, Norton, Raynham, Taunton, and West Bridgewater. The Secretary of Environmental Affairs approved designation of this ACEC area in 1990.

Definition of ACEC

Areas of Critical Environmental Concern (ACECs) are places in Massachusetts that receive special recognition because of the quality, uniqueness, and significance of their natural and cultural resources. These areas are identified at the community level and are reviewed and designated by the state's Secretary of Environmental Affairs. ACEC designation creates a framework for local and regional stewardship of these resources.

In the last decade, the Bridgewater Open Space and Recreation Plans have proposed the establishment of a greenbelt along its portion of the Town River. A similar strategy was proposed in West Bridgewater<sup>6</sup> along their portion of this stream. Such a greenbelt concept would

serve to protect resource areas and future potable water supplies within the region. It would also serve to enhance the effectiveness of preserving open space by concentrating it along a significant feature -- the whole Town River Greenway in both communities.

The Town of Bridgewater has been fortunate over the last few years to acquire several significant land parcels along the Taunton River including the 20-acre Iron Works Site, 70-acre Styles & Hart property, 32-acre Tuckerwood site, and 55-acre Wyman Meadow site, placing each into permanent protected status.

<sup>5</sup> The Taunton River was referred to as the "Great River" in Colonial records

<sup>6</sup> West Bridgewater Bay Circuit Open Space Plan, 1988

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***MAP 3-1: BRIDGEWATER WATER REOURCES***

INSERT

**Table 3-1: Bridgewater Watersheds and Wetlands**

|                              |              | Sq.          | % of        | No. of       | Acres           | % of Area       | Acres in        | % Area in       |
|------------------------------|--------------|--------------|-------------|--------------|-----------------|-----------------|-----------------|-----------------|
| <b>Watersheds</b>            | <b>Acres</b> | <b>Miles</b> | <b>Town</b> | <b>Ponds</b> | <b>of Ponds</b> | <b>in Ponds</b> | <b>Wetlands</b> | <b>Wetlands</b> |
| Lake Nip. & Upper Town River | 4,652        | 7.27         | 26.6        | 3            | 370             | 8.2             | 1,355           | 29.1            |
| Town & Upper Taunton River   | 1,735        | 2.71         | 9.9         | 0            | 0               | 0               | 81              | 4.7             |
| South Brook Basin            | 2,272        | 3.55         | 13          | 3            | 42              | 1.8             | 226             | 9.9             |
| Matfield River Basin         | 322          | 0.5          | 1.8         | 0            | 0               | 0               | 11              | 3.4             |
| Blood Pond Brook             | 417          | 0.65         | 2.4         | 1            | 4               | 1               | 77              | 18.4            |
| Spring and Beaver Brook      | 716          | 1.12         | 4.1         | 2            | 3               | 0.4             | 76              | 10.6            |
| Sawmill Brook Basin          | 2,191        | 3.42         | 12.5        | 3            | 16              | 0.7             | 257             | 11.7            |
| Snow's Brook Basin           | 2,539        | 3.97         | 14.5        | 2            | 4               | 0.2             | 231             | 9.1             |
| Other Areas                  | 2,622        | 4.1          | 15          | 3            | 48              | 1.3             | 734             | 24.2            |

*Source: Bridgewater GIS System, MassGIS*

The Matfield River presents more of a challenge in that its headwaters form in the City of Brockton and its water quality, as it flows downstream through the three Bridgewaters, reflects the urban woes of a very developed city with discharge pipes from colonial era homes throughout the countryside. Water quality testing performed via the Watershed Laboratory at Bridgewater State College over the last decade has shown a continuous pattern of low oxygen and high nutrient levels as this stream merges with the Town River to form the Taunton River.

Addressing this situation is a goal, as various citizen groups labor to restore the herring fishery through this tributary to the Satucket region in East Bridgewater, and as linked greenways are being formed to promote regional hiking, canoeing, and fishing opportunities. Protecting existing and potential potable water supplies is a continuing concern as well.

In 2000, Bridgewater received its third self-help grant (in three consecutive years) from the Executive Office of Environmental Affairs for the purchase of Wyman Meadow as conservation land. This 35-acre site is adjacent to the new 15-acre well site purchased by the Town Water and Sewer Departments at the same time, and brings to five the number of contiguous, publicly-owned passive park sites on the Bridgewater portion of the Town and Taunton Rivers.

There is the potential for additional passive recreation parcels to be added to this number, as the Natural Resources Trust of Bridgewater is spearheading a movement for permanent protection of lands along this greenway on the Old State Farm. This was a goal identified in the two previous Open Space & Recreation Plan documents. This greenbelt would provide protection to a potential major habitat for rare wetland species.

In 2000, the upper Taunton River Wild & Scenic Feasibility Study Bill was signed into federal law, authorizing \$300,000 for a three-year study, to be facilitated by the National Park Service. Local communities participating in this project are Bridgewater, Halifax, Middleborough, Raynham and Taunton, via the Taunton River Stewardship Project. This exciting recognition is a great encouragement for the grassroots movement to protect this beautiful and as yet undeveloped portion of this majestic river.

**Groundwater** - Groundwater protection is another concern shared with many area communities. Some of the public supply wells serving the communities of Middleborough and East Bridgewater are located close to Bridgewater, while two wells serving the Town of Raynham border Lake Nippenicket. Already, the delineated primary recharge area (i.e. Zone II) for some of East Bridgewater’s wells partially overlaps the recently approved Zone II area for the Bridgewater wells near the Matfield River as shown on Map 3-1.

**Geology and Soils** - Most of Bridgewater is characterized by relatively low relief (lowest elevation approximately 10 feet above sea level) and poor drainage, particularly in the southern and western part of town. Several hills in the northern part of town including Great Hill, Sprague’s Hill (the highest point in town at 175 feet) and other unnamed hills are exceptions to the low relief of the rest of the town.

Bridgewater is located within the Narragansett Basin, which cuts across central Plymouth County and extends southwesterly into Bristol County and southeast Rhode Island. Bedrock within the Narragansett Basin is dark-colored (due to high amounts of carbon) meta-sedimentary rock consisting of conglomerate, sandstone, siltstone, shale, and coal. Surficial deposits bury most of the bedrock in Bridgewater very deep, some areas where the bedrock comes close to the surface are found near Titicut and Forest Streets.

Glacial Till is found on oval shaped hills called drumlins, primarily in the southern part of Bridgewater. Fluvial sediments (also called outwash) are materials deposited in glacial melt-water streams and typically consist of stratified sand and gravel. Fluvial sediments are mapped throughout Bridgewater. Lacustrine sediments are fine-textured (silt and clay size) material deposited in glacial lakes. A large glacial lake called Lake Taunton formed in the Bridgewater area and deposited thick layers of silt and clay. Most of the lacustrine deposits are located in the south and eastern parts of Bridgewater. A large area of organic deposits is located in the northwestern part of Bridgewater, which is part of the Hockomock Swamp, the largest swamp in Massachusetts.

**Water Resource Protection** - The Taunton River serves as important habitat not only for fish and other aquatic species, but also for insects, birds, amphibians, reptiles, and mammals that utilize the river and the riverbanks, marshes, flood plain forest, and associated uplands. Thus, protecting the river and its tributaries would involve protecting water quality and stream flow and the vegetative communities along the river corridor.

**Table 3-2 Bridgewater Soil Types & Descriptions**

| <b>Soil Type</b>                      | <b>Description</b>                                                                                                                                                                                                                                                                                                                           | <b>Location</b>                                                                                                                                             | <b>Suitability of Use</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Birchwood-Poquonock-Mattapoiet</b> | Very deep, nearly level to moderately steep, moderately well drained, well drained, and poorly drained soils formed in sandy eolian and/or fluvial material underlain by loamy firm to friable glacial till in areas of ground moraines, drumlins and uplands. The depth to the underlying dense till typically ranges from 35 to 70 inches. | These soils are mapped on upland till landscapes such as drumlins and ground moraines. Areas include Elm Street, South Street, and south of Auburn Street.  | These soils are generally poorly suited for dwellings with on-site septic tank absorption fields due to the slow permeability of the substratum and perched, seasonal high water tables. Where these areas pass a perc test, mounded septic systems are often required to conform to State code. Mattapoiet soils are hydric soils, associated with wetlands and are very poorly suited for most uses because of the high water table. Birchwood and Poquonock soils are suited for woodland and crop productivity. Irrigation is needed for optimal production. |
| <b>Freetown-Swansea-Berryland</b>     | Very deep, nearly level to gently sloping, very poorly drained soils formed in very deep to shallow, freshwater organic deposits, underlain by glacial fluvial or Lacustrine deposits in swamps, bogs, fens, and depressions.                                                                                                                | These soils are mapped in the large swamps in the northwestern part of Bridgewater and in the eastern part.                                                 | Most areas of this map unit are wooded and scrub-shrub wetlands, some areas are used for cranberry production. These soils are very poorly suited for most uses due to a seasonal high water table and low soil strength. Areas of this map unit are well suited for wetland wildlife habitat.                                                                                                                                                                                                                                                                   |
| <b>Hinckley-Windsor-Deerfield</b>     | Very deep, nearly level to steep, excessively to moderately well drained soils formed in glacial fluvial deposits on outwash plains, deltas, kames, and ice contact deposits.                                                                                                                                                                | These soils are mapped on fluvial landforms throughout the town. A large area of these soils occurs on a large kame delta north of the lacustrine deposits. | These soils have few limitations for most uses. Deerfield soils have apparent high water tables between 1.5 and 4 feet below the surface and mounded septic systems are often needed. These soils occur in areas of aquifer recharge and caution should be taken to protect the aquifer. These soils are well suited for woodland productivity, they are also well suited for cropland, and irrigation is required for optimal production.                                                                                                                       |
| <b>Montauk - Scituate- Norwell</b>    | Very deep, gently sloping to steep, well drained to poorly drained soils formed in sandy loam eolian material underlain by dense glacial till derived primarily from granitic materials on uplands, drumlins, and ground moraines.                                                                                                           | These soils are mapped on ground moraines west of the downtown area of Bridgewater.                                                                         | Montauk and Scituate soils are well suited for woodland productivity and cropland; Norwell soils are poorly suited for woodland and cropland due to wetness. These soils are poorly suited to use as sites for septic tank absorption fields because the slowly permeable dense substratum which does not readily absorb the effluent. Subsurface drainage is also a problem with these soils; the firm substratum causes a perched seasonal high water table.                                                                                                   |
| <b>Raynham-Scio-Birdsall</b>          | Very deep, nearly level to gently sloping, very poorly to moderately well drained soils formed in silty lacustrine sediments in areas of glacial lakebeds plains and deltas.                                                                                                                                                                 | These soils are mapped in the southern part of Bridgewater and along the Town and Taunton River valley.                                                     | Scio soils are well suited for woodland productivity and cropland production; Raynham and Birdsall soils are poorly suited for most uses due to wetness. Areas of this map unit are generally poorly suited for dwellings with on-site sewage disposal systems due to slow permeability and seasonal high water tables.                                                                                                                                                                                                                                          |
| <b>Woodbridge-Paxton-Ridgebury</b>    | Very deep, gently sloping to steep, well drained to poorly drained soils formed in fine sandy loam eolian material underlain by loamy dense glacial till on uplands, drumlins, and ground moraines.                                                                                                                                          | These soils are mapped around the Bridgewater state farm (prison) and east of south street.                                                                 | Paxton and Woodbridge soils are well suited for woodland productivity and cropland; Ridgebury soils are poorly suited for woodland and cropland due to wetness. These soils are poorly suited to use as sites for septic tank absorption fields because the slowly permeable dense substratum which does not readily absorb the effluent. Subsurface drainage is also a problem with these soils; the firm substratum causes a perched seasonal high water table.                                                                                                |

Source: USDA-Natural Resources Conservation Service

Lake Nippenicket is the largest body of water in Bridgewater. Almost 500 acres in area, the lake serves as a regional recreational resource for fishing and boating. It also serves as a natural drainage collection area for the several square miles of land within its vicinity.

Due in part to its use and its overall shallow depth, the lake is experiencing eutrophication. Correcting this situation may become vital to the Town's interests since lands adjoining the lake are perhaps among the few significant sites from which it can derive its drinking water in the future. Past tests have indicated a high level of iron content in the water. (In fact, the word "Nippenicket" in Wampanoag means "Lake of Red Water".) The expense of extracting the iron from the water has prevented any further action toward its use, but, as local water consumption increases, the vast supply of this source may justify such costs.

Carver's Pond, Skeeter Mill Pond, and Ice Pond at Bridgewater Correctional Complex are other prominent water bodies in Bridgewater. Limited swimming, ice skating, fishing and boating (hand-carried) activities occur at these locations.

Another form of environmental protection has been extended to the Carver's Pond and High Street public well fields through the establishment of local Aquifer Protection Districts. The overlay zoning designation regulates the type and intensity of uses within proximity of the wells. The Town first adopted the districts and related bylaw in 1988. The bylaw was updated in 1994 in accordance with guidelines established by the Massachusetts Department of Environmental Protection (DEP). One challenge is to uniformly enforce the existing local bylaws.

The Massachusetts Department of Environmental Protection (DEP) has also approved a final wellhead protection area surrounding the wells near Carver's Pond as shown in Map 3-2. The designation, also known as a Zone II, delineates the primary water recharge area for a supply well. The updated Carver's Pond zone extends further east, but extends less to the north than the existing Aquifer Protection District shown on the Town's Zoning Map, which was amended in 2001 to reflect the updated information. A similar process has been done involving the High Street wells.

**Vegetation and Vistas** - Sizable tracts of conifer forests as well as red maple and cedar swamps are found extensively throughout Bridgewater. Such settings readily accommodate hiking activities through much of the year. The State Reservation off Water Street and Town lands around Carver's Pond, Titicut, Wyman Meadow, Tuckerwood, Stiles & Hart and the Iron Works site are popular hiking locations. More challenging conditions are found around Lake Nippenicket in the Hockomock Swamp.

Farmlands and meadows bordering major roadways are often more appreciated than other lands simply due to the scenic vistas they provide. Most notable are the major farms along Pleasant Street as one drives through Bridgewater from Route 24, and fields rolling downward from Plymouth Street to the Taunton River at Wyman Meadow. Other significant expanses include the Old State Farm along Summer Street at BCC and pastures along South Street just north of the Winter Street intersection. Such lands play an essential role in preserving the image of Bridgewater in the minds of residents and visitors.

**Fish and Wildlife** - A variety of wildlife habitat exists along the banks of the Town, Matfield, and Taunton rivers as well as along the numerous brooks and streams connecting to them. The habitats along the Town and Matfield rivers are somewhat limited by high-density development, while the mainstream Taunton River as it flows east toward Halifax and then south toward Middleborough provides the longest stretch of undisturbed habitat in Bridgewater. This stretch also connects riparian corridors downstream to East Taunton.

Today, white-tailed deer, coyote, fox, and wild turkey are plentiful here. Even bald eagles have been seen feeding along this river corridor. The migratory habits of some of the larger mammals have changed since the restoration of commuter rail to Boston in 1998 (the track bisecting the open fields along Summer Street is now bound by a double 6 foot high chain-link fence). But these open grasslands and agricultural fields still serve as a vital component of the regional habitat and flyway for migratory birds.

The Town River Fisheries Committee in partnership with state agencies has done much to restore and manage a working alewife fishery along the Taunton and Town rivers to Lake Nippenicket. And, the NRTB is partnering with Trout Unlimited to protect wild and native trout streams in portions of the Old State Farm.

However, the greatest natural setting within the community is the several hundred acres of land surrounding Lake Nippenicket. The 500-acre great pond attracts a diversity of waterfowl, amphibians, and mammals indigenous to the greater Hockomock Swamp. The community should develop awareness programs for this resource area. Carver's Pond, Ice Pond, Sturdevant's Pond, and Skeeter Mill Pond along with their surrounding landscape are other significant reserves for wildlife.

According to a 1994 report from the Massachusetts Natural Heritage Program, their 'watch list' included 14 plants and animal species in Bridgewater. Three of the plant species were considered endangered while two others were classified as threatened. The Upland Sandpiper is the only animal found in Bridgewater that is listed as being endangered. Protecting this habitat is a vital part of the State's biodiversity.

In 2000 the community took part in the first ever Massachusetts Biodiversity Days in partnership with the NRTB. The event featured conservation adventures for all age groups. Participants counted and certified more than 290 native species that day. High priority protection habitats for these species are lands in the Old State Farm surrounding the BCC facility, adjoining farmlands along the southern sections of the Taunton River, lands bordering Lake Nippenicket and a portion of the Hockomock Swamp between Elm and North Streets.

**Scenic Resources and Unique Environments** - Riverways offer some of the most scenic settings within Bridgewater. Seventeen miles of the Town, Matfield and Taunton rivers flow past older industrial sites near High and Broad Streets to more rural and natural surroundings in outlying areas. In recent years, fish ladders have been restored and debris has been removed from the rivers through organized voluntary efforts.

Equally significant as a conservation resource is Lake Nippenicket. Its scenic qualities are most readily appreciated as it borders Pleasant Street along the lake’s southern shores. The lake also attracts many boaters during the warmer months while many hikers throughout the year are drawn to the over 200 acres of wilderness bordering its northern shores.

Lake Nippenicket comprises a portion of the Hockomock Swamp, which extends into several other communities. The Massachusetts Executive Office of Environmental Affairs (EOEA) in 1990 designated most of the Hockomock Swamp, including the lake, as an Area of Critical Environmental Concern (ACEC) as shown in Map 3-1. This designation provides additional protection for what are recognized as being significant environmental resources in the vicinity of Lake Nippenicket, Lakeside Drive and Elm Street. As such, development in the area may require further review under the Massachusetts Environmental Policy Act (MEPA) process. The community may also establish additional local protection policy to ensure that development in this area minimizes impacts on the environment.

Some public sentiment suggests that the Town of Bridgewater should initiate preservation of adjacent acreage in this area, and foster appreciation and awareness in its passive recreation program for this beautiful natural setting.

Many farms and open meadows also significantly contribute to the overall character of the community. With the acceleration of development over the past 25 years, however, the number of working farms has dropped to nearly zero. The Hanson and Cumberland farms (on Curve Street) properties are the only farms that still have farm animals. Most of the active farming acreage supports hay and/or corn crops or market gardens.

This decline in local farming is generally supported by local employment data. Although never sizable, agricultural employment in Bridgewater actually increased by 56% between 1980 and 1987, and plummeted by 67% throughout the subsequent six years. The common challenge that these farm families face, many of whom have nurtured their land for decades, is to remain economically stable while the price of open upland becomes more attractive for development. Real estate taxes, estate taxes, and the need for retirement income are driving the decisions to sell out.

| 1998 Town Meeting Property Acquisitions |        |       |                  |
|-----------------------------------------|--------|-------|------------------|
| Map                                     | Parcel | Acres | Street Location  |
| 4                                       | 1      | 2.66  | Off Broad Street |
| 9                                       | 27     | 5.33  | Aldrich Street   |
| 20                                      | 25     | .59   | Old Forge Rd.    |
| 25                                      | 81     | 2.26  | Plymouth St.     |
| 98                                      | 7      | 19.74 | Dundee Drive     |
| 98                                      | 31     | .19   | Dundee Drive     |
| 99                                      | 49     | .56   | Bobwhite Lane    |
| 99                                      | 50     | .52   | Bobwhite Lane    |
| 99                                      | 51     | .54   | Bobwhite Lane    |
| 99                                      | 53     | .52   | Bobwhite Lane    |
| 99                                      | 55     | .52   | Bobwhite Lane    |
| 99                                      | 65     | 7.22  | Old Forest St.   |
| 110                                     | 16     | 2.3   | Cross Street     |

The Old State Farm at BCC presents a unique opportunity to the residents of Bridgewater in that the prison is no longer actively farming this land. Many of the fields are leased out to other farming enterprises, some of which are also winding down operations.

The hundreds of vegetated and open acres along Summer Street have been identified in previous Open Space & Recreation Plans as being a key scenic vista and heritage resource to the community at large. In fact, this property derives its name from the time when new immigrants and paupers in Bridgewater first worked at

‘The State Almshouse and Farm’, established in 1854 by a proclamation of Governor Emery Washburn.

The vast undeveloped land along the southern border of town is also part of the Taunton River Greenway that Bridgewater has focused on protecting over the years. It is a vital component to the regional grassland/forest edge mixed habitat for migrating birds and other wildlife. It also features prime agricultural soils. Legislation has been filed to permanently protect this Heritage Landscape. As the Commonwealth already owns it, funds do not need to be used to purchase it, only to manage it as open space.

**Environmental Concerns** - On-site septic systems serve the sewerage disposal needs of most homes in Bridgewater. Generally, these systems do not pose any environmental problem. However, there are isolated areas within the community where poorly drained soils and/or high water table conditions particularly affect subsurface wastewater treatment.

Nitrogen loading was once cited as a major problem in Lake Nippenicket. Although it is unclear whether this problem has entirely subsided, more recent attention has been drawn to increased sedimentation in the lake. As a result, the lake is currently experiencing accelerated eutrophication.

Sedimentation and eutrophication are also increasingly evident in the community’s other major water bodies: Carver’s Pond and Skeeter Mill Pond. Although most residential development in this area is connected to the municipal sewer system, many of the nearby homes that are not connected are encountering chronic septic system failures. Remedial action to manage and control aquatic vegetation (another cause for eutrophication of these water bodies) should be included in the Town’s long-range planning.

### 3.6 Lands of Conservation and Recreation Interest

**Inventoried Lands Other than Self-help Purchases** - Since the writing of the 1995 Open Space & Recreation Plan, the Town of Bridgewater has acquired several parcels of desirable conservation land through outright gifts. These properties include the Toole Legacy on Pleasant Street, Sturdevant’s Pond at the end of South Street, and the Iron Works Site on the Town River in the Stanley section of Town. Part of this historic industrial site is set-aside as public parkland, and the rest is being utilized for Town Highway Department needs.

Several parcels have also been donated to the community as the open space component of various clustered subdivisions. This includes approximately 35 acres found in the Cobblestone and Winding Oaks subdivisions off Vernon Street. The Homenook subdivision off South Street also has been set aside as open space habitat. Its approximately 30 acres are managed under private ownership. To further enhance the open space conservation lands inventory, a Town Meeting vote in 1998 approved the acquisition of 13 parcels amounting to 43 acres of land in given conservation status.

**Creation of a Park System for Passive Recreation** - Fast-paced ecological and demographic changes are enveloping Bridgewater. These include a rising population, residential housing boom, and the loss of family

farmlands and open spaces. The Town recognized the need to set aside accessible areas for passive recreation to harmonize with the active recreational offerings in the community.

Bridgewater Open Space Definitions

For purposes of classifying the current use of these various sites, the following definitions have been adopted:

- Conservation lands are those sites remaining in their natural state as wildlife habitat, vegetative buffer zones between subdivisions, open and forested areas of ecological value and scenic beauty, and water supply recharge areas. Conservation land is often in proximity to major wetlands, rivers or water that could allow limited forms of passive recreation (e.g. hiking, tenting, and bird watching).
- Active recreation lands are often improved by facilities such as swings and ball fields or otherwise attracting widespread use (e.g. skate board park).
- Passive recreation lands include those selected conservation lands set aside as cornerstones in the linked park system, and other parcels suitable for low-impact non-intrusive public use.
- Water Supply lands specifically accommodate public well fields operated by the Bridgewater Water & Sewer Commission.
- Agricultural lands inherently involve lands currently or formerly accommodating crop cultivation or the raising of livestock, and soils that are desirable to protect for agriculture.
- Forestry lands are sites currently preserved or managed for cutting and harvesting.
- Cultural sites are open spaces such as the Central Common and the Flora T. Little Park as well as historic cemeteries.
- Land classified as "Other Public Lands" is principally used for town or state-related governmental activities such as schools, fire stations or prisons, as well as some vacant parcels that do not currently serve conservation or recreational purposes.

In 1999, the NRTB, in partnership with the Conservation Commission, Water & Sewer Commission and the Recreation Commission, facilitated the establishment of a sustainable linked park system for passive recreation on selected parcels of town-owned conservation land. The Town's four self-help purchases of Titicut, Tuckerwood, Stiles & Hart, and Wyman Meadow became the cornerstones, with the inclusion of Carver's Pond and the Iron Works Site comprising Phase One of the Bridgewater Town Park System. (See Map 3-2). It is hoped that Phase One can be expanded in the future, as neighborhood volunteer stewardship groups become confidently trained in conservation management, and can properly monitor this first portion of a linked park system.

**State-Owned Conservation Properties** - There are hundreds of acres in Bridgewater that are owned by the State and that currently serve recreation needs and conservation purposes. The Massachusetts Department of Fisheries & Wildlife manages vast holdings in the vicinity of Lake Nippenicket, while the Bridgewater Recreation Commission maintains the Rainbow's End Playground on the State-owned North Hay Fields on Flagg Street. Nine soccer fields managed by the private Bridgewater Youth Soccer Association adjoin the playground.

**Town-Owned Recreational Properties** - Other than the soccer fields and playgrounds on Flagg Street, most active recreational sites are Town-owned and managed. These include Legion Field on Bedford Street in the center of town, Scotland Field on Prospect Street and the Olde Scotland Links on Pine Street.

The Handi-Kids Camp on Pine Street is a private recreational facility that serves children who have special needs.

Conservation land at the Carver's Pond well field is a component in the linked Town Park System. Because of its downtown location, the pond may be used as an "Outdoor Classroom" for the public school system and of various departments at Bridgewater State College. Other riverfront sites along the 17-mile greenway park system have the same potential.

| Category           | Acreage        |                 |                                                   |
|--------------------|----------------|-----------------|---------------------------------------------------|
|                    | 1995           | Add. Since 1995 | Description of Change                             |
| Conservation       | 504.5          | 43.0            | 13 parcels acquired by Town                       |
| Active Recreation  | 525.0          | 0.0             |                                                   |
| Passive Recreation | N/A            | 102.0           | Stiles & Hart; Tuckerwood, Toole Park, Wyman      |
| Water Supply       | 128.6          | 55.0            | Wyman (35 acres is passive rec.)                  |
| Agricultural       | 1,704.2        | 10.0            | Misc. parcels                                     |
| Forestry           | 262.2          | 0.0             |                                                   |
| Cultural           | 5.3            | 40.0            | Bodie Property (privately held conservation land) |
| Other Lands        | 1,669.3        | 3.0             | Sturtevant's Property                             |
| <b>Total</b>       | <b>4,799.2</b> | <b>253.0</b>    | <b>5,052.1</b>                                    |

**Undeveloped and Unprotected Parcels** - Despite its current use, most existing open space is not permanently protected by conservation restrictions. There will undoubtedly be land-use change on many parcels in the very near future, as the Town continues its growth trend from agricultural rural to suburban residential. It is of the utmost importance for Bridgewater residents to have responsible and well-planned zoning in place.

It is also important for the Town to inventory its Heritage Landscape, and to identify and catalog priority parcels of significant cultural, archaeological, historic and natural resource importance. It is of equal importance to investigate and develop methodologies for permanently protecting – including a proper maintenance or management program – these finite treasures that provide a visual narrative of the history, culture and quality of life of Bridgewater residents.

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**Map 3-2: Bridgewater Recreational, Cultural, Historic & Protected Open  
Space Sites**

INERT MAP 3-4

The 2001 Annual Town Meeting decreed that an *Open Space & Community Preservation Committee* be formed to study open space issues and recommend various strategies that will help with permanent protection of key parcels that should be saved, and key parcels that might better fit into another land-use category. This committee was also formed to investigate the pros & cons of local approval of the Community Preservation Act.

None of the agricultural land within Bridgewater is permanently protected. However, most local farms do participate under the State’s Chapter 61A program. The program lessens the property tax burden on existing farmlands as long as said lands serve an agricultural purpose. Withdrawal from the program requires the owner to pay the difference in taxes otherwise due over the previous several years and to offer the Town first option to purchase the land. Table 3-3 identifies those properties in Bridgewater currently listed under Chapter 61 programs. Similar programs are offered for land set-aside for forestry and recreational activities under Chapter 61 and Chapter 61B respectively. To date, only a handful of properties are listed under Chapter 61.

In addition, major tracts of agricultural land owned by Cumberland Farms have not been classified under the program. The most significant of these tracts lie between Curve Street and the Taunton River, adjoining other open acres presently in land-use transition.

Several hundred acres have been withdrawn from the 61A program since the high growth period of the mid 1980s. Despite its first option, the Town has seldom exercised this Right of First Refusal, with the exception of the purchase of the Chaffee Farm in 1976 and Hogg’s Farm in 2000.

| Street                            | No. of Parcels | Acres         | Gross Land Value    | Total Gross Value   | Total Taxable Value |
|-----------------------------------|----------------|---------------|---------------------|---------------------|---------------------|
| <b>Chapter 61 - Forestry Land</b> |                |               |                     |                     |                     |
| Bedford St.                       | 2              | 58.18         | \$ 194,400          | \$ 194,400          | \$ 25,300           |
| Brian Rd.                         | 1              | 14.33         | \$ 127,900          | \$ 127,900          | \$ 12,500           |
| Brookside Drive                   | 4              | 10.72         | \$ 106,700          | \$ 106,700          | \$ 5,500            |
| Conant Street                     | 2              | 17.34         | \$ 119,600          | \$ 283,200          | \$ 255,200          |
| Cook Street                       | 3              | 119.89        | \$ 865,600          | \$ 1,268,800        | \$ 1,008,500        |
| Forest Street                     | 1              | 11.30         | \$ 105,600          | \$ 105,600          | \$ 5,300            |
| Fox Hill Dr.                      | 1              | 1.00          | \$ 24,000           | \$ 24,000           | \$ 1,200            |
| Laurel Street                     | 1              | 16.59         | \$ 116,200          | \$ 116,200          | \$ 5,900            |
| Rear Bedford Road                 | 3              | 19.94         | \$ 99,700           | \$ 99,700           | \$ 5,000            |
| Rear Conant St.                   | 1              | 6.70          | \$ 13,400           | \$ 13,400           | \$ 6,400            |
| Real Laurel Street                | 1              | 7.98          | \$ 16,000           | \$ 16,000           | \$ 800              |
| Rear Oak Ridge Lane               | 1              | 8.98          | \$ 47,000           | \$ 47,000           | \$ 2,400            |
| Rear South Drive                  | 1              | 0.56          | \$ 3,900            | \$ 3,900            | \$ 200              |
| Titicut Street                    | 8              | 53.88         | \$ 405,600          | \$ 405,600          | \$ 166,500          |
| Water Street                      | 1              | 9.64          | \$ 34,300           | \$ 34,300           | \$ 5,500            |
| <b>Subtotal</b>                   | <b>31</b>      | <b>357.03</b> | <b>\$ 2,279,900</b> | <b>\$ 2,846,700</b> | <b>\$ 1,506,200</b> |

| <b>Chapter 61 A - Agricultural Land</b>  |            |                |                      |                      |                     |
|------------------------------------------|------------|----------------|----------------------|----------------------|---------------------|
| Auburn Street                            | 16         | 350.16         | \$ 200,900           | \$ 2,497,100         | \$ 832,600          |
| Bedford St.                              | 1          | 28.00          | \$ 288,700           | \$ 524,400           | \$ 390,700          |
| Cherry Street                            | 1          | 144.00         | \$ 409,600           | \$ 409,600           | \$ 25,900           |
| Conant Street                            | 2          | 12.48          | \$ 334,300           | \$ 664,100           | \$ 472,400          |
| Dantono Drive                            | 2          | 11.74          | \$ 287,800           | \$ 309,400           | \$ 29,300           |
| Flaherty Lane                            | 2          | 49.50          | \$ 221,500           | \$ 761,600           | \$ 628,400          |
| Forest Street                            | 1          | 0.15           | \$ 15,000            | \$ 15,000            | \$ 100              |
| Holly Lane                               | 3          | 22.12          | \$ 159,700           | \$ 326,000           | \$ 250,100          |
| Lyman Place                              | 1          | 1.72           | \$ 43,600            | \$ 43,600            | \$ 300              |
| Nelson Drive                             | 2          | 1.00           | \$ 29,000            | \$ 29,000            | \$ 400              |
| North Street                             | 3          | 101.44         | \$ 543,100           | \$ 470,300           | \$ 187,600          |
| Old Plymouth Road                        | 1          | 121.00         | \$ 880,000           | \$ 898,300           | \$ 253,200          |
| Plain Street                             | 2          | 32.57          | \$ 429,500           | \$ 429,500           | \$ 10,100           |
| Pleasant Street                          | 4          | 85.05          | \$ 756,000           | \$ 864,700           | \$ 218,000          |
| Plymouth Street                          | 3          | 9.31           | \$ 84,600            | \$ 84,600            | \$ 1,600            |
| Rear Auburn Street                       | 1          | 3.05           | \$ 6,100             | \$ 6,100             | \$ 3,400            |
| Rear Bedford Street                      | 2          | 22.00          | \$ 182,000           | \$ 215,700           | \$ 34,800           |
| Rear Cherry Street                       | 3          | 53.25          | \$ 400,500           | \$ 445,700           | \$ 119,900          |
| Rear Curve Street                        | 1          | 12.38          | \$ 24,800            | \$ 24,800            | \$ 2,200            |
| Rear Pleasant Street                     | 1          | 1.93           | \$ 9,700             | \$ 9,700             | \$ 100              |
| Rear Plymouth Road                       | 1          | 13.68          | \$ 27,400            | \$ 27,400            | \$ 1,100            |
| South Street                             | 3          | 69.81          | \$ 643,400           | \$ 743,000           | \$ 188,100          |
| Swift Avenue                             | 1          | 48.36          | \$ 445,700           | \$ 552,800           | \$ 178,200          |
| Vernon Street                            | 2          | 37.46          | \$ 437,900           | \$ 558,800           | \$ 201,500          |
| Walnut Street                            | 1          | 7.73           |                      | 212300               | 283400              |
| <b>Subtotal</b>                          | <b>60</b>  | <b>1239.89</b> | <b>7073100</b>       | <b>11194600</b>      | <b>4173200</b>      |
| <b>Chapter 61 B - Recreational Lands</b> |            |                |                      |                      |                     |
| Auburn Street                            | 4          | 81.50          | \$ 606,300           | \$ 606,300           | \$ 151,700          |
| Grange Court                             | 5          | 5.19           | \$ 500,700           | \$ 500,700           | \$ 125,200          |
| Orange Street                            | 1          | 32.30          | \$ 117,600           | \$ 117,600           | \$ 29,500           |
| Pleasant Street                          | 1          | 21.50          | \$ 108,000           | \$ 10,800            | \$ 27,000           |
| Plymouth Street                          | 1          | 31.00          | \$ 88,000            | \$ 88,000            | \$ 22,000           |
| Rear Auburn Street                       | 1          | 15.00          | \$ 30,000            | \$ 30,000            | \$ 7,500            |
| Rear Curve Street                        | 1          | 4.00           | \$ 8,000             | \$ 8,000             | \$ 2,000            |
| Water Street                             | 13         | 22.34          | \$ 377,800           | \$ 486,700           | \$ 252,700          |
| Willow Ridge Drive                       | 1          | 5.72           | \$ 26,400            | \$ 26,400            | \$ 6,700            |
| <b>Subtotal</b>                          | <b>28</b>  | <b>218.55</b>  | <b>\$ 1,862,800</b>  | <b>\$ 1,874,500</b>  | <b>\$ 624,300</b>   |
| <b>TOTAL</b>                             | <b>119</b> | <b>1815.47</b> | <b>\$ 11,215,800</b> | <b>\$ 15,915,800</b> | <b>\$ 6,303,700</b> |

\* Estimates of Acreage based on Bridgewater Assessors Office Records

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**Map 3-3: Bridgewater Agriculturally Protected Lands (Chapter 61)**

**\*\*INSERT GIS MAP OF C61\*\***

|                     |                      |
|---------------------|----------------------|
| <u>Conservation</u> |                      |
| Protected           | 450.76 Acres (89.3%) |
| Unprotected         | 53.77 Acres (10.7%)  |
| <u>Recreation</u>   |                      |
| Protected           | 433.11 Acres (82.5%) |
| Unprotected         | 91.90 Acres (17.5%)  |

A mix of protected and unprotected lands currently serves conservation and recreational purposes. A relatively large amount of protected recreational land is attributable to the Town-owned Chaffee Farm. The former farm is a collection of four parcels along Vernon and Spruce Streets. Three of the parcels are now known as the Olde Scotland Links municipal golf course

In 1995, a portion of the former Chaffee Farm was considered for the second phase of the project, the

proposed Vernon Park Recreational Complex. However, due to funding constraints at the time and subsequent wetlands encroachment, this site is no longer a viable option. The focus for a recreational complex has now shifted to the Hogg Farm property, although there are significant wetland concerns on this site as well.

Phase One of the linked Town Park System includes approximately 200 acres of passive recreational land, for which Stewardship/Management Plans are being developed under the partnership of NRTB (the Conservation Commission designee), various municipal departments, and neighborhood stewardship groups.

Other lands could be placed in a protective state while still being under private ownership, with a conservation restriction put in the deed. It is recommended that the Town use this protective tool more often as there are only two active conservation restrictions noted for any property in Bridgewater at this time. This includes the conservation lands set aside in Cluster Zoning or Conservation Open Space Developments. Private property with a conservation restriction typically has a lower market value, and so can provide property tax savings to the owner.

Although a majority of conservation land is also protected, nearly 74% is owned by the State and most of that land surrounds Lake Nippenicket. It is recommended to continue pursuing permanent protection for the Old State Farm lands on Summer and Flagg streets as noted in the Open Space & Recreation Plans in 1988 and 1995.

Several parcels near Lake Nippenicket and land on the east side of Carver's Pond have also been deemed protected conservation parcels under Town control. This designation is not due to any deeded restriction but rather to their remote location or longstanding purpose. Much of the remaining conservation lands and vacant "Other Public Land", which have not been permanently protected have been acquired through the tax title process. As such, they can be readily sold or developed for any purpose. If they are to be maintained as conservation/open space properties, legal protection (such as through a conservation easement) is recommended.

### 3.7 Goals, Strategies & Actions

#### Bridgewater Overall Natural, Cultural & Historic Resource Goals

By assessing the collected information through the master planning process, the following goals were identified:

1. Preserve lands along riverways and their tributaries as well as lands bordering major lakes and ponds.
2. Preserve Agricultural Lands under private ownership and on state land.
3. Enhance protection of environmentally sensitive areas, including protection and capacity of the Public Water Supply.
4. Upgrade, improve accessibility, and promote existing Open Space and Recreational Sites.
5. Expand opportunity for passive and active recreation via greenway connections; expand the walking trails and pathway network.
6. Enhance the Stewardship / Management of Conservation Lands, Park Lands and Recreational Facilities.
7. Promote Environmental Awareness and Educational Programs about the Cultural and Natural History of the varied parklands.
8. Develop public/private partnerships with civic groups, nonprofit organizations, Bridgewater State College, municipal boards and commissions to enhance, protect, and promote the environmental resources within the Linked Town Park System.
9. Promote more awareness and use of state-owned conservation properties.
10. Preserve and protect significant historic and cultural resources

The 1988 and 1995 Bridgewater Open Space & Recreation plans, along with other planning documents, were reviewed to understand the aims and concerns of past efforts. Many of the previously stated goals were determined to be consistent with current aspirations. As a result of this process, the following goals and objectives have been adopted from the 2001 Bridgewater Open Space & Recreation Plan:

#### **Strategy 1: Protect significant open spaces from adverse development.**

Resource protection specifically involves lands whose character or qualities significantly promote various open space interests of the community. Very often, conservation of certain physical features or categories of land serve more than one of these interests. To address the needs associated with resource protection, the following actions were identified:

#### Actions

- **Work with land owners** - To secure conservation easements on significant lands (i.e. Section 31 of Chapter 184 MGL) particularly along river corridors.

- Encourage the placement of land under 61 MGL and the use of Agricultural Preservation Restrictions pursuant to Section 32 of Chapter 184 MGL, particularly for the Old State Farm area.
- Encourage the development of “Open Space Communities” pursuant to Section 9.2 of the zoning bylaw including identification of particular suitable parcels, and the inclusion of a conservation restriction clause.
- Identify and work to acquire lands that can accommodate major public supply wells.
- Work with private conservation organizations that would assume or supplement efforts of local government in managing or acquiring open spaces.
- Facilitate the use of designated lands within larger subdivisions pursuant to Chapter 41 MGL, Section 81U that would be conducive in serving the conservation and recreation needs of the neighborhood and community.

### Strategy 2: Protect and enhance river corridors and improve water quality.

Water resources including rivers and their tributaries, lakes and ponds, and watersheds and aquifers, are among the most important natural resources within Bridgewater. Through the years, trash, debris and harmful substances have accumulated within these rivers, leading to the degradation of their water quality. Restoring these riverways will not only support fish and wildlife protection and recreational uses, but also will protect public drinking water supplies near the Matfield and Taunton rivers.

River corridors also serve as natural “edges” for development. Preserving lands along their banks can effectively separate less intensive uses from those of greater intensity as well as constrain development to more environmentally suitable areas. This protected greenbelt concept should be considered along the Taunton River between Plymouth Street and Bedford Street.

#### **Actions**

- **Expand the Network of Pedestrian Greenway** – Protecting adjoining lands from adverse development would establish a natural corridor between densely populated neighborhoods and significant concentrations of open spaces. This action has been highlighted in the Bridgewater Park System Map (established in 1998) and the 1995 Open Space & Recreation Plan. Additional land protection along the Taunton River and Town River (the adjoining area of Spring Street as a redevelopment strategy) would give the community as much as 20 miles of unspoiled river frontage.
- **Improve Water Quality** - Foster the reclamation of the Town’s largest lake, Nippenicket, and also Carver’s Pond and the Skeeter Mill Pond, which are in moderate- to advanced stages of eutrophication.
- **Acquire Abandoned Parcels** - Expedite the taking of “unknown owner” parcels along river corridors that are currently in the tax title process. Approximately 60 acres of such land is located along or in proximity to major riverways and water bodies.
- **Protect Public Water Supply** - Work to acquire lands along major rivers that will serve to protect and expand the Town’s water supply, and add to the proposed protected greenway.

- **Regional River Study Participation** - Participate with neighboring communities and the National Park Service in the three-year federal Taunton River Wild & Scenic River Feasibility Study.
- **Improve Water Access** - Enhance safe and visible public access to waterways for canoeing, fishing and other passive activities. One possibility is to utilize the former highway barn driveway on Spring Street as an off-road access to the Town River. This town-owned site could offer convenient parking and canoe access in the downtown area, and could be further designed to include a pedestrian bridge over the Town River to the Stiles & Hart Conservation Area.
- **Prepare Management Plan** - Prepare and enforce an appropriate conservation management plan for all town-owned waterfront properties as part of the permanent protection strategy.

### Strategy 3: Protect significant agricultural lands

Since 1988, nearly 300 acres of local agricultural land have been lost to development. About 1,100 acres remain at least temporarily protected under Chapter 61A. Most of these farms have nonetheless greatly diminished their operations. The community has lost most of the active farms in the last 20 years, and those remaining are in economic transition.

Ever-changing economic conditions have caused the resurgence of certain agricultural activities in recent years, even if in short-term duration. Two sites west of Bedford Street and two south of Cherry Street near the Taunton River were converted to cranberry cultivation in the mid-1990s. These sites could now be converted again to another more stable enterprise, as the cranberry market is weak.

One issue confronting Bridgewater now includes not only how to preserve existing farms, but what traditional activities will take place on such lands. Preserving farmland does not guarantee there will be farmers to farm it. Farming has to be profitable to attract or retain farmers and maintain this important community resource.

#### **Actions**

- **Privately-Owned Farmlands** - The Town should pursue efforts to assist property owners with future plans on remaining active farms located on Pleasant Street, North Street, Auburn Street, Swift Street and Curve Street. The Town should work with these property owners to encourage future plans to include active agricultural use and other conservation measures that preserve the lands’ rural character and provide benefits to the public.
- **Publicly-Owned Farmlands** - The Town should pursue permanent preservation of the State-owned Old State Farm agricultural and forested lands on Summer Street, and the North Hay Field area off Flagg Street, which has mixed open spaces with active and passive recreational uses.
- **Encourage Participation in the State APR Program** - The Massachusetts Department of Food and Agriculture administers the State’s Agricultural Preservation Restriction (APR) Program. The program purchases the development rights of existing farmlands. Owners would still retain possession of the property for agricultural purposes while realizing most of the economic gain that would have otherwise resulted from selling their land for other allowable uses. The Town should facilitate informational meetings with local farmers on this land-protection tool.

- **Encourage the use of Agricultural Restrictions** - An agricultural restriction pursuant to Section 32 of Chapter 184 MGL would be similar to the APR Program in preserving farmlands. The restriction can be purchased by the Town or a private natural resource organization as well as donated or sold at less than market value to such entities—possibly for tax deduction purposes. More information on this land protection tool should be made readily available to the public.
- **Encourage Effective/True Cluster Development** – “Open Space Community Development” is authorized by Bridgewater Zoning Ordinance and could be considered for farms that have been sold for other allowable uses. Lot sizes in such neighborhoods can be 50% less than in conventional subdivisions. The remaining land area is preserved in perpetuity as a common open space. The bylaw allows owners of the existing farms to retain possession of the common open space for continuing their agricultural activities pursuant to Section 32 of Chapter 184, M.G.L. The Town should revise the Open Space Community Development bylaw to include more stringent agricultural protection by including a conservation restriction clause.
- **Expand Open Space Development** – OSD is currently allowed only in residential districts. Some farms and other major open spaces extend into commercial zones. The Town should, in such cases, expand the cluster concept to mixed residential and commercial developments as well as large sites in residential districts where neighborhood business development would be suitable. Sites that may benefit from such an approach extend along Pleasant Street and between South and Bedford Streets.
- **Promote Agriculture and Inform Property Owners** – The Town should directly contact owners of farmland regarding available options to preserve their lands and livelihoods. Publicly promoting agricultural activities through such means as publications, public school programs and farmers markets should also be carried out. The community must find ways to help support these agricultural endeavors if they are to remain economically viable, thereby continuing the numerous benefits of open land.

#### Strategy 4: Protect environmentally sensitive lands

Although most wetlands are not imminently vulnerable to development, they can nonetheless be greatly affected by nearby development. The Conservation Commission routinely reviews proposals to alter wetlands to accommodate roadway construction and drainage basins within subdivisions. As development spreads out into increasingly marginal land, conflicts between the built and the natural environments will intensify and become mutually detrimental. Wetlands and other environmentally sensitive lands can be adequately protected if certain safeguards are taken. In this regard, the following should be considered:

- **Zoning** - Zone land for its proper use and intensity for development given area-wide environmental conditions, especially within certain industrial and higher density residential districts.
- **Road Design** - Design streets and related drainage systems to integrate more fully within the surrounding natural and built environments. This principle should apply to both the construction of new subdivision streets as well as the reconstruction of existing public ways.
- **Shared Services** - Encourage shared service and drainage facilities to minimize intrusion of development into sensitive areas.

#### Strategy 5: Improve management, conservation and use of existing public open spaces, recreational facilities and natural resources.

Management of public open spaces specifically refers to how protected lands will be properly maintained and what efforts will be used to promote public appreciation of them. The recent purchase of additional property and increased use of existing conservation lands and recreational facilities emphasizes the greater need for the maintenance and security of these open spaces. This responsibility challenges the community in several ways: understanding the need, developing reasonable policies for the safety and well-being of all users, a sufficient work force, and funds to support the effort.

Currently, the Recreation Department has one full-time employee to maintain their facilities year-round. Another full-time worker assists during the summer months. A revolving fund was established several years ago, which returns a portion of the user fees collected by the department toward the upkeep of its facilities.

In addition to the duties of enforcing the Wetland Protection Act, the River Protection Act, and the Town’s Wetland Protection Bylaw, the Conservation Commission has the responsibility to oversee the care and operation of properties bought with self-help grant monies. This presently includes the Titicut, Tuckerwood, Stiles & Hart, and Wyman Meadow conservation areas.

Realizing that neither the volunteer Recreation nor Conservation Commissions could undertake the establishment of a sustainable park system for passive recreation in addition to their already overburdened assignment lists, the Natural Resource Trust of Bridgewater (NRTB) has stepped forward to facilitate the creation of a linked park system for passive recreation on selected parcels of existing town-owned land. Other non-profit organizations are currently assisting the Town with management and maintenance of public recreational facilities including the Bridgewater Golf Commission and Bridgewater Soccer Association.

To properly maintain existing conservation properties and as additional open space is acquired, the following should be considered:

#### Actions

- **Enhance Public Facilities and Services** - Provide adequate services (e.g. parking areas, rest rooms, bike racks, canoe access, lighting, etc.) to optimize public enjoyment of major facilities, including accommodating those with disabilities.
- **Inter-Department Policy** - Adopt formal policies as to the relationships and responsibilities of the Conservation Commission, the Recreation Commission, the Water & Sewer Commission, and Highway & Forestry Departments in managing certain municipal properties. Create, if appropriate, a shared staff arrangement to maintain town conservation sites and recreational facilities.
- **Expand Volunteer Assistance** - Coordinate efforts with local non-profit organizations, businesses and volunteers in supporting the maintenance of public open spaces, riverways and other natural

resources. Solicit the assistance of citizen groups and private organizations to become trained as stewards to maintain facilities within their neighborhoods and the community in general.

- **Improve Access and Linkages** - Upgrade pedestrian and, whenever appropriate, vehicular access to and within recreational facilities and conservation lands. Provide links between protected open spaces such as lands along riverways and bicycle trails connecting recreational sites.
- **Funding** - Consider directing a portion of new fees collected for the use of town parks and facilities toward their maintenance and upgrade. An example of this type of funding mechanism is the Olde Scotland Links enterprise fund, which is redirected back into course and facility improvements and maintenance.

### **Strategy 6: Pursue funding for the acquisition of significant natural, cultural and historic resources.**

The ability to acquire significant lands for future needs is a crucial management issue. The fiscal impact of recent growth and climbing real estate costs has eliminated local government funding as a viable resource for preserving other than the most significant open spaces.

#### **Actions**

- Continue to seek environmental and historical preservation grants such as those offered by the Self-Help Program, Community Development Block Grants and the Land & Water Conservation Fund.
- Work with a private land trust to acquire properties and conservation restrictions.
- Encourage Town Meeting to appropriate proceeds from the sale of surplus town property for acquiring desired open space. Since the area of land acquired could be less than the area of land sold, careful consideration of their significance is especially important.
- Encourage and promote open and knowledgeable dialog among town residents on the economic facts regarding open space, and the various conservation options and specific land protection tools available to them; answer the public's questions associated with preserving land as open space.

### **Strategy 7: Preserve and maintain scenic roads.**

Section 15c of Chapter 40 M.G.L. authorizes communities to designate local ways as scenic roads. Its purpose is to preserve the rural character of these roads by regulating the removal or disruption of trees and stonewalls within their right of ways. In such cases, the Planning Board serves as the decision-making body.

The character of scenic roads is often derived from how well their width and grade fits within the existing terrain. Historically, trees were planted and stonewalls were erected along them, which now readily distinguish without visually detaching the traveled ways from surrounding lands.

Under rapid growth conditions, this character can be destroyed by efforts to upgrade these roads to serve a greater volume of vehicular traffic. By preserving roads of a notable character, they can act as an extension of open spaces while maintaining their functional purpose as access ways. This form of linkage between open spaces can be readily implemented with little or no cost to the community.

#### **Actions**

- Adopt design standards for the reconstruction of outlying public ways that complement the surrounding rural character.
- Consider designating streets or portions thereof that have been identified as "Scenic Ways" in Section 3-4.
- Minimize duplicating street signage that distracts from the aesthetics a Scenic Road designation is intended to offer.

### **Strategy 8: Enhance and promote alternative transportation modes use in the community that compliment natural and cultural resource protection.**

Designating ways for bicycle travel can serve a dual purpose. It not only provides for a recreational activity, it often is a practical and/or desirable alternative to pedestrian and vehicular travel. In 1994, the Town officially adopted a series of bicycle routes throughout the community totaling more than 45 miles in length. The routes connect schools, neighborhoods and shopping districts.

Other important features to the community are safe access sites to rivers for canoeing, kayaking, off-road trails and pathways suitable for bike riding and hiking. Some residents are also seeking horseback riding and all terrain vehicle trails. There are challenges with finding suitable areas for these two activities on public lands. The number of individuals desiring equestrian trails is small, and the limited resources of the Recreation and Park Commissions must serve the highest number of residents. Addressing the liability issues that would be involved with creating a sanctioned municipal ATV complex is financially prohibitive at this time.

#### **Actions**

- Improve bicycle travel through a series of well-designed, user-friendly, and strategically located bike lanes, resting sites and bicycle racks.
- Include in the developing park system user-friendly parking and water access to accommodate hand-carried crafts. Whenever possible, include the same in the repair design for the various bridges crossing the rivers. The Oak Street Bridge over the Town River and the Cherry Street Bridge over the Taunton River are both slated for replacement soon. Easements for river access could be enhanced during this reconstruction.
- Coordinate river access on a regional basis to maximize locational convenience.
- While it is unlikely that the Town will provide paved off-road bike trails in the near future, consideration should be given to designing neatly graded or graveled trails in selected portions of

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the more wild parks. For safety reasons, thought should be given to competing usage with ADA walkways in the downtown parks.

- Residents interested in a trail network for equestrian activity are encouraged to prepare a proposal for the Recreation Commission to review. This could be a regional initiative, with proposed trails stretching along back roads through several communities.

### **Strategy 9: Preserve historic, cultural and scenic settings, which distinctly characterize Bridgewater**

#### **Actions**

- Obtain technical assistance to inventory and catalog the Heritage Landscape of Bridgewater.
- Establish a scenic road system, wherever appropriate, which would accommodate hiking and bicycle trails and other linkages between protected open spaces.
- Consider the designation or expansion of local historic districts to preserve the integrity of older areas within the community.
- Continue working with the Bridgewater Improvement Association, Bridgewater Garden Club and similar organizations to maintain and upgrade the landscaping, particularly within the downtown and other commercial districts.
- Continue working with the Natural Resources Trust of Bridgewater and similar groups to build connecting greenways to link the parks and special places throughout the community.
- Consider creating a street tree system within existing neighborhoods and new subdivisions.
- Consider design guidelines and performance standards for new buildings and related improvements in historic and culturally significant areas of Town
- Seek state and federal funding to assist in the rehabilitation of historic commercial properties and related improvements.

# CHAPTER 4 – WHO WE ARE AND HOW WE LIVE

## 4.1 Background

The focus of this chapter is to analyze Bridgewater’s demographic and housing characteristics as they relate to the following:

- Population trends and their impact on existing and future housing development, municipal infrastructure and services, economic development, and land use patterns.
- The role of the Town and other organizations in managing the quantity and type of residential development.
- Projected residential growth and the need for different types of housing.
- Guidelines, policies, and the goals for future residential development.

A combination of local, state and federal information was used in developing this chapter including local building permit data, the State’s subsidized housing inventory, Bridgewater State College student information, the revised EOCD Build-out Analysis, community-wide surveys, and the most recent Census data (for 2000).

## 4.2 Demographic Profile and Trends

### Population Growth

Bridgewater’s population has increased significantly over the past 50 years. In the 1950s, the Town was primarily an agricultural community. Small manufacturing operations, the Bridgewater Correctional Complex and Bridgewater State College dominated the other employment sectors, but the community remained one of under 10,000 people.

| Year | Population | %? Over 10 yrs. | Density Per Sq. Mile |
|------|------------|-----------------|----------------------|
| 1950 | 9,512      | -               | 338                  |
| 1960 | 10,276     | 7.7             | 346                  |
| 1970 | 12,902     | 25.6            | 459                  |
| 1980 | 17,202     | 33.3            | 611                  |
| 1990 | 21,249     | 23.5            | 756                  |
| 2000 | 25,185     | 18.5            | 896                  |

\* Includes BSC & BCC Populations

During the 1960s, with the construction of the Interstate Highway System (including Interstate 495) and improvements to the State Highway System (Route 24), the Town began to grow. By 1970, Bridgewater’s population reached 12,902, an increase of over 25% in just 10 years. The growing highway system made possible the connection of Bridgewater to major employment centers such as Boston and Providence, both under an hour away by automobile.

The growth trend continued during the 1970s and 1980s with the addition of more than 4,000 new residents, a significant increase of over 33%. The improved highway access combined with the relative availability of inexpensive and developable land along the Interstate 95 and 495 corridors, made many rural communities, including Bridgewater, a target for the ever-expanding suburban rings around greater Boston and Providence. Additionally, smaller cities that had once been manufacturing centers such as Brockton, Taunton and Fall River began to lose population to rural communities including Bridgewater.

During the 1990s, Bridgewater’s accessibility improved with the addition of the Massachusetts Bay Transit Authority (MBTA) commuter rail service to Boston. This made the connection to Boston a comfortable and convenient 45- minute ride by train. Accessibility, combined with expansions at both Bridgewater State College (BSC) and the Bridgewater Correctional Complex (BCC), contributed to a population increase of over 4,000 residents.

Over the past 20 years, Bridgewater’s population has increased at a significantly higher rate than Plymouth County and the State. Between 1990 and 2000 alone, Bridgewater grew by 18.5% compared to 8.6% in Plymouth County and 5.5% in the State.

| Category           | Bridgewater | Plymouth County | State of Mass. |
|--------------------|-------------|-----------------|----------------|
| 1990 Population    | 21,249      | 435,276         | 6,016,425      |
| Under 18 Years     | 4,601       | 114,277         | 1,353,075      |
| % Under 18 Years   | 22%         | 26%             | 22%            |
| 18 Year and Over   | 16,648      | 320,999         | 4,663,350      |
| % 18 Yrs and Over  | 78%         | 74%             | 78%            |
| 2000 Population    | 25,185      | 472,822         | 6,349,097      |
| Under 18 Years     | 5,765       | 126,487         | 1,500,064      |
| % Under 18 Years   | 23%         | 27%             | 24%            |
| 18 Year and Over   | 19,420      | 346,335         | 4,849,033      |
| % 18 Yrs and Over  | 77%         | 73%             | 76%            |
| 1990 - 2000 Change | 3,936       | 37,546          | 332,672        |
| % Pop. Change      | 18.50%      | 8.60%           | 5.50%          |
| Under 18 Years     | 1,164       | 12,210          | 146,989        |
| % Under 18 Years   | 25.30%      | 10.70%          | 10.90%         |
| 18 Year and Over   | 2,772       | 25,336          | 185,683        |
| % 18 Yrs and Over  | 16.70%      | 7.90%           | 4%             |

Source: U.S. Census

### Geographic Population Distribution

Over the last four U.S. Census counts, Bridgewater’s population has been placed in four separate census tracts as illustrated on Map 4-1. Tract 5251.01 encompasses the western portion of Town including Route 24, the Lake Nip area and the industrial parks on Elm Street and Scotland Boulevard. Tract 5251.02 includes most of Downtown Bridgewater including Central Square. This tract also includes the region east of Vernon Street to Route 18 and 28. Tract 5253 includes the facilities and lands of the Massachusetts Correctional Institute. Tract 5252 incorporates the northeast portion of Town including Bridgewater State College.

Since 1980, Bridgewater has grown by over 8,000 residents, or by nearly 50%. Much of this growth has occurred in the predominantly rural sections on the east and west sides of the community. Table 4-2 illustrates the changing demographics and growth patterns in Bridgewater by Census Tract since 1980.

| Census Tract                                  | % of 1980    |       | % of 1990    |       | % of 2000    |     | Change 1980-90 | Change 1990-00 |
|-----------------------------------------------|--------------|-------|--------------|-------|--------------|-----|----------------|----------------|
|                                               | Total        | Total | Total        | Total |              |     |                |                |
| <b>Tract 5252 (Northeast Quadrant)</b>        |              |       |              |       |              |     |                |                |
| Total Population                              | 5769         | 34%   | 6,105        | 29%   | 9797         | 39% | 336            | 3,692          |
| Persons 25 Yrs and Older                      | 2961         | 51%   | 3,429        | 56%   | 5604         | 57% | 468            | 2,175          |
| Households                                    | 1764         | 35%   | 2,126        | 36%   | 3068         | 41% | 362            | 942            |
| <b>Tract 5253 (BCC)</b>                       |              |       |              |       |              |     |                |                |
| Total Population                              | 1308         | 8%    | 2,598        | 12%   | 2267         | 9%  | 1,290          | -331           |
| Persons 25 Yrs and Older                      | 910          | 70%   | 2,037        | 78%   | 2002         | 88% | 1,127          | -35            |
| Households                                    | 70           | 1%    | 50           | 1%    | 8            | 0%  | -20            | -42            |
| <b>Tract 5251.01 (Northwest Quadrant)</b>     |              |       |              |       |              |     |                |                |
| Total Population                              | 4848         | 28%   | 5,341        | 25%   | 6320         | 25% | 493            | 979            |
| Persons 25 Yrs and Older                      | 2470         | 51%   | 3,262        | 61%   | 4077         | 65% | 792            | 815            |
| Households                                    | 1388         | 27%   | 1,767        | 30%   | 2340         | 31% | 379            | 573            |
| <b>Tract 5251.02 (South Central Quadrant)</b> |              |       |              |       |              |     |                |                |
| Total Population                              | 5277         | 31%   | 7,205        | 34%   | 6801         | 27% | 1,928          | -404           |
| Persons 25 Yrs and Older                      | 3097         | 59%   | 3,539        | 49%   | 4031         | 59% | 442            | 492            |
| Households                                    | 1875         | 37%   | 1,981        | 33%   | 2110         | 28% | 106            | 129            |
| <b>TOTAL</b>                                  | <b>17202</b> |       | <b>21249</b> |       | <b>25185</b> |     | <b>4,047</b>   | <b>3,936</b>   |

Source: U.S. Census Bureau

| Subject                        | Census Tract |         |       |       | Total  |
|--------------------------------|--------------|---------|-------|-------|--------|
|                                | 5251.01      | 5251.02 | 5252  | 5253  |        |
| Total Population               | 6,320        | 6,801   | 9,797 | 2,267 | 25,185 |
| Median Age                     | 35.0         | 34.1    | 30.9  | 36.4  | 34.1   |
| 18 years and over              | 4,715        | 5,035   | 7,409 | 2,261 | 19,420 |
| 65 years and over              | 680          | 543     | 906   | 39    | 2,168  |
| Institutionalized pop.         | 43           | 0       | 0     | 2,249 | 2,292  |
| Total Households               | 2,340        | 2,110   | 3,068 | 8     | 7,526  |
| Family HHs w/Children under 18 | 809          | 896     | 1,198 | 2     | 2,905  |
| Average Household Size         | 2.7          | 3.0     | 2.8   | 2.3   | 2.7    |
| Average Family Size            | 3.2          | 3.3     | 3.3   | 3.7   | 3.4    |
| Total Housing Units            | 2,378        | 2,147   | 3,119 | 8     | 7,652  |
| Vacant Housing Units           | 38           | 37      | 51    | 0     | 126    |

Source: U.S. Census Bureau

Census Tract 5252 (the northeast quadrant of Town) has demonstrated the highest amount of population growth over the last 20 years. This region of Bridgewater also represents the most residents with 34% and 39% of the total population in 1990 and 2000, respectively. While growth in this area was relatively low during the 1980s (only 336 new residents), the population increased significantly during the 1990s with the addition of 3,692 residents.

Much of this growth can be attributed to significant residential development over the past 20 years including a number of age-restricted developments off Plymouth Street. The growth in this segment is a concern from a traffic standpoint as most residents have to travel through Central Square, South Street, Broad Street, Pleasant Street and other heavily congested areas to access state routes 18 and 24. Additionally, the 1990 Census reported that over 50% of the residents in this area commute to work, the vast majority driving alone.

Census Tract 5253 primarily includes the facilities and property of the Bridgewater Correctional Complex (BCC). This area actually gained population during the 1980s but lost population in the 1990s as the prison facilities were expanded and private homes in the surrounding neighborhood sold to the State. This tract represents approximately 9% of Bridgewater’s total population.

Census Tract 5251.01 (the western portion of Town) was a high growth residential area during the 1980s with the addition of nearly 2,000 residents or 48% of Bridgewater’s population growth. However, during the 1990s this tract actually lost more than 400 residents. This decline is most likely due to the redevelopment of residential properties into commercial and industrial uses along Pleasant Street, Elm Street and in the Planned Development District (PDD). It may also be attributed to “empty nesters” along Elm Street, Lake Nip, and other older neighborhoods in the district where the median age has been rising. This census tract currently represents approximately 25% of Bridgewater’s population.

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**MAP 4-1: BRIDGEWATER CENSUS TRACT MAP**

INSERT MAP

Census Tract 5251.02 (the southeast quadrant of town) has been a growing residential district over the past 20 years with the addition of 493 and 979 residents during the 1980s and 1990s, respectively. Even with the addition of nearly 1,000 new residents during the 1990s, this district's percentage of Bridgewater's total population fell slightly to about 25% in 2000.

**Age Distribution**

Bridgewater's population has been steadily aging over the past 20 years. In 1980 the largest age group was between 15 and 24 years with 4,239 residents (or 25% of the total population). This age group increased by about 500 over the next decade but declined as a percentage of the total population (22% in 1990). However, it still represented the highest number of residents and percentage of population in 1990.

By 2000, population estimates showed a decline in 15-24 year olds to 4,136 residents (or 16% of the population). This dominant age group was replaced by 25-34 year-olds (5,488 residents) and 35-44 year-olds (4,456 residents). Collectively, 25-44 year-olds represent 35% of the total population. This trend may be attributable to an aging population and a growing number of middle-aged people moving into Bridgewater, many of whom have few or no children. This trend is further supported by the declining median household size over the past 20 years.

Even though Bridgewater's population is steadily aging, it is still relatively consistent with Plymouth County and the State averages over the past 20 years. This is attributable to a high percentage of young adults at Bridgewater State College and inmates at BCC. Excluding these individuals, the Town's composition and aging trend becomes more normal.

**Ethnic Composition**

Of Bridgewater's total population in 2000, a total of 13.5% (or 4,000) people represented various non-white ethnic and racial backgrounds. While this appears to be a relatively low percentage of minorities, it is actually the second highest in the region next to Brockton. The largest minority groups include African-Americans (4%) and Hispanics (2.8%). The presence of BSC and BCC can be attributed to the fact that Bridgewater has a greater ethnic diversity than surrounding communities as illustrated in Table 4-4.

**Table 4-3: Bridgewater Population by Age Group, 1960 - 2010**

| Age Category  | % of 1960     |     | % of 1970     |     | % of 1980     |     | % of 1990     |     | Projected     |       |               |       |
|---------------|---------------|-----|---------------|-----|---------------|-----|---------------|-----|---------------|-------|---------------|-------|
|               | Total         | %   | Total         | %   | Total         | %   | Total         | %   | 2000          | Total | 2010          | Total |
| 0-4 Years     | 887           | 9%  | 1,013         | 9%  | 1,057         | 6%  | 1,292         | 6%  | 1,510         | 6%    | 1,699         | 5%    |
| 5 - 9 Years   | 845           | 8%  | 1,184         | 10% | 1,150         | 7%  | 1,370         | 6%  | 1,439         | 6%    | 1,761         | 6%    |
| 10 - 14 Years | 795           | 8%  | 1,195         | 10% | 1,318         | 8%  | 1,253         | 6%  | 1,590         | 6%    | 1,788         | 6%    |
| 15 - 24 Years | 1,486         | 14% | 1,888         | 16% | 4,239         | 25% | 4,740         | 22% | 4,136         | 16%   | 4,836         | 15%   |
| 25 - 34 Years | 1,111         | 11% | 1,598         | 14% | 3,250         | 19% | 4,040         | 19% | 5,488         | 21%   | 4,992         | 16%   |
| 35 - 44 Years | 1,483         | 14% | 1,462         | 12% | 2,028         | 12% | 3,713         | 17% | 4,456         | 17%   | 6,231         | 20%   |
| 45 - 54 Years | 1,488         | 14% | 1,428         | 12% | 1,470         | 9%  | 1,983         | 9%  | 3,507         | 14%   | 4,341         | 14%   |
| 55 - 64 Years | 1,006         | 10% | 1,082         | 9%  | 1,290         | 7%  | 1,223         | 6%  | 1,761         | 7%    | 3,220         | 10%   |
| 65 +          | 1,225         | 12% | 979           | 8%  | 1,400         | 8%  | 1,635         | 8%  | 1,797         | 7%    | 2,342         | 8%    |
| <b>TOTAL</b>  | <b>10,276</b> |     | <b>11,829</b> |     | <b>17,202</b> |     | <b>21,249</b> |     | <b>25,664</b> |       | <b>31,210</b> |       |

Source: U.S. Census Bureau, MISER Projections

**Table 4-4: Bridgewater Area Demographic Profile**

| Municipality     | 1990   | 2000   | Black & |          |       | Hispanic | Additional | 2000   |
|------------------|--------|--------|---------|----------|-------|----------|------------|--------|
|                  | Pop    | Pop    | White   | Afri. Am | Asian | Origin   | Minorities | % Min. |
| Bridgewater      | 21,249 | 25,185 | 21,775  | 1,017    | 269   | 693      | 1,431      | 13.5   |
| Kingston         | 9,045  | 11,780 | 11,370  | 112      | 51    | 88       | 159        | 3.5    |
| Middleboro       | 17,867 | 19,941 | 19,057  | 248      | 87    | 156      | 393        | 4.4    |
| Pembroke         | 14,544 | 16,927 | 16,514  | 82       | 85    | 90       | 156        | 2.4    |
| Taunton          | 49,832 | 55,976 | 50,272  | 1,366    | 322   | 2,198    | 1,818      | 10.2   |
| Raynham          | 9,867  | 11,739 | 11,271  | 119      | 81    | 97       | 171        | 4.0    |
| Abington         | 13,817 | 14,605 | 14,237  | 111      | 71    | 103      | 83         | 2.5    |
| Avon             | 4,558  | 4,443  | 4,152   | 166      | 41    | 64       | 20         | 6.5    |
| Brockton         | 92,788 | 94,304 | 57,989  | 16,811   | 2,066 | 7,552    | 9,886      | 38.5   |
| East Bridgewater | 11,104 | 12,974 | 12,573  | 129      | 62    | 97       | 113        | 3.1    |
| Easton           | 19,807 | 22,299 | 20,501  | 354      | 309   | 352      | 783        | 8.1    |
| Halifax          | 6,526  | 7,500  | 7,360   | 23       | 20    | 41       | 56         | 1.9    |
| Hanson           | 9,028  | 9,495  | 9,176   | 105      | 33    | 65       | 116        | 3.4    |
| Stoughton        | 26,777 | 27,149 | 24,017  | 1,548    | 580   | 419      | 585        | 11.5   |
| West Bridgewater | 6,389  | 6,634  | 6,395   | 63       | 45    | 67       | 64         | 3.6    |
| Whitman          | 13,240 | 13,882 | 13,487  | 90       | 59    | 122      | 124        | 2.8    |

US Census Bureau 2000

### 4.3 Housing Inventory and Analysis

#### Housing Stock

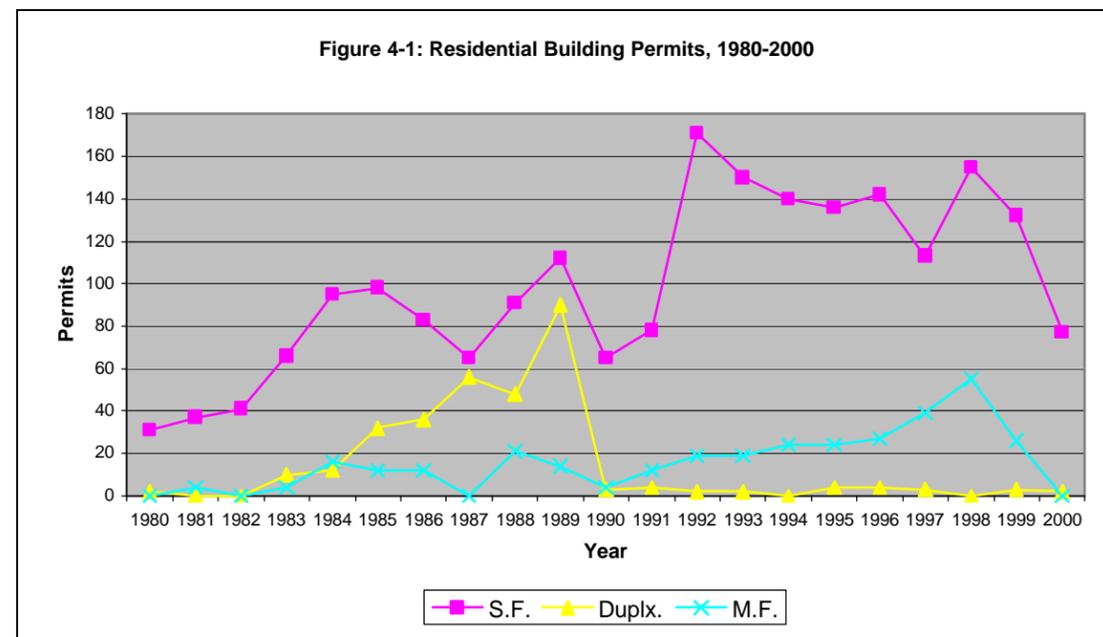
Bridgewater’s housing stock has grown steadily over the last 60 years. In fact, approximately 80% of the total housing in Town was built after 1940. The 1970s and 1990s were particularly active for housing construction in Bridgewater. The number of new dwelling units built in the 1990s alone represents over 21% of Bridgewater’s total housing stock.

| Year Built      | Number | Percent |
|-----------------|--------|---------|
| 1990 – 2000*    | 1,662  | 21%     |
| 1980-March 1990 | 1,299  | 17%     |
| 1970 – 1979     | 1,843  | 23%     |
| 1940 – 1969     | 1,449  | 18%     |
| 1939 or Earlier | 1,639  | 21%     |
| Total           | 7,639  | 100%    |

Source: U.S. Census; \*Building Permit Est.

The vast majority of residential development in Bridgewater has always been single-family homes. Since 1990 alone, 1,359 single-family building permits were issued, representing 82% of all residential construction. However, the number of building permits issued for multifamily dwellings has steadily risen since 1990 as illustrated in Figure 4-1. In fact, with the growing enrollment at Bridgewater State College and the service sector of the local economy (see Chapter 5: Economic Trends & Opportunities), the demand for apartments, studios and

condominiums could be on the rise in Bridgewater as more lower paying jobs are filled.



The amount of multifamily construction has been limited by several factors including public sewer capacity constraints, limited land availability for on-site septic treatment, and very strict zoning controls that essentially prohibit the construction of large-scale apartment or condominium developments.

#### Recent Housing Developments

Table 4-5 lists the residential subdivisions that have been built in Bridgewater since 1990. In this 11-year period, 60 developments were approved on over 1,000 acres of land. The vast majority of these developments were for conventional single-family homes on large lots.

Among these new subdivisions a total of 931 building lots were created on an average lot size of 36,635 square feet and 147 feet of road frontage. This larger lot size and frontage amounted to over 11 miles of new public roadway in Bridgewater. This is a significant figure as it represents approximately 10% of all town road mileage and was added in just over 10 years. The dramatic increase in new public roads over the last 20 years will significantly increase the Highway Department’s responsibilities for maintenance and repair in the years to come.

Only three new subdivisions built in Bridgewater since 1990 were connected to the public sewer system. This trend of residential development pushing further out from the older established neighborhoods in Town and the limited land use options available other than the conventional development pattern has prevailed for many years. The result is that the growing majority of Bridgewater residents must travel further for work, school and basic services. This trend, however, affects all citizens as traffic congestion continues to grow.

The typical newer subdivision includes homes with 3-4 bedrooms and two-car garages. Homes are set back a significant distance from the road (40 feet or more) requiring longer driveways and allowing for septic systems to be placed in the front yard. Landscaping in new subdivisions is sparse. They typically have no grass strip between the curb and sidewalk (making the street appear even wider) and few street trees preserved or planted within the public right-of-way.

New subdivision streets typically are 28 feet wide with sloped granite curbing and a five-foot sidewalk on one side. (Two sidewalks are required but often waived). These roads typically exceed the width of collector roads on which they enter. Collector roads such as Vernon Street, Flagg Street, South Street and Winter Street were built long ago to serve a rural community. They average less than 24 feet wide with limited curbing and drainage, and few sidewalks. The cumulative effect of numerous rural subdivisions has resulted in the need to upgrade several of these roads.

#### Affordable Housing

The median sale price of a home in Bridgewater in 2002 is \$239,950 (\$270,000 for a single-family home)<sup>1</sup> while the median household income was approximately \$52,483.<sup>2</sup> At 80% of the medium income (or \$41,986) the annual amount that a household could affordably spend on housing costs would be \$12,596 or \$1,050 per month. Assuming that a \$215,955 mortgage (median home price with a 10% down payment) could be financed at 7% over 30 years, the monthly mortgage payment would then be about

<sup>1</sup> The Warren Group, Boston, MA. Estimates  
<sup>2</sup> CACI, Inc.

\$1,435. Therefore the “affordability gap” in Bridgewater is approximately \$4,620 annually not including taxes, insurance and basic utilities.

**Table 4-5: Bridgewater Subdivisions, 1990-2000**

| Subdivision Name         | Year | No. of D.U.s | Built to Date | Total Acres | Ave. Lot Size | Ave. St. Frontage | Total Road Length (Ft) | Town Water | Town Sewer |
|--------------------------|------|--------------|---------------|-------------|---------------|-------------------|------------------------|------------|------------|
| Leewood Estates          | 1990 | 10           | 10            | 58          | 26,146        | 208               | 1,200                  | yes        | no         |
| Subtotal                 | 1    | 10           | 10            | 58          | 13,073        | 104               | 1,200                  |            |            |
| Elmwood Knoll            | 1991 | 29           | 13            | 27          | 19,905        | 156               | 3,120                  | yes        | no         |
| J&R Meadow               | 1991 | 20           | 20            | 12          | 29,280        | 111               | 1,520                  | yes        | no         |
| Subtotal                 | 2    | 49           | 33            | 39          | 24,593        | 134               | 4640                   |            |            |
| Cherry Estates           | 1992 | 5            | 5             | 9           | 51,652        | 110               | 400                    | yes        | no         |
| Grange Park              | 1992 | 15           | 5             | 20          | 51,505        | 295               | 1,200                  | yes        | no         |
| Jonathan Estates         | 1992 | 8            | 8             | 10          | 51,022        | 287               | 1,050                  | yes        | no         |
| Old South Street Estates | 1992 | 19           | 19            | 52          | 41,350        | 235               | 2,000                  | yes        | no         |
| Sandy Hill Estates       | 1992 | 7            | 5             | 7           | 16,796        | 80                | 400                    | yes        | no         |
| Wildwood Place           | 1992 | 15           | 14            | 25          | 57,607        | 138               | 1,020                  | yes        | no         |
| Windemere Farms          | 1992 | 8            | 8             | 27          | 55,600        | 155               | 900                    | yes        | no         |
| Subtotal                 | 7    | 77           | 64            | 150         | 46,505        | 186               | 6970                   |            |            |
| Comfort Place            | 1993 | 9            | 9             | 4           | 20,808        | 128               | 560                    | yes        | no         |
| Driftwood Estates        | 1993 | 14           | 13            | 36          | 48,493        | 150               | 1,056                  | yes        | no         |
| Pine Oaks Estates II     | 1993 | 8            |               | 67          | 49,894        | 123               | 1,000                  | yes        | no         |
| Sherwood Estates         | 1993 | 12           | 12            | 52          | 48,630        | 171               | 960                    | yes        | no         |
| Pine Oaks Estates I      | 1993 | 17           |               |             | 42,121        | 209               | 2,500                  | yes        | no         |
| Subtotal                 | 5    | 60           |               |             | 41,989        | 156               | 6,076                  |            |            |
| Beverly Estates          | 1994 | 4            | 4             | 7           | 61,068        | 230               | 400                    | yes        | no         |
| Bradley Woods            | 1994 | 16           | 16            | 10          | 26,002        | 158               | 1,270                  | yes        | no         |
| Cedar Woods              | 1994 | 9            | 8             | 36          | 45,114        | 176               | 900                    | yes        | yes        |
| Greenbriar Lane Ext.     | 1994 | 17           | 17            | 20          | 43,600        | 165               | 1,700                  | yes        | no         |
| Tarkin Hill Estates      | 1994 | 9            | 9             | 13          | 57,230        | 142               | 600                    | yes        | no         |
| Subtotal                 | 5    | 55           | 54            | 86          | 46,603        | 174               | 4,870                  |            |            |
| Butler Park              | 1995 | 18           | 18            | 27          | 45,790        | 192               | 2,800                  | yes        | no         |
| Cindi's Way              | 1995 | 7            | 7             | 4           | 20,000        | 141               | 700                    | yes        | no         |
| Eagle Trace              | 1995 | 14           | 14            | 28          | 43,560        | 136               | 2,100                  | yes        | no         |
| Ivy Circle               | 1995 | 9            | 9             | 21          | 51,275        | 70                | 388                    | yes        | no         |
| Laurel Drive Extension   | 1995 | 1            | 1             | 5           | 30,000        | 156               | 340                    | yes        | no         |
| Nelson Drive             | 1995 | 12           | 12            | 5           | 23,842        | 154               | 1,000                  | yes        | no         |
| Nelson Woods             | 1995 | 24           | 22            | 20          | 22,921        | 131               | 2,748                  | yes        | no         |
| Pinebridge Estates II    | 1995 | 16           | 15            | 25          | 52,876        | 174               | 1,700                  | yes        | no         |
| Sharon Court Extension   | 1995 | 15           | 15            | 8           | 40,094        | 154               | 1,150                  | yes        | no         |

**Table 4-5 Continued**

|                           |           |            |            |             |               |            |               |           |          |
|---------------------------|-----------|------------|------------|-------------|---------------|------------|---------------|-----------|----------|
| Subtotal                  | 9         | 116        | 113        | 143         | 36,706        | 145        | 12,926        |           |          |
| Autumn Farm Estates       | 1996      | 9          | 8          | 23          | 46,726        | 147        | 900           | yes       | no       |
| Caswell Estates           | 1996      | 5          | 5          | 9           | 44,342        | 187        | 600           | yes       | no       |
| Country Club Estates      | 1996      | 9          | 9          | 22          | 58,885        | 146        | 600           | yes       | no       |
| Edgehill Estates          | 1996      | 5          | 2          | 7           | 26,248        | 131        | 700           | yes       | no       |
| Edith Place               | 1996      | 2          | 2          | 2           | 40,074        | 167        | 120           | yes       | no       |
| Highpond Estates          | 1996      | 237        | 273        | 90          |               |            |               |           | Yes      |
| Gadsby Drive              | 1996      | 1          |            | 2           | 13,260        | 165        | 250           | yes       | no       |
| Heather Hills             | 1996      | 14         | 14         | 25          | 70,509        | 154        | 1,450         | yes       | no       |
| Lakeview II               | 1996      | 7          | 7          | 10          | 54,364        | 132        | 650           | yes       | no       |
| Subtotal                  | 9         | 289        | 320        | 190         | 44,301        | 154        | 5,270         |           |          |
| Baha Estates              | 1997      | 2          | 2          | 38          | 43,560        | 328        | 700           | yes       | no       |
| Beaver Brook Acres        | 1997      | 32         | 32         | 34          | 45,760        | 156        | 3,100         | yes       | no       |
| Cobblestone Estates       | 1997      | 18         | 18         | 42          | 21,780        | 110        | 1,700         | yes       | no       |
| Fairway Drive Estate      | 1997      | 9          | 9          | 20          | 44,640        | 137        | 600           | yes       | no       |
| Fox Hollow                | 1997      | 10         | 10         | 23          | 44,000        | 132        | 700           | yes       | no       |
| Little Pond Circle        | 1997      | 3          | 0          | 4           | 54,545        | 150        | 120           | yes       | no       |
| Pinebridge Estates III    | 1997      | 22         | 22         | 46          | 46,012        | 203        | 2,900         | yes       | no       |
| Patricia Drive            | 1997      | 9          |            | 5           | 18,758        | 145        | 400           | yes       | no       |
| Subtotal                  | 8         | 105        | 93         | 212         | 39,882        | 170        | 10,220        |           |          |
| Arthur's Place II         | 1998      | 10         | 5          | 9           | 38,146        | 243        | 800           | yes       | no       |
| Bruce Smith Estates       | 1998      | 9          | 9          | 8           | 26,956        | 104        | 500           | yes       | no       |
| Highland Meadows          | 1998      | 10         | 10         | 4           | 18,957        | 137        | 700           | yes       | no       |
| Knollwood Estates         | 1998      | 5          | 3          | 14          | 34,025        | 229        | 450           | yes       | no       |
| Leslie Estates            | 1998      | 6          | 0          | 8           | 43,666        | 222        | 800           | yes       | no       |
| Prattown Estates          | 1998      | 14         | 5          | 45          | 56,519        | 99         | 950           | yes       | no       |
| Subtotal                  | 6         | 54         | 32         | 88          | 36,378        | 172        | 4,200         |           |          |
| Cesidio Estate            | 1999      | 6          | 1          | 4           | 44,667        | 149        | 600           | yes       | no       |
| Winding Oaks              | 1999      | 23         | 23         | 27          | 28,249        | 109        | 1,400         | yes       | no       |
| Subtotal                  | 2         | 29         | 24         | 31          | 36,458        | 129        | 2,000         |           |          |
| Homenook                  | 2000      | 43         |            |             |               |            |               |           |          |
| Stockbridge Road          | 2000      | 7          |            |             |               |            |               |           |          |
| Twin Diamond Drive        | 2000      | 6          |            |             |               |            |               |           |          |
| Willis Farms              | 2000      | 12         |            | 11          | 36,500        | 96         | 600           | yes       | no       |
| Ivy Circle                | 2000      | 12         |            |             |               |            |               |           |          |
| Linda Place (Hopkins Dr.) | 2000      | 7          |            |             |               |            |               |           |          |
| Subtotal                  | 5         | 87         | 0          | 11          | 36500         | 96         | 600           | 1         | 0        |
| <b>TOTAL</b>              | <b>60</b> | <b>931</b> | <b>743</b> | <b>1008</b> | <b>36,635</b> | <b>147</b> | <b>58,972</b> | <b>59</b> | <b>2</b> |

Source: Bridgewater Community Development Office

To provide affordable housing opportunities to low and moderate income residents throughout the state, each municipality is required to provide for 10% of the total year-round housing inventory as eligible subsidized dwelling units. The number of housing units that count toward the municipality's 10% goal for low and moderate-income housing includes both eligible subsidized and affordable units, and market rate units in certain eligible subsidized developments.

Common Definition of Affordable Housing

A widely accepted definition for "affordable housing" is where households earning 80% of the median household income of the community can afford the median cost of a home assuming that no more than 30% of the households income is spent on housing costs (including rent/mortgage payments and basic utilities).

According to the Massachusetts Department of Housing and Community Development, the inventory of all long-term, use-restricted, subsidized low and moderate income housing in Bridgewater is as listed in Table 4-6.

| Name & Address     | Funding Agency | Agency Program | Total Units | Housing Type     | Ch.40B Units |
|--------------------|----------------|----------------|-------------|------------------|--------------|
| Hemlock Dr.        | DHCD           | 667-1          | 40          | Elderly/Disabled | 40           |
| Hemlock Dr.        | DHCD           | 667-2          | 56          | Elderly/Disabled | 56           |
| 10 Heritage Circle | DHCD           | 667-3          | 50          | Elderly/Disabled | 50           |
| 15 Heritage Circle | DHCD           | 689            | 8           | Special Needs    | 8            |
| Scattered Sites    | DHCD           | 705            | 12          | Unrestricted     | 12           |
| Hayward Place      | EOHHS          | FCF            | 4           | DMR Group Home   | 4            |
| Iron Fence Inn SRO | MHP            | MHP            | 32          | SRO              | 32           |
| S. Shore HDC       | EOHHS          | FCF            | 4           | Special Needs    | 4            |
| <b>TOTAL</b>       |                |                | <b>206</b>  |                  | <b>206</b>   |

Source: Mass. Dept. of Housing & Community Development (DHCD)

In its most recent assessment for 2001, the Massachusetts Department of Housing and Community Development counted a total of 206 conventional public housing units and rental assistance units meeting the affordability requirement. (Federal Section 8 certificates, a rent subsidy program, are not permitted as part of this count). This represents 2.7% of the Town's total housing stock – well below the State's 10% requirement. Even though Bridgewater added an additional 36 eligible subsidized housing units during the 1990s, the actual percentage as a total of the Town's housing stock declined slightly.

<sup>3</sup> Mass. Housing Partnership (MHP); Mass. Executive Office of Housing & Human Services (EOHHS); Mass. Dept. of Mental Retardation (DMR)

Affordable housing is a growing issue in Bridgewater as well as the region. Table 4-7 illustrates that Bridgewater has the third lowest percentage of subsidized housing units in the 16-town region behind only Halifax and Abington. Additionally, only one municipality, Brockton, meets the 10% state requirement while the vast majority of other communities have less than 5% affordable housing stock.

With a relatively low percent of housing stock considered affordable, the community is vulnerable to comprehensive permits. To ensure that zoning and other local bylaws do not exclude affordable housing, M.G.L. Chapter 40B allows a developer of subsidized low and moderate income housing to request a Comprehensive Permit from the ZBA in order to bypass certain local zoning and other regulations, including density. While the ZBA has limited power to deny a comprehensive permit (all decisions are subject to appeal before the State Housing Appeals Board), the Board can impose reasonable restrictions with regard to the size of the development, site planning, and other specific characteristics of the project. However, the conditions imposed cannot make the project economically unfeasible.

| Municipality       | Population    |               | Year-Round DU |              | Total Ch.40B Units |            | % Subsidized |            |
|--------------------|---------------|---------------|---------------|--------------|--------------------|------------|--------------|------------|
|                    | 1990          | 2000          | 1990          | 2000         | 1990               | 2000       | 1990         | 2000       |
| Abington           | 13,817        | 14,605        | 4,942         | 5,332        | 112                | 250        | 2.3          | 4.7        |
| Avon               | 4,558         | 4,443         | 1,663         | 1,737        | 70                 | 70         | 4.2          | 4.0        |
| <b>Bridgewater</b> | <b>21,249</b> | <b>25,185</b> | <b>6,201</b>  | <b>7,639</b> | <b>170</b>         | <b>206</b> | <b>2.7</b>   | <b>2.7</b> |
| Brockton           | 92,788        | 94,304        | 35,321        | 34,794       | 4218               | 4258       | 11.9         | 12.2       |
| East Bridgewater   | 11,104        | 12,974        | 3,689         | 4,423        | 147                | 147        | 4.0          | 3.3        |
| Easton             | 19,807        | 22,299        | 6,698         | 7,596        | 217                | 224        | 3.2          | 3.0        |
| Halifax            | 6,526         | 7,500         | 2,411         | 2,804        | 28                 | 28         | 1.2          | 1.0        |
| Hanson             | 9,028         | 9,495         | 2,937         | 3,167        | 90                 | 113        | 3.1          | 3.6        |
| Kingston           | 9,045         | 11,780        | 3,319         | 4,370        | 155                | 138        | 4.7          | 3.2        |
| Middleboro         | 17,867        | 19,941        | 6,365         | 7,195        | 280                | 294        | 4.4          | 4.1        |
| Pembroke           | 14,544        | 16,927        | 4,804         | 5,834        | 213                | 220        | 4.4          | 3.8        |
| Raynham            | 9,867         | 11,739        | 3,501         | 4,197        | 193                | 197        | 5.5          | 4.7        |
| Stoughton          | 26,777        | 27,149        | 9,675         | 10,429       | 701                | 727        | 7.3          | 7.0        |
| Taunton            | 49,832        | 55,976        | 20,253        | 22,874       | 1469               | 1442       | 7.3          | 6.3        |
| West Bridgewater   | 6,389         | 6,634         | 2,294         | 2,507        | 48                 | 48         | 2.1          | 1.9        |
| Whitman            | 13,240        | 13,882        | 4,591         | 5,100        | 186                | 211        | 4.1          | 4.1        |
| <b>Average</b>     | <b>20,402</b> | <b>22,177</b> | <b>7,417</b>  | <b>8,125</b> | <b>519</b>         | <b>536</b> | <b>4.5</b>   | <b>4.4</b> |

Source: US Census Bureau 2000; Mass. DHCD

Comprehensive Permits are not authorized in communities that meet the following State standards including:

- 10% or more of housing stock in existence is subsidized.
- At least 1.5% of land zoned for residential, commercial or industrial use is utilized for subsidized housing.

If and when comprehensive permits are filed in Bridgewater, the Town should negotiate with developers to ensure that the project will best meet the community’s housing needs and legitimate planning concerns. Such negotiations may lead to a friendly permitting process. Additionally, if Bridgewater takes an active role in site selection and project planning it assures that projects meet the community’s planning objectives. This approach has been adopted by a number of municipalities in Massachusetts.

Meeting affordable housing needs in Bridgewater must also be factored into the Housing Action Plan. The goal is to increase the affordable housing stock toward complying with the State’s requirement but preserving Bridgewater’s control in managing residential growth and other land use objectives.

**Student Housing**

Bridgewater State College had a total full-time enrollment of 5,842 in 2001. Of the student population, an estimated 2,639 live in Bridgewater. Of these, 1,970 live on campus in eight dormitory facilities. BSC has recently constructed a 300-bed residence hall on the east side of campus, adjacent to Miles and DiNardo residence halls, increasing the total on-campus residential capacity to 2,066.

The College estimates that approximately 400 students live off campus in Bridgewater. While it is difficult to determine how many BSC students actually live off campus, it is safe to assume that the majority of them live close to campus in the surrounding neighborhoods and Central Square. The BSC Housing Office provides an annual list of off-campus apartments for rent in Bridgewater. During the summer of 2000, a total of 69 apartments were listed accommodating 142 students. Each apartment can accommodate an average of 2.09 students. The average monthly rent per apartment was \$420, ranging from \$180 to \$1,000. The vast majority of these apartments were located in the downtown area such as Main Street, South Street, Norlen Park, School Street, and Plymouth Street.

A number of the apartments available to students are in poor condition. This is not unusual for off-campus student housing and the problem is limited to a handful of locations. The Health Department, Inspections Departments and Police Department have all been involved in code enforcement and rehabilitating many of these apartments as the opportunity presents itself. The Police Department also meets with landlords on an annual basis to discuss potential public disturbance issues and controlling under-aged drinking.

**Person Per Household**

The average person per household in Bridgewater has declined as a whole over the past 20 years. In 1980, there were 3.37 persons per household and by 1990 it had declined to 2.87. According to the most recent 2000 Census figures and local building records, the average household size declined slightly during the 1990s to 2.81. A declining number of residents per household is not unusual. In fact, household size is declining nation-wide as the population grows older.

**Home Sales**

During the late 1980s housing sales in Bridgewater were relatively high, particularly compared to the median income at the time. In 1989, the median sales price for a single-family home was \$165,500. This figure dropped off, as did the number of sales during the recession of the early 1990s. The number of sales and median price began to rise steadily soon after. However, it wasn’t until 1999 that the median price for sold single-family homes exceeded what they had been 10 years earlier.

The median sales price for homes in Bridgewater has steadily increased over the past 10 years as illustrated in Table 4-8 below. Adding all housing types together (single-family, condo and other multifamily), the median sales price has increased by over \$120,000 during this time period. The last four years have also marked a peak in the number of sales with nearly 500 homes sold in both 1998 and 1999.

The median sales price of a single family home has risen significantly over the past three years, in which time it has increased by \$50,000. In fact, the median sales price for single-family homes has increased more in the last five years than it has in the last 10 years.

The majority of homes sold over the past 10 years in Bridgewater have been single-family homes, which have averaged 42% of all sales. However, this appears somewhat low considering that the significant majority of the Town’s existing housing stock and new permits issued over the past 10 years have been for single-family homes.

**Table 4-8: Bridgewater Housing Sales & Median Cost, 1988-2001\***

| Year           | S.F. Sales  | S.F. Median \$    | Condo. Sales | Condo. Median \$ | M.F. Sales  | Total Sales | Total Median \$   | % S.F. Sales |
|----------------|-------------|-------------------|--------------|------------------|-------------|-------------|-------------------|--------------|
| 2001           | 120         | \$ 235,750        | 38           | \$ 114,750       | 88          | 246         | \$ 219,900        | 49%          |
| 2000           | 174         | \$ 210,000        | 66           | \$ 84,950        | 159         | 399         | \$ 180,000        | 44%          |
| 1999           | 186         | \$ 185,000        | 86           | \$ 75,500        | 217         | 489         | \$ 164,900        | 38%          |
| 1998           | 185         | \$ 163,000        | 56           | \$ 72,250        | 242         | 483         | \$ 155,000        | 38%          |
| 1997           | 168         | \$ 154,000        | 45           | \$ 72,900        | 191         | 404         | \$ 146,900        | 42%          |
| 1996           | 180         | \$ 149,000        | 48           | \$ 65,500        | 201         | 429         | \$ 133,000        | 42%          |
| 1995           | 195         | \$ 147,000        | 46           | \$ 67,500        | 136         | 377         | \$ 119,890        | 52%          |
| 1994           | 238         | \$ 142,000        | 40           | \$ 53,450        | 158         | 436         | \$ 124,900        | 55%          |
| 1993           | 183         | \$ 144,900        | 46           | \$ 54,350        | 206         | 435         | \$ 112,000        | 42%          |
| 1992           | 174         | \$ 135,000        | 59           | \$ 31,500        | 225         | 458         | \$ 96,200         | 38%          |
| 1991           | 129         | \$ 134,000        | 50           | \$ 59,750        | 135         | 314         | \$ 109,600        | 41%          |
| 1990           | 116         | \$ 139,250        | 64           | \$ 115,750       | 107         | 287         | \$ 125,900        | 40%          |
| 1989           | 96          | \$ 165,500        | 93           | \$ 122,000       | 169         | 358         | \$ 129,900        | 27%          |
| 1988           | 138         | \$ 159,200        | 62           | \$ 118,400       | 183         | 383         | \$ 139,900        | 36%          |
| <b>TOTAL</b>   | <b>2282</b> |                   | <b>799</b>   |                  | <b>2417</b> | <b>5498</b> |                   |              |
| <b>AVERAGE</b> | <b>163</b>  | <b>\$ 161,686</b> | <b>57</b>    | <b>\$ 79,182</b> | <b>173</b>  | <b>393</b>  | <b>\$ 139,856</b> | <b>42%</b>   |
| ? 1997-2001    |             | \$ 81,750         |              | \$ 41,850        |             |             | \$ 73,000         |              |
| ? 1992-2001    |             | \$ 76,550         |              | \$ (3,650)       |             |             | \$ 80,000         |              |

Source: The Warren Group; \* 2002 Total Year Sales Not Available

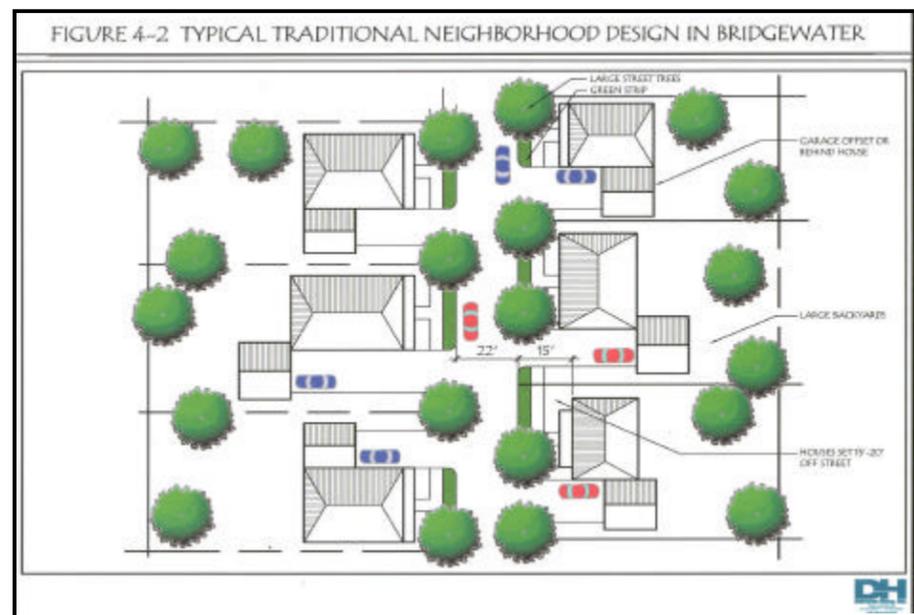
Conversely, the condominium market was not good in Bridgewater during the 1990s. From a median sales peak in 1989 of \$122,000 and sales of 93 units, the market significantly dropped off over the next 10 years. While the last five years have marked a significant increase of over \$40,000, the median sales price in 2001 is still less than it was in 1989. One of the reasons for this is that the number of condominiums has not increased significantly over the last 10 years. Instead, a few struggling apartment complexes were converted into condominiums and sold at lower prices. This market is just starting to recover from the recession of the early 1990s.

#### 4.4 Geographic Analysis of Bridgewater Neighborhoods

Bridgewater contains a number of new and old residential neighborhoods as illustrated on Map 4-2. The majority of new subdivisions, house lots, and residential building lots have been located in three Land Use Management Districts: 7, 9 and 13<sup>4</sup>. These represent the more rural areas of Town as illustrated on Maps 4-3 and 4-4.

##### **Traditional Neighborhoods**

Most of the older and more established neighborhoods are located around Central Square, Main Street and the Bridgewater State College Campus. Streets such as Main Street, Oak Street, Mount Prospect Street and Summer Street are examples of the older neighborhoods in Town with tree lined streets, sidewalks, narrow and deep lots, shorter front yards, and Colonial-style architecture. Figure 4-2 illustrates the typical layout of these traditional neighborhoods in Bridgewater.



<sup>4</sup> Land Use Management Units are discussed in detail in Chapter 9: The Land Use Plan

The upper portion of Summer Street near the campus of Bridgewater State College is a good example of an older established neighborhood. It has very attractive homes, many positioned with the short end (gabled end) of the home facing the street, with front porches and fences in the traditional neighborhood style. The street is approximately 28 feet wide with no curbs. It has a four-foot sidewalk on one side and an eight-foot greenstrip. Large street trees are prevalent.

Oak Street and Pearl Street are also excellent examples of traditional neighborhood development in Bridgewater. They are both about 28 feet wide with large street trees that enclose the street and form a canopy. Houses are set back a short distance from the sidewalks, creating a welcoming, pedestrian-friendly environment. These older residential streets are also relatively short and straight so that cars are not induced to speed and pedestrians are more comfortable. Some of the older residential streets include greenstrips varying in size and use. Main Street, between Broad Street and Oak Street, has a wide greenstrip (6-8 feet) with an abundance of street trees.

Other traditional residential streets, which collectively form the older neighborhoods, include: Stetson, Lawrence, Hammond, Howard, Church, Union, Mt. Prospect, Grove, Cedar, Maple, School, Park, Clarence, Shaw and Covington.

##### **Medium Age Neighborhoods (1960-1980s)**

Most of the medium-aged neighborhoods were constructed in the western portion of Bridgewater. Developments along Elm Street, Lake Nip, South Drive and other neighborhoods tended to be more modest than the average new home being constructed today. They also tended to be on smaller lots with shorter front-yard setbacks and large trees. Many of these neighborhoods have matured with attractive streetscapes and home improvements. Some examples of medium-age neighborhoods are described below.

**The Lakeside Neighborhood** – This area was constructed in the 1960s along the east side of Lake Nippenicket and adjacent to the Hockomock Swamp Wildlife Management Area. It includes Lakeside Drive, Bridle Drive, Horseshoe Lane, Paddock Road and Saddle Drive. Most streets are 26-28 feet wide with concrete sidewalks (usually on one side) and curbs. Horseshoe Lane has a Cape Cod berm with one asphalt sidewalk and no green strip. The small lip makes it look like the sidewalk is part of the road. Landscaping has matured in the neighborhood and there are a variety of front-yard trees that compliment the street.

**The South Drive Neighborhood** - Built in the 1970s, it has an extensive roadway network including Forest Drive, Fox Hill Drive, South Drive, Pleasant Drive and Oak Ridge. The streets run parallel and perpendicular, resembling a traditional grid pattern. Landscaping is mature and many older trees have been preserved and supplemented with younger ones. South Drive is a typical street with 28-foot roads with concrete curbs and four-foot sidewalks.

Unlike many newer subdivisions, South Drive has a one-foot greenstrip and extensive street trees which enclose the street and make the neighborhood very attractive. Unlike some of the new subdivisions,

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*\*\*\*INSERT MAP 4-2 NEIGHBORHOODS OF BRIDGEWATER\*\*\**

*\*\*\*Map of Bridgewater with pictures of old & new neighborhoods\*\*\**

*\*\*\*INSERT MAP 4-3 FOR SUBDIVISIONS*

Grange Park streets look and feel more like neighborhood streets because of the larger street trees, separation between the sidewalk and road, shorter setbacks, and even grade between the streets and homes.

**New Neighborhoods (Since 1990)** – Newer neighborhoods built since 1990 are listed in Table 4-5 and are illustrated on Map 4-2. They are dispersed throughout Bridgewater but most often have been developed in the southeast, southwest and northwest quadrant of Town. Only one of the subdivisions built since 1990 has been located close enough to the core of Town to allow it to tie into the public sewer system.

There are three types of roadway treatments used on most residential streets in Bridgewater. The most common, particularly in newer neighborhoods, is a 28-foot wide road with one five-foot asphalt sidewalk and sloped granite curbing. There are typically no greenstrip or street trees planted in the 40-foot public right-of-way. The sidewalk is typically constructed directly abutting the curb. There are also some subdivisions where concrete curbing has been used (mostly in the 1960 and 1970s) and a few Cape Cod berms have been installed. Grass strips are rare in newer neighborhoods and where they exist they are usually no more than two feet wide.

It is also typical for newer neighborhoods to have deep front yard setbacks. The minimum is usually 40 feet but houses are often set back a much greater distance. New roads often cut into the natural grade (rather than following the existing contours), giving the homes an elevated look and further separation from the street. This is often required to meet State requirements for on-site septic systems.

Frontage has become an important issue in designing new residential subdivisions. Subdivision plans often have snaked roadways to create curves which reduce frontage requirements and lengthen the road, creating more house lots. This increases the development costs and the Town's costs in terms of long-term maintenance. An alternative would be to allow common driveways (without a two-acre requirement) and flag lots, particularly off cul-de-sacs.

Some typical newer neighborhoods would include Beaver Brook Acres, Pinebridge Estates, Pine Oak Estates, Winding Oaks, Butler Park, Cobblestone Estates, Driftwood Estates, Nelson Woods, and Wildwood Place.

### **Apartment Complexes, Duplexes and Condominiums**

There have been no new multifamily (rental or ownership) development projects approved since the 1970s when the zoning laws were amended. Over the past 10 to 15 years, a number of duplexes have been built, and conversions and additions to existing structures have been made to create new multi-family units.

By severely limiting this housing opportunity, the Town has facilitated the type of suburban growth that has occurred heavily over the last 30 years. The result has been the loss of significant open space, growing traffic congestion, and additional strain on municipal services (particularly local roads and schools). The Town may have also lost (at least temporarily) the opportunity to broaden housing options

for a wide range of residents and improve the quality of multifamily housing. Well-placed apartments and condominiums (such as near downtown, BSC, and other services) can improve the downtown economy (adding to the market) and reduce traffic congestion, as walking and biking become a real option for more residents.

Some examples of multi-family neighborhoods include the following:

**Willow Ridge Drive** – This multifamily neighborhood off South Street was built in the early 1980s as an apartment complex and later converted to condominiums. Parking is located effectively behind the buildings but there is very little landscaping in the complex.

**Fox Run** – This condominium complex was built in the late 1980s and is set off of Bedford Street. The buildings are massed together around an open common area with the parking off the perimeter road. It is very attractive with extensive landscaping around the buildings.

**Flagstone Place** – This neighborhood includes duplexes with attached garages. Homes are colonial style with duel driveways.

**Waterford Village** – This large apartment complex was built in the early 1970s off Plymouth Street. The complex is attractive with extensive landscaping and frontage on the Town River. The complex has a security gate and is well managed.

**Kingswood Park** – This development was built in the 1970s as an apartment complex but was converted in the 1990s to condominiums. The complex includes a community facility and in-ground pool for residents. Ongoing improvements to the complex include building façade upgrades and new landscaping.

## 4.5 Anticipated Housing Needs

Bridgewater residents were asked to identify various housing needs in the Town-Wide Resident Survey. When asked what group of people were most in need of housing in Bridgewater the survey respondents identified first-time homebuyers, followed by the elderly, as the top priorities. Many respondents seemed to be concerned that long-time residents and their children had few housing opportunities and could not afford the cost of housing in Bridgewater today.

However, when asked if the Town should financially support affordable housing programs, the majority of respondents (839 or 53.8 %) did not think this should be done. Only 18% agreed with Town support and over 28% had no opinion. Affordable housing can include a variety of housing types that meet the needs of various income groups and lessen the gap between median income and the median home price.

Respondents were also split on the issue of home occupations. A total of 37.2% (580) would like to see more opportunities for in-home occupations while 14.6% (or 229) would not, and 48.1% (750) had no opinion.

**Table 4-9: Resident Survey of Housing Needs**

| People Who Need Housing   | Total        | Percent     |
|---------------------------|--------------|-------------|
| Singles/Apartment Dweller | 215          | 13.7%       |
| First Time Homebuyers     | 458          | 29.3%       |
| Families                  | 385          | 24.6%       |
| Special Needs             | 152          | 9.7%        |
| Affordable for Families   | 253          | 16.2%       |
| Empty Nesters             | 133          | 8.5%        |
| Elderly                   | 390          | 25.0%       |
| Others                    | 0            | 0%          |
| <b>Total</b>              | <b>1,559</b> | <b>100%</b> |

The housing types favored by survey respondents are included in Table 4-10. According to those surveyed the most important need was for adult retirement housing (almost 40%) followed by accessory and in-law apartments (32%).

Based on the demographic and housing trends documented in the sections above, the projected housing demand in Bridgewater over the next 10 years is expected to remain strong. While significant population and housing growth has occurred over the past 10 years, Bridgewater still has a significant amount of open land that can accommodate further development.

**Table 4-10: Housing Types Favored by Bridgewater Residents**

| Type of Housing           | Yes          | % Yes       | No          | % No        | No Opinion  | % N.O.      |
|---------------------------|--------------|-------------|-------------|-------------|-------------|-------------|
| Rental Properties         | 315          | 20.2%       | 779         | 49.9%       | 465         | 29.8%       |
| Accessory/In-law Apts     | 502          | 32.2%       | 450         | 28.8%       | 607         | 38.9%       |
| Mobile Home Units         | 114          | 7.3%        | 1099        | 70.4%       | 346         | 22.1%       |
| Planned/Condo Units       | 293          | 18.7%       | 811         | 52%         | 455         | 29.1%       |
| Residential Clusters      | 284          | 18.2%       | 840         | 53.8%       | 435         | 27.9%       |
| Multifamily               | 155          | 9.9%        | 960         | 61.5%       | 444         | 28.4%       |
| Adult Retirement Villages | 623          | 39.9%       | 535         | 34.3%       | 401         | 25.7%       |
| <b>TOTAL</b>              | <b>1,559</b> | <b>100%</b> | <b>1559</b> | <b>100%</b> | <b>1559</b> | <b>100%</b> |

As identified in Table 4-3 above, Bridgewater’s population is projected to continue growing over the next 10 years, reaching a population of over 31,000 by the year 2010<sup>5</sup>. These projections are based on several variables including past population trends, housing and commercial construction, institutional development (i.e. Bridgewater State College and BCC), home sales, and local economic conditions. Accordingly, Bridgewater could reasonably anticipate the addition of approximately 1,500 new dwelling units (or about a 20% increase in total housing stock) over the next 10 years.

The biggest question facing Bridgewater is what type of housing development should take place. While the general trend in local residential development over the past 30 years has been primarily larger single-family residential developments, demographic and socio-economic trends tend to support the need for a greater diversity in housing types, particularly in rental and owner-occupied multi-family dwellings accommodating a broad range of income levels.

<sup>5</sup> These projections were made by the Massachusetts Institute of Social and Economic Research (MISER)

While there is an increasing production of age-restricted (55+) housing developments in Town, there are several other population sectors that are underserved including resident students, low and moderate-income residents, first-time homeowners who can’t qualify for the cost of the median home, and “empty-nesters” looking for alternative housing types (i.e. garden apartments, planned developments, condominiums, etc.).

Regional housing demands may also affect Bridgewater’s housing needs. The limited availability of multi-family homes and affordable housing in the region may add increased demand in these areas for Bridgewater. The fact that Bridgewater has good access to transportation and a relatively high level of municipal facilities and services makes it an inviting host in the region for further residential development including multifamily.

#### 4.6 Housing Action Plan

The Housing Action Plan includes new strategies based on the inventory, analysis, and assessment of housing trends and needs above. These strategies reflect the Community Goals and Objectives Statement and generally are geared to include recommendations and initiatives that Bridgewater can utilize in future endeavors to manage and guide residential development. The main goal of the Housing Action Plan is to encourage opportunities for a reasonable diversity of housing types to meet different income levels.

#### **Strategy 1. Reduce the impact of new residential development on public facilities and services.**

##### **Actions**

- **Identify suitable locations for new residential development** - Land use regulations and development review should consider natural resources and open space protection, convenience to employment opportunities and commercial services, and proximity to various municipal services (i.e. schools, safety services, utilities, recreational facilities and transportation amenities).
- **Consider adopting the Community Preservation Act** – This new State law enables local communities to establish a transfer fee on the sales of homes in the community. The funds accumulated can be set aside and used for the creation of affordable housing, community facilities and purchase of open space. This can be an effective tool for Bridgewater in combating residential sprawl, enhancing local facilities and preserving cultural and scenic resources.
- **Consider linkage payments for the expansion of affordable housing** - Bridgewater should evaluate the feasibility of linkage payments, which are cash contributions made to the community to serve a public purpose such as the production of affordable housing and open space. They are used as a means of reducing the impacts of large-scale projects. Zoning regulations must be able to demonstrate and document the cost link between the development fee and the public purpose served before such payment can be charged. The funds collected can be put into a housing trust

fund and used by the community to develop affordable housing. The affordable units are usually not constructed on the site of the project to which it is linked.

(Municipal examples: Brookline, Boston, and Westwood)

**Strategy 2. Provide for quality neighborhood infill development and new developments that incorporate the characteristics of traditional residential design.**

**Infill Development**

“The development of new housing or other buildings on scattered vacant sites in a built up area”

Provide opportunities to enhance streetscapes in smaller-lot neighborhoods, through narrow lots (50-75 feet) with reduced front yard setbacks, recessed garages (or located behind the house), and the short end (gable) of house facing the street. There are several examples of traditional neighborhood development patterns in Bridgewater.

**Actions**

- **Encourage housing and live-work units in commercial areas** - Upper story apartments in commercial buildings (such as in Central Square) can provide new residential opportunities for

low and moderate income residents, fill underutilized or vacant space, generate new income for property owners, and turn a business district into a lively mixed-use community. The evaluation of the downtown area should be made to identify these opportunities.

- **Encourage a mix of housing to the extent the market will bear** - Mixed-income properties can be effective in larger developments because several market segments are tapped at once, yet only a small area needs to be under development at any time, minimizing infrastructure costs. If developments are not mixed but segmented, interaction can be promoted through common areas and facilities.
- **Encourage single-family homes for moderate-income households** - Detached housing can be within reach of moderate-income households provided that densities are high enough. Opportunities exist in some of the older neighborhoods for infill development where higher density is permitted. However additional residential districts in Bridgewater should be considered for higher density through improved cluster design and other development techniques.
- **Provide for “life cycle” housing in Bridgewater** - Conventional development typically segments people by housing type, size and price range and is not equipped to see families through the life cycle. This is not the case with traditional neighborhoods, which typically have a mix of housing accommodating a mix of people. Life cycle housing allows people to remain in the same neighborhood even as their space needs change by mixing housing size and cost. Social networks can remain intact, children need not be uprooted from familiar schools, and elderly persons can remain near friends and families.

**Strategy 3. Establish and utilize innovative public/private programs to maintain and produce additional affordable housing opportunities.**

There are a number of State administered housing assistance programs aimed at providing affordable home ownership and rental opportunities. Many of them fund and encourage the development of mixed-income projects sponsored by community housing partnerships and developers. These housing programs provide subsidies deep enough to bring high quality housing within reach of low and moderate income households.

| Selected Housing Assistance Programs                   |                                                                                 |
|--------------------------------------------------------|---------------------------------------------------------------------------------|
| Program                                                | General Description                                                             |
| Low-Income Housing Tax Credit (LIHTC)                  | See below                                                                       |
| Home Program                                           | See below                                                                       |
| Housing Stabilization Fund (HSF)                       | Acquisition, preservation, reuse                                                |
| Capital Improvement & Preservation Fund                | Preserve/improve existing projects where prepayment may terminate use           |
| Soft Second Mortgage Program                           | Publicly subsidized 2 <sup>nd</sup> mortgages                                   |
| Housing Innovation Fund                                | See below                                                                       |
| Sr. Citizen Property Tax Work-off Abatement            | Optional community service in exchange for tax reduction for 60 years and over. |
| Historic Owner-Occupied Residences                     | Tax stabilization for restored properties                                       |
| Low/Moderate Income Seniors Income Tax Credit          | Annual income tax credit for seniors                                            |
| Income Tax Credit for Septic System Repair/Replacement | Tax credit for private septic system upgrades or sewer connections              |
| Lead Paint Removal Credit                              | Tax credit of \$1,500 per units                                                 |

Some programs that may have particular benefits in terms of fulfilling Bridgewater’s housing needs are as follows:

**Rehabilitation Programs:**

- **HOME Investment Partnership Program** – Zero or low interest loans for housing developers who pass these loans on to homebuyers and renters target very low and low-income households. In a rental program, 20% of units must be set aside for households at 50% or less of the area median income; 70% for households at 60% or less of the area median income; 10% for households at 80% or less of median income. In a home ownership program, it is simply necessary that all households are at 80% or less of the area median income, without regard to proportions.
- **Low-Income Housing Tax Credit Program** – Federal tax credits are available for developers of affordable rental housing. At least 20% must be for very low-income households. As an alternative, 40% of the units may be set-aside for households at 60% or less (rather than 50%) of the area median income.

- **Housing Stabilization Fund** – The HSF was created to stabilize communities by providing financial support for the acquisition, preservation and rehabilitation of affordable housing with a specific emphasis on reuse of distressed properties. It can also be used to allow new construction on infill sites created by demolition of distressed properties. Both profit and non-profit developers are eligible for the program, which can be used for both rental and project-based home ownership.
- **Soft Second Loan Program** – The program makes purchasing a home easier by combining a conventional first mortgage with a publicly subsidized second mortgage. Municipalities in partnership with lending institutions are eligible for this program.
- **Housing Innovation Funds** – HIF was created to support alternative forms of rental and ownership housing such as a specialized level of management or social services, an innovative financing or ownership structure, or other features such as transitional housing types, limited equity cooperatives, and preservation of expiring use properties. They are available on a competitive basis to non-profit developers only (i.e. CDC, housing trusts, etc). Rental units must remain affordable for at least 30 years. Of the total units, at least 50% of the units must be occupied by households with incomes below 80% of the area median gross income. Of the lower income group, at least 50% (or 25% of the total units) must be occupied by households with incomes below 50% of the area median gross income.

### **Tax Relief Programs:**

There are several tax relief programs from which the Town could choose to adopt in support of affordable housing including the following:

- **Historic Owner-Occupied Residences** – Bridgewater has the option of adopting a special assessment that captures the increased value of substantially rehabilitated historic residences over a period of five years, with 20% of the increased assessed value added each year until the full value is reached. This can be an additional incentive for owners of historic homes to continue to occupy and make appropriate renovations that may contribute to preserving the character of the community.
- **Low and Moderate Senior Income Tax Credit** – Bridgewater has the option of providing this tax credit for property taxes on low- and moderate-income senior citizens with a maximum of \$375 per year.
- **Income Tax Credit for Septic System Repair/Replacement** – The State allows for income tax credits of up to \$1,500 yearly (to a maximum of \$6,000 over five years) for expenses incurred to meet Title V compliance for a principal residence or to connect to a municipal sewer service, under certain conditions. The Bridgewater Board of Health has used this program as an incentive for many private septic system replacements.

- **Lead Paint Removal Credit** – The State provides a state income tax credit for up to \$1,500 for each housing unit where lead paint is removed in compliance with state regulations. Unused credits may be carried over for up to seven years.

### **Strategy 4. Create an organization for the promotion, ownership or management of housing opportunities in Bridgewater.**

#### **Actions**

- **Appoint a Housing Partnership Committee** - The purpose of this committee is to communicate with homebuilders and generate ideas for the potential use of state programs and potential locations for affordable and mixed income housing developments. This Committee can also be used to negotiate with developers on comprehensive permit applications. By taking an active role, the site selection and planning process can lead to a “friendly” comprehensive permit and ensure that the project meets Bridgewater’s planning objectives.
- **Evaluate and incorporate a housing ownership and management structure** – Some possible options are the following:
  - ◆ CDCs and Non-Profits - Affordable housing can be developed and/or owned by non-profit groups such as a community based developer, community development corporation (CDC), or religious institution. The advantages are that the housing can be developed less expensively and remain affordable in perpetuity.
  - ◆ Limited Equity Cooperatives – In this structure, each resident is a shareholder in the member-controlled management corporation, which holds title to the property. Residents lease the units from the co-op, and they elect a board of directors. Purchase of the stock is similar to a down payment but usually costs less. Members pay a proportionate share of co-op’s mortgage, taxes, maintenance, and operating expenses. To preserve the housing as affordable, a formula determines the resale value of the stock. The formula is geared to provide a fair return on members’ investments, while keeping resale value in a price range accessible to low and moderate-income members.

Limited equity co-ops offer specific advantages over rental housing, including security, tax deductions, and some equity build-up, while housing costs remain lower in the long run. The cooperative is eligible for government subsidies that can reduce purchase costs or provide financing for the building.

Limited equity homeownership limits the resale prices of condos or single-family units, in a manner similar to limited equity co-ops. This approach is required through some state and federal subsidized programs and could be built into any locally developed program to preserve affordability. Typically, the length of deed restrictions used to limit equity remains in place no longer than 40 years.

- ◆ **Community Land Trust (CLT) for Housing** – CLT is a member-controlled organization that owns underlying land and leases its use to individual homeowners living on it typically for 99 years. This concept substantially reduces the cost of home ownership. Long-term renewable leases protect homeowners, and they may recapture labor and capital investments. CLT retains a first option to buy if sold at a predetermined price keeping the unit affordable. CLTs acquire buildings and reduce purchase costs with subsidies and grants from state and federal programs. Buildings may be a single unit, condominium, rental unit or cooperative.
- ◆ **Local Housing Trust** – Affordable housing trusts are usually nonprofit corporations formed by the municipality. They are typically governed by a Board of Directors and may be under the supervision of the selectmen or town manager. Because local residents govern affordable housing trusts, they generally undertake projects that reflect the housing goals of the community in a way that fits in with the local housing needs.

### **Strategy 5. Identify appropriate sites for subsidized housing and initiate acquisition and control measures to secure their long-term use.**

The Town of Bridgewater can take several steps towards targeting areas for affordable housing. Additionally, revisions have recently been made to MGL Chapter 40B which recognize the community's efforts to provide more affordable homes and, therefore, limit the number of comprehensive permits that can be considered in a given period of time. This is an opportunity for the community to control the amount and distribution of affordable housing that best meet the needs of local residents.

#### **Actions**

- **Identify “development nodes” for mixed use including multi-family housing** – Create development nodes on existing local arteries, which would permit a higher concentration of buildings and uses on a fairly compact site. Land use regulations would be amended to provide for a higher density of uses, including multi-family dwellings. These nodes should be sited near public services and facilities, and serve the basic needs of surrounding neighborhoods. Some possible locations include areas off Bedford Road, Pleasant Street, and Plymouth Street. (See Chapter 9: The Land Use Plan).
- **Consider the use of tax title properties and other public lands for mixed-income residential developments** - Bridgewater may have tax title and other public land or buildings that are suitable for reuse or development for affordable and mixed income housing. Donations or transfer of the land or building at below market rate to a developer who agrees to provide low and moderate income housing can help to reduce construction costs.
- **Consider the use of “Right of First Refusal” for certain properties that are good candidates for mixed income developments** - Private property owners can receive a tax reduction in return for devoting their property to agricultural or horticultural use, forestry, or

open space and recreation use. Similar mechanisms can be put in place for nonprofit housing organizations. If the owner decides to sell the land, the municipality has the “right of first refusal” to buy the property at fair market price. The purpose would be to control the type of future development on the site, which may include a combination of affordable housing, open space and other public purpose uses.

### **Strategy 6. Prepare zoning, subdivision and building code revisions to improve overall residential quality and opportunities for all income groups.**

The Town should facilitate high quality residential development and create new opportunities through a series of revisions and amendments to the Zoning Bylaws, Subdivision Regulations, Building Codes and other applicable land use regulations. A full review of these regulations and proposed amendments are included in Chapter 9: The Land Use Plan.

#### **Actions**

- **Achieve a reasonable diversity of residential density without the appearance of crowding** - Density is necessary for affordability. Higher densities mean less land per unit, which holds down the construction costs of housing. However, higher densities can be perceived to be less when there is open space integrated into the development or on nearby land. Other elements that create the perception of spaciousness are small housing clusters, commons, short blocks, low buildings, and natural landscaping. These can be accomplished through alternative design such as traditional neighborhood development, open space residential development, cluster development or planned developments (See Chapter 9: Land Use Plan for a discussion of these techniques in further detail).
- **Establish provisions for accessory apartments in residential districts** - Accessory apartments are located on existing residential properties, either within the original structure, in a garage or carriage house, or created as a separate detached structure. These apartments increase the supply of affordable housing, and are well suited for small households, elderly and single people. Development cost is less than new construction, and there is less impact on open space or agricultural land. In addition, costs to the community for accessory apartments are less than for additional detached homes since they are located within public services areas. Accessory apartments effectively increase residential densities while preserving the neighborhood character if provisions are made to reduce potential impacts. Some specific considerations for amendments to the zoning ordinance for accessory apartments:
  - ◆ Requirement for owner occupancy
  - ◆ Limits on the amount of alteration. (Should be within existing footprint of primary dwelling or minimal addition).
  - ◆ Limit on the number of bedrooms permitted

- ◆ Minimum size of the structure to be altered to avoid over-crowding
- ◆ Restrictions on occupancy (occupants should be members of extended family and the number of occupants should be limited.).
- ◆ Establish an Enforcement Procedure (Owner should register the apartment with the Town on an annual basis to certify that occupants meet the requirements above).
- ◆ Deed restrictions to control future alterations

*(Some municipal examples: Adams, Lexington, and Wenham)*

- **Provide for the careful conversion of larger homes to multifamily housing** - Converting large homes to smaller units, either as rental apartments or condominiums, can maintain the property owner's investment in a building that may be too expensive to maintain as a single residence or in which the extra space is no longer needed. It also increases the supply of affordable housing in the community. This type of provision could apply well in Bridgewater particularly along Main Street, South Street and Pleasant Street where a number of larger homes have been converted into commercial uses.

*(Some municipal examples: Ipswich, Lenox, North Andover, Stockbridge; Acushnet, Hamilton, West Stockbridge, and Williamstown).*

- **Consider provisions for Inclusionary Zoning to expand affordable housing opportunities** - The State of Massachusetts authorizes communities to enact inclusionary zoning provisions allowing for the construction of housing for persons of low and moderate income. These regulations can provide density bonuses by special permit in exchange for affordable housing units. This technique can assist the Town in achieving the required 10% affordability requirement under M.G.L. Chapter 40B.
- **Use cost-effective site development and construction practices** - Lot frontage is probably the single most important determinant of site development costs and long-term municipal costs. The cost of street and utilities construction varies with frontage requirements. Front yard setbacks are next most important since driveways and utility service lines vary with setbacks. Smaller setbacks, frontages and road width requirements also make the neighborhood more walkable by "enclosing" street space. The integration of outdoor space is a critical principle in good design and a precondition for street activity.
- **New residential design should preserve existing trees** - Preservation of existing trees should be required around cul-de-sacs and in greenstrips. Tree planting programs should also be required in treeless areas. Trees can provide a significant cooling effect and are also helpful for humidity control and as a windbreak in extreme weather. They are also one of the best investments for home appreciation.
- **Take advantage of open space and natural resource protection opportunities in residential development** - Through potential development techniques such as cluster/planned unit

development, conservation subdivision design, transfer of development programs (TDRs), local land trust programs, and infill development programs.

- **Cluster zoning bylaw** – Make revisions to the Cluster Bylaw to provide more opportunities for traditional neighborhood design with narrower streets and lots, setback reductions, sidewalks, street trees, common passive and active recreational areas. (See Chapter 9: The Land Use Plan).

## CHAPTER 5 – ECONOMIC TRENDS & OPPORTUNITIES

### 5.1 Overview of Economic Issues

Bridgewater has significant economic potential with its proximity to major highways, commuter rail connection, significant base of commercial/industrial lands, major state institutions that buffer economic downturns, and strong residential growth in medium to upper income housing. However, economic development in Bridgewater is increasingly interrelated with housing issues and concerns about traffic, open space conservation and resource protection. The community will have to address these issues as it grows and develops over the next 10 years.

The economy in Bridgewater has changed significantly over the past 20 years. Some local economic trends of concern need to be addressed through sound strategies and actions. These trends include underutilized properties in downtown and outlying industrial parks, slow commercial and industrial growth, stagnant commercial/industrial property values, and a significant loss of local manufacturing jobs.

This chapter identifies past trends, forecasts future growth, and lists potential areas of economic development. By creating a profile of the current and potential future economic climate in Bridgewater, residents and town staff can utilize resources to achieve economic goals and implement strategies.

#### Facts: General Socio-Economic Statistics

| Characteristic        | Bridgewater | National    |
|-----------------------|-------------|-------------|
| Total Population      | 25,185      | 272,928,770 |
| Total Housing Units   | 7,652       | NA          |
| Number of Households  | 7,526       | 102,437,178 |
| Median HH Income      | \$52,483    | \$39,994    |
| HH Income Under \$50K | 47%         | 62.3%       |
| HH Income \$50-\$100K | 40.4%       | 28.4%       |
| HH Income Over \$100K | 12.6%       | 9.3%        |
| Average Home Value    | \$174,863   | \$111,667   |
| Average Rent          | \$614       | \$414       |

Source: CACI, 2000

In developing a plan for Bridgewater’s future economic development the broader notion of community development is a strong underlying theme. Community development relates to Bridgewater’s well-being and the quality of life of its residents. In certain situations, economic development may be at odds with other community goals when the desire to increase income, employment, and fiscal strength occurs at the expense of other valued local attributes such as open space, historic character, or resource protection. For this reason, the goal of this section

is to illustrate the need and desire for economic growth in context with broader community objectives to achieve consensus in Bridgewater on an appropriate path for future development.

### 5.2 Inventory of Economic Base

As of June 2001, a total of 579 businesses were identified in Bridgewater (Source: InfoUSA, Inc.). As Table 5-1 indicates, the largest employment sector is public administration. This is primarily Bridgewater State

College, Bridgewater Correctional Complex, and the Town of Bridgewater. In all, the public sector accounts for over 40% of all jobs in town.

Retail trade businesses make up the second largest employer and have the highest sales volume in Bridgewater. Construction businesses also represent a significant portion of the local economy with 14% of total employment and over 20% of sales volume. However, this sector is expected to taper off somewhat as home construction begins to slow down.

Retail trade, finance and service industries have been growing in Bridgewater over the past several years and are expected to continue to grow over the next 10 years. Agricultural industries have declined steadily for many years and now represent just over 2% of all employment.

**Table 5-1: Bridgewater Businesses by Industry, 2001**

| INDUSTRIES                                  | Total Businesses |          | Employment   |          | Total Sales Volume    |          |
|---------------------------------------------|------------------|----------|--------------|----------|-----------------------|----------|
|                                             | No.              | % of All | No.          | % of All | Amount                | % of All |
| Agriculture, Forestry & Fisheries           | 12               | 2.1%     | 40           | 0.5%     | \$ 20,978,000         | 2.2%     |
| Construction Industries                     | 107              | 18.5%    | 879          | 11.6%    | \$ 197,007,000        | 20.4%    |
| Transportation, Comm., & Utilities          | 16               | 2.8%     | 259          | 3.4%     | \$ 26,075,000         | 2.7%     |
| Wholesale Trade Industries                  | 43               | 7.4%     | 329          | 4.3%     | \$ 212,127,000        | 22.0%    |
| Retail Trade                                | 141              | 24.4%    | 1,601        | 21.2%    | \$ 272,112,000        | 28.2%    |
| Finance, Insurance & Real Estate            | 42               | 7.3%     | 279          | 3.7%     | \$ 156,241,000        | 16.2%    |
| Service Industries                          | 210              | 36.3%    | 918          | 12.1%    | \$ 72,361,000         | 7.5%     |
| Public Administration                       | 8                | 1.4%     | 3,262        | 43.1%    | \$ 9,295,000          | 1.0%     |
| <b>TOTAL</b>                                | <b>579</b>       |          | <b>7,567</b> |          | <b>\$ 966,196,000</b> |          |
| Source: InfoUSA, Inc.                       |                  |          |              |          |                       |          |
| * BCC Estimated Employment of 1,295 in 2001 |                  |          |              |          |                       |          |

Overall, Bridgewater’s economy is well balanced with a broad distribution of employment in all sectors with the exception of agriculture. However, business growth over the past 10 years has not kept pace with residential

growth. This is reflected in the tax base, which shows marginal increase in commercial and industrial values.

The distribution of business in Bridgewater is illustrated in Table 5-2 and Map 5-1 identifies the Land Use Management Districts listed on the table.

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INSERT TABLE 5-2

***Insert Map 5-1: Bridgewater Land Use Management Units***

Bridgewater’s Central Business District is the economic center of the community. Located around Central Square, it has the most businesses and sales volume in Town as shown in Table 5-2. The CBD also has the second highest estimated employment, with over 1,300 workers (BCC Area has the highest number of jobs with nearly 1,400) and the most diversity in types of businesses. Broad Street represents the North CBD Area and is also a well established employment and business center. The larger retail establishments (i.e. Decelle’s, Roche Brothers, etc.) are located along this corridor, which has the highest retail employment in Town.

Besides the CBD, and in terms of private employment, the next highest employment center is District 4 (the Elm Street and Scotland Industrial Park Area). These well-established industrial parks are designated growth areas. Some Bridgewater residents see these areas, as well as the new Corporate Center at Lake Nip, west of Route 24, as offering the best economic opportunity in the community.

### 5.3 Bridgewater’s Labor Market

#### **Employment Trends**

As mentioned above, local economic conditions have improved in the past several years. From an unemployment rate of 9.6% in 1991, it has steadily declined to 3.2% in 2000. In recent years, Bridgewater’s unemployment rate has been consistently below the State average.

**Table 5-3: Laborforce & Unemployment, 1983 - 1999**

| Year | Laborforce | Employment | Unemployment |      | Statewide |
|------|------------|------------|--------------|------|-----------|
|      |            |            | Number       | Rate | Rate      |
| 1985 | 8,656      | 8,309      | 348          | 4.0% | 3.9%      |
| 1986 | 8,667      | 8,310      | 357          | 4.1% | 3.8%      |
| 1987 | 8,856      | 8,553      | 303          | 3.4% | 3.2%      |
| 1988 | 9,917      | 9,605      | 312          | 3.1% | 3.3%      |
| 1989 | 10,036     | 9,630      | 406          | 4.0% | 4.0%      |
| 1990 | 10,800     | 10,138     | 662          | 6.1% | 6.0%      |
| 1991 | 10,563     | 9,552      | 1011         | 9.6% | 9.1%      |
| 1992 | 10,418     | 9,455      | 963          | 9.2% | 8.6%      |
| 1993 | 11,005     | 10,268     | 737          | 6.7% | 6.9%      |
| 1994 | 11,700     | 11,034     | 666          | 5.7% | 6.0%      |
| 1995 | 11,725     | 11,134     | 591          | 5.0% | 5.4%      |
| 1996 | 11,738     | 11,287     | 451          | 3.8% | 4.3%      |
| 1997 | 12,259     | 11,839     | 420          | 3.4% | 4.0%      |
| 1998 | 12,354     | 12,004     | 350          | 2.8% | 3.3%      |
| 1999 | 12,519     | 12,169     | 350          | 2.8% | 3.2%      |
| 2000 | 12,128     | 11,742     | 386          | 3.2% | 2.6%      |
| 2001 | 12,220     | 11,841     | 379          | 3.1% | 3.7%      |

Source: Massachusetts Dept. of Employment & Training

Traditional sources of employment such as manufacturing have been steadily declining. The closing of the Co-op Shoe Factory and the Bridgewater Iron Works in the early 1980s led to a 70.3% drop in factory jobs. Conversely, residential growth has spurred significant employment opportunities in the construction, retail trade, and service sectors. Since 1980, retail employment has grown 103% while service related employment jumped 361%. Much of this growth has occurred within existing commercial properties with the most notable exceptions being the construction of Winter Place and the recent expansion of Campus Plaza. Although less in number, relative increases in construction and transportation-related employment were equally impressive. Over 1,600 homes were built in Bridgewater since 1990, contributing to a dramatic 243% rise in construction jobs.

**Table 5-4: Employment & Business by Industry, 1985-2001**

| Year | Total Annual Payroll | Avg Annual Wage | Establishments | Total | Agri. Forestry Fishing | Government | Construction | Manufacturing | T C P U | Trade | F I R E | S E R V. |
|------|----------------------|-----------------|----------------|-------|------------------------|------------|--------------|---------------|---------|-------|---------|----------|
| 1985 | 75110602             | 17798           | 243            | 4,220 | 62                     | 1,908      | 184          | 627           | 22      | 1,055 | 122     | 240      |
| 1986 | 80207703             | 19755           | 269            | 4,060 | 57                     | 2,051      | 203          | 289           | 30      | 1,049 | 136     | 244      |
| 1987 | 95626797             | 22110           | 302            | 4,325 | 67                     | 2,199      | 207          | 332           | 53      | 1,053 | 142     | 273      |
| 1988 | 114341297            | 24561           | 319            | 4,654 | 66                     | 2,466      | 203          | 316           | 49      | 1,070 | 151     | 335      |
| 1989 | 125051100            | 24876           | 331            | 5,027 | 42                     | 2,511      | 306          | 514           | 56      | 1,101 | 160     | 337      |
| 1990 | 127372673            | 25167           | 338            | 5,061 | 27                     | 2,577      | 235          | 506           | 56      | 1,124 | 175     | 361      |
| 1991 | 120864265            | 25488           | 319            | 4,742 | 19                     | 2,485      | 183          | 464           | 60      | 930   | 176     | 425      |
| 1992 | 130059872            | 26478           | 324            | 4,912 | 26                     | 2,495      | 212          | 444           | 92      | 1,009 | 158     | 476      |
| 1993 | 139954759            | 27113           | 327            | 5,162 | 22                     | 2,489      | 247          | 365           | 102     | 1,224 | 164     | 549      |
| 1994 | 165704843            | 27920           | 354            | 5,935 | 25                     | 2,519      | 300          | 390           | 156     | 1,352 | 185     | 1,008    |
| 1995 | 174409704            | 28452           | 372            | 6,130 | 23                     | 2,590      | 330          | 222           | 152     | 1,417 | 187     | 1,200    |
| 1996 | 186701418            | 28852           | 387            | 6,471 | 30                     | 2,586      | 250          | 340           | 167     | 1,597 | 190     | 1,298    |
| 1997 | 204497983            | 30413           | 391            | 6,724 | 29                     | 2,677      | 310          | 375           | 151     | 1,637 | 191     | 1,336    |
| 1998 | 210515329            | 30872           | 403            | 6,819 | 48                     | 2,531      | 370          | 368           | 180     | 1,654 | 223     | 1,427    |
| 1999 | 228265402            | 31867           | 447            | 7,163 | 53                     | 2,533      | 440          | 472           | 158     | 1,732 | 195     | 1,557    |
| 2000 | 239870322            | 33265           | 455            | 7,211 | 66                     | 2,805      | 458          | 308           | 161     | 1,816 | 215     | 1,553    |
| 2001 | 261681676            | 35656           | 470            | 7,339 | 59                     | 2,837      | 414          | 267           | 152     | 1,776 | 199     | 1,617    |

Source: Mass Dept. of Employment and Training

It is interesting to note that a direct result of the fast-paced residential development has been a surge in the number of lawn care and landscaping companies and other home service enterprises. Many of the new residents in Town require maintenance and repair services for their homes and yards, and therefore these have been flourishing new businesses.

There is also a visible increase in the number of fast-food eateries and new restaurants. Table 5-5 illustrates the growth in Bridgewater retail businesses between 1992 and 1997 (U.S. Census of Retail Trade).

**Table 5-5: Bridgewater Retail Trade Census for 1992 & 1997**

| Group                           | 1992*      | Total Sales | 1997*      | Total Sales |
|---------------------------------|------------|-------------|------------|-------------|
|                                 | Establish. | (\$,000)    | Establish. | (\$,000)    |
| All Retail Trade                | 37         | NR          | 64         | \$ 189,837  |
| Bldg. Materials & Garden Supply | 5          | D           | 4          | \$ 8,239    |
| Food & Beverage Stores          | 7          | \$ 6,429    | 12         | \$ 39,922   |
| Automotive Dealers & Parts      | 5          | D           | 9          | \$ 81,132   |
| Gas Service Station             | 9          | \$ 11,768   | NR         | NR          |
| Apparel, Accessories Store      | 5          | D           | NR         | NR          |
| Furniture, Home Furnishings     | 4          | \$ 3,230    | 2          | D           |
| Electronic & Appliance Stores   | 0          | 0           | 2          | D           |
| Eating & Drinking Places        | 24         | \$ 11,400   | NR         | NR          |
| Drug and Proprietary Stores     | 2          | D           | 4          | \$ 9,703    |
| Misc. Retail Stores             | 21         | D           | 5          | D           |
| Non-Retail Stores               | 0          | 0           | 3          | D           |

\* U.S. Economic Census of Retail Trade for 1992 and 1997  
D = Number too small to report with confidentiality

While manufacturing has declined for several years, warehouse and distribution facilities emerged in Bridgewater over the past 10 years, particularly within the Scotland and Bridgewater Industrial Parks. This has resulted in a 437% increase in that sector's employment level over the past 10 years.

With the presence of two major state facilities in Town, BSC and BCC, the public sector serves as the foremost source of local employment. In fact, local and state public facilities top the list of the largest employers in Bridgewater.

**Facts: Largest Employers in Bridgewater, 2000**

| Employer                        | Nature of Business | Estimated Employees |
|---------------------------------|--------------------|---------------------|
| Bridgewater State College       | College            | 1170                |
| B-R Regional School District    | S. District        | 540                 |
| SE Mass. Correctional Institute | Corr. Inst.        | 428                 |
| Bridgewater State Hospital      | Corr. Inst.        | 337                 |
| Roche Brothers                  | Supermarket        | 280                 |
| Old Colony Correctional Inst.   | Corr. Inst.        | 260                 |
| Mass. Boot Camp                 | Corr. Inst.        | 136                 |
| Mass. Treatment Center          | Corr. Inst.        | 134                 |

Source: Mass. Division of Employment and Training

Employment in the public sector between 1985 and 1999 grew by more than 30%. However, most of this growth occurred in the late 1980s and was relatively modest during the 1990s. The public sector consistently accounts for nearly half the jobs available in Bridgewater. The planned and on-going expansion of both the College and BCC will probably generate more growth in public sector employment in the near future.

### 5.4 Real Estate Trends

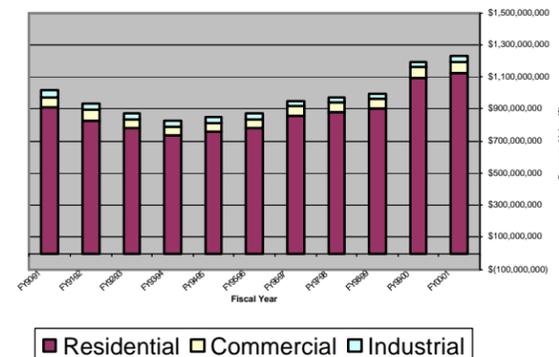
#### Commercial and Industrial Property Values

Taxable commercial and industrial property value has gain little over the past 10 years due primarily to limited development in these areas. In fact, commercial values increased by only about \$8 million over the last 10 years, and industrial values have actually declined, falling from \$43 million to \$35 million.

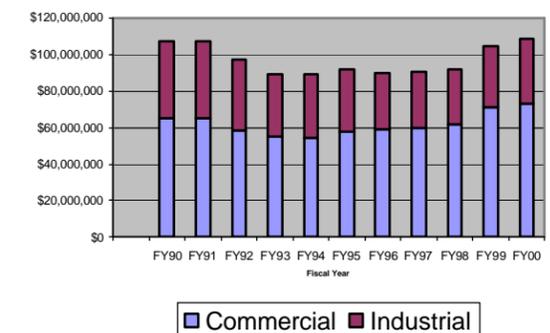
The most common type of commercial and industrial building stock in Bridgewater is warehousing, distribution facilities and smaller and older retail establishments. These properties do not typically appreciate at a very high rate, which does not bode well for increasing the local tax base.

New construction in the Corporate Center at Lake Nip is of the size and quality that could significantly boost the municipal tax base as well as diversify the economy. However, permitting has been difficult with concerns over natural resource protection, traffic congestion, and the need to upgrade public water service and extend sewerage. This is also the case in other commercial/industrial districts, making it difficult to increase the quality of new construction that will contribute significantly to the tax base over time. Specific actions need to be taken to streamline the review process and target higher quality light industrial and office parks, which will provide balance to local employment opportunities and the tax base.

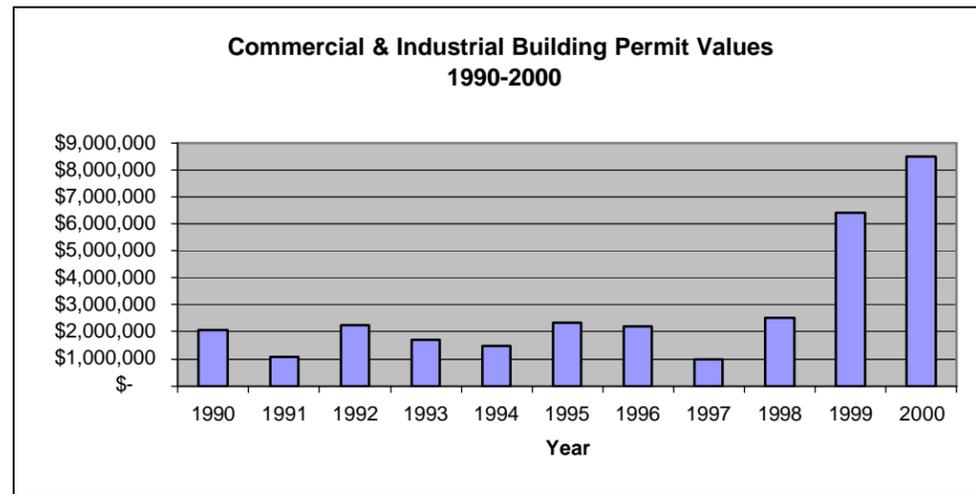
**Bridgewater Property Valuation, FY89 to FY01**



**Total Commercial & Industrial Property Values, 1990-2000**



The value of commercial and industrial building permits remained low (compared to residential permit values) during most of the 1990s. However, the value has increased significantly over the past few years since the development began at the Corporate Center at Lake Nip.

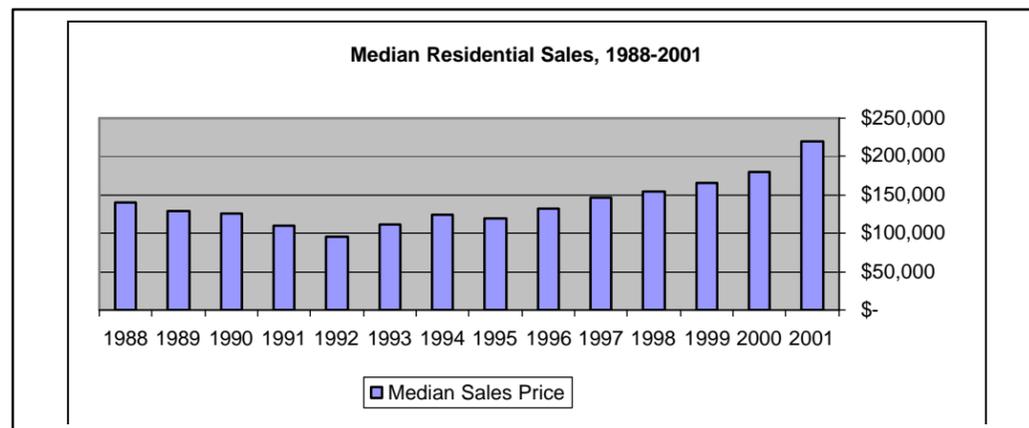


**Residential Property Values and Home Sales**

Unlike commercial and industrial property values, residential property values have risen steadily since the early 1990s. In fact, total taxable residential property values have increased by over \$213 million. This is a significant amount of growth. However, without similar growth in commercial and industrial property values, the impact on the municipal tax rate and associated facilities and services has been limited.

The median sales price for homes in Bridgewater has steadily increased over the past 15 years. Adding all housing types together (single-family, condo and other multifamily), the median sales price has increased by \$80,000. The last four years have marked a peak in the number of sales, with nearly 500 homes sold in 1998 and 1999 alone.

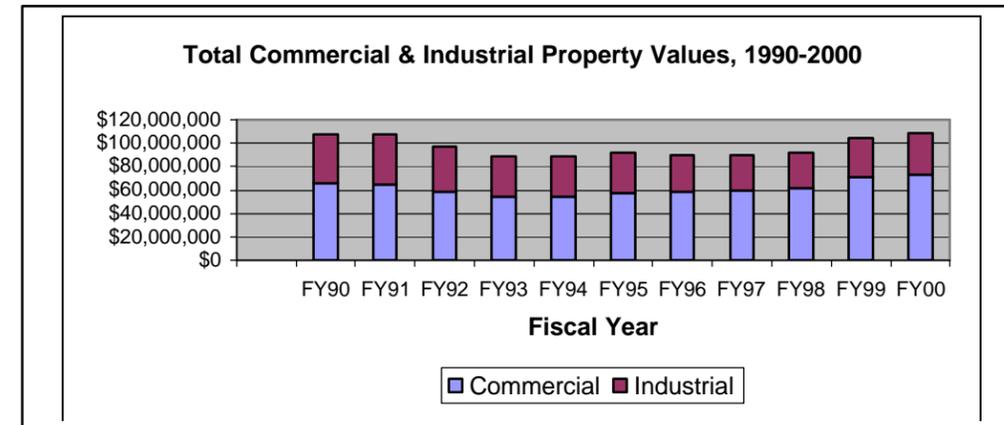
The majority of homes sold over the past 10 years in Bridgewater have been single-family homes, which average 42% of all sales. This seems somewhat low considering that the significant majority of the Town's existing housing stock and new permits issued over the past 10 years have been for single-family homes.



Since 1990, over 1600 residential building permits have been issued in Bridgewater. The vast majority have been single-family homes including age-restricted

manufactured homes. This significant amount of residential construction has added greatly to the municipal tax base. However, conventional residential development (without age restrictions) has been a

primary factor in the increased demand for services, particularly for schools, transportation improvements and recreational facilities.



5.5 Economic Opportunities by District

Over 200 acres of commercial and industrial land remains available in Bridgewater to accommodate future development. Approximately 100 such acres are located within a mile of Interstate 495 and State Route 24. There are also substantial opportunities for infill development and redevelopment in various parts of Town.

| Zoning District    | Total Parcels | Total Acres | Total Building Space (GFA) | Vacant Parcels (acres) | Aquifer Protection | Parcels with |              |              |          |
|--------------------|---------------|-------------|----------------------------|------------------------|--------------------|--------------|--------------|--------------|----------|
|                    |               |             |                            |                        |                    | Gas          | Public Water | Public Sewer | Tel/Comm |
| Business-B         | 79            | 235         | 290,329                    | 22(79)                 | 20                 | 72           | 26           | 22           | 0        |
| South Bus. Dist.   | 131           | 656         | 111,048                    | 106(417)               | 1                  | 108          | 11           | 0            | 0        |
| Central Bus. Dist. | 245           | 142         | 1,010,692                  | 27(19)                 | 0                  | 196          | 7            | 15           | 0        |
| Industrial-B       | 54            | 86          | 213,502                    | 6(18)                  | 0                  | 21           | 2            | 2            | 0        |
| Industrial-A       | 191           | 973         | 42,806                     | 82(373)                | 0                  | 56           | 0            | 0            | 0        |
| Planned Dev. Dist. | 20            | 126         | 0                          | 17(142)                | 0                  | 2            | 6            | 6            | 6        |
| <b>TOTAL</b>       | <b>720</b>    | <b>2218</b> | <b>1,668,377</b>           | <b>260</b>             | <b>21</b>          | <b>455</b>   | <b>52</b>    | <b>45</b>    | <b>6</b> |

*Source: Town of Bridgewater, Planning & Community Development Dept.*

**Residential Districts**

Residential districts within Bridgewater are well protected through zoning from traditional commercial and industrial uses. Nonetheless, there are still pockets of both types of uses that have historically been located

in these rural areas and remain viable today. Examples such as sand and gravel operations, small distribution centers, auto repair services and auto salvage yards are scattered throughout Town.

While these uses are in some cases not compatible with newer residential development, they are grandfathered and permitted to continue as they should. Eventually, these small establishments will probably be converted into other uses that fit the required regulations.

There are a few areas within residential districts that are well positioned for economic develop. The residential area on upper Elm Street has good potential as a mixed use district offering light industrial, higher density residential (such as condominiums and town houses) and recreational opportunities. This is an area in transition with a number of single-family homes competing with industrial uses, primarily distribution businesses. This area should be considered for high quality, mixed use providing employment as well as living opportunities. Clustering the different types of uses (i.e. residential and light industrial) would provide the necessary separation while maintaining convenience and preserving natural resources.

There are other residential districts that provide opportunities for small scale commercial development serving the surrounding neighborhood area. Providing basic services (i.e. food and other necessities) would be a convenience to residents and possibly reduce the number of vehicle trips and length of travel for everyday needs. There is potential for these small nodes along Pleasant Street and Plymouth Street on the east side of Bridgewater.

**Node Development**  
Nodes are small scale mixed use districts that provide basic services and conveniences to the surrounding neighborhood such as a small grocery, restaurant, pharmacy, or cleaning service.

Another general economic opportunity in residential districts is for home-based occupations. There is a growing national trend in “work at home” and small in-home businesses. Bridgewater has recently passed home occupation regulations permitting small scale and discrete in-home businesses. Home businesses provide an important opportunity for small entrepreneurs and should be encouraged. They can often serve as business incubators for small growing operations that eventually may relocate to established commercial and industrial districts without a great

deal of recruitment effort by the community. Home-based businesses also keep local and talented business people in the community.

**Industrial Districts**

Most Industrial-A designated land borders Elm Street and Scotland Boulevard. The Bridgewater Industrial Park off Elm Street opened in mid-1970. Smaller areas along Plymouth Street share the Industrial-A designation. A materials processing and reclamation operation borders the Taunton River, while activities with sizable open lot storage facilities adjoin the Town and Matfield rivers. This district also hosts a farm supply business, and small steel industry.

**Bridgewater Industrial Park** – This area is located on the northeast side of the Route 24 at the Route 104 interchange and is well positioned for economic development. Over the years, a number of fairly large distribution and other transportation-related operations were developed in the Park. Further north along Elm Street, former farmland and residential development predominates.

Even with a number of well-established construction, transportation and mining businesses in the district, a significant amount of undeveloped (and under developed) land exists. However, four major constraints currently limit the economic potential of First Street and Elm Street:

- Environmentally sensitive lands;
- Well-established residential areas along Elm Street;
- Inadequate roadways; and
- The lack of public sewerage and needed public water line upgrades.

The bulk of the Elm Street area is within the Hockomock Area of Critical Environmental Concern (ACEC). Wetland protection and some scenic lands are principally affected by development within this area.

**Definition of ACEC**  
Areas of Critical Environmental Concern (ACEC) are places in Massachusetts that receive special recognition because of the quality, uniqueness, and special significance of their natural and cultural resources. These areas are identified at the community level and are reviewed and designated by the State’s Secretary of Environmental Affairs. ACEC designation creates a framework for local and regional stewardship of these resources.

Public water connection to Elm Street is made from Route 104. However, there is no public sewer to the area. Possible connections can be made from the recently installed sewer line on Route 104 but capacity may be limited and it may not be financially feasible unless a larger scale development is built.

Roadways in the area are not well suited for commercial and industrial development. Elm Street is only 18 feet wide in some sections and used daily

by trucking operations. First Street provides access to the Industrial Park. It was constructed in the 1970s with an excessive width (approximately 45 feet) but has deteriorated significantly. The great width of the road only makes it more expensive to repair and reconstruct. Both roads have drainage problems as well. The installation of a traffic signal at the intersection of Elm Street and Route 104 was an important improvement both in terms of safety and economic development.

Beyond the infrastructure and environmental concerns, the most difficult issue on Elm Street is the conflicting and incompatible industrial and residential land use. Despite the drawbacks, Elm Street offers one of the best opportunities for Bridgewater to expand its economy and tax base. It is well positioned for high-quality office parks, as well as limited commercial and light industrial development. The Elm Street area could also provide an excellent opportunity for mixed use, combining office park, high quality residential (i.e. apartment and condominium) and passive and active recreational uses (i.e. golf, parkland, trails and conservation areas).

**Scotland Boulevard Industrial Park** – This area is located off Pleasant Street and provides another excellent opportunity for industrial and commercial development because of its close proximity to Route 24 and 495. Scotland Boulevard Industrial Park is served by municipal water but not connected to the public sewer system. As with the Bridgewater Industrial Park, the opportunity to connect exists with the recent extension of the sewer line along Pleasant Street. A low-pressure system would serve this area and discharge to a pump station north of Scotland Park. However, the types of industries in the Scotland Boulevard Industrial Park (primarily distribution and warehousing) currently do not need municipal sewer service. This park should be targeted for higher density professional offices and light manufacturing to maximize its potential for employment and tax revenue.

## **Business Districts**

**B-B District on Pleasant Street (Route 104)** – This corridor includes a mixture of residential and small-scale commercial development including restaurants, retail operations and professional services. Most of the commercial activity is centered around the Scotland Boulevard Area and in the vicinity of the Route 24 interchange.

The public water main was recently upgraded in the area and the roadway widened and resurfaced. Public sewerage was extended along the entire length of the corridor to the new office park at Route 24.

Pleasant Street is the main gateway into Bridgewater and is extremely visible and vulnerable to strip development. It has significant traffic volumes serving residential, educational, commercial, and industrial areas in the community. As a major gateway it is very important that the corridor does not become a typical highway-oriented commercial district with strip development and constrictive traffic congestion.

Commercial development along Pleasant Street should be directed to nodes (or pockets) with small-scale retail and service businesses serving the surrounding neighborhoods. Potential nodes along the corridor include Scotland Boulevard and Elm Street. The remaining areas of the corridor should be targeted for medium density residential and open space preservation. All development should be designed to complement the rural setting and enhance Pleasant Street as one of the major gateways into Bridgewater.

**B-B District on Route 18** – This district extends along routes 18 and 28 between the Central Business District south of Carver Pond to Flagg Street. The zoning district extends 800 feet from the centerline of Bedford Road to the east and 600 feet to the west. The vast majority of the district is situated in the Aquifer Protection Overlay District except for the southern portion in the Winter Street and Flagg Street vicinity.

Public water service extends throughout the district but sewer service extends only to Winter Street through a forced main. There are plans to extend this sewer line to Fireworks Circle in the near future. Sewerage expansion in this area would flow to the existing Bedford Street pump station. The northern section includes 87 acres from the National Guard Armory to Winter Street and would use gravity sewer. The remaining 222 acres between Winter Street and the Middleboro Town line would be served by a low-pressure system.

The district over the years has taken the form of strip development with a mix of residential, retail, restaurant and service businesses (including auto repair and sales). Development is limited by the aquifer protection district to the west and existing neighborhoods to the east.

While development potential exists for low-density commercial development, this district presents an excellent opportunity for medium- and higher-density residential development (i.e. condominiums, townhouses and apartments) that are needed in Bridgewater and may be more desirable in the long-term. Additional commercial development in this area may also jeopardize viability of the adjacent Central Business District as well as dilute the potential opportunities in other targeted districts such as the nodes in the South Business District and along Pleasant Street.

**South Business District (SBD)** - The South Business District is located along routes 18 and 28 from Flagg Street south to the Middleboro Town Line. The district is 1,600 feet wide to the east and west. A substantial portion of corridor's existing tree line is intact, creating an attractive roadway in several areas. Access to major highways is limited. Interstate 495 is about five miles to the south through the Route 44 rotary.

Public water service is provided to Bedford Park (about halfway into the district) but no public sewer is currently available. There are large wetlands located to the west of the district; the Bridgewater Correctional Complex borders the eastern side. These constraints, in addition to the lack of public sewerage, limit the district's development potential.

Existing development in the area consists primarily of landscaping businesses, contractor yards, and auto repair and storage operations. There are also a few office, service, recreation, retail, construction and light industrial uses. While the district permits a variety of retail, service and light industrial uses, there has been a lack of consensus over the years on the specific types of development desired in the area.

The Town has created incentives to develop business parks in a manner that preserves land south along Bedford Street (routes 18/28). Sites that are developed along the street are encouraged to share drainage facilities and driveways, and to integrate landscaped open spaces oriented toward the street. Developments in this area are required to preserve as much as 30% of the lots as open space.

However, given the lack of utilities, wetland issues, and limited access to major highways, development opportunities in the area are limited. Unlike the Middleboro section of Route 18, directly to the south with its new office parks and distribution centers, Bridgewater does not have the utilities and economic incentives (i.e. economic opportunity area designation) in place today to generate this type of development.

Under the existing scenario, this area is likely to grow as a low-density mixed use area with limited retail, office and light industrial uses. However, its best potential is probably for low-density light industrial (i.e. distribution) and medium-density residential uses that require limited utilities, protect the corridor's tree line and wetlands, and reroute some of the truck traffic that heavily use Route 104 and the Central Square. Additionally, by positioning this district as a distribution center (particularly on the southern end), existing businesses in the Bridgewater and Scotland Industrial Parks may be encouraged to relocate or expand into the South Business District and thereby make available more opportunities for office and light industrial uses in these two parks which are better suited for such development.

**Planned Development District** – The PDD District is located between Routes 104, 24 and I-495 south of Lake Nippenicket and west of Route 24. The area recently gained public water and sewer, creating an excellent opportunity for high-quality office park development. The first project in the PDD, the Corporate Center at Lake Nip, serves as the headquarters for a development corporation and is filled with e-commerce/internet and other professional businesses. The full development is planned over several phases and includes approximately 850,000 square feet of office, light industrial, and hotel uses.

This area has been difficult to develop over the years because of environmental and traffic concerns. Approximately one-third of its 200 acres is wetlands, which are mostly found along its southern boundary with Interstate 495. Protection of this resource is initially addressed by requiring upwards of 35% of a buildable lot to be preserved as open space. Community-led efforts in 1989 increased this protection by having the State incorporate the entire district within its Area of Critical Environmental Concern (ACEC) for the Hockomock Swamp. The ACEC designation increases the likelihood of development review under

the state environmental review process, thereby minimizing its potential impact on sensitive environmental resources.

District development is also to be screened from Route 104, and thus Lake Nippenicket, by a 200-foot landscaped buffer. Storage, processing, treatment or recycling of hazardous wastes is strictly prohibited, and manufacturing and distribution activities are regulated by special permit. Such allowable uses as office, hotel and R & D readily allow for the creation of a business park-like setting. This district probably offers the best potential development opportunity in Bridgewater given its proximity to major highways and attractive settings. Land use regulations have been well designed to protect resources while allowing high-quality office park development.

**Central Business District** – Bridgewater’s CBD includes Central Square and surrounding areas along Broad Street, South Street, Summer Street, Spring Street and Bedford Road. The heart of the district is Central Square, which includes a number of well-preserved historic buildings around the Town Common. The area is fully serviced by public water and sewer.

The CBD is a mixed-use district with a variety of residential, retail, restaurant, service and public uses. There are few street level vacancies but several upper floor spaces are either underutilized or vacant.

As of 2001, there were approximately 122 businesses of which 44% are in the service category and 34% are in the retail category. These are mostly small shops, restaurants and other limited commercial uses except for two shopping centers on the north end of the district (Campus Plaza and Roche Brothers Plaza). These two plazas and several smaller commercial operations north of Spring Street have been developed over the last 30 years. As is typical with newer commercial developments, the area includes several franchises, large parking lots and single purpose buildings. The auto-orientation of this area is inconsistent with the traditional development patterns of Central Square and Broad Street (to Spring Street) and consideration should be given to separating these areas into two zoning districts.

While there is a broad range the businesses in the CBD, there are a relatively small number of high-quality retail and restaurant establishments. This provides an excellent opportunity to broaden the customer base downtown, particularly for student and faculty at Bridgewater State College, and new residents in the community. BSC represents a very large market just east and within walking distance of Central Square that is largely untapped.

Traffic congestion is a major concern in downtown with the convergences of routes 18, 28, and 104 on Central Square. High daily volumes require police attendance during morning peak hours. Truck traffic is also of concern as trucks are required to maneuver around a series of fairly tight intersections. Traffic in Central Square has been identified as a possible deterrent to business development. It is thought that residents and potential shoppers may avoid the area due to backups and delays. However, the high traffic volumes provide excellent exposure to local businesses and with high quality signage (both public and private) as well as good visibility, business operators may be able to take better advantage of this.

Along with traffic, parking has been sited as a problem for downtown. There are approximately 331 public parking spaces in the district. Compared to the building square footage in the district the parking ratio is adequate by most standards. Recent parking surveys conducted for the *Bridgewater Town-wide Comprehensive Transportation Study and Management Plan* indicate that the peak parking time is at noon when nearly 78% of public parking spaces in Central Square were occupied and 52% of the spaces on Broad Street were

occupied. Public parking spaces in other areas were occupied at a lesser rate. Overall, this occupancy rate indicates that parking is available downtown and the perceived shortage may be overestimated.

Parking is fairly well distributed throughout the district through both on-street parking and off-street lots. However, the absence of coordinated directional signage identifying public parking locations as well as the lack of internal connections between parking lots creates a perception that not enough is provided. The Town should work with local business and property owners to initiate an attractive directional signage program, facilitate shared parking agreements, and make internal connections to improve the perception and accessibility of downtown parking.

Several public improvements have been made in the downtown over the past 10 years that have included new street trees, traffic circulation and signalization, public parking, landscaping, preservation of historic buildings and pedestrian amenities. However, of critical importance in the near future is enhancing pedestrian safety at crosswalks and improving the pedestrian connection between the BSC campus and Central Square.

Continued maintenance of the Common and other public lands, upgrading sidewalks along Broad and Spring Streets and creating a linked park system along portions of the Town River are very important district-wide objectives for revitalization. There is also interest in inventorying Bridgewater’s Heritage Landscape, thereby setting priorities for the preservation of Colonial era homes and other cultural treasures that are threatened by lack of knowledgeable or affordable maintenance.

There is limited space for future development in the CBD. As a result, there is growing pressure to raze existing buildings and replace them with new ones, which threatens the historic character of downtown. However, infill development opportunities exist along the street frontage of Broad Street, Summer Street and Spring Street that could connect these areas to Central Square and provide new vitality for the downtown. The best development and redevelopment potential for the CBD is to expand small retail, restaurant, and entertainment type uses that accommodate both local resident and student demands.

## 5.6 Analysis of the Bridgewater Market

The Community-wide Survey conducted by the Master Plan Study Committee included responses on local economic issues, shopping habits, business development suggestions, tax rate issues, and geographic preferences for new development and redevelopment.

### **Resident Shopping Patterns**

When asked “Do you do most of your shopping in Town” only 50% of the 761 responses said yes to the question. Almost 41% indicated that they primarily shop in other communities including locations indicated below. A total of 665 respondents indicated the following as the most popular shopping items they purchase out of town:

1. Clothing
2. Household/Home Improvement & Appliances
3. Food
4. Department Store/General Merchandise

Respondents also indicated that they shop out of Bridgewater for additional items including entertainment, gifts, cars, and garden supplies.

**Bridgewater Residents Shopping Locations of Choice (Outside Town)**

| Rank | Destination          | Location  | Distance From Bridgewater CBD | Approx. # of Businesses |
|------|----------------------|-----------|-------------------------------|-------------------------|
| 1    | Route 44             | Raynham   | 9 miles (30 min.)             | N/A                     |
| 2    | Silver City Galleria | Taunton   | 12 miles (26 min.)            | 123                     |
| 3    | Westgate Mall        | Brockton  | 11.5 miles (30 min.)          | N/A                     |
| 4    | South Shore Plaza    | Braintree | 21 miles (35 min.)            | 185                     |

(Also mentioned were the surrounding towns of West Bridgewater, East Bridgewater, Halifax and Middleboro).

**Business Opportunities**

Bridgewater residents are looking for new retail businesses. When asked the type of business they would like to see encouraged in Town, 581 responded as follows:

1. Clothing and shoe retail shops
2. Business/Commercial
3. Light manufacturing including software, hi-tech and R&D
4. No more business should be encouraged.

However, when asked what types of business should be discouraged in Bridgewater, 521 respondents indicated the following:

1. Fast food (pizza, subs, etc.) including chains and franchises
2. Bars, liquor stores, nightclubs
3. Retail and strip malls
4. Adult entertainment and pornography

5.7 Existing Support for Economic Development

**Public Infrastructure**

**Public Utilities** – The limited public water and sewer system in Bridgewater (particularly public sewer in key areas that otherwise have good economic potential) are a major economic development constraint. The Bridgewater Industrial Park, Scotland Boulevard Industrial Park, the Bedford Street B-B District, and the South Business District all are inhibited by the limited public sewerage. Extension of service to these areas is expensive and without sufficient building density and good market conditions, unlikely to occur to a large degree over the next five years. Maximum economic use should be made of those areas that currently have municipal services such as Central Square, PDD, and areas of Broad Street, Bedford Road, and Pleasant Street.

**Transportation** – Bridgewater’s proximity to major highways and the network of local arterials provides good economic opportunity for a number of commercial, light industrial, and distribution type businesses. However, traffic congestion and unsignalized intersections in certain areas of Town need to be addressed to maximize this potential. The MBTA also provides broader access to a regional employment base to support growing industries. Regionally, major international airports in Boston and Providence are both less than 40 miles away, and the Mansfield Municipal Airport, a general aviation facility, is easily accessible locally.

**Organizational Support**

There have been several organizations that have worked to build the Bridgewater economy over the last 10 years. However, two key local organizations, the Bridgewater Partnership and the Bridgewater Industrial Commission have since been dismantled. This leaves Bridgewater without a designated entity to support local economic development efforts. These two organizations, or similar ones, that focus on downtown revitalization and industrial development in designated districts, are critical to assisting local businesses in expanding, attracting new industry, seeking supporting grants and other incentives, creating new job opportunities, expanding the tax base, and generally guiding commercial and industrial growth to appropriate areas.

**Regional Economic Support** - Bridgewater is part of the Plymouth and Brockton Redevelopment Area, which include 11 communities. Representatives from each community participate in formulating the Overall Economic Development Program, coordinated by the Old Colony Planning Council. OCPC provides technical assistance in identifying projects and seeking funding and other means of implementation. As of 2002, Bridgewater had three projects on the Council’s priority list for federal economic development grants.

**The Bridgewater Partnership** – This organization was formed in the early 1990s to focus on downtown revitalization using state grants. It involved local merchants, property owners, bankers, and BSC officials. Its primary purpose was to heighten concerns about retaining existing businesses and attracting new enterprises. Although the Bridgewater Partnership’s goals were to hire a full-time downtown manager and expand its efforts to other commercial and industrial areas of town, it folded in 1994.

**Chamber of Commerce** – Local businesses participate in two regional chambers including the Metro South Chamber (Brockton) and Cranberry County Chamber (Middleboro). Bridgewater has been represented on the Cranberry County Chamber subcommittee for economic development.

**Department of Community Development and Transportation Management** – This department administers zoning and development review, grant programs, the geographic information system (GIS), transportation improvements, and general community planning. Over the last 10 years it has worked with property and business owners on economic development issues. It has received several supporting grants including a Downtown Partnership Grant, Peer-to-Peer Program Grant (for economic development planning), EOEA Self Help Grant, Historic Preservation Funds, and a FEMA Hazard Grant. The department has also participated in the Heritage Landscape Pilot Program.

The Department has developed a pamphlet entitled “The Town of Bridgewater Welcomes New Business” which identifies the various departments that you may need permits from and which offer grant opportunities. This includes a Certificate of Business from the Town Clerk.

**Bridgewater Industrial Commission** – The BIC was discontinued out of frustration. Its purpose was to assist local industries and attract new ones to build the local economy, create new jobs and expand the tax base. In the early 1990s, Town meeting soundly defeated two large proposed projects in the PDD District including a \$200,000,000 waste-to-energy facility and a \$100,000,000 mall. The BIC was later denied a budget for a promotional campaign and the Town rejected another proposal to have IDC placed under the Town Planner.

**Bridgewater Improvement Association** – The BIA uses a local endowment to support its mission to beautify the town. Funds have been used over the years for the purchase and maintenance of trees, shrubs and flowers planted throughout the community. Special projects have included new streetlights, brick sidewalks and aprons around the Common, trash receptacles and benches around Central Square, and several others. In enhancing the image of the downtown area through these streetscape projects the BIA is providing a valuable service to local businesses and improving the economic development climate.

**Bridgewater Business Association** – This group of Bridgewater business and civic leaders is actively involved in local economic development issues and community improvement initiatives. The BBA holds regular meetings, sponsors several events and activities, and promotes the development of business in the community.

### **Resident and Business Owner Issues**

**Resident Issues** – Bridgewater residents are interested in building the local economy, creating jobs, and expanding the tax base. However, the Community-wide Survey results indicate a strong desire to create a split tax rate where commercial and industrial properties are assessed at a higher rate than residential properties.

When asked “Would you support a different tax rate for residential property vs. business/commercial property?” nearly 62% of the 761 responses were in favor of the proposition. This strong support for a split tax rate appears to be out of frustration from rising residential property taxes over the past five years and the thought that increasing the commercial/industrial tax rate is an opportunity to relieve the residential burden and expand the tax base.

A split tax rate is generally considered to be a deterrent to economic development in municipalities where the commercial and industrial markets are not active. In Bridgewater, commercial and industrial property values have been stagnant over the past 10 years, and industrial property tax assessments have actually declined. As described in this chapter there are several factors inhibiting economic development in the community including the following:

- Limited public sewerage in existing business and industrial zones;
- Environmental constraints to growth such as aquifer recharge zones, wetlands and designated ACECs;
- Lack of organization support for commercial revitalization and industrial development;
- Limited opportunities for the Town to access economic development grants; and
- No state-authorized incentives in place locally to attract desired development.

These factors combined with a weak commercial/industrial market have made it difficult to expand the tax base in Bridgewater. What has occurred by and large over the past 10 years is scattered and disconnected commercial development that is evolving into strip development along the Town’s major roadways. Adding a split tax rate to the list of inhibiting factors above could further deter business interests and local efforts to expand the tax base through commercial and industrial development. Strategies are needed to address the inhibiting factors and guide growth to appropriate and desired locations throughout Bridgewater.

**Business Owner Issues** - The Bridgewater Growth Advisory Committee conducted a survey of Bridgewater businesses in November 1996. This survey contained seven multiple-choice questions and one open-ended response request. A mailing list of 416 businesses was developed using phone books, Town clerk listings, and the Bridgewater Business Association’s mailing list. A total of 403 surveys were distributed and 69 were returned (17.1% return rate).

The conclusions of the analysis were that while there was individual dissatisfaction with Town government economic development services, there was no indication of a systemic problem. The results seem to indicate fairly good support for a strong business organization in Bridgewater but not at the financial level of a chamber of commerce. Responding businesses indicated that they would support such an organization, but would contribute no more than \$100 per year.

The Committee issued a report with recommendations for Town government to improve the balance between business and home development with a favorable attitude toward new business development and retaining existing businesses. This would be accomplished by taking the following approach:

- Create a position of Business Development Coordinator to serve as a public liaison/facilitator between town government and the business community; provide assistance with the permitting process, communicate with local businesses, and education as needed;
- Streamline the permitting process;
- Extend and improve infrastructure capacity;
- Review local tax structure for potential concessions and incentives for business development;
- Improve communications between the business community and local government; and
- Utilize technical resources at BSC

These recommendations are still applicable and needed in 2002 in order to expand the local economy. Other inhibiting economic development factors are addressed in the following section: Goals, Strategies and Actions for Economic Development

## 5.8 Goals, Strategies and Actions for Economic Development

### **Overall Economic Development Goal**

To carry out successful economic development strategies and action programs, an overall goal is established to guide the process with the following objectives:

- Facilitate strong public participation in creating and implementing the program;
- Guide economic development toward targeted locations throughout the community where it is most appropriate and desired;

- Create a cooperative partnership between public sector and business community; and
- Ensure that the Bridgewater Community has a stake in the process and feels an ownership of the program.

The benefits of a successful economic development strategy go well beyond those who own property or open businesses. Economic success is felt throughout the entire community in terms of: new employment, shopping and cultural opportunities; improved property values and reduced residential property taxes (potentially); and preservation of historic buildings and heritage.

The following economic development strategies and actions are based on this overall goal, the inventory and analysis contained in this chapter, and the Bridgewater Vision Statement.

**Strategy 1: Establish a new organization to lead the economic development program in Bridgewater.**

For Bridgewater to reach its full economic potential, there must be a permanent vehicle that allows the Town’s key constituents to fully visualize, plan and implement an economic development strategy. The Bridgewater Downtown Partnership and the Bridgewater Industrial Association were started for the purpose of economic development but folded due to lack of support by the public and private sectors. Given the constraints currently placed on the Community Development Department, which is responsible for development review of numerous residential projects and general planning, the Town does not have the capacity to fulfill this critical need.

**Actions**

- Incorporate - The Town should initiate the creation of a new non-profit organization to work with the business community on various community development and revitalization programs. There are several different ways in which a permanent organization can be established for the purposes of carrying out the economic development strategy:
  - Establish a Redevelopment Authority - Advantages for infrastructure projects such as streetscape improvements, public water and sewer expansion, waterfront development, public parking, and building rehabilitation
  - 501c (3) - most common designation; access to grant programs
  - 501c (4) - Civic leagues or organizations operated exclusively for the promotion of the social welfare.
  - 501c (6)- These are set up for business leagues, chambers of commerce, real estate boards and similar organizations. They are membership organizations with lobbying ability.

The most flexible designation is the 501c (3) which is also the most recognized by other charitable organizations, foundations and grant programs.

- Create an Organizational Structure – The Organization should be structured as follows. Every effort should be made to structure the Board as a private-public partnership and as a group of powerful, influential leaders. Optimally, for ease of management, the board size should be kept to a limited number of members (such as 15-25). Each member of the board should serve in an ex officio capacity – meaning by virtue of their office or representation – and each should be a voting

member of the board. The Board of Directors in Bridgewater should include broad composition and representation: Planning & Community Development Director, Chamber of Commerce Board President, Bridgewater State College President, the chairs of the Board of Selectmen and Planning Board, Bank and Industry CEOs, Downtown business owners/operators, involved residents, presidents of the Historical Society and Historic District, and newspaper CEOs.

The Board should create task forces and give them the decision-making authority required to implement the strategy. The Board should also be responsible for hiring and overseeing the organization’s executive director.

- Establish Organizational Objectives - Once the management vehicle is selected for incorporation, the organization should fill the following role:
  - Act as an umbrella organization that pulls together and coordinates Bridgewater’s constituents from both the private and public sectors;
  - Provide a united voice for the Town’s economic growth and enhancement;
  - Become the centralized and authoritative voice for economic development;
  - Position Bridgewater as a major asset within the region;
  - Spearhead implementation of the Economic Development Strategy;
  - Hire and oversee staff;
  - Create the committees and task forces recommended below;
  - Provide and cultivate the leadership necessary to implement the Plan;
  - Garner an adequate level of resources – staff, volunteers, funds, etc. - to successfully implement the strategy; and
  - Define the organization’s mission with representation from the local business community.

Example Mission Statement

BRIDGEWATER, INC. is committed to enhancing the economic climate of the Town of Bridgewater, and will serve as a partner to all public and private groups working for positive change by promoting and facilitating an attractive environment for business development for all residents.

GOALS

- ◆ Coordinate efforts with local business, the Town, and other regional organizations for the retention and recruitment of businesses that will sustain a positive economic climate.
- ◆ Promote and support efforts of existing and new businesses in Town through marketing assistance.
- ◆ Identify and offer financial incentives needed to encourage current and prospective businesses to expand/locate in Town.
- ◆ Develop assistance programs for small business in the area of finance, marketing, and other related activities.
- ◆ Communicate regularly with the business community
- ◆ Sustain a positive relationship with Town Government Departments related to business expansion, recruitment, policy and regulation review, and enhancements to the economic climate of Bridgewater.

- Conduct a Detailed Economic Analysis and Define Strategies - The new organization should develop a detailed Economic Analysis to gain a higher level of knowledge concerning business

operations and market orientation of the community. This analysis should include an evaluation of other municipalities in the region that represent some degree of competition to Bridgewater. It should also include a full market analysis identifying potential new business opportunities for the community.

The organization should utilize the Economic Analysis to implement specific actions taken in the following areas:

- A marketing, recruitment and retention program
- Real estate enhancement and redevelopment projects
- Business investment initiatives and incentives
- Traffic and parking improvements
- Community involvement

### **Strategy 2: Identify potential real estate enhancement and redevelopment opportunities**

#### **Actions**

- Facilitate New Commercial and Industrial Development – New commercial and industrial development should be targeted to specific areas within the existing zoning districts and in close proximity to transportation and services. New business should consider housing needs, transportation options and constraints, environmental and open space needs, convenience to employees and residents, and water supply protection. The economic development strategy should provide for a variety of economic development options to avoid over-reliance on specific industries, assure opportunities for small businesses, and be responsive to the needs of the community.
- Identify and Facilitate Redevelopment of Older Buildings - Identify and develop specific strategies for redevelopment and demolition of older commercial and industrial buildings. Some possible strategies for redevelopment in Bridgewater are as follows:
  - Provide incentives for elderly housing, student housing and live-work units or artisan studios in vacant or underutilized older buildings (i.e. upper floor space in Central Square).
  - Encourage redevelopment of vacant industrial buildings into incubator space for small and micro-business, as well as residential units.
- Update the 1996 Bridgewater Growth Advisory Committee Business Owners' Survey.

### **Strategy 3: Create business development incentives and stimulate private investment**

Economic development incentives may include revisions to the local tax structure and programs that provide for investment and expansion of the tax base. Various programs have been used throughout the state with good results. In Bridgewater the following options should be considered.

#### **Actions**

- Establish a Business Loan Pool - This is a good tool to attract new businesses and assist existing businesses that want to expand. Bridgewater may use grants and other funds to establish low-interest loan programs for business and property development. Private foundations and banks are also useful in initiating these programs. Local banks that participate in such programs are eligible for Community Reinvestment Act (CRA) credits that they are required to fulfill on an annual basis. Typically these loan programs are set for start-up costs including equipment needs, working capital, renovations or new development. Loans are often made at below the prime interest rate as an incentive for locating in targeted areas of the community or to attract specific types of businesses.
- Pursue Economic Opportunities Area Designations – The Town should pursue state designation of Bridgewater commercial and industrial districts as Economic Opportunity Areas (EOA) for purposes of offering businesses a variety of economic assistance including Tax Increments Financing (TIF). TIFs create a baseline of property value and as development or renovations are made the additional tax value is stabilized over a period of time (typically five to 20 years) to reduce the cost burden for new businesses. Redevelopment projects are also eligible for state reinvestment breaks. Many cities and towns are using EOAs as a tool for revitalization and economic development including Middleboro for industrial parks at the Route 44 rotary. EOAs should be established in the following districts: I-A, P-D, CBD, B-B and SBD.
- Create Local Limited Partnerships - A new economic development organization could acquire real estate, make renovations and open businesses to create new job opportunities and tax value. This strategy works well on older vacant buildings.
- Tax Increment Financing District – TIF is a procedure in which the municipality advances funds to aid the redevelopment of a designated area in anticipation of repayment through the increased tax revenue generated in the redevelopment district. This program would work well in targeted business districts such as SBD, Scotland Industrial Park, Bridgewater Industrial Park, and Downtown.
- Joint Ventures – Typically, municipalities assist with the land assemblage and acquisition and the developer raises the remaining debt and equity capital, oversees the development process, and manages the project to completion. Bridgewater should consider this strategy for key development parcels in commercial and industrial districts targeted for redevelopment.
- Tax-exempt Financing – Bonds can be issued by the municipality using the tax-exempt status so that funds can be provided to a private developer at a reduced interest rate since the bond-holder is not subject to federal income tax on the interest proceeds.
- Property Assemblage – Bridgewater can acquire properties through condemnation under its powers of eminent domain with just compensation to property owner if the project is for the public good. Typically this is done to assemble parcels for resale or development for targeted businesses. It can also be used by Bridgewater for infrastructure expansion.

- **Land Cost Write-Downs** – In combination with property assemblage, Bridgewater might resell property targeted for economic development for less than the original value to create an incentive for the type of development sought by the community.
- **Relocation Funds** – A pool of funds could be established to relocate existing businesses to more suitable locations thereby creating new opportunities for targeted redevelopment. This strategy may be used to relocate certain distribution operations to more suitable locations and opening property for targeted office park development.
- **Property Tax Abatement** – Property tax can be a significant cost in real estate development projects, particularly in the early years of the operation. If the development is an important community project, it's possible to reduce the tax burden by:
  - Tax waivers
  - Leaving taxes at pre-development level
  - Freezing taxes at pre-development assessed value
  - Tax stabilization (usually five to 20 years)
  - Combination of the above
- **Provide In-Kind Services** - Various town departments and other public entities can provide valuable assistance on important economic development projects by getting involved early in the process. Potential in-kind services include the following:
  - General planning assistance
  - Financial packaging of desired projects
  - Grant applications
  - Historic tax credit applications and National Register nominations
  - Certified Local Government (CLG) application
  - Town labor and materials contribution to various smaller projects
  - Vocational/technical school labor
  - Site clearance
  - Provision of easements
  - Professional and student assistance from BSC
  - Community outreach programs to educate the public about economic development and workforce issues
  - Town-wide computer mapping system (GIS System) expansion and use as a tool for economic development
- **Provide Informational Services** – The Town or new economic development organization may provide studies and reports critical to businesses development decisions in the community. Potential services may be funded through grants and include the following:
  - Appraisals and business plans
  - Feasibility study and pro forma analysis
  - Market studies and reuse analysis
  - Engineering reports

#### **Strategy 4: Infrastructure improvements are needed to support existing and attract new development to targeted areas.**

Bridgewater can assist desired commercial and industrial development by directing capital improvements to coincide with important development projects by adding nearby parking, clearing the site of non-essential structures, providing water and sewer to the site, and making streetscape improvements. A major inhibitor to office park and light industrial uses in town is the limited availability of municipal sewer service to existing business districts. This and other infrastructure actions to provide economic development opportunities in Bridgewater are identified below:

##### **Actions**

- Expand/improve parking and access thereto within downtown.
- Upgrade/expand the municipal sewer systems to Bridgewater Industrial Park, Scotland Industrial Park, Bedford/Winter/Flagg Street Area, and other prime commercial areas. (In accordance with the recently completed Public Sewer Master Plan).
- Improve roadways in the Bridgewater Industrial Park and Scotland Industrial Park.
- Complete traffic signalization and other infrastructure improvements along the major access corridor to Interstate 495 and Route 24. (In accordance with the recently completed Transportation Master Plan).

#### **Strategy 5: Establish a downtown revitalization program.**

Downtown is the heart and soul of Bridgewater. It is a critical mixed-use district with commercial, residential, educational and government uses. However, as commercial development spreads out to other areas of Town, the vitality of the downtown area is vulnerable and threatened. The impression that residents and visitors have of the community is based on the vitality of Central Square. Therefore, a specific economic strategy is necessary for downtown to ensure that it remains healthy and vibrant, and that new complementary uses and development are given opportunity.

##### **Actions**

- **Facade and Sign Improvement Program** - This program would provide matching grants or loans to downtown property owners to make façade improvements in keeping with the historic character of the areas and/or add high-quality business signs and awnings. The program should include guidelines for building improvements and maintenance to facilitate appropriate renovations. Typically, the most successful programs provide matching grant funds (such as a 50:50 match) with easements placed on the improvements for a number of years to ensure continued maintenance.
- **Gateway Streetscape Project** - Attractive entrances (or gateways) into downtown is critical to making a good impression on visitors and potential customers. Trees, street banners, and decorative directional signage should be installed to enhance aesthetic value along routes 104, 28, and 18 as they approach Central Square.
- **Identify and Promote Infill Development Opportunities** – Infill development on open parcels and redevelopment parcels should be encouraged that is consistent with the scale and design of existing

buildings in the historic district. Infill development should be pedestrian-oriented, multiple-story (two to three), and mixed use with retail/restaurant use on the ground floor and service and residential uses above. Parking should be located to the side or rear of the building. There are several potential infill sites in downtown Bridgewater including the northeast corner of Broad Street/Summer Street and locations on Broad Street, Main Street, Summer Street, and Spring Street.

- Improvement of Downtown Investment Environment – Action should be taken to spur new private investment in the downtown area through the following steps:
  - Enforce building codes
  - Encourage owners to maintain/improve their property
  - Assist businesses and tenants
  - Reinvest development fees in designated project areas
- Traffic and Parking Improvements – The Town should continue to make improvements to the transportation system in the downtown in accordance with the new Transportation Master Plan. Additional public parking should be added where the opportunity exists. Connections between parking lots (both public and private) should be made to improve internal circulation and maximize parking opportunities. Potential locations for these parking improvements include the following:
  - Internal connections for lots behind the buildings on the west side of Central Square.
  - Internal connections for lots behind the buildings on the east side of Central Square.
  - Expand parking and make internal connections on the northwest corner of Main Street and Broad Street.

The Town should also install attractive directional signage to guide visitors and potential customers to public parking locations throughout downtown.

- Festivals and Events – The Town should work with local merchants to organize new festivals and events that feature Central Square as the focal point for the community. Potential events may include a farmer’s market in the summer and fall, sidewalks sales, and holiday celebrations.
- Marketing – Based on the market analysis, there is potential in downtown to attract high-quality restaurants and retail shops. This information should be provided to potential new businesses and existing businesses that are considering expansion. Downtown should also be promoted as a shopping and eating district to the general public and targeted customers. A particular effort should be made to market downtown businesses to students and faculty at Bridgewater State College, which represents the largest, closest and least tapped market for the CBD.

**Strategy 6: Revise land use controls and policies to effectuate the type and location of economic development desired by the community and supportable by the local market.**

Short-term relief such as special permits and variances for desired projects, and long-term re-evaluation and amendments can serve as a significant incentive for redevelopment. Incentive zoning occurs when

additional building density, height, and other dimensional requirements can be exchanged for public amenities such as utility extensions, traffic improvements, open space, parking and affordable housing. Existing policies and regulations should be revised to ensure that they are responding to the needs, desires and market forces shaping Bridgewater’s economy. Revisions should be included in the following guiding parameters:

**Central Business District**

- Transportation systems and traffic standards that recognize the intermodal nature of the district
- Provisions for a proper mix and vertical definition of uses
- Flexible parking standards (i.e. reductions, shared parking, off-site agreements)
- Dimensional standards that complement and preserve the historic development patterns

**SBD, BB and BA Districts**

Establish Nodes of Development – To avoid the risk of weakening existing retail operations and to meet current market demands, the strip area in these districts should be restructured to create nodes of development. These nodes should be high-density, mixed-use commercial districts surrounded by low-density land uses and open spaces. Commercial Nodes established along major roadways can pump new life into segments of suburban strips and reduce traffic congestion in other areas. To facilitate node development in these districts the following revisions should be made:

- Use key intersections to create cores of development with intense activity but which are friendly and attractive to pedestrians. Each node should differ from other nodes in character, function and purpose. Potential locations include:
  - Route 104 at the Raynham town line
  - Bedford, Winter Flagg street area
  - Pleasant, Scotland and Prospect street area
  - High and Mill street area
- Plan and zone higher densities in these nodes to facilitate a mix of uses
- Plan and zone lower density uses outside the nodes to protect natural resources, reduce traffic impacts, and enhance visual quality of the district.
- Direct public investment into the nodes such as infrastructure and government facilities to encourage mixed use and higher value land uses to serve as anchors and induce private development.
- Use public incentives such as transfer of development rights (TDRs), tax abatement, design guidelines, vertical zoning, and an accelerated approval process to foster the development as a high-value community asset.

**IA, IB and PDD Districts**

- Provide for desired office and light industrial expansion and new development through higher density zoning and permitted uses.
- Encourage the relocation of lower value uses that may be more suitable in other zoning districts and areas of town (i.e. distribution facilities located in the Bridgewater Industrial Park should be

encouraged to relocate to the SBD where the traffic impacts are reduced and to make available property for higher value uses).

- Direct public infrastructure investments into the Scotland and Bridgewater industrial parks to facilitate the desired mix of uses and higher value properties, and induce private development.
- Use public incentives such as tax abatement, design guidelines, and an accelerated approval process to foster the high-value development.

### **All Districts**

- Support outdoor activities through ordinances;
- Create opportunities for ecotourism;
- Create a development review processes that is efficient and straight forward;
- Provide opportunities for at-home businesses, conversion of industrial spaces to other uses, and live/work facilities;
- Protect significant natural resources and address impacts of potential incompatible uses using performance standards;
- Use incentives to encourage desired development; and
- Adopt a Historic Preservation Clauses in Local Building Code to facilitate rehabilitation of older buildings

### **Strategy 7: Create a marketing, recruitment and retention program for Bridgewater**

The new organization and steering committee should market the community and inform the general public and prospective businesses of the numerous amenities already in Bridgewater, and positive aspects of developing new business in Town.

### **Actions**

- Develop a Bridgewater Business Directory - This should be an annual inventory of all businesses, services, agencies and other establishments in the community including business name, type of business, address, and phone numbers. The Directory can be used locally and as a marketing tool for prospective businesses and customers. All students at BSC should receive a copy of the directory at the beginning of the school year.
- Develop a Building Space Inventory – Develop an inventory of available building space for rent or sale as well as land to assist prospective businesses in finding the most suitable location for new or expanding businesses. Information should include square feet, owner/realtor, address, utilities, assessed value, age, and other on-site amenities (i.e. parking, etc.)
- Business Recruitment Program - Develop and continually update a list of prospective businesses based on the market analysis and regular contact.
- Marketing Brochures – Develop a packet of information on the socio-economic trends, traffic volumes, commuter rail, potential development sites, incentive programs, and other local resources that could provide opportunities to new businesses (i.e. Moakley Center). Work cooperatively with businesses on tourist brochures highlighting community events, shopping districts, recreational opportunities, and historic sites.

- Media Coverage of Economic Development Progress – Submit regular articles and radio interviews covering new businesses, expanding businesses and other enhancement projects.

### **Strategy 8: Identify and seek new programs and potential funding sources for targeted types and locations of economic development.**

There are numerous local, state, federal and private grant programs to support development and redevelopment projects. Funding programs can be used for acquisition, construction and rehabilitation, and business development soft costs. Potential economic development funding sources for economic development activities in Bridgewater include the following:

- Economic Development Administration Programs (Federal)
- Community Development Block Grants (CDBG – Small Cities Program in Massachusetts)
- Community Development Action Grants (CDAG)
- Massachusetts Implementation Grants (MIGs – MA Department of Housing and Community Development)
- Public Works Economic Development Grants (PWEDs – MA Executive Office of Transportation and Construction).

## CHAPTER 6 – STATE INSTITUTIONS & THE COMMUNITY

### 6.1 Common Growth Trends

Bridgewater hosts two major state facilities including Bridgewater State College (BSC) and the Bridgewater Correctional Complex (BCC). BSC and BCC are each the largest and oldest facilities of their kind in the state. Additionally, the community is connected to another major public service - the Massachusetts Bay Transit Authority (MBTA), which provides commuter rail service into Boston. The combined impacts of these institutions are significant. They are an integral part of the community historically, culturally, economically, and in terms of public facilities and services provided.

The BSC campus covers approximately 235 acres and BCC about 1,500 acres. Together these state institutions own approximately 25% of the land in Bridgewater. The Town provides municipal services to both facilities in areas such as ambulance, fire, police, and inspectional services. Between BSC and BCC, the state far outdistances all other public agencies or private businesses when considering employment, buildings square footage and land mass.

There is a direct correlation between the Town's population growth and state institutions in the community. Significant population growth over the last 30 years in Bridgewater is due to the expansion of BSC and the five facilities comprising BCC, as well as the introduction of commuter train service by the MBTA in 1997.

Facts: Bridgewater Residential, BSC & BCC  
Population, 1970-2010

| Year | BSC   | BCC   | Total Pop. | % Of Total BSC & BCC |
|------|-------|-------|------------|----------------------|
| 1970 | 1,165 | 987   | 11,829     | 18.2%                |
| 1980 | 1,328 | 1,001 | 17,202     | 13.5%                |
| 1990 | 1,762 | 2,394 | 21,249     | 19.6%                |
| 2000 | 1,900 | 3,394 | 25,185     | 21.0%                |
| 2010 | 2,055 | 4,394 | 31,180     | 20.7%                |

The number of students residing on campus at BSC has grown by 735 since 1970 (a 61% increase). During the same period, the inmate population at BCC grew by more than 2,400 (or 243%). The planned expansion of both institutions indicates a potential increase of 18% in the BSC population and 29% in the BCC population by the year 2010.

Concerns have been raised in the community regarding growth at these institutions and the resultant demand on town services. Additionally, there is speculation on the potential impact on the community if the land currently owned by the two institutions

was made available for commercial and industrial development.

The loss of revenue from state-owned properties is compensated in part by other means. Since 1998, Bridgewater has annually received approximately \$161,000 from the state in lieu of taxes. These payments are meant to compensate the Town for hosting the BSC and BCC. Additionally, recent state legislation provided funds totaling \$3,000,000 to the Town as mitigation money due to the projected expansion of BCC.

The key issue for the community is to identify the positive and negative fiscal impact of the daily operations and long-term plans of BSC and BCC as compared to the loss in property tax and development opportunity.

### 6.2 Bridgewater State College

BSC began in 1840 as a single building on ¼ acre of land located on School Street. Today, the College occupies about 235 acres and includes 38 academic, administrative, residential and accessory buildings totaling over 1.3 million square feet. This attractive campus has many on-site educational and recreational amenities that are available to the general public.

| Enrollment           | 1995 | 1996 | 1997 | 1998 | 1999 | 2000  | 2001  |
|----------------------|------|------|------|------|------|-------|-------|
| <b>All Students</b>  |      |      |      |      |      |       |       |
| Full-Time            | 5599 | 5784 | 5897 | 5793 | 5630 | 5,665 | 5,842 |
| Part-Time            | 2794 | 2927 | 3029 | 3368 | 3325 | 3,174 | 3,196 |
| TOTAL                | 8393 | 8711 | 8926 | 9161 | 8955 | 8,839 | 9,038 |
| <b>Undergraduate</b> |      |      |      |      |      |       |       |
| Full-Time            | 5361 | 5519 | 5620 | 5506 | 5360 | 5,398 | 5,604 |
| Part-Time            | 1679 | 1853 | 1744 | 1813 | 1795 | 1,682 | 1,595 |
| TOTAL                | 7040 | 7372 | 7364 | 7319 | 7155 | 7,080 | 7,199 |
| <b>Graduate</b>      |      |      |      |      |      |       |       |
| Full-Time            | 238  | 265  | 277  | 287  | 270  | 204   | 238   |
| Part-Time            | 1115 | 1074 | 1285 | 1555 | 1530 | 1,555 | 1,601 |
| TOTAL                | 1353 | 1337 | 1562 | 1842 | 1800 | 1,759 | 1,839 |

The College's core service region is comprised of cities and towns in Bristol, Norfolk and Plymouth Counties. Collectively, these municipalities include over 1.5 million residents, which are expected to grow by 9% by 2010.

An extended service area includes the Upper Cape Cod Region and Western Norfolk County communities, which are within a reasonable commuting distance and provide good recruiting potential for the College.

**Table 6-2: Bridgewater State College Facilities, Spring 2001**

| Building Name                | Year Built | Function             | Net Sq. Feet   | Gross Sq. Feet   |
|------------------------------|------------|----------------------|----------------|------------------|
| 180 Summer Street            | 1925       | Academic             | 2,406          | 3,831            |
| Art Center                   | 1904       | Academic             | 9,628          | 14,924           |
| Boyden Hall                  | 1926       | Academic & Classroom | 43,896         | 63,248           |
| Burnell Campus Building      | 1979       | Academic             | 45,419         | 70,650           |
| Campus Police Building       | 1970       | Support              | 3,320          | 5,000            |
| Central Heating              | 1965       | Support              | 1,000          | 10,000           |
| Clement C. Maxwell Library   | 1971       | Library (support)    | 101,514        | 172,580          |
| Davis Alumni Center          | 1990       | Foundation           | 3,795          | 6,492            |
| Durgin Hall                  | 1967       | Residence (Aux.)     | 51,470         | 64,344           |
| Engineer's Cottage           | 1900       | Support              | 2,260          | 2,660            |
| Frankland Miles Hall         | 1989       | Residence (Aux.)     | 45,360         | 56,700           |
| Gates House                  | 1876       | Admissions           | 4,600          | 6,138            |
| Great Hill Student Apts - A  | 1978       | Residence (Aux.)     | 15,215         | 17,900           |
| Great Hill Student Apts - B  | 1978       | Residence (Aux.)     | 10,285         | 12,100           |
| Great Hill Student Apts - C  | 1978       | Residence (Aux.)     | 17,995         | 21,000           |
| Greenhouse                   | 1924       | Field                | 1,600          | 2,080            |
| Greenhouse Potting Shed      | 1924       | Field                | 436            | 528              |
| Harrington Hall              | 1926       | Academic & Classroom | 15,154         | 29,280           |
| Hart Hall                    | 1979       | Academic             | 25,810         | 45,020           |
| Hunt Hall                    | 1936       | Academic             | 9,295          | 25,500           |
| Information Booth Parking    | 1996       | Support              | 112            | 112              |
| John J. Kelly Gym            | 1957       | Gym                  | 44,150         | 56,640           |
| J. Moakley Tech. Center      | 1995       | Academic             | 31,540         | 49,000           |
| Maintenance Garage           | 1937       | Support              | 1,350          | 1,350            |
| Marshall Conant Science Bldg | 1964       | Academic             | 65,575         | 99,700           |
| MSCA Union Building          | 1945       | Support              | 1,400          | 2,000            |
| Observatory                  | 1973       | Academic             | 150            | 500              |
| Old Power Plant Building     | 1916       | Support              | 2,400          | 4,050            |
| Pope Hall                    | 1960       | Residence (Aux.)     | 29,100         | 36,360           |
| Rondileau Campus Center      | 1970       | Auxiliary            | 93,341         | 161,000          |
| Scott Hall                   | 1960       | Residence (Aux.)     | 33,200         | 41,436           |
| Shea Hall                    | 1967       | Residence (Aux.)     | 51,470         | 64,344           |
| Satellite Eatery             | 1991       | Support              | 256            | 256              |
| Swenson Field Press Box      | 1977       | Support              | 800            | 800              |
| Swenson Field Ticket Booth   | 1977       | Support              | 40             | 40               |
| Swenson Fieldhouse           | 1977       | Support              | 1,484          | 2,120            |
| Tillinghast Hall             | 1916       | Auxiliary            | 33,849         | 51,760           |
| V. James Dinardo Hall        | 1989       | Residence (Aux.)     | 45,360         | 56,700           |
| Woodward Hall                | 1912       | Residence (Aux.)     | 46,400         | 57,920           |
| <b>TOTAL</b>                 |            | <b>38 Facilities</b> | <b>892,435</b> | <b>1,316,063</b> |

Source: Bridgewater State College

**Enrollment**

The total number of students at the beginning of the 2001 academic year was 9,038 with a full-time enrollment of 5,842. Construction of the new train station, located on the campus, has improved commuter student access. Between 1995 and 2001, the total number of students at BSC increased by 645 (or 7.7%). BSC administration expects the enrollment to increase to over 10,000 by 2010.

**Student Profile**

The vast majority of BSC students are in-state residents. In fact, over 95% of all students over the last 5 years come from Massachusetts. Most other students are from surrounding New England states.

The typical BSC undergraduate student is slightly older than the national average. The average full-time student is 22 years old, while the average part-time student is 30 years old. Graduate students also tend to be older than the national average, having an average age of 35 years old for both full-time and part-time students. (BSC Office of Institutional Research & Assessment).

Facts: Sources BSC Student Aid

| Source of Aid                  | BSC Students | National Peers |
|--------------------------------|--------------|----------------|
| Savings from Summer Work       | 73.2%        | 59.5%          |
| Other Savings                  | 44.9%        | 39.5%          |
| Part-time Job on Campus        | 43.9%        | 32.8%          |
| Full-time Job while in College | 6.0%         | 4.4%           |

BSC students are typically not from higher income households and rely on a variety of sources to finance their education. They report more reliance on income generated from work during the summer or the school year than the national average. Many students work part-time in Bridgewater stores and restaurants, making them an important source of employment for local businesses.

**Student Living**

In 2000, approximately 2,570 BSC students lived in Bridgewater (30% of total enrollment). An estimated 1,900 of these students lived on campus. Like many Massachusetts state colleges, BSC has a relatively low on-campus population compared to private institutions. However, on-campus housing has expanded significantly over the past 15 years. An additional 397 students occupied DiNardo and Miles Halls in 1989, and 300 students will occupy a new dormitory targeted for completion in the fall of 2003.

An estimated 670 BSC students live off campus in Bridgewater. Most of these students live in apartments within walking distance of the campus. Like many "college towns", off campus student housing can impact surrounding neighborhoods in several different ways. Issues that have been identified in community surveys and department interviews include health code violations, public disturbances, general rowdiness and parking shortages.

**Table 6-3: BSC On-Campus Residential Facilities**

| Hall             | Year Built | Residents | Capacity |
|------------------|------------|-----------|----------|
| Woodward         | 1912       | Female    | 246      |
| Scott            | 1960       | Male      | 143      |
| Pope             | 1960       | Female    | 160      |
| Shea             | 1967       | Co-Ed     | 300      |
| Durgin           | 1967       | Co-Ed     | 320      |
| Great Hills Apts | 1978       | Co-Ed     | 198      |
| Miles            | 1989       | Co-Ed     | 204      |
| DiNardo          | 1989       | Co-Ed     | 195      |
| CAPACITY         |            |           | 1766     |

**Employment**

BSC is the largest employer in the community with over 1,000 full and part-time employees. The College employs people in a wide range of skill levels. There are over 250 full-time faculty with 80% having a doctorate or other terminal degree. Approximately 40% of the positions are faculty and administrative while the remainder are clerical, skilled, service and maintenance positions. (Fall 2000 figures).

**BSC Campus Master Plan**

In 1998, BSC adopted a Space Allocation Plan for campus-wide renovations and new construction. The planning process included an assessment of existing facilities and identification of future needs. Based on this plan, BSC is currently undergoing its most expansive program of new construction and renovation in its 161-year history.

Over the last decade, BSC has expended over \$29 million for new construction, renovations, repairs, maintenance and parking improvements. The largest of these projects was the 1995 John Joseph Moakley Center. The College has also added 621 parking spaces and acquired 43 acres of land abutting the College for expansion plans.

New construction, renovation and property acquisitions have occurred as a result of the strain on campus facilities caused by a growing student body, faculty and staff. For example, in September 2000, 1,970 students were placed in on-campus dormitories that were designed to accommodate 1,760. In addition, 350 students were placed on a waiting list for residence hall space. Several administrative and academic facilities were also identified as needing renovation and expansion.

The capital improvement program totals over \$56 million and includes several construction projects scheduled for completion in 2003. Significant new on and off-campus projects include a new athletic field house, student dormitory, dining facility and renovations to existing buildings. New facilities included in the plan are listed in the table below:

Facts: Full-Time BSC Employment is the Highest in Town (Fall 2000)

| Employees              | Men        | Women      | Total      | %   |
|------------------------|------------|------------|------------|-----|
| Faculty                | 151        | 101        | 252        | 35% |
| Exec./Admin/Managerial | 19         | 23         | 42         | 6%  |
| Other Professional     | 48         | 95         | 143        | 20% |
| Tech./Paraprofessional | 5          | 17         | 22         | 3%  |
| Secretarial/Clerical   | 6          | 136        | 142        | 18% |
| Skilled Craft          | 19         | 1          | 20         | 3%  |
| Service/Maintenance    | 72         | 37         | 109        | 15% |
| <b>Total</b>           | <b>320</b> | <b>410</b> | <b>730</b> |     |

Source: Office of Institutional Research & Assessment, 2000

**Table 6-4: Bridgewater State College Capital Projects**

| Project                     | Project Budget | Gross Square Ft | Projected Completion |
|-----------------------------|----------------|-----------------|----------------------|
| Academic Achievement Ctr    | \$626,553      | 8,500           | 2001                 |
| Hunt School Renovations     | \$500,000      | 26,000          | 2001                 |
| Operations Center Buildings | \$5,396,000    | 27,900          | 2003                 |
| Field House                 | \$17,300,000   | 84,000          | 2002                 |
| Residence Hall              | \$18,452,000   | 83,000          | 2002                 |
| Dining Facility             | \$8,648,000    | 34,000          | 2002                 |
| Harrington Hall Renovation  | \$5,383,052    | 28,000          | 2003                 |
| TOTAL                       | \$56,305,605   | 291,400         |                      |

**Student Dining Facility and Residence Hall** – A 700-seat dining facility and a 300-bed residence hall built simultaneously on the east side of campus, adjacent to Miles and DiNardo residence halls.

**Field House** – An 85,000 square foot athletic complex next to Swenson Field on the east side of campus. The new complex will house a state-of-the-art sports arena and fitness center, as well as classrooms and offices for the Department of Movement Arts, Health Promotion and Leisure Studies, and the Athletic Department.

**Campus Operations Center** – The Campus Operations Center will house the College’s facilities department, campus police station and shipping and receiving operations. The site for this new facility is off Great Hill Drive.

**Harrington Hall Renovations** – This facility, located on Grove Street, will become the new home for the School of Management and Aviation Science. The facility will feature 16 classrooms, a large open-access teaching area and “clustered” faculty offices designed to facilitate interdisciplinary collaboration. Planned technology features a keyless entry and a number of “smart classrooms” offering multimedia stations, student computer ports and a host of other teaching and learning amenities.

**The Hunt School** – The College acquired this vacant building from the Town and renovated it for use as interim classroom and office space during renovation to Harrington Hall. In addition to a cash payment for the former school building, BSC proposed to design, purchase, and install a complete network and services for the Town. BSC’s proposal leverages the technology resources and expertise to serve the emerging needs of the Town and residents. These renovations have also been completed.

All of these facilities are expected to be ready for use in fall 2003. However, there are several other improvements needed to fully address the physical capacity constraints of BSC’s campus. For example, the increased capacity of on-campus residence halls would not have accommodated the number of students on the fall 2000 waiting list. In addition, BSC must have the ability to increase the capacity of its residence halls to address off-campus student housing problems.

**BSC Community Relations**

The community surveys indicate that the majority of residents feel that BSC has a positive impact on the community.

Of the 761 residents who responded, the most common positive impact cited was the added educational and cultural resources, employment, support to local businesses, publicly available college facilities, added vibrancy, and attractiveness of the campus. Negative impacts cited included traffic congestion, parking demands, loss of tax base, off-campus housing issues, and demand on town emergency services.

**Facts: BSC Anticipated Facilities Needs**

- ◆ New academic buildings for new schools and graduate programs
- ◆ Major renovations to existing buildings (i.e. Kelly Gymnasium, Conant Building and Boyden Hall)
- ◆ Space for fine and performing arts program and art building
- ◆ New residence halls
- ◆ More space for student clubs, organizations and the Cultural Center
- ◆ More parking

In 2000, the Town and College established a Community Relations Committee to improve communication and to provide a forum to discuss issues of mutual concern and projects of mutual benefit. Currently, the Town and College collaborate on a variety of projects and programs, ranging from traffic control and public safety issues to sharing of resources including technology equipment and expertise, environmental planning and protection, and recreational events and activities. Additionally, nearly 400 Bridgewater children attend the Burnell School located on the BSC campus.

**Facts: Community Survey on BSC Impacts**

|     |       |                                              |
|-----|-------|----------------------------------------------|
| 464 | 61.0% | Feel the State College has a positive impact |
| 115 | 15.1% | Feel the State College has a negative impact |
| 39  | 5.1%  | Feel the State College has had no impact     |
| 43  | 18.8% | Did not offer an opinion                     |

**Community Services and Outreach** - BSC has established several service and outreach centers to assist in carrying out its mission as a regional service center for Southeastern Massachusetts. The College's mission includes a responsibility for advancing the economic, social and cultural development of the region's population to the benefit of those who live and work in the region.

**Facts: BSC Service and Research Centers**

- ◆ The Institute for Regional Development
- ◆ The Curriculum Leadership Center
- ◆ The Children's Physical Development Clinic
- ◆ The Mathematic, Science and Technology Education Center
- ◆ The Institute for Technology Management
- ◆ Support Services for K-12 Education

**Cultural Activities** – BSC serves as a cultural center for the community as well as the region. The College sponsors a broad array of fine and performing arts programs. The program of theater arts and dance presents six productions annually, including major works of dramatic art, musicals, a laboratory production, and two dance performances. The art department displays the works of students, faculty and guest artists at the Wallace L. Anderson Gallery. The music department supports four bands and presents over two dozen events each year, several in conjunction with local musicians

and area schools.

Facts: A "Town/Gown" Connection through the Hunt School

- ◆ Build network connecting Town buildings
- ◆ \$900,000 project funded by BSC
- ◆ Link town and college networks for town internet connection
- ◆ Wire computers in town buildings to new town network
- ◆ Install electronics link town buildings, departments, and computers
- ◆ Establish new network services (E-mail, fire sharing, and internet access)
- ◆ Build new prototype town website
- ◆ Expand community access through new town network
- ◆ Technology training at the Senior Center, Town Library, and for professional development
- ◆ Resource Sharing between BSC and Town Library

**Water and Sewer** - One of the main concerns expressed by Town officials is the amount of sewer capacity needed by existing and new facilities at the College. BSC has four expansion projects that require additional sewerage including renovation to the new Field House, a new residence building and dining hall, and the facilities building. The total increase in sewerage flow from these projects is 0.035 mgd, amounting to an average increase in flow of 0.017 mgd. Added to the present conditions of on-campus student and employment, which generate an average sewerage flow of 0.324 mgd, the estimated flow after expansion will be 0.341. The 1985 design flow for BSC was 244,800 gallons per day and in 1999

the actual flow was 162,000 gpd. With the construction of capital projects on campus, the projected daily flow will be approximately 185,000 gallons.

**Traffic and Parking** - Parking is a frustrating problem on campus for students, employees, visitors and residents. The MBTA provided some relief to campus parking needs, but overall has had a limit impact on the number of cars parked on campus.

As the student population continues to grow, new parking spaces will be needed. To decrease the need for new parking, parking policies should be revised to limit on-campus parking by freshmen, require students living on campus to park in remote locations, and provide satellite parking off-campus near major roadways with bus service to campus. In addition, the College should seek to provide creative incentives for more students and employees to ride the commuter train to campus.

Traffic generated by the college is also a significant issue in the community. With a growing number of commuting students, peak hour traffic congestion on a number of major local roads has become difficult. To address traffic issues, BSC, BCC, MBTA and the Town have worked closely on developing the *Town-wide Comprehensive Transportation Study and Management Plan, 2002*. A series of short and long-term strategies and improvements require a commitment of both the college and Town to carry out.<sup>1</sup>

**Community Development** – BSC has worked closely with the Bridgewater Community Development Office to develop a computer based land parcel database and mapping system (GIS).

**Inspectional Services and Emergency Services** – The Town currently provides emergency services (including police, fire and ambulance) as well as health code and inspectional services to the College. Department records show that the police and fire department are called to respond to many college-related incidents each year. Over the past five years, the Bridgewater Fire Department has averaged approximately 200

<sup>1</sup> See Chapter 8: The Transportation System

responses to BSC (6% of all calls.) A major concern over the past few years has been “false alarms” that town and college officials are working to eliminate.

The Police Department responds to student-related calls both on and off campus. To address some of the more common issues such under-aged drinking and neighborhood disturbances, the department organizes annual meetings with student housing landlords, local bars and BSC administration to discuss enforcement issues.

The Inspectional Services Department is responsible for reviewing building code compliance in existing, renovated and new buildings. One of the main concerns is the poor condition of off-campus student housing neglected by absentee landlords.

**Economic Impact** - The campus itself is located on the edge of the central business district. Students can easily access downtown businesses and other services on foot or by transit bus. Additionally, there appears to be significant growth potential for local businesses to accommodate the student market.

To better understand the positive economic impact of BSC on the region, the *Bridgewater State College Impact Study, 1995* was conducted. This study evaluated the positive impacts that BSC has on the Town and region in terms of spending, employment, banking, and volunteerism.

The Bridgewater Area, as defined in the study, includes: Bridgewater, Abington, Brockton, Buzzards Bay, East Bridgewater, Easton, Lakeville, Middleboro, Raynham, Taunton, West Bridgewater, and Whitman. According to the study, BSC spent over \$4 million in 1995 (about 20% of vendor purchases) in Bridgewater.

The combined college-related spending in the Bridgewater Area was estimated to be \$60,410,347. The largest amount, 53%, was generated by students, followed by employees with 36%, the College with 9%, visitors with 2% and college agencies with 1%. The study also estimated that approximately 34% of BSC employees live in Bridgewater.

**Table 6-5: Annual BSC Employee & Student Spending in Bridgewater Area, 1995**

| Spending Category | Est. Employee Spending | Est. per Employee | Est. Student Spending | Est. per Student |
|-------------------|------------------------|-------------------|-----------------------|------------------|
| Appliances        | \$154,513              | \$220             | Not Reported          | NR               |
| Clothing          | \$782,272              | \$1,118           | \$1,928,483           | \$230            |
| Food/Grocery      | \$4,238,387            | \$6,055           | \$12,365,283          | \$1,473          |
| Housing/Utilities | \$7,967,722            | \$11,382          | \$3,669,921           | \$437            |
| Miscellaneous     | \$851,821              | \$1,217           | \$2,108,778           | \$251            |
| Recreation        | \$815,821              | \$1,165           | \$1,477,065           | \$176            |
| Services          | \$2,756,431            | \$3,938           | \$289,322             | \$34             |
| Transportation    | \$4,042,426            | \$5,775           | \$9,761,963           | \$1,163          |
| <b>TOTAL</b>      | <b>\$21,609,336</b>    | <b>\$30,870</b>   | <b>\$31,600,825</b>   | <b>\$3,765</b>   |

BSC Impact Study, 1995; assuming full-time employment of 700 and 8393 total students

According to the study, BSC visitors make approximately 50,000 trips to Bridgewater annually for several purposes including admissions (15%), commencement (5%), athletic events (20%), and the campus center (60%). Visitors spend approximately \$21 on average in the Bridgewater area per trip for a total of \$1,046,000

per year. Twenty-six percent indicate that they made purchases in Bridgewater on their way to campus, spending an average of \$11.80. This amounts to approximately \$153,400 per year.

**Infrastructure** – The Town and BSC work closely on the mitigation package provided by the MBTA when the Old Colony Line was reactivated. Several improvements were made to key intersections, and a major fiber optics line was installed in the railroad r-o-w that has now made BSC one of the top 50 colleges nation-wide to be “wireless”.

**Local Fees and Contributions** – While BSC does not pay taxes to the Town it has contributed financially to the community over the last several years. BSC contributes approximately \$1 million per year to the regional school district for the operation of the Burnell Laboratory School, which serves kindergarten through grade 6. More recently the College has contributed funding for the *Town-wide Comprehensive Transportation Study and Management Plan*. Additional “Town and Gown” cooperative efforts include the following:

- Semi-monthly meetings between town department heads and BSC to discuss mutual problems and seek resolutions to issues.
- Neighborhood “Dinner of the President” to inform local residents of the College’s progress and new projects in the upcoming year.
- Campus Business Day featuring local businesses.
- Fourth of July Parade and Autumnfest.
- BSC student computer use tutoring at Bridgewater Senior Center.

**Impact of Lost Taxes and Development Opportunities** – The total assessed value of all BSC lands and buildings would generate significant local tax revenue each year. Certainly, this would more than cover the demand on municipal services generated by the College. However, BSC, like other higher education facilities, is a non-profit institution and not required to pay local real estate taxes.<sup>2</sup> Nonetheless, financial benefits are provided in different ways that are not always obvious.

It is very difficult to measure the potential tax revenues (and municipal costs) that could be generated if Bridgewater State College lands were available for other development opportunities. However, given BSC’s proximity to established neighborhoods, the lack of commercial/industrial development in the CBD and other areas, and distance from major highways, it can be assumed that the majority of this land would be developed residentially. The analysis in other sections of this plan (i.e. Chapter 6: Economic Trends and Opportunities) indicates that residential development in Bridgewater generates the most demand on town services due largely to the cost of public education. And while residential growth has been significant for 20 years, commercial and industrial development has been minimal. Realistic alternative uses of college land would probably cost more in municipal services than would be collected in revenues.

The College creates economic benefits (and revenue) for the community through employment, student, faculty and visitor spending, major public investments, and small business development spun off by college research. The convenience of BSC professional development program alone has enabled numerous residents to expand

<sup>2</sup> The Town of Bridgewater does receive funds each year from the State in the Pilot Program to cover a portion of lost tax revenue. The amount is subject to state formula and subject to change.

individual economic opportunities. The fiscal impact of Bridgewater State College cannot be measured in terms in property alone but, and most importantly, in terms of people.

### 6.3 Bridgewater Correctional Complex

The Bridgewater Correctional Complex (BCC) was established in Bridgewater in the 1880s and currently occupies approximately 1,500 acres of land in the southeastern portion of Town. The primary access is off Bedford Street in the South Business District but the complex’s main frontage is located on Administration Road and Summer Street.

| <b>Facts: BCC Overcrowding Issues in 1995</b> |                 |                  |             |
|-----------------------------------------------|-----------------|------------------|-------------|
| <b>Correctional Center</b>                    | <b>Capacity</b> | <b>Occupancy</b> | <b>Rate</b> |
| <b>Medium Security</b>                        |                 |                  |             |
| SE Correctional Center                        | 356             | 727              | 204%        |
| Old Colony Correctional Center                | 488             | 728              | 149%        |
| <b>Minimum Security</b>                       |                 |                  |             |
| MCI-Plymouth (forest camp)                    | 151             | 172              | 114%        |
| SE Correctional Center                        | 200             | 169              | 85%         |
| <b>Treatment/Support</b>                      |                 |                  |             |
| Bridgewater State Hospital                    | 337             | 317              | 94%         |
| TC for SDP                                    | 216             | 209              | 97%         |
| SE Addiction Center                           | 430             | 169              | 39%         |
| Bridgewater Boot Camp                         | 256             | 121              | 47%         |
| <b>TOTAL</b>                                  | <b>2,434</b>    | <b>2,612</b>     |             |

BCC houses approximately 2,441 inmates and patients with 1,393 Department of Corrections staff in 2002. This prison population has been steadily growing over the past 30 years. BCC officials estimate that the prison population will reach 4,394 by the year 2010.

The Bridgewater Correctional Complex has made several renovations and expansions as a result of prison overcrowding and facilities needs identified in the mid-1990s.

#### **Existing Facilities**

The complex consists of 6 facilities on 1,531 acres of land. The complex also includes active farmland and large expanses of wetlands. BCC facilities include the following:

- **Bridgewater State Hospital** – A facility designed for 337 violent and mentally ill offenders, composed of 12 buildings.
- **Southeastern Correctional Center (SECC)** – This medium security facility is designed for 745 inmates, including an older building in the complex dating from 1880 to 1929.
- **Southeastern Correctional Center/Addiction Center (SECC/AC)** – A facility designed for 430 substance abusers for detoxification and treatment.
- **Old Colony Correctional Center** – A new medium security facility designed for 488 inmates.
- **Treatment Center for Sexually Dangerous Persons** – Designed for 216 inmates. Changes in state law have led to change in use and operating responsibility.
- **Boot Camp** – Located on 12 acres and designed to house 256 county inmates. The facility opened in 1992.

Surrounding land uses include a low-density mix of residential, commercial and light industrial operations. Uses along Bedford Street and adjacent to Administration Road (the main access point) include small retail and auto service operations. The Cumberland Farms property off of Flagg Street abuts the complex to the north.

Residential uses and small cottage industries are in the vicinity of Summer Street, Flagg Street and Titicut Street. In the mid-1990, BCC purchased several private properties in the Alden Square area and relocated the residents. Some of these homes were demolished and others are currently being used for administrative purposes.

| <b>Table 6-6: BCC Land Uses</b> |                |                   |
|---------------------------------|----------------|-------------------|
| <b>Use</b>                      | <b>Acreage</b> | <b>% Of Total</b> |
| Prison Facilities               | 160            | 11%               |
| Agriculture                     |                |                   |
| Farm Building                   | 22             | 2%                |
| Farm Fields                     | 527            | 36%               |
| Physical Plant                  | 25             | 2%                |
| Wetland/Floodplain              | 465            | 32%               |
| Remaining Woodlands             | 256            | 18%               |
| <b>TOTAL</b>                    | <b>1,455</b>   | <b>100%</b>       |

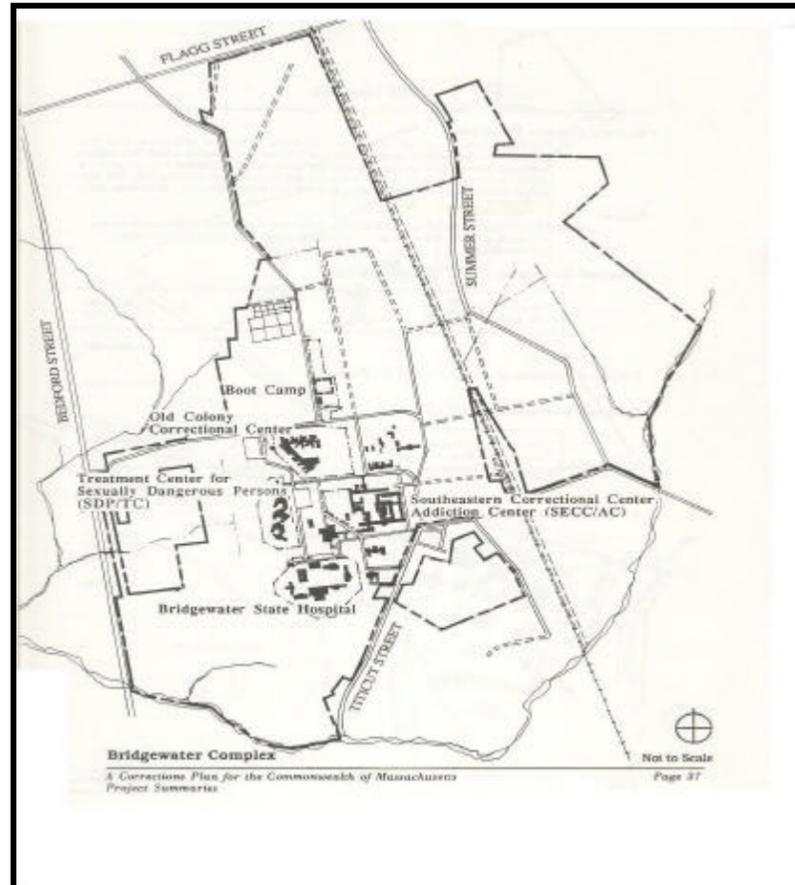
#### **Expansion Plans**

The Corrections Capital Plan for the Commonwealth of Massachusetts, 1993 recommended a site feasibility study for the construction of 3,000 new cells as well as the reconstruction, reuse or replacement of older facilities, including the SECC, Addiction Center and Hospital. Additionally, these capacity increases required extensive utility infrastructure upgrades.

According to the Corrections Capital Plan, the BCC facility encompasses approximately 179 acres of buildable land, including five potentially developable sites. The plan outlined \$336 million in specific projects for BCC as follows:

- Two new 1,000-cell medium security facilities
- One new 1,000-cell secure facility to accommodate psychiatric and medical inpatient hospital needs as well as patients who would be housed at the State Hospital and the SDP/TC
- Replacement of SEC/AC
- Conversion of the SDP/TC and State Hospital to medium security correctional facilities
- Interim preservation and safety improvements at the older facilities
- Campus utility infrastructure, wastewater treatment, telephone, electrical power, sewerage, site drainage, thermal systems, etc.

**MAP 6-1: BRIDGEWATER CORRECTIONAL COMPLEX FACILITIES**



**Community Impacts**

Facts: Survey Response to Impact of BCC Question

|     |       |                                     |
|-----|-------|-------------------------------------|
| 159 | 21.0% | Feel that MCI has a positive impact |
| 132 | 17.3% | Feel that MCI has a negative impact |
| 284 | 37.3% | Feel that MCI has had no impact     |
| 186 | 24.4% | Did not offer an opinion            |

The Community Surveys indicated that the majority of local residents feel that Bridgewater Correctional Complex has no impact or a positive impact on the community (58%). Of the 761 responses to this question, many felt that the most positive aspect of BCC was the amount of employment provided to local residents as well as the added security. Negative impacts cited included traffic and lack of tax revenue. However, the majority of respondents indicated that the Complex had relatively no impact on the community because of the self-sufficiency and low amount of development surrounding the facilities.

**BCC Payment to Town** – As a state-owned facility, BCC does not pay local property taxes, which would generate significant annual local revenue if the property were in commercial or industrial use. In lieu of local property tax, an agreement between BCC and the Town has been reached through special legislation, compensating Bridgewater \$10,000 per net new general population cell.

**Local Employment** - In the spring of 2000 BCC reported that 78 Bridgewater residents work at the complex. BCC has preferential hiring policies under the Department of Corrections for Bridgewater residents. Local residents that pass the civil service test are brought to the top of the list for employment.

**Traffic** – Traffic in and around the complex does not appear to have a significant impact on the community due to the small residential population and low density of surrounding uses. One exception is the intersection of Administration Road and Bedford Street, which has a very low level of service at certain times of day. The Town and BCC are working to correct this problem with the installation of a new traffic signal at this intersection.

**Emergency Services** – Fires at the complex are fought by the Bridgewater Fire Department, which is equipped and trained to meet the needs of BCC. On-site correctional staff can fight small fires with equipment in each facility. The Bridgewater Fire Department averages about 150 responses per year at the complex, or about 5% of their total runs over the past 5 years. Both the police and fire departments have a good working relationship with BCC.

**Open Space** - There is a natural buffer of open space, forestlands and agricultural fields between the complex and surrounding area. BCC owns several acres of productive farmlands bordering the facilities that are contracted out for local farming and provide an attractive setting for this area of Bridgewater. The Town and Natural Resource Trust Board (NRTB) have been discussing with BCC the possibility of placing agricultural preservation restrictions on the Summer Street side of the farmland to protect the agricultural uses and provide a buffer from the Taunton River.

**Self-Sufficiency** - BCC has its own power, water and sewer facilities and does not place a burden on these municipal services. The Town also has access to the waste management facility within the complex.

**Security** - Enforcement personnel at BCC provide the community with additional protection. BCC and Town have also worked together to coordinate an effective notification system in place to alert the community about escapes. Additionally, the regional Federal Emergency Management Administration (FEMA) is located at the BCC complex providing the community with an added layer of protection in case of natural disasters.

6.4 Massachusetts Bay Transit Authority

The Massachusetts Bay Transit Authority (MBTA) re-activated the Old Colony Rail Line in 1997 offering 23 trains a day. The Middleboro/Lakeville Line is a 45-minute trip from Bridgewater to South Station in Boston.

The Bridgewater station is located on the BSC campus, making it the only state college in Massachusetts with an MBTA stop directly on campus. Ridership has been growing steadily and has nearly doubled since 1997, and potential expansion plans have been discussed.

| Table 6-7: MBTA Middleboro/Lakeville Line        |           |           |           |           |                        |                   |
|--------------------------------------------------|-----------|-----------|-----------|-----------|------------------------|-------------------|
| Peak Period Commuter Passenger Counts, 1997-2001 |           |           |           |           |                        |                   |
| Train Time                                       | Fall 1997 | Fall 1998 | Fall 1999 | Fall 2000 | Inc. Riders<br>1997-99 | % Inc.<br>1997-99 |
| Inbound                                          | 1,429     | 2,892     | 3,494     | 4535      | 3,106                  | 217%              |
| Outbound                                         | 1,346     | 2,996     | 3,473     | NA        | 2127                   | 158%              |
| Source: Mass. Bay Transit Authority              |           |           |           |           |                        |                   |

Bridgewater commuters make up the largest percentage of ridership on the line consistently accounting for 20% of all ridership since 1997. Between commuting students at Bridgewater State College and local residents who commute to work, a significant number of people in the community are choosing MBTA as a convenient and preferred transportation choice.

| Table 6-8: MBTA Ridership Counts for Bridgewater Station |             |            |            |
|----------------------------------------------------------|-------------|------------|------------|
| Season                                                   | Bridgewater | Total Line | % Of Total |
| Winter 1998                                              | 624         | 2,771      | 23%        |
| Spring 1998                                              | 562         | 3,089      | 18%        |
| Fall 1998                                                | 693         | 3,492      | 20%        |
| Winter 1999                                              | 650         | 3,196      | 20%        |
| Fall 1999                                                | 797         | 3,900      | 20%        |
| Winter 2000                                              | 964         | 4,230      | 23%        |
| Spring 2000                                              | 1,002       | 4,498      | 22%        |
| Fall 2000                                                | 919         | 4,535      | 20%        |
| Spring 2001                                              | 978         | 4,418      | 22%        |
| % Change 98-01                                           | 57%         | 59%        | -2%        |
| Source: Mass. Bay Transit Authority                      |             |            |            |

The Bridgewater station essentially divides the Town and the College in half with access from either Burrill Avenue to Plymouth Street or Great Hill Road to Plymouth Street. The MBTA parking lot has a capacity of 500 cars, which is often nearly full on weekdays. Many residents who ride the train are coming from the west and south sides of Bridgewater requiring passage through Central Square and eliminating the option of walking to the station. As a growing number of residents use the commuter trains to get to work more strain is put on the roadway system and commuter parking lot. Nonetheless, the commuter line has provided an important option to private vehicle use and has probably reduced the overall roadway use by residents.

MBTA service has effectively connected Bridgewater to large employment centers to the north, primarily Boston. This convenience has made the community more desirable for living and the MBTA has to be considered as a significant factored in the growth of Bridgewater over the past 5 years.

### 6.5 Goals, Strategies & Actions

A successful partnership between BSC and the Town of Bridgewater requires the following:

- Coordination of the short and long term needs of each party.
- Recognition that BSC is a basic industry with the following characteristics:
  - Bringing money into Bridgewater and region;
  - Buying from local vendors and services;
  - Employing local people;
  - Depending on a market to support their product; and
  - Adjusting to fit a market niche in the 21<sup>st</sup> century (meet needs of new student profiles and shift areas of expertise for relevance)
- Recognition that the two parties must recognize and accommodate each other's traits.
- Connection of on-campus and off-campus people through continuing education, career center, and extension service.
- Recognition of the importance of local business leaders to bridge the gap between institutional and municipal viewpoints.

We are in a period when both the Town and BSC are rethinking how they function. This makes it a promising time to restructure their relationships for mutual long-term benefit.

#### Strategy 1: Build on the Town-Gown relationship between Bridgewater State College and the Community.

Bridgewater State College and the Town should strive to seamlessly integrate the college with the community. College facilities should be arranged so that the institution and community intersect around shared interests and uses. Some techniques include clustering buildings and orientation toward one another or to public streets, breaking up parking areas and screening them. Programs must be based on a foundation of shared interests.

At the core of this partnership is the idea that a viable community is the foundation upon which BSC was created and thrives. BSC contributes significantly to the overall prosperity of local people (i.e. safety, health, the arts, business, housing, education), and in doing so is serving its own needs and interests simultaneously. There is a shared interest and choices should be made in the best interest of both.

#### Actions

- **Coordinate Planning Efforts** - BSC and the Town should facilitate comprehensive planning focusing on the integration and implementation of the Town and College master plans. This program should utilize public workshops to provide bottom up planning for improvements to the neighborhoods surrounding the campus. The college and town should convene a committee of business and political leaders, neighborhood representatives and residents, college faculty and administrators, and property owners to develop programs to expand the link between BSC and the Town.
  - Work together to implement traffic improvements identified in the Comprehensive Transportation Study and Management Plan, particularly along Route 104 and in the downtown area.
  - Systematically increase on-campus parking spaces by revising the parking management system that controls the amount and location of student parking and provide opportunities and incentives for satellite parking off campus
  - Work with the Town, businesses and property owners to control student parking in the downtown area.
  - Provide incentive programs for students and faculty to use MBTA service as an alternative to driving to and parking on campus.
  - Continue to work with the Community Development Office on planning and mapping projects.
  - Work with Town emergency service providers to reduce the number of calls on campus.
- **Build Citizen Leaders** - Launch the Citizen's Leadership Program for area residents. This program should provide training for employment, leadership, and technology, as well as work with community health issues, literacy efforts and small business assistance. HUD's Community Outreach Partnership Program has been used to fund similar programs.
- **Create a Neighborhood Partnership Program** - Many residential students live off campus in the surrounding neighborhoods. BSC and the Town should form an alliance to prepare a comprehensive neighborhood development and revitalization program with the following objectives:
  - Establish a formal agreement with the Town to address the relationship and needs with the surrounding neighborhoods. (Examples: University of Lowell, Fitchburg State College, and Clark University).
  - Leverage federally subsidized mortgages for home ownership and building renovation. (Examples: Clark University, Trinity College).
  - Coordinate with the Town on socio-economic and educational endeavors to sustain surrounding neighborhoods as stable, multi-income settings.
  - Initiated a free tuition program to academically qualified children of neighborhood residents. (Examples: Fitchburg State College, Clark University).
  - Create a mortgage subsidy initiative for students, faculty and staff to live in downtown and surrounding neighborhoods. (Example: Fitchburg State College).
  - Share sports facilities with the Town

- **Create Partnerships for Revitalization Projects** - BSC should continue to be involved in redeveloping older buildings as springboards for expanded technological research, cultural resources, and small business development. Other possibilities include
  - Locate a satellite at the campus bookstore in Central Square. (Example: University of Lowell).
  - Work closely with community organizations and business groups on building and refurbishing housing for local residents and students in the Downtown Area.
  - Work with the Town on renovation and redevelopment of vacant and underutilized commercial and industrial properties in the downtown area. (Example: Fitchburg State College, University of Lowell).
  - Consider a joint development project to create a business incubator for small entrepreneurial operations generated by faculty, staff and local residents.
  - Expand administrative, student activities and housing, and cultural activities and uses into the downtown area. Consider the potential for a Performing Arts Center in the downtown area. (Example: Fitchburg State College).
- **Utilize Students for Municipal Projects** – BSC's internship and cooperative program requirements for graduation provide the Town with an opportunity to utilize students for a variety of community services and economic development programs.

**Strategy 2: The Town and BCC should continue to work closely on projects and policy issues of municipal impact and benefit.**

Recent State policy to downsize and re-organize Department of Corrections facilities such as the Bridgewater Correctional Complex could have a significant impact on the community. Continued communication and cooperation between the Town and BCC is essential to minimize any potential negative impacts on Bridgewater.

**Actions**

- **Continue to communicate** - Continue to use the Community Relations Committee as a vehicle for BCC and Town representatives to identify community issues and solutions that mutually benefit the Complex and the Town. Specific attention should be given to the following:
  - Reducing impact on municipal emergency services
  - Roadway and intersection improvements
  - An effective escape warning system
  - Alden Square area rehabilitation
  - Development impacts on Bedford Road
  - Future expansion plans.
- **Make Traffic Improvements** - Work together to make improvements to the Administration Road and Bedford Road intersections as outlined in the Comprehensive Transportation Study and Management Plan.

- **Protect Farmland and Open Spaces** - BCC and the Town should work together to identify significant farmlands, forestlands and floodplains, and consider permanent conservation easements.

**Strategy 3: The Town should work with MBTA and Bridgewater State College officials in designing alternative access routes, centralized parking facilities and other infrastructural improvements in connection with expanded commercial rail service to Bridgewater.**

# CHAPTER 7 – FACILITIES & SERVICES FOR THE PEOPLE

## 7.1 General Approach

Extensive local information was analyzed to develop this chapter including previous master plans, town reports, the community-wide surveys, public utility master plans, the Town-wide Traffic Study and Management Plan, school district strategic plan, and other relevant plans and reports. Interviews were conducted with representatives from Bridgewater’s departments, boards, and municipal services organizations. This Chapter also integrates the Bridgewater’s Capital Planning Committee’s Capital Improvement Plan for new municipal facilities. From this analysis future needs are anticipated based on socio-economic trends and demographic projections developed as part of the master plan.

## 7.2 Government Structure

Bridgewater’s government structure is a five-member Board of Selectmen with a municipal administrator overseeing several departments. Each department has its own director who submits an annual budget to the administrator and Board of Selectmen for review and recommendation at town meeting. Additionally, an Advisory Committee (appointed by the Town Moderator) is also responsible for reviewing department budgets prior to town meeting.

Bridgewater has an open Annual Town Meeting, which is held on the first Monday in May for the purpose of voting on questions as required by General or Special Law. All town residents can attend and those 18 years and older are allowed to vote on warrant articles including the municipal budget, capital improvements and other changes to Town policy and regulation. Bridgewater’s Annual Town Election is held on the last Saturday, preceding the last Monday in April of each year. At that time, local officials are elected to office, as well as, votes taken on any ballot questions.

## 7.3 Community Assessment of Services

Based on an evaluation by the Board of Selectmen and Municipal Administrator, a Community Action Statement was developed in 1996. Each department was evaluated in terms of the level and quality of service to the community. The statement reflected existing conditions and future needs in each department.

Most departments scored high (7-10) in terms of both quality and level of services. Services such as police, fire, recreation, snow removal, and school ranked at 8 or above in both quality and level of service. Services scored lower by the Board and Administrator were solid waste/recycling, zoning, property assessment, street and sidewalk maintenance, and the quality of service in the Planning and Sewer Departments. Since 1996, however, aggressive improvements have been made in each of these areas of service.

**Table 7-1: Service Adequacy Rating by Town, 1996**

| LOS                   | 1 | 2 | 3 | 4 | 5 | 6  | 7 | 8  | 9  | 10 |
|-----------------------|---|---|---|---|---|----|---|----|----|----|
| Water                 |   |   |   |   |   | Y  |   |    | X  |    |
| Sewer                 |   |   |   | X |   |    |   |    | Y  |    |
| Police                |   |   |   |   |   |    |   | X  | Y  |    |
| Fire                  |   |   |   |   |   |    |   | X  | Y  |    |
| Planning              |   |   |   |   | X |    | Y |    |    |    |
| Schools               |   |   |   |   |   |    |   | Y  | X  |    |
| Parks & Rec.          |   |   |   |   |   |    |   | XY |    |    |
| Streets & Sidewalks   |   |   |   |   |   | XY |   |    |    |    |
| Inspectional Services |   |   |   |   |   |    | X | Y  |    |    |
| Zoning                |   |   |   |   | X | Y  |   |    |    |    |
| Assessing             |   |   |   |   | X | Y  |   |    |    |    |
| Solid Waste/Recycling |   |   |   | X |   |    | Y |    |    |    |
| Snow Removal          |   |   |   |   |   |    |   |    | XY |    |

X = Level of Service; Y = Quality of Service

Town services and facilities were assessed again in 2000 by residents through the community-wide survey, distributed to all households in Bridgewater. When local residents were asked what Town services should be added, improved upon or expanded, the top priority was the public schools followed by the Fire Department, Water and Sewer Departments, and the Conservation Commission.

**Table 7-2: Local Government Priorities By Bridgewater Residents, 2000**

| Service               | Total Votes | % of Total |
|-----------------------|-------------|------------|
| Assessor's Office     | 43          | 2.76       |
| Board of Health       | 86          | 5.52       |
| Selectmen             | 136         | 8.7        |
| Clerk's Office        | 24          | 1.54       |
| Conservation Comm.    | 230         | 14.75      |
| Elderly Services      | 128         | 8.21       |
| Fire Department       | 271         | 17.38      |
| Highway Department    | 160         | 10.26      |
| Inspections Dept      | 58          | 3.72       |
| Library               | 114         | 7.31       |
| Planning Board        | 186         | 11.93      |
| Police Department     | 250         | 16.03      |
| Recreation Dept.      | 163         | 10.45      |
| Schools               | 351         | 22.51      |
| Tax Collector's Dept. | 24          | 1.54       |
| Veteran's Affairs     | 53          | 3.4        |
| Water & Sewer Dept.   | 254         | 16.3       |
| No Opinion            | 389         | 24.95      |
| Other Services        | 31          |            |

Comparing resident priorities in 2000 to the 1996 municipal assessment, improving public schools was a much greater issue. Also, while police and fire services were ranked high in 1996, residents today feel these departments need additional improvements. There was similar interest in improving public water and sewer infrastructure, and protecting open space through the Conservation Commission. Both are being dealt with aggressively.

## 7.4 Protective Services and Facilities

### **Police Department**

The Bridgewater Police Department is well staffed and equipped. In 2002, the force included 42 full-time officers, four permanent interim officers (those that fill in for sick officers and those retiring), and a number of special officers who are primarily retired and work road details.

The staffing has increased to 42 officers from 30 in 1995, primarily due to the availability of financing from federal grants. Staffing additions include eight full-time officers and four part-time officers. These programs, however, will not be available to the department in the next few years, and the department anticipates reduced federal and state funding due to a decrease in income tax revenues and a slowing economy.

Crime has decreased over the last several years as illustrated in Table 7-3. The department is now also focusing on reducing repeat calls. False alarms caused by residential burglar alarms are a particular area of concern. Nearly 1,400 calls for burglar alarms alone were received in 2000. The department has been working with homeowners to curb the problem.

| Statistics          | 1990  | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  |
|---------------------|-------|-------|-------|-------|-------|-------|-------|
| Alarms              |       |       |       | 1,250 | 1,246 | 1,368 | 1,368 |
| Arson               | 1     | 0     | 1     | 0     | 0     | 1     | 2     |
| Assault & Battery   | 38    | 39    | 31    | 28    | 37    | 34    | 39    |
| Auto Theft          | 82    | 33    | 30    | 46    | 31    | 28    | 30    |
| Burglary            | 106   | 55    | 77    | 85    | 67    | 51    | 46    |
| Disturbances        |       |       |       | 538   | 489   | 444   | 429   |
| Dom. Disputes       |       |       |       | 195   | 172   | 169   | 237   |
| Fires/Fire Alarms   |       |       |       | 188   | 192   | 262   | 198   |
| Larceny             | 120   | 170   | 227   | 244   | 233   | 285   | 227   |
| Medical Call        |       |       |       | 622   | 720   | 838   | 936   |
| Murder              | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| Rape                | 3     | 1     | 2     | 6     | 1     | 5     | 1     |
| Robbery             | 3     | 3     | 4     | 3     | 3     | 2     | 1     |
| RR Cross            |       |       |       | 74    | 83    | 24    | 20    |
| Silent Aband Alarms |       |       |       | 348   | 585   | 555   | 593   |
| Total 911           |       |       |       | 2,010 | 2,188 | 2,274 | 3,634 |
| M/V Citation        | 9,412 |       |       | N/A   | 2,854 | 2,950 | 6,374 |
| Parking Tickets     | 4,826 |       |       | N/A   | 2,854 | 2,950 | 2,505 |
| All other crimes    | 1,682 | 1,508 | 1,337 |       |       |       |       |
| Overall arrests     | 623   | 565   | 540   |       |       |       |       |
| OUI                 | 62    | 48    | 65    |       |       |       |       |
| Fatal Accidents     | 7     | 2     | 1     |       |       |       |       |

Traffic is the main concern of the department particularly in Central Square. Officers are needed on a daily basis for traffic control in this heavily congested area. The department sees no easy solution to this problem but confident that the Traffic Study Committee and new *Town-wide Traffic Study and Management Plan* will address key safety and congestion issues and lead to timely improvements around the community.

The Police Department has a strong domestic violence program and is interested in expanding its Community Policing Program. The “Partners in the Community” philosophy of this program is very important in smaller communities such as Bridgewater. In 1999, the department also held the first Community Police Academy with a grant from the Massachusetts Executive Office of Public Safety.

The Bridgewater Police Department has a good working relationship with both BSC and the BCC. BCC is under agreement to hire local residents first for new jobs, a number of which come from the Police Department. The department also meets annually with landlords, as well as business owners holding liquor licenses, to discuss ways to curb student partying and under-age drinking.

Bridgewater was one of only 300 communities nationwide to receive a School Resource Officer (SRO) grant. This 3-year program allows the Police Department to place a seasoned officer in the schools while adding a new officer on the street. Its purpose is to create a greater bond between the department, teachers, administration and students. The department’s Crime Prevention Program, Bike Patrol and DARE Program together form the Community Policing Partnership.

#### Facts: Recent Police Department Grants

|                              |           |
|------------------------------|-----------|
| DARE                         | \$13,000  |
| Community Policing           | \$42,000  |
| Underage Drinking Prevention | \$7,500   |
| Cops-in-shops Grant          | \$1,000   |
| School Resource Officer      | \$125,000 |
| Watch Your Car grant         | \$675     |
| Webb Task Force              | \$45,000  |
| Cops Fast Grant              | \$75,000  |
| Bullet Proof Vest Grant      | \$10,000  |

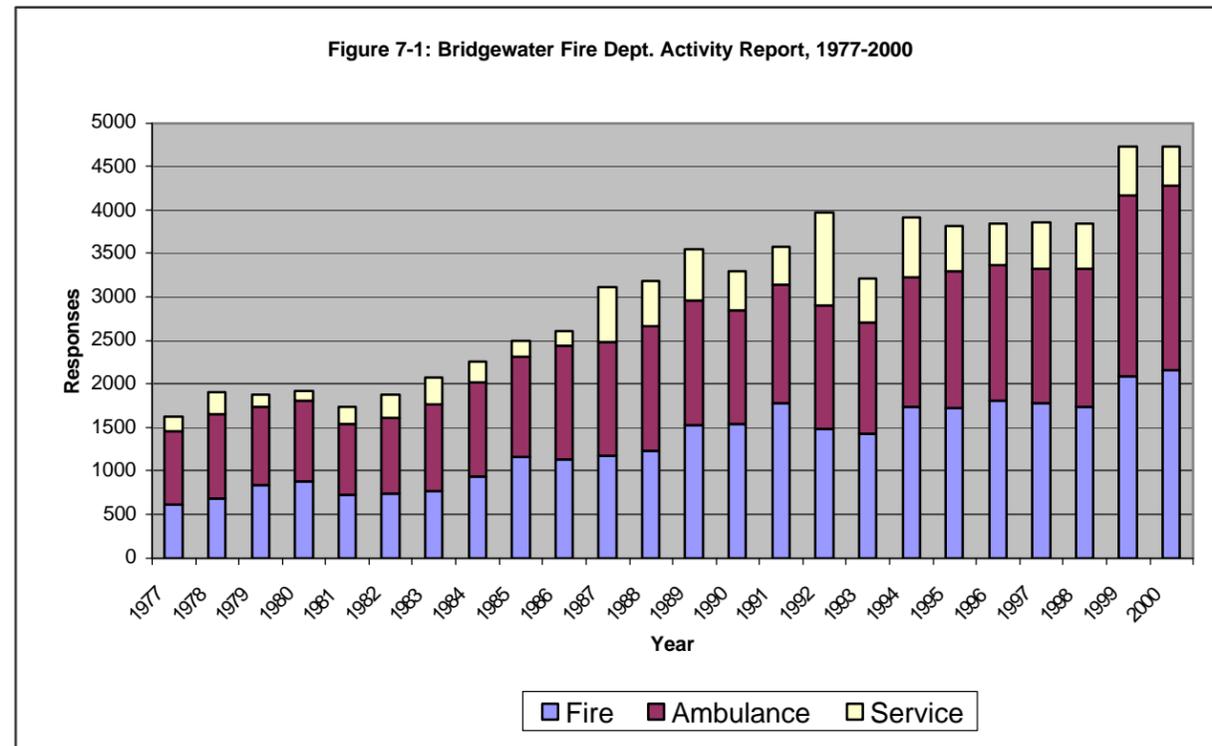
The current police station, located in the Academy Building, has about 3,500 square feet. The biggest project for the Department over the next five years is constructing the new police station, to be located on the Hoggs Farm property opposite the intersection of Pleasant and Mt. Prospect Streets. The 60-acre parcel, which may also include public recreational fields, is centrally located and accessible to local residents. The new station will have approximately 15,000 square feet of finished floor space and 1,500 square feet of unfinished space.

The new station is expected to take about 18 months to build and construction is scheduled to start in spring 2002. The addition of both the new station as well as recreation fields will require a new traffic signal at this intersection, which would be included in Phase II of the Transportation Plan.

### **Fire Department**

The Bridgewater Fire Department’s main facility is the Central Fire Station located on School Street. Staffing in 2002 includes four duty groups of 33 uniformed employees with four officers and dispatch staff. The department undergoes extensive training programs including HAZMAT, fire prevention, fire suppression, and EMS standards. A state-funded SAFE Program is used to teach fire prevention to grades four through 12.

In 1977 the department added an ambulance service and approximately doubled the force at the time. According to the Fire Chief and supported by the statistics, there has been a significant increase in the number of runs and demand for services over the past 25 years. This trend is well documented in Figure 7-1 below.



Between 1990 and 2000, department responses rose by over 1,100 or 32%. This is a significant increase in the demand for services and is largely due to the growing number of homes in Bridgewater. The demand for ambulance service has also risen steadily over the past 10 years, and can be partially attributed to a rising vehicle accident rate, aging local population and the development of age-restricted housing.

The Fire Department also responds to a significant number of calls from the BSC and BCC as shown in Table 7-4. Each year these state facilities account for an average of 9.5% of all department responses.

| Responses   | 1980 | 1990  | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  |
|-------------|------|-------|-------|-------|-------|-------|-------|-------|
| Fires       | 877  | 1,536 | 1,725 | 1,810 | 1,779 | 1,739 | 2,079 | 2,152 |
| Medical     | 929  | 1,315 | 1,571 | 1,550 | 1,541 | 1,589 | 2,068 | 2,132 |
| Inspections | 117  | 442   | 522   | 477   | 541   | 518   | 561   | 439   |
| BCC         | NR   | NR    | 174   | 150   | 111   | 140   | 179   | 153   |
| BSC         | NR   | NR    | 208   | 213   | 245   | 184   | 190   | 260   |
| % MCI & BSC | NR   | NR    | 9.1%  | 11%   | 11%   | 10%   | 7.3%  | 8.0%  |

As a result of increased demand, the Fire Department has built a new sub-station at 774 Plymouth Street in the Pratt Town area of Bridgewater. The new three-bay substation was approved at Town Meeting in 1998. This district has grown significantly over the past 10 years, and has been determined to be a high need area, particularly for elderly residents. Growth is anticipated to continue in this area and the new substation is scheduled to be on line by the spring of 2002.

Despite the growth in the Plymouth Street area, the highest response area continues to be Fire District 5, the western quadrant of Bridgewater. Over the next five years, the department anticipates the need for another substation to handle the growing demand due to extensive residential development, as well as recent commercial and industrial development along the Route 104 corridor. A possible location would be on Scotland Boulevard.

**Emergency Management Department**

The Town maintains a fully equipped, protected, staffed and operational Emergency Management Department, located in the Academy Building. The facility is capable of serving as a command and control center where public safety officials gather under the direction of the Emergency Management Director. The purpose of the department is to respond to emergencies and to ensure the continuity of government during and after a disaster.

**Inspectional Services Department**

The Inspectional Services Department is responsible for zoning enforcement and issuing building permits for all new construction, alteration, and renovation. The department includes a building inspector, assistant building inspector, plumbing and gas inspector, assistant plumbing and gas inspector, wiring inspector, assistant wiring inspector, sealer of weights and measures, office administrator, and clerk.

The primary responsibility of the department is to ensure public safety through proper construction practices. The department has increased staffing over the past ten years due to high demands. This has allowed it to increase the number of inspections during construction and renovations, as well as the time allotted to perform them. Adequate inspection services have a direct impact on the reduction of fires and injuries in the community, and adequate staffing enables the Town to maintain a good fire insurance rating, benefiting the homeowner.

A total of 6,510 building permits have been issued by Inspectional Services since 1990 as illustrated in Table 7-5. The vast majority of building permits are for new single-family homes, which account for 83% of all residential permits and more than 20% of all permits issued by the department since 1990.

**Table 7-5: Bridgewater Building Permits, 1990 - 2000**

| Type of Permit          | 1990       | 1991       | 1992       | 1993       | 1994       | 1995       | 1996       | 1997       | 1998       | 1999       | 2000       | TOTAL       |
|-------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| Single Family Dwellings | 65         | 78         | 171        | 150        | 140        | 136        | 142        | 113        | 155        | 132        | 77         | 1359        |
| Duplexes                | 3          | 4          | 2          | 2          | 0          | 4          | 4          | 3          | 0          | 3          | 2          | 27          |
| Multi-Family Dwellings  | 4          | 12         | 19         | 19         | 24         | 24         | 27         | 39         | 55         | 26         | 0          | 249         |
| New Comm./Ind. Bldgs.   | 5          | 1          | 2          | 4          | 7          | 1          | 2          | 4          | 9          | 8          | 5          | 48          |
| Comm. Additions/Alt.    | 15         | 17         | 32         | 53         | 24         | 21         | 30         | 29         | 22         | 26         | 67         | 336         |
| Others                  | 313        | 282        | 270        | 310        | 327        | 371        | 418        | 446        | 552        | 575        | 627        | 4491        |
| <b>TOTAL</b>            | <b>405</b> | <b>394</b> | <b>496</b> | <b>538</b> | <b>522</b> | <b>557</b> | <b>623</b> | <b>634</b> | <b>793</b> | <b>770</b> | <b>778</b> | <b>6510</b> |

Source: Bridgewater Inspectional Services Department

The Inspectional Services Department believes that the current construction boom and population growth in Bridgewater is a wave, spreading out of the Boston Area, and eventually passing Bridgewater. The department attributes a recent decline in permits to the following:

- Decrease in the availability of large tracts of land for development
- Tightening of the environmental regulations on remaining lands (i.e. Rivers Protection Act, Aquifer Protection Program, Title V, and new sewer connections)
- Increased resistance from abutters to development
- Economic uncertainty in the stock market
- Scaling down in activity of one of the major developers in the area
- Escalating land prices, and considerably lower prices in neighboring communities.

While many of these conditions are cyclical, land availability and state regulations will remain constant and will have the most impact on growth. These two factors are unprecedented in Bridgewater's building history will limit the build-out picture. For this reason, the department feels strongly that the build-out projection made by the State of Massachusetts and Old Colony Planning Commission is unrealistic<sup>1</sup>. (See *Chapter 9: The Land Use Plan* for more discussion of this issue).

One of the Department's main concerns is affordable housing and comprehensive permits. (Two comprehensive permit applications in the late 1980s were turned down). The department acknowledges the affordable housing shortage in Bridgewater and has encouraged the acceptance of in-law apartments. Proposed legislation may make it easier to meet the state requirement of having 10% of housing be affordable housing if the Town includes senior housing and in-law apartments.

The Inspectional Services Department is very concerned about the impact comprehensive permits might have on Bridgewater's infrastructure. Farmland in various locations throughout Town could be prime for these types of housing developments. However, the department is also concerned about providing affordable starter homes to current residents and their children who wish to stay in Bridgewater. In addition to affordable housing, the department also sees a dire need for retirement homes for those who wish to downsize and remain in Town.

<sup>1</sup> The Mass. Executive Office of Environmental Affairs (EOEA) conducted a build-out analysis for all municipalities. Town officials felt these numbers were very high and Old Colony Planning Council (OCPC) revised them to more accurately reflect local future conditions.

The Inspectional Services Department has identified a few properties in Bridgewater with major development potential such as the Palowski Farm, which has access to public water and sewer. The property is located next to existing Town athletic fields and is also the best potential land for the high school expansion. Other developable lands identified by the department include the Lahtola property off Auburn Street and the Cumberland Farms property off Curve Street.

## 7.5 Infrastructure Services and Facilities

### Highway and Forestry Department

The Highway and Forestry Department carries out an extensive maintenance program including cleaning, mowing, snow plowing, and various repairs and replacements. It also is responsible for road construction projects, a chip sealing program, crack sealing program, and sidewalk projects.

In 2001, the Highway Department had 22 employees, 16 of which are laborers. The department also hires temporary summer help and encourages Bridgewater residents and BSC students to fill these positions. According to the department, however, it is becoming more difficult to find temporary help as summer workers seek higher paying jobs outside the community.

After 60 years at the Spring Street Highway Garage, the Highway Department moved in 1999 to a new, \$1.3 million facility at 161 High Street (the Iron Works site). This new facility is approximately 16,000 square feet. It includes a modern vehicle repair shop and parking area, administrative offices, a conference room for meetings and training, a receptionist area, and adequate restroom facilities. The new complex will accommodate the Highway and Forestry Department's facility needs for the foreseeable future.

| <u>Facts: Bridgewater Road Mileage</u> |             |
|----------------------------------------|-------------|
| <u>Increase over 15 years</u>          |             |
| 1983.....                              | 93.21 miles |
| 1998.....                              | 119.08      |
| Increase....                           | 25.87       |

The Forestry Department (also known as the Shade Tree Management and Pest Control Division) manages an on-going roadside safety trimming program, pest control, a shade tree replacement/planting program, and the street tree seedling program. This popular tree seedling giveaway program has supplied hundred of seedlings to Bridgewater residents over the past few years including Magnolia, Dogwood, and Norway Spruce tree seedlings. The department has been able to access Mass Releaf grants to help carry out these planting programs.

Probably more than any other department, Highway and Forestry has been affected by an ever-increasing workload and demand for services from the growing and changing population in Bridgewater. The Superintendent estimates that there has been an increase from approximately 100 to 300 local roads over the past 15 years. This has resulted in nearly 26 miles of new public roadways between 1982 and 1998. However, there has been no increase in staffing over the same period of time. This has put a significant burden on department staff and resources.

Chapter 90 Funds<sup>2</sup> are the primary source for major roadway construction projects in Bridgewater. Unfortunately, this major funding source has been cut back significantly in recent years. In 1999, Chapter 90 funds in Bridgewater were cut from \$518,000 to \$167,000.

In order to stretch this funding source, the Highway Department constructs a large number of Chapter 90 projects using department staff, saving Bridgewater significant costs on needed transportation improvements. This commitment of resources, however, does not allow the department to focus on smaller projects that concern residents such as minor road patching, street cleaning and drainage improvements. According to the department, this has been particularly frustrating to new residents.

Also, according to the department, snowplow operations have been understaffed and underequipped. It has been difficult to hire private contractors to fill the need because of the commercial and residential demand on private plowing services. The department estimates that it costs an average of about \$3,000 per year to plow and maintain most of the newer subdivisions off Vernon Street.

Traffic is a major concern of the Highway Department. Traffic configurations in Bridgewater are fixed with Central Square as the hub. The department has looked at the opportunity to by-pass or re-route traffic, but there are few feasible options that would not disrupt existing neighborhoods.

According to the department and recent traffic studies, BSC generates a significant amount of traffic though the Square. The department is encouraging BSC to manage traffic by developing potential satellite parking sites, offering modular classes, and purchasing seasonal MBTA passes for students. The Bedford Street Industrial Park in Middleboro has also had a major impact on traffic according to the Highway Department. The MBTA has had only a mild impact because schedules are off-peak hours.

The department has identified several short and long-term projects for the next five to ten years. These projects are listed on Table 7-6. However, most of these projects depend on Chapter 90 funding.

**Water Department**

The Bridgewater Water Department is committed to providing local residents with a municipal supply that exceeds all drinking water standards. Municipal water supply service incorporates wells and pumping stations, finished water transmission and distribution mains, water treatment facilities, water storage reservoirs and appurtenances, together with record keeping, mapping, billing, maintenance and repair services, and consumer awareness programs.

<sup>2</sup> Local transportation improvements funds provided by the State Department of Transportation

**Table 7-6: Bridgewater Highway Department 10-Year Project List**

| <b>Project</b>                                                                                | <b>Description</b>                                     |
|-----------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <u>Reconstruction</u>                                                                         |                                                        |
| Elm Street                                                                                    | Elm Street to Pilgrim Trucking (includes widening)     |
| Forest Street                                                                                 | From South Street to Woodland Drive                    |
| Spring Street                                                                                 | Reconstruction                                         |
| Cottage Street                                                                                | Reconstruction                                         |
| Plain Street                                                                                  | From High Street to Satucket Trail (includes widening) |
| Walnut Street                                                                                 | Reconstruction                                         |
| Old Pleasant Street                                                                           | Reconstruction                                         |
| Pine Street                                                                                   | Reconstruction                                         |
| North Street                                                                                  | From Pleasant Street to Birch Street                   |
| Conant Street                                                                                 | From Summer Street to Flagg Street                     |
| Summer Street                                                                                 | From Laurel Street to Auburn Street                    |
| Spruce St.                                                                                    | From Pine to Raynham line                              |
| Hayward Street                                                                                | Reconstruction                                         |
| Auburn Street                                                                                 | Reconstruction                                         |
| <u>Sidewalk Network Expansion</u>                                                             |                                                        |
| Birch Street                                                                                  | Sidewalk Network Expansion                             |
| Hayward St.                                                                                   | Plymouth to High Street                                |
| Forest Street                                                                                 | Sidewalk Network Expansion                             |
| Summer St                                                                                     | Laurel to Auburn Street                                |
| Spruce St.                                                                                    | Vernon to Elm Street                                   |
| Source: Bridgewater Highway Department; Reconstruction includes widening, sidewalks, drainage |                                                        |

In 2002, the department had a staff of ten people including the superintendent, plant operator, treatment plant handlers, water distribution personnel, meter readers, and a heavy equipment operator. The department is fully funded by water service revenues.

Bridgewater’s pubic water supply is derived from groundwater sources located in two aquifers. The primary water source consists of four wells located off High Street near the Matfield River. The second aquifer supports five wells located in the vicinity of Carver’s Pond. The wells range in depth from 40-60 feet and are constructed in the glacial sand and gravel deposits that overlie bedrock. Map 7-1 illustrates the Town’s public water distribution system and facilities.



Average annual consumption has varied in response to droughts, water conservation, and fluctuating industrial, institutional, and agricultural needs. Municipal water consumption, however, has increased over the past 25 years at a moderate rate due to significant residential development in Bridgewater during this time period. As Table 7-7 below illustrates, the total annual water consumption since 1977 has increased by over 100 million gallons and the average daily consumption by 300,000 gallons.

**Table 7-7: Bridgewater Municipal Water Consumption Trends**

| Year | No. of Services | Total Annual Consumption | % Res. Consump. | Ave. Daily Consump. (MGD) | Highest Use Day (MGD) | Est. Pop. Served | Total Gal./ Person/Day MGD |
|------|-----------------|--------------------------|-----------------|---------------------------|-----------------------|------------------|----------------------------|
| 1977 | 3,400           | 511,185,799              |                 | 1.4                       | 1.74                  | 15,740           | 89                         |
| 1980 | 3,641           | 535,873,200              | 92.5            | 1.47                      | 2.09                  | 16,068           | 91.5                       |
| 1985 | 4,000           | 654,590,000              | 95.6            | 1.79                      | 2.64                  | 16,414           | 88.5                       |
| 1990 | 4,698           | 716,474,000              | 95.4            | 1.96                      | 2.58                  | 16,913           | 110.8                      |
| 1995 | 5,271           | 551,847,049              | 95              | 1.5                       | 1.8                   | 18,649           | 80.4                       |
| 2000 | 6,096           | 612,088,304              | 95              | 1.7                       | 2.2                   | 23,000           | 73.9                       |

Sources: Bridgewater Water Department and Town Clerk

Between 1980 and 1995, the residential per service consumption averaged 388 gallons per day. This is a relatively high number where a typical value would range from 250 to 350 gallons per service per day. Higher than normal consumption during this time period was partially attributed to poor metering equipment and limited conservation efforts. Many improvements have been made since then such as well upgrades and rehabilitation and water main replacement along with consumer awareness and more efficient household design (i.e. low flow toilets, dishwashers, and washing machines). As a result of these improvements, the average water consumption has dropped from 91.5 gallons per day per person in 1980 to 73.9 in 2000.

The Water Department commissioned a Water System Master Plan update in 1994 to address pressing needs, identify and secure new water supply sources, upgrade existing facilities and the distribution system, and plan for future needs based on a growing population. The study concluded that several improvements were needed to the distribution system, the meter and monitoring equipment, and filtering system. Most importantly, projected population growth over the next 15 years indicated that existing wells would result in a supply deficit of 0.63 million gallons per day by 2010.

To address these important issues, the Water Department has developed strategies to meet future needs through several key components:

- Continued water exploration and development;
- Continued upgrades to metering services;
- Evaluation of average and maximum daily demands;
- Evaluation of current and future projected demand versus supply;

- Evaluation of potential new storage tank sites and future replacement of existing tanks;
- Maintenance of maximization efficiency and yield of existing supplies via annual redevelopment and rehabilitation of two wells per year;
- Evaluation and implementation of distribution system upgrades;
- Evaluation of the need for continued improvement of water supply quality, particularly the High Street well field;
- Evaluation of alternative water supply sources;
- Establishment of development priorities;
- Implementation of a year by year water step rate increase to meet the cost of providing services; and
- Completion of an inventory and capitalization of Bridgewater’s existing water system and implementation of a plan for system duration.

The Town has made significant investments over the past several years to add new well sites, expand water quality monitoring, protect water supply sources, and replace deteriorated water mains. A meter upgrade program was established and new computer equipment was installed. The Town constructed a \$2.4 million water treatment plant at the Carver’s Pond well field, which came on line in November 1999. This new facility can provide 1.8 million gallons of water per day. It is designed to remove the iron and manganese from the water that cause residents to complain of “rusty” water.

To provide for future water needs, the Town purchased land for future well sites in the Beech Street area and part of the Wyman property, which will produce an estimated 1 million gallons per day. Construction has begun on two wells on the Wyman property.

To provide water source protection, the Water Department owns over 50 acres of land at Carver’s Pond and over eight acres of land off High Street. Additional municipal groundwater source protection is provided by the Aquifer Protection Overlay District (Bridgewater Zoning Bylaws) and Zone II DEP Regulations. These areas are defined by hydrogeological studies of the well recharge areas, and limitations are made on the types of uses that can locate in the aquifer recharge areas. The Aquifer Protection Overlay District was amended in 2001 to include the adoption of conservation bylaws. This has resulted in the elimination of the use of sprinkler system connections. Typically, residents use handheld hoses for outdoor watering.

**Sewer Department**

**Wastewater Treatment Plant** - Historically, the sewer system served only the downtown area and surrounding neighborhoods. However, as demand for service increased, an expansion to the wastewater treatment plant (WWTP) was made in 1988 to increase design flow capacity to 1.44 million gallons per day (mgd). Currently, the system operates at approximately 1.0 mgd average flow or 70% of design capacity. In 1995, the WWTP design load capacity was modified to treat additional volumes of high strength septage generated from areas of Bridgewater and neighboring towns not served with sewers.

**Map 7-2: Bridgewater Sewer System and Facilities**

*INSERT MAP*

**Table 7-8: Bridgewater Sewer System and Needs Areas**

| Phase                  | Description                          | Res. Linear Feet | Ave. Lots Served | Flow (MGD)   |
|------------------------|--------------------------------------|------------------|------------------|--------------|
| <b>NEEDS AREA</b>      |                                      |                  |                  |              |
| Phase 1 (2000)         |                                      |                  |                  |              |
| Area 1                 | Main St./Center St./Mt. Prospect St. | 6,000            | 90               | 0.020        |
| Area 2                 | Hammond St./Lawrence St.             | 2,000            | 12               | 0.003        |
| Area 5                 | Laurel St./Water St.                 | 4,500            | 66               | 0.015        |
| Total                  |                                      | 14,500           | 174              | 0.038        |
| Phase 2 (2002)         |                                      |                  |                  |              |
| BSC                    | Bridgewater State College            |                  |                  | 0.017        |
| Area 3                 | South Drive                          | 13,450           | 171              | 0.038        |
| Area 7                 | Crescent St./Dr                      | 3,650            | 62               | 0.014        |
| Area 9                 | North St./Tami Ct                    | 3,800            | 55               | 0.012        |
| Area 8                 | Willis Rd./Lantern Lane              | 2,150            | 27               | 0.006        |
| Area 6                 | Laurel Street                        | 1,950            | 39               | 0.009        |
| Area 4                 | Bedford St. Comm. Area               |                  |                  | 0.054        |
| Total                  |                                      | 25,000           | 354              | 0.150        |
| Phase 3 (2002)*        |                                      |                  |                  |              |
|                        | Rt. 24 Industrial Park               | N/A              | N/A              | 0.038        |
|                        | Scotland Industrial Park             | N/A              | N/A              | 0.026        |
| Area 12                | Lakeside Drive                       | 7,200            | 54               | 0.012        |
|                        | * Pleasant St. Comm. Area            | N/A              | N/A              | 0.025        |
| Total                  |                                      | 7200             | 54               | 0.101        |
| Phase 4 (2004)         |                                      |                  |                  |              |
| Area 11                | Norlen Park                          | 13,820           | 82               | 0.018        |
| Area 13                | Aberdeen/Dundee - Opt 1              | 13,100           | 67               | 0.015        |
| Area F*                | Homenook/Edgewood (NN)               | 6,600            | 58               | 0.013        |
| Area 10                | Stephanie Lane                       | 7,720            | 19               | 0.004        |
| Total                  |                                      | 41,240           | 226              | 0.050        |
| Phase 5 (2006)         |                                      |                  |                  |              |
| Area 4                 | Whitman/Hayward St.                  | 16,950           | 200              | 0.044        |
| Total                  |                                      | 16,950           | 200              | 0.044        |
| <b>ALL NEEDS AREAS</b> |                                      | <b>90,390</b>    | <b>974</b>       | <b>0.377</b> |

The performance of the treatment is consistently very high, and since the expansion, the effluent discharged to the Town River has been constantly well below the discharge limits established by the Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (DEP). In 1995, the WWTP was ranked first in the nation by EPA for its superior record of performance and maintenance.

The treatment plant process removes pollutants from the sewage using an aerobic biological process, and converting these to semi-solid sludge. The aerobic composting of sludge stabilizes it in conformance with DEP regulations. Bridgewater's sludge has a DEP Class I designation and can be used without a separate permit for landscaping purposes without deed restrictions, but not for food crops. The compost is removed from the plant by a contractor who mixes it with other municipal sludges and food wastes to prepare a marketable compost product.

Currently, the WWTP receives upwards of 300,000 gpd groundwater infiltration during the wet months of the year. Due to an aging collection system – a third of which dates back to the 1930s – these clean water flows unnecessarily reduced the capacity of the process to accept and treat sewage. To resolve this problem, the Sewer Department, with encouragement from DEP, is considering a program whereby new developments would be responsible for eliminating two gallons of infiltration for each gallon added in demand. The department is also inspecting individual properties to eliminate unnecessary connections such as sump pumps, roof drains, and to reduce groundwater infiltration.

The WWTP is located within 100 to 1,000 feet of residential and commercial properties. In 2003, to mitigate odor potential, the WWTP will have blowers installed to drive compost air 300 feet into the atmosphere for increased dilution and odor dispersal.

**Sewerage Needs Areas** - Public sanitary sewers ranging in size from 8 to 15 inches serve approximately 10,000 of the 18,000 residents near the center of Town. The sewers are separate from the storm water collection system. Map 7-2 shows the existing sewer system and proposed extensions to serve identified sewerage needs areas. Table 7-8 presents the sewerage extensions proposed to serve these needs areas.

The sewer system has been extended several times in the past ten years to serve residential areas with a high rate of failed septic systems. In 1994 and 1995, the sewer system was extended to commercial areas to the south along Bedford Street and west to North Street to connect a number of residential subdivisions. It was extended again in 1995, primarily to service High Pond Estates on Pond Street, and in 1999, Laurel Street and Wood Street were connected to the existing high-pressure line from Plymouth Street.

In 1999, Sewer Needs Areas 1, 2, and 5 were completed, adding approximately 170 homes to the system. About nine more streets were also identified as problem areas needing public sewerage. Construction is now underway to serve Sewerage Needs Areas 3, 6, 7, 8, 9 and 10. Approximately 270 homes will be sewerred. A high-pressure line on Pleasant Street was also completed to help business development in the Claremont Business Park and lessen environmental impacts on Lake Nippenicket. While this sewer construction project has been completed, it has not yet received final DEP approval and tie in is pending. This system extension will allow service along Pleasant Street.

**Bridgewater State College** - BSC is the largest sewage generator in Bridgewater and has an allocated capacity of approximately 0.23 mgd. BSC has made system improvements over the past five years to remove extraneous clean water sources from entering the system (sump pumps, I/I, roof leaders, etc.).

BSC flow allocation was based on the number of full-time equivalent students (7,000 in 1985 at 33 gallons/student/day). The number of students has increased in recent years and is expected to increase further as BSC carries out its capital improvement program. In 1999, BSC reported a total population (students, faculty and staff) of 9,700. The potential exists that the future increases could exceed the 1986 capacity allocation. Current expansion plans for BSC are estimated to add another 0.02 mgd average flow to the WWTP<sup>3</sup>. The Town should monitor the BSC population closely and resultant sewage discharged so that the flow does not overload the remaining WWTP capacity. (BSC expansion plans are discussed further in *Chapter 6: State Institutions and the Community*).

**System Expansion** – Recommended sewer extensions to Sewerage Needs Areas (areas with septic system problems) and commercial areas will include both gravity and low-pressure lines. The proposed construction phasing resulted from discussions between the Sewer Department and the Board of Health. It took into consideration the number of failing septic systems, citizen requests for sewer service, and the route of flow. The challenge to the Sewer Department is to assure that plant capacity is reserved for “needs areas” and business development by expanding the system in accordance with the Sewer Master Plan. It is projected that the plant will be at 80% of capacity by 2005.

Extending sewers to all Sewerage Need Areas, several Non-Need Areas including BSC, and the identified commercial and industrial areas would serve an additional 1,200 lots and add 0.37 mgd average flow. The WWTP would then be at approximately 95% capacity. Extending the sewers to all identified Non-Needs Areas to serve approximately 2,000 lots would add 0.59 mgd average flow resulting in an overload to the plant at 136% of capacity.

The treatment plant could potentially be expanded to 2.16 mgd on the existing site and at an estimated cost of \$3.5 million. However, DEP will not permit any expansion beyond the existing 1.44 mgd capacity unless the Town embarks on a comprehensive wastewater management plan (CWMP). Under current DEP policy, it will be extremely difficult to gain permission to increase the WWTP capacity over the existing capacity of 1.44 mgd.

Where public sewer is neither available nor extensions are feasible, future developments will use on-site disposal systems constructed in compliance with the Title V regulations of the Board of Health and DEP. The limitation range on these systems is 10,000 gpd. Large developments will rely on small groundwater discharge treatment plants constructed in compliance with the Groundwater Discharge Permit program and DEP. These plants have capacities in excess of 10,000 gpd. Currently, the Town has no package treatment plants and the Sewer Department is concerned about compliance with standards and long-term maintenance responsibilities. This issue should be explored further as the public sewer system nears capacity and the Town strives to expand its tax base.

To finance the existing facilities and sewerage expansion, a combination of sewer betterment and sewer rate increases are contemplated. The local sewers serving residential and commercial properties are paid 100% by

<sup>3</sup> Wastewater Master Plan, Dufresne-Henry, 2000

betterment assessments to property owners. Costs for on-going operating and maintenance of the system are paid by user charges which are computed as part of the water bill. Only properties connected to the sewer are assessed the charges which provide for the Sewer Department to be entirely financed by sewer revenues.

**Parking Control Office**

The Parking Control Office is responsible for enforcing Bridgewater’s Public Parking Regulations. Public parking available in the Central Square area includes metered spaces and permitted spaces for town employees and business owners.<sup>4</sup>

**Facts:  
Parking Tickets Issued & Revenues**

| Year | No. of Tickets | Revenue  |
|------|----------------|----------|
| 1996 | 3,406          | \$70,689 |
| 1997 | 3,740          | \$60,090 |
| 1998 | 3,123          | \$59,286 |
| 1999 | 3,134          | \$59,696 |

Parking control is a major concern for downtown property and business owners. Over the years public parking has been difficult because of heavy traffic congestion in Central Square and the growing number of commuting students at BSC.

Significant changes were made recently to the Parking Regulations to help with the parking problem and improve the traffic flow. Additionally, some of the parking strain was reduced when MBTA service began in 1997 and BSC expanded their on-campus parking lots. As a result of these changes the parking ticket revenue has

declined steadily over the past 5 years. This should be considered a positive sign for downtown businesses, as more public spaces are made available for customers and visitors.

7.6 Health and Human Services and Facilities

**Board of Health**

The Board of Health is responsible for all health codes, commercial and housing inspections, rabies prevention, communicable disease prevention, environmental health issues, and the Town’s transfer station. Title 5 inspections (private septic systems) have been a significant part of the department’s responsibilities over the past few years with added requirements in state regulations. The Town’s Septic System Repair Loan Program has helped a number of homes with sewage problems make improvements to meet Title 5 requirements.

**Solid Waste Department**

The Solid Waste Department estimates that by 2003 the transfer station will be handling approximately 80 tons of solid waste and about 160 to 200 cubic yards of recycled products per week. Table 7-9 identifies the solid waste facility improvements that are planned by the department over the next five years. Recent projects included a second waste compactor to handle the increase volumes; a reduction of trash receptacles in order to reduce illegal household trash disposal while not increasing the litter problem; and a new plastics grinding program to decrease the trucking of recycled plastics by about 80%.

<sup>4</sup> See Chapter 8: The Transportation System for detailed CBD parking information

The department’s goal is to attain 45% recycling by volume over the next two years. These recycling increases will require the Town to reconsider its policy of not charging residents for recycled products. The price of disposal should start to level off by 2004 and the cost of operations at the Transfer Station should be stabilized. By this point the department hopes to realize a 60% recycling rate by volume and the Town will again have to look at potential revenue sources to maintain its policy of not charging for recyclables. The waste stream should hopefully be less per capita due to state mandated initiatives for reusable products.

**Table 7-9: Solid Waste Plan, 2000-2005**

| Project                                                  | Year   |
|----------------------------------------------------------|--------|
| Install 2 <sup>nd</sup> compactor                        | 2000   |
| Implement new waste band restrictions from DEP           | 2000   |
| Reduce public waste receptacles in public areas          | 2000   |
| Install 50% of paving on transfer station lot            | 2000   |
| Build new roof over 2 <sup>nd</sup> compactor            | FY2001 |
| Set up glass crusher to initiate glass recycling program | FY2001 |
| Coordinate recycling program with MCI                    | FY2001 |
| Purchase three new containers for solid waste            | FY2001 |
| Set up long-term disposal contract                       | FY2001 |
| Establish Program to accept waste oil and cardboard      | FY2001 |
| Create a grinding program for plastics                   | FY2002 |
| Add second employee and some equipment                   | FY2002 |

**Elder Affairs and Council on Aging**

The Council on Aging is a nine-member board comprised of a cross section of the community with the majority of board members over the age of 60. The Council sets goals at the beginning of each year to increase interest and involvement in the Senior Center and participation with the Office of Elderly Affairs.

With a growing elderly population in Bridgewater, the demand for elderly service is increasing. In 1999, participation in the Congregate Lunch Program grew and a total of 8,911 Meals on Wheels lunches were delivered to homebound seniors. Dial-A-Bat transportation services, including Bill’s Taxi, provided 4,910 trips for the elderly.

The “Are You OK” program sponsored by the Plymouth County Sheriff’s Department increased to 20 senior participants. This program makes reassurance calls to seniors at home. Elderly Affairs also participates in the Police Department’s Bridgewater Coalition Against Community Violence Task Force and the TRIAD Program (Seniors and Law Enforcement Together).

The Council is currently focused on expansion of facilities and services at the Senior Center to accommodate the growing elderly population in Bridgewater. They are working with the Capital Improvement Committee to identify specific needs and potential funding sources.

7.8 Community Facilities and Services

**Bridgewater Public Library**

The Bridgewater Public Library is located on South Street just off of Central Square. The original building was constructed in 1972 using local, state and federal funding sources. A major addition was built in 1995, providing an additional space for collections, resources and meeting rooms.

The library offers full services including a children’s program, exhibits and adult lectures, and public meeting spaces. Circulation of library materials and membership cards has increased significantly over the past 10 years. A total circulation of 242,808 and approximately 128,566 visits occurred in 2000. This represents an additional 5,000 members since 1991 and a growth in circulation of 29%.

The library sponsors many programs for schools and the general public. (There were 393 programs held with a total attendance of 14,155 in 2000). It also collaborates with BSC on several of these programs.

A new circulation system (SIRSI) was installed in 2000. The library does not anticipate any major capital needs over the next five years.

**Table 7-10: Bridgewater Public Library Circulation**

| Year | Visitors | Cards Issued | Total Circulation |
|------|----------|--------------|-------------------|
| 1991 | 151,567  | 15,121       | 180,584           |
| 1992 | 154,766  | 16,830       | 186,492           |
| 1993 | 156,813  | 18,477       | 181,493           |
| 1994 | NR       | 19,477       | 147,778           |
| 1995 | NR       | 17,626       | 179,598           |
| 1996 | 122,298  | 19,193       | 202,768           |
| 1997 | 131,771  | 20,438       | 233,113           |
| 1998 | 127,906  | 21,471       | 232,616           |
| 1999 | 122,668  | 19,206       | 236,068           |
| 2000 | 128,566  | 20,285       | 242,808           |

**Bridgewater Housing Authority (BHA)**

The mission of the BHA is “to promote and maintain affordable rental and home-ownership housing opportunities that are well-designed and consistent with market standards, cost effective to maintain, and provide a residential environment for households and individuals of low and moderate income that is supportive of household economic development, household independence and integrated in all senses of the term”.

The BHA has completed several modernization projects over the past five years including Hemlock Drive and a number of family housing units. As affordable housing continues to be an issue in Bridgewater, the BHA will play a central role in developing strategies and solutions through rehabilitation grants and new construction.

**Community Development Office**

1998 was the first full operating year of the Community Development Office (formerly the Office of Planning and Community Development) The office is primarily responsible for general planning, zoning and development review, computer mapping, and grant writing.

The office acquired a geographic information system (GIS) in 1998 allowing the Town to access electronic data and mapping developed by the state and build on existing land use inventories developed by consultants. Significant work has been done to the system, allowing various Town departments to access geographic information on transportation systems, building locations, utilities, zoning, natural resources, and property ownership.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Facts:</b><br/><b>Office of Transportation Management Projects</b></p> <ul style="list-style-type: none"> <li>◆ Traffic signal at Pleasant/Elm/Old Pleasant St. intersection</li> <li>◆ Emergency vehicle equipment at town common</li> <li>◆ Traffic signage</li> <li>◆ Coordination of MBTA sponsored traffic improvements</li> <li>◆ Bike-to-work week</li> <li>◆ Review of development plans for traffic impacts</li> <li>◆ Bicycle network design plan</li> <li>◆ Pedestrian cross-walk enforcement</li> </ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

According to the office, growth management is the most critical local concern in Bridgewater today. The Town has experienced significant population and housing growth since 1980. Combined expansion by BSC, BCC and MBTA rail service, have heightened community interest in issues such as water supply, traffic congestion and the fiscal impact on public services.

Despite tremendous growth and pressure to obtain funding for public projects, the Community Development Office is only staffed with one full-time director and a part-time assistant director and secretary.

The Community Development Office has been moderately successful in obtaining grants over the past

ten years. Significant state funding was received in the early 1990s for housing rehabilitation and downtown revitalization. However, the Town has had trouble in recent years obtaining state and federal grant funds as a result of a lower “needs rating” by the state. This rating is based on several factors including a community’s

wealth and well-being relative to other municipalities. As new high-end residential construction continues and the median income rises, winning state grants will become more difficult for Bridgewater.

**Table 7-11: Community Development Grants, 1990-2000**

| Year | Program      | Award     | Use                                           |
|------|--------------|-----------|-----------------------------------------------|
| 1990 | Small Cities | \$698,625 | Senior Center and 34 Low/Mod rehabs           |
| 1991 | Small Cities | \$504,225 | 30 Low/Mod Home Rehabilitations               |
| 1991 | Small Cities | \$71,000  | Senior Center supplement                      |
| 1991 | Small Cities | \$370,000 | Housing Rehab & Economic Development          |
| 1992 | Small Cities | \$52,020  | 29 Low/Mod Home Rehabilitations               |
| 1998 | DHCD         | \$800     | Economic Development Tech. Assistance         |
| 1998 | EOTA         |           | Transportation Planning & Mitigation          |
| 1998 | Self Help    |           | Acq. of Stiles and Hart Property (open space) |

Source: Community Development Office

**Office of Transportation Management**

This office began operation in 1999 with a mission of promoting transportation alternatives and developing traffic congestion solutions. The office is staffed with a part-time engineer under contract to provide technical advice in solving traffic safety, congestion and planning issues throughout the community. The Office also works with the Community Development Office and BSC in developing the GIS.

In 2001, the department worked with a consultant to complete the *Comprehensive Town-wide Traffic Study and Transportation Management Plan*, which identifies existing conditions and future improvement needs. This plan provided Bridgewater with guidance for effectively solving many of the Town’s growing transportation needs. (A discussion of the Town-wide Traffic Study and Transportation Management Plan and its recommendations are included in *Chapter 8: Transportation and Circulation*).

7.9 Educational Services and Facilities

**Bridgewater-Raynham (B-R) Regional School District**

The School District serves public school children from kindergarten through high school in the towns of Bridgewater and Raynham. While both towns has its own elementary and middle school facilities, the B-R Regional High School serves grades 9 through 12 for students from both communities.

In 2000, District students scored at or above the state average in all ten of the Massachusetts Comprehensive Assessment System (MCAS) categories. Further, 82% of the 307 graduating seniors are participating in post-secondary education.

Total school enrollment in the fall of 2000 was 6,015 students, reflecting an increase of 163 students over the previous year. This increase is following a trend in the school system of significant growth over the past ten years. The District anticipates this growth to continue with a projected increase of 1,340 students over the next ten years. (See Table 7-12 and Figure 7-2).

In 1999, the School District adopted a Strategic Plan<sup>5</sup>, which projects a 5-year enrollment increase of 600 students. This growth trend is expected to continue at all levels over the next 10 years. Sharp increases are projected for the middle and high school grades, with major space and facility needs at the Williams Middle School and B-R Regional High School. Table 7-13 illustrates the building capacity of Bridgewater school facilities:

| Year      | Grade |     |     |     |     |     |     |     |     | K-8 Total |
|-----------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
|           | K     | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |           |
| 1990-1991 | 258   | 298 | 273 | 275 | 286 | 241 | 226 | 269 | 233 | 2,359     |
| 1991-1992 | 242   | 263 | 275 | 253 | 267 | 290 | 241 | 227 | 274 | 2,332     |
| 1992-1993 | 266   | 259 | 286 | 291 | 260 | 276 | 289 | 246 | 226 | 2,399     |
| 1993-1994 | 273   | 278 | 274 | 295 | 293 | 266 | 277 | 292 | 252 | 2,500     |
| 1994-1995 | 277   | 311 | 265 | 279 | 287 | 294 | 262 | 286 | 298 | 2,559     |
| 1995-1996 | 307   | 295 | 316 | 275 | 293 | 279 | 292 | 264 | 279 | 2,600     |
| 1996-1997 | 280   | 329 | 297 | 312 | 283 | 299 | 286 | 291 | 273 | 2,650     |
| 1997-1998 | 295   | 309 | 317 | 302 | 319 | 285 | 296 | 281 | 290 | 2,694     |
| 1998-1999 | 315   | 330 | 315 | 327 | 306 | 337 | 291 | 301 | 282 | 2,804     |
| 1999-2000 | 300   | 332 | 325 | 328 | 330 | 312 | 346 | 296 | 304 | 2,873     |
| 2000-2001 | 316   | 295 | 337 | 324 | 335 | 328 | 310 | 341 | 296 | 2,882     |

Source: Bridgewater-Raynham Regional School District

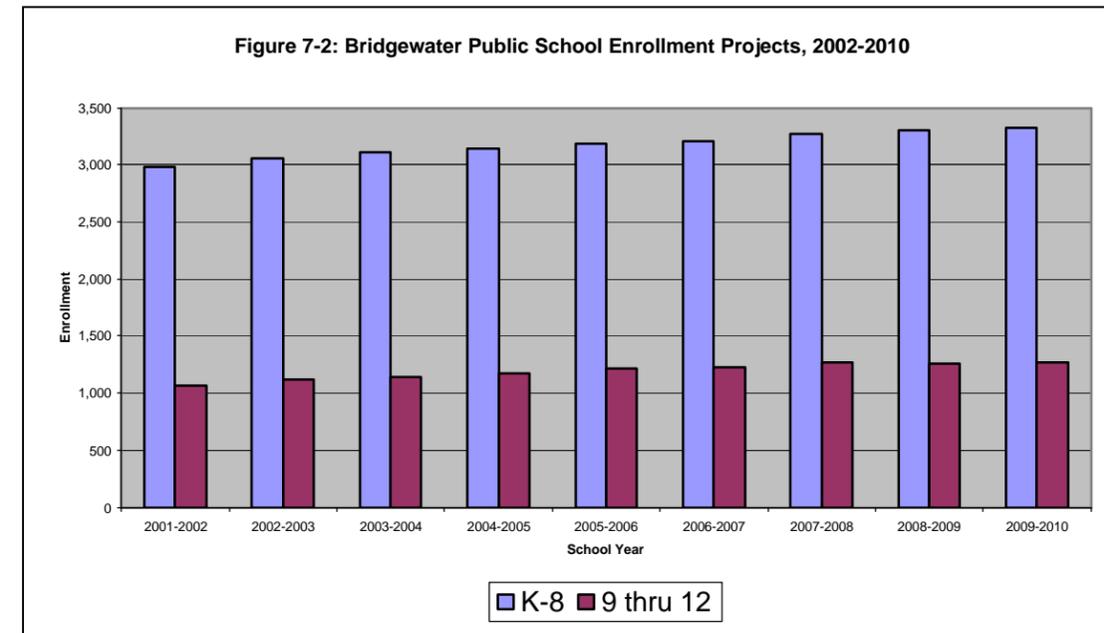
| Facility                             | Current            | Planned            | Enrollment          |            | Site Required (Acres) | Site Area (Acres) |
|--------------------------------------|--------------------|--------------------|---------------------|------------|-----------------------|-------------------|
|                                      | Operating Capacity | Operating Capacity | Projections 2010-11 | Year Built |                       |                   |
| Bridgewater Elementary School (PK-4) | 1,251              | 1,163              | 1,787*              | 1997       | N/A                   | 26                |
| Burnell Campus School (K-6)          | 308                | 308                |                     | 1979       | N/A                   | 13                |
| Williams Middle School (5-8)         | 1,013              | 645                | 1,537**             | 1950       | 1962                  | 30                |
| B-R Regional High School (9-12)      | 1,295              | 989                | 1,990               | 1961       | 1972                  | 39                |

\* Includes 2010-11 Projections for Burnell Grades K-4  
 \*\* Includes 2010-11 Projections for Burnell Grades 5-6  
 NESDC Long Range Facilities Planning Study, October 2000

In recent years the School District has conducted four studies to determine school needs in Bridgewater over the next several years:

<sup>5</sup> New England School Development Council (NESDC) Long Range Facilities Planning Study, October 2000.

- NESDEC Long-Term Facilities Study, October 2000
- NESDEC De-Regionalization Study, January 2001
- SMMA High School Expansion Study, February 2001
- Joseph P. Blake & Co. High School Valuation Study, May 2001



Based on these studies and with existing and projected enrollment over the next 10 years, schools are facing the following capacity issues:

- **Elementary School (K-4)** - Year 2000 shortage of 228 pupil stations; projected to be short 408 pupil stations in 2010/11. Additional library and music spaces are needed along with site work. The Burnell Campus School needs tightened security and to enclose “open” classrooms.
- **Williams Middle School** - Year 2000 shortage of 538 pupil stations; projected to be short 800 pupil stations in 2010/11. Additional improvements include:
  - Redesign as a true middle school
  - Teacher team rooms and conference rooms
  - Science labs
  - Two large group pupil/staff team instructional meeting areas
  - Additional space for specialists, guidance, nurse/health, administrative offices, special education, library/media center, computer lab
  - Additional space for fine arts, technical education and family/consumer science programs
  - Most classrooms are undersized and sub-standard (should be 900 s.f.+)

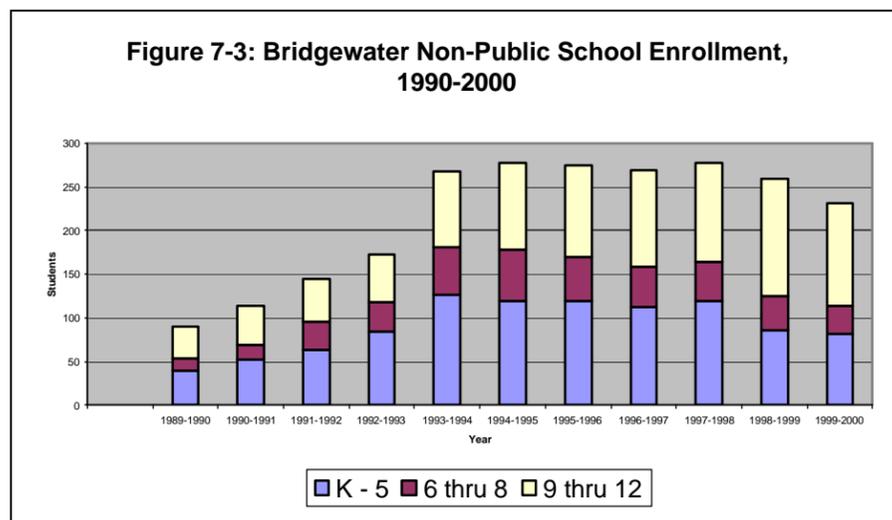
➤ **High School** - Year 2000 shortage of 601 pupil stations; projected to be short 1,000 pupil stations in 2010/11. The High School also has the following facility needs:

- Library/Media Center expansion
- Special Education facilities
- Science and Language Labs
- Guidance/Career Center; administrative offices; nurse/health
- Additional music, drama, and art rooms
- Additional Physical Education teaching station and team rooms/coaches room for athletes
- Additional teacher office/work stations
- High School needs several additional athletic fields
- Cafeteria expansion

In 2001 the Regional School Committee approved a \$101.6 million long-range facilities plan to alleviate district overcrowding. The three-phase plan involves the construction of a new regional high school with a 2000-student capacity, converting the regional high school into a new Bridgewater middle school and converting the M.G. Williams Middle School into an early childhood center with full-day kindergarten.

**Non-Public Schools Enrollment**

In total, non-public school enrollment of Bridgewater students has grown from 90 in 1989-90 to 231 in 1999-00. Over the past five years, however, the K-5 and 6-8 student enrollment in non-public schools has declined. The opposite is true at the high school level where non-public school enrollment grew from 99 in 1989-90 to 117 in 1999-00. Private enrollment has been declining slightly in recent years, which may be attributable to the extensive improvements being made to the public schools in Bridgewater.



**Bristol-Plymouth Regional Technical School**

In 1999 Bridgewater-Plymouth Regional Technical School (BP) continued to accommodate the maximum student enrollment with the number of applications increasing. To better serve present students and increase capacity to serve future students, BP began a \$6.4 million addition and renovation project with work beginning in 2000.

7.10 Town Boards, Commissions and Committees

**Capital Planning Committee**

The Town established the Capital Improvement Program (CIP) and Capital Planning Committee (CPC) in 1995. The CPC is made up of the following representatives:

- One member of the Board of Selectmen
- One appointee from the Advisory Committee
- Two residents appointed by the Board of Selectmen
- Two residents appointed by the Advisory Committee
- One BSC representative appointed by the Town/College Executive Committee (must be either a resident or ex-officio)
- Town accountant is an ex-officio member

The CPC annually reviews the CIP and proposals for construction and maintenance of municipal buildings. They also review capital purchases exceeding \$10,000 associated with the operation of Town departments, land acquisition, or personal property. The committee makes recommendations to the appropriate officer, board, agency or department.

The CPC's mission is to accommodate the growth of Bridgewater by expanding Town services. In the last few years, the committee worked closely with the Police Department, Fire Department, and Highway Department to resolve space issues. Recent major capital improvements include the new Police Station (2002), East Side Fire Substation (2001), and Highway Department Complex (2000).

In 2000, the CPC recognized the needs of the Bridgewater Senior Center and the Recreation Commission to expand their facilities due to the population growth. They are working with these two groups to identify specific needs and seek funding sources.

**Planning Board**

The five-member Planning Board is elected by ballot vote by the citizens of Bridgewater. The Board is responsible for reviewing development projects including subdivisions, site plans, and Form A's (new building lots that do not require formal subdivision review).

The Planning Board has been one of the busiest boards over the last ten years as the Town continues to grow. The vast majority of their work over this period has been reviewing residential subdivisions of which there have been 60 since 1990.

The Planning Board has been directly involved in the implementation of the Zoning Ordinance and Subdivision Regulations and has identified a number of issues in each. One of the biggest concerns is the Cluster Development ordinance, which is rarely used but has not worked well. According to the Board, these projects accomplish little in terms of preserving quality open space for the residents and, instead, have been used to maintain allowable overall density by factoring in wetlands and other un-buildable lands as open space. From a visual standpoint, there are few distinctions between cluster and conventional developments with the exception that houses appear to be somewhat closer together on the sideyards.

The current subdivision regulations allow for a maximum of 1000 feet on dead-end roads, which some developers would like to extend. The Board, however, is concerned about fire safety with longer roads and no second means of access. Another concern is the number of homes per roadway allowed (currently 50).

According to Board, there are a handful of properties with high development potential including the Latohla land off Cherry Street; Hanson Farms (high development potential and zoned residential); the Cumberland Farms land on Elm Street and Circle Street (both have poor soils but are potentially developable); and the Davidson property.

Over the last ten years the Planning Board has sponsored a number of amendments to the Zoning Ordinance and Subdivision Regulations to improve the development review process and guide growth in Bridgewater. (A number of proposed land use regulation amendments are discussed in *Chapter 9: The Land Use Plan*).

**Zoning Board of Appeals (ZBA)**

The Zoning Board of Appeals is a five-member Board appointed by the Board of Selectmen. The ZBA is responsible for reviewing cases involving variances from the Zoning Ordinance (such as dimensional requirements), special permits (for specific types of uses and projects), and appeals of decisions made by the Planning Board and zoning administrator.

| Facts: ZBA Cases 1996-2000 |         |           |                 |       |
|----------------------------|---------|-----------|-----------------|-------|
| Year                       | Appeals | Variances | Special Permits | TOTAL |
| 1996                       | 2       | 24        | 11              | 37    |
| 1997                       | 1       | 28        | 13              | 42    |
| 1998                       | 1       | 24        | 13              | 38    |
| 1999                       | 0       | 27        | 7               | 34    |
| 2000                       | 2       | 30        | 11              | 43    |

The ZBA has been fairly active over the past five years with an annual average of more than 35 decisions. Most cases involve requests for variances from dimensional requirements (i.e. setbacks, frontage and lot size), which is typical for boards around the state.

**Conservation Commission**

The Commission is responsible for environmental permitting in the community. It also works with the DEP in an effort to enforce the Wetlands Protection Act, which now incorporates the Rivers Protection Act. The Commission is made up of seven citizen members and is staffed by a conservation agent and part-time administrator. Commissioners are appointed by the Board of Selectmen for 3-year renewable terms. Because of the amount of new development in Bridgewater, as well as state regulations, the Conservation Commission has been very active over the past ten years. Their main concern and priority is to protect wetlands habitat and other sensitive environmental areas in Bridgewater.

**Recreation Commission**

The Bridgewater Recreation Commission is a five-member volunteer board appointed by the Board of Selectmen to five-year terms. In 2000, the Commission opened a new office at 90 Cottage Street. This new space provides the Commission with public access.

The Commission currently manages Scotland Field, Legion Field, and the Rainbow's End Playground. Six additional sites in Phase One of the Town Park System are managed in partnership cooperatively between the Recreation Commission, Conservation Commission, Water and Sewer Commissions, Highway Department and the NRTB. The B-R Regional School District, BSC and private organizations maintain other local playgrounds and athletic fields.

| Facts:<br>Old Scotland Course Stats |               |             |
|-------------------------------------|---------------|-------------|
| Year                                | Rounds Played | Revenues    |
| 1997                                | Partial       | NR          |
| 1998                                | 40,000        | \$1,035,023 |
| 1999                                | 40,000+       | \$1,330,954 |
| 2000                                | NR            | \$1,538,412 |

The cooperative approach between these groups has served the community well. As the population grows, however, there will be increasing demands for recreational facilities. The need for trained volunteers to help as stewards and control municipal expenses will become increasingly important.

On a neighborhood level, facilities serving convenient active and passive activities for families with children will be the most needed. Parks, tot lots, playgrounds and ball fields would be particularly utilized within the neighborhoods, given their high population density. The recent closing of the Hunt and McElwain Schools essentially eliminated two playgrounds within these neighborhoods. The number of pre-school and elementary school age children is increasing, making the loss of these facilities more acute

The Recreation Commission sponsors numerous events and programs for Bridgewater residents throughout the year. Figure 7-4 identifies active and passive community recreation programs administered by the Commission.

In an effort to keep pace with the growing interest in recreational programs, the Commission has added many new activities in recent years including the following: the Rodman Ride for Kids, an expanded Summer Recreation Program, a new Swimming Program, Basketball Clinic, Thursday Night Golf Leagues, a Boy's and Girls Basketball Travel League, Track and Running Program, the Bridgewater Road Race and Sunday Evening Concerts.

| Recent Bridgewater Public Recreation Projects |
|-----------------------------------------------|
| Legion Field A – Backstops and Dugouts        |
| Basketball Courts at Legion Field             |
| Outdoor Skating Rink at Legion Field          |
| Parking Lot, Lights at Legion Field           |
| Lane Field – New Scoreboard                   |
| Rainbow’s End Playground – New Amphitheater   |

The Commission has made several facility and program improvements in recent years. However, even with the number of expanded programs the Commission has added, there continues to be a steady increase in the demand for recreational fields and facilities for both children and adults. Over the next five years, the Recreation Commission is focused on the following projects:

- Additional athletic fields for baseball and soccer activities at the Hogg’s Farm property on Pleasant Street.
- New lighting at existing fields to allow more league activities at night
- The development of a new teen center

**Old Scotland Links Golf Course Committee**

This municipal golf course was opened in 1997 with a combination of funding from the state and a local bond. The 18-hole facility was constructed on lands purchased by the Town several years ago. The 210-acre parcel is located on the former Chaffee Farm.

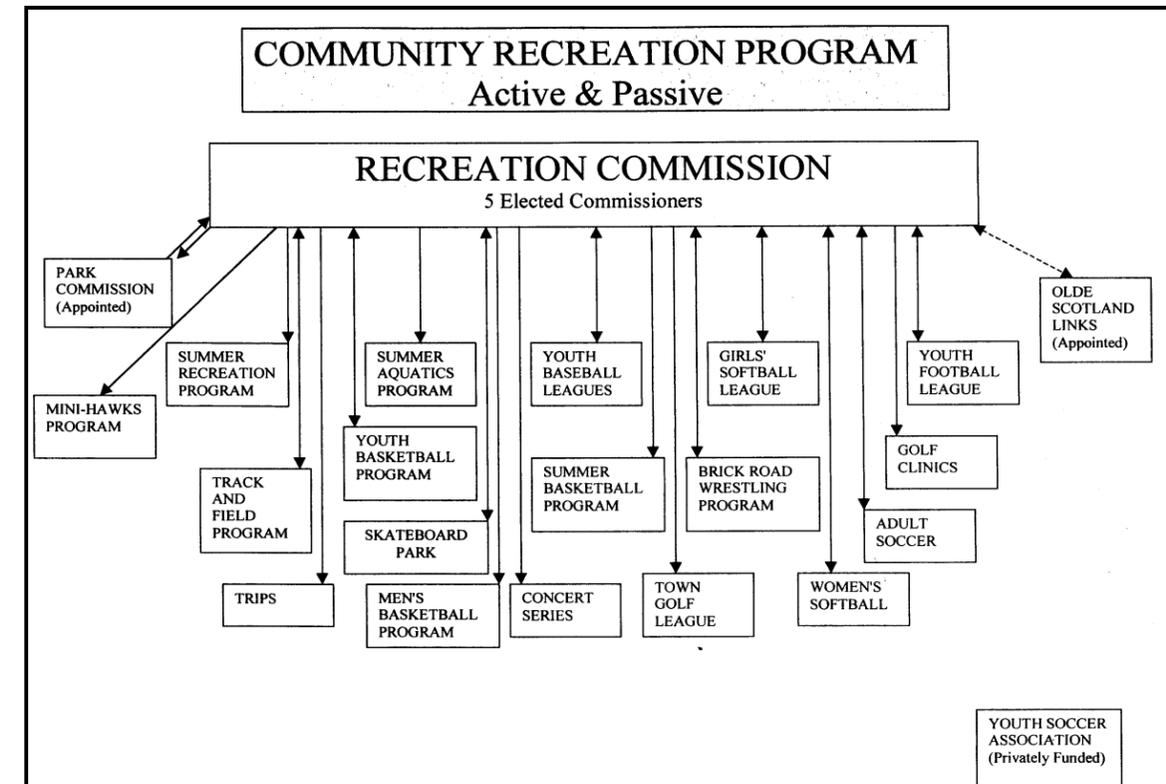
The Bridgewater Golf Commission, whose goal it is to provide quality maintenance and a user-friendly course for all levels of play, manages daily course operations. In its first full year of operation, Olde Scotland Links exceeded expectations with more than 40,000 rounds played. Annual rounds continued to be above 40,000 during the past four years.

This community facility also provides several golf leagues, tournaments, and a driving range. New instructional golf clinics were established at no fee or nominal fees to Bridgewater residents. The first-ever golf league attracted 144 participants in its first year. Revenues from the operation are deposited into the Enterprise Fund and used for facility maintenance and improvements.

**Historic District Commission**

The Historic District Commission oversees the Bridgewater Historic Center District through the regulation of building exteriors and signage. The Commission has worked closely with merchants on signage and façade improvements in the District. They have also worked with architects and contractors in restoring the old Tory House, one of the District’s most important structures, and the Massachusetts Historical Commission in the restoration of Memorial Hall. The Commission is currently editing its handbook of regulations.

Figure 7-4: Community Recreation Program



**Bridgewater Historical Commission**

This volunteer commission is primarily involved in preserving family histories and artifacts in Bridgewater. The Commission would like to restore the last remaining building of the Bridgewater Ironworks for use as a community center, office and library for the Commission and possibly the Conservation Commission. The building could provide public meeting space, which is in short supply in Town, and serve as a focal point for the adjacent Bridgewater Ironworks Park, which is currently under construction. Revenues could be generated through rentals for private functions.

The Historical Commission also hopes that the Flagg School (the last remaining original one room schoolhouse) can be moved to a new site and preserved. The value of the lot where the building presently sites at the corner of Auburn Street and Summer Street would exceed the cost of its move and set up. The Commission is currently seeking funding sources for the Flagg School’s relocation as well as the Bridgewater Iron Works renovation.

## **Advisory Board**

The Advisory Board consists of nine citizens of the town appointed by the Town Moderator to serve a three-year term, in accordance with Massachusetts General Law. The Board's prime responsibility is to make recommendations on all financial matters, including the budget, to town meeting. Pursuant to Article III, Section 3 of the Town's Bylaws, the board shall consider all articles of any warrant for a town meeting. After consideration of the subject matter of each article, the Board shall report to the Town Meeting, in print or otherwise, such recommendations as it deems in the best interest of the Town, which may include a favorable recommendation, unfavorable recommendation, or no recommendation. Pursuant to Article III, Section 4 of the Town's Bylaws, it shall be the duty of the Board to consider the annual estimates and expenditures as prepared by the Town Accountant, and add another column to this prepared statement, giving the amounts, which in the Board's opinion, should be appropriated in the ensuing year.

### 7.11 Other Local and Regional Facilities and Services

**Conant Community Health Center** - This center is located in Bridgewater and provides several health services to local residents. The Center currently operates with three service tenants as follows:

- **Bridgewater Visiting Nurses Association** – Providing various services including community education, health screening, immunizations, support groups, outreach programs, and comprehensive home health care.
- **Healthcare Educational Resources** – Providing CPR training, first aid and nursing education program, and other related injury prevention and health and wellness training programs.
- **Sunshine Daycare Center** – Offering licensed children's daycare facility including preschool, after school care, half-day and a toddler playgroup program. It has a capacity of 30 children ranging in age from 15 months to nine years.

**Bridgewater Food Pantry** - The Bridgewater Food Pantry is located in the Academy Building. The community supports this organization and related services. Supplies are replenished by individual residents, the U.S. Post Office, girl and boy scout troops, the Council of Churches, individual churches, local business food drives and other interested parties. In 1999, the pantry and related organizations was visited 267 times and provided 56 households with assistance including 71 adults and 93 children less than 18 years old.

**Southeastern Regional Services Group (SERSG)** - SERSG is a regional organization assisting 17 municipalities that participate in cooperative procurements, saving local public works departments in supplies, materials and services. SERSG also serves as a clearinghouse for information and research on problems common to local governments.

**Brockton Area Transit Authority (BIA)** - Bridgewater is a member of the Brockton Area Transit Authority, which provides Dial-A-BAT paratransit services to the elderly and disabled. State Commuter Lines also provides frequent commuter service to Boston.

**Bridgewater Improvement Association (BIA)** - BIA received an endowment in 1966 from Flora T. Little to support its mission to beautify the Town. Funds have been used for the purchase and maintenance of many trees, shrubs and flowers planted throughout the community. Special projects over the years include:

- Boston Post lights around Central Square
- Brick sidewalks and aprons around the Common
- Iron gates and guards
- Trash receptacles and benches around Central Square.
- Trees on Main and Bedford Streets
- Seasonal plantings of annuals on the Common
- Replacement of the fountain and plantings in front of the Academy Building
- Flora T. Little Park on corner of Plymouth and Summer Streets
- European flower urns in front of Town Hall

Other Regional services in the Bridgewater Area include the following:

- Old Colony Planning Council
- OCPC Area Agency on Aging
- Womansplace Crisis Center
- Self-Help Incorporated (Human Service Organization)
- Bridgewater Visiting Nurse Association, Inc.
- Plymouth County Cooperative Extension
- Healthcare of Southeastern Massachusetts, Inc.

### 7.12 Municipal Finances

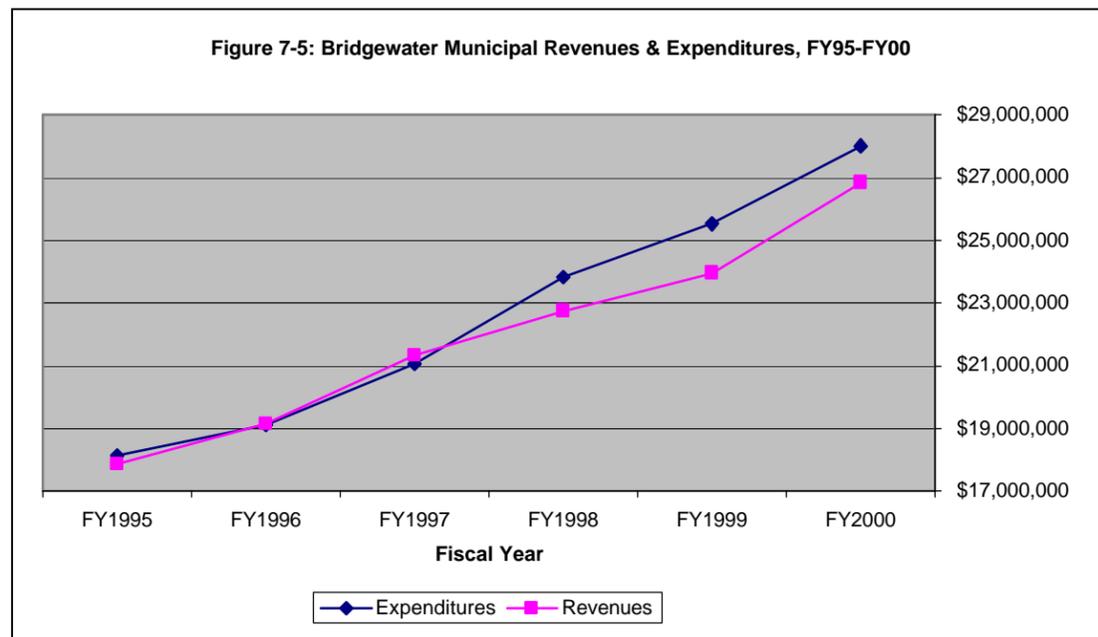
Annual municipal budget appropriations are ordinarily made at the annual town meeting held in the spring. Each department submits a budget to town meeting after review by the Municipal Administrator, the Advisory Committee and the Board of Selectmen. Additionally, all capital improvements projects and bonds are presented at town meeting.

Bridgewater's municipal budget has grown substantially over the past six years. In terms of general expenses alone (not including special capital improvement projects from year to year) the budget has increased from \$18,141,899 in FY95 to \$30,843,925 in FY02. This represents an increase of more than 70%. While revenues from property taxes and other sources have also increased significantly, they have not kept pace with the municipal expenses. (See Table 7-14: Bridgewater Municipal Finances, FY1995-2000).

The main reason for the significant increase in demand for public services, and, consequently, the municipal budget is the amount and type of development in Bridgewater over the past several years. Residential growth has been heavy for over a decade, while the commercial and industrial sectors have been relatively stagnant.

While taxable residential valuation has grown steadily since 1990, commercial and industrial development has been limited and provided only a small amount of new tax revenue. In fact, commercial values increased by only about \$8 million over the last ten years, and industrial values have actually lost value, falling from \$43

million to \$35 million. Additionally, the type of commercial and industrial building stock in Bridgewater (warehousing, trucking and smaller and older retail) does not typically appreciate at a very high rate.



Residential growth has appreciated substantially over the past ten years. However, new homes also place the largest burden on municipal facilities and services, particularly in schools, roads, recreational and other community services. If Bridgewater is going to meet the growing demand for services, it has to either increase the tax burden on residential property or expand the tax base through commercial and industrial development.

The growing tax burden on residential properties is evidenced by comparing Bridgewater to other municipalities in Massachusetts with populations between 20,000 and 30,000 residents. (See Appendix 2 for full comparison of similar size municipalities). In a survey of property values of 39 similar sized municipalities, the average of commercial and industrial valuation as a total of all value is 18.3% while Bridgewater has only 11.1%. Additionally, Bridgewater's tax rate is somewhat lower than the statewide average (14.46% compared to 18.46%).

Of the 39 municipalities in the population category, more than half have a split tax rate, assessing commercial and industrial properties at the higher rate. However, with Bridgewater's commercial and industrial valuations low, this may work against the Town in attracting high quality non-residential development.

Of the 39 municipalities in the state with populations between 20,000 and 30,000, Bridgewater ranks last in general fund expenditures. While the average budget for these communities in FY99 was more than \$45 million, Bridgewater's budget was under \$24 million. With regard to municipal expenditures per function, Bridgewater is about average, except for fire and public works, which are somewhat below the average.

| Department/Expense            | FY2000               | FY1999               | FY1998               | FY1997               | FY1996               | FY1995               | % Inc.     |
|-------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|------------|
| Land Acquisition              | \$ 3,900,000         |                      |                      |                      |                      |                      |            |
| Education                     | \$ 12,163,714        | \$ 11,253,935        | \$ 10,138,160        | \$ 9,626,975         | \$ 9,269,390         | \$ 9,128,347         | 33%        |
| Insurance                     | \$ 1,283,445         | \$ 1,221,355         | \$ 1,372,126         | \$ 1,097,356         | \$ 1,226,925         | \$ 1,221,948         | 5%         |
| Pension Benefits              | \$ 1,717,226         | \$ 748,007           | \$ 646,092           | \$ 638,096           | \$ 670,275           | \$ 630,402           | 172%       |
| Public Works                  | \$ 1,062,342         | \$ 1,043,604         | \$ 969,538           | \$ 936,136           | \$ 1,120,280         | \$ 806,514           | 32%        |
| Dept Service                  | \$ 1,536,056         | \$ 1,588,088         | \$ 1,634,742         | \$ 1,215,719         | \$ 512,585           | \$ 663,382           | 132%       |
| Police                        | \$ 2,501,612         | \$ 2,275,716         | \$ 2,161,260         | \$ 2,137,011         | \$ 1,766,939         | \$ 1,679,334         | 49%        |
| Fire                          | \$ 2,007,333         | \$ 1,891,752         | \$ 1,771,694         | \$ 1,560,490         | \$ 1,609,226         | \$ 1,518,014         | 32%        |
| General Government            | \$ 1,891,440         | \$ 1,825,985         | \$ 2,073,856         | \$ 1,345,049         | \$ 1,105,861         | \$ 1,009,342         | 87%        |
| State and County Assessments  | \$ 232,182           | \$ 197,137           | \$ 212,830           | \$ 250,123           | \$ 227,482           | \$ 191,949           | 21%        |
| Health                        | \$ 509,682           | \$ 418,383           | \$ 395,992           | \$ 344,996           | \$ 301,384           | \$ 130,617           | 290%       |
| Culture, Recreation & Other   | \$ 1,086,633         | \$ 769,903           | \$ 1,050,925         | \$ 1,035,151         | \$ 937,825           | \$ 398,681           | 173%       |
| OTHER                         | \$ 952,260           | \$ 1,215,495         | \$ 791,374           | \$ 875,101           | \$ 359,816           | \$ 763,370           | 25%        |
| <b>Total General Expenses</b> | <b>\$ 30,843,925</b> | <b>\$ 24,449,360</b> | <b>\$ 23,218,589</b> | <b>\$ 21,062,203</b> | <b>\$ 19,107,988</b> | <b>\$ 18,141,899</b> | <b>70%</b> |
| <b>Revenues</b>               | <b>-</b>             | <b>-</b>             | <b>-</b>             | <b>-</b>             | <b>-</b>             | <b>-</b>             | <b>-</b>   |
| Net Property Taxes            | \$ 16,965,472        | \$ 15,960,243        | \$ 15,206,829        | \$ 13,888,885        | \$ 13,420,973        | \$ 12,431,703        | 36%        |
| Intergovernmental             | \$ 6,707,169         | \$ 4,742,671         | \$ 4,766,337         | \$ 3,680,969         | \$ 3,387,445         | \$ 3,192,087         | 110%       |
| Excise Taxes                  | \$ 1,993,597         | \$ 1,688,129         | \$ 1,698,069         | \$ 1,432,068         | \$ 1,257,931         | \$ 1,325,833         | 50%        |
| Licenses and Permits          | \$ 289,925           | \$ 289,324           | \$ 227,162           | \$ 211,891           | \$ 208,256           | \$ 204,112           | 42%        |
| Interest                      | \$ 460,006           | \$ 504,930           | \$ 483,024           | \$ 418,756           | \$ 592,715           | \$ 396,636           | 16%        |
| Other                         | \$ 421,106           | \$ 770,594           | \$ 372,285           | \$ 1,712,816         | \$ 288,658           | \$ 323,311           | 30%        |
| <b>Total General Revenues</b> | <b>\$ 26,837,275</b> | <b>\$ 23,955,891</b> | <b>\$ 22,753,706</b> | <b>\$ 21,345,385</b> | <b>\$ 19,155,978</b> | <b>\$ 17,873,682</b> | <b>50%</b> |
| <b>Tax Rate</b>               |                      |                      | <b>\$ 14.84</b>      | <b>\$ 14.84</b>      | <b>\$ 14.93</b>      | <b>\$ 14.41</b>      |            |

Source: Bridgewater Town Reports

Figure 7-6A: Total Residential Property Value, FY90-FY00

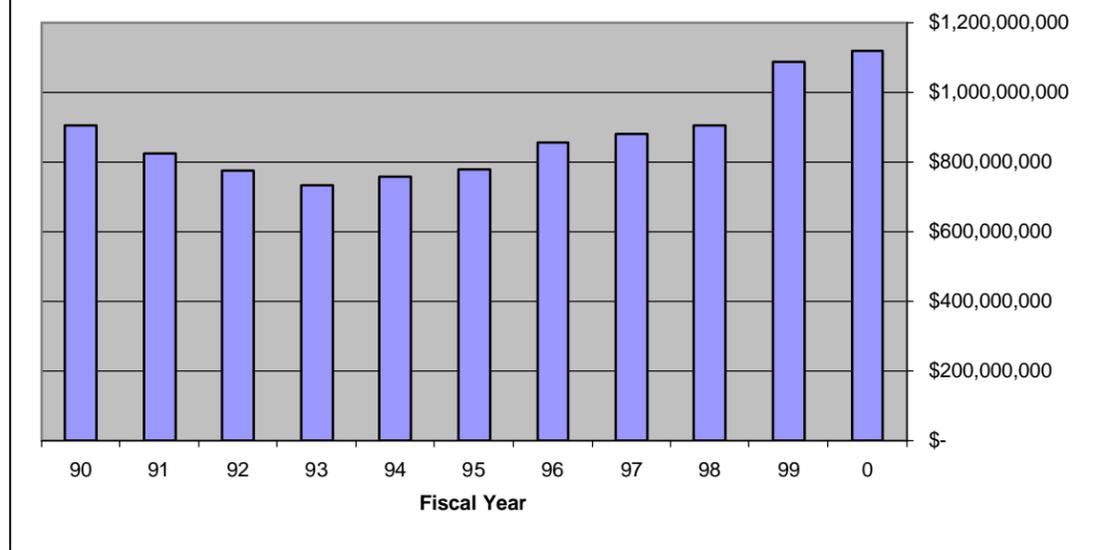
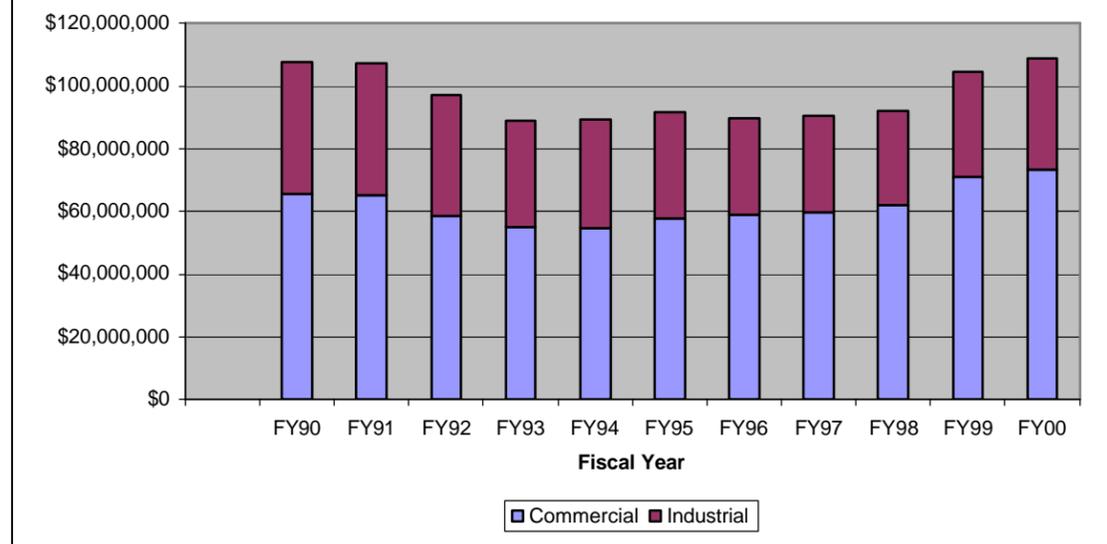


Figure 7-6B: Total Commercial & Industrial Property Values, 1990-2000



Based on regional and statewide budget comparisons, population and housing statistics, and demand for services, Bridgewater is a community with growing pains. It is a town that is rural by nature but is fast becoming a bedroom community with high expectations from its residents.

### 7.13 Goals, Strategies & Actions

Based on the inventory and assessment, the following are a series of recommended public service enhancements and expansions. Anticipated future needs for each department reflect the amount and type of growth anticipated in Bridgewater. The practicality of improvements is also based on a limited annual budget.

#### **Strategy 1: Enhance protective services and facilities as necessary for a growing population base.**

##### **Police Department**

- Complete the construction and occupancy of the new police headquarters on Pleasant Street, started in spring 2002 and anticipated to be completed in approximately 18 months.
- Continue to seek grants to expand police staffing and community-oriented programs.
- Maintain a high level of quality of all department equipment.

##### **Fire Department**

- Consider a second substation in District 5 (the western portion of Town) by 2006 to handle the increased demand for services and improve response time in high growth area.

#### **Strategy 2: Expand and improve municipal infrastructure services and facilities**

##### **Highway and Forestry Department**

- Carry out the five-year road improvement program. Update and identify funding sources on a yearly basis. The program should identify targeted roads including priority, type of repair or improvement, funding sources, and projected year for completion.
- Expand the tree planting program to new residential subdivisions, and commercial and industrial districts.

##### **Water Department**

- Continue to expand the water distribution system, improve water quality, and install water volume and quality monitoring equipment.
- Develop new water sources at Wyman's Meadows and off High Street sites.

##### **Sewer Department**

- Encourage new residential subdivisions and housing lots to be connected to the public sewer system through public policy and regulation incentives (i.e. Zoning Bylaws and Subdivision Regulations). Connections are particularly encouraged where they create tie-in opportunities for other "Needs Areas" or lots with identified septic problems.

- Public sewer is limited and does not service important business and industrial districts such as Elm Street and Bedford Street. The distance to existing infrastructure presents a difficult issue. The lack of infrastructure restricts commercial and industrial development.
  - Extend sewer lines to all commercial and industrial areas.
  - Rapid residential growth is outpacing the Town's infrastructure. Factors contributing to this are inadequate regulations, limited water and sewer capacity, and roads not designed to handle current and projected traffic demands.
- An overall financing plan is needed for all sewer projects. The Reserve Fund on its own is not sufficient to fund the WWTP expansion or the sewer extension to the Needs Areas. A large part of the shortfall could be made up with an ascending rate structure. An ascending rate structure for sewer rates should be adopted and would potentially increase revenues by at least \$100,000 annually.
- Develop guidelines for package treatment plants to address compliance with standards and long-term maintenance responsibilities.

### **Other Infrastructure Services**

- **Create a Town Engineer position** - This position was recommended in the 1984 Master Plan. Given the significant growth and development in housing construction, public utilities, roadway and sidewalks, this would be an invaluable position to the Town. Primary responsibilities would include:
  - In-house professional service for roadway design and reconstruction to assure best management practices
  - Keeper of official maps (i.e. zoning) and updating them as changes are made (i.e. new roads and subdivisions)
  - Review subdivisions and site plans for utilities, construction methods, bonding, traffic and parking design, and other design issues
  - Review floodplain maps and permits, providing LOMA modifications
  - Assistance to local residents on site modifications such as retaining walls, grading, fence installations, septic systems, and additions.
- **Upgrade the municipal computer system needs** - Much of the equipment is old and does not connect between departments. The Capital Plan should address improving inter-office efficiency.
- **Make ADA improvements to municipal facilities** – Several municipal facilities have not been brought into compliance with the handicapped accessibility code due to budget constraints.

### **Strategy 3: Address community development issues and needs.**

- **Create a common database by street number and map/parcel that can be used by all departments** - Poor interdepartmental communications has resulted from using different databases. This proposed database should also be supported by GIS. Efficiency is particularly important with limited staffing and increased activity.
  - Select hardware and software that is compatible with all departmental needs
  - Acquire equipment and train staff
  - Enter all existing data onto common database
- **Continue to seek state and federal funding for important community development projects and programs** – While it has become more difficult for Bridgewater to obtain state grant funds, finding outside sources of revenues is critical in accomplishing community development goals. Some specific projects where state and federal funding should be sought include:
  - Memorial Building Historical Preservation Grant
  - Carver's Pond Federal Dam Replacement Grant
  - New teen center
  - Senior center expansion
  - Iron Works building renovations
  - Various public park improvements

### **Strategy 4: Work with the B-R Regional School District on the necessary improvements to public school facilities and services.**

- Carefully evaluate the Superintendent's Building Advisory Committee recommendations and the Strategic Plan Facilities Committee Long-Term Facilities Plan recommendations for the following facility improvements, as well as other viable options:
  - Phase 1 – Construct a new 2,000-student regional high school (\$68 million project).
  - Phase 2 – Convert the existing high school building to the Bridgewater Middle School with addition of 250 students for a total capacity of 1,450 students. (\$21.6 million project).
  - Phase 3 – Convert Williams School to an early childhood center with full day kindergarten. (\$12 million project).

### **Strategy 5: Develop active and passive recreational programs and facilities to serve various groups within the community.**

With Bridgewater evolving from a rural agricultural into a residential suburban community, residents are requesting more passive and active recreational facilities and services.

**Action**

- Upgrade or replace existing playgrounds and picnic sites possibly through funding received from the Small Town Program administered by the State Division of Conservation Services (DCS).
- Consider locating playgrounds on existing recreational sites within rapidly growing areas.
- Increase the ‘user-friendliness’ of family parks and playground sites with safe and accessible off-street parking, informational kiosks, bicycle racks, maintained trash receptacles, and other common accessories.
- Continue to promote the volunteer stewardship and sustainable management for neighborhood park sites, to enhance the growing linked park system within the Town.
- Investigate with BSC the provision of joint recreational programs for youths and adults.
- Support social and recreational programs conducted at the Bridgewater Senior Center.
- Coordinate the efforts of such agencies as the Recreation and Park Commissions and Council on Aging to develop programs for those with disabilities.
- Support the efforts of Handi-Kids Camp and others serving those with special needs.
- Consider using surplus public parcels for such purposes as picnic areas and playgrounds, athletic fields and community gardens.
- Seek funds under the DCS-administered Land and Water Conservation Program to construct a community-wide recreational complex.
- Install additional parking and other needed appurtenances within parks and recreational sites in accordance with the ADA and related laws.
- Consider existing town-owned sites in growing outlying areas that maybe suitable for ball fields, volleyball and basketball courts, and other active recreational facilities.
- Consider existing town-owned sites in growing outlying areas that maybe suitable for inclusion into the passive recreational park system. (e.g. Jenny Leonard Park situated on a ten-acre parcel on Cherry Street, the newly acquired Sturdevant’s Pond picnic site, and Toole Park on Pleasant Street).
- Adopt the Recreation Commission plan for the following recommended projects:
  - Construct additional athletic fields for baseball and soccer activities at the Hoggs Farm property on Pleasant Street.
  - Install additional lighting at existing fields to allow more league activities at night

**Strategy 6: Enhance municipal services through careful evaluation of policies and inter- department coordination****Actions**

- The CPC should continue to work with each department to identify needed improvements or expansions so that Bridgewater residents can attain the best possible opportunities and services the community can provide.
- Support the Historic District Commission efforts to update and improve the District’s handbook of regulations.
- Facilitate better communications between Assessors and Treasurer’s office through accounting system improvements
- Establish a central purchasing system for all departments for common supplies and materials
- Consider establishing a secretarial pool to provide smaller departments with limited staff with support services

**Strategy 7: Foster inter-local cooperation where opportunities exist to improve services and reduce costs.**

Neighboring communities can benefit greatly by inter-local cooperative agreements. Funds can be pooled for roadway improvement and maintenance, utility expansion, resource protection, and many other municipal services (i.e. emergency, schools, recreation, cultural activities). For communities facing rapid growth, decisions regarding the location of public facilities, infrastructure expansion, and transportation are likely to have direct or indirect impacts on neighboring communities. Cooperation may also apply to State facilities as well including BSC and BCC.

**Actions**

Some potential areas of cooperation include:

- Participating in a joint community planning efforts
- Creating greenways and open space projects across boundaries
- Sewer and water services (possibly with BCC)
- Sharing services, equipment, and or personnel
- Recreational programs and facilities
- Participating in regional housing authority activities
- Joint material and equipment purchasing (i.e. fuel, school furniture, road salt, etc.)

## CHAPTER 8 – THE TRANSPORTATION SYSTEM

### 8.1 Background

The Town of Bridgewater's transportation system influences the development of the community and impacts the overall quality of life. The purpose of transportation planning and this section of the Master Plan is to proactively address issues brought on by residential and commercial growth in the community. Since 1990, residential development, the introduction of MBTA commuter rail service, and increased commercial development have led to increased traffic on Bridgewater's roadways.

Other factors influencing the Town's traffic patterns are planned capital improvements at BSC and employment at MCI Bridgewater. BSC is largely a commuter college and facilities improvements on campus will impact travel patterns in the surrounding areas. Both institutions have partnered with the Town to address access and parking issues for the institutions as well as general community transportation issues. *The Townwide Comprehensive Transportation Study and Management Plan (Vanasse, Hangen and Brustlin)* was completed in 2002 and is designed to identify the Town's transportation issues and develop mechanisms to protect neighborhoods, provide adequate access to businesses, improve safety and protect the residential quality of life. The study looks 10 years into the future to address transportation issues that may arise as Bridgewater continues to grow. The study is incorporated directly into this Chapter of the Master Plan.

### 8.2 Existing Conditions

The provision of excellent transportation access is central to the success of Bridgewater's development. Key elements of an ideal transportation system consist of:

- Well defined and direct access from the regional highway system
- An internal circulation system that is user-friendly and easy to understand
- Convenient and available parking
- Convenient and available public transportation
- Well planned bicycle and pedestrian connections between residential areas and major activity centers

#### **Daily Traffic Counts**

Automatic traffic recorder (ATR) counts were conducted for a 24-hour period on Route 104 (Pleasant and Plymouth Streets), Route 18/28 (Bedford Street), Hooper Street, Great Hill Drive, Burrill Avenue, and State Farm Road (MCI driveway). A summary of typical weekday traffic volumes for these locations is presented below in Table 8-1 (The original traffic counts can be found in the Appendix of the *Townwide Transportation Study and Management Plan*).

The busiest roadway in Bridgewater is Pleasant Street (Route 104 west of downtown), which carries approximately 15,000 to 25,500 vehicles per weekday. The heaviest volume on Pleasant Street is found on the segment between Elm Street and the Route 24 ramps. The daily volume is lower on segments closer to the center of town. The percentage of daily traffic traveling in the peak hours varies between almost 6 percent and just over 8 percent.

The next busiest roadway is Plymouth Street (Route 104 east of the town center), which carries between 6,600 and 18,400 vehicles per day during a typical weekday. The highest volume is near the BSC campus and the lowest volume is found near the Town line with Halifax. Bedford Street north of Winter Street carries almost 16,000 vehicles per day. Along these key roadways (Pleasant Street, Plymouth Street and Bedford Street), the peak travel times generally occurs from 7:00 to 8:00 AM and from 4:00 to 5:00 PM.

Five key locations show peak travel times outside of the typical peak periods (7:00 AM – 9:00 AM and 4:00 PM – 6:00 PM). Three of these locations (Burrill Avenue, Hooper Street, and Great Hill Drive) are in the immediate area of BSC and the MBTA Commuter Rail station, indicating that the peak hour of these generators does not coincide with typical peak hours. Similarly, the MCI Bridgewater driveway has a peak hour of 6:00 AM – 7:00 AM, which is consistent with the hours of operation for the complex. Great Hill Drive has the highest peak hour percentages with 11.3 percent in the morning and 9.8 percent in the evening. These high percentages reflect the impact of the Commuter Rail Station on Great Hill Drive traffic flow.

#### **Safety**

In order to identify accident trends, safety concerns, and/or roadway deficiencies within the community, the most recent accident data was obtained from the Massachusetts Highway Department for the three-year period from January 1, 1997 to December 31, 1999. Accident data was also obtained from the Town of Bridgewater for January 1, 1997 through November 28, 2000<sup>1</sup>.

A total of 428 accidents have occurred at the study area intersections since January 1, 1997. The highest accident incidence was experienced at Pleasant Street and the Route 24 ramps (84 accidents). However, Route 24 intersects Pleasant Street in two locations and the MassHighway data does not distinguish between the two. The next highest incidence was at the four Central Square intersections (85 combined accidents), followed by

<sup>1</sup> It is important to note that data received from the Town of Bridgewater did not include information on accident type, severity, or weather conditions. Also, year 2000 data were received from the Town only and may not reflect accidents handled by the state police. Therefore, the number of accidents for the year 2000 may be underestimated.

| <b>Table 8-1: Existing Weekday Traffic Volume Summary at Selected Bridgewater Intersections</b> |                                 |                                 |                                  |                             |                                 |                                  |                 |                                 |                                       |                 |                                 |
|-------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------------|-----------------------------|---------------------------------|----------------------------------|-----------------|---------------------------------|---------------------------------------|-----------------|---------------------------------|
| <b>Location</b>                                                                                 | <b>Weekday Daily Traffic</b>    |                                 | <b>Weekday Morning Peak Hour</b> |                             |                                 | <b>Weekday Evening Peak Hour</b> |                 |                                 | <b>Off-Peak Peak Hour<sup>4</sup></b> |                 |                                 |
|                                                                                                 | <b>Volume (vpd)<sup>1</sup></b> | <b>Directional Distribution</b> | <b>Volume (vph)<sup>2</sup></b>  | <b>K Factor<sup>3</sup></b> | <b>Directional Distribution</b> | <b>Volume (vph)</b>              | <b>K Factor</b> | <b>Directional Distribution</b> | <b>Volume (vph)</b>                   | <b>K Factor</b> | <b>Directional Distribution</b> |
| Pleasant Street west of Elm Street                                                              | 25,150                          | 58% EB                          | 1,480                            | 5.9                         | 67% EB                          | 2,040                            | 8.1             | 60% EB                          | 2,470 (9am)                           | 9.8             | 66% EB                          |
| Pleasant Street east of Prospect Street                                                         | 19,755                          | 54% WB                          | 1,585                            | 8                           | 52% WB                          | 1,595                            | 8.1             | 58% WB                          | --                                    | --              | --                              |
| Pleasant Street west of South Street                                                            | 14,365                          | 53% EB                          | 995                              | 6.9                         | 56% EB                          | 1,130                            | 7.9             | 54% EB                          | --                                    | --              | --                              |
| Plymouth Street east of Summer Street                                                           | 18,420                          | 52% EB                          | 1,335                            | 7.2                         | 51% EB                          | 1,530                            | 8.3             | 52% EB                          | --                                    | --              | --                              |
| Plymouth Street east of Great Hill Drive                                                        | 11,290                          | 53% WB                          | 830                              | 7.4                         | 76% EB                          | 925                              | 8.2             | 65%WB                           | --                                    | --              | --                              |
| Plymouth Street east of East Street                                                             | 6,595                           | 51% WB                          | 515                              | 7.8                         | 58% WB                          | 580                              | 8.8             | 56% EB                          | --                                    | --              | --                              |
| Burrill Avenue at Moakley Center                                                                | 6,565                           | 50% NB                          | 540                              | 8.2                         | 84% NB                          | 445                              | 6.8             | 56% NB                          | 465 (6pm)                             | 7.1             | 61% SB                          |
| Hooper Street north of Burnell Campus                                                           | 6,600                           | 60% SB                          | 475                              | 7.2                         | 79% SB                          | 470                              | 7.1             | 53% SB                          | 530 (2pm)                             | 8               | 60% NB                          |
| Great Hill Drive south of Plymouth Street                                                       | 1,330                           | 64% NB                          | 150                              | 11.3                        | 89% SB                          | 130                              | 9.8             | 83% NB                          | 210 (6pm)                             | 15.8            | 90% NB                          |
| Bedford Street north of Winter Street                                                           | 15,950                          | 51% NB                          | 1,175                            | 7.3                         | 64% NB                          | 1,315                            | 8.2             | 53% NB                          | --                                    | --              | --                              |
| MCI Driveway east of Bedford Street                                                             | 2,150                           | 51% EB                          | 265                              | 12.3                        | 68% WB                          | 120                              | 5.6             | 93% EB                          | 271 (6am)                             | 12.6            | 80% WB                          |

Source: ATR counts conducted by VHB in November 2000.

1 Daily traffic volumes expressed in vehicles per day.

2 Peak hour volumes expressed in vehicles per hour.

4 Off peak peak hour identified only when highest traffic volumes occur outside the peak commuter periods.

3 Percent of daily traffic occurring during the peak hour.

Bedford Street at Winter Street (40 accidents), High Street at Broad Street (35 accidents), Bedford Street at Grove Street (24 accidents) and Pleasant Street at Elm Street (20 accidents).

MassHighway has prepared a list of the top 1,000 high accident locations through the entire state of Massachusetts. The most current list (1999) compiles data from 1994, 1995, and 1996. None of the intersections in Bridgewater are designated as a high accident location.<sup>2</sup>

Crash rates are calculated based on the number of accidents at an intersection and the volume of traffic traveling through that intersection on a daily basis. Rates that exceed the statewide average could indicate safety or geometric issues at an intersection. The 2000 statewide crash rate is 0.70 for an unsignalized intersection and 0.98 for a signalized intersection. These rates imply that on average 0.70 accidents occurred per million entering vehicles at unsignalized intersections throughout the state of Massachusetts in 1999 and 0.98 accidents occurred per million entering vehicles at signalized intersections. Crash rates at the following intersections within the Town of Bridgewater exceed the statewide average:

- Bedford Street at Winter Street (2.05)
- High Street at Broad Street (1.75)
- Pleasant Street at the Route 24 ramps (1.54)
- Bedford Street at Grove street (1.45)
- Plymouth Street at Hooper Street (0.81)
- Pleasant Street at Elm Street (0.78)

**Roadway Pavement**

Currently the Town has no rating system in place to quantitatively evaluate the road surfaces. The Town of Bridgewater maintains approximately 150 miles of roadways each year (depending on the chapter 91 money available). The Town performs surface maintenance on as many linear feet of roadway as financially possible. The poorest quality roads serving the most traffic are given priority by MassHighway.

**Bridges**

There are 11 bridges within the Town of Bridgewater including the following:

1. Hayward Street Bridge
2. Vernon Street Bridge
3. Summer Street Bridge
4. Titicut Street Bridge
5. Plymouth Street Bridge
6. Bridge Street Bridge
7. High Street Bridge
8. Green Street Bridge

9. Cherry Street Bridge
10. Oak Street Bridge
11. Auburn Street Bridge

The Cherry Street Bridge has a 3-ton limit and was recently reconstructed by MassHighway in 2001. The Oak Street Bridge is on the District Transportation Improvement Plan (TIP) as a high priority project. The Auburn Street Bridge has been closed and plans to replace the bridge are listed as a TIP high priority regional project.

**Parking Supply**

An analysis of existing parking conditions for on-street and off-street parking areas within the Town’s central business district (CBD) and for parking areas on the BSC campus was conducted as part of the *Townwide Comprehensive Traffic and Management Study*.

Central Business District - The central business district study area is encompassed by Maple Avenue to the south, Union Street and Pearl Street to the west, Spring Street to the north, and Plymouth Street and Summer Street to the east. A parking accumulation and turnover study of the CBD area was conducted from 8:00 AM to 6:00 PM on Tuesday, December 5, 2000.

Figure 8-1 shows the locations and restrictions for on-street and off-street parking within the CBD. There are a total of 331 (plus 3 handicapped) parking spaces within the CBD. On-street parking with a one-hour limit is

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Parking Accumulation Studies</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>permitted along Central Square, Broad Street, Church Street, Pearl Street, Stetson Street, and Perkins Street. The most utilized parking spaces are located along Central Square and Broad Street, which provide a total of 100 marked parking spaces, three of which are handicapped</p> |
| <p>The parking accumulation study entails recording the number of vehicles parked in a particular area at a given time. The frequency of the accumulation count is based on the posted parking time limit (for the purposes of this study, every 30 minutes). Accumulation data help to quantify parking demand and establish parking patterns in the area. Statistics of peak occupancy, periods of greatest utilization, and areas of greatest utilization can be drawn from this study. The parking turnover study is a data collection effort recording the license plate number of vehicles occupying the parking spaces. By recording the license plate numbers, an average number of vehicles per space and the average length of stay can be calculated. Calculation of these averages helps determine whether vehicles in the study area are creating parking issues by violating the posted time limits. Together, the parking studies are intended to help determine what, if any, parking issues exist and how to begin resolving them. They aid in establishing peak parking demand, distribution of parking throughout the day, and parking duration. From these, information on improper/illegal parking with regard to time-restricted parking areas can be identified.</p> |                                                                                                                                                                                                                                                                                              |

parking spaces. Patrons of retail stores along Spring Street and Hale Street are provided parking with 40-minute and 45-minute limits, respectively. School Street provides 10 parking spaces with a 15-minute limit. The municipal lot behind the Shell gas station provides 19 parking spaces with a one-hour limit.

<sup>2</sup> High Accident Intersection Report. Prepared by the MassHighway Safety Management Unit. 1999.

A **parking occupancy count** of the on-street and off-street parking within the CBD was conducted every half hour from 8:00 AM to 6:00 PM. Table 8-2 presents the results. The peak occupancy for the entire CBD occurred at 12:00 PM, with a total of 91 vehicles, or 27 percent of the capacity of 331 spaces. Central Square and Broad Street accommodate the largest number of vehicles. The period of greatest utilization for both these areas was between 10:30 AM and 12:00 noon when 75 to 80 percent of the Central Square spaces were occupied and 52 percent of the Broad Street spaces were occupied. Each area had 25 to 30 vehicles parked at that time. Observations of parking activity revealed that the parking spaces on the southern portion of Broad Street close to Central Square were heavily utilized while those farther north on Broad Street were used sparingly. The municipal lot also experienced a peak utilization of 68 percent at noon with 13 of its spaces occupied. This peak utilization also occurred at 10:00 AM, 10:30 AM, and 12:30 PM. The minor side streets such as Church Street, Pearl Street, Stetson Street, and Perkins Street were lightly utilized with a peak period occupancy of only 10 percent of their capacity.

License plate numbers were recorded for each parked vehicle so that the average number of vehicles per space and the average length of stay of vehicles could be calculated. The results of the CBD parking turnover study are summarized in Table 8-2.

Central Square experiences the highest turnover rate with an average of almost five vehicles per space on the westside of the square and more than eight vehicles per space on the east side. Vehicles remain for an average duration of approximately 50 minutes, which is less than the posted one-hour limit. Eighty-nine percent of the vehicles parking in Central Square remain for an hour or less.

Parking along Broad Street experienced a lower average turnover rate of approximately four cars per space during the course of 10 hours (8:00 AM to 6:00 PM). The average duration was approximately 55 minutes, which is slightly less than the posted time limit of one hour. Eighty-six percent of the vehicles parked for an hour or less.

A **parking turnover study** of the CBD spaces was conducted at the same time as the occupancy count. The parking turnover data indicate that the municipal lot experiences an average turnover rate of three cars per space. Vehicles parking in the municipal lot remain for an average duration of approximately 1 hour and 30 minutes, which exceeds the posted limit of one hour. Thirty-one percent of the vehicles exceeded the posted limit.

School Street averaged approximately six to seven cars per space with 35 percent of vehicles parked for 30 minutes or more. The posted limit is 15 minutes. The remaining minor side streets within the study area had an average length of stay that exceeded the posted time limits and experienced a very low turnover rate of less than one vehicle per space.

**Table 8-2: Central Business District Parking Occupancy and Turnover Summary<sup>1</sup>**

| Location                             | Number of Parking Spaces | Total Vehicles Parked | Average No. of Vehicles per Space | Average Duration | Posted Parking Limit | Vehicles Exceeding Posted Limit |            |
|--------------------------------------|--------------------------|-----------------------|-----------------------------------|------------------|----------------------|---------------------------------|------------|
|                                      |                          |                       |                                   |                  |                      | Number                          | Percent    |
| Broad Street (eastside)              | 2                        | 9                     | 4.5                               | 50 min           | 15 min               | 33                              | 33%        |
| Broad Street (eastside)              | 26                       | 116                   | 4.5                               | 45 min           | 1 hr                 | 9                               | 8%         |
| Broad Street (west side)             | 32                       | 100                   | 3.1                               | 1 hr 8 min       | 1 hr                 | 20                              | 20%        |
| Central Square (eastside)            | 18                       | 157                   | 9.8                               | 39 min           | 1 hr                 | 9                               | 6%         |
| Central Square (westside)            | 19                       | 91                    | 5.4                               | 1 hr 7 min       | 1 hr                 | 18                              | 20%        |
| Municipal Lot                        | 19                       | 55                    | 2.9                               | 1 hr 28 min      | 1 hr                 | 17                              | 31%        |
| School Street                        | 10                       | 65                    | 6.5                               | 50 min           | 15 min               | 233                             | 35%        |
| Spring Street <sup>2</sup>           | 15                       | 17                    | 1.1                               | 43 min           | 40 min               | 24                              | 12%        |
| Church Street <sup>2</sup>           | 25                       | 7                     | 0.3                               | 38 min           | 1 hr                 | 0                               | 0%         |
| Pearl Street <sup>2</sup> (eastside) | 35                       | 5                     | 0.1                               | 2 hr 24 min      | 1 hr                 | 5                               | 100%       |
| Pearl Street <sup>2</sup> (westside) | 35                       | 6                     | 0.2                               | 2 hr             | 1 hr                 | 5                               | 83%        |
| Stetson Street <sup>2</sup>          | 40                       | 9                     | 0.2                               | 2 hr 10 min      | 1 hr                 | 4                               | 44%        |
| Perkins Street <sup>2</sup>          | 40                       | 4                     | 0.1                               | 9 hr 23 min      | 1 hr                 | 4                               | 100%       |
| Hale Street                          | 15                       | 9                     | 0.6                               | 4 hr 10 min      | 45 min               | 74                              | 78%        |
| <b>Total</b>                         | <b>331</b>               | <b>650</b>            | <b>2</b>                          | <b>2 hr</b>      |                      | <b>126</b>                      | <b>19%</b> |

1. Parking turnover study conducted on a typical weekday from 8:00 AM to 6:00 PM.
2. Number of parking spaces estimated. Parking spaces are not marked.
3. Based on number of vehicles exceeding 30 minutes. No. of vehicles actually exceed the posted 15 minute limit may be more.
4. Based on number of vehicles exceeding 1 hour. Number of vehicles actually exceeding the posted limit may be more.

**Bridgewater State College** - An inventory and a parking occupancy count of the BSC parking system was conducted on Tuesday, December 5, 2000 while classes were in session for the Fall semester. BSC provides a total of 3,699 parking spaces for the faculty and staff, student body, and visitors to the college. Table 8-3 presents a summary of BSC's parking supply.

A total of 659 parking spaces, approximately 18 percent of the total parking spaces, are designated for faculty and staff. Approximately 65 percent of the faculty and staff parking spaces are located on East Campus.

Resident parking, with 850 spaces, represents approximately 23 percent of the total parking spaces on campus. Woodward Hall, the only resident lot on East Campus, provides approximately 10 percent of the resident parking. The remaining 90 percent of the resident parking spaces are located on West Campus in Lower Great Hill Lot, Shea/Durgin Lot, and Apartment Lot. Hooper Street Lot, Spring Street Lot, and a portion of Lower

Great Hill Lot and Chapel Lot are designated for commuter parking. West Campus provides 1,622 spaces, which is approximately 97 percent of the commuter parking. Visitor parking spaces represents only 6 percent of the total parking on campus. The Chapel and Moakley Center lots are the primary visitors lots, providing a total of 176 spaces.

**Table 8-3: Bridgewater State College Parking Supply**

| Location Identifier <sup>1</sup> | Parking Lot          | Faculty/Staff | Resident   | Commuter     | Handicap  | Visitors   | General    | Total        |
|----------------------------------|----------------------|---------------|------------|--------------|-----------|------------|------------|--------------|
| 1                                | Boyden Hall          | 73            | -          | -            | 5         | 16         | -          | 94           |
| 2                                | Harrington Hall      | 177           | -          | -            | 2         | 7          | -          | 186          |
| 3                                | Woodward Hall Drive  | 3             | 19         | -            | 3         | -          | -          | 25           |
| 4                                | Woodward Hall        | -             | 70         | -            | -         | -          | -          | 70           |
| 5                                | Tillinghast Hall     | 2             | -          | -            | 2         | -          | -          | 4            |
| 6                                | Scott Hall           | 3             | -          | -            | -         | -          | -          | 3            |
| 7                                | Campus Center Rear   | 2             | -          | -            | 4         | -          | -          | 6            |
| 8                                | Campus Center Front  | 7             | -          | -            | -         | -          | -          | 7            |
| 9                                | Maxwell Library      | 4             | -          | -            | 4         | -          | -          | 8            |
| 10                               | Art Building         | 9             | -          | -            | 2         | -          | -          | 11           |
| 11                               | Pope Hall            | 3             | -          | -            | 2         | 1          | -          | 6            |
| 12                               | Science Building     | 95            | -          | -            | 4         | -          | -          | 99           |
| 13                               | Chapel               | 89            | -          | 58           | 5         | 88         | -          | 240          |
| 14                               | Lower Great Hill     | 1             | 482        | 735          | 2         | -          | -          | 1,220        |
| 15                               | Police Headquarters  | 21            | -          | -            | -         | -          | -          | 21           |
| 16                               | Faculty Union Office | 4             | -          | -            | -         | -          | -          | 4            |
| 17                               | Shea/Durgin          | 23            | 212        | -            | 4         | 6          | -          | 245          |
| 18                               | Apartments           | 1             | 67         | -            | 2         | 3          | -          | 73           |
| 19                               | Moakley              | 93            | -          | -            | 4         | 88         | -          | 185          |
| 20                               | Burnell School       | 29            | -          | -            | 4         | 6          | -          | 39           |
| 21                               | Children's Center    | 20            | -          | -            | -         | 10         | -          | 30           |
| 22                               | Hooper Street        | -             | -          | 307          | 6         | -          | -          | 313          |
| 23                               | Swenson Field        | -             | -          | -            | 4         | -          | 215        | 219          |
| 24                               | Spring Street        | -             | -          | 580          | 11        | -          | -          | 591          |
|                                  | <b>Total</b>         | <b>659</b>    | <b>850</b> | <b>1,680</b> | <b>70</b> | <b>225</b> | <b>215</b> | <b>3,699</b> |



Parking occupancy counts were conducted at BSC's parking lots during the peak hour from 11:00 AM to 12:00 PM. The peak hour was determined from historical parking data provided by the college. The total number of parked vehicles was 3,250. This represents an occupancy rate of almost 88 percent campus wide, indicating that the parking supply is heavily utilized. A follow-up count was conducted on Thursday, February 8, 2001 at the beginning of the Spring semester. The pattern of utilization for various lots and user groups was similar but the total number of parked vehicles was about 250 vehicles less. The February occupancy rate was almost 84 percent.

During the December count, 449 spaces were unoccupied. The largest number of open spaces was in the Swenson Field Lot, which had 113 open spaces. Only 48 percent of its capacity (106 spaces) was utilized. The Swenson Field Lot is the most distant facility from campus activity centers and, as a result, is the least desired parking location on campus. It is available to all user groups and generally serves to accommodate overflow from other locations. Other locations with a number of vacant spaces are the Lower Great Hill (109 spaces), Moakley (82 spaces), Spring Street (35 spaces), and Chapel (32 spaces) lots. The empty spaces in the Lower Great Hill Lot were in the most remote location of the area reserved for commuter students. This lot is reported by campus officials to be generally full throughout most of the Fall semester. Most of the Moakley and Chapel lots' unused spaces were reserved for visitors. The Spring Street Lot, which is also reported to generally be fully occupied, had 35 open spaces on the day of the survey.

### **Public Transportation**

Public transportation within the Town of Bridgewater includes MBTA commuter rail service and the Brockton Area Transit (BAT) Authority bus service. BAT also provides and administers other services to Bridgewater. (See the *Townwide Comprehensive Transportation Study and Management Plan, 2002* for more information).

**MBTA** - The Middleborough/Lakeville Branch of the Old Colony Commuter Rail line provides service to South Station in Boston from Bridgewater. Stations along the line include Middleborough/Lakeville, Campello, Brockton, Montello, Randolph/Holbrook, Braintree, Quincy center, and UMass Boston. The travel time from Bridgewater to South Station is approximately 45 minutes. The Middleborough/Lakeville Branch traverses the Town of Bridgewater in a north-south direction, essentially splitting the Town and the BSC campus in half. The Bridgewater station is located adjacent to the BSC campus and can be accessed from either Burrill Avenue to Plymouth Street or Great Hill Road to Plymouth Street. There are 500 spaces available with ten of those designated as handicapped parking. The daily parking rate is \$1.00.

As of the spring of 2002, the fare structure for a one-way trip from Bridgewater to Boston is \$4.25 with a 12-ride pass costing \$46.75 (with a reduction in fares for shorter trips). There are also monthly passes available for \$145.00.

There are 12 inbound (to Boston) and 12 outbound (from Boston) trains departing/arriving Bridgewater on a typical weekday. The train is available on weekdays from the Bridgewater station to Boston from 5:35 AM until 9:35 PM and from South Station to Bridgewater from 6:45 AM until 10:30 PM. The trains generally operate on 45-minute headways during the peak periods (5:00AM - 7:39AM and 4:45PM to 6:45PM).

**Bus Service** - The following bus transit services are provided within Bridgewater:

**Town of Bridgewater and Bridgewater State College Fixed-Route Service** - Bridgewater is a member of the Brockton Area Transit Authority (BAT), which provides buses to BSC for shuttle service. This bus service is only available when the College is in session and includes three trips to and from Brockton, which connect with BAT's regular fixed-route service. The ridership for the BAT fixed-route service was, on average, approximately 240,000 to 260,000 riders per month during the fiscal years 2000 and 2001. The highest number of riders was October during the last two years and the lowest ridership months were July and August, during which the BSC service was not provided.

**Bridgewater State College Paratransit Service** - The paratransit service provided to BSC for the fiscal year 2001 provided a total of 550 trips, which was significantly higher than fiscal year 2000 with 220 trips.

**Bridgewater Council on Aging Paratransit Service** - The Bridgewater Council on Aging provides some limited service for elders in Town. Service is only provided an average of 9 days per month. During fiscal year 2001, a total of approximately 150 one-way trips were provided serving a total of 235 passengers.

**DIAL-A-BAT Paratransit Service** - DIAL-A-BAT provided call on demand service to elderly and disabled individuals in Bridgewater. An average of 406 trips per month were made in fiscal year 2000 and 411 trips per month in fiscal year 2001. BAT contracts with Bill's Taxi Service to provide some of the trips that DIAL-A-BAT is unable to provide.

### **Pedestrian Facilities**

Figure 8-2 illustrates the existing sidewalk network in place throughout the Town of Bridgewater. The figure distinguishes between locations with sidewalk on one side of the road versus two sides of the road. The sidewalk network is fairly comprehensive, particularly in the Downtown/Central Square Area. There are sidewalks provided on most of the major roads, except the eastern portion of Plymouth Street and southern portion of Summer Street.

A pedestrian count was conducted at the crosswalk located on Plymouth Street adjacent to the MBTA rail crossing by VHB in November 2000. The volume of pedestrians crossing Plymouth Street exceeds 100 per hour for 11 hours, with a maximum of 430 pedestrians counted between 8:00 AM and 9:00 AM. In addition, the Town of Bridgewater conducted a survey at this location to determine the destination of pedestrians. The majority of the pedestrians were college students with destinations to either the science building, library or the campus center<sup>3</sup>.

<sup>3</sup> The results of the pedestrian survey are presented in the Appendix of the Townwide Traffic Study and Management Plan.

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INSERT MAP 8-1

In addition, pedestrian activity was studied in the Central Square area. The crosswalks in the area are well used by pedestrians, mostly customers patronizing local businesses and students walking to nearby Bridgewater State College. Crosswalks are located at intersections and mid-block and generally are in good condition. The traffic signal located at the northwestern corner of Central Square is equipped with a pedestrian phase activated by push button. Other crosswalks in the square are uncontrolled. Pedestrian signal warrants at these crosswalks are not met due to a low volume of pedestrians and the proximity to a signalized intersection.

According to the Town of Bridgewater's data, there have been a total of 32 pedestrian-related accidents over a three-year period (1998-2000). The majority of the accidents occurred along Broad Street (9 accidents) and Summer Street (4 accidents). Other noteworthy locations included Mt. Prospect Street, Main Street, Pleasant Street and Burrill Avenue.

### 8.3 Future Conditions

#### **Background Growth**

A large amount of traffic traveling through the Town of Bridgewater results from Bridgewater's proximity to Route 24. Any prediction of future traffic volumes would not be complete without accounting for regional growth that will impact Bridgewater's traffic network in the year 2010. In order to calculate a reasonable growth rate for the year 2010, VHB reviewed historic growth as well as growth projections from a number of sources. The projected average annual growth rate for the community was calculated. Based on discussions with Town of Bridgewater officials, the calculated rate of 0.9 percent per year was applied to the 2000 existing traffic volumes to account for traffic growth in Bridgewater from development and growth outside the Town.

#### **Site Specific Growth**

In addition to the background growth rate discussed above, future conditions would not be complete without accounting for specific parcels that are currently being developed or are anticipated to be developed. While some smaller developments are currently being proposed or are under construction, only large developments that are expected to have considerable impact on the transportation infrastructure have been included in this analysis. Future trip generation, distribution and assignment were calculated for each of the developments identified below:

- **Lakeshore Corporate Center** – Potential up to 850,000 square feet of office and hotel space.
- **Southeast Residential Build-Out** - The Town has estimated potential residential growth. Projected growth of approximately 640 additional house lots east of Summer Street and south of Auburn Street.
- **Homenook** – Projected development of 35 high-end single-family homes by 2010.
- **Stonemeadows** - Overall build-out is expected to be 340 manufactured homes constructed in two phases

- **Bridgewater State College** - An increase of approximately 700 students by 2010 has been projected. Trip generation estimates for the college reflect both the increase in student population and the reduction of trips expected when the new dormitory is opened.

#### **Future Planned Projects**

**Transportation Improvement Plan (TIP) Projects** - The Old Colony Planning Council (OCPC) Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP) identifies a number of roadway and multi-modal improvement projects for Bridgewater. The TIP includes projects for funding that are consistent with the regional and state transportation and air quality objectives. All of the projects in the program have long-term, capacity-building benefits but may also have short-term construction impacts on traffic. The following projects are listed on the federal TIP for the Town of Bridgewater for funding during the 2001 fiscal year:

- **Intermodal Transportation Pathway Network** – Construction of three segments of the Pathway will be funded by the Congestion Mitigation and Air Quality (CMAQ) Improvement Program: The High Street link from Broad Street (Route 28) to Plymouth Street (Route 104); the Plymouth Street link from Hayward Street to High Street; and the Pleasant Street (Route 104) link from Elm Street to Route 24.
- **Route 104 (Plymouth Street)** – Funded with non-federal funds, this project, currently nearing completion, will resurface, restore, and repair the section of Route 104 designated as Plymouth Street.

In addition, the following three projects are considered high priority regional projects slated for the Town.

- Replacement of the Auburn Street Bridge at the Taunton River
- Resurfacing of Route 18/28 from the Bridgewater Town Center to the Bridgewater/Middleborough Town Line
- Reconstruction of the Oak Street Bridge over the Town River

The Massachusetts Highway Department has programmed signal installations at Winter Street and Bedford Street, and High Street and Broad Street in the 2003 and 2005 TIP, respectively. Finally, a proposed signal installation at South Street and Route 104 has been submitted to OCPC, but requires more data and possibly MassHighway approval. This project may be programmed in the "out years" of the TIP (2003, 2004, or 2005).

**Town Projects** - In addition to projects on the TIP, the Town officials provided a list of projects slated for construction by 2010. Except for sidewalk improvements, the projects are included on Table 8-4.

| Table 8-4: Town of Bridgewater Transportation Projects |                                                                     |
|--------------------------------------------------------|---------------------------------------------------------------------|
| Period                                                 | Project                                                             |
| <b>2002-2003</b>                                       |                                                                     |
| Reconstruction of                                      | Elm Street from Elm Street to Pilgrim Trucking (includes widening)  |
|                                                        | Forest Street from South Street to Woodland Drive                   |
|                                                        | Spring Street                                                       |
|                                                        | Cottage Street                                                      |
|                                                        | Plain Street from High Street to Satucket Trail (includes widening) |
|                                                        | Cherry Street Bridge replacement                                    |
| <b>2003-2008</b>                                       |                                                                     |
| Reconstruction of                                      | Walnut Street                                                       |
|                                                        | Old Pleasant Street                                                 |
|                                                        | Pine Street                                                         |
|                                                        | North Street from Pleasant Street to Birch Street                   |
|                                                        | Conant Street from Summer Street to Flagg Street                    |
|                                                        | Summer Street from Laurel Street to Auburn Street                   |

**Bridgewater State College** - BSC has several major projects recently completed that could impact the Town's roadways and parking facilities. They include:

- In 2002, BSC constructed a new field house west of Great Hill Drive and just south of the playing fields and Swenson Field. To provide improved access to the field house, BSC has proposed an emergency route/walking path that would extend from the Field House south to Burrill Avenue. BSC would also like to formalize the walking route that extends from the playing fields to the east side of campus between two wetland areas.
- In 2002, BSC worked with the Town to construct a five-foot asphalt sidewalk on the south side of Plymouth Street from Swenson Field to Hooper Street. In conjunction with this improvement, Plymouth Street would be widened by approximately four feet to provide a left turn lane into Waterford Village.
- A new dining facility and 300-bed residence hall opened in the fall of 2002. These buildings are located northwest of Shea/Durgin Hall and south of Burrill Avenue.
- BSC is in the process of planning for a new operations center. This center will most likely be located near the Apartments. As part of the operations center, a 24-foot road will probably be constructed which would extend from the operations center to west of Swenson Field and connect with Plymouth Street.
- There are several parking changes that are expected to be implemented in 2002 and 2003 which include:
  - Thirty faculty/staff parking spaces are proposed at the Hunt School.
  - Fifty faculty/staff parking spaces are proposed at Harrington Hall.
  - Eighty-five faculty/staff parking spaces and 20 visitor/handicapped parking spaces are proposed at the new field house.

- In 2003, BSC will begin disallowing parking for freshmen resident students.

The above referenced projects are expected to significantly change the character of the existing parking at the college. The addition of the dormitory and field house are expected to shift some of the college's parking demand towards the east side of campus. The analysis of BSC parking utilization indicated that the Swenson Lot is not currently being used to its full potential. The shift in parking demand will provide a better balance between the campus parking supply and parking demand

**Intersection Operations**

Intersection level of service analyses were conducted to assess how well intersections would operate under future traffic conditions and to highlight potential traffic operational problems. The same methodology that was used for the existing conditions intersection analysis was applied to the future conditions analysis. Table 8-5 presents a summary of existing conditions, future conditions and proposed improvements at unsignalized and unsignalized intersections.

As presented in Table 8-5, 15 of the 19 unsignalized intersections will experience poor operations (LOS F) under the 2010 peak hour conditions during either the morning or evening peak hours. Similar to existing conditions, the analyses show that long delays can be expected for traffic on the side streets or minor approaches to many intersections along Pleasant Street and Plymouth Street (Route 104), Bedford Street (Route 18/28), and Broad Street (Route 28). Most of these side streets operate at LOS F in both the morning and evening peak hours because of high volumes along the major street, which make it difficult for vehicles to exit the side streets. Without improvement, these intersections will continue to operate at LOS F.

**Future Pedestrian Improvements**

The Town of Bridgewater has provided a list of sidewalk construction projects slated for installation by 2010. They include the following:

2001-2003

- South Street from Keith Place to Lyman Place
- Vernon Street from Cross Street to Marissa Drive
- Forest Street from South Street to Woodland Drive
- Birch Street
- Cottage Street

2003-2008

- Hayward Street
- Old Pleasant Street
- Pine Street
- Summer Street from Laurel Street to Auburn Street

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Figure 8-3 presents the sidewalk infrastructure inventory.

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INSERT TABLE 8-5, FIGURE 8-2, 8-3

## **Future Bicycle Improvements**

The Town of Bridgewater has planned several bicycle lanes and routes throughout the community. Figure 8-4 presents a summary of the bicycle network currently proposed in the Town of Bridgewater. Bike lanes are proposed along Route 104 from Lake Nip to Vernon Street and Hayward Road to Pond Street, and along High Street from Broad Street to Hayward Road. Bicycle routes are proposed on several roadways within the Town including, High Street, Center Street, Crescent Street, Route 104, Vernon Street, Pine Street, Winter Street, and Route 28. In addition, there are several bike lanes planned as longer-term projects, as well as a bike trail along Old Pleasant Street.

The Town of Bridgewater has identified important segments of planned bikeway facilities that it will construct. Construction of these segments will serve as the matching funds that the Town must provide for the bike path segments currently on the TIP that are funded by CMAQ<sup>4</sup>. The segments to be constructed by the Town include the following:

- Construction of a bike lane along the following roadways:
  - Pleasant Street from Vernon Street to Maple Avenue
  - Bedford Street from Maple Avenue to the Town Line
  - Hayward Street from Plymouth Street to High Street
- Construction of a bike trail along Old Pleasant Street from Pleasant Street to Old Forest Street

These segments will link existing bike paths and provide connections to the MBTA Commuter Rail Lot. Other links anticipated in the future may connect to recreational facilities and BCC. It is expected that implementation of dedicated bicycle and pedestrian links will enhance the transportation system of Bridgewater and provide a safe and scenic pathway connecting key locations in Bridgewater. Figure 8-3 presents the proposed future expansion of the bicycle network.

## 8.4 Goals, Strategies & Actions

Each recommendation has been prioritized as an immediate, short-term or long-term item for implementation. The time line utilized for the immediate, short-term and long-term recommendations is as follows:

- Immediate Action: 1-3 Years
- Short-Term Action: 3-10 Years
- Long-Term Action: 10-20 Years

Today, the challenge for the Town of Bridgewater is to identify and provide transportation infrastructure needed to enhance existing and active businesses, support and enhance the downtown area, and improve the

<sup>4</sup> Commonwealth of Massachusetts Transportation Enhancement Program, Town of Bridgewater Transportation Pathway Network, April 1997.

economy and quality of life of the residents of the Town. The proposed recommended actions identify potential enhancements of intersections and roadways, parking, pedestrian paths, and bicycle connections.

### **Strategy 1: Improve Selected Intersections**

The following list of intersections was reviewed as part of the *Townwide Comprehensive Transportation Study and Management Plan*<sup>5</sup> and in consultation with Town officials. These intersections were chosen for potential improvement alternatives based on existing and projected operations and safety characteristics. The intersection improvements have been subdivided into immediate, short-term and long-term improvements. In the engineering design phase of developing the improvements, it can be decided whether it would be desirable to provide an exclusive pedestrian phase (based on existing and expected pedestrian traffic at the intersection). The intersection improvements presented below can be funded through both Town and state funding sources. In addition, intersections affected by private development could be funded as part of the mitigation package for the development.

#### **Immediate Actions**

- **Vernon Street at Pleasant Street** - The immediate improvement proposed for the intersection of Vernon Street and Pleasant Street (Route 104) is to prohibit left turns from Vernon Street onto Pleasant Street westbound. These left turns would be diverted to the signalized intersection of Prospect Street and Pleasant Street. Signage should be installed at the intersection of Prospect Street and Vernon Street directing motorists to Route 104 westbound. The impacts of the additional left turns at the intersection of Prospect Street and Pleasant Street is minimal.
- **South Street at Pleasant Street** - The immediate improvement proposed at this intersection is to stripe a right-turn lane on South Street southbound at Pleasant Street (Route 104). The road is approximately 40 feet wide. It is possible to stripe two-foot shoulders, a 13-foot departure lane, a 12-foot through lane and an 11-foot right turn lane.
- **Route 24 Ramps at Pleasant Street** - The proposed improvements at the Route 24 ramps includes installation of traffic signals at both the Route 24 northbound and southbound ramps. Along with the newly proposed signals, some geometric changes are also required along Pleasant Street and the ramps to accommodate the additional traffic expected under future conditions. The following improvements should be made:
  - Route 24 Southbound Ramps at Pleasant Street;
  - Provide two through lanes in each direction on Pleasant Street;
  - Provide two exclusive left turn lanes on Pleasant Street eastbound onto the Route 24 southbound ramps;

<sup>5</sup> The results of the capacity analysis for the proposed intersection improvements can be found in the full Study. These capacity analyses assume concurrent pedestrian crossings.

- Provide an exclusive right turn lane on Pleasant Street westbound;
  - Provide an exclusive right-turn lane, a shared right/left-turn lane; and an exclusive left-turn lane on the Route 24 southbound ramp approach.
- **Route 24 Northbound Ramps at Pleasant Street**
- Provide two lanes in each direction of Pleasant Street at the Route 24 northbound ramps
  - Provide an exclusive right-turn lane on Pleasant Street eastbound to the Route 24 northbound ramps
  - Provide two exclusive left-turn lanes on Pleasant Street westbound approach
  - Provide two exclusive left-turn lanes and a right-turn lane on the Route 24 northbound ramp approach.
- **Great Hill Drive at Plymouth Street** - The improvements for Great Hill Drive at Plymouth Street (Route 104) are proposed in two steps. The first step is to provide police officer control of the intersection during the evening peak period (covering the arrival of peak period MBTA trains). Currently, exiting Great Hill Drive in the peak period can be difficult because of heavy traffic volume on Plymouth Street. By making it easier to exit at this location, some exiting MBTA traffic may be diverted from using Hooper Street to reach Plymouth Street. A traffic signal is not proposed initially because the intersection did not meet a traffic signal warrant even under “surge” conditions when a train arrives.
- The second step of improvements would include directing all MBTA-related traffic out Great Hill Drive by closing the exits at the north end of the MBTA parking lot. This would force MBTA parkers to exit the lot at Great Hill Drive and would discourage them from reaching Plymouth Street via Hooper Street. In conjunction with police officer control at the intersection of Plymouth Street and Great Hill Drive this measure may increase traffic through the intersection sufficiently to meet a warrant for installation of a signal.
- **Hooper Street at Plymouth Street** - The immediate improvement proposed for Hooper Street at Plymouth Street is to restripe the Hooper Street approach to replace the through arrow with a left-turn arrow. As noted above in the discussion of Plymouth Street at Great Hill Drive, closing the exits at the north end of the MBTA lot could reduce traffic through this intersection. This could reduce the delays currently experienced by the left-turning traffic out of Hooper Street.
- **Bedford Street at Winter Street** - A traffic signal is proposed at this location which meets traffic signal warrants. As part of the traffic signal improvement, the northbound Bedford Street approach should be widened to provide an exclusive left-turn lane. A widening of between 5 and 10 feet will most likely be necessary because currently there are seven-foot shoulders on either side of Bedford Street. The left-turn lane is needed for the operations of the traffic signal to prevent left-turning traffic from blocking through traffic on Bedford Street. The traffic signal will also help process traffic from the plaza proposed for the northwest corner of the intersection.

- **High Street at Broad Street** - This intersection meets traffic signal warrants and the recommendation is to signalize the intersection. In conjunction with signalizing this intersection, the Broad Street northbound approach should be re-striped as two northbound lanes. The two lanes northbound will reduce the length of the queue on the northbound approach going up the hill. Two lanes should also be striped on the northbound departure side of the intersection. It is anticipated that as long as restriping the lanes on the northbound approach does not require any geometric changes, these improvements could be implemented without a MassHighway waiver. The lane geometry on the northbound approach could include, starting from the west side of the approach: a 2 foot edge line, a 16-foot departure lane, two 12-foot approach lanes, and a 2-foot edge line for a total of 44 feet. For a reduced cross section it could be striped as a 1-foot edge line, a 15-foot departure lane, two 11-foot lanes, and a 1-foot edge line for a total of 39 feet. The two departure lanes north of the intersection could be extended to meet the two lanes on the northbound approach to West Street in East Bridgewater, approximately 3/4 mile to the north of High Street. This would most likely require a MassHighway waiver in order to restripe the lanes along this corridor.
- **Old Pleasant Street and Elm Street at Pleasant Street** - An immediate action that should be implemented is the upgrading of the northwest corner of the intersection of Pleasant Street (Route 104) at Old Pleasant Street and Elm Street. The radius at this corner should be improved to better accommodate the trucks that are traveling southbound on Elm Street and turning to Pleasant Street westbound. Trucks frequently run over the pavement edge while making this turn.

### Short-Term Actions

- **South Street at Pleasant Street** - Based on the warrant and existing level of service analyses, a traffic signal is recommended for this location. As part of signalizing the intersection, Maple Street should be designated one-way eastbound (away from the intersection), South Street southbound should be widened to provide a full right turn lane, and the Pleasant Street eastbound approach should be striped to provide a right-turn lane and a left-turn lane. The possibility of realigning Pleasant Street to better align with Maple Street was reviewed. Such an improvement would be desirable for improving traffic operations. According to Town officials, however, the landowner is not interested in selling the land to make such an improvement. This situation should be monitored as the design of this intersection is carried forward in the event that the land becomes available to provide for the realignment of Pleasant Street.
- **Bedford Street at Grove Street** - Because of the proximity of Central Square and the fact that only the peak hour warrant is met under projected 2010 volumes, a traffic signal is not proposed at this time. Based on the high number of injury accidents at this location and the high-speed segment of Bedford south of this location, Town officials have expressed concern that the high speed of northbound traffic on Bedford Street is a factor at this intersection. There are several strategies available to reduce vehicle speeds approaching this area. One is to create a gateway south of the intersection on Bedford Street for traffic approaching the town center. This gateway would emphasize that drivers are entering a more congested area and should slow down. Gateways can include items such as aesthetic signing (such as “Entering Historic District”), period lighting, landscaping, and textured/colored pavement. A combination of these types of treatments could be used to help alert drivers that they are no longer on

the 55 mph section of Bedford Road. In addition, a flashing warning beacon could accompany the speed limit sign where the speed changes to again alert drivers to the expected change in vehicle speed.

- **Center Street at Pleasant Street** - The recommendation at this intersection is to create a taper for the Pleasant Street (Route 104) eastbound left-turn lane. The road is approximately 36-feet wide and the taper could be accommodated within the existing pavement. The proposed taper is designed to better direct through traffic into the through lane and keep it out of the turn lane. A longer taper should also be provided on the Pleasant Street westbound approach to better shadow the left turn lane on the opposite approach. This taper will most likely require minor widening in order to implement a full taper.
- **Birch Street at Pleasant Street** - Although this intersection was not included among the study area intersections, Town officials requested recommendations for improvements to deal with the unusual geometry at the intersection. Birch Street intersects Pleasant Street at an acute angle on a curve in the road. As a result, Birch Street aligns with Pleasant Street east of the intersection. This encourages vehicles traveling from Pleasant Street westbound onto Birch Street to travel at high speeds because they do not have to slow down to make the turn. The geometry also makes it difficult for vehicles to exit Birch Street and turn left onto Pleasant Street.

The following are alternatives to improve the intersection:

- Create more of a 90-degree angle at the intersection to slow vehicles entering Birch Street and create better sight distance for vehicles exiting Birch Street. This would most likely require a land taking in order to accommodate a realigned Birch Street.
- Designate Birch Street as one-way westbound and create a neckdown at the entrance to Birch Street to slow vehicles as they enter Birch Street. This could be accommodated within the existing pavement.
- Designate North Street as one-way northbound and Birch Street as one-way eastbound. This would eliminate traffic entering Birch Street directly from Pleasant Street. In combination with these designations, the roadways could be narrowed to help slow traffic. Birch Street should be realigned at Pleasant Street to a location where the most optimal sight distance exists for exiting onto Pleasant Street.

### **Long-Term Actions**

- **Center Street and Crescent Street at Pleasant Street** - A new Bridgewater Police Station is being constructed on the south side of Pleasant Street (Route 104) across from Center Street and its driveway will intersect Pleasant Street opposite Center Street. It is recommended that the feasibility of realigning Crescent Street to intersect Pleasant Street at the location of the planned Police Station driveway be investigated. By aligning Crescent Street with Center Street, it might be possible to signalize the new intersection. This would significantly improve access to and from both side streets.

- **Old Pleasant Street and Elm Street at Pleasant Street** - As traffic on Pleasant Street (Route 104) increases in the future, it may become necessary to restripe the Pleasant Street approaches to the intersection of Old Pleasant Street and Elm Street to provide two through lanes in each direction. Currently, there are exclusive left turn lanes on Pleasant Street, which could be restriped as through-left lanes. In conjunction with this restriping it will be necessary to widen Pleasant Street by approximately five to ten feet to provide the two approach lanes and departure lanes in each direction.
- **Prospect Street at Pleasant Street** - As traffic on Pleasant Street increases in the future, it may become necessary to widen the Pleasant Street approaches to the intersection of Prospect Street to two general lanes in each direction. A widening of 20 to 25 feet may be needed through the intersection to accommodate two lanes in each direction. The existing right-turn lane on Pleasant Street eastbound can be restriped as a through-right lane thereby lessening the need for widening on the south side of the eastbound approach. The impacts of the widening on adjacent properties will need to be weighed against the necessity to reduce the queuing on Pleasant Street as traffic increases.
- **Spring Street and Sanger Street at Plymouth Street** - The overall intersection is projected to operate at LOS E during the morning peak hour and LOS F during the evening peak hour under future conditions. The intersection should be monitored for future queuing on the Plymouth Street westbound approach and the Spring Street approach. Excessive queuing and vehicle delay could be mitigated by removing the northbound Sanger Street and Southbound Spring Street split phasing and providing a lead phase for the southbound Spring Street approach during the evening peak hour. This would require modifications to the appropriate signal head.
- **Route 24 Ramps at Pleasant Street** - The Lakeshore Corporate Center DEIR describes several alternatives for future build mitigation plans for the Route 24 Ramps at Pleasant Street beyond the signalization plans described under Immediate Actions. These alternatives include a partial cloverleaf interchange and a full cloverleaf interchange. The mitigation plan for the development is expected to propose one of these alternatives based on the amount of development in the selected build program.
- **Flagg Street at Bedford Street** - It is proposed to monitor this intersection for possible future signalization because of traffic growth from development of the southeast corner of the Town. Much of the traffic projected to be generated from that area would most likely use Flagg Street to access other parts of town and regional destinations. If traffic growth warrants a signal, Bedford Street southbound may need to be widened to provide an exclusive left-turn lane into Flagg Street. This could be a southerly extension of the northbound left-turn lane recommended at Winter Street just north of this intersection.
- **Summer Street at Plymouth Street** - This intersection is projected to operate at LOS B during under future morning peak hour conditions and LOS E under future evening peak hour conditions. In the evening peak hour, eastbound Plymouth Street is projected to operate at LOS F. To address the projected deficiency the Plymouth Street eastbound (graveyard) approach should be widened to provide an exclusive right-turn lane.

- **Upgrade Elm Street** - Based on discussions with the Town, industrial development along Elm Street is likely to increase in the future. This could include uses such as truck terminals or industrial facilities. Most of the development will likely generate an increase in truck traffic along Elm Street. As development in the proceeds, upgrading Elm Street to accommodate additional traffic (specifically truck traffic) should be considered.

### Strategy 2: Continue to Evaluate an Alternative East/West Route

During the course of the *Townwide Transportation Study and Traffic Management Plan*, the idea of developing an alternative route to relieve east-west traffic flow through the Town on Route 104 was raised. The suggestion was made to investigate a new connection to I-495 between the Route 24 interchange and the Route 44 interchange. This would involve developing an east-west route outside the Town's boundary south of Bridgewater. Such an analysis was not included in the study because it is beyond the scope of the project and would require more regional analysis of traffic flows and travel patterns. **The study concluded that this alternative does not appear to be economically feasible.** However, other alternatives should continue to be evaluated.

### Strategy 3: Discourage Cut Through and Speeding on Residential Streets

Town officials and residents of various neighborhoods have identified cut-through traffic and speeding on residential streets as an important issue. The volume and speed of traffic on neighborhood streets may be diminished by providing upgrading traffic conditions on major arterials or by implementing measures that directly impact the flow of traffic through neighborhoods. The goals above have focused on improvements to the arterial roadway system that will enhance operations and encourage drivers to stay on the arterial roadways. This goal focuses on measures that reduce traffic volume by making neighborhood roadways less desirable as cut-through routes and that reduce the speed of vehicles on neighborhood streets.

#### Actions

- **Initiate a Neighborhood Speed Control Program** - Traffic impacts in residential communities have become a great concern in recent years, specifically when considering the impacts of speeding on neighborhood roadways. While still a relatively new program, Neighborhood Speed Control Programs are designed to allow residents to work together to reduce speeding on neighborhood streets. The program focuses on safety education, vehicular law enforcement, and the mutual responsibility of residents living in the community. These programs are utilized in several towns and counties throughout the United States. It is recommended that some or all of the following programs be developed as part of the Bridgewater's Neighborhood Speed Control Program.

- **Community Speed Watch** – After training, residents use radar equipment to record the number of cars and their speeds. Residents take NO enforcement action and NO speeding tickets are issued. The data can be used to send registered owners letters advising them that their car was seen speeding and appealing to the owner and/or driver of the vehicle to slow down on neighborhood streets. The data can also be used to determine which streets need greater police enforcement.
- **Traffic Safety Awareness Campaign** – Development of an ongoing campaign to heighten public awareness to reduce speeds in residential communities. This campaign can include distribution of flyers and/or bumper stickers, writing letters to the editor for the local papers, creating lawn signs telling people to slow down, and placing informative door hangers on nearby homes.
- **Community Outreach Program** – Establishment of a committee comprised of residents and public officials to identify concerns and issues and discuss ways to solve them.
- **Special Speed Enforcement Program** – At the beginning of the school year, the police department can institute a special speed enforcement program in areas near schools. The officer's purpose would be to cite violators and remind them that school is in session and that conformance to speed limits is critical for students' safety.

### Strategy 4: Utilize Traffic Calming Measures on Local Roads to Improve Safety, Aesthetics, and Further Reduce Cut-Through Traffic<sup>6</sup>

Traffic calming measures are physical changes to roadways designed to slow drivers down and make them more alert to surrounding traffic conditions, pedestrians and bicyclists. Traffic calming measure may include, but are not limited to additional signage, speed bumps, chicanes, raised/textured mid-block pedestrian crossings, on-street parking and streetscape treatments.

The primary objectives in applying traffic calming techniques include the following:

- Make physical street improvements that enhance living conditions and do not reduce property values
- Shift priorities to advocate street sharing by cars, pedestrians and bicyclists
- Maximize the efficiency of an inefficient road before new infrastructure is built
- Reduce traffic speeds
- Reduce vehicular traffic volumes
- Improve safety

Appropriate traffic calming treatments for roadways experiencing cut-through traffic or speed problems should be considered on a case-by-case basis. Issues to consider when developing traffic calming solutions include emergency vehicle access, school bus access, potential inconvenience to local residents and potential traffic diversions.

<sup>6</sup> Traffic calming is a well-established practice in Europe but is just gaining favor in the United States. Traffic-calming devices of various types have been installed in many parts of the United States. The most active jurisdictions appear to be cities in the west including Seattle, Washington; Palo Alto and Berkeley, California; Boulder, Colorado; and Portland, Oregon. Traffic calming is becoming more common on the east coast as well.

### Traffic Calming Techniques

The various traffic calming techniques are presented in four categories: physical barriers, roadway treatments, intersection treatments and other treatments.

Physical Barriers - Physical barriers are changes in roadway geometry, which force alterations in traffic flow. They include semi-diverters, neck-downs, chicanes, street closures, diagonal diverters, and median barriers. All these barriers redirect the flow of traffic from the pattern without the barrier.

Roadway Treatments - Roadway treatments include changes to the roadway surface that are intended to reduce the speed of vehicles through the treated area. They include speed humps, raised intersections, rumble strips, and raised or textured pedestrian crossings. These treatments affect the feel of the road to the driver and, as result, influence the speed of travel.

Intersection Treatments - Intersection treatments include traffic circles and corner radii treatments. They are designed to control the flow of traffic through an intersection so that it is more even and slow-paced.

Other Treatments - Other treatments do not fall into any of the categories presented above. They include the provision of parallel or angle parking and stricter enforcement of existing regulations.

Parking Facilities - Adding angle or parallel parking to roadways is an effective traffic calming tool. The addition of parking can be implemented in conjunction with the neckdowns and other physical barriers. Parking movements into and out of parking spaces disrupt the flow of traffic. The presence of parking creates a visual intrusion that slows drivers.

### **Actions**

It is recommended that as a first step, the Town establish a methodology to identify and prioritize neighborhood areas for developing traffic calming solutions. Working with the top two or three priority neighborhoods, the Town should explore the development of traffic calming strategies, which address the specific issues, objectives and consensus vision for those neighborhoods as defined by all of the affected parties. What is paramount to the success of this planning process is that there is a common understanding of the traffic problem, which is clearly articulated so that mutually acceptable solutions can be developed and ultimately implemented.

To accomplish this, it is suggested to focus on two efforts; first, understanding local needs from a variety of perspectives; and second, developing a comprehensive data base of existing conditions at the selected neighborhood locations. A key to developing a plan that addresses the concerns of the various parties involved is to also develop an implementable plan that can be funded by various sources. In order to develop a set of traffic calming strategies, it is important to understand the existing travel demand and traffic patterns within the

concerned areas. The information that is generally helpful includes vehicle speeds, traffic volumes and their distribution, percentage of trucks, and pedestrian and bicycle volumes and their distributions.

Ultimately, the work effort should result in recommending traffic management techniques to address the identified traffic issues in the neighborhood area as developed through a consensus process. An exploration of traffic calming techniques and their functionality in various settings should be clarified through the planning process. In addition, potential funding sources and permitting processes should be identified. Typically, funding sources for traffic calming projects can include both municipal funds and ISTEPA Enhancement Funds.

In discussions with Town officials, there are several areas within the Town, which have been identified as areas with perceived cut-through traffic and speeding. They include:

- Union Street
- Stetson Street to Pearl Street
- School Street, Summer Street, Spring Street
- Maple Avenue
- Spring Hill Avenue
- Grove Street/Summer Street
- Worcester Street
- Vernon Street

As part of this discussion, concerns over the possibility of cut-through traffic generated by MCI Bridgewater were expressed. Town officials indicate that MCI Bridgewater vehicles do not use neighborhood streets to travel through the Town. For the safety of vehicle occupants and the community, these vehicles travel the main routes throughout Bridgewater. Traffic calming measures should be considered for the areas listed above. Any recommendations for specific improvements in a particular area will need to follow an analysis of the area as outlined previously.

### **Strategy 5: Work with BSC to implement parking and traffic improvements**

Based on the BSC Selected Institutional Characteristics<sup>7</sup> and information from BSC staff, there are approximately 1,800 resident students. There are about 850 parking spaces for resident students on the BSC campus according to the parking inventory conducted by VHB. These spaces are heavily utilized, indicating demand ratio of approximately one resident parking space for every two resident students. Similarly, there are approximately 5,200 commuter students served by approximately 1,700 parking spaces. This equates to a ratio of approximately one commuter parking space for every three commuter students.

The College estimates that there will be an additional 400 commuter students on campus by 2010. This represents a total increase of 700 students by the year 2010 (a 10 percent increase over current enrollment). The 300 additional resident students at the new dormitory will require approximately 150 new parking spaces and the 400 additional commuter students will require an additional 135 parking spaces. This represents a total of 285 additional spaces needed on campus to accommodate the expected increase in enrollment.

<sup>7</sup> Selected Institutional Characteristics, Bridgewater State College Academic Year, 1998-1999, Office of Institutional Research and Assessment.

It should also be noted that there is currently a Tripartite Agreement between the Town of Bridgewater, the MBTA and BSC regarding the MBTA Bridgewater Commuter Rail Station parking. The agreement indicates, if necessary, the MBTA can take spaces away from the College within the existing Great Hill Lot for MBTA-related parking use. The MBTA will replace the appropriated spaces on land provided by BSC. This has major implications to the college in that the Great Hill Lot is situated in a key location for college parking. The replacement parking may not be located in as convenient a location.

### **Actions**

Based on the analysis of existing and projected parking and traffic conditions on the campus, several potential improvements were identified. They include:

- **Consider a Shared Parking Deck over Great Hill Lot** - Construct a parking deck over the Great Hill Lot to create a shared facility for the MBTA and BSC. The parking deck could be built to fully accommodate MBTA parkers as well as BSC parking. It has come to the attention of the Town that the MBTA has raised an interest in expanding the existing parking accommodations for the station. The benefit of the parking deck is that it would not relocate BSC parking spaces to a more obscure location. The Great Hill Lot is a centrally located lot for the college. The parking deck/surface lot could be designed/managed such that it could provide flexibility for both parties. The number of spaces that could be provided could be flexible and would be based on the size of the portion of the existing lot to be covered.
  - **Consider Expansion of Great Hill Lot with Additional Surface Parking** - The number of parking spaces in the Great Hill Lot could be increased in two ways. The first involves adding a row of parking along the eastern edge of the lot between Great Hill Drive and the entrance to the lot from Burrill Street. It is estimated that another 105 spaces could be added. An additional 110 spaces were recently added by expanding the lot to the east in the vicinity of the new tennis courts.
- Improve Utilization of Chapel and Moakley Lots** - Better utilization of the Chapel and Moakley lots could be provided through improved internal campus communications. During the parking count of campus parking areas, the Chapel Lot was observed to have 32 vacant spaces and the Moakley Lot had 82 open spaces. These spaces were apparently being held open for possible visitor use. Except on days when there are events scheduled which attract visitors from off-campus, there is not a need for a large number of visitor spaces in the Chapel Lot. As part of planning for events to be held on campus, an estimate of parking demand should be made and conveyed to the parking manager who can then hold open an appropriate number of spaces to serve each event. The practice field near the chapel lot should be evaluated as potential parking expansion.
- **Consider Reassigning Commuter and Resident Student Parking Areas** - Currently, resident students are assigned to the Lower Great Hill Lot, which is the closest location on the east campus to the railroad underpass providing pedestrian access to the west campus. Ideally, it would be desirable to use this location for commuter student parking and assign resident parkers to the more distant spaces in the Great Hill Lot. The college uses the current arrangement because a major pedestrian path runs

through the parking lot and resident spaces turnover less frequently, generating fewer vehicles movements that conflict with the pedestrian flow. The College may wish to consider reconfiguring the lot to provide a dedicated and protected pedestrian pathway with no vehicle crossings. This would require reconfiguring the lot into two lots and would likely result in the loss of some spaces. The benefit would be to move commuter parking closer to the main campus and encourage fuller use of the Great Hill Lot.

- **Utilize Excess Faculty/Staff Parking in Future** - There are several additions to faculty/staff parking planned, including 50 spaces in the Harrington Lot, 30 spaces at the Hunt School, and 85 spaces at the new Field House. The provision of an additional 165 spaces may exceed the demand or need for spaces. When the new faculty/staff spaces become available for use, utilization of all faculty/staff parking areas should be monitored to determine if any of the spaces could be assigned to other user groups.
- **Consider Additional Remote Parking Locations** - BSC owns land adjacent to the Town water tower, which could be developed into a parking area. The area is relatively level and could be accessed off Great Hill Drive. Because of its location at the periphery of the campus, it would probably need to be served by a shuttle bus, which would transport parkers to and from the main campus. It would need to be a secured area served by an attendant due to the remote nature of the lot. The most appropriate user group would likely be commuter students because there would be limited use during the late evenings. Residents, on the other hand, would need to access the lot at all hours of the day, thus creating a security issue, again due to the secluded nature of the lot.
- **Consider Redirecting Traffic to Hooper Avenue** - Currently, traffic can enter the campus via Burrill Avenue but cannot use it to exit the campus. Burrill Avenue is predominantly a residential street and traffic can enter the campus via Hooper Street. To preserve the residential character of Burrill Avenue, the street could be made dead-end and all traffic entering the campus from Plymouth Street eastbound would be redirected to Hooper Avenue, which is a major route in and out of the campus.
- **Consider Short-Term and Long Term Traffic Control at Great Hill and Hooper Intersections** - As discussed in the section on intersection improvements, a signal is not warranted at the intersection of Great Hill Road with Plymouth Street. There is considerable queuing of vehicles trying to exit the campus and commuter rail station in the evening peak periods. This queuing is related to train arrivals and is not constant over the peak period. To ease exiting from Great Hill Drive during these periods and potentially divert some traffic from Hooper Street, police officer control should be considered at Plymouth Street and Great Hill Drive in the evening peak period. There is no signal at the Hooper Street intersection with Plymouth Street and none is warranted. In the evening peak period, vehicles experience difficulty exiting onto Plymouth Street, which carries a high volume of through traffic. Some vehicles exiting Hooper Street may divert to Great Hill Drive if it is easier to exit at that location. If there is a sufficient diversion of vehicles, the signal warrant analysis could be revisited to determine if the additional traffic justifies a signal to replace the police officer control.

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**Strategy 6: Make Downtown Parking Improvements as Necessary**

As of 2002, there is sufficient parking provided in the downtown area to meet existing parking demand. However, as population and traffic within the Town continue to grow and businesses expand, parking may become increasingly constrained and parking alternatives may be necessary. Anticipating the parking impact that growth will have on the community will help the Town prepare for the parking needs of the future. Several alternatives for increased parking exist in the downtown area.

Additional parking can be created behind the Bridgewater Savings Bank, and through the coordination of private parking lots on the west side of Central Square behind the buildings. With proper planning, the Town can prepare to address potential increased parking needs in Central Square and the downtown area.

**Strategy 7: Enhance Transit and Travel Demand Management**

Existing transit services in Bridgewater are limited to the BSC shuttle service, DIAL-A-BAT, and the Council on Aging. There may be some opportunity to expand transit service as travel demands grow within the Town.

Development of the Lakeside Corporate Center is expected to significantly increase employment in Bridgewater, resulting in traffic growth in the area. Part of the increase of travel demand could be addressed by commuter rail service to Bridgewater. An employer sponsored shuttle between Lakeside Corporate Center and the MBTA Bridgewater Commuter Rail Station could help reduce traffic through Central Square and along Route 104, and could also help the Lakeside developer meet the Transportation Demand Management (TDM) goals required by the State. With the creation of a park and ride lot at the Route 104/Route 24 interchange, this shuttle could serve commuter rail riders who board at the Bridgewater station to travel to Boston.

As elderly housing continues to be developed, there will be increased travel demands by the elderly and disabled who often do not have access to a motor vehicle. To meet this increased need for non-motor vehicle dependent travel, consideration should be given to increased service from the Council on Aging and from DIAL-A-BAT.

## CHAPTER 9 – THE LAND USE PLAN

### 9.1 Bringing it all Together

The Land Use Plan takes into account the analysis made in previous chapters concerning growth and its impact on man-made and natural resources. From here, we look forward to Bridgewater's vision for the future. In doing this we establish a comprehensive land use plan and policies which project the community's goals for development and conservation over the next 10 years. The underlying theme for Bridgewater's Land Use Plan is as follows:

- Address particular growth issues in a specific and innovative way.
- Balance community concerns of land rights, economic opportunities, and land stewardship.
- Encourage appropriate development in targeted areas to create new economic and residential opportunities thereby enhancing the overall quality of life for local residents.
- Control the impacts of growth on municipal infrastructure, schools, public safety, and cultural and natural resources.

#### Bridgewater's Future Land Use Objectives

Future growth and development in Bridgewater should strive to achieve the following objectives:

- ◆ Community Benefit – Measured by weighing municipal service costs against the community benefits in terms of tax revenue as well as other community assets (i.e. cultural amenities, open spaces, employment, education, and other factors that improve the quality of living in Bridgewater)
- ◆ Shopping and Recreational Opportunities – To reduce travel trips off site or outside of town, and create a stronger neighborhood community
- ◆ Environmental Sensitivity – Development should preserve significant natural features or restore environmentally degraded areas.
- ◆ Affordable Housing with Amenities – Good amenities such as open space, attractive landscaping and signage, and design controls will produce a higher quality social environment and fill an underserved market.
- ◆ Road Connections – Multiple connections between roads in the local network will shorten and disperse traffic rather than concentrate it on primary collectors. It also makes walking and biking more attractive and safe while reducing auto pollution and fuel consumption.
- ◆ A "sense of community" – Casual contact through pedestrian activity and community gathering places is desired. The environment must be safe, pleasant, clean and interesting to induce more interaction between residents.

Particular recommendations are premised on the *Community Vision Statement* in Chapter 2 and could be implemented through land use regulation amendments, the capital improvement program, private investment and development, creative conservation programs, and local policy.

### 9.2 Past and Present Land Use Trends

As presented in *Chapter 4: Who We Are and How We Live*, Bridgewater's population has grown significantly over the past 30 years. The popularity of the community has resulted in the addition of over 4,800 new homes since 1970. Most importantly, population growth has changed the traditional land use patterns. Until the recent era, the community was settled based on a central grid surrounded by agricultural lands. The center of Bridgewater had a mix of civic, institutional, commercial, industrial, and residential uses all within walking distance of each other and with agricultural fields surrounding them.

#### **Residential Land Use**

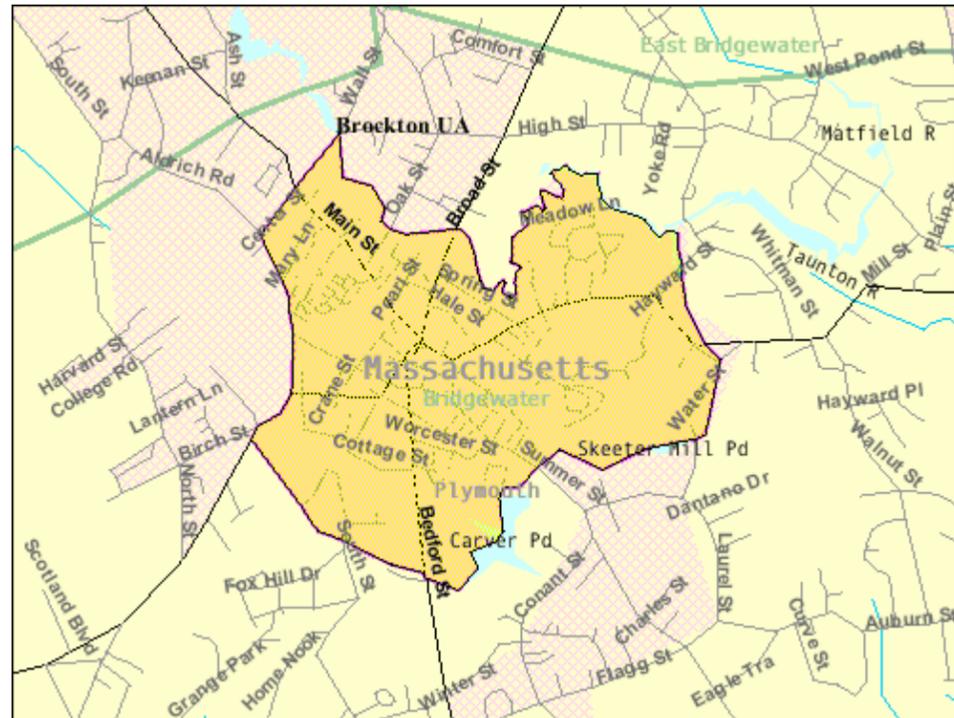
In 1980, the center of Bridgewater (defined by the U.S. Census as the Bridgewater "Census Designated Place" and illustrated on Map 9-1) included 5,416 or 31.5% of the Town's population, which was about the same as the previous decade (4,032 or 31.2% in 1970). This area slightly increased during the 1980s but has since declined in terms of population and housing as a percentage of town-wide figures.

The apparent strength of the Center in 1980 was due in large part to the traditional (higher density) development patterns and the construction of two large apartment complexes in the late 1970s (Waterford Village and Kingswood Park) totaling 896 units. However, a change in zoning prohibited further construction of new multi-family development of this type. At the same time, more single-family subdivisions were being constructed on the outskirts of Bridgewater where land was less expensive and more available. During the 1990s, very little residential construction occurred in the Census Designated Place (CDP) while the outlying areas of Bridgewater experienced a population and housing boom.

#### **Downtown Land Use Patterns**

Downtown remains the traditional mixed-use core of Bridgewater with commercial, office residential, industrial, public and education uses. Historically, downtown grew by the conversion or displacement of original homes in Central Square.

**Map 9-1: Bridgewater CDP**



**Table 9-1: Bridgewater Population & Housing Patterns**

| Year | Town-wide |         | Town CDP* |       | CDP as % of Town-wide |       |
|------|-----------|---------|-----------|-------|-----------------------|-------|
|      | Pop.      | D.U.s** | Pop.      | D.U.s | Pop.                  | D.U.s |
| 1970 | 12,902    | 3,088   | 4,032     | NA    | 31.2%                 | NA    |
| 1980 | 17,202    | 4,931   | 5,416     | NA    | 31.5%                 | NA    |
| 1990 | 21,249    | 6,201   | 7,242     | 2,552 | 34.1%                 | 41.2% |
| 2000 | 25,190    | 7,655   | 6,664     | 2,574 | 26.5%                 | 33.6% |

\* Bridgewater CDP; \*\* Dwelling Units

**Commercial Land Uses**

Bridgewater’s commercial land use patterns have changed little over the past 30 years with the greatest concentration of retail and service activity remaining in or near the downtown area. While zoning is geared for commercial development on Bedford Street (the South Business District) and Route 104, there has been limited and scattered highway-oriented commercial development.

Long-standing industrial buildings located along the railroad lines and crossing Broad Street, north of Campus Plaza included several manufacturers and was a major employment base for the community. Commercial growth potential in downtown is somewhat constrained by the availability of land. Residential areas surround the Square and the industrial areas along the railroad corridor also limit expansion opportunities. However, several infill opportunities exist that would add vitality and economic opportunity to the district.

**Industrial Land Use**

The western portion of Bridgewater near Route 24 contains Bridgewater’s two existing industrial parks and the site of the developing Lake Nip Corporate Center. Additionally, there are several small, scattered industries located in predominately residential areas such as along Plymouth Street.

The Bridgewater Industrial Park off Elm Street was approved in 1970. It contains approximately 59 businesses, which are primarily service industries. Portions of the 56 acres are in wetlands but there is still sufficient land for a significant amount of development.

The industrial-zoned strip bordering Route 24 contains scattered firms located among houses on Elm Street and Pine Street. These are relatively new developments and tend to be un-buffered from adjacent homes. Both residential and industrial uses have grown in past years with new homes approved by special permit and small industries approved as of right. This alternative pattern of industrial and residential uses is particularly notable on Elm Street. The potential for traffic, operational, safety, and visual conflict are wide in these mixed-use areas. Additionally, significant amounts of industrial traffic combined with narrow and winding roads could pose safety and livability issues.

The Scotland Industrial Park, begun in 1977, is larger and occupies former farmland north of the Scotland Shopping Center on Route 104. The rear portion of the 110- acre park contains extensive wetlands. There are approximately 50 acres of buildable land remaining on the access road.

The third park is a 90-acre site west of Route 24 and south of Lake Nippenicket. It was zoned as a Planned Development District (PDD) in 1983. The Lake Nip Corporate Center is under construction with a projected build-out of approximately 850,000 square feet of office and hotel space.

***Map 9-2: Existing Land Use Map, 2000***

### 9.3 Community Build-Out Analysis

The Massachusetts Executive Office of Environmental Affairs (EOEA) conducted a build-out analysis for Bridgewater in 1999 using a formula applied to all cities and towns in the Commonwealth. This formula generally factors in local criteria such as zoning requirements and undeveloped lands. The Town considered EOEA’s projected build-out to be overstated and requested the Old Colony Planning Council (OCPC) to prepare a revised build-out analysis. The final adjustments in the OCPC build-out analysis led to a significant reduction of the EOEA projections. Based on 2000 estimates, the revised built-out analysis projects the following potential additional growth in the community:

- 4,928 developable acres
- 4,039 additional dwelling units
- 10,967 residents including 1,514 public school students
- 19,768,681 square feet of new commercial and industrial construction

OCPC revisions incorporated local data not available on the State GIS system (the source of EOEA’s analysis). This data included the elimination of vacant state land from the equation for BSC and the BCC (with no realistic potential for private development), and local land use priorities. OCPC’s build-out analysis also assumed that a significant amount of the existing Chapter 61A and B land would be acquired by the Town (approximately 50%). Other alterations in the formula included the elimination of Mobile Home Retirement Community District (MHEC) students from the population projections, and the application of a smaller household size for the MHEC than in other residential districts.

Even with the OCPC adjustments to the State’s build-out analysis, the Town questions the validity and reliability of the data, and does not accept the projections.

### 9.4 Land Use Management Area Action Plans

In order to provide the best opportunity for Bridgewater to effectuate sustainable development, protect important natural resources, and guide future growth, the community is broken into individual management areas based on natural attributes, public facilities and existing development patterns. Plans 9-1 through 9-14 identify each of these management units.

A total of 14 Land Use Management Areas were identified for the Land Use Plan. The land management unit boundaries were defined based on discussions with the Community Development Department and the Master Plan Study Committee. In each of these areas, development and conservation scenarios, and recommendations are presented.

### 9.5 Community Land Use Management Principles

In addition to the specific recommendations for each of the 14 Land Use Management Area Action Plans, the following guiding principals for residential and commercial land use, natural resource protection and transportation system improvements are adopted by Bridgewater.

Sustainable Development

Sustainable development considers the needs of future generations and recognizes the connectedness of social, economic and environmental goals. It encourages the location of development where services and infrastructure such as water, sewer and transportation systems are already available.

#### **Residential Land Use Principals**

- **Encourage better cluster development.**

Revisions to the Town’s current cluster development bylaw are needed. Cluster development should be built at gross densities comparable to conventional developments but with more usable open space. This can be accomplished by reducing lot sizes and limiting the amount of wetlands (and other non-buildable areas) to be factored into the open space requirements. Cost savings by both the developer and Town are realized by limiting site clearing and grading to certain areas, and reducing the linear feet of residential streets and utilities. Valuable natural resources should also be protected and preserved. Well-designed cluster development provides an opportunity to create unique and efficient neighborhood identities.

- **Target higher density and senior housing near commercial centers, transit, and parks.**

Automobile use declines and willingness to walk, bike and ride transit increases with density. By placing higher density and senior housing near commercial centers such as Center Square and new village nodes, Bridgewater provides better access for senior residents. While reflective of national trends, the walking distance trends noted on the following table would likely be similar to those observed in Bridgewater. Small neighborhood shopping establishments can do well next to higher density residential areas.

| <b>Walking Distances for Different Purposes</b>        |                           |
|--------------------------------------------------------|---------------------------|
| <b>Purpose of Trip</b>                                 | <b>Median Trip Length</b> |
| Shopping Trips                                         | .30 Miles                 |
| Other Family Business                                  | .28 Miles                 |
| Social/Recreational                                    | .54 Miles                 |
| Transit Access                                         | .28 Miles                 |
| Source: 1990 Nationwide Personal Transportation Survey |                           |

➤ **Create neighborhoods out of subdivisions with well-defined edges and centers.**

Typical subdivisions in Bridgewater over the past 10 years tend to lack a well-defined center and edge. Common areas should be encouraged where neighbors can casually interact. The center can take the form of a pocket park, playground, common garden, tot lot, or recreation center, whose care and management would be incorporated into the overall construction process.

➤ **Provide for high quality neighborhood public spaces.**

The quality of open space is more important than the quantity. Parks and other common areas need not take up much space. People tend to prefer small, efficient spaces to large ones that seem underutilized. Important quality features include: accessibility, visibility, safety, comfort, and linkage. They should be within a 3-minute walk or 750 feet from nearby residents. Small park usage tends to drop off at 200 to 400 feet.

Common areas within subdivisions should be bordered by homes and oriented so that entrances and windows are facing them for natural surveillance. Sight lines are important so that people can see common areas and not perceive them as left over spaces.

Public spaces should offer sun and shade, comfortable seating, and play areas that challenge the imagination. When possible, public spaces should have direct physical and visual connections to one another. When the connection is made, the whole becomes greater than the sum of the parts, and utilization rates increase.

➤ **Improve neighborhood accessibility to desired activities.**

Residential accessibility is measured in terms of access to desired locations such as work, recreation, and shopping. Accessibility affects the residents' ability to efficiently link trips for different purposes and the opportunity to complete more than one activity at a single stop. Residential development patterns have a significant effect on household travel. To better understand travel patterns in Bridgewater neighborhoods, the following variables should be measured periodically through surveys:

- Trips/person (work-related and non-work related)
- % of residents that drive alone or carpool with others
- % of residents that walk or bike
- Average travel time (work and non-work related)
- Total hours of travel/person
- Total vehicle hours of travel/person
- Total vehicle miles per year/household

Infill development, higher density in certain locations, mixed use, and small commercial centers in Bridgewater could reduce vehicle travel and improve neighborhood access.

**Commercial Land Use Principles**

➤ **Encourage a balanced job-housing market in the community.**

There is a strong market for communities that offer a place to live as well as work. Internal resident employment capture increases with the number of local jobs created and reduced travel needs as described above. A goal would be to capture upwards of 33% of all work trips made by employed Bridgewater residents.

➤ **Promote mixed uses as much as the market will allow.**

Major advantages of mixed-use are the ability to reduce access vehicle trips, ease walking trips, positively impact residential property values when commercial and civic uses are close by, improve street security with high pedestrian activity and foster a greater sense of community and opportunity for casual social contact.

➤ **Provide neighborhood shopping opportunities to keep pace with residential development.**

Convenient commercial facilities reduce vehicle trips, improve home values and sales, and enhance quality of life. Commercial facilities should be planned for as new residential development occurs in different areas of Town. Some of the commercial and recreational services that have been identified as desirable additions by Bridgewater residents and the population requirements typically identified for economic viability are as follows:

| Desired Commercial & Recreational Services in Bridgewater               |                                 |
|-------------------------------------------------------------------------|---------------------------------|
| Service                                                                 | Minimum Population Requirements |
| Supermarket                                                             | 6,500                           |
| Dry Cleaners                                                            | 5,700                           |
| Video Rental                                                            | 11,400                          |
| Beauty Salon                                                            | 3,700                           |
| Book Store                                                              | 22,400                          |
| Laundromat                                                              | 5,800                           |
| Movie Theater                                                           | 29,000                          |
| Tennis Courts                                                           | 2,000                           |
| Neighborhood Park                                                       | 5,000                           |
| Public Swimming Pool                                                    | 20,000                          |
| Source: Urban Land Institute, Dollars & Cents of Shopping Centers, 1993 |                                 |

➤ **Concentrate commercial development in compact districts.**

National surveys indicate that consumers strongly prefer well-designed shopping centers (i.e. malls, downtowns, etc.) to commercial strips. Scattered establishments along local highways disrupt through traffic, reduce capacity, and generally lack cohesiveness, resulting in unattractive development. Businesses along strips in Bridgewater (i.e. Bedford Street and Pleasant Street) are usually too far apart to permit one-stop shopping and tend to have no functional relationship with one another. Encouraging shared parking, access and interior connections, as well as encouraging multi-purpose uses, would combat the effects of strip development. The advantages of compact mixed-use centers are numerous:

- Enlivens outdoor spaces – Mixing uses generates pedestrian movement among buildings.
- Consolidates vehicle trips – By mixing uses, multipurpose trips can be accomplished with minimal impact on the surrounding transportation network. On-site service or nearby shopping can eliminate a significant amount of vehicle miles traveled by area workers (i.e. in the industrial parks, BSC and BCC).
- Encourages alternative transportation modes – Mixed uses encourages commuters to carpool, vanpool, or use transit since there is less need to use a car to run errands. The proportion of workers carpooling generally rises in employment centers when retail uses are mixed in or close by.
- Moderates peak demand – Mixing uses spreads traffic more evenly throughout the day. Parking requirements can also be reduced since hourly patterns of utilization are very different for offices, retail stores, restaurants, and theaters.

Traditional Design Features of Central Business Districts

- Narrow streets and short blocks in a basic grid pattern
- A central business district with vertical mixed uses of commercial, residential and public uses on the same street.
- Public parking provided on-street with additional public and private parking lots located behind buildings.
- Prominent public buildings and spaces (such as town squares, greens, boulevards, government buildings, religious institutions)
- Variations in housing type and size in the same area with connections to the street (i.e. porches, stoops, walks)
- Reduced building setbacks and lot frontage. Alleys can facilitate (at least in the CBD) narrow lots, small setbacks and uninterrupted sidewalks
- Accessory apartments behind homes and above shops
- A well defined edge of town

➤ **Ensure that large auto-oriented land uses compliment the community character.**

Big box and franchise operations should be permitted based on the character (or desired improvements to the character) in given districts. Particular attention should be given to square footage, signage, landscaping, architecture and building materials, and infill development (rather than stand-alone parcels). These large

projects should be designated for areas where they will complement the community’s existing and desired pattern of development.

**Natural Resource Protection Principles**

Bridgewater supports open space preservation and sensitive development to protect critical wildlife habitat, expand greenways and scenic landscapes, promote quality of life, and provide recreational opportunities for citizen’s and visitors. Bridgewater also understands that new development can be accommodated with minimal detrimental effect upon natural resources if certain protection measures are in place.

➤ **Use a system approach to resource planning**

Apply resource management to development based on natural systems as applicable: wildlife should be managed as a “community” of interrelated species with travel corridors; stormwater should be managed on a watershed basis to coordinate the timing of stormwater releases; wetlands, streams, and other interconnected water bodies should be managed jointly to meet the life cycle needs of aquatic species that use them all.

➤ **Channel development into areas that are already disturbed**

Utilize commercial, residential and industrial infill opportunities that exist throughout Bridgewater as a priority over expanding development into undisturbed lands.

➤ **Establish upland buffers around all retained wetlands and natural water bodies**

To enhance the quality of wetlands and natural water bodies, upland buffers should be protected. Some specific areas may include Lake Nip, Carver’s Pond, the Taunton and Town Rivers, and adjoining lands where a buffer may be established. Wetlands, lakes, and streams, plus the uplands that border them, are interdependent. Upland buffers protect wetlands and natural water bodies from erosion, nutrient overload, and loss of wildlife species that require more than one habitat to meet their feeding, nesting, and shelter needs. Upland buffers also contribute woody debris for habitat, control water temperatures, supply food, and provide cover for fish in adjacent waters.

➤ **Use Xeriscape landscaping and water recycling**

Xeriscaping refers to landscape treatments that conserve water. Bridgewater should encourage water reuse for as many purposes as possible including public and private landscaping. Wastewater can be safely used for urban landscaping if it receives secondary treatment plus filtration and high-level disinfections. The principles of xeriscape landscaping are as follow:

- Design landscapes for minimum maintenance
- Use locally adapted plants
- Irrigate efficiently
- Use turf only where it is needed
- Use mulches to retain soil moisture

**Transportation System Improvement Principals**

How people and goods move from one place to another is a fundamental issue that needs to be addressed when planning for future growth in Bridgewater. As the community plans to attract new commercial/industrial development and expand existing business, adequate transportation infrastructure and services must be provided. The Town-wide Comprehensive Transportation Study and Management Plan, 2002 was a major step in this direction for Bridgewater.

Transportation planning principles should not necessarily be based on maximizing the level of service (which amounts to streets operating at or above a given average speed), but to keep traffic flowing smoothly within the community while minimizing traveler delay and other adverse impacts of stop and go driving. Slow and steady should be the goal rather than high LOS and speed, which detract from the sense of community.

➤ **Reduce the average vehicle miles of travel.**

This can be accomplished through more in-Town shopping and recreational trips, and by facilitating linked trips where the driver can complete several tasks in a short period of time (such as the central business district or new multi-use nodes as described below and in Land Use Management Area Action Plans).

➤ **The street network should have multiple connections and relatively direct routes.**

Large-scale development projects should have connections to surrounding roads where feasible. This can be accomplished by facilitating internal collectors and subcollectors, multiple entrances, and interconnections between subdivisions. Traditional grids (such as in the downtown area) have short blocks, narrow streets, and multiple internal connections. They disperse traffic rather than concentrating it at a handful of intersections. They offer a more direct route and hence generate fewer vehicle miles of travel. They also encourage walking and biking.

Most new residential streets in Bridgewater have large blocks, curving roadways and branching patterns. There are some advantages to these contemporary systems including reduced through trips, which can lessen accident rates and improve property values. They may also discourage crime, and can circumvent valuable natural resources more easily. Cul-de-sacs are typically quieter and safer for children, encourage more casual social interaction and their homes often command higher market prices.

The Town should strive to provide the advantages of both traditional and contemporary streets – a hybrid network. With proper design, new streets can be safe, easily interpreted by the driver, short, and curved to follow the lay of the land.

➤ **Apply traffic calming measures.**

The “livability” of streets declines as volume and speed of traffic increase. Controlling traffic speed is a key to pedestrian safety, and residents are more likely to walk, bike, and play along streets where speed is low to moderate.

Several traffic calming measures and applications for Bridgewater are discussed in *Chapter 8: The Transportation System*. The goal of these traffic calming measures is to reduce speed through design (not just posted speed limits). Design speeds between 20 and 35 mph are recommended. Speed limits must be self-enforcing, particularly on local streets. The width of local streets is probably the most important factor in effective traffic calming (other important factors include high street-side activity, short blocks, on-street parking, short building setbacks, and street trees).

Roundabouts are a very effective traffic calming device for intersections. They typically have more capacity and produce shorter delays than signals when traffic flows are fairly well balanced.

➤ **Keep all streets as narrow as possible.**

There is a growing consensus that streets, particularly local ones, are over-designed, at substantial cost to communities. Narrow streets save energy and cost in terms of construction and maintenance. Lower development costs can be passed on to the homebuyers and renters. Narrow streets also calm traffic and reduce vehicle operating speeds.

Bridgewater’s street construction requirements have produced excessively wide roads resulting in higher speeds and potential safety concerns. As discussed in the land use regulations amendments in *Chapter 10: Implementation and Action Plan*, alternative street design requirements are recommended.

| Recommended Residential Street Widths for Bridgewater |               |                                         |                    |
|-------------------------------------------------------|---------------|-----------------------------------------|--------------------|
| Street Type                                           | Typical Stds. | Recommended Stds.                       | Avg. Daily Traffic |
| Access Street                                         | 22-24 ft.     | 16-26 feet (depending on parking, etc.) | 0-300 tpd          |
| Subcollectors                                         | 20-36 ft.     | 20 feet                                 | 301-800 tpd        |
| Minor Collectors                                      | 24-36 ft.     | 24 feet                                 | 801-1,200 tpd      |
| Major Collectors                                      | 24-36 ft.     | 36 feet                                 | 1,501-3500 tpd     |

➤ **Provide good networks for pedestrians and bicyclists.**

Sidewalks are a necessity along all through-streets serving developed areas. Pedestrian accidents are more likely on streets without sidewalks than those with them. Sidewalk clearance, vertical curbs, street trees between the street and sidewalk, and parked cars all add to the sense of security. The Town should also provide pedestrians and bicyclists with shortcuts and alternatives to traveling along high volume streets.

➤ **Encourage Transportation Demand Management (TDM) programs in local employment centers.**

In order to manage peak hour street demand, TDM such as ridesharing incentives, modified work hours, and telecommuting call help. Large employers such as BSC and BCC are the best candidates for TDM programs. They have the ability to match employee ridesharing needs, stagger shifts, and use financial resources to carry out an effective program.

## 9.6 Reinvent Strip Development and Create Multi-Use Nodes

Bridgewater must anticipate changes in consumer preference as the community grows and changes. National preferences have also changed over the past several years making older downtowns and traditional neighborhood development (TND) increasingly popular. Consumers are looking for attractive, pedestrian friendly and safe environments for shopping and entertainment. Bridgewater must provide the flexibility to adjust to these market demands.

### ➤ **Reduce land zoned for retail development.**

Like most communities, Bridgewater has designated nearly all of the area along major arterials for commercial uses and waits for retailers and related businesses to gradually fill in the individual sites. Under this scenario, new development is scattered and spread out while sites closer to Central Square remain vacant (leapfrogging) or underutilized. Also, by designating more retail than is necessary, the community may dilute existing and established districts, primarily downtown. Land designated for commercial retail use should be based on local market demands for various types of businesses. This is determined by population, housing and personal income statistics and trends. (See *Chapter 5: Economic Trends and Opportunities*).

By reducing commercially zoned land, Bridgewater can stimulate retail growth, encourage revitalization, and improve the quality of shopping districts. The Town should take the following steps:

- Limit the quantity of retail-zoned land in the SBD and I districts on Route 104 to provide economic strength to existing districts and provide for other commercial, industrial and residential uses where appropriate.
- Rezone excess land to encourage reinvestment and improve quality of existing retail properties
- Scale retail-zoned land to reflect the realistic assessment of size, strength, and character of the market.
- Stimulate infill, new forms of mixed use, and pedestrian oriented retail development on remaining land
- Structure zoning to mature strips to encourage denser forms of development than can be reached by multiple access modes
- Reserve some of the previously zoned commercial land for housing, office space, civic uses, recreational features and open spaces.

### ➤ **Establish nodes of mixed use development.**

In order to improve existing retail strips and meet current market demands, commercial areas should be restructured to create nodes of development. These nodes should be higher-density, mixed use residential and commercial development interspersed with low-intensity land uses and open spaces. Four new commercial nodes are proposed in Bridgewater and included in the Land Use Management Unit Action Plans:

- Pilgrim Park Node – along Route 104 near the Raynham Town Line
- Scotland Village Node – on Pleasant Street at the intersection of Scotland Boulevard
- Bedford Street Village Node – on Bedford Street at the intersections of Winter Street and Flagg Street.

- Plymouth Street Village Node – on Plymouth Street at the intersections with Wood Street and Water Street.

Nodes of development established along commercial strips can create new vitality for designated areas. The nodes should primarily serve the immediate residential areas. Between commercial nodes, lower density commercial, civic, residential and open space uses should be encouraged. The Town should also consider the possibility of a transfer of development rights (TDR) program from other commercially-zoned areas to the nodes so that higher density development opportunities can be transferred to these designated mixed-use areas and other areas can be utilized for lower density and impact uses.

To facilitate the develop of commercial nodes, the Town should take the following actions:

- Make key pedestrian improvements to create a friendly, attractive and walkable environment.
- Plan and zone higher densities in these nodes to facilitate a mix of uses.
- Direct public investments such as infrastructure and government facilities into the nodes to encourage mixed use and higher value land uses to serve as anchors and induce private development.
- Use public incentives such as TDRs, tax increment financing, design guidelines, vertical zoning, and an accelerated approval process to foster the desired development.

### ➤ **Establish appropriate plans, policies, and regulations.**

The Master Plan, design guidelines, capital improvement plan, traffic plan, market analysis, rezoning and regulation amendment are all measures to implement the desired changes to a commercial strip. Public consistency and commitment to these policies and regulations will encourage private investment. The following initiatives are recommended:

- Integrate public facilities into strip redevelopment areas in a way that helps to shape the desired enhancements and investment by the private sector.
- Design zoning regulations that facilitate private implementation of the public strategy.
- Create specific development standards to accompany zoning regulations for landscaping, signage, architectural quality, pedestrian linkages, and other planning details crucial to the overall success.
- Provide regulatory options that facilitate parceling and land assembly to accommodate recommended changes to land use configurations.
- Adopt zoning that encourages consolidated curb cuts, access, and coordinated development with fewer stand-alone stores.

### ➤ **Determine parking requirements based on actual need and desired aesthetic improvements.**

Parking commonly dominates the landscape in commercial strips due to heavy requirements by local regulations rather than actual measurements of need and use.

- Size parking lots and structures for reasonable demand and provide for peak parking and overflow areas
- Encourage and plan for shared parking among adjacent uses

- Create well-designed and landscaped parking lots
- Place parking on the side of or behind buildings to reduce the visual blight of endless parking lots.

➤ **Provide design guidance.**

In order for strip commercial areas to be successful in the future, they have to look less like strip developments. Some key public and private redevelopment strategies are as follows:

- High quality building design and retail-oriented first floor facades.
- Pedestrian-scaled features such as streetlights, sidewalk pavers, mature trees, quality signage, and landscaping.
- Landscape the public right-of-way of the main arterials and install sidewalks, crosswalks and center medians where possible.
- Work with the local utility company to bury power lines if possible.

## 9.7 Future Growth Management Measures and Incentives

➤ **Consider a new ordinance for phased residential growth.**

Bridgewater may want to consider a phased growth ordinance for residential development. This tool has been used by numerous communities throughout the State that have experienced substantial growth in a short period of time, resulting in significant impacts on municipal services. Essentially, a phased growth ordinance would limit the number of building permits approved over a given period of time (by month or by year).

If Bridgewater is to adopt a phased growth control ordinance it should consider the following:

- Does the community anticipate that the rapid rate of residential development will be sustained over the next five years resulting in significant additional demands on local services and facilities;
- Will other revisions to public policy and regulations (i.e. zoning and subdivision ordinance amendments) as recommended in this Master Plan sufficiently address the impacts of residential growth; and
- Is a phased growth ordinance necessary community-wide or in specific regions while directing development toward other designated areas?

➤ **Increase development review fees.**

Construction and development fees in Bridgewater are very low in comparison to other municipalities. At a minimum, development review fees should cover the costs associated with this municipal service. Additionally, they should also contribute to various community development programs that are geared to mitigate the impacts of new development on municipal facilities and services, loss of open space, and creating a balanced tax base.

➤ **Consider creating a community preservation fund**

The Community Preservation Act (Chapter 267 of the Acts of 2000, known as CPA) is a relatively new tool for Massachusetts's communities to facilitate smart growth principals. CPA provides an opportunity for Bridgewater to preserve and/or expand important open spaces, historic sites, and affordable housing.

Using the CPA, the Town could raise funds through a property tax surcharge of up to 3%. State matching funds are provided and range from 5 to 100% based on number of communities participating. Certain properties are exempt and abatements allowed under state law, which should be encouraged in Bridgewater including:

- The first \$100,000 value of each taxable parcel of residential property
- For properties owned and occupied by persons qualifying as low-income or low to moderate-income senior housing.

Under the program, Bridgewater must set aside 30% of all funds collected – 10% for open space, 10% for historic resources and 10% for community housing, which are defined as follows:

Open Space - Including but not limited to land to protect existing and future well fields, aquifers and recharge areas, watershed land, agricultural land, grasslands, fields, forest land, fresh and salt water marshes and other wetlands, ocean, river, stream, lake and pond frontage, beaches, dunes and other coastal lands, lands to protect scenic vistas, land for wildlife or nature preserve but not land for recreational use.

Historic Resources - Buildings, structures, vessels, or real property listed or eligible for listing on the State Register of Historic Places or has been determined by the local historical commission to be significant in the history, archeology, architecture or culture of a municipality.

Community Housing - Housing for individuals and families whose annual income is less than 100% of the area-wide median income (including low and moderate income housing for citizens above age 60).

The remaining 70% can be used for any of the above areas without the percentage or recreation restrictions. Open space, historic resource preservation and affordable housing were all identified as major concerns by Bridgewater residents in the Community Wide Master Plan Survey, 2000.

CPA requires the Town of Bridgewater to establish a Community Preservation Fund by local referendum. Such a proposal was narrowly defeated by the majority of voters in the Spring 2002 Annual Election. One of the main concerns was that the Town would be committed to funding the program for five years. Perhaps this program could be reconsidered by Town Meeting in better economic times.

➤ **Provide for alternative development and design measures through new regulations.**

Several methods can be used by the Town to facilitate good design, site amenities and natural resource protection. Some of these techniques include traditional neighborhood design (TND), open space (or cluster) development, green development (particularly for industrial districts), performance standards, infill development, redevelopment/rehabilitation programs, and growth control ordinances. Specific recommended amendments to the Bridgewater land use regulations are discussed in *Chapter 10: The Implementation and Action Plan*.

- **Performance-Based Standards** – Performance standards regulate the characteristics of uses rather than the uses themselves. How a use is designed and functions is determined by adjacent uses, natural and man-made features, traffic and infrastructure conditions, historic character and various other factors and community objectives. This differs from conventional standards which control and separate uses per se. Performance standards are one of the best means of implementing master plan objectives (e.g. provide convenient services to residents, reduce traffic congestion, protect natural resources, and improve pedestrian environment).
- **Traditional Neighborhood Development (TND) Ordinance** - Unlike conventional ordinances, which tend to prevent traditional patterns of walkable, mixed use neighborhoods, a TND ordinance can re-introduce historic development patterns. Bridgewater should assemble a Rezoning Committee to draft a new TND Ordinance that fits the scale and historic development patterns of the community. This ordinance should be designed to accomplish the following goals:
  - Limit neighborhood size with clear edges
  - Encourage social, educational, employment, recreational and shopping opportunities in close proximity to residences
  - Design streets to balance the needs of both automobiles and pedestrians
  - Provide for building size and character that define streets and public spaces
  - Provide open spaces for social activity and recreation
  - Reduce the requirements for infrastructure, automobile use, and pollution

The main purpose of the TND Ordinance will be to enhance the quality of existing neighborhoods as well as facilitate the development of new ones based on the principle outlined above. The TND ordinance should apply directly to these areas. However, the ordinance should be drafted so that it can be applied to fringe urban and rural areas of the Town with incentives to promote good design, conservation of natural resources, and traffic reduction generated by conventional residential design.

- **Open Space Development (OSD) Ordinance** – Bridgewater, like many communities, has been disappointed by the lack of use and general ineffectiveness of the “cluster” ordinance. While attempts have been made to improve its usability, the results have been limited in terms of overall acceptance and success.

The Open Space Development (OSD) ordinance is a new form of cluster development that enables land to be developed while simultaneously preserving community character, reducing environmental impacts, protecting rights of property owners, and producing a high quality project. The focus is on open space preservation and associated improvement or maintenance of community character.

As an alternative to typical cluster, Bridgewater should draft an OSD ordinance which will identify primary and secondary conservation areas including wetlands, floodplains, and steep slopes as well as flat, dry and otherwise buildable areas. These areas will be set aside from clearing, grading, and construction and instead lot sizes should be reduced to allow development to fit onto the unconstrained land. This new ordinance should include the following sections:

- Determination of Density or “Yield”
- Density Incentives
- Minimum Open Space Requirements
- Impact Statement Criteria
- Location and Quality of Open Space
- Evaluation Criteria

- **Conventional Suburban Development (CSD)** - Conventional subdivisions are by far the most common form of residential development in Bridgewater. However, many of the principles of OSD and TND can be incorporated into conventional design without changing the overall subdivision framework. Bridgewater should evaluate OSD and TND principles and integrate them, as appropriate, into conventional subdivision design standards. The basic principles are as follows:
  - Streets designed to balance the needs of both automobiles and pedestrians.
  - Open spaces designed for social activity and recreation.
  - Maximum (as well as minimum) dimensional requirements to encourage deeper lots with less frontage resulting in less infrastructure development.
  - Reduction of street requirements (i.e. street widths) to reduce speeds, improve safety and fit the scale of new neighborhoods.
  - Provisions for internal connections (pedestrian and auto) between separate subdivisions.
  - Provisions for linking and networking open spaces between developments.
  - Preserving as much of the natural environment as possible during and after construction.
  - Provision for on-site or nearby amenities to reduce the number of vehicle trips.

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***INSERT LAND USE MANAGEMENT DISTRICT PLANS***

**Insert Map 9-3 Land Use Management District Overall Map**

**Plans**

- Area 1: Lake Nippenicket Residential District
- Area 2: Planned Development District (PDD)
- Area 3: Pleasant Street (Route 104) Corridor
- Area 4: Elm Street & Scotland Boulevard District
- Area 5: North Central Residential District
- Area 6: Central Business District
- Area 7: Central Residential District
- Area 8: Bridgewater State College
- Area 9: Southwest Residential District
- Area 10: Bedford Street Business District
- Area 11: Bedford Street Gateway District
- Area 12: Bridgewater Correctional Complex
- Area 13: Southeast Residential District
- Area 14: Northeast Residential District

## CHAPTER 10 – IMPLEMENTATION AND ACTION PLAN

This chapter lays out a specific action plan for carrying out the community’s goals and strategies, and maintaining the Master Plan as a useful and accurate guide to making future growth management decisions in Bridgewater.

### 10.1 Action Plan and Prioritized Schedule

The Implementation and Action Plan includes a list and schedule of municipal projects, policies and actions necessary to achieve the goals and strategies of each element of the Master Plan over the next 10 years. (See Figure 10-1). This Action Plan has been developed based on the integration of each of the nine preceding chapters, and resolution of potential conflicts. Prioritized actions and target dates are based on the recommendations of the Master Plan Study Committee.

#### **Oversight of Implementation Action Plan**

It is recommended that a subcommittee be established by the Board of Selectmen to oversee the implementation progress and incorporation of the plan into other town policies such as the capital improvement plan, zoning and subdivision regulations, and municipal budget. An annual work program should be developed and carried out by the subcommittee with the assistance of various town departments. Progress reports should be made biannually to the full Planning Board, Selectmen, and general public. As certain conditions change, so may priorities. The Action Plan should be reviewed annually and modifications made accordingly.

### 10.2 Land Use Regulation Evaluation and Recommendations

Amendments to the Zoning and Subdivision Regulations are the most direct method of implementing the Master Plan. These ordinances have been evaluated to determine where conflicts exist with the goals of the Master Plan, and recommended amendments be made as part of the Implementation and Action Plan.

The Bridgewater Zoning Ordinance was adopted in 1969 and is the primary implementation tool for local planning efforts. Unfortunately, this and other conventional land use regulations have often been impediments to achieving community land use goals in terms of managing the impacts of growth and protecting natural resources. The results have often led to fragmented and disappointing suburban residential developments, highway oriented commercial strip development, and a less viable central business district.

The following analysis and recommendations are based on a review of ordinance, interviews with various departments, comments from the community-wide surveys, and discussions with the Master Plan Study Committee.

#### **Definitions (Section 2)**

With regard to the Zoning Definitions the following recommendations are made:

- **Open Space** – Wetlands can be allowed as a percentage of the open space area when determining required open space for cluster developments. While some wetland and other important natural resources should be partially factored into open space calculations, the definition and majority of area should be for passive and active recreational uses that benefit the neighborhood.
- Diagrams are needed to illustrate story, half-story, private way, and service roads.
- New definitions for “private road” and “service road” are needed.
- There are few definitions for various types of commercial and industrial uses, which need to be added.

#### **Zoning Boundary Descriptions (Section 3)**

**Central Business District Purpose Statement** – Additional goals to be achieved within the CBD and to be included in the purpose statement are the enhancement of recreational uses such as pedestrian walkways, bicycle paths and open space. Additionally, the MBTA has already been built and “New England architectural style” is somewhat vague.

#### **Boundary Issues:**

**CBD** – This district covers a large area along Broad Street, Spring Street, Main Street, and Hale Street, which are not part of the traditional downtown. It does not include portions of Bedford Street and South Street (including the Bridgewater Academy building), which are part of the traditional downtown area. A smaller district should be delineated that includes the Central Square area with regulations and historic guidelines that reflect the traditional historic purpose and design of the district. The additional areas should probably be rezoned under Business (B).

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**INSERT FIGURE 1**

**Industrial A** – There are too many uses permitted in this district resulting in conflicts between residential and industrial uses, strip commercial development along Route 104, and lower quality industrial uses (i.e. trucking and storage) than desired in Scotland and Elm Street Industrial Parks.

**Industrial B** – This district includes the older industrial mill buildings off Broad Street next to railroad tracts and Town River. This area could provide an excellent opportunity for mixed use including residential apartments and condos but zoning is very restrictive. The district should probably be rezoned for Business (B) with a special Mill Redevelopment Overlay District, which provides the flexibility in uses and dimensional requirements necessary to fulfill its redevelopment potential.

#### **Application of Regulations, Modifications and Exceptions (Section 4)**

Section 4.40 states that no dwellings are allowed except when a lot is fronting on a street and only one principal residential building per lot. One of the primary land use trends (and concerns) in Bridgewater over the past 10 years is the amount of “approval not required” (ANR) plans for new homes on existing public streets. This has had a significant impact in terms of tree removal and site grading on many of the Town’s most scenic roadways. By allowing for reduced frontage, these scenic roads can be protected. New provisions/revisions for such techniques as pork-chop lots, deep lot development, common driveways, and frontage roads can protect these important resources and reduce the visual impact of residential development. The requirement for one dwelling per lot also consumes land and frontage unnecessarily. New provisions should be considered that allow for condominium and cooperative housing opportunities.

#### **Use Regulations (Section 6)**

**Residential Uses** – The Zoning Ordinance is very strict on 2-family, multi-family and mobile homes. New apartment buildings, townhouses, and condominiums are not permitted in the entire town. These restrictions have limited the diversity in local housing stock, the opportunity to fill the need for affordable housing, and possibly the deterioration of some older sections of the CBD. In order to resolve these community issues, multi-family rental and ownership opportunities should be provided in certain districts. To address issues such as potential impacts on local schools and other services, traffic, aesthetics, multi-family uses should be allowed by special permit with specific performance standards and site plan review procedures.

Other issues in the residential use regulations:

- Single-family dwellings are allowed by special permit in Commercial and Industrial districts. They are generally not compatible and use valuable land designated by the Town for economic growth. However, higher density residential uses can be very desirable as a component of office park developments and should be permitted by special permit with specific performance standards.
- Two-family and duplexes are only allowed by special permit in the CBD, Bus B, Industrial A, and Industrial B zoning districts. They should also be permitted by special permit in the residential districts.
- Trailers, trailer parks, campgrounds, lodging houses, mobile homes and mobile home parks are not permitted anywhere in Bridgewater. Lodging houses, similar to Bed & Breakfasts, should be permitted in the CBD to provide an incentive for rehabilitation, support economic activity and provide convenient

lodging for visitors to BSC. Campgrounds can also provide opportunities to save open space and expand recreational activities and should be allowed by special permit with performance standards.

- Elderly mobile home development is only allowed in the MHEC District in the northeast quadrant of Town. This district is the furthest from shopping areas, highway access, and emergency services. Some daily commercial services should be allowed in this area to reduce the number and length of trips from this densely populated area.
- “Adult Retirement” developments are only allowed in Residential A/B, C, and D and should be allowed in the BB and CBD districts where commercial, municipal, and other services are within walking distance.
- Open Space Community Development (Cluster) is only allowed in Residential A/B, C and D. Cluster development should also be allowed by special permit in and with performance standards in the CBD (not the Central Square areas), SBD and BB districts. With good design, cluster in these additional districts could serve to extend the traditional residential pattern of downtown neighborhoods while providing active and passive recreational opportunities for the public. In the SBD, residential cluster can be used to protect the tree line, wetlands, and aquifer recharge areas of different parts of the corridor while utilizing land that is not well suited for commercial or industrial activity.

#### **Institutional, Recreational and Educational Uses:**

- Day nurseries should be permitted in Business B, Industrial A and B districts by special permit to create more incentives for higher quality development of office parks. (It is allowed in the PDD District).
- Entertainment and recreation for profit (i.e. health clubs) should be allowed in the Industrial B district. There a number of old mills that are largely vacant and centrally located where this would be a good use.
- Hospitals are grouped with nursing homes and other related uses. They should be separated and permitted in the Industrial A and B districts.

#### **Office and Laboratory Uses:**

- Business, Professional, Financial uses should be permitted in the Industrial B district.
- Certain requirements should be made to enhance the vertical mix of uses in CBD (downtown area). Ideally, retail, restaurants and some customer-oriented office uses (i.e. banks and real estate businesses) should occupy ground level spaces while professional office and residential uses should be located in upper floor spaces and on side streets.

#### **Retail Business and Consumer Services Establishments:**

- Retail stores, banks, gas service stations and service businesses (i.e. barber shops, dry cleaning) are permitted in the Industrial A district by special permit, which is resulting in strip development along Route 104 - the gateway into Bridgewater. These types of businesses use valuable lands and do not compliment office development in the industrial parks as they should. However, they are not allowed in Industrial B district even though this area is surrounded by similar uses. This district is better suited for a mix of retail, restaurant, office, recreational, and residential uses. Small-scale light industrial uses such as business incubator space would also be appropriate for this district but other industrial uses are probably unlikely and not preferable.

| <b>Table 10-1: Permitted Uses, Bridgewater Zoning Bylaws</b> |            |          |          |     |     |          |          |          |            |              |  |
|--------------------------------------------------------------|------------|----------|----------|-----|-----|----------|----------|----------|------------|--------------|--|
| PRINCIPAL USES                                               | RES<br>A/B | RES<br>C | RES<br>D | CBD | SBD | BUS<br>B | IND<br>A | IND<br>B | PD<br>DIST | MHEC<br>DIST |  |
| <b>A. RESIDENTIAL USES</b>                                   |            |          |          |     |     |          |          |          |            |              |  |
| 1 Detached SF Dwelling                                       | Y          | Y        | Y        | SP  | SP  | SP       | SP       | SP       | Y          | Y            |  |
| 2 2F or Duplex                                               | N          | Y        | Y        | SP  | N   | SP       | SP       | SP       | N          | N            |  |
| 3 Attached SF Dwelling up to 4                               | N          | N        | N        | N   | N   | N        | N        | N        | N          | N            |  |
| 4 Multifamily Dwellings                                      | N          | N        | N        | N   | N   | N        | N        | N        | N          | N            |  |
| 5 Renting Rooms up to 3 persons                              | SP         | Y        | Y        | SP  | SP  | Y        | SP       | SP       | N          | SP           |  |
| 6 Conversions to 2 family                                    | N          | Y        | Y        | SP  | N   | Y        | N        | N        | N          | N            |  |
| 7 Trailer and Trailer Park                                   | N          | N        | N        | N   | N   | N        | N        | N        | N          | N            |  |
| 8 Mobile Home and Mobile Home Park                           | N          | N        | N        | N   | N   | N        | N        | N        | N          | N            |  |
| 9 Camp Grounds                                               | N          | N        | N        | N   | N   | N        | N        | N        | N          | N            |  |
| 10 Lodging Houses                                            | SP         | SP       | SP       | N   | N   | SP       | SP       | SP       | SP         | SP           |  |
| 11 SF Dwelling on 150,000 s.f. and 30' frontage              | SP         | SP       | SP       | N   | SP  | SP       | SP       | SP       | SP         | SP           |  |
| 12 MHEC                                                      | N          | N        | N        | N   | N   | N        | N        | N        | N          | SP           |  |
| 13 Open Space Community Development                          | SP         | SP       | SP       | N   | N   | N        | N        | N        | N          | N            |  |
| 14 Adult Retirement Village                                  | SP         | SP       | SP       | N   | N   | N        | N        | N        | N          | N            |  |
| <b>B. INSTITUTIONAL, RECREATIONAL &amp; ED.</b>              |            |          |          |     |     |          |          |          |            |              |  |
| 1 Places of Worship                                          | Y          | Y        | Y        | Y   | Y   | Y        | Y        | Y        | Y          | Y            |  |
| 2 Public or Private, non-profit schools                      | Y          | Y        | Y        | Y   | Y   | Y        | Y        | Y        | Y          | Y            |  |
| 3 Cemeteries                                                 | Y          | Y        | Y        | Y   | Y   | Y        | Y        | Y        | Y          | Y            |  |
| 4 Government Recreation Facility                             | Y          | Y        | Y        | Y   | Y   | Y        | Y        | Y        | Y          | Y            |  |
| 5 Public Utilities                                           | SP         | SP       | SP       | SP  | SP  | SP       | SP       | SP       | SP         | SP           |  |
| 6 Private non-profit Library or Museum                       | Y          | Y        | Y        | Y   | Y   | Y        | Y        | Y        | Y          | Y            |  |
| 7 Private Non-profit Community Center                        | SP         | SP       | Y        | Y   | Y   | Y        | N        | N        | N          | SP           |  |
| 8 Hospital, Infirmary, Nursing Home                          | N          | SP       | Y        | SP  | SP  | Y        | N        | N        | SP         | SP           |  |
| 9 Day Nursery, School or Kindergarten                        | SP         | SP       | SP       | SP  | Y   | N        | N        | N        | Y          | SP           |  |
| 10 Overnight Camps for under 18                              | SP         | N        | N        | N   | SP  | N        | N        | N        | N          | SP           |  |
| 11 Trade Schools                                             | N          | N        | N        | SP  | Y   | Y        | Y        | Y        | Y          | N            |  |
| 12 Trade Schools limited to 1 class w/30 students            | N          | N        | N        | SP  | Y   | Y        | Y        | Y        | Y          | N            |  |
| 13 Private nonprofit membership lodge or club                | SP         | SP       | SP       | SP  | SP  | SP       | SP       | SP       | N          | SP           |  |
| 15 Entertainment and Recreation Facilities                   | N          | N        | N        | Y   | Y   | Y        | Y        | N        | N          | N            |  |
| 16 Adult Motion Picture and Bookstore                        | N          | N        | N        | N   | SP  | N        | N        | N        | N          | N            |  |
| 17 All town and municipal uses                               | Y          | Y        | Y        | Y   | Y   | Y        | Y        | Y        | Y          | Y            |  |
| 18 Fraternity or Sorority                                    | N          | N        | N        | N   | N   | N        | N        | N        | N          | N            |  |
| <b>C. AGRICULTURAL USES</b>                                  |            |          |          |     |     |          |          |          |            |              |  |
| 1 Farms – Agricultural                                       | Y          | Y        | Y        | Y   | Y   | Y        | Y        | Y        | N          | Y            |  |
| 2 Farms - Livestock and Poultry                              | Y          | Y        | Y        | Y   | Y   | Y        | Y        | Y        | N          | Y            |  |
| 3 Roadside Farm Stand                                        | Y          | Y        | Y        | Y   | Y   | Y        | Y        | Y        | N          | Y            |  |

|                                                       | RES<br>A/B | RES<br>C | RES<br>D | CBD | SBD | BUS<br>B | IND<br>A | IND<br>B | PD<br>DIST | MHEC<br>DIST |
|-------------------------------------------------------|------------|----------|----------|-----|-----|----------|----------|----------|------------|--------------|
| <b>D. OFFICE AND LABORATORY USES</b>                  |            |          |          |     |     |          |          |          |            |              |
| 1 Business, Financial or Professional Offices         | N          | N        | N        | Y   | Y   | Y        | Y        | N        | Y          | N            |
| 2 Medical or Psychiatric Offices                      | N          | N        | N        | Y   | Y   | Y        | Y        | Y        | Y          | N            |
| 3 Laboratory or Research Facility                     | N          | N        | N        | Y   | Y   | Y        | Y        | Y        | Y          | N            |
| 4 Radio or TV Studio                                  | N          | N        | N        | Y   | Y   | N        | Y        | Y        | SP         | N            |
| 5 Radio or TV Transmission Facility                   | N          | N        | N        | SP  | SP  | SP       | SP       | SP       | SP         | N            |
| <b>E. RETAIL AND CONSUMER SERVICES</b>                |            |          |          |     |     |          |          |          |            |              |
| 1 General Retail                                      | N          | N        | N        | Y   | Y   | Y        | SP       | N        | Y          | N            |
| 2 Eating Places w/o Entertainment                     | N          | N        | N        | Y   | Y   | Y        | SP       | SP       | Y          | N            |
| 3 Eating Places w/ Entertainment                      | N          | N        | N        | Y   | Y   | Y        | SP       | N        | Y          | N            |
| 4 Service Businesses                                  | N          | N        | N        | Y   | Y   | Y        | SP       | SP       | Y          | N            |
| 5 On-Site Dry Cleaning                                | N          | N        | N        | SP  | SP  | SP       | SP       | SP       | Y          | N            |
| 6 Mortuary                                            | N          | N        | N        | Y   | Y   | Y        | SP       | SP       | Y          | N            |
| 7 Veterinary Clinic                                   | N          | N        | SP       | SP  | Y   | Y        | N        | N        | N          | N            |
| 8 Veterinary w/outdoor animals                        | N          | N        | SP       | N   | Y   | Y        | N        | N        | N          | N            |
| 9 Lumber and building Supply Yards                    | N          | N        | N        | N   | Y   | Y        | Y        | N        | N          | N            |
| 10 Banks and Financial Institutions                   | N          | N        | N        | N   | Y   | Y        | Y        | N        | N          | N            |
| 11 Motels                                             | N          | N        | N        | SP  | Y   | SP       | SP       | SP       | SP         | N            |
| 12 Hotels                                             | N          | N        | N        | SP  | Y   | SP       | SP       | SP       | Y          | N            |
| 13 Convention Centers                                 | N          | N        | N        | SP  | SP  | N        | N        | N        | Y          | N            |
| 14 Gravestone Sales (outdoors)                        | N          | N        | N        | N   | Y   | Y        | Y        | N        | N          | N            |
| 15 Gravestone Sales (Indoors)                         | N          | N        | N        | Y   | Y   | Y        | Y        | N        | N          | N            |
| <b>F. AUTO SERVICE &amp; OPEN AIR DRIVE-IN RETAIL</b> |            |          |          |     |     |          |          |          |            |              |
| 1 Gas Service Station                                 | N          | N        | N        | SP  | SP  | Y        | Y        | Y        | N          | N            |
| 2 Motor Vehicle Sales or Rental (Inside)              | N          | N        | N        | SP  | Y   | Y        | Y        | N        | N          | N            |
| 3 Motor Vehicle Sales or Rental (Outside)             | N          | N        | N        | N   | Y   | Y        | Y        | N        | N          | N            |
| 4 Auto Repair Shop                                    | N          | N        | N        | SP  | Y   | Y        | Y        | N        | N          | N            |
| 5 Car Wash                                            | N          | N        | N        | N   | Y   | Y        | Y        | N        | N          | N            |
| 6 Garden Supply Store                                 | N          | N        | N        | N   | Y   | N        | Y        | Y        | N          | N            |
| <b>G. INDUSTRIAL WHOLESALE &amp; TRANSPORTATION</b>   |            |          |          |     |     |          |          |          |            |              |
| 1 Dry Cleaning Plants                                 | N          | N        | N        | N   | N   | N        | Y        | Y        | N          | N            |
| 2 Printing, Binding and Publishing                    | N          | N        | N        | N   | Y   | Y        | Y        | Y        | SP         | N            |
| 3 Bottling of Beverages                               | N          | N        | N        | N   | Y   | N        | Y        | Y        | N          | N            |
| 4 Plumbing, Electrical or Carpentry Shop              | N          | N        | N        | SP  | Y   | Y        | Y        | Y        | Y          | N            |
| 5 Manufacturing, Processing, Assembling               | N          | N        | N        | SP  | Y   | Y        | Y        | Y        | SP         | N            |
| 6 Wholesale Business and Storage                      | N          | N        | N        | N   | Y   | Y        | Y        | Y        | SP         | N            |
| 7 Trucking and Freight Terminals                      | N          | N        | N        | N   | Y   | N        | Y        | Y        | N          | N            |
| 8 Contractor's Yard                                   | N          | N        | N        | N   | Y   | Y        | Y        | Y        | N          | N            |
| 9 Mini Self-Storage Facility                          | N          | N        | N        | N   | Y   | Y        | Y        | Y        | N          | N            |

|                                                    | RES | RES | RES | CBD | SBD | BUS | IND | IND | PD   | MHEC |
|----------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
| PRINCIPAL USES                                     | A/B | C   | D   | -   | -   | B   | A   | B   | DIST | DIST |
| <b>H. OTHER PRINCIPAL USES</b>                     |     |     |     |     |     |     |     |     |      |      |
| 1 Signs                                            | N   | N   | N   | N   | N   | N   | N   | N   | N    | N    |
| 2 Junkyards and Salvage yards                      | N   | N   | N   | SP  | SP  | SP  | SP  | SP  | SP   | N    |
| 3 Recycling Facility                               | N   | N   | N   | N   | SP  | SP  | SP  | N   | N    | N    |
| 4 Earth Extraction                                 | SP   | SP   |
| 5 Uses w/inadequate drainage & protective services | N   | N   | N   | N   | N   | N   | N   | N   | N    | N    |
| <b>I. ACCESSORY USES &amp; OFF-STREET PARKING</b>  |     |     |     |     |     |     |     |     |      |      |
| 1 Private Greenhouse, Stable, Tennis Court, Pool   | Y   | Y   | Y   | Y   | Y   | Y   | N   | N   | SP   | Y    |
| 2 Livestock and Poultry w/35-50' setbacks          | Y   | Y   | Y   | Y   | Y   | Y   | Y   | Y   | N    | Y    |
| 3 Home Occupations                                 | Y   | Y   | Y   | Y   | Y   | Y   | Y   | Y   | Y    | N    |
| 4 Resident builders, Plumbers, and Other Trades    | Y   | Y   | Y   | Y   | Y   | Y   | Y   | Y   | Y    | N    |
| 5 Accessory Research Uses                          | SP   | SP   |
| 6 Open Lot Materials Storage                       | N   | N   | N   | N   | N   | N   | N   | N   | N    | N    |
| 7 Drive-Up Window Facility                         | N   | N   | N   | SP  | Y   | Y   | Y   | SP  | Y    | N    |
| 8 Off-Street Parking and Loading Facility          | N   | N   | N   | SP  | Y   | Y   | N   | N   | N    | N    |
| 9 Common Driveways                                 | SP   | SP   |
| 10 In-Law Living Space Expansion                   | Y   | Y   | Y   | SP  | SP  | SP  | SP  | SP  | SP   | SP   |
| <b>J. PLANNED DEVELOPMENT</b>                      |     |     |     |     |     |     |     |     |      |      |
| 1 Planned Developments                             | N   | N   | N   | N   | N   | N   | N   | N   | N    | N    |

| Zoning District | Minimum Lot Size | Minimum Lot Area/ D.U. | Minimum Lot Frontage | Minimum Yard Depth |        |           | Building Height |         | Max. % Building Coverage | Max. % Lot Coverage | Max. % Open Space |
|-----------------|------------------|------------------------|----------------------|--------------------|--------|-----------|-----------------|---------|--------------------------|---------------------|-------------------|
|                 |                  |                        |                      | Front              | Rear   | Side      | Stories         | Feet    |                          |                     |                   |
| RES A/B         | 43,560           | 43,560                 | 150                  | 40(6)              | 30     | 20        | 3               | 35(10)  | 20%                      | 75%                 | 25%               |
| RES C           | 18,500           | 15,000                 | 125                  | 35 (6)             | 30     | 20        | 3               | 35(10)  | 20%                      | 80%                 | 20%               |
| RES D           | 10,000 (5)       | 10,000 (5)             | 125                  | 35 (5) (6)         | 30 (5) | 20 (5)    | 3               | 35 (10) | 20%                      | 80%                 | 20%               |
| CBD             | 10,000 (22)      |                        | 100 (22)             | 30(6)(22)          | 25(22) | 15(7)(22) | 3               | 35      | (8)                      | 80%                 | 20%               |
| SOUTH BD        | 40,000(21)       |                        | 200(21)              | 60(21)             | 40(21) | 25(21)    |                 | 40      | (20)                     | 75%                 | 25%               |
| BUS A           | 10,000           | (5)                    | 100                  | 30                 | 25     | 15(7)     | 3               | 35      | (20)                     | 80%                 | 20%               |
| IND A           | 40,000           | (5)                    | 200                  | 40(9)              | 40     | 25(9)     |                 | 40      | 50%(19)                  | 70%                 | 30%               |
| IND B           | 40,000           |                        | 200                  | 40                 | 40     | 25        |                 | 40      | 50%                      | 75%                 | 25%               |
| PDD             | 5 acres (18)     |                        | 200                  | (18)               | (18)   | (18)      | (18)            | (18)    | 25%                      | 75%                 | 25%               |
| MHEC            | 50 acres         | (16)                   | (16)                 | (16)               | (16)   | (16)      | (16)            | (16)    | (16)                     | 70%                 | 30%               |
| APD             |                  |                        |                      |                    |        |           |                 |         | (17)                     |                     |                   |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Frontage may be measured at the front yard setback line if the lot width increases from an arc of a curve along a street with a radius of 300 feet or less to the setback line provided there may be in any event not less than (50) feet width at the front lot line.                                                                                                                                                                                                                                                                                         |
| 2 Not less than the frontage requirements shall be maintained throughout the minimum front yard depth, except as provided for in (1) above and for lots recorded prior to October 1, 1994                                                                                                                                                                                                                                                                                                                                                                         |
| 3. On lots abutting more than one street, the front yard requirements shall apply to one of the abutting streets where not less than the required frontage distance for the lot exists. The "front yard" shall be so designated in any application to build on such lots.                                                                                                                                                                                                                                                                                         |
| 4. These height restrictions shall not apply to chimneys, water towers, skylights and other necessary features appurtenant to buildings, which are usually carried above the roofs and are not used for human occupancy. Wireless or broadcasting towers and other like enclosed structures, may also be of greater height if so authorized by special permit from the Planning Board and provided said greater height, including any features attached thereto, will be less than two hundred (200) feet.                                                        |
| 5. See Section 9 regarding motels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 6. A dwelling need not be setback more than the average of the setbacks of dwellings on the lots adjacent to either side. If a vacant lot exists on one side, it shall be considered as a dwelling set back the depth of the required front yard.                                                                                                                                                                                                                                                                                                                 |
| 7. Accept no requirement when the side of a building abuts another building.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 8. No restrictions - determine by required yard depth and parking requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 9. Except 60 feet when abutting or across the street from a residential zone.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 10. Height restrictions for apartment usage may be varied by special permit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 11. Same as for Industrial A, except may be reduced by up to 50% for requirement by special permit.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 12. Reference 9.632 and 9.634 (Maximum allowed, four (4) stories - Max. building height, 60 feet - percentage of lot coverage, 50%)                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 13. No dimensional lot requirements for a zoning ordinance or by-law, including but not limited to setback, front yard, sideyard, rear yard, and open space shall apply to handicapped access ramps on private property used solely for the purpose of facilitating ingress or egress of a physically handicapped person, as defined in Section 13A of Chapter 22 of the General Laws.                                                                                                                                                                            |
| 14. Storage sheds, non-commercial greenhouses, tool sheds or other accessory structure, not in excess of 150 square feet need not be setback more than five (5) feet from the side and rear lot lines, provided that they are for non-commercial purposes and that they are not used for housing of animals.                                                                                                                                                                                                                                                      |
| 15. May be reduced by up to 20% of the requirement by Special Permit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 16. Land space requirements for Elderly Community are governed by Section 9.70 Mobile Home Elderly Community District.                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 17. Refer to Section 15.40, which supercedes other provisions stated herein for only those lands located within an Aquifer Protection District.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 18. This standard is exclusively established under Section 9.632 of these bylaws.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 19. A minimum of 30% of the area of any lot accommodating uses authorized under Section 6.30E.2 shall be preserved as open space as defined in Section 2.25                                                                                                                                                                                                                                                                                                                                                                                                       |
| 20. A portion of any lot containing 20,000 square feet of more shall be maintained as open space as defined in Section 2.25. The minimum percentage of open space within any said lot shall be in accordance with the following schedule: 20-39,999 s.f. - 20%; 40-400,000 s.f. - 25%; over 400,000 - 30%.                                                                                                                                                                                                                                                        |
| 21. The Land Space Requirements shown in the table for the South Business District shall not apply to those lots therein which adjoin and gain their sole means of vehicular access and egress from streets approved under the Subdivision Control Law. In such cases, the lot area and frontage requirements shall be 10,000 square feet and 100 feet respectively. Buildings on said lots shall be located at least 60 feet from any public way, otherwise the front, rear and side yard depth requirements shall be 30 feet, 25 feet and 15 feet respectively. |
| 22. Minimum lot size, frontage and depth requirements may be reduced by means of a special permit from the Planning Board provided the Board determines that any resulting development will not be detrimental to the area and will be consistent with any land use plans and design guidelines adopted by the Board for Central Business District.                                                                                                                                                                                                               |

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**FIGURES 10-2 & 3**

- Eating places with live entertainment should be permitted in the Industrial B district
- Convention Centers should be permitted in Industrial A and B districts

#### **Auto Service and Open Air Drive-in Retail Services:**

- Gas Service Stations allowed by special permit in CBD should have design standards for canopies. They are also allowed in IND A and B resulting in strip development.
- Garden supply stores should be allowed in the Industrial B district.

#### **Industrial Wholesale and Transportation Uses:**

- Wholesale Businesses, trucking and freight terminals, contractor's yards, and mini self-storage are all allowed in the Industrial A and B by right. The result has been a number of these uses in Scotland Industrial Park and on Elm Street where their proximity to residential areas create negative impacts, and where access to Route 24 and Interstate 495 could attract higher quality businesses. These uses should be redirected to the SBD district (with a required buffer) where municipal services are beyond reach and not necessary, land is less valuable, residential populations are less affected, in close proximity to major highways, and where a trend in this type of development is occurring in Middletown, directly south.
- All of these uses (except trucking terminals) are also permitted in the Business B district where land would be better used, and the community better served, by mixed-use retail, office and residential uses.

#### **Other Principal Uses:**

- Livestock is permitted in all districts including CBD with specific setback requirements. This probably should be excluded from the higher density residential neighborhoods where it currently does not exist.
- Home occupations are permitted by right in all districts with specific criteria for employee limits and external changes. More specific standards should be established to encourage home occupations but protect neighboring uses.
- Drive-up windows are allowed by special permit in the CBD. These uses should probably be excluded from the downtown portion of this district, or specific performance standards established to control curb-cuts and placement (preferably behind buildings).

**Planned Developments** – Planned developments are only allowed in the PDD District by special permit. A new ordinance should be developed for commercial, industrial and mixed use planned developments that could apply to other business and industrial districts.

#### **Signs (Section 7)**

**Residential Districts** - Provisions should be made for entry signs into residential subdivisions.

#### **Business and Industrial Districts:**

- In all districts, businesses are permitted two signs on the building which can't be higher than the roof ridge and no more than 100 square feet per sign. These regulations are loose and probably too high for certain districts such as the CBD.
- In all districts, each business may have a free-standing sign where buildings are set back at least 30 feet. Signs can be no higher than 20 feet and not closer than 12 feet from the property line. This requirement lends itself to strip development because the height, square footage and setbacks are geared to automobile traffic. Free-standing signs in business and industrial districts should be no more than 10 feet high and 30 square feet in size. Freestanding sign size, setback and height should be much less in CBD with specific requirements for materials and lighting.
- Provisions should be made for projecting signs, awning signs, and window signs, which are proven to be the most effective and attractive types of signs in downtown areas.

#### **Land Space Requirements (Section 8)**

The requirement in the BB District for a 6-foot contiguous greenbelt on all public ways except for approved curb cuts or approved access and egress ways should be wider. There are several areas within these corridors with open curb-cuts and no landscaping. A minimum of 10 feet should be required with specifications for street tree planting.

#### **Open Space Community Development (9.20)**

This is a cluster residential development bylaw permitting homes separated by permanent open space. The purpose of this bylaw is to "allow greater flexibility in design, preserve open space and farmland, emulate traditional New England rural character, facilitate more cost effective construction of infrastructure, and encourage less sprawl". This type of development is allowed in residential districts by special permit from the Planning Board. It should also be allowed in CBD, SBD and BB as well. This bylaw includes Adult Retirement Village (ARV) developments.

A minimum of 35% of land must be preserved as common open space. It must be contiguous and free of wetland on at least 35% of the land area of the building lots. For example:

- 100 acres parcel
- 35 acres of open land; 65 in building lots (about 130 units)
- 35% of 65 acres is 22.75 acres of non-wetland open space
- 35 acres open space – 22.75 non-wet = 12.25 wetlands.

**Current issues and recommendations:**

- The minimum land requirement is 15 acres in RES A/B and 10 in RES C and D exclusive of wetlands. Well-designed clusters with traditional neighborhood patterns and quality open space can be developed on smaller parcels, particularly when public sewer is connected.
- No greater density is permitted under standard subdivisions except ARV, which is allowed a 25% density bonus. A density bonus should be provided for quality open space (particularly for passive and active recreational uses), connections to public sewer or use of a package treatment plant, and provision of affordable housing.
- The ordinance only allows the types of dwellings permitted in the zoning district. Provision should be made to allow for a greater mix of housing types if greater open space can be saved and affordable housing provided (i.e. condominiums, cooperative housing, and townhouses create more opportunities for moderately priced market rate or affordable housing than single family).
- The lot area per dwelling is 50% of the minimum requirement for the district and does not include wetlands. In residential districts such as Residential A and B this should probably be less as an incentive to providing affordable housing or when public sewer connections are made.
- Shared driveways should be permitted.
- Front yard setbacks should be a minimum of 20 feet rather than 30 feet in order to create cluster or village effect.
- Common open space should not have to be contiguous (smaller pieces of recreational lands should be permitted), and civic and other public uses should be allowed in addition to recreation, conservation, agriculture, utility easements and septic systems, and accessory recreation building.
- The ordinance states that where possible, land along public ways shall be included in open space. More emphasis on this objective is needed to protect scenic roads. Scenic areas and roads where this requirement would apply should be defined.
- The ordinance should provide the opportunity to develop these projects without the need for a special permit. As long as the development achieves the stated goals, the process should be as efficient as possible without excessive review and time so that there is more of an incentive to use this development technique.
- The ordinance should provide for smaller loop lane subdivisions. This design allows for smaller lots to be developed around a common open space. The maximum number of units with reduced lot size would be based on the size of the common area. (See Figure 10-3 for an illustration of loop lane design).

**Motels and Hotels (Section 9.30)**

The ordinance requires significant frontage (200 feet) and setbacks (front, side and rear yards of 50 feet). These are excessive in some of the districts near BSC where a hotel may be feasible and desirable in the future. It is also possible that existing buildings could be converted to hotel uses in these older sections of Town. The minimum dimensional requirements for hotels and motels in the CBD, IB and BB districts should be consistent with other commercial uses permitted in these districts.

**Planned Development District (Section 9.60)**

This section controls development in the planned industrial park southwest of the Route 104/Route 24 interchange. The stated objective is to achieve significant revenue and employment benefit without adverse impacts on neighborhood and natural resources. The general guidelines for project review and development are well thought out.

**Dimensional Requirements** - The dimensional requirements in the PDD District are listed in Table 10-2 above. These are fairly restrictive standards for a relatively small area of Route 24 with excellent economic potential. With water and sewer service available on site, this is a desirable location for higher density and quality development. Excessive dimensional requirements may limit the potential and quality of future development and it is recommended that frontage, floor area ratios, coverage, and lot size requirements be based on individual project needs.

**Permitted Uses** - The PDD District can be considered a “cumulative zoning district” with several uses permitted by right and special permit that are unrelated to the district’s objective of achieving revenue and employment. For example, single-family homes, retail uses, service businesses, and gravel operation may not be compatible or the highest and best use in a district with excellent office park potential. Other uses such as eating places should only be allowed by special permit and as accessory use.

**Mobile Home Elderly Community District (Section 9.70)**

The purpose of this ordinance is to provide for a self-contained community constructed for persons 55 years and over. The Planning Board reviews preliminary plans and the ZBA issues special permits. The ordinance is generally well designed and has worked well where it has been applied. However, the private roadway layout requirements of 40 feet with 28 feet of pavement are excessive especially considering the small lot size. These types of developments would be better served with narrower roads, sidewalks and street trees.

**Site Plan Approval (Section 9.80)**

The Planning Board reviews general site plans. Where uses require a site plan and special permits, the Planning Board reviews the plan under the special permit process but with site plan requirements. Site plan approval is required for most public, commercial and industrial uses, and alterations necessitating six or more additional parking spaces. The design objectives of site plan review are as follows:

- Infrastructure – Minimize impacts on public water and sewer capacity
- Circulation – Safety for pedestrians and vehicles with particular attention on access points
- Surface Water Drainage – No adverse impacts on surrounding properties
- Landscape – Preserve in natural state as much as possible and minimize tree and soil removal
- Building Location – Integrated with existing landscape and terrain
- Special Features – Screening of outdoor storage and service areas
- Safety – Maximize accessibility by emergency personnel and equipment

There are also “Special Design Objectives” that apply to residential, business, and industrial districts, along public roads. They are as follows:

- Building Design – Compliment setback, roofline, openings, color, materials, scale and proportions of existing buildings in the district
- Outside Advertising Features – Permanent signs should not detract from architectural elements

Detailed existing and proposed conditions must be shown on site plans including buildings, structures, drives, parking areas, lighting, natural features (floodplains, wetlands, trees, contours), utility areas, easements, adjoining property and streets, elevations of front and rear facades (sides where no abutting building), and photos. However this section of the bylaw is somewhat vague and should be more specific. Additionally, the level of detail required should be based on the size and potential impact of a given project. (For example, more detail could be required for new or expanded uses of 5,000 square feet or more). Additionally, specific criteria or performance standards for tree preservation, landscaping, circulation, access, and sidewalks, should be incorporated into the site plan review bylaw.

### **Off-Street Parking and Loading Requirements (Section 10)**

These regulations generally work well. However, Bridgewater should consider setting up a fund or system for improving public parking lots in the CBD in lieu of on-site parking. Other revisions for consideration are shared access requirements and use of excess parking space on nearby properties through private agreements.

- The Planning Board with a special permit can reduce parking in the CBD.
- By special permit the Planning Board will permit parking in the CBD to be located on any lot within 500 feet of the principal use.
- In CBD, all new or expanded parking and loading facilities must be located in the rear or side of the principal building. They must be setback the same distance as the principal building or 15 feet whichever is greater. Special permits may be granted for variances to this requirement.
- The Planning Board may require certain pedestrian improvements or traffic improvements as a special permit condition.
- In SBD, parking may be located on adjacent lots if in the district and under site plan approval or majority of all members of the Planning Board.
- CBD District additional requirements:
  - Internal connections, common driveways and shared parking are encouraged where feasible.
  - Public parking within 500 feet of primary use may be used in lieu of on-site parking.
  - Contributions to municipal parking fund can be made in lieu of on-site parking.

The existing parking requirements are low for restaurants (1 space/4 seats) and steep for the following uses:

- Motels and hotels
- Permitted offices in residences (3 spaces + 3/non-resident employee)
- Retail (1 space/200 square feet of gross floor area)

### **Landscaping**

Landscaping requirements are limited in the Bridgewater Zoning Ordinance and Subdivision Regulations. The following recommendations are made for the RES A/B, SBD and IND-A districts:

#### **Plantings in the public r-o-w:**

- All trees should have a have a minimum caliper of 3 inches measured at 4 feet above ground level
- All trees should be limbed up a minimum of 8 feet above ground level
- All trees planted in the public r-o-w should be heat, drought and salt tolerate. Recommended species include Linden, Sycamore, Ginkos, Yellowwood, Honey locus, American elm, and Norway maple.

#### **Private Lots:**

- Existing trees over 6 inches in caliper should not be removed except with Planning Board permission
- The use of native species of trees, shrubs, vines, groundcovers and perennials are encouraged in order to be compatible with existing wildlife habitat
- The use of fruit, berry and nut trees are encouraged in order to contribute to existing wildlife

#### **For CBD:**

- All trees in CBD should be limbed up a minimum of 10 feet above ground level
- All trees planted in the public r-o-w should be heat, drought and salt tolerate. Recommended species include Linden, Sycamore, Ginkos, Yellowwood, Honey locus, American elm, and Norway maple.
- Plantings should respect the integrity of the street, should not obscure buildings, and should allow views to and from streets and sidewalks.

#### **Added Requirement in SBD:**

- In the public r-o-w, all new tree and shrub plantings should be evergreen species to enhance the existing buffer strip along Route 28.

### **Aquifer Protection District (Section 15)**

The purpose of this overlay district is to protect existing municipal groundwater resources, preserve potential groundwater resources, and to assure against pollution and continued availability of this public water supply. The ordinance is well written and effective. The basic provisions are as follows:

- Three zones are established. Zone I is the projective radius around the supply well or well field; Zone II is the area of the aquifer which contributes to the well under the most severe pumping and recharge conditions (180 days with no recharge); III is the area beyond Zone II where surface and groundwater drain into Zone II.

- Prohibited uses include various types of landfills, storage of petroleum and other hazardous products, gasoline service stations, junkyards, non-sanitary waste disposal, snow stockpiling, chemical fertilizer use and storage, earth removal, and stormwater drainage systems serving non-residential lots.
- Uses requiring a special permit include: expansion of non-conforming uses, construction of water control devices, impervious surfaces greater than 2,500 s.f. on lots equal or less than 10,000 s.f., impervious surfaces exceeding allowable amount on lots between 10,000 and 43,560 s.f. (Max. % = 0.5745 (lot area) – 3,244.9), 50% or more impervious surface on lots greater than 43,560 s.f.

### **Historic Commission and Historic District**

The Central Square Historic District extends around Central Square. The District Commission is made up of seven members appointed by the BOS with representation as follows:

- At least 1 resident or property owner in the district
- 1 of the two nominees from the Historical Society
- 1 of the two nominees from the Local Board of Realtors
- 1 of two nominees from the local AIA chapter

No building can be constructed, removed or altered within the district that affects the exterior architectural features without a certificate of appropriateness, non-applicability or hardship from the Commission. Factors to be considered in a decision include:

- Historic and architectural value and significance of the site, building or structure
- The general design, arrangement, texture, material and color of the feature involved
- The relation of such feature to similar features of the building and structures in the surrounding area

The Commission does not consider interior areas or exterior areas not subject to public view. Further, the Commission does not have the authority to review of the following:

- Terraces, walkways, sidewalks and driveways at grade
- Storm doors and windows
- Reconstruction of buildings that are destroyed if within 1 year and exterior design is substantially the same as original structure
- Paint colors that are appropriate
- Signs used for residential or professional of 1 square foot or less and with indirect illumination
- Commercial signs not more than 12 square feet provided that only one sign is used per building or structure; painted letters and materials without trademarks, if illuminated indirectly

Limiting signs to one per structure may be difficult where more than one business occupies a single building, which is common in Central Square

### **Wetlands Protection By-Law (Article XXXIII)**

The purpose of this bylaw is to protect wetlands, related water resources, and adjoining land areas by controlling activities deemed by the Conservation Commission to be likely to have a significant or cumulative effect upon wetland values such as the following: public or private water supplies; groundwater, flood control, erosion, and sedimentation control, storm damage prevention, water pollution control, fisheries, wildlife habitat, recreation, aesthetics, and agricultural values. The Conservation Commission has jurisdiction and requires a Notice of Intent for the following:

- Any lands within 100 feet of wetlands
- Any lands within 100 feet of a river bank, lake, pond or stream
- Any land under water
- Within 100 feet of land subject to flooding or inundation by ground or surface water

A Notice of Intent is not required for certain activities such as facility improvements that do not substantially alter a structure, certain state mandated work, utility services, and where special exemptions are given for normal operation and maintenance of farmlands

### **Suggested Formatting of Land Use Regulation Amendments**

**Typological Coding** - Conventional Zoning often prohibits the types of development most desired by the community. Typological Codes (TC) is more visual and design-driven than conventional zoning. Zoning often dictates density and land use but provides little or no design control. TC, in contrast, specifies what is desired rather than what is prohibited.

TC defines a set of building, street and open space “types” to be used as building blocks to shape a community. A detailed “regulating plan” maps all streets, blocks, and lots, and assigns a building type or types to each lot. Topological coding is actually simpler and more citizen-friendly than conventional zoning.

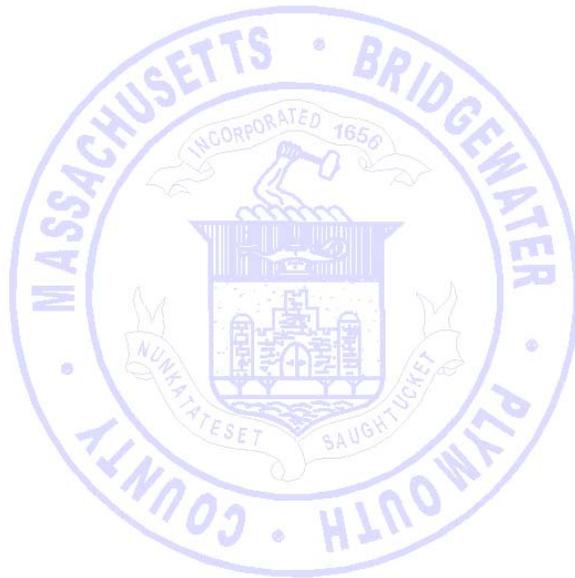
Figure 10-2 illustrates Bridgewater’s existing land use regulations by district in a typological (or graphic) format. Additionally, proposed revisions by district are illustrated in a new typological format with the following general areas:

- **General Specifications** – A matrix of text and detailed illustrations specifying development patterns, uses, and dimensional requirements that are generally rendered in the Master Plan but implemented through the zoning ordinance.
- **Street Types and Parking** - This matrix includes a hierarchy of street cross sections illustrating the desired character of these public spaces. The objective would be to create spaces where pedestrians feel comfortable and safe while providing for adequate vehicular movements. Street section illustrations should clearly define building relationship to the street, width of travel and parking lanes, alignment of trees, and sidewalk widths based on the urban to rural character of the setting.

- 
- Landscaping Requirements - This matrix should illustrate recommended planting specifications for streets, parks, and commercial sites. Diagrams and illustrations include a listing of native or other appropriate species including procedures for installation, size, and placement for use on public and private lands.

**Performance-Based Standards** – This technique regulates the characteristics of uses rather than the uses themselves. Adding performance-based standards for uses in various districts facilitates an appropriate mix of uses, ensures protection against potential negative impacts, and manages growth based on the capacity/expansion potential of local infrastructure. Performance standards are one of the best means of implementing the objectives of the Master Plan by protecting neighborhood character, reducing the impact of new development on municipal infrastructure, and protecting natural resources.

# **TOWN OF BRIDGEWATER**



## **Final Survey Results**

Prepared by:

**Office of Community Development**

*May 2001*

2000 RESIDENT SURVEY  
**MASTER PLAN STUDY COMMITTEE**

**SURVEY SUMMARY**

**OVERVIEW**

In May 2000 residents of the Town of Bridgewater were surveyed to determine their opinions on varied issues facing the town. Specifically, residents were asked to consider issues regarding town services, local economy, growth, Bridgewater State College & Massachusetts Correction Institution-Bridgewater, open space and recreation, housing, traffic and transportation, schools and youth, future concerns as well as town business communications. A sample survey is included in Appendix 1. This data will be used to assist the Master Plan Study Committee in developing a long-range plan.

Supporting tables are presented in Appendix 2. Data from specific questions are included comments as a resource, which can be used to gauge sentiments and determine specific strategies for the formulation of the master plan and other future policy development.

**SAMPLE SIZE AND DATA COLLECTION**

Seven thousand surveys were mailed to the household of Bridgewater residents. A total of 1,559 surveys have been returned. The survey sample return is 22.2%.

| <b>MASTER PLAN SURVEYS</b> | Survey Sample Size | Surveys Distributed | Percent Sample |
|----------------------------|--------------------|---------------------|----------------|
| TOTAL                      | 1559               | 7000                | 22.2%          |

As this report is a Final report of findings, all surveys have been analyzed using a Microsoft Access program designed by Kimberly Williams, the Assistant Community Development Coordinator.

**SUMMARY OF FINDINGS**

Data, which are useful in developing parameters for the updated Master Plan, are summarized below. Other data, which can be used to access the impact of public opinion, are available in summary tables included in Appendix 2 as well as in supporting materials developed during the course of this study.

TOPIC: PERSONAL INFORMATION

**1. HOW MANY YEARS HAVE YOU BEEN A RESIDENT OF BRIDGEWATER?**

There were 1540 responses to this question.

MEDIAN RESIDENCY 14.0 years  
MEAN RESIDENCY 20.9 years

*RANGE*

| <u>Years</u> | <u>Count</u> | <u>Average Residency</u> |
|--------------|--------------|--------------------------|
| 0-5          | 333          | 3.0                      |
| 6-10         | 315          | 7.9                      |
| 11-15        | 186          | 13.2                     |
| 16-20        | 135          | 18.3                     |
| 21-25        | 123          | 23.2                     |
| 26-30        | 114          | 28.3                     |
| 31-35        | 79           | 32.9                     |
| 36-40        | 56           | 38.2                     |
| 41-45        | 45           | 43.4                     |
| 46-50        | 31           | 48.8                     |
| Over 50      | 123          | 66.1                     |

**2. ARE YOU A HOMEOWNER OR A RENTER?**

There were 1546 responses to this question.

| <u>Own/Rent</u> | <u>Count</u> | <u>Percentage of Total</u> |
|-----------------|--------------|----------------------------|
| Homeowner       | 1406         | 91.8%                      |
| Rent            | 140          | 9%                         |

**3. WHAT IS YOUR APPROXIMATE AGE?**

There were 1531 responses to this question.

MEDIAN AGE 50  
MEAN AGE 52.3

*RANGE*

| <u>Ages</u>  | <u>Count</u> | <u>Percentage of Total</u> |
|--------------|--------------|----------------------------|
| 18-30        | 85           | 5.5%                       |
| 31-40        | 383          | 25%                        |
| 41-50        | 431          | 28.15%                     |
| 51-60        | 275          | 17.96%                     |
| 61-70        | 176          | 11.49%                     |
| 71-80        | 129          | 8.43%                      |
| Over 80      | 52           | 3.4%                       |
| <i>Total</i> | 1531         |                            |

**4. ARE YOU MALE OR FEMALE?**

There were 1540 responses to this question.

|        | <u>Count</u> | <u>Percentage of Total</u> |
|--------|--------------|----------------------------|
| Female | 702          | 45.5%                      |
| Male   | 838          | 54.4%                      |

**5. ARE YOU RETIRED?**

There were 1472 responses to this question.

|     | <u>Count</u> | <u>Percentage of Total</u> |
|-----|--------------|----------------------------|
| Yes | 327          | 22.2%                      |
| No  | 1145         | 77.7%                      |

**6. DO YOU WORK IN TOWN?**

There were 1559 responses to this question.

|                     | <u>Count</u> | <u>Percentage of Total</u> |
|---------------------|--------------|----------------------------|
| Yes                 | 245          | 15.7%                      |
| No                  | 980          | 62.8%                      |
| Retired/Do Not Work | 334          | 21.4%                      |
| <i>Total</i>        | 1559         |                            |

**7. IF NOT, APPROXIMATELY HOW FAR DO YOU TRAVEL TO WORK?**

There were 823 responses to this question.

- a. Minimum distance to work                    0 mile(s)
- b. Maximum distance to work                160 mile(s)
- c. Average distance to work                 21.2 mile(s)

**RANGE**

| <u>Miles</u> | <u>Count</u> | <u>Percentage of Total</u> |
|--------------|--------------|----------------------------|
| 0-10         | 255          | 31.0%                      |
| 11-20        | 215          | 26.1%                      |
| 21-30        | 193          | 23.4%                      |
| 31-40        | 114          | 13.8%                      |
| Over 40      | 46           | 5.5%                       |

**8. DO YOU HAVE CHILDREN IN THE BRIDGEWATER PUBLIC SCHOOLS? IF YES, HOW MANY?**

32.1% of respondents indicated that they have children in Bridgewater Public Schools. The following is a tally of the total of their children.

| <u>Number of Children</u> | <u>Count</u> | <u>Subtotals</u> |
|---------------------------|--------------|------------------|
| 1                         | 209          | 209              |
| 2                         | 201          | 402              |
| 3                         | 67           | 201              |
| 4                         | 17           | 68               |
| 5                         | 1            | 5                |
| <i>Total children</i>     |              | <b>885</b>       |

TOPIC: TOWN SERVICES

**9. WHAT TOWN GOVERNMENT AND/OR ADMINISTRATION SERVICES DO YOU BELIEVE NEED TO BE ADDED TO, IMPROVED UPON, OR EXPANDED ON? PLEASE EXPLAIN?**

There were 1559 respondents that choose the following departments. Respondents were allowed to make one or more selections.

\*Total Votes - represents the number of times the offices were chosen.

\*Percent - represents the percentage of votes received from total possible votes of 1559.

|                         | <u>Total<br/>Votes</u> | <u>Percentage<br/>Of Total</u> |
|-------------------------|------------------------|--------------------------------|
| Assessor's Office       | 43                     | 2.76%                          |
| Board of Health         | 86                     | 5.52%                          |
| Board of Selectmen      | 136                    | 8.7%                           |
| Clerk's Office          | 24                     | 1.54%                          |
| Conservation Commission | 230                    | 14.75%                         |
| Elderly Services        | 128                    | 8.21%                          |
| Fire Dept.              | 271                    | 17.38%                         |
| Highway Dept.           | 160                    | 10.26%                         |
| Inspection Dept.        | 58                     | 3.72%                          |
| Library                 | 114                    | 7.31%                          |
| Planning Board          | 186                    | 11.93%                         |
| Police Dept.            | 250                    | 16.03%                         |
| Recreation Commission   | 163                    | 10.45%                         |
| Schools                 | 351                    | 22.51%                         |
| Tax Collector's Office  | 24                     | 1.54%                          |
| Veteran's Affairs       | 53                     | 3.4%                           |
| Water & Sewer Dept.     | 254                    | 16.3%                          |
| No Opinion              | 389                    | 24.95%                         |
| Other Services*         | 31                     |                                |

TOPIC: ECONOMY

**10. DO YOU DO MOST OF YOUR SHOPPING IN TOWN? IF NO, WHERE?**

Of the 1559 responses to this question:

- 49.6% of respondents do most of their shopping in Bridgewater
- 46.9% do not do most of their shopping in Bridgewater
- 3.3% did not answer

The actual breakdown is as follows:

|            | <u>Count</u> |
|------------|--------------|
| Yes        | 774          |
| No         | 732          |
| No Opinion | 53           |

**WHERE DO YOU SHOP**

669 people responded to this question. Respondents indicated that most shopping was done in the following four locations:

1. Raynham/Route 44
2. Taunton/Silver City Galleria
3. Brockton/Westgate Mall
4. Braintree/South Shore Mall

Also mentioned were the surrounding towns of West Bridgewater, East Bridgewater, Halifax and Middleboro.

**11. APPROXIMATELY, WHAT PERCENTAGE OF YOUR SHOPPING DO YOU DO IN BRIDGEWATER?**

Of the 1496 responses to the questions:

- 47.5% of respondents did less than half of their shopping in town
- 44% of respondents half or more of their shopping in town
- 3.7% did not indicate a percentage of shopping done in or out of town
- 4% did not answer the question (63)

The actual responses are as follows:

| <u>Shopping Amount</u> | <u>Total Count</u> |
|------------------------|--------------------|
| 0%                     | 3                  |
| 5%                     | 6                  |
| 10%                    | 24                 |
| 20%                    | 382                |
| 30%                    | 2                  |
| 40%                    | 325                |
| 50%                    | 9                  |
| 60%                    | 362                |
| 70%                    | 3                  |
| 80%                    | 310                |
| 90%                    | 6                  |
| 95%                    | 1                  |
| 100%                   | 5                  |
| Other                  | 58                 |

**WHAT TYPE OF SHOPPING DO YOU DO ELSEWHERE**

1370 people responded to this question. Respondents indicated the following as the most popular shopping items they purchase out of town:

1. Clothing
2. Household/Home Improvement & Appliances
3. Food
4. Department Store/General Merchandise

Respondents also indicated that they shop out of Bridgewater for additional items including entertainment, gifts, cars, and garden supplies.

**12. WHAT TYPE OF BUSINESS, IF ANY, WOULD YOU LIKE ENCOURAGED IN BRIDGEWATER?**

1199 people responded to this question. Respondents indicated the following as the businesses they would most like to see encouraged in the Town of Bridgewater.

1. Retail
2. Business/Commercial
3. Light Manufacturing including software, hi-tech and R&D
4. No more business should be encouraged.

**13. WHAT TYPE OF BUSINESS, IF ANY, WOULD YOU LIKE DISCOURAGED IN BRIDGEWATER?**

1079 people responded to this question. Respondents indicated the following as the businesses that they would most like to see discouraged in the Town of Bridgewater.

1. Fast Food (pizza, subs, etc.) including chains and franchises
2. Bars, Liquor Stores, Nightclubs
3. Retail and Manufacturing
4. Adult Entertainment and Pornography

**14. WOULD YOU BE IN SUPPORT OF A DIFFERENT TAX RATE FOR RESIDENTIAL PROPERTY VS. BUSINESS/COMMERCIAL PROPERTY?**

Of the 1559 responses to this question:

- 62% would support of a differing tax rate for residential vs. commercial property
- 17.1% would not support of a differing tax rate for residential vs. commercial property
- 20.8% had no opinion on this matter

The actual breakdown is as follows:

|            | <u>Count</u> |
|------------|--------------|
| Yes        | 967          |
| No         | 267          |
| No Opinion | 325          |

**15. IN WHAT AREAS OF TOWN WOULD LIKE TO SEE/NOT SEE FUTURE COMMERCIAL GROWTH AND/OR BUSINESS DEVELOPMENT?**

See Appendix 2 for full text.

TOPIC: GROWTH

**16. WHAT IS YOUR OPINION ON THE RATE OF RESIDENTIAL GROWTH IN BRIDGEWATER?**

There were 1531 responses to this question.

|                                 | <u>Actual</u> | <u>Percentage<br/>Of Total</u> |
|---------------------------------|---------------|--------------------------------|
| Growing at about the right rate | 197           | 12.8%                          |
| Growing too rapidly             | 1278          | 83.4%                          |
| No Opinion                      | 47            | 3.0%                           |
| Not growing fast enough         | 8             | < 1.0%                         |

**17. WOULD YOU SUPPORT AN INITIATIVE, WHICH WOULD SLOW AND/OR PHASE GROWTH FOR RESIDENTIAL BUILDING FOR A DEFINED PERIOD OF YEARS?**

Of the 1472 responses to this question:

89.2% support a phased growth initiative

10.7% do not support a phased growth initiative

Actual totals are as follows:

|     |      |
|-----|------|
| Yes | 1314 |
| No  | 158  |

**18. WHAT IS YOUR OPINION ON THE RATE OF COMMERCIAL GROWTH IN BRIDGEWATER?**

There were 1495 responses to this question.

|                           | <u>Actual</u> | <u>Percentage<br/>Of Total</u> |
|---------------------------|---------------|--------------------------------|
| Growing at the right rate | 550           | 36.7%                          |
| Growing too rapidly       | 340           | 22.7%                          |
| No opinion                | 128           | 8.5%                           |
| Not growing fast enough   | 477           | 31.9%                          |

TOPIC: BSC & MCI

**19. DO YOU FEEL THAT THE STATE COLLEGE HAS A POSITIVE, NEGATIVE OR NO IMPACT ON BRIDGEWATER?**

Of the 1559 responses to this question:

- 63% Feel the State College has a positive impact
- 13.9% Feel the State College has a negative impact
- 4.5% Feel the State College has had no impact
- 18.4% Did not offer an opinion

Actual totals are as follows:

|            |     |
|------------|-----|
| Positive   | 983 |
| Negative   | 217 |
| No Impact  | 71  |
| No Opinion | 288 |

**20. DO YOU FEEL THAT THE MASSACHUSETTS STATE CORRECTIONAL FACILITY HAS A POSITIVE, NEGATIVE OR NO IMPACT ON BRIDGEWATER?**

Of the 1559 responses to this question:

- 22.0% Feel that MCI has a positive impact
- 18.4% Feel that MCI has a negative impact
- 34.4% Feel that MCI has had no impact
- 25% Did not offer an opinion

Actual totals are as follows:

|            |     |
|------------|-----|
| Positive   | 343 |
| Negative   | 288 |
| No Impact  | 537 |
| No Opinion | 391 |

**21. DO YOU HAVE ANY RECOMMENDATIONS OR COMMENTS REGARDING BSC AND/OR MCI?**

See Appendix 3 for full text.

TOPIC: OPEN SPACE & RECREATION

**22. DOES BRIDGEWATER NEED ADDITIONAL OPEN SPACE?**

Of the 1559 responses to the question:

- 74.9% of respondents agree that additional open space is needed
- 16.3% of respondents do not agree that additional open space is needed
- 8.6% did not have an opinion on the matter

Actual totals are as follows:

|            |      |
|------------|------|
| Yes        | 1169 |
| No         | 255  |
| No Opinion | 135  |

**23. DOES BRIDGEWATER NEED ADDITIONAL RECREATIONAL FACILITIES?**

Of the 1559 responses to the question:

- 59.7% of respondents agree that additional recreational facilities are needed
- 30.5% of respondents do not agree that additional recreational facilities are needed
- 9.6% did not have an opinion on the matter

Actual totals are as follows:

|            |     |
|------------|-----|
| Yes        | 932 |
| No         | 477 |
| No Opinion | 150 |

**24. IF YES, SHOULD TAX DOLLARS BE SPENT TO ACQUIRE LANDS FOR THESE AREAS?**

Of the 1559 responses to the question:

- 62.4% of respondents support using tax dollars to acquire these lands
- 18.6% of respondents do not support using tax dollars to acquire these lands
- 18.9% did not have an opinion on the matter

Actual totals are as follows:

|            |     |
|------------|-----|
| Yes        | 974 |
| No         | 290 |
| No Opinion | 295 |

**25. SHOULD BRIDGEWATER WORK TO PROTECT OPEN SPACE FROM DEVELOPMENT?**

Of the 1559 responses to the question:

- 85.3% of respondents said yes
- 7.9% of respondents said no
- 6.7% did not have an opinion on the matter

Actual totals are as follows:

|            |      |
|------------|------|
| Yes        | 1330 |
| No         | 124  |
| No Opinion | 105  |

**26. IF YES, (BRIDGEWATER SHOULD WORK TO PROTECT OPEN SPACE FROM DEVELOPMENT),  
EVEN IF IT INCLUDES AN ADDED COST TO THE TOWN?**

Of the 1559 responses to the question:

69.7% of respondents agree to protect open space from development even if it includes an added cost to the town

11.0% of respondents do not support protecting open space from development if it includes an added cost to the town

19.2% did not have an opinion on the matter

Actual totals are as follows:

|            |      |
|------------|------|
| Yes        | 1087 |
| No         | 172  |
| No Opinion | 300  |

TOPIC: HOUSING

**27. WHAT GROUP OF PEOPLE ARE MOST IN NEED OF HOUSING IN BRIDGEWATER?**

There were 1559 respondents that choose from the following groups. Respondents were allowed to make one or more selections.

\*Total Votes - represents the number of times the groups were chosen.

\*Percent - represents the percentage of votes received from total possible votes of 761.

|                           | <u>Total<br/>Votes</u> | <u>Percent</u> |
|---------------------------|------------------------|----------------|
| Singles/Apartment dweller | 215                    | 13.7%          |
| First Time Homebuyers     | 458                    | 29.3%          |
| Families                  | 385                    | 24.6%          |
| Special Needs             | 152                    | 9.7%           |
| Affordable for Families   | 253                    | 16.2%          |
| Empty Nesters             | 133                    | 8.5%           |
| Elderly                   | 390                    | 25.0%          |
| Other*                    |                        |                |

\* Respondents took the opportunity to voice their opinion on groups and/or housing types that should and should not be included in the evaluation. A complete listing can be found in Appendix 3.

**28. DO YOU FEEL THE TOWN SHOULD FINANCIALLY SUPPORT AFFORDABLE HOUSING PROGRAMS?**

Of the 1559 responses to the question:

- 18% of respondents believe the town should financially support affordable housing program
- 53.8% of respondents do not believe the town should financially support program
- 28.1% did not have an opinion on the matter

Actual totals are as follows:

|            |     |
|------------|-----|
| Yes        | 281 |
| No         | 839 |
| No Opinion | 439 |

**29. WOULD YOU LIKE TO SEE MORE OPPORTUNITIES FOR IN-HOME OCCUPATIONS?**

Of the 1559 responses to the question:

- 37.2% of respondents would like to see more opportunities for in-home occupations
- 14.6% of respondents would not like to see more opportunities for in-home occupations
- 48.1% did not have an opinion on the matter

Actual totals are as follows:

|            |     |
|------------|-----|
| Yes        | 580 |
| No         | 229 |
| No Opinion | 750 |

**30. DO YOU FEEL THE FOLLOWING HOUSING TYPES NEEDED IN BRIDGEWATER?**

There were 1559 respondents that choose from the following groups. Respondents were allowed to make one or more selections.

- \*Total Votes - represents the number of times the groups were chosen.
- \*Percent - represents the percentage of votes received from total possible votes of 1559.

|                           | <u>Yes</u> | <u>No</u> | <u>No Opinion</u> |
|---------------------------|------------|-----------|-------------------|
| Rental Properties         | 20.2%      | 49.9%     | 29.8%             |
| Accessory/In-law Apts.    | 32.2%      | 28.8%     | 38.9%             |
| Mobile homes units        | 7.3%       | 70.4%     | 22.1%             |
| Planned/Condo units       | 18.7%      | 52%       | 29.1%             |
| Residential Clusters      | 18.2%      | 53.8%     | 27.9%             |
| Multi-Family              | 9.9%       | 61.5%     | 28.4%             |
| Adult Retirement Villages | 39.9%      | 34.3%     | 25.7%             |

Actual totals are as follows:

|                           | <u>Yes</u> | <u>No</u> | <u>No Opinion</u> |
|---------------------------|------------|-----------|-------------------|
| Rental Properties         | 315        | 779       | 465               |
| Accessory/In-law Apts.    | 502        | 450       | 607               |
| Mobile homes units        | 114        | 1099      | 346               |
| Planned/Condo units       | 293        | 811       | 455               |
| Residential Clusters      | 284        | 840       | 435               |
| Multi-Family              | 155        | 960       | 444               |
| Adult Retirement Villages | 623        | 535       | 401               |

TOPIC: TRAFFIC & TRANSPORTATION

**31. IN YOUR OPINION, WHAT AND WHERE ARE THE MAJOR TRAFFIC PROBLEMS IN BRIDGEWATER?**

1167 of those surveyed responded to this question. The areas most often mentioned:

1. Rte. 18 and High St.
2. Pleasant and South St.
3. Central Square
4. Winter St. and Rte. 18

**32. LIST THE MAJOR ROADS IN BRIDGEWATER, IF ANY, WHICH YOU FEEL ARE INADEQUATE TO SERVE EXISTING TRAFFIC?**

829 of those surveyed responded to this question. The roads most often mentioned:

1. ROUTE 104
2. ROUTE 18
3. CENTRAL SQUARE/TOWN CENTER

**33. LIST THE THREE (3) MAJOR INTERSECTIONS, WHICH YOU FEEL NEED THE MOST IMPROVEMENT IN BRIDGEWATER?**

1. South St. and Rte. 104
2. Central Square
3. Winter St. and Rt. 18

**34. DO YOU FEEL THERE IS ENOUGH PARKING IN DOWNTOWN AREA?**

Of the 1559 responses to the question:

- 33% of respondents agree that there is enough parking in downtown area
- 55.9% of respondents do not agree that there is enough parking in downtown area
- 11% did not have an opinion on the matter

Actual totals are as follows:

|            |     |
|------------|-----|
| Yes        | 515 |
| No         | 872 |
| No Opinion | 172 |

**35. DO YOU USE THE USE COMMUTER RAIL?**

Of the 1559 responses to the question:

- 28.2% of respondents use the commuter rail service
- 63.5% of respondents do not use the commuter rail service
- 8.2% did not answer

Actual totals are as follows:

|            |     |
|------------|-----|
| Yes        | 441 |
| No         | 990 |
| No Opinion | 128 |

**36. IF YES, HOW OFTEN?**

Of those that indicated that they use the commuter rail service, 274 respondents also indicated their usage. The following indicates the frequency of usage:

| <u>Usage</u>         | <u>Actual Count</u> | <u>Percentage Of Total</u> |
|----------------------|---------------------|----------------------------|
| 1-3/week             | 113                 | 41.2%                      |
| 3 or more/week       | 113                 | 41.5%                      |
| Once a month         | 12                  | 4.3%                       |
| Less than once month | 2                   | <1.0%                      |
| Occasionally         | 23                  | 8.3%                       |
| Rarely               | 8                   | 2.9%                       |
| Semi-annually        | 3                   | <1.0%                      |

TOPIC: SCHOOLS & YOUTH

**37. LIST THE THREE (3) MAJOR SCHOOL CONCERNS YOU HAVE ABOUT THE SCHOOL SYSTEM IN BRIDGEWATER?**

Of the 868 responses to this question, the following were the top three answers

1. STUDENT POPULATION GROWTH/LARGE CLASS SIZES
2. TEACHERS: QUALITY and RETENTION OF GOOD TEACHERS
3. TEACHERS: LACK OF NEW STAFF TO COVER GROWTH

Other concerns included the safety and maintenance of buildings and students; as well as the inadequacy of the school's technological curriculum and equipment.

**38. IF YOU HAVE CHILDREN IN BRIDGEWATER'S SCHOOL SYSTEM, DO YOU FEEL YOUR CHILD'S CLASSROOM IS:**

|                      | <u>Actual</u> | <u>Percent</u> |
|----------------------|---------------|----------------|
| Overcrowded          | 436           | 27.9%          |
| About the right size | 124           | 7.9%           |
| Too Small            | 0             | 0.0%           |
| No Opinion           | 999           | 64%            |
| Total responses      | 1559          |                |

**39. DOES BRIDGEWATER NEED A YOUTH CENTER?**

Of the 1559 responses to the question:

- 62% of responses indicate a youth center is needed
- 18.8% of responses indicate a youth center is not needed
- 19.1% did not have an opinion on the matter

Actual totals are as follows:

|            |     |
|------------|-----|
| Yes        | 967 |
| No         | 294 |
| No Opinion | 298 |

**40. IF YES, WOULD YOU SUPPORT USING TAX DOLLARS TO BUILD ONE?**

Of the 1559 responses to the question:

- 53.1% of respondents support using tax dollars to build one
- 16.9% of respondents do not support using tax dollars to build one
- 29.8% did not have an opinion on the matter

Actual totals are as follows:

|            |     |
|------------|-----|
| Yes        | 828 |
| No         | 265 |
| No Opinion | 466 |

**41. IF YES, IN YOUR OPINION WHERE SHOULD THE YOUTH CENTER BE LOCATED?**

Respondents offered 677 suggestions for the youth center location included the following:

1. 45.6% recommended a location that was centrally located near town center or along Route 18.
2. 17.7% recommended a location on school grounds, possibly the middle or high school.

TOPIC: FUTURE CONCERNS

**42. WHAT DO YOU THINK ARE THE THREE (3) MOST SERIOUS ISSUE FACING BRIDGEWATER IN THE NEXT FIVE (5) YEARS?**

Of the 1559 responses, the following were the top three answers:

1. OVERBUILDING & POPULATION GROWTH
2. WATER & SEWER
3. TRAFFIC

**43. IS THERE ANYTHING IN PARTICULAR YOU WOULD LIKE TO SEE MAINTAINED IN BRIDGEWATER?**

Of the 862 responses, the following were the top two answers:

- The "small town" atmosphere
- The Center of Town, common old shops and buildings which add charm and character

**44. IS THERE ANYTHING YOU WOULD LIKE TO SEE ENHANCED/EXPANDED ON IN BRIDGEWATER?**

Of the 766 responses, the following were the top two answers:

- Parks and recreation
- Water & sewer

**45. IS THERE ANYTHING YOU WOULD LIKE TO SEE ELIMINATED/DISCONTINUED IN BRIDGEWATER?**

Of the 535 responses, the following were the top three answers:

- Growth and home building
- Fast food restaurant and bar expansions
- Mobile Home building

TOPIC: COMMUNICATIONS

**46. HOW DO YOU GET INFORMATION ABOUT ISSUES GOING ON IN BRIDGEWATER?**

There were 1559 respondents that choose from the following groups. Respondents were allowed to make one or more selections.

\*Total Votes - represents the number of times the groups were chosen.

\*Percent - represents the percentage of votes received from total possible votes of 1559.

|                 | <u>Total Votes</u> | <u>Percentage Of Total</u> |
|-----------------|--------------------|----------------------------|
| The Independent | 369                | 23.7%                      |
| The Enterprise  | 1107               | 71.0%                      |
| Cable           | 685                | 43.9%                      |
| Public Posting  | 207                | 13.2%                      |
| Town Web Page   | 85                 | 5.4%                       |
| Word of Mouth   | 979                | 62.7%                      |
| Other Source*   | 51                 | 3.2%                       |

\* Note individuals may have chosen more than one category

**47. DO YOU HAVE ANY RECOMMENDATIONS TO FACILITATE COMMUNICATION WITHIN THE TOWN?**

- Mail notices (regular or via e-mail) to residents or post them on cable
- Improve usage of physical town and internet bulletin boards
- Garner better, more informative coverage in newspaper or distribute a town-wide newsletter.

