

Trapelo Road and East Belmont Street: A Corridor Study in Belmont, Massachusetts



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Department of Urban Studies and Planning
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Preface

This report, commissioned by the Belmont Citizens Forum in the fall of 2004, represents a semester of study by a group of twenty-seven graduate students in city planning and real estate development at the Massachusetts Institute of Technology. It is our hope that the new ideas and options presented in this document will serve as a catalyst for change in the town and as an inspiration to the citizens of Belmont to rise to the challenge of re-imagining this key community corridor.

In approaching this project, we were fortunate to have a wealth of material to build on, including strong reports from the Cecil Group, the Vision 21 Committee, and the work of the Belmont Citizens Forum. We want to acknowledge the many innovative ideas and proposals that these plans laid out for the Trapelo Road/East Belmont Street Corridor; it is our intention that our plan complement and extend these ideas, not supplant them.

The residents, business owners, and employees of the Corridor played a key role in our work, as well; without their insights and reflections on life along Trapelo Road and East Belmont Street, we would not have been able to move forward with our work. We hope that all of the stakeholders along the Corridor will remain engaged in the process of change in the months to come, and that their voices will continue to be heard.

Many of our findings and proposals reflect our diverse, interdisciplinary methodologies: because each member of the studio brought a distinct set of skills to the class, our analysis was multi-faceted and drew from a number of different planning disciplines. What began as a transportation study of a corridor ultimately grew into a holistic exploration of a community.

Finally, we have attempted, where possible, to include in each of our proposals a clear outline of the process necessary to achieve the end goals. We hope that these “next steps” can help to define the development process along the Corridor in the coming years.

We recognize that as students, we will soon be moving on to other projects and new places. However, our class is only one player among many, and we have great faith that the citizens of Belmont will be able to pick up where we and others have left off to see many of these changes through to fruition.



Belmont and surrounding towns

Our Process:

In order to facilitate our initial investigations, we divided the Trapelo Road/East Belmont Street corridor into three sections: Waverley Square and Central Square/Beech Street; Cushing Square and Palfrey Square; and Harvard Lawn. The class first addressed geographical areas but as our observations and analysis progressed, it became clear to us that many of the issues we encountered within our areas were in fact shared throughout the corridor. As a result, we decided to organize our report around six central themes: streetscape, zoning, transportation, parking, economic development, and open space. The themes were selected based both on the recommendations of our client, the Belmont Citizen's Forum, and our own observations and research. Despite the corridor-wide nature of these issues, however, each geographical area maintains a nuanced identity that reflects each problem in its own way. Each chapter features subsections outlining how the themes are represented in the geographical areas.

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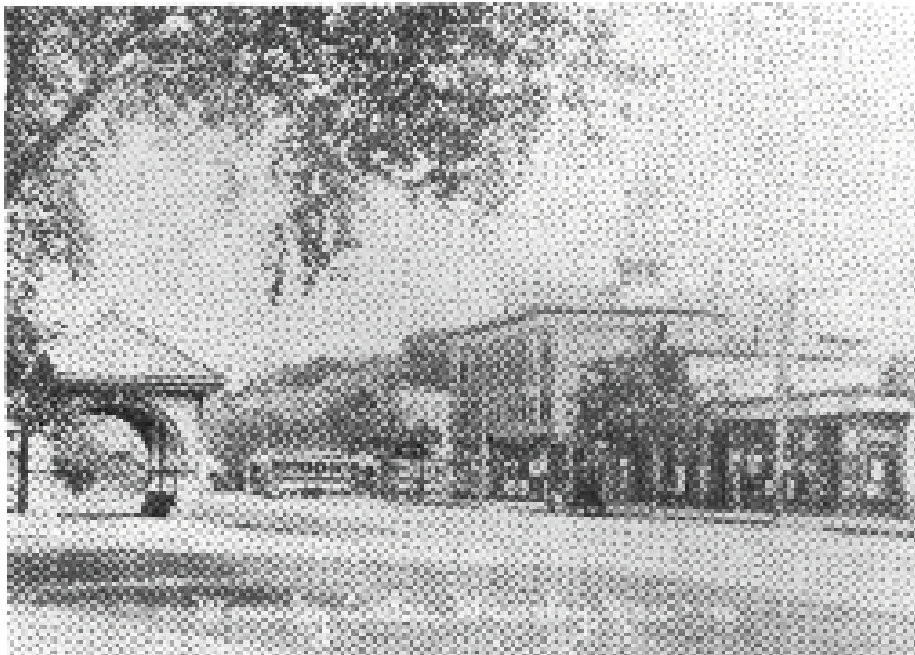
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Executive Summary

The Trapelo Road/East Belmont Street Corridor runs for just over two miles through the Town of Belmont, Massachusetts, connecting the community to the neighboring towns of Cambridge, Watertown, and Waltham. As a commuter corridor, the road links Belmont to the Greater Boston metropolitan region and brings thousands of drivers from the western suburbs through the community each day; as a local main street, the Corridor is home to several of Belmont's commercial nodes, providing shopping and services to nearby residents.

Historically, trolleys ran along Trapelo Road and East Belmont Street, connecting the residents of the Harvard Lawn area and Cushing, Palfrey, Central, and Waverley Squares to the City of Boston. However, by the 1950s, the automobile had emerged as the dominant mode of transportation and the trolley tracks were paved over, creating a wide expanse of roadway with no clearly defined lanes or streetscape. Auto-oriented uses along the Corridor multiplied, and local residents became less reliant on the local businesses.



Today, the Trapelo Road/East Belmont Street Corridor struggles for clear definition and identity. In analyzing the existing conditions and proposing potential solutions for the Corridor, we explored changes in a number of key areas: streetscape, zoning and development, transportation, parking, economic development, and open space. We firmly believe that the implementation of new strategies in each of these areas can enhance the vitality of the Corridor and lay the groundwork for a flourishing future.

Guiding Principles

We imagine a corridor with attractive gateways into the Town of Belmont on either end linked by a healthy mix of commercial nodes, residential stretches, and green spaces. Many of our recommendations center around a concept called smart growth, an emerging statewide and nationwide model for development. For Belmont, smart growth means:

- 1) Growing strategically without adding significantly more traffic by making public transportation more accessible and available and by growing so that people can live within walking distance of shopping, play, and work;
- 2) Adding housing and supporting retail while preserving and promoting open spaces and green space and leveraging existing infrastructure; and
- 3) Providing diverse housing options so that all generations can live comfortably and affordably in Belmont.

The principles guiding our specific recommendations in each of the six focus areas follow.

Streetscape



Create a more comfortable and pleasant experience for all who use the road.

Traffic calming measures, bump-outs, and well-placed, textured crosswalks can make the Trapelo Road/East Belmont Street Corridor safer for all who use it. We believe that this goal can be accomplished without sacrificing capacity along the road, and will create a more welcoming space for shoppers, employees, and residents alike.

Establish a greater sense of place.

Creating a sense of place along the Corridor through measures such as increased signage, wayfinding, neighborhood-specific design guidelines, and public art can enhance the experiences of both pedestrians and drivers as they travel along the road.

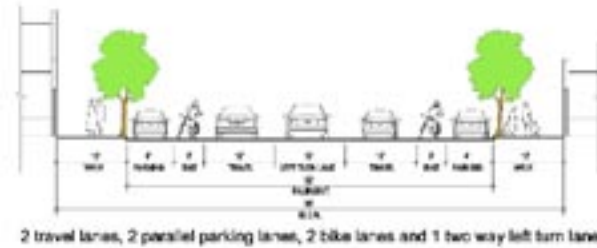
Zoning and Development



Encourage mixed-use development in town squares to provide more diverse housing options and enhance the streetscape. Incentives to promote mixed-use development along the Trapelo Road/East Belmont Street Corridor can create new markets for the small local businesses along the Corridor while increasing evening activity in the area. Moreover, new development can provide housing options for underserved Belmont residents, such as young adults and senior citizens.

Protect historic buildings and promote development that is consistent with the existing neighborhood character and scale. Innovative approaches to zoning regulations can help to preserve the historic character of many of the commercial nodes along the Corridor. The adoption of a Church Reuse District, for instance, would enable Belmont to retain some control over the future of several church properties that will be developed in the coming months.

Transportation



Improve safety for all road users. In its current state, the Trapelo Road/East Belmont Street Corridor is essentially an unmarked arterial road with narrow sidewalks and dangerous intersections. We propose strategies such as clear lane markings, texture paving, median islands,

and raised crosswalks to alleviate some of the safety concerns and reduce traffic speed while maintaining the street's capacity and increasing the level of service.

Encourage the use of public transit. The Corridor is fortunate to have an MBTA bus route that frequently runs the length of the road, with additional bus and rail service at Waverley Square to connect the area to Boston and other nearby communities. We propose adopting strategies that will encourage new and existing development to capitalize on this resource, thereby enhancing the business environment and reducing the automobile traffic and need for parking along the road.

Parking



Ensure that Belmont's parking regulations and requirements support new development and streetscape improvements. While there is not an overall parking shortage along the Trapelo Road/East Belmont Street Corridor, there is a "parking problem" caused by uneven distribution of parking and regulations that limit the use of existing spaces. Innovative parking strategies like an employee parking permit program, residential overnight parking in select areas, clear demarcation of existing

parking spots, and changes to current regulations and zoning can pave the way for more efficient use of the existing parking along the Corridor and development of new parking options that will complement the character of the Corridor.

Economic Development



Create a town economic development committee, an economic development director, and a long-term vision to guide economic development in Belmont.

Establishing a town infrastructure to support local businesses as they locate and operate in Belmont can contribute to the economic vitality of the Corridor by adding much-needed support for business owners. Attracting new businesses to the Corridor can also help to generate additional tax revenues and create financially-healthy

commercial nodes along the road. Finally, a well-planned strategy for commercial revitalization in concert with creative strategies for financing economic development initiatives can build a business-friendly community while preserving the small-town neighborhood atmosphere that so many Belmont residents value highly.

Open Space

Create visual connections to existing green spaces. The Trapelo Road/East Belmont Street Corridor already features a number of unique public green spaces, from the Grove Street playground to Pequosette Park to Beaver Brook Reservation.



However, many of these assets are hidden from drivers and pedestrians along the Corridor, and—with the exception of a sprinkling of street trees and stretches of

residential yards—natural resources along the road itself are virtually nonexistent. We propose reconnecting many of the hidden parks to the Corridor itself.

Improve accessibility of parks and program park spaces to accommodate a range of users. Existing parks and playgrounds cater to very specific subsets of Belmont residents. Reprogramming these spaces with additional recreational and passive uses to make them appealing to a broader group will accentuate their presence along the Corridor.

The Trapelo Road/East Belmont Street Corridor already offers its residents and business owners a variety of benefits that make this area a pleasant place to live, work, and commute. Through implementation of recommendations that build upon these principals and upon existing strengths, Belmont will be able to ensure that the Corridor continues to enhance the quality of life for local residents in the years to come.



Harvard Lawn Vision

Harvard Lawn is poised to become Belmont's next great neighborhood. Proximity to green spaces and natural resources, direct bus service to Harvard Square, and a number of local services and family businesses make this one of Belmont's most diverse and exciting areas.

As visitors enter Belmont from Cambridge, an attractive streetscape, appropriate building proportions, and a visible and unique "Welcome to Belmont" sign will signal arrival to the town and invite visitors to slow down and shop. Between the town line and Grove Street, where traffic flow is relatively light, we envision a walkable residential neighborhood with spacious sidewalks, street trees, on-street parking, and a grassy median. This pedestrian-friendly environment would encourage nearby residents to shop at existing stores such as the bakery and dry cleaner. Zoning changes that encourage new multi-family housing could help to partially finance street improvements and to create a vibrant residential neighborhood.

At the Grove Street and School Street intersections, automobile and pedestrian traffic will be better balanced to ensure safety for all. New traffic islands and highly visible crosswalks will improve usability, provide pedestrians with refuge, and guide turning vehicles. New bus stops at Grove Street and other key intersections will provide shelter for the many users of public transportation.

The commercial center of Harvard Lawn will be located between School Street and Falmouth Street. In order to support and build upon the existing vitality of this area, revised zoning will encourage mixed-use development with residential apartments above ground floor commercial uses at the School Street commercial node. A well-designed three-lane road configuration will provide ample capacity for future traffic volumes and space for wider sidewalks along the retail strip. Street trees, benches, trash cans and bicycle parking will invite shoppers to stroll and linger.

The single-family residential neighborhood located between School Street and the junction of East Belmont Street and Trapelo Road will be complemented by thoughtful redevelopment of the Our Lady of Mercy Church properties. Traffic in this area, the heaviest of anywhere along the Corridor, will move more smoothly with a formalized four-lane traffic configuration.

Reinvestment and improvements in the Harvard Lawn neighborhood will benefit local residents, shoppers, and businesses while ultimately creating a gateway to the Town of Belmont that better reflects its true community character. Incremental changes that build on the neighborhood's existing strengths and are well-coordinated with improvements to other areas of the Trapelo Road/East Belmont Street Corridor will strengthen the economic viability of the commercial districts and the quality of life for residents.



Cushing and Palfrey Vision

The Cushing Square area is already a vibrant retail and residential community, and nearby Palfrey Square is rich in green space and developable parcels. This stretch of the Corridor is skirted by quiet residential streetscapes that are already well-integrated into the community. We envision a future for this area that will preserve its unique characteristics while developing its role as a unique connection between the gateway to Belmont and the Waverley Square commercial district.

Changes to this area will create an attractive street with vibrant and distinct commercial centers separated by residential areas with single- and multi-family houses. In Cushing, a pedestrian-friendly shopping area with added retail, residential and office uses will complement the existing stores and homes. Development of two- to three-story mixed-use buildings on the sites of the old CVS and the existing municipal parking lot will provide opportunities for larger retail spaces and multi-family units.

Also in Cushing, a new decked parking garage will provide much-needed parking spots for both shoppers and employees. Adaptive reuse of buildings such as the one-story retail complex across from the municipal lot for housing will enhance the street by creating a more residential character in keeping with the neighborhoods between Cushing and Palfrey Squares, which will be preserved in their existing states.

Our vision for Palfrey Square entails a revitalized streetscape with new multi-family housing and several new retail spaces. New development will open onto Trapelo Road with parking in the rear, and will feature expanded sidewalks to provide better access to the area for pedestrians. The concentration of commercial activity in this area will also prevent development from spilling off of Trapelo Road onto the adjacent residential streets and will accentuate the distinct identity of the area's commercial nodes.

One of the Corridor's strongest assets, Pequotsette Park, will be redesigned to better serve the needs of the Belmont community. A new gateway to the park will draw pedestrians into the space as they walk along the Corridor past the VFW building, which will be preserved and integrated into the park design.

With stronger ties to green space and newly-revitalized commercial nodes, the Cushing/Palfrey community will become a more vibrant place to live, work, and shop. As changes along the Corridor enhance the experiences of pedestrians and drivers throughout the region, Cushing and Palfrey Squares will serve as strong pulls to bring visitors and residents alike into the town to enjoy all that Belmont has to offer.



Waverley Vision

Historically, Waverley Square served as a transit depot for the trolley that ran down Trapelo Road. Today, Waverley Square is still a unique transit node. It is the only square located along the Trapelo Road/East Belmont Street Corridor that is accessible by both commuter rail and bus. However, Waverley Square's auto-oriented design and land uses with parking lots and wide streets make the area unwelcoming for residents and shoppers entering the area by foot or rail. Speeding vehicular traffic makes the neighborhood unsafe for pedestrians and senior citizens living in the area, while the lack of amenities like commuter rail parking and wayfinding signage dissuade potential shoppers and transit users from shopping in and commuting through the square. Central Square, just a few blocks away, shares many of these problems.

We envision a safer, more attractive area for drivers and pedestrians with a road that is more inviting for Belmont residents and businesses. The plan for this section of the Corridor improves pedestrian and traffic safety along Trapelo Road, creates a greater sense of place, increases pedestrian and business activity in the commercial areas, creates a gateway to Belmont, promotes use of nearby transit resources, and provides for diverse housing options. Safe, active, and inviting places will encourage residents to relax, shop, and run into their neighbors. A variety of transportation options and parking facilities will make both Waverley and Central Square easily accessible by foot, bike, transit, or car at all times of the day. The vision acknowledges the differences and similarities between Waverley Square and the Beech Street area in order to preserve each neighborhood's character and unlock their potential as vital town squares.

The Central Square/Beech Street area is a natural extension of Waverley Square, given its proximity and complementary service options. Improvements to the streetscape and retail environment in the Beech Street area will mirror the patterns in Waverley Square to create a smoother transition between the two nodes. Together, the two squares can become a local draw for Belmont shoppers so that residents no longer have to leave Belmont to do their errands. Belmont will be able to compete with surrounding towns not only in terms of the goods and services available, but also in terms of the overall experience of being in these great new places.

We imagine the Waverley Square to Beech Street stretch of Trapelo Road growing into a neighborhood that can be home to families, young couples, and grandparents while simultaneously providing a vibrant community center for the entire town. This area can become a unique local asset with well-utilized connections to other neighborhoods, towns, and downtown Boston.



Streetscape

1. OVERVIEW

The Trapelo Road/East Belmont Street Corridor serves as both a major regional arterial road and a local commercial and residential street. The character of the street currently reflects its role as a regional thoroughfare for drivers more than it reflects the neighborhoods it passes through and pedestrians who utilize it.

Scale: The combination of a wide roadway (60 to 70 feet), relatively narrow sidewalks (as narrow as six feet in some locations), and low building heights creates a scale that is more suitable to automobiles than pedestrians.

Uses: The Corridor hosts a wide variety of uses: small independent commercial establishments; larger regional retail outlets; auto-oriented uses; and recreational open spaces. Single and multi-family residential areas are interspersed along the corridor and along intersecting side streets.

Street Details: Current conditions leave much to be desired for the safety and comfort of both pedestrians and drivers.

- Uneven sidewalk pavement: Some sidewalks are concrete, while some are bare asphalt.
- Varying sidewalk widths: Sidewalk widths can be as narrow as 6 feet and as wide as 13 feet.
- Wide commercial driveways / curb cuts interrupt the pedestrian's path.
- Wide intersecting streets make it difficult for pedestrians to cross and for drivers to turn safely.
- Few and inconsistent street trees and landscaping features detract from business district vitality and leave pedestrians with no shade or protection from traffic.
- Few or no benches leave pedestrians with no areas to rest or linger.
- Few location signs make it difficult for visitors to understand where they are and what nearby resources exist.

2. CORRIDOR-WIDE RECOMMENDATIONS

The recommendations below address the goals we feel are most important for improving the streetscape of Trapelo Road. These goals are:

- Increased pedestrian and driver safety

- A comfortable and pleasant experience for all who use the road: the pedestrian, cyclist, driver, and transit-user
- A greater business district vitality
- A greater sense of place through the establishment of neighborhood identities



Photographs showing existing conditions of Trapelo sidewalks, clockwise from top left: car dominated landscape; poor sidewalk conditions; extremely narrow sidewalk; lack of street furniture



Photographs showing examples of, clockwise from top left: textured sidewalks, textured crosswalks; Arlington gateway signage; Arlington wayfinding signage

Recommendation 1: Improve signage and wayfinding

Signs serve simple informational purposes, telling people where they are, what to look for, and where to go. Signs and banners can also add visual interest, color, and vibrancy to a street or sidewalk. Both functions could help create a sense of place along Trapelo Road, improving both the pedestrian and driver experience.

Recommendation 2: Add public art

Public art on corners or in front of buildings, or in the form of street furniture and bus shelters, enhances visual interest in the pedestrian realm, inviting people to stop and look or often even to touch. Simultaneously, public art offers a perfect opportunity to display local talent.

Recommendation 3: Add textured or raised crosswalks

Instead of using the standard white striping to define pedestrian crossings, brick, stone, or even brightly-colored paint could be used to delineate crosswalk areas. This would serve to alert drivers to the pedestrian zone and slow traffic, as well as break the visual monotony of the Corridor's expansive intersections. The same effect could also be achieved more cost effectively through the simple use of pavers at the outside edge of a concrete sidewalk.

Recommendation 4: Widen and texture sidewalks

Wider sidewalks allow pedestrians to move more freely and create space for street furniture, lighting, and trees. Widths may vary as appropriate to the distinct areas served by the sidewalks.

Zone	Width	Materials	Landscaping	Additional Amenities
Residential	8-12'	Concrete	<ul style="list-style-type: none"> • 1' green berm between paved sidewalk and parked cars • Street trees 	<ul style="list-style-type: none"> • Street lights
Commercial	12-15'	Concrete, brick or stone edges	<ul style="list-style-type: none"> • Street trees 	<ul style="list-style-type: none"> • Street lights • Benches • Trash cans • Bus shelters • Bicycle parking
Intersections	10-16'	Concrete, brick or stone edges	<ul style="list-style-type: none"> • Street trees • Plantings at bump-outs and refuge points 	<ul style="list-style-type: none"> • Street lights • Bus shelters • Bump-outs at crossing points

Recommendation 5: Create bump-outs and reconfigure corners

If the sidewalk layout at intersection corners were modified to extend further into intersections, the length of crosswalks could be significantly reduced, facilitating pedestrian crossing. Bump-outs could also help to decrease the pace of vehicular traffic and discourage commuter use of side streets. Furthermore, space could be created on corners for amenities like outdoor seating, street furniture, and public art. Bump-outs could also provide landscaped "gateways" into residential streets.

Recommendation 6: Minimize the effect of curb cuts

Restoring the sidewalk in areas where vast and unnecessary curb cuts have been made would create a consistent sidewalk edge. Furthermore, minimizing commercial driveway widths ensures that future curb cuts do not diminish the effect of a consistent sidewalk. Finally, using landscaping or structures like fences or bollards to disguise parking lots would create continuity in the pedestrian realm.

Recommendation 7: Enhance landscaping

Street trees and landscaping create a well-defined pedestrian "zone" by separating the sidewalk and its foot traffic from the heavy, high-speed traffic of the road. A

regular pattern of street trees would make pedestrians feel enclosed and secure and would focus their attention on the sidewalk and neighboring businesses.

Recommendation 8: Encourage street parking along Trapelo Road

Greater street parking would make pedestrians feel safer by creating a buffer between the pedestrian and vehicular realms. Simply re-stripping the parking areas in front of businesses could help to encourage on-street parking in the area.

Recommendation 9: Add pedestrian amenities

1. Street Furniture. Regular benches, newspaper stands, and trash cans are an essential part of any shopping or commercial district. When people are tired of shopping and want a place to drink their coffee or just watch traffic go by, they look for a bench to sit on. Benches also signal to pedestrians that they are welcome to stay and use a space.
2. Bus Shelters. A simple shelter can make pedestrians feel vastly more comfortable as they wait for the bus on windy, snowy, or wet days.
3. Regular, attractive light fixtures. Attractive lights could add a glow to the sidewalk, making the street front a safer and more pleasing place to walk at night. Additionally, like street trees, streetlights add another small visual buffer between the busy street and the pedestrian on the sidewalk.

Recommendation 10: Create a consistent set of Design Guidelines

A set of Design Guidelines added to the Zoning By-Law would encourage the following:

1. The use of uniform details where possible. Consistency in the use of street furniture, tree grates, and light fixtures can help transform the Corridor into an identifiable place and provide a transition between commercial and residential areas. Continuous street details such as well-spaced trees and lampposts can also direct views along the corridor.
2. Variety in façade design and materials. Creating architectural interest on the first story of a building can visually engage pedestrians and increase the vitality of commercial areas.
3. Appropriate fencing, especially for parking, auto repair and truck lots.
4. Landscaping at the street edge, to provide a buffer and to create shade.
5. Consistent setbacks. Consistent setbacks and a uniform building line would help to define the sidewalk as a “pedestrian zone,” making the sidewalk a more pleasurable space for pedestrians to amble through, stay in, or return to. In areas where larger setbacks exist, planting greenery within the setback could help to achieve the same end.
6. The use of awnings and perpendicular signs. Aside from providing cover during a sudden rainstorm and shade during the hot days of July, awnings create a literal “roof” over the pedestrian’s head. Like trees, building lines, and light fixtures, awnings help to frame the pedestrian experience, making the walking person feel safer and more comfortable.



Renderings illustrating streetscape recommendations in section, elevation and plan

7. Multi-story development. Generally accepted design principles suggest that a comfortable ratio of building height to street width is between 1:2 and 1:3. This “human scale” is more appropriate for pedestrians and eliminates the wide-open, undefined feel of the current Corridor.

Recommendation 11: Create a Corridor-wide streetscape maintenance plan.

A maintenance plan would ensure that current and future improvements to the Corridor’s streetscape are sustained and protected, improving the longevity of the investment. Furthermore, a collective maintenance plan would foster a sense of ownership among the plan’s implementors.

Recommendation 12: Encourage local involvement

Encourage participation from Belmont organizations, schools, businesses, and citizens in planning and implementing streetscape improvements. Residents can help design signs, plant trees, maintain planters, and sponsor benches or trees.

3. IMPLEMENTATION

Implementation strategies for all of the above recommendations are similar. The table below lists our major recommendations, our estimated costs, and the funding strategies that can be used to implement these streetscape improvements. Please see Appendix for more details about the specific funding programs listed here.

Improvement	Time Frame	Funds Required	Funding Strategies
Improve signage and wayfinding	short term	minimal	Tax Increment Financing (TIF) / District Improvement Financing (DIF), local sponsorships
Add public art	short term	varies	local sponsorships
Widen and texture sidewalks	long term	\$20-25 per linear foot of 5' brick sidewalk	U.S. Department of Transportation (USDOT), MassHighway
Add textured or raised crosswalks	long term	brick or granite: \$7,000 - \$10,000 asphalt: \$2,000 - \$3,000	USDOT, MassHighway
Create bump-outs and reconfigure corners	long term	\$10,000-20,000 per side	USDOT, MassHighway
Minimize the effect of curb cuts	long term	minimal for regulation; cost of adding sidewalk: \$20-25 per linear foot of 5' sidewalk	USDOT, MassHighway
Enhance landscaping	short term	\$100-\$250 per tree	MassHighway, local sponsorships, volunteer labor
Encourage street parking	short term	minimal for re-striping	MassHighway
Add pedestrian amenities	short term	\$500-\$1,000 / bench \$200-\$600 / trash can \$1,000 / 20' streetlight \$5,000-\$15,000 / bus shelter	MassHighway, local sponsorships
Create a consistent set of design guidelines	short term	minimal	Town Government
Create a corridor streetscape maintenance plan	short term	minimal	Town Government
Encourage local involvement	short term	minimal	Town, businesses, local organizations



Photographs showing existing streetscape condition in Harvard Lawn, clockwise from top left: unadorned corner; sidewalk; dangerous diagonal crosswalk; visual experience

4. HARVARD LAWN

A. Existing Conditions

The character of a street is greatly shaped by the aesthetics of the sidewalks, building facades, and the street itself. The streetscape of Harvard Lawn suffers from poor maintenance, lack of investment in beautification efforts, and out-of-proportion ratios of building heights to sidewalk and street widths. As a result, East Belmont Street is dominated by cars, is unfriendly to pedestrians, and a challenging location for some businesses. The scale of the roadway to surrounding development is inappropriate, with many buildings feeling too low for the wide street. Sidewalks are narrow, ranging in width from under six feet to about eight and a half feet, while the street averages about 60 feet in width. With little landscaping, exposed utility lines overhead, and narrow, poorly maintained sidewalks and curbs, East Belmont Street is not a welcoming place to linger.

B. Harvard Lawn Recommendations and Implementation

Recommendation 1: Create a signature space or monument at the Belmont-Cambridge town line

This would act as a gateway, welcoming pedestrians and motorists to the town.

Recommendation 2: Use key side street improvements to connect to nearby green spaces

Payson, Park, and Marlboro Streets lead directly from the Corridor to important open space resources. Widened sidewalks and new signage along these streets can improve wayfinding to these assets.

Recommendation 3: Add bus shelters at high-transit usage points

These points include the School and Grove Street intersections, and in front of the country club. Many commuters congregate at these points along East Belmont Street, and bus shelters would increase their comfort and encourage transit usage.

Recommendation 4: Widen sidewalks and add amenities in key areas

These areas include the town line (increase sidewalks to 10 feet) and at the Grove and School Street commercial nodes (increase to 13 feet with additional bump-outs). Additional amenities such as trashcans and benches at these commercial areas could be added.

Recommendation 5: Repave and repair East Belmont Street

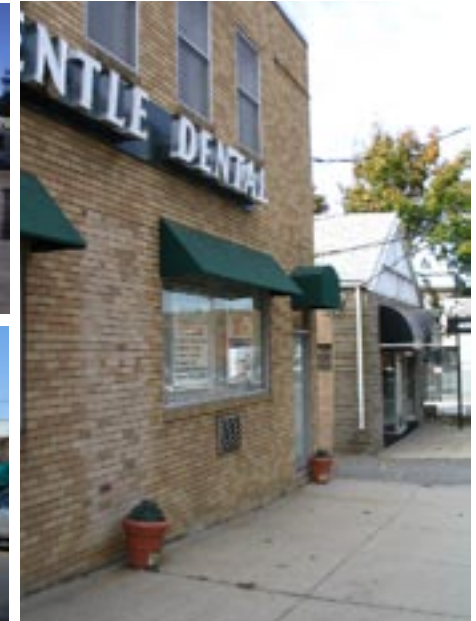
This enhances the street's attractiveness and reduces unnecessary safety hazards to cars, pedestrians, and bicyclists.

5. CUSHING AND PALFREY SQUARES

A. Existing Conditions

Cushing Square strikes passers-by and residents alike as one of Trapelo Road's most notable, interesting, and dynamic places. However, a closer inspection of the streetscape in Cushing Square reveals opportunities for dramatic improvement. Cushing Square's crosswalks are angled, long, and fairly dangerous, especially the crosswalk on the west side of Common Street. The square's concrete sidewalks are narrow, averaging only six to seven feet in width. Furthermore, without consistent street trees, awnings, or substantial building height, the square lacks an adequate sense of scale.

Palfrey Square is home to several small businesses and a few occupied offices; on balance, it is a fairly successful pedestrian environment. As in Cushing Square, however, some improvements could be made. The major crosswalk in Palfrey proper at Harriet Street is angled and quite long, while further down the square, the crossings are less frequent and, where they do exist, less clear. Moving west out of Palfrey Square, the street broadens, with one-story development, insufficient landscaping, a narrow sidewalk, and setbacks lengthening from 5 to 20 feet. Furthermore, a series of large curb cuts in the sidewalk precludes the sense of a street edge.



Photographs showing existing conditions in Cushing and Palfrey Squares, clockwise from top left: curb cuts and street edge across from the new CVS site; sidewalk amenities in Palfrey Square; scale and sidewalk conditions in Cushing Square

B. Cushing and Palfrey Recommendations and Implementation

Recommendation 1: Reconfigure key intersections

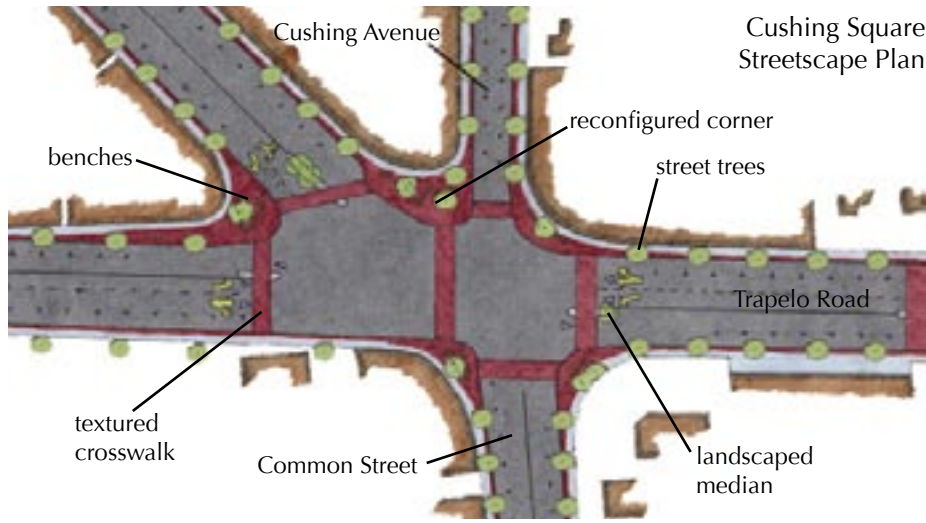
Reconfigure corners at the Common Street, Cushing Avenue, and Harriet Street intersections to reduce the length of crosswalks and decrease the pace of vehicular traffic. Especially in Cushing Square, an area with narrow sidewalks, bump-outs can also add valuable space for landscaped sitting areas, benches, or newspaper stands.

Recommendation 2: Create crosswalk islands at Common Street intersection

Islands provide a stopping place for pedestrians. Islands would also be a prominent location for a "Welcome to Cushing Square" sign, other signage improvements, or landscaping.

Recommendation 3: Add a textured crosswalk at Common Street and Cushing Avenue

This allows for a safer perpendicular crossing. Presently, this intersection is quite dangerous to cross. A perpendicular crosswalk with coordinated signals would make the journey across Trapelo Road much easier and more inviting. The traffic lights for this crosswalk would be activated by push-button only.



From top: plan showing reconfigured intersection at Trapelo Road and Common Street; rendering of intersection after improvements including textured sidewalks and amenities

Recommendation 4: Eliminate unnecessary curb cuts in Palfrey Square to create a consistent sidewalk edge

This would improve both the aesthetic experience and safety of pedestrians walking Palfrey Square and Beech Street to the west.

Recommendation 5: Connect Palfrey Square and Pequotsette Park through consistent landscaping

A greenway connecting the beautiful mature trees of Palfrey Square to hidden Pequotsette Park would make the park a defining feature for this stretch of Trapelo Road.

6. WAVERLEY SQUARE

A. Existing Conditions

Beech Street (or Central Square) is a commercial node characterized by narrow and uneven sidewalks, very little or no landscaping, some significantly large curb cuts, and a very wide roadway of roughly 70 feet. Pedestrians compete with each other, as well as utility poles and the occasional trash can, for space on the sidewalk. There are no benches or resting areas for pedestrians, even though the small takeout restaurants and movie theater might benefit from such amenities.

Waverley Square is dominated by the Shaw's supermarket, the municipal parking lot, and the car wash, all of which result in large areas of asphalt with little or no landscaping. Other significant assets include relatively wide sidewalks, historically important buildings like the old firehouse and Wheelworks, and some three-story mixed use development. Waverley Square is also close to major green spaces such as the Beaver Brook Reservation and the planned open spaces of the McLean District.



Photographs showing existing streetscape conditions in Waverley Square, clockwise from top left: scale in Waverley; existing sidewalk condition; land uses; and street edge

Two major residential zones are located (1) in between the Beech Street and Waverley Square areas, and (2) north of the Shaw's supermarket, close to the Waltham border. Sidewalks in these zones are also fairly narrow and without much landscaping, so pedestrians in these areas have an inadequate buffer between themselves and the high-speed traffic on Trapelo Road. The narrow sidewalks and traffic also create a safety hazard for children who bike or play in these areas.

B. Recommendations and Implementation

Recommendation 1: Reconfigure key intersections

Reconfigure intersections at Lexington, White, Waverley, Hawthorne, and Sycamore streets so that side streets intersect Trapelo Road at 90 degrees. Extension of traffic calming measures, paving and landscaping improvements into residential streets should also be considered. This would increase the safety of both drivers and pedestrians while providing a widened sidewalk to accommodate landscaping or benches. Residents would also benefit because drivers would be less likely to travel down residential side streets and because they would gain attractive landscaped "gateways" into their streets.

Recommendation 2: Alter the Hawthorne Street neckdown to accommodate the three-lane traffic configuration

Smaller bump-out areas on both sides of raised crosswalk with appropriate signage would help to slow down traffic in the Butler School zone. The new traffic configuration would also provide space for wider sidewalks, landscaping, and a parking lane in the residential zones, which creates a buffer against traffic.

Recommendation 3: Shaw's crosswalk

Add a crosswalk at the Shaw's intersection to facilitate crossing for those residents who live on Trapelo Road north of the supermarket. One crosswalk on Trapelo Road at Moraine Street would save pedestrians the hassle of crossing five crosswalks in order to access the supermarket.

Recommendation 4: Create a town information center

This center would provide with information on local points of interest, local businesses and town events, and historical facts about Belmont.



From top: existing Beech Street intersection; rendering of Beech Street with improvements including street trees, textured crosswalks, signage, and amenities

1. OVERVIEW

Zoning regulations are an integral tool for Belmont to enhance the “main street” character and economic vibrancy of the local commercial centers along the Trapelo Road/East Belmont Street Corridor while preserving its residential neighborhoods and unique historic assets. Zoning by-laws define the types of uses and activities that occur along the corridor, the physical dimensions and character of its buildings, and the processes by which property owners obtain approval for new construction and development projects. While the current variety of uses, building types, and assets along the Corridor creates challenges to establishing a sense of place in these neighborhoods, careful revisions to the zoning code will benefit the residents, business owners, and property owners and visitors who use it.

Belmont’s Zoning By-Law should have the following goals:

- To encourage mixed-use three-story development in town squares.
- To protect historic buildings and ensure that new development is consistent with local architecture and building scale.
- To balance parking requirements with the desire to create an attractive and vibrant main street atmosphere that takes advantage of the proximity to transit.
- To expand housing opportunities to meet the needs of a diverse population.
- To encourage evening activity in town squares.
- To coordinate new development with sidewalk, road, and public space improvements.

While Belmont’s existing zoning regulations may serve other areas of the town well, they will not enable the community to achieve this vision for the Corridor. The Zoning By-law places heavy restrictions on new development and fails to articulate a clear vision for how parts of the Corridor should be developed or preserved. The zoning of the commercial nodes is particularly ill-suited to the village character of these areas and impedes investment in existing and new development. The dimensional requirements for Local Business districts are more appropriate to large-scale development on undeveloped suburban sites than to the small parcel infill development more likely to occur on the Corridor. The Local Business zones do not permit enough density to allow (much less encourage) two- to three-story mixed-use development with ground-floor retail and offices or apartments above. Height, floor area ratio (FAR), and high parking requirements effectively make this type of development economically infeasible.

Although the Belmont Zoning By-Law does include a design and site plan review process, the principles guiding it are vague, depriving the Town of an opportunity to encourage quality design and making the process unattractive for potential developers due to the lack of clear standards. The code provides for FAR and height bonuses but fails to tie these incentives to specific criteria and development goals. The current zoning and liquor regulations make it extremely difficult for restaurants, the foundations of street life, to compete for customers. In residential areas, the code restricts two-family development and does not allow for the construction of any multi-family housing. While parts of the by-law encourage the construction of affordable housing, production of affordable units is virtually impossible due to conflicting regulations. Overall, the Belmont Zoning By-Law is reactive, stating what types of development are undesirable rather than articulating a vision for the type of development the Town would like to see.

2. EXISTING ZONING CODE

The Trapelo Road/East Belmont Street Corridor is currently governed by three commercial districts and two residential districts, described below.

Commercial Zones

LB I: The Local Business I (LB I) allows for the highest intensity commercial development. LB I provides a maximum FAR of 1.25, with an increase to 1.5 by Special Permit. Allowed uses include sit-down and fast-food restaurants and office and retail by Special Permit. The maximum building height is two stories, but three-story buildings may be approved by Special Permit. LB I districts are located in Cushing and Waverley Squares.

LB II: The Local Business II (LB II) requires a lower FAR, at 1.05, but allows for a greater range of uses through the Special Permit approval process, such as motor vehicle service stations, repair or rental, and take-out restaurants. The LB II zone is located in Waverley Square.

LB III: The Local Business III Zone (LB III) allows for neighborhood-oriented businesses, retail, and restaurants, all by Special Permit with a maximum FAR of 1.05. LB III is located in Harvard Lawn, Palfrey Square, and Waverley Square.

All commercial zones allow residential uses on the second story, provided that 25 percent of the units constructed are affordable to low-income households and that at least one affordable unit is provided. The commercial zones also allow single and two-family homes by Special Permit.

Almost all the commercial development along the Corridor consists of one-story buildings with setbacks ranging from zero feet (in Harvard Lawn, parts of Cushing Square, Palfrey Square, and Waverley Square) to ten feet in parts of Cushing Square. No property owner appears to have taken advantage of the provision allowing for second-story residential development. Some of the retail storefronts, particularly in the Harvard Lawn area, are extensions of existing residential structures. Few offer off-street parking.

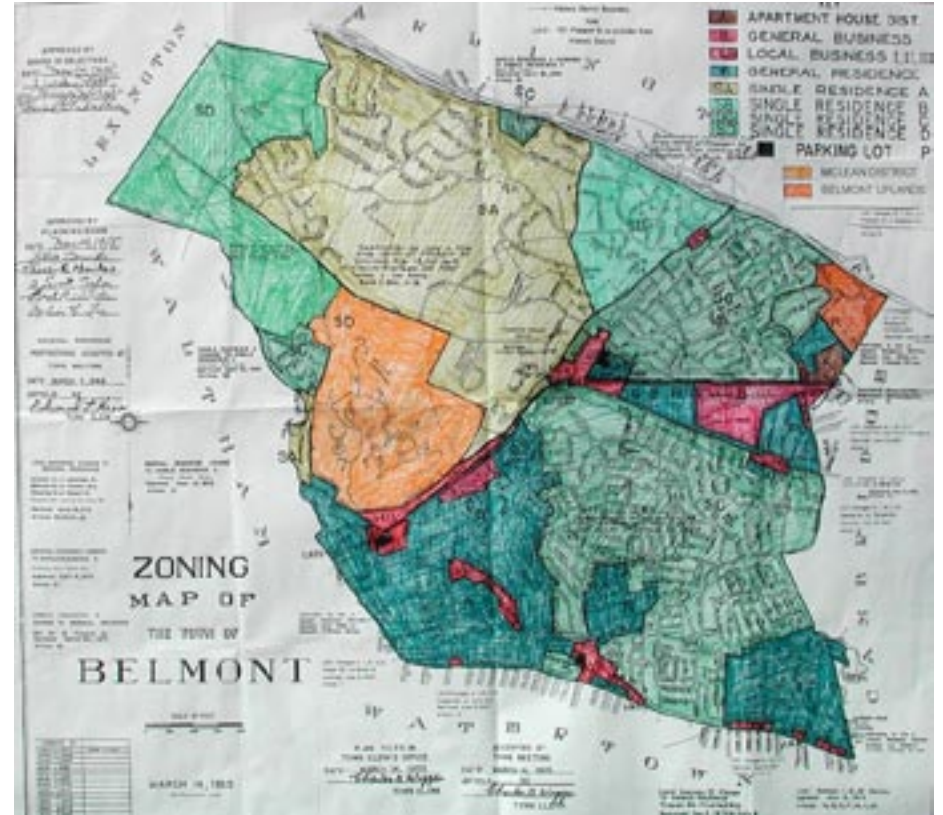
Residential Zones

GR: The General Residential Zone (GR) is intermixed with LB III zoning in Harvard Lawn near the Cambridge Line and from Cushing to Waverley Square. The GR zone allows single- and two-family homes by right, with a minimum lot size of 7,000 square feet.

SR-C: The Single Residential C (SR-C) zone extends from School Street to Cushing

Square in Harvard Lawn and for a few blocks between Cushing and Palfrey Squares. SR-C allows single-family homes on 9,000 square foot lots.

Residential structures along the Corridor are typically one- and two-family homes, although there are several three-family homes, and a few buildings that include as many as seven stories of housing. Lot sizes range from less than 4,000 square feet to upwards of 12,000 square feet in the SR-C zones.



Existing Schematic Zoning Code for Belmont

3. CORRIDOR-WIDE RECOMMENDATIONS AND IMPLEMENTATION

Given the difficulties in passing a zoning ordinance and the fact that the town is mostly built out, we are not recommending an overhaul of Belmont's Zoning By-law. Rather, the recommendations listed below are intended to make strategic changes that will enable the revitalization of the Corridor while addressing many of the concerns of residents over increased density, parking, and protecting the town's residential character.

Short-Term Recommendations

Recommendation 1: Change the Harvard Lawn, Palfrey, and Waverley LB III zones to LB I.

Eliminating the LB III zone would increase opportunities for mixed-use development and remove restrictions on restaurants. It would also reduce the setback requirements that give the street less of a human scale and reduce the developable area on small parcels where redevelopment opportunities are challenging.

Recommendation 2: Allow 2-family housing by right in the LB zones.

Two-family homes along the Corridor are common. This change will allow the zoning to better reflect the actual built environment and will reinforce village-style development. It will foster lower-cost housing options for residents such as empty nesters who would like to remain in the community but who no longer want the expense of owning and maintaining a larger home.

Recommendation 3: Improve residential affordability requirements.

The affordability requirements in Section 3.3 of the Zoning By-Law should be altered. Currently, a minimum of 25 percent of residential units constructed on the upper floors of commercial properties in the LB zones must be affordable, and at least one affordable unit must be constructed in all such developments. Instead, Belmont should increase opportunities to build multi-family housing in order to take advantage of the town-wide Inclusionary Zoning Provision and create affordable housing.

Belmont's town-wide Inclusionary Zoning Provision (Section 6.10) requires the seventh housing unit and every third unit thereafter to be affordable in developments of seven units or more. These requirements are more realistic and financially viable than the 25 percent required in LB zones by Section 3.3, particularly because mixed-use development is costly. Few, if any, affordable units have been constructed under Belmont's Inclusionary Zoning By-Law because there are few opportunities to build multi-family housing. However, revisions to the by-law described below that allow for the development of seven or more units will ensure that the Inclusionary Zoning provision succeeds in creating affordable units.

Recommendation 4: Reduce the required number of off-site parking spaces required for new residential development.

New residential development should be allowed to provide one parking space per one-bedroom unit, 1.75 spaces per two-bedroom unit, and two spaces per three or more bedroom unit. New residents of this area should be encouraged to take advantage of the corridor's excellent public transportation links. Excessive parking, requirements can act as a barrier to development opportunities. (See "Parking.")

Long-Term Recommendations

In the longer term, more far-reaching changes to the zoning code will encourage the balanced revitalization of the Corridor. Further analysis of the proposed changes and public outreach will be necessary.

Recommendation 5: Create a "Town Square Incentive District" to encourage mixed-use development in key commercial nodes.

In order to increase street life, create more retail options for residents, and improve the aesthetic character of all of commercial squares along the Corridor, Belmont's Zoning Bylaw should facilitate mixed-use development. The Town Square Incentive District, adopted as a text amendment, would apply to the LB zones along the Corridor and apply to reinvestment in current property and future development. Developers would be eligible for a range of density bonuses and other incentives contingent on their development plans meeting a specific set of Site Plan and Building Design criteria, described below. This provision creates incentives for new development while ensuring the protection of historic resources and the overall town character.

Incentives

- **Density bonuses.** Special Permit approval would allow for an additional floor-area ratio (FAR) and building height bonus. Total allowable FAR would increase to 2.0, and allowable building height with special permit would increase to 35' (3 stories). By-right FAR would remain 1.25.
- **Relaxed parking requirements.** Explicit discretion would be given to the Planning Board to reduce retail, residential, and office parking requirements as appropriate for the context of the development. Preferential treatment would be targeted to small-scale infill development in the town squares. (See "Parking" and "Economic Development.")

- **Opportunities for multi-family housing.** New multi-family developments of up to nine units in village squares would be allowed by special permit. Preference would be given to developments that provide housing targeted at municipal employees, moderate- and low- income residents, and residents over 55 years of age. All residential buildings in town squares would be required to have ground-floor retail space.
- **Setback flexibility.** The Planning Board could approve, as part of the Special Permit process, setbacks of up to zero feet where both adjacent buildings are also built to the lot line. In other contexts, the planning board could require five-foot setbacks to increase sidewalks or to blend development with the existing built environment.

Site plan and building design criteria

In order to receive Special Permit approval, developments in the Town Square Incentive District should:

- Enhance the pedestrian character of the area. Buildings should be oriented toward the street and sidewalk; parking should be placed at the side or rear, not in front of the building; site plans should include investments in street trees, greenery, benches, and new sidewalks where appropriate.
- Provide space for mixed uses with retail on the ground floor and residences or offices on the upper floors. Inappropriate forms of development, such as drive-thru establishments, should be banned in town squares.
- Reflect the dominant Dutch, Tudor, and Colonial styles present along the Corridor. Brick and clapboard-style façades are encouraged, and concrete façades are discouraged.
- Preserve existing historic buildings. Bonuses will be favored for developments that employ adaptive reuse and expansion over demolition. Bonuses will not be granted to developments that demolish buildings with significant historic character.

Review process

As under current zoning, new development would be subject to design and site plan review. The Planning Board and Zoning Board of Appeals would retain the power to require a development impact report. Plans would be measured against the more specific criteria detailed in the Town Square Incentive District. Standards should include photographs, diagrams, and plans to illustrate desired forms of development and undesirable design and site plan characteristics.

Recommendation 7: Create a “Multi-Family Overlay Zone” to allow residential development in appropriate neighborhoods.

The Multi-Family Overlay District facilitates the production of rental and ownership units affordable to households with moderate incomes, including senior citizens, single-parent households, and young professionals. It also provides opportunities for the production of new affordable units under Belmont’s existing Inclusionary Zoning By-Law. One-third of Belmont’s households consist of two to four individuals, of which more than 20 percent pay more than a third of their income for housing costs, leaving insufficient income for other basic needs.¹ The Trapelo Road/East Belmont Street Corridor is particularly attractive for young people who work in Cambridge or Boston, and the community would benefit from having a larger population of young professionals. A need has also been identified for greater options for Belmont’s aging residents, who may prefer to live in smaller units but remain in the community. More than one third of Belmont’s aging households reported paying more than one third of their income for housing costs. These statistics indicate the need for more housing opportunities in the town, where housing prices have risen dramatically in recent years, including smaller moderate-income units.

Some stretches of East Belmont Street and Trapelo Road currently occupied by commercial uses may eventually be better utilized by residential development that conforms to the character of the surrounding neighborhood. The Multi-family Overlay District would allow three-family dwellings by right, with a maximum building height of 3.5 stories and 40 feet. Buildings of four to seven units could be approved by Special Permit. All new developments would be subject to design review to ensure that they reflect the aesthetics of the surrounding neighborhood. Garaged parking could be provided on the ground floor of these developments, and a permit parking program could provide additional on-street parking for new developments and existing homes on the residential side streets.



Examples of Multi-Family Housing

Use/Dimension	New Multifamily Zoning Overlay
Use	Three units by right Up to seven units by Special Permit
Height – Stories	3.5
Height –Feet	40
Minimum Lot Area	7,000
Minimum Lot Frontage	50
FAR	2.0
Max Lot Coverage	70%
Minimum Open Space	25%
Front Setback	15'
Side Setback	10'
Rear Setback	20'

Recommendation 8: Adopt the Community Preservation Act.

Many of the initiatives discussed above could be assisted by additional funding through the Community Preservation Act (CPA). The CPA allows communities to approve, by majority vote, a surcharge on the residential tax bill of one to three percent. The funds generated by this surcharge are matched by the Commonwealth of Massachusetts, and can be used for housing, historic preservation, and open space preservation. If Belmont adopted the CPA at one percent, it would generate approximately \$700,000 annually, excluding the state match. The average additional tax paid by Belmont households would be \$18.47 per quarterly tax bill.

Recommendation 9: Utilize HOME funds to create a first-time homebuyer program and housing rehabilitation program.

Belmont annually receives funds through the Metrowest HOME Consortium to use toward housing creation and rehabilitation. The Town should consider creating a program to provide moderate-income first-time homebuyers with the down payment assistance to facilitate homeownership in the community. Furthermore, the Town could create a housing rehabilitation program to provide assistance to low-income homeowners who want to upgrade their residential properties, strengthening the residential building stock and improving the housing of lower-income residents.

4. HARVARD LAWN

A. Existing Conditions

Harvard Lawn has diverse commercial uses and housing types. The neighborhood is situated at the junction of three municipalities – Belmont, Watertown, and Cambridge – and the entire length of East Belmont Street straddles the Belmont/Watertown border. This multi-jurisdictional location is reflected in the mismatched land uses on opposite sides of East Belmont Street, and it presents challenges to the implementation of changes designed to improve the overall landscape. Unlike the other areas of the Corridor, there are no firmly defined “squares” that anchor the Harvard Lawn neighborhood. Instead, residential and commercial zones and uses alternate down the Belmont side of the street, and they are usually not mirrored by the same types of uses on the Watertown side. Most commercial buildings on East Belmont Street have no setbacks and are one story, although the zoning requires a five foot setback and allows up to two stories.



Disparate Watertown and Belmont Uses

The housing stock from the Cambridge line to School Street consists of a mix of two- and three-family buildings on 4,000 square foot lots with a few buildings of four or more units. Further on East Belmont Street, the predominant housing type is single-family homes on larger lots.

The Our Lady of Mercy Church, scheduled to close on December 31, 2004, is located in the SR-C zone. The properties owned by the Church provide one of the few opportunities for significant redevelopment in the area and a possible location for a few units of affordable housing.

The blocks at the eastern end of East Belmont Street, currently zoned LB III, could be zoned primarily residential with new development that reflects existing styles while providing housing that meet the needs of younger and older Belmont residents. Commercial nodes at the intersections at Grove and School Streets could be transformed into vibrant mixed-use neighborhoods, where residents who live in units above the commercial spaces support the local businesses. The properties at Our Lady of Mercy Church could be redeveloped into attractive condominiums, while preserving the appearance of the church structure and providing a few units of needed affordable housing.

Recommendation 1: Revise the existing Public Building and School Conversion By-Law to include church properties.

In response to a shortage of priests, worshippers, and funding, the Catholic Archdiocese of Boston plans to close a total of 83 churches in the greater Boston area and to sell 67 of those properties.² With a small and aging congregation, Our Lady of Mercy Church of Belmont, located on East Belmont Street just east of its intersection with Trapelo Road, is one of the parishes selected to be closed. Our Lady of Mercy is scheduled to shut its doors on December 31, 2004. The Town is now faced with important decisions regarding the future of the prominent properties that are currently occupied by Our Lady of Mercy and its associated structures.

Building conditions

The Our Lady of Mercy property is composed of three primary buildings on four noncontiguous parcels of land. Please see the Appendix for more parcel information.



- Our Lady of Mercy Church, built in the early years of the twentieth century, is a small, two-story white church with a pitched roof. This structure shares a parcel with the Rectory.
- The Rectory is adjacent to the church with frontage on Lawndale Street. Its previous use as a residence is reflected in the residential character of the structure, which matches the style and size of others on the single-family street.
- The Town leases the Senior Center, formally the church parish hall. This building, located on the corner of Oakley and Lawndale streets, is a 1960s-era brick and glass structure with large windows. The Town's lease on the property is scheduled to expire in mid-2006, and alternative locations for a Senior Center are currently being explored.
- The third parcel, on the corner of East Belmont and Oakley Streets, is used as a parking lot for the senior center and the church.

Financial Analysis

The FY2004 assessment performed by the Town Assessor valued the church parcel and its associated buildings (the church and the rectory) at \$2.3 million (a 60 percent increase from FY2003). Based on our financial forecast and analysis and the current zoning, we have estimated the market value of the church parcel (including the existing structures) at \$2.43 million, the senior center at \$1.5 million, and the parking lots at \$660,000.

While at this time it is unclear exactly what mechanism will be used to convey the Church properties into private ownership, it appears that the goal of the sales will be to maximize the Archdiocese's profit. The Town, therefore, will play a limited role in determining the future use of the property, unless it decides to purchase part or all of it. Belmont has two primary decisions it must make about the property: whether or not to purchase it, and whether or not to rezone it. Based on the financial and physical realities of the property and decisions made by the Town, there are three likely redevelopment scenarios worth examining in detail.

Scenario 1: Residential redevelopment under existing zoning

Scenario 2: Residential redevelopment under Chapter 40B

Scenario 3: Residential redevelopment via Church Reuse Overlay District



There are clearly many other potential reuses of the property. It would be ideal, for example, if Belmont were able to purchase any of the parcels for use as a senior or community center. However, the current fiscal situation in the town, combined with the expected asking price, makes these options practically infeasible. Theoretically, the property could be used as some type of business. However, we believe that the residential character of the neighborhood requires a similar use on these prominent parcels. The three most likely redevelopment scenarios are explained. (Please see the Appendix for an additional development analysis.)

Scenario 1: Residential redevelopment under existing zoning



A private developer could purchase the Church properties and develop them for residential use under the existing zoning, which allows for the construction of approximately four to six single-family homes total on all four parcels. Based on the corresponding lot sizes, we anticipate single-family houses of approximately 2,750 sq. ft. of living space with estimated market values of \$750,000 each.

Pros: Single family development compatible with existing neighborhood character.

Cons: This is an unlikely outcome as single-family use would not be considered the highest and best use of the property, given the lot size and existing housing and construction prices. Achieving the expected profits required for single-family development would require the demolition of the church structure (which is an attractive and unique element of the East Belmont Street streetscape) and potentially the Senior Center and extensive renovation of the rectory. Given these facts, it is not inconceivable that, under the current zoning, the property may sit vacant for months, even years, while a motivated buyer is found.

Scenario 2: Residential redevelopment under Massachusetts G.L. Chapter 40B



Massachusetts G.L. Chapter 40B allows for the development of mixed-income residential developments in communities like Belmont, where less than ten percent of the housing stock is affordable (based on the Commonwealth's standards). A developer seeking to construct such a project applies for a Comprehensive Permit, which allows for the waiver of local zoning regulations. Development under this scenario is much more likely than Scenario 1, because it would provide greater net income to the private developer.

Pros: This option would allow for efficient reuse of the parcels, guarantee a certain level of affordability, and increase the diversity of housing stock in the neighborhood.

Cons: The Town's control over the type, size, and character of the development is more limited. An approval under Massachusetts G.L. Chapter 40B, could result in development as dense as seven to nine units per buildable lot (e.g., the parking lot could be divided into two buildable lots, and could yield 14-18 units). Though we would concur that multi-family residential development is a good option for reuse, redevelopment under Chapter 40B would limit the Town's ability to guide and the direct the type of multi-family development into something consistent with the its vision and character.

Scenario 3: Residential redevelopment via a Church Reuse Overlay District



Belmont's Zoning By-Law facilitates the redevelopment of former school and other public buildings. This existing By-Law could be modified to effectively create a Church Reuse Overlay District that would allow for multi-family development of higher (but controlled) density by Special Permit.

Pros: The Church Reuse Overlay District provides the Town with the greatest level of flexibility and control with respect to the redevelopment of the parcels. The modified zoning could allow for both single and multi-family residential Special Permit, and the increased density could be limited to a maximum of four units and require that parking be incorporated into the architectural design. The creation of this district does not require the wholesale development of a new by-law, but just the modification of the existing School Reuse By-Law. Additionally, the newly created overlay district would provide an incentive for a greater variety of private developers to consider the site and, as such, increase the chances that the site would be developed with attributes that the Town finds valuable. Finally, this Church Reuse Overlay District, once created, could be used to address any new situations that arise if other churches within the town close without a readily identifiable new occupant.

Cons: Creation of the Church Reuse Overlay District would require municipal approval. The attainment of the requisite approvals, though fiscally affordable, could require extensive negotiation and maneuvering through the town's political process.

Our recommendation is that the Town creates the Church Reuse Overlay District as a modification of the existing School Reuse By-Law, modeled after a similar measure being taken up by neighboring Watertown. The Church Reuse Overlay District would afford the Town the greatest flexibility and control and have a minimal impact on the town treasury. This measure could be taken up on the agenda during the next Town Meeting and, if passed, the change could be articulated to the Archdiocese of Boston. The Archdiocese, in turn, could describe the district in their marketing of the parcels to encourage a greater diversity of potential private developers, which in turn would increase the probability that the development would be in accordance with the goals of the community.



Proposed multi-family building on current church parking lot.

Recommendation 2: Adopt a Multi-Family Overlay Zone from the Cambridge border to Falmouth Street.

The blocks on the eastern end of East Belmont Street are characterized by a mix of commercial and residential buildings. While many of the businesses in this area are thriving, in the long term this area is an ideal location for residential development. The existing physical fabric is relatively dense, the location is ideally situated to provide a short bus ride to Harvard Square or to the Waverley Square commuter rail station, and this diverse neighborhood would be particularly attractive to young professionals, who are often unable to afford the high prices of housing elsewhere in Belmont. New apartments and condominiums up to 3.5 stories in height would reflect the character of existing buildings and provide physical investment in the aging building stock. The LB III zone would not be eliminated, so commercial uses would continue to be allowed by right to provide needed neighborhood services.



Recommendation 3: Coordinate with Watertown as it conducts a comprehensive review of its zoning by-law.

Better coordination with Watertown around the types of uses and dimensions allowed in the Harvard Lawn neighborhood is vital to creating a unified neighborhood that bridges East Belmont Street and the town border. As Watertown enters a rezoning process that will last throughout much of 2005, this would be the ideal time to set up a Focus Committee to improve communication regarding land use in Harvard Lawn. The Focus Committee could consist of owners of commercial and residential properties, planning and zoning officials, and members of the Chamber of Commerce from both Belmont and Watertown.

Recommendation 4: Create a Transition Overlay Zone to respond to and accommodate the further expansion of the School Street commercial area.

As reinvestment attracts new mixed-use development along the blocks between School Street and Falmouth Street, the Town should consider providing additional opportunities for mixed-use and residential development in the blocks between Falmouth Street and Grove Street. A Transition Overlay Zone in this area could allow for Special Permit approval for signature mixed-use projects that enhance the commercial and residential environment of this area. The allowed uses and dimensions would be identical to those in the Town Square Incentive District, but development would require Special Permit approval to enhance the Town's control over this sensitive area.

5. CUSHING AND PALFREY SQUARES

1. Existing Conditions



Cushing Square is in many ways a successful and attractive shopping area and neighborhood center. The Square, which is zoned LB I, is home to a variety of retail stores, restaurants, and small businesses. The building stock, composed primarily of one-story commercial buildings and two- to three-story mixed-use buildings with retail, apartments, and offices, includes a number of historic structures that give Cushing a distinctive sense of place. Most buildings fronting Trapelo Road and Common Street are built to the street line, with a few notable exceptions, helping to create a sense of enclosure. Cushing does, however, face a number of challenges. The square is poorly configured for pedestrians, lacks public spaces, has suffered a decline in business activity, and does not provide adequate parking for employees and shoppers. Because of its strengths, Cushing represents one of the best opportunities on the corridor to create a vibrant Main Street area. The tree-lined stretch of Trapelo between Cushing and Palfrey is primarily residential and should be preserved in its current state.

Palfrey Square, on the other hand, is arguably the least attractive stretch of Trapelo Road. The area, zoned LB III, includes a grab-bag of uses that include retail stores, professional offices, automotive businesses (including auto body repair shops and a used car lot), a fuel truck parking lot, the new CVS drugstore, the new Belmont Fire Station, an apartment complex, and single family homes. Buildings tend to be set back from the road with parking in front, depriving the street of definition, and the sidewalks are crossed by multiple curb cuts. The building typology and street configuration are more characteristic of strip-style development than of a town main street. The building stock is unexceptional, composed primarily of one-story commercial or two-story residential structures. The LB III does not allow

for automotive uses, and these businesses are grandfathered under the current zoning. These parcels represent an opportunity to redevelop and redefine the area. The arrival of the new CVS, which is built to the street line with parking in the rear, also promises to bring more activity to the area.

2. Cushing/Palfrey Recommendations and Implementation

In Cushing, we envision a pedestrian-friendly shopping area with added retail, residential, and office uses. Development of two- to three-story mixed-use buildings on the old CVS and municipal parking lot would provide opportunities for larger retail spaces and multi-family units. A new decked parking garage would provide needed parking spots for both shoppers and employees. Adaptive reuse of buildings such as the one-story retail complex across from the municipal lot would allow for the addition of extra floors. Palfrey Square, despite its drawbacks, has the largest number of developable sites in the Corridor and should be targeted for new multi-family housing and some new retail spaces. New development should be higher, stay oriented to the street, provide parking in the rear, and be integrated with better facilities for pedestrians. Overall, the Town should strive to concentrate commercial activity in these areas and prevent the further sprawl of commercial activity to the residential and transition areas along the corridor. Unfocused development will undermine efforts to create a distinct identity for the commercial nodes along the Corridor. As mentioned above, the residential area between Palfrey and Cushing should be preserved in its current state.



Opportunities for New Development

As outlined in our Corridor-wide recommendations, both Cushing and Palfrey would be subject to the new Town Square Incentive District, allowing for greater development subject to specific evaluation criteria. The Palfrey LB III zone would be changed to LB I, providing for uniform development standards in the commercial areas along the Corridor. In addition to these measures, the Town of Belmont should take the initiative in working with property owners, developers, business owners, and adjacent residents in shaping the development of several key parcels in Cushing and Palfrey Squares, including the following:

Recommendation 1: Redevelop the old CVS site on Common Street in Cushing Square.

The current CVS site located at 529 Common Street in Cushing Square will soon become an opportunity to strengthen the Square as a business center and encourage new development in line with Town goals. Given the site characteristics, location,

and real estate market, the site is ideally suited for mixed-use development with below-grade parking, street-level retail, and residential units above.

From a design, density, and highest-and-best-use perspective, locating parking underground would maximize parking spaces, enhance the utility of the site, and allow for 15 to 20 percent open space on the site. Assuming zero setbacks at the sides and rear of the property, the front could be set back with welcoming green space. Given standard parking dimensions, the lot would probably yield about 90 parking spaces.

Because below-grade parking is expensive, the development must generate enough profit to offset its cost. In the current real estate market, residential values are at least three times more valuable than any other alternatives. Most developers would prefer to do condominiums over apartments based on the high values and quicker recuperation of investment costs.



The Cushing Square neighborhood would be best served by first-floor retail use. First-floor retail is pedestrian-friendly and can serve the commercial needs of local residents. Such a development would greatly enhance the commercial fabric of Cushing. Many of the storefronts in Belmont are small, fragmented spaces of around 600 square feet. It is very difficult for retailers to draw enough traffic and move enough inventory to prosper in

such small spaces. This new development could provide one large retail store or two to three mid-size storefronts. There would be ample parking to support a small restaurant, a gourmet grocery, or another option that would serve local needs.

If the Town becomes involved with the design, they can maintain pedestrian access, green space, and design standards that complement the rest of the square. To accomplish this, the Planning Board should create a Cushing Square Overlay District, as highlighted in the “Zoning” section.

Recommendation 2: Redevelop the Cushing Municipal Parking Lot.

We propose that the Town work with a developer to build a new parking garage and mixed retail and office complex on the site of the current municipal lot. In its most expansive form, this development could involve the acquisition by the

Town of the Starbucks parking lot, the Horne Street laundry parking lot, and the two residential parcels that abut the current municipal lot. As shown in the site plan below, this scenario would include a two-level parking garage with over 200 spaces, a retail complex capable of providing space for larger retail stores, and a small pocket park to buffer the complex from adjacent residences on Horne Street. On Trapelo, this development would extend the street wall down from Common Street, enhancing the urban fabric, providing continuous retail, and partially shielding the parking complex from view. A less expansive proposal could include less or no property acquisition. A shallower building façade could be placed in front of the decked lot. Further financial analysis is required to determine the feasibility of these development proposals. The advantages and configuration of the municipal lot are discussed in greater detail in “Parking.”



Recommendation 3: Redevelop other sites around Palfrey Square.

Please refer to “Economic Development” for recommendations on Palfrey Square redevelopment.

D. WAVERLEY SQUARE

1. Existing Conditions

Waverley Square and Central Square are situated along the northwest end of the Corridor in close proximity to the Waltham and Watertown borders. Historically, a trolley ran along Trapelo Road from Harvard Square, ending at the Waverley Square depot. Today, served by both commuter rail and two bus lines, Waverley Square continues to reflect the historic character of a transit node. The previous use of Trapelo Road as a transit corridor may explain why commercial squares like Central and Waverley are currently largely zoned for commercial use, including both LB I and LB II zones, with a few adjoining general residential parcels.

The Corbett building, one of the oldest remaining buildings in Waverley Square, is today one of the only parcels in the square built to three stories in height and containing mixed uses. After 1955, the Trapelo Road trolley was replaced by a trackless trolley to make room for the automobile. In addition, the Belmont Zoning By-Law set height limits and separated land uses, prohibiting mixed-use buildings like the Corbett from being constructed in the future. As a result, despite the growing housing demand and infrastructure investment by the MBTA in a commuter rail station at Waverley Square (now in need of further investment), new development in the two squares has still largely been dominated by low-density auto-oriented commercial uses.

A change in zoning regulations would enable Belmont to give developers incentives to provide more pedestrian- and transit-friendly development in Waverley. Together with landscape improvements and the other recommendations posted elsewhere, this would, over time, help Waverley fill its historic role of town center.

Our recommendations center around a concept called smart growth, an emerging statewide and nationwide concept. For Belmont, this means:

- Growing strategically without large increases in traffic by making public transportation easier allowing people to live within walking distance of shopping, playing, and jobs.
- Adding housing and supporting retail while preserving and promoting open spaces and green space and leveraging existing infrastructure.
- Providing diverse housing options. Belmont is getting older, and many of its seniors are house-rich but cash-poor. Some wish to downsize and stay in Belmont in their later years, but with few options for doing so, they may be forced out of Belmont.

2. Waverley Recommendations and Implementation

Recommendation 1: Create a “Transit Overlay Zone” to allow mixed-use development with higher densities to take advantage of the transportation options in the Waverley Square area.

The Transit Overlay Zone would provide incentives for mixed-use development, allowing three- and four-story buildings along Trapelo Road and Pleasant Street within walking distance to the commuter rail station. This zone should be structured in accordance with the emerging M.G.L. Chapter 40R Smart Growth Legislation, which provides additional state payments and funds for the approval of increased residential densities in Smart Growth locations.



Some commercial stretches of Trapelo Road and Pleasant Street currently located within walking distance of the commuter rail and bus lines are occupied by auto-oriented businesses. These parcels could eventually be better utilized by residential and mixed-use development conforming to the character of the surrounding neighborhood while supporting transit ridership. Under the guidelines of Chapter 40R’s Smart Growth Zoning District, a Transit Overlay Zone would provide zoning incentive payments for the creation of new housing in Waverley Square. Based on the number of units of new construction projected (not even built) in the Smart Growth Zoning District, payments to Belmont from the Commonwealth would range from:

- \$10,000 for up to 20 units
- \$75,000 for 21-100 units
- \$200,000 for 101-200 units
- \$350,000 for 201-500 units
- \$600,000 for 501 or more units of housing.

Additionally, the current 40R legislation provides a one-time payment to Belmont of \$3,000 for each unit of new development planned upon issuance of a building permit.

Although 40R is a very new program, with proper examination and proper legislation, a Transit Overlay Zone in Waverley Square could allow the Town of Belmont to receive hundreds of thousands of dollars of state money for new housing development, concentrate new compact development around transit and existing infill sites, and ultimately help diversify and increase housing options for Belmont residents.

Use/Dimension	New Transit Overlay	
Zone	LB I/ LB III	LB II
Distance from station	1,500 sqft	2,000 sqft
Height – Stories	3	4
Height –Feet	35	45
Parking	1.5 spaces (per dwelling unit over 2 bedrooms), 1 space per 500 sq ft of retail	1.5 spaces (per dwelling unit over 2 bedrooms), 1 space per 500 sq ft of retail, 1 space per 350 sq ft of R&D/ office

The Transit Overlay Zone should encompass properties located within 1,500 feet of the commuter rail station (2,000 feet from the commuter rail station along Pleasant Street). Within this zone, greater building height would be allowed by Special Permit and with design review. In the Waverley North area, additional heights could reach 4 stories and 45 feet, while in the Waverley South area, heights should be limited to three stories and 35 feet. The Waverley area could accommodate relaxed parking requirements due to increased public transit use, promotion of shared car services such as Zipcar, and a self-selecting population interested in using public transit.



Recommendation 2: Construct a 325-car structured garage.

In accordance with its smart growth focus, Waverley Square is an ideal location for a commuter parking garage or park-and-ride facility that could also be a shared garage for businesses and shoppers. The proposed environmentally “green” garage could provide parking for 325 cars in the northeast corner of the Shaw’s parking lot. A retail use complementary to the Shaw’s could be located on the ground level of the garage. Implementation would require a zoning amendment, funding, and the consent and support of the property owner/user. Parking could be allocated as follows:

- Weekdays from 7 am to 6 pm:
- Approximately 200 spaces reserved for commuter rail users via a paid permit system that gives preference to Belmont residents
- Approximately 40 spaces rented to Waverley businesses
- Approximately 85 spaces remain free dedicated parking for Shaw’s
- Evening and weekends:
- Free parking to encourage shopping, dining, and events in Waverley



Funding for construction could be provided by the MBTA, the Commonwealth of Massachusetts, and the Town, all of whom would benefit from the project. Based on preliminary cost and revenue estimates, the project appears to be financially self-supporting (however, additional study would be required).

Recommendation 3: Facilitate a mixed-use development that would provide space for a high-quality restaurant.

Waverley desperately needs more dining options. A small mixed-use building over the south portion of the municipal lot would provide space for a high-quality restaurant and specialty food market that would increase vitality and draw visitors during the evening hours. The restaurant building would anchor the square and create a more intimate, engaging space on Church Street. It would break up the feeling of a vast asphalt triangle and increase parking availability from approximately 40 spaces to approximately 65 spaces. Ample parking would be available during the restaurant’s busy evening hours. The Town would receive both revenue from the sale of development rights and additional ongoing property tax revenues from the new building.

Endnotes

1 DRAFT Belmont Consolidated Strategy and Plan, FY2006 – 2010.

2 Boston Globe, Tuesday, November 16, 2004. “Church asks for halt to trespassing charge.”



1. OVERVIEW

Trapelo Road can generally be described as an unmarked arterial road intersected by connector streets with narrow sidewalks and dangerous intersections. The width of the street and lack of lane markings encourage through traffic to travel much faster than would be considered safe for both drivers and pedestrians. The main goals for the redesign and improvement of Trapelo Road are to:

- Improve safety for all road users;
- Reduce traffic speed while maintaining an acceptable level of service;
- Encourage the use of public transit; and
- Provide parking to meet the needs of stakeholders living or doing business along Trapelo road.

These goals can be attained through the implementation of various traffic calming techniques. The following principles have been recommended in nearly all the geographic locations studies on the Trapelo Road/East Belmont Street Corridor.

2. CORRIDOR-WIDE RECOMMENDATIONS

Recommendation 1: Lane Configurations & Demarcation

Since the Corridor varies greatly regarding the volume of traffic, a single lane configuration could not meet the needs of all the geographic study areas. Peak demands, mode split, and land use all relate to the lane configuration and differ over the stretch of the Corridor. Despite the variation, a primary recommendation for the entire Corridor is to clearly mark the lanes and parking spaces regardless of configuration. Lane markings such as driving lanes, pedestrian crosswalks, and bicycle lanes identify where each road user has space. The information conveyed by simply marking lanes and crosswalks greatly improves traffic flow and safety.

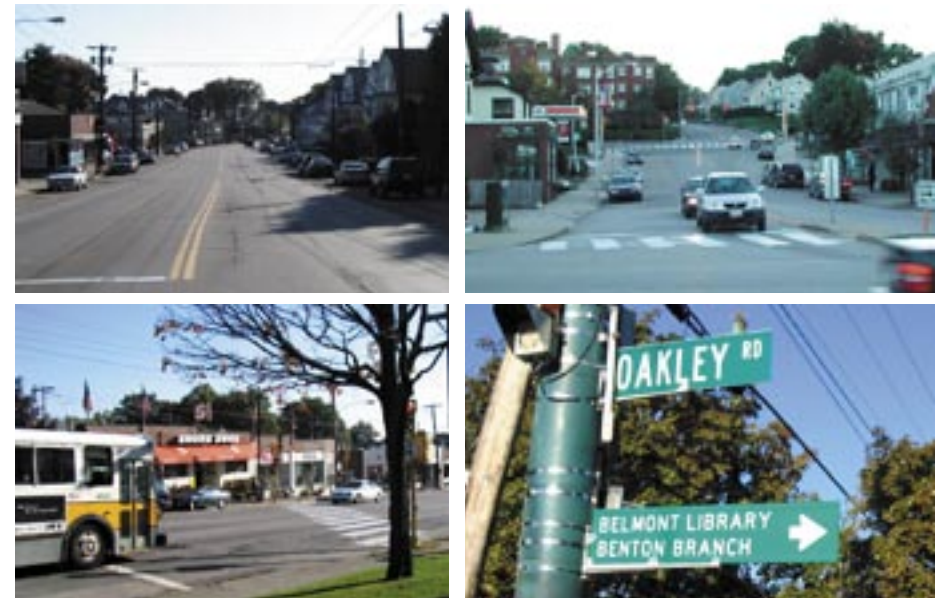
Recommendation 2: Crosswalk Treatments

Crosswalks on the Corridor are very wide. It is not uncommon to see pedestrians hesitate to cross the roadway as traffic comes roaring down East Belmont Street and Trapelo Road. Crosswalks on side streets are also very wide, and in some locations they are almost as wide as those on Trapelo Road. The width of the crosswalks across both Trapelo Road and the side streets is of concern for the safety of pedestrians. Several traffic calming methods address this problem without decreasing the

capacity of the road: textured pavements, raised crosswalks, bump-outs, and median islands. A combination of these techniques has been recommended in each geographic area depending on the road conditions. Textured pavements, such as bricks and stamped concrete, can be used for crosswalks only or entire intersections to increase driver awareness and reduce speeds slightly. Raised crosswalks also slow vehicles while increasing pedestrian visibility to the driver. Bump-outs and median islands shorten the distance pedestrians have to walk to cross the street and narrow the lanes slightly, slowing vehicles down.

Recommendation 3: Bus Stop Location & Pavement Designation

The #73 bus is an important part of the Trapelo Road/East Belmont Street Corridor. Some observations reported a mode split as high as 50 percent for the bus during the morning peak hour. Given the importance of the bus, several actions can be taken to improve its performance. The most basic change is to clearly mark bus stops on the roadway so cars do not block or park in areas designated for bus



Clockwise from top left: existing street condition; Common Street intersection; signage; public transit in Harvard Lawn

services. The identification may be as simple as coloring the road a bright blue or painting a series of lines informing drivers not to use the area. Relocating key bus stops from the near side of the intersection to the far side of the intersection allows for more efficient movement to and from the curb. It also assists with the flow of traffic at intersections because the bus is no longer blocking right turns.

Recommendation 4: Signs and Signals

In the same way that lane markings improve traffic flow and safety, signs and signals indicating speed limits, pedestrian crossing, and neck downs are an important aspect of road safety for the Corridor. However, signage (e.g., speed limits, school zones, neck-down, pedestrian crossing) was limited, inadequate, or missing altogether for the entire Corridor. Providing pedestrians with a dedicated walk signal improves the safety of intersections and provides information regarding time left before traffic resumes movement. Speed limit, crosswalks, center medians, parking, and bus stop signage that is highly visible for all road users should be added all along East Belmont Street and Trapelo Road. The increased signage can be approached as part of a greater traffic safety campaign that markets the Corridor as a main street with residential and commercial vitality.

3. IMPLEMENTATION AND FUNDING

Since many recommendations are common across the Corridor and funding sources are similar, the implementation and funding schemes have been combined. For instance, lane markings were recommended for the Corridor; cost

estimates for lane markings range from \$10,000 to \$50,000 per mile.¹¹ Several funding sources may be particularly appropriate for the recommended changes along the Corridor:

- MassHighway Transportation Enhancement Program. This program's purpose is to provide added features to standard transportation facilities and programs, including development of bicycle and pedestrian facilities. Between the Federal Highway Administration and MassHighway, it funds 90% of projects' design and construction costs (over \$50,000). The Town of Belmont would be responsible for the final 10%.
- MassHighway Footprint Pilot Program. This program targets towns wishing to maintain their unique community characteristics when implementing necessary roadway improvements. "Main streets" comprise one funding category. Eligible projects include pavement work, signing, signal upgrades, and many pedestrian and bicycle-oriented urban design improvements.
- "Chapter 90" transportation improvement funds that the state is required

to provide every municipality under Chapter 90 of Massachusetts General Law. Belmont's share in Fiscal Year 2003 was \$268,764.80.

The table below lists the major recommendations, estimated costs, and funding strategies that can be used to implement these streetscape improvements.

	Improvement	Time Frame	Funds Required	Funding Options	Locations Recommended
Lane & Intersection	mark lanes	0-6 months	minimal	Mass Highway Transportation Enhancement Program**	All
	textured crosswalks	6 months - 1 year	moderate	Mass Highway Footprint Pilot Program**	Harvard Lawn Waverley
	raised crosswalks	6 months - 1 year	~\$2,500 for asphalt; more for other materials	Mass Highway Footprint Pilot Program**	Waverley Palfrey
	median islands	6 months - 1 year	~\$10,000 each*		Harvard Lawn
	prohibit left turns	6 months - 1 year	inexpensive (study, signage, & enforcement)	Mass Highway Footprint Pilot Program**	Harvard Lawn
	relocate bus stops	6 months - 1 year	minimal	MBTA	All
	optimize signals	1 - 2 years			Harvard Lawn
	pedestrian signals & additional signage	0 - 2 years	moderate (traffic analysis most expensive)		All
	chokers/curb extensions	1 - 3 years	\$7,000 to \$10,000*	Mass Highway Footprint Pilot Program**	Waverley Palfrey
	construct planted median	1 - 3 years			Harvard Lawn
Non-vehicle	mark bike lanes	0-6 months	minimal	Mass Highway Transportation Enhancement Program**	Harvard Lawn Waverley
	widen sidewalks (incl. some side streets)	1 - 5 years	moderate to high	Exaction process from new residential & mixed-use development; Chapter 90	Harvard Lawn Waverley

* Institute of Transportation Engineers. 1999. "Chapter 3: Toolbox of Traffic calming Measures." Traffic calming: State of the Practice. Source website: <http://www.ite.org/traffic/tcstate.htm#tcsop>.

** See above descriptions.

2. HARVARD LAWN

A. Existing Conditions

The Harvard Lawn study area runs along East Belmont Street from the town line to the beginning of Trapelo Road. Particular attention was focused on the intersections at Grove Street and School Street.

Traffic Flow & Congestion

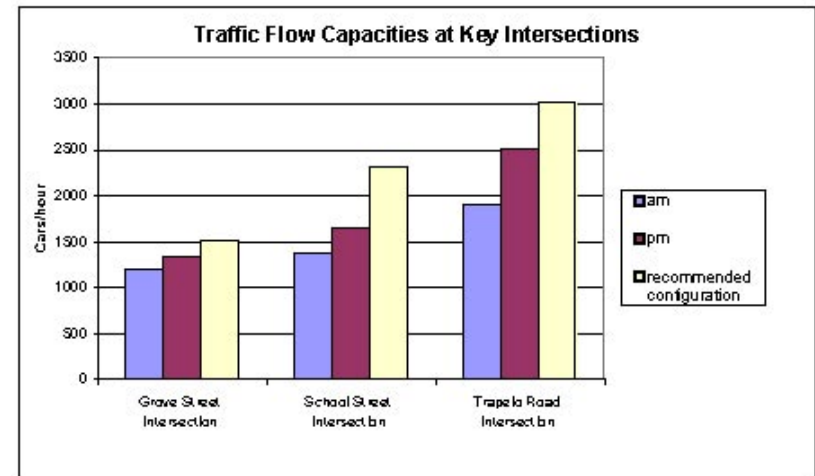
East Belmont Street serves as both an arterial and connector street. The road currently has little lane demarcation and in places the number of lanes is not clear. Parking lines are also sporadically marked. During the observed peak periods, the volume of traffic on East Belmont Street was moderate to heavy and varied considerably from the Belmont town line to the split of Belmont Street and Trapelo Road. (See Appendix.) According to analyses performed using Highway



From left: dangerous Trapelo intersection; inadequate signage

Capacity Manual software, the level of service at major intersections along East Belmont Street is rated as a D on a scale of A-F, with A being the highest operating condition (see Appendix).¹ Cars traveled smoothly between major intersections, but faced delays at traffic signals. Several conflicts between turning vehicles and oncoming traffic were observed during the count periods. These contribute to delays and make the intersections unsafe for travelers of all modes.

The mode split between people using cars, taking the #73 bus, walking, or biking is an important factor in suggesting changes to a road. As expected, the mode split for Harvard Lawn, which is based on observed traffic counts² (see Appendix), shows that the automobile is the dominant mode of transportation in the area. However, the Cambridge-bound bus mode split was greater than the auto share for the morning peak in the Grove Street vicinity (52 percent bus to 44 percent auto). In the evening peak period, the outbound Grove Street mode split was 33 percent bus and 68 percent auto — less than the AM peak but still greater than most suburban areas, showing the value of the #73 bus route to Belmont residents.



Safety

Safety for pedestrians, bicyclists and drivers is a major concern for the Harvard Lawn area. According to a study commissioned by the town of Belmont, from April 2000 through May 2003, 81 accidents occurred in the Harvard Lawn area.³ The greatest number of accidents occurred at the major intersections of Trapelo Road, School Street, and Grove Street with 17, 23, and 21 accidents respectively. These accidents may be attributable to speeding, conflicts between oncoming traffic and turning vehicles, or lack of adequate street markings (lanes and crosswalks). Observed speeds increased from east (35 mph) to west (50 mph).

B. Harvard Lawn Recommendations

Along the corridor as a whole we seek to clarify the number of lanes and right of way at intersections, and provide a lane configuration appropriate to the traffic volume. This should improve driver safety and confidence, and reduce speeds without significantly increasing average travel times. At the Grove Street and School Street intersections, there is a need to better balance auto and pedestrian traffic through the addition of traffic islands, highly visible crosswalks, and marked turning lanes and signals. The large percentage of bus users merit improved bus stops particularly on the inbound side of the street.

Recommendation 1: Reconfigure lanes along East Belmont Street

Given the considerable differences in traffic volumes observed between the three key intersections of Harvard Lawn, we propose different lane configurations tailored to each of these sections. To improve service levels, the recommended lane configurations provide room for growth in traffic. Where current roadway width is unnecessary, we recommend reallocating the space to pedestrian uses.

1. Town line to Grove Street – design a two-lane configuration

This configuration can support a maximum peak hourly load of approximately 1,500 vehicles in each direction, more than the observed volume. In addition,

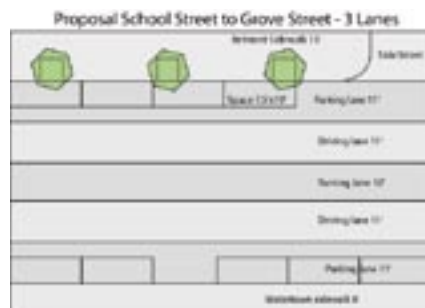


it preserves existing parking, and provides additional space for a marked bike lane and wider sidewalks on both sides of the street. The proposed median adds a green feel to the roadway, improves storm water retention, and provides a clear location to mark the a residential gateway into Belmont.

Explicit marking of a bike lane is recommended as the narrower roadway leaves less space for passing cars. A

marked lane sends a signal to drivers to be aware of cyclists, and demonstrates that cyclists are welcomed by Belmont.

2. Grove Street to School Street –from four to three lanes



Along this section of the road, traffic volume increases to an evening peak of approximately 950 vehicles each direction per hour at School Street. Given this increase and the relatively short blocks, we propose a three-lane configuration with a central left-turn lane. This allows for the smooth flow of through traffic, with excess capacity. Similar street conversions from four to three lanes with these dimensions have been successfully implemented on streets with similar and higher volumes.^{4,5} For cyclists, the transition from two to three lanes is beneficial as it allows for passing cars to give a wide berth to cyclists. Thus, rather than stripe a dedicated bike lane,



we recommend a fog line to demarcate the right side of the driving lane, and a wide parking/cycling lane with marked spaces to create space on the road for cyclists. The wider sidewalks on the Belmont side reflect the vibrant commercial uses in that area. The sidewalk widening will require substantial funding and may require a reconfiguration of overhead bus wires. On-street parking is an important amenity and traffic calming device that should be retained.

3. School Street to Trapelo Road – clarify existing use

This road section carries the heaviest volume of traffic on the corridor before the road splits between Belmont Street and Trapelo Road. In this section, there is less need for a turning lane since the country club borders the Watertown side of the street. Consequently, we recommend maintaining and clarifying the existing four-lane configuration. This would require marking parking spaces and 11-foot driving lanes. Although cyclists would ride in the rightmost travel lane, the ample road width permits vehicles to pass easily.



4. Intersection Design

The recommended intersection redesigns are intended to increase pedestrian safety and improve the level of service by reducing vehicle speeds while maintaining volume capacity; creating a safer pedestrian environment; and improving access to public transportation. Three major intersections on East Belmont Street were chosen for redesign based on accident records, pedestrian use, mode split, and traffic congestion: Grove Street, School Street, and Trapelo Road.

Recommendation 2: Introduce textured crosswalks and pedestrian islands at all major intersections; Realign angled crosswalks

Textured pavement and median islands at crosswalks increase driver awareness of pedestrians and reduce traffic speed. East Belmont Street is between 57 and 60 feet wide at the three major intersections. This is a long way to walk for the elderly, younger children, and disabled pedestrians. Crosswalks and islands not only allow for safe crossing and provide a safe haven between travel lanes, but create a narrowing effect that slows traffic slightly. Realigning crosswalks to intersect the street at right angles reduces the length pedestrians have to travel across the street. Currently, the Grove and School Street intersections have angled crosswalks that are dangerous for pedestrians.

Recommendation 3: Sharpen the right turn radius at Grove and School Street

Several intersections have broad corners that allow cars to turn right at high speeds, endangering pedestrians. Decreasing the turning radius for vehicle turns slows the vehicles and reduces the probability for accidents (see Appendix).⁶ Since sharpening the corner requires increasing the square footage of paved corner sidewalk, pedestrians benefit from added space. At certain corners, such increased sidewalk widths could be used for outside café space or other activities.



Rendering of transportation enhancement and traffic calming measures at Grove Street intersection

Recommendation 4: Prohibit left turns at Grove Street intersection

Cars turning left comprise only one to three percent of total traffic at the major intersections in Harvard Lawn, yet cause significant delays. A primary way to improve the level of service of the intersection is to prohibit left turns. Using Highway Capacity Manual Software, the existing condition of the Grove Street intersection was compared to the proposed intersection configuration. The signal timing and number of lanes were held constant while left turns were prohibited and lanes were reduced to 11 feet (see Appendix). The level of service along East Belmont Street was raised from D to C simply by prohibiting left turns. The impact of the changed lane width was negligible. Additional adjustments to optimize signal timing and adjustments for improved pedestrian mobility should further improve the level of service for the targeted intersections.

Level of Service Changes for Grove Street⁷

	Belmont Street Eastbound	Belmont Street Westbound	Arlington Street Northbound	Grove Street Southbound
Existing Conditions	D	D	D	C
Prohibited Left Turns	C	C	D	C

Recommendation 5: Improve bus stops at all intersections and move strategic stops to the far side of the intersection to facilitate flow

Better conditions for bus commuters are critical in maintaining and increasing the mode split for buses and reducing congestion as Harvard Lawn develops. Bus stops should be marked on the street to prevent drivers from parking or standing in those areas. Demarcation can be accomplished using a bright color scheme (royal blue is common) or a series of lines and crosshatches. This method is simple and inexpensive and the impact is great for bus movement along the corridor. Additional improvements to bus stops are included in the streetscape section of the report.

Far-side bus stops facilitate bus movement in and out of the travel lane. They are more efficient and allow for better traffic flow around the bus by not conflicting with right turns. Far-side stops are recommended at least for the westbound side of Grove and School Street intersections. Additional changes may be advisable with additional analysis.

Recommendation 6: Change Templeton Parkway to be one-way southbound

The volume of traffic moving onto and off of Templeton Parkway was minimal; however, it caused a significant proportion of the observed conflicts and traffic delays. While jurisdiction with this recommendation lies with Watertown, it is highly recommended that Belmont coordinate with Watertown to resolve this traffic problem by making the street one way southbound.

Recommended Intersection Changes for Harvard Lawn

Intersection	Lane Changes	Crosswalk Changes	Sign and Signal Changes	Bus Stop Changes
Grove Street	Change from 12' lanes to 11' lanes; no bike lane at intersection	Cross at shortest axis; textured pavement; pedestrian island	All left turns prohibited; optimize signals for pedestrian and auto flows; add pedestrian signals	Far-side stop on Belmont side; Watertown remains same
School Street	Change from 12' lanes to 11' lanes; no bike lane at intersection	Cross at shortest axis; textured pavement; pedestrian island	Optimize signals for pedestrian and auto flows; add/improve pedestrian signals	Far-side stop on Belmont Side; add bus shelter to Watertown side
Trapelo Road	Change from 12' lanes to 11' lanes; no bike lane at intersection	Textured pavement; pedestrian island at Trapelo Road	Optimize signals for pedestrians and auto flows; add/improve pedestrian signals	Add bus shelter to both sides of East Belmont Street

3. CUSHING AND PALFREY SQUARES

A. Existing Conditions

Trapelo Road in the Cushing-Palfrey Square area is fairly successful in moving cars from one end to the other, but less than ideal in other ways. Although striped as a two-lane road, its width and lack of road markings allow drivers to form two lanes in both directions, making it de facto four lanes. However, while 56 feet is too wide for a two-lane road, it is barely wide enough for a safe four-lane road with parking, especially given Trapelo Road's lack of clear street markings. The combination of undefined and narrow lanes, high auto speeds, and few crosswalks make the road a confusing free-for-all that is unsafe for all road users. Eleven pedestrian accidents took place in the immediate vicinity of Cushing Square from 1998 to 2002, and a cluster of five more took place in Palfrey Square.⁸ Despite the road's frantic nature, the volume of traffic on Trapelo Road does not warrant four lanes. Traffic counts indicated the road carries 672 cars per hour in the morning commute (in one direction only) and 708 cars per hour in the evening peak.



Clockwise from top left: wide intersection at Common Street; lack of lane markings, Palfrey Square; wide roadway, Palfrey; unsafe pedestrian crossings and high-speed traffic, Cushing Square

B. Recommendations

Our vision is for a calmer, safer, and easier to navigate version of Trapelo Road that retains its ability to smoothly move the current volume of traffic. Signs and lane markings will clearly inform motorists of where they should be on the road. Cyclists will have room to maneuver comfortably and feel safer than they do now. Traffic will move consistently at the legal speed limit and still be able to maneuver around stopped buses. Emergency vehicles will be able to clear a route through the traffic in minimal time. Pedestrians will feel comfortable and safe when crossing the road in convenient places.

Recommendation 1: Reconfigure the Trapelo/Common Street intersection

Preferred Option: A three-lane configuration for Trapelo Road between Francis Street and Belmont Street. Paint the new lane configuration on Trapelo Road temporarily. The preferred configuration includes one 12-foot driving lane in each direction, a continuous 10-foot left-turning lane in the center of the road, and parking on both sides of the street through the entire Palfrey-Cushing portion of the Corridor. This configuration will provide a clear path for drivers and make Trapelo Road safer and less chaotic. Because this configuration has just one driving lane in each direction, the more cautious drivers, rather than the heavy speeders, will set the pace. Although a street with two driving lanes can accommodate the typical traffic observed in our study area, adding the center lane will provide space for emergency vehicles, necessary passing situations, and of course cars that need to turn left without holding up traffic. Since one of Trapelo's two current lanes already becomes a left-turn lane at most intersections, we do not expect this configuration to significantly diminish capacity or increase travel time. Typically, a three-lane road is feasible for two-way traffic volumes of less than 1,500 vehicles per hour in both directions.⁹ We observed a maximum of 1,340 vehicles per hour during the evening rush hour.

Residents and business owners along Trapelo Road have voiced strong opinions for and against reducing the number of lanes on Trapelo Road. Since this lane configuration is such a contested issue in Belmont, and it is difficult to gauge its potential effect on Trapelo Road and the surrounding areas, a temporary painting of the new lane configuration could win support for the idea, and establish its legitimacy. By instituting the lane change temporarily for six months, the Town will be able to empirically determine whether the three-lane configuration constrains traffic to an unacceptable degree, as some argue it will. If so, the change in lane configuration can easily be modified.

Secondary Option: Maintain Trapelo's existing ambiguously four-lane configuration for part of the Cushing-Palfrey study area. For the slightly higher volume stretch between Common Street in Cushing Square and Trapelo Road's intersection with Belmont Street, the road could maintain its existing de facto four-lane character. This is not the preferred option, however, because the increase in traffic volume

is slight between Palfrey and Cushing Squares and only becomes considerable east of the Belmont Street intersection, where a four-lane road is the preferred option.

Recommendation 2: Maintain existing roadway width

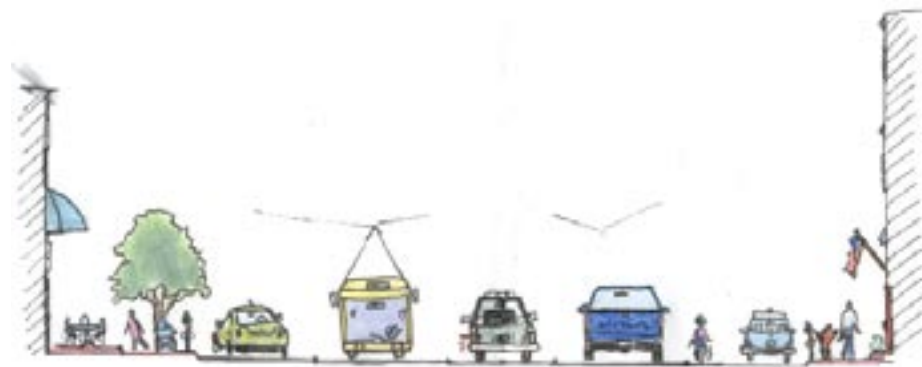
The preferred configuration will use the entire current curb-to-curb roadway width, since there is no immediate need to extend the sidewalks in Cushing and Palfrey Squares; however, our generous three-lane configuration can easily be tightened, allowing for the option of sidewalk widening in the future.

Recommendation 3: Increase parking lane width to 11 feet and stripe a “fog line” on the outside of the driving lane

The increase in parking lane width will provide plenty of room for cars and cyclists to share the road more safely than they currently do. Cyclists will less likely face being either forced into fast-moving traffic or be “doored” by someone exiting a parked car. While the preferred lane configuration does not allow for formal bicycle lanes, a “fog line”—or a line at the edge of a lane designed to encourage traffic to stay within the lane width—could be striped at the right side of the driving lane to encourage cars to travel closer to the street’s center lane, and away from cyclists.

Recommendation 4: Conduct a professional traffic study

A formal study of Trapelo Road’s traffic needs would dramatically increase the political viability of potential lane configuration changes, pedestrian bump-outs, and other design suggestions that affect the road itself. A professional traffic study is essential to implementing these suggestions.



Section showing three-lane configuration, allowing for public transit, car, and bike traffic, in Cushing Square.

Recommendation 5: Implement traffic calming measures on nearby Palfrey St.

Although our analysis indicates that overflow traffic on residential streets resulting from reducing the number of lanes on Trapelo Road is unlikely, Palfrey Street bears the highest risk of any street in the area. To ensure that commuters do not make the detour onto this side street, traffic calming measures on Palfrey Street are recommended. These could take the form of a number of standard traffic calming tools such as chicanes, bulb-outs, or speed humps.

4. WAVERLEY SQUARE

A. Existing Conditions

Trapelo Road between the Waltham town line and Beech Street consists generally of four travel lanes (two in each direction) and two parking lanes, except at the intersection of Hawthorne Street. At this intersection, Trapelo Road narrows to two driving lanes to accommodate a bump-out of the sidewalk, creating safer crossing Butler School students. The width of the crosswalks both across Trapelo Road and across the side street is of concern for the safety of pedestrians.

Under present conditions, this portion of Trapelo Road serves as a corridor for commuter traffic originating in the western suburbs at peak travel times. During the observed peak periods, the level of service remained high despite large volumes of cars moving through the entire street corridor (see Appendix). Given the observed traffic counts, the average daily traffic (ADT) for the Waverley section of the corridor is approximately 19,500 cars per day; however, these numbers vary greatly across the Waverley study area as indicated in Table 1. Figure 1 illustrates the traffic flow at four key intersections in Waverley and the mode split between automobiles, public transit, pedestrians, and bicyclists.

Under present conditions, Trapelo Road serves as a corridor for commuter traffic originating in the western suburbs during the morning and evening peak travel times. During the observed peak periods, the level of service remained high despite large volumes of cars moving through the entire street corridor (see Appendix for count data). Given the observed traffic counts, the average daily traffic (ADT) for the Waverley section of the corridor is approximately 19,500 cars per day; however, these numbers vary greatly across the study area. Table 1 breaks the ADT down by the four key intersections in our study area. Figure 1 illustrates the traffic flow at four key intersections in Waverley and the mode split between automobiles, public transit, pedestrians, and bicyclists. Average Daily Traffic on Trapelo Road in Waverley.

Location	AM Peak Inbound*	AM Peak Outbound*	Total	Average Daily Traffic**
Beech Street	528	616	1144	11,440
Bump-out at Hawthorne Street	664	640	1304	13,040
Waverley Square	1072	1164	2236	22,360
Pleasant Street	1248	1544	2692	26,920

*Refers to hourly number of vehicles traveling inbound (toward Cambridge) and outbound (toward Waltham) on Trapelo Road during from 8-9am.

** Calculated using the total of AM peaks as 10% of total daily traffic (a general rule of thumb in transportation planning is that a street carries 10% of its daily traffic during the peak hour).

Waverley is served by two MBTA bus lines and by the commuter rail. Based on observations during traffic counting, it appears that the public transit is underutilized in Waverley. Ridership on buses was approximately 10 to 15% of capacity during peak hours. In addition, there were only a handful of boardings at the commuter rail station. Thus, these two modes of public transportation are not well used by commuters, considering access to the MBTA North Station via rail is only approximately 18 minutes.

While bikers were observed using Trapelo Road, the lack of bike lanes renders this mode of transportation dangerous given vehicle speeds on Trapelo Road. The presence of Wheelworks in Waverley Square draws bicyclists to this area. On weekends, several bike clubs ride the Corridor since they rendezvous at Wheelworks for group rides.

B. Recommendations

Reconfiguration of Trapelo Road from the Belmont town line with Waltham to Beech Street will increase pedestrian and business activity while improving pedestrian and traffic safety. Given the availability of public transit in this portion of the Trapelo Road corridor, transit resources should be better promoted.

Figure 1a Traffic Flow at Pleasant Street



Figure 1b Traffic Flow Waverley Square

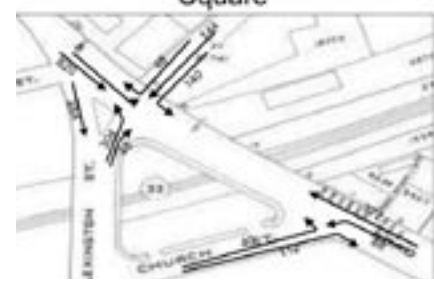
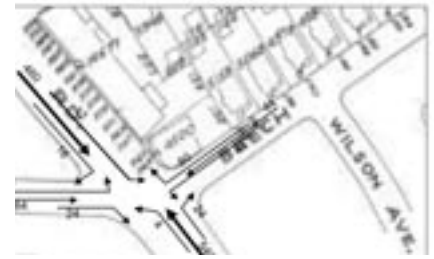


Figure 1c Traffic Flow at Hawthorne Street Neckdown



Figure 1d Traffic Flow at Beech Street



Waverley Square Traffic Flows

Recommendation 1: Reconfigure lanes on Trapelo Road from the Belmont/Waltham town line to Beech Street

Based on our observations of traffic patterns on Trapelo Road in Waverley, we recommend a three-lane configuration as shown above. This lane configuration will improve pedestrian, driver, and cyclist safety while reducing overall speed through this portion of the Trapelo Road corridor. As mentioned in the Cushing/Palfrey section, the left turn lane will alleviate the congestion problems at intersections caused by left turning vehicles. It should be noted that the inbound traffic from Waltham is constrained to one lane at the intersection with Pleasant Street and again as it approaches the neck-down at Hawthorne Street. Under these existing conditions, no significant traffic backup was observed during peak commuting hours. Based on studies on roadways of similar configuration (e.g., Massachusetts Avenue in Arlington), it is anticipated that traffic will flow at an acceptable level.

As shown in the table above, traffic volumes in Waverley Square indicate heavy flow of vehicles toward Waltham. Because of this increased volume on this section of Trapelo Road, a four lane configuration is retained to help the flow of outbound vehicles (i.e., toward Waltham). We also recommend that line marking be applied to the pavement to avoid lane confusion by drivers.

Recommended lane configuration vs. the existing conditions.

	New Lane Configuration	Existing Conditions
Pedestrian Safety	Easier for pedestrians to cross	Wide street, hard to cross
Vehicle Safety	Improved	No change
Speeding	Can be expected to reduce speeding	No change
Bicycle	Cyclists' safety is improved	Cyclist's safety is unwarranted
Traffic Congestion	Traffic will still flow at an acceptable level of service.	No backup
Parking	No substantial change	No change

Recommendation 2: Implement traffic calming techniques.

Crosswalks

To increase the ease and safety of crossing Trapelo Road, we recommend that raised and textured crosswalk be added to Trapelo Road at the following locations:

- Across Trapelo Road adjacent to the Shaw's Supermarket
- In front of the Korean Church
- Hawthorne Street

A bump-out has been recently constructed at the Hawthorne Street crosswalk to increase the safety of pedestrians, especially children attending Butler School. The bump-out here does not accommodate the recommended lane configuration and will need to be reduced. Once this is done, we recommend installation of a raised crosswalk. We also recommend installation of timed pedestrian signal at all crosswalks to ensure the safety of pedestrians crossing Trapelo Road.

The raised crosswalks will increase ease and safety for pedestrians wishing to cross Trapelo Road at these locations. Raised crosswalks reduce vehicular speed

Major Transportation Recommendations for Waverley Square

- Three-lane configuration
- Crosswalks
- Reconfiguration of Intersections



which can result in fewer collisions given the decreased speed.¹⁰ They cause only minimal delays for emergency vehicles. We also recommend the use of bollards to increase the safety for pedestrians standing at the cross walks and other situations where pedestrians may be more exposed to vehicular traffic.

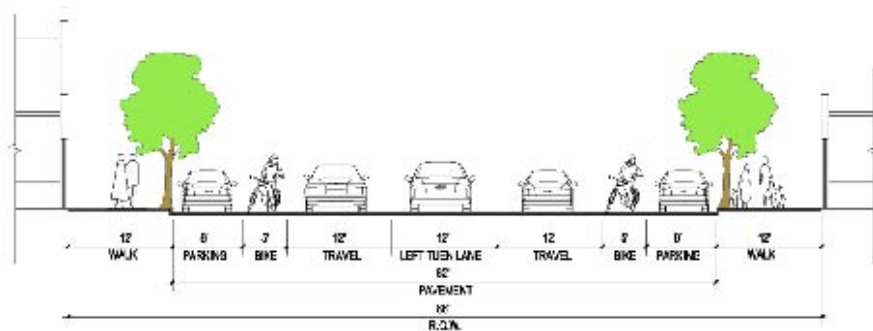
Choker/curb extensions

We recommend that several side street intersections be reconfigured to decrease the width of the crossing. This reconfiguration will increase the safety for pedestrian crossing the street, decrease vehicular speed as they enter the side streets, and reduce cut-through traffic. We recommend that choker/curb extensions at the following streets:

- Waverley Street
- Lexington Street (right turn for inbound traffic)
- Hawthorne Street

Recommendation 3: Add bicycle lanes when reconfiguring driving lanes

Based on the recommended street configuration, we recommend a delineated five-foot bike lane on each side. These lanes should protect bicyclists from the general flow of traffic and help them avoid being “doored” by drivers opening their car doors.



2 travel lanes, 2 parallel parking lanes, 2 bike lanes and 1 two way left turn lane

Endnotes

- 1 The level of service “represents a range of operating conditions and the driver’s perceptions of those conditions [not including safety].” Transportation Research Board. 2000. Highway Capacity Manual. Washington DC: TRB.
- 2 Morning and evening peaks traffic counts were performed October 29, 2004 from 8:00 to 9:30 am and November 16, 2004 from 5:00 to 6:00 pm.
- 3 Cecil Group. 2004. “Executive Summary: Putting it all together.” Belmont Community Development Plan. Belmont: Cecil Group. Source website: http://www.town.belmont.ma.us/Public_Documents/BelmontMA_Commdev/trapelo/FinalCDPEconStudy.pdf

4 Columbia Pike Sept 2003 (see appendix)

5 Road Diets from Walkable communities - <http://www.walkable.org/download/rdiets.pdf>

6 Ewing, Reid. 2002. “Impediments to Context-Sensitive Main Street Design.” Transportation Quarterly. 56:4 (51-64).

7 The AASHTO Highway Capacity Manual is accompanied by a software program that helps transportation planners analyze lane configurations and signal timing. Limited analysis was done for each major intersection in Harvard Lawn using this software

8 Cecil Group with Abend Associates. 2004. Town of Belmont Economic Development Study. http://www.town.belmont.ma.us/Public_Documents/BelmontMA_Commdev/trapelo/FinalCDPEconStudy.pdf

9 Four to Three Lane Conversions, Powderhorn Park Neighborhood Association, Minneapolis, Minnesota

10 Source: <http://www.ite.org/traffic/table.htm>

11 Four to Three Lane Conversions, Powderhorn Park Neighborhood Association, Minneapolis, Minn.

1. OVERVIEW

Parking was one of the concerns most frequently voiced by residents and business owners along the Trapelo Road/East Belmont Street Corridor. Many interviews and public comments exposed concerns about parking shortages. We found that while there is not an overall parking shortage along the Trapelo Road corridor, there is a “parking problem” caused by uneven distribution of parking and regulations that make it impossible for certain types of users to access conveniently located parking along the corridor.

Configuration and Availability: Parking is allowed along most of Trapelo Road and East Belmont Street except where there are bus stops, hydrants, and other curb uses. Street parking is parallel to the curb, and parking on both sides of the street is permitted where the roadway is wide enough. The street spots are unmetered and have various time restrictions along the road. These spots are unevenly marked, and in areas where there are no painted lines delineating spots, parking is less regular and efficient. In many parts of the corridor, curb cuts and driveways interrupt street parking. On most residential side streets, parking is limited to a maximum of two hours at a time. Residents living on side streets in close proximity to the corridor voiced strong concern regarding commercial parking in front of their homes.

Current Parking Regulations: On-street (curbside) parking spaces within the area have time restrictions ranging from 15 minutes to two hours, although portions of the corridor have no time restrictions, and vehicles can park all day. The inventory also revealed that the application of time restrictions did not follow any specific pattern. While most of the streets had one-hour time restrictions, others in the immediate neighborhood posted two-hour parking restriction.

Throughout Belmont, an overnight parking ban prohibits street parking from one am to seven am. This regulation applies on Trapelo Road and East Belmont Street, as well as on all side streets. According to a Town parking official, enforcing this ban is a top priority, with significant manpower dedicated to the effort. Free overnight parking is permitted in municipal lots as long as the cars are removed before 7:00 AM.

Parking and Economic Development: Commercial uses comprise a significant portion of the real estate along the Trapelo Road corridor, and parking availability is critical for businesses to flourish. In addition to ample parking for customers,

businesses require parking for their employees. In interviews, owners and employees of businesses along the corridor described serious parking difficulties. Beyond the limited permits available for parking in the Cushing Square municipal lot, there is very limited all-day parking available along the corridor. Therefore, business owners must close their stores in order to move their car, and employees must repeatedly move their cars out of the two-hour parking spots along Trapelo Road to avoid a ticket.

The result of this collective action is a “parking rotation” whereby employees searching for all-day parking cycle through the available parking spaces. Their use of these spaces limits customers from parking in close proximity to the business they wish to visit, creating potential problems for both the businesses and their customers. The lack of appropriate parking is a serious concern for the businesses in the area and must be addressed if businesses are expected to grow and flourish. Many of the commercial establishments along the Corridor are “destination stores” that do not require high traffic volumes, so we believe that the on-street parking supply is sufficient to accommodate current customers. It is not sufficient, however, to accommodate business owners and employees as well.

2. CORRIDOR-WIDE RECOMMENDATIONS

To meet current demands and accommodate growth, Belmont should consider a more holistic approach to parking along the Trapelo Road/East Belmont Street Corridor. An increased supply, coupled with a demand management strategy, will benefit those businesses located along the road, in addition to providing residents with incentives to help meet the town’s needs. Parking is an issue that affects economic development, traffic and pedestrian safety, neighborhood feel, and environmental quality. Our recommendations not only address the impact of parking on these areas, but also the goals that will most improve the quality of parking along the corridor:

- Evening out the supply and demand mismatch for parking along the corridor.
- Accommodating multiple user groups with different needs.
- Satisfying the future parking demand generated by growth and new development.

Recommendation 1: Create an Employee Parking Permit Program

We recommend that the Town accommodate the parking needs of business owners and employees with a parking permit program in order to leave all of the Corridor's on-street parking for customers. Belmont should consider a hangtag or sticker program whereby businesses will be assigned a limited number of hangtags based on their square footage (e.g. one tag per 2000 square feet of business space). The hangtag would allow employees to park during regular business hours (8 am to 6 pm, Monday to Saturday) in specific zones, such as on side streets within 100 feet of Trapelo Road/East Belmont Street, or in areas that are not otherwise restricted. The total number of hangtags assigned would never exceed a certain number (as determined by square feet and town). Businesses can then rotate the hangtags among their employees. The cost of hangtags should equal that of a long-term parking space available in any existing or newly developed parking lots. In addition to supporting the town's business community and opening up street parking for customers, an Employee Permit Program would generate revenue that can be allocated toward residential streetscape improvements, expansion of municipal lots, or other Town goals. See the Appendix for examples of successful business permit parking programs from other areas, such as Brookline.

Recommendation 2: Allow residential overnight parking

The Town should consider a pilot Residential Permit Program to lift the ban on overnight parking on Trapelo Road and East Belmont Street. Those residents living on or within 100 feet of Trapelo Road could purchase a sticker allowing them to park on the road. Cars parked in these zones without a sticker will be ticketed or towed. Allowing residents of the immediate area to park on the street will alleviate some of the pressures of new development in the area. Additionally, cars parked along the sidewalk provide a buffer between pedestrians and moving vehicles, making the road more pleasant to walk, day or night.

Recommendation 3: Accommodate parking for new development in Belmont's zoning by-laws

As the Corridor begins to experience new development, parking must be acknowledged. We encourage Belmont to think creatively about minimum parking requirements, curb cut standards, and other parking restrictions for this area. Please see the Zoning section for more detail.

3. CORRIDOR-WIDE IMPLEMENTATION AND FUNDING

The recommendations we suggest are primarily changes that could be made in the short-term at little or no cost. In fact, both the Employee and Resident Permit Programs could be significant sources of revenue for the Town. New development could also be a parking resource, and deliberate changes to Belmont's zoning by-laws should not only steer parking to appropriate locations, but also encourage developers to help the Town form its parking strategy through studies and plans. We encourage Belmont to address the commercial parking problem immediately, as this issue profoundly affects local businesses' health and vitality and local residents' shopping experience.

4. HARVARD LAWN

A. Existing Conditions

Along East Belmont Street, there does not seem to be a parking availability problem. Our observations show that there are always open spaces on the street, even in the densest commercial areas around School and Grove Streets. Despite this, some cars illegally double-park adjacent to businesses, even when nearby spots are available. In addition, business owners and employees in the commercial districts face the problem of repeatedly moving their cars to avoid time restrictions. On the Watertown side of the road at Grove Street, there is no distinct curb, and cars park halfway onto the sidewalk, creating a pedestrian risk.

Residents use street parking along East Belmont Street as part of their commuting strategy. They drive from their homes in Belmont, park, and take the MBTA's #73 Bus toward Harvard Square. In particular, street parking in front of the Oakley Country Club in Watertown is used this way.

B. Harvard Lawn Recommendations

Recommendation 1: Formalize legal parallel parking spots along the corridor¹

Painting lines on the street perpendicular to the curb would delineate individual parking spaces. Designated spots create more efficient parking and reduce confusion about where parking is allowed. In addition, bus stops, loading zones, and other restricted areas should be clearly marked.

Recommendation 2: Create a commuter parking pass program for the area adjacent to the Oakley Country Club

Currently, commuters compete for spots along the country club and risk tickets for staying beyond the time limit. The Town should consider selling a number of parking passes (limited to the number of spots in the country club area) for a nominal charge so that commuters can be assured a ticket-free spot. This kind of program would encourage commuters to use transit and provide a source of revenue for the Town. The Town may also consider working with the MBTA to provide discounted monthly bus passes for commuters participating in the parking pass program.

Recommendation 3: Consider incentive programs for Harvard Lawn residents

The location of Harvard Lawn, a short bus ride away from employment centers in Cambridge, makes it an excellent location for transit-oriented development programs. We suggest that Belmont offer an incentive program designed to reduce car ownership by new residents of the area. For example, in return for owning one instead of two cars per unit, a household in the area could get a free or reduced-fare MBTA pass and/or a Zipcar membership financed by the Town. There are also pilot programs for home buyers to receive a better rate mortgage rate for owning fewer cars and living near transit. Location efficient mortgage programs are funded by Fannie Mae and have been tested in Chicago and several California cities.

5. CUSHING AND PALFREY SQUARES

A. Existing Conditions

A total of 457 parking spaces exist in Cushing Square—320 (70 percent) of which are located off-street and 137 (30 percent) are located on street. The off-street parking spaces included 52 public parking spaces in the municipal lot and 268 private off-street parking spaces located in Cushing Square serving the local residents, employees, and business customers. Twenty of the private off-street spaces belonged to a church on Palfrey Road.² Observations and discussions held between September and November 2004 with business owners, employees, and visitors suggest heavy use. Competition is intense for the limited number of on-street parking spots, particularly those along Trapelo Road. Current parking restrictions also prohibit multi-hour parking on residential streets adjacent to Trapelo Road.

Three major parking resources in the Cushing Square area are a municipal lot, the Starbucks Coffee short-term lot, and time-restricted spaces on Trapelo Road. Many drivers use the Starbucks lot for dual purposes, either to visit Starbucks for short period (under ten minutes) or to run errands in Cushing Square when the municipal lot is full. We have not identified a parking shortage in Palfrey Square.

However, increasing parking availability off Trapelo Road should be considered in conjunction with any residential or commercial growth in this area.

Parking supply in Cushing & Palfrey

Designation	Location	No. of Spaces
Public Parking		
Off -Street	Trapelo Road	52
On-street	Common Street	41
	Trapelo Road	47
	Willow Street	13
	Linden Avenue	8
	Cushing Avenue	11
	Horne Road	10
	Williston Road	7
Subtotal: Public Parking		137
Private Parking		
Off Street	CVS (old)	39
	#486 to 492 Common Street	13
	Church (Palfrey Road)	20
	# 40 and 42 (Trapelo Road)	20
	#52 and 54 (Trapelo Road)	10
	#85 to 100 (Trapelo Road)	14
	Private Lot (Horne Road)	30
	Miscellaneous Private Parking	122
Subtotal: Private Parking		268
TOTAL SPACES		457

B. Cushing and Palfrey Recommendations

Recommendation 1: Deck the Cushing Square Municipal Parking Lot

Use of the municipal parking lot is limited to two hours and serviced by a centrally located meter where tickets may be purchased at five cents for every 15 minutes up to one dollar (\$1) for the entire day and displayed on the dashboard of the parked vehicle. Vehicles with monthly parking permits are allowed to park all day. A total of 64 permits were sold for \$20 per month to Cushing Square businesses



for their employees during the month of January 2002. According to the Belmont Police Department, the maximum number of monthly permits available is 65.³ There are far too few permits available to satisfy the market demand.

Belmont should consider creating a two or three level parking deck. A two-level lot would yield at least 77 to 82 additional parking spaces. Decking the parking lot would add parking spaces that could be used by all local businesses, avoiding the controversy of parking in residential neighborhoods. While this is an expensive option, it is one that has been considered and proposed on numerous occasions over the course of the last three years. If graded appropriately with the first level below street grade and landscaped, the deck would not be an “eyesore.”

Recommendation 2: Acquire additional parking spaces

The Town or a private developer could acquire additional parcels and use them as parking lots or garages. Some likely parcels in the vicinity include the old CVS (please see a detailed recommendation regarding this parcel in the zoning section of the report), and 13 and 19 Horne Road.⁴

Recommendation 3: Improve parking technology

Real-time parking information available on the Belmont website could raise general awareness about parking opportunities and constraints in these areas. Finally, we recognize that Belmont recently removed parking meters along portions of Trapelo Road in an effort to incite more visits from shoppers. As a long term strategy—based on future use and demand—Belmont should consider adding meters in selected locations if evidence suggests that the meters can pay for themselves. The advantages of metered parking are that enforcement is more efficient than for time restrictions; people are more aware of meter restrictions; and revenues may be used to pay for streetscape improvements such as trees and benches.

6. WAVERLEY SQUARE

A. Existing Conditions

The Waverley Square parking inventory indicates that there are a total of 500 spaces; 410 spaces (82 percent) are located off-street and 90 spaces (18 percent) on-street.⁵ The off-street parking spaces are comprised of 40 public parking spaces in the municipal parking lot located next to the commuter train station, and 298 private off-street parking spaces located in Waverley Square that serves the customers and employees of businesses; this includes 235 parking spaces belonging to Star Market. The Waverley Square parking lot survey indicated that 66 vehicles parked in 40 spaces for the study period. Short-term parkers (up to

two hours) represented about 55 percent of vehicles observed. By comparison, the on-street parking data shows that a little over 55 percent of on street parking spaces were utilized at any one time. Overall, more than 70 percent of the vehicles parked on street were parked for two hours or less in Waverley Square.

The parking situation in the Waverley and Central Square area from the corner of Pleasant Street and Trapelo Road down to Beech Street includes the best and worst of all parking worlds. Around the Shaw’s supermarket and Waverley triangle, parking spaces are often readily available for one- to two-hour parking. Whether or not their behavior is condoned Shaw’s, customers can park once and frequent shops within a five-minute walk of the Shaw’s lot. One business explicitly moved from Harvard Square to Waverley Square with the knowledge that they could attract more customers arriving by automobile due to the parking supply.

On the other hand, parking spaces in Central Square are more frequently occupied, although we hypothesize that many on-street spaces are taken by employees parking instead of customers. The most troubling problem in this area is that no long-term day-parking options exist for commuters, who should be encouraged to park and take either the bus or a short commuter rail trip to downtown Boston or Harvard and Porter Squares.

B. Waverley Recommendations

Recommendation 1: Regulate business employees more effectively

While retail employees should be discouraged from parking in spaces meant for shoppers, more off-street parking should be created (see below) through the previously mentioned hangtag program so that employees can legally park all day if necessary. The Town should make it easier for non-businesses, such as the Church and residents, to lease parking spaces to businesses. It may also be beneficial to work closely with the MBTA to provide pooled discount T passes to small business employees.

Recommendation 2: Designate special parking areas for loading activities, the disabled, and bicycles

Businesses need designated delivery times to run smoothly. Few, if any, loading zones exist for businesses that receive deliveries via their front doors. We recommend that three of the on-street (i.e., Trapelo Road) parking spaces be reserved for delivery trucks to load and unload merchandise and/or supplies from 8 to 10 am. After 10 am, the parking spots revert back for use by customers. Posted signage can be used to indicate which parking spots are temporarily unavailable due to loading and unloading activities. This approach has been used successfully in other cities where parking is at a premium and road widths

are narrow (e.g., Quebec City in Canada). The elderly and disabled require the shortest possible walking distances to shops and services. Dedicated parking spaces for these populations should be near sidewalk ramps whenever possible and several spots away from busy intersections. Bicycle racks located between the commuter rail station and Central Square are too few and far between. Businesses like Wheelworks and the cinema could sponsor and maintain well designed and well placed bicycle parking.

Recommendation 3: Construct a shared and environmentally “green” parking garage

The recommended location for the garage is in the northeast corner of the current Shaw’s parking lot (shown in the red box below). This project is detailed in the zoning section of this report and would allow for about 200 commuter spaces, 40 to 50 spaces that could be bought or leased by businesses for their employees, and over 85 spaces to remain for Shaw’s shoppers. The garage should be free on weekends and evenings to encourage shoppers and visitors to come to the area. This structure would also create enough parking for Belmont to entertain the possibility of more cultural and arts events, such as music and farmers’ markets in the square on weekends.



Above: Waverley Plan -- red box highlights parking garage; Below: three examples of structured parking garages -- they don’t have to be ugly!

Recommendation 4: Develop an additional level of below-grade parking under the municipal lot

It is strongly recommended that our restaurant/mixed-use zoning proposal for Waverley Square (see “Zoning” chapter) require an additional level of below-grade parking. Again, this shared lot would be flexible, regulating paid daytime parking either via meter or automated gate system with validation. At night, the lot would provide adequate spaces for the new restaurant and other nighttime dining options that will potentially emerge in the Waverley area. The proposed lot could be located on the southern edge of the municipal lot.

Endnotes

- 1 Angle parking (both front- and rear-end in) was also considered for several areas along the corridor, including in front of the Oakley Country Club and between the Grove Street intersection and the Cambridge/Belmont town line. We felt that driving speeds along the road at these spots—ranging from 35 mph in Cambridge to almost 50 mph at the country club—precluded this option. Even with speeds slowed through road configuration changes, cars pulling in and out of angle spots would disrupt traffic flow and cause safety issues.
- 2 BSC Group Study, 2003: Municipal Parking Study: Town of Belmont, p. 9.
- 3 BSC Group Study, 2003: Municipal Parking Study: Town of Belmont.
- 4 These parcels are located behind the current parking lot, with an approximate combined value of \$850,000
- 5 Source: BSC Group. 2002. Municipal Parking Study, Town of Belmont

Economic Development

1. OVERVIEW

We define economic development as strategic commercial revitalization for the business centers in Belmont, and we believe that such revitalization is integral to the town's health and vitality. A stronger business environment along the Trapelo Road/East Belmont Street Corridor will give residents incentives to shop locally for goods and services, rather than spending in other towns and commercial centers. Well-planned revitalization of the Corridor retail district can enhance the small-town community atmosphere that many Belmont residents would like to preserve. Revitalization will generate additional revenues for existing and new businesses, strengthening their financial stability. Vibrant and financially-healthy retail centers will increase the property values along the Corridor, allowing a higher percentage of the town's tax revenues to come from businesses. These tax revenues ultimately translate into more funds for schools, public safety, open space, economic development, and a range of other amenities integral to the quality of life in Belmont.

The following chapter will examine economic development in a town-wide context, but will also include specific recommendations for the Corridor, including the retail nodes in Harvard Lawn (along East Belmont Street), Cushing Square, Palfrey Square, and Trapelo Road from Beech Street to Waverley Square. Some of the commercial centers studied are more successful than others. However, the entire study area will benefit from improvements to the planning mechanisms, organizational structures, administrative processes, and financing tools that can affect the pace and form of the Corridor's economic development. Most importantly, the recommendations presented here can benefit businesses and residents in all of Belmont, not just along the Corridor.

2. CORRIDOR- WIDE RECOMMENDATIONS AND IMPLEMENTATION

The following section details four main economic development recommendations for Belmont. Each recommendation is followed by sub-recommendations and implementation steps.

Recommendation 1: Create organizational structures to guide economic development strategy

While commercial taxes currently represent only 4.6 percent of Belmont's tax revenues, investment in an economic development strategy can increase tax receipts from enhanced commercial and residential property values¹. Such an investment would enable the Town to effectively meet the challenge over time of maintaining community character while encouraging enhanced livability. We suggest creation of an appropriate, long-term organizational structure in Belmont to oversee the design and implementation of all economic development initiatives. Such investment would be timely; the Business and Economic Development Planning Group (BEDPG) will soon conclude its work, and the permanent structures suggested here would assure the continuity of BEDPG's efforts.

Phase 1. Create a permanent Town Economic Development Committee (EDC)

The Economic Development Committee will be responsible for carrying out an overall economic revitalization plan for Belmont and will build on the work done to date by the BEDPG. EDC members will be appointed by Belmont's Board of Selectmen and will represent various organizations such as the Watertown-Belmont Chamber of Commerce and any other existing merchant organizations in the town. Committee members should also represent the town's various core commercial centers, including Belmont Center, Waverley Square, Palfrey and Cushing Squares, and Harvard Lawn.

The EDC will be responsible for:

- Designing the Belmont Economic Development Plan. The plan should include a long-term growth vision and implementation strategies.
- Providing input into the ongoing design and implementation of economic development initiatives.
- Ensuring that the needs of the business community are voiced and addressed before the town government
- Continually appraising the town's Economic Development Director of issues of concern to business owners

Phase 2. Hire an Economic Development Director (EDD)

The Economic Development Director will be a salaried Town employee. This new position could be financed through revenues raised through a small increase in the current commercial tax rate or through re-allocation of existing Town resources.

Initial financing of the position through a small increase in commercial tax payment would induce an important mutual accountability mechanism for both the Town and commercial property/business owners. (See “Funding Economic Development Programs” below.) Over time, this salary can be funded through enhanced revenues from increased Belmont property tax revenues.

The EDD would be supervised by the Director of the Office of Community Development. Key duties of the Economic Development Director would include:

- Serving as an official liaison between businesses and the Town
- Being actively engaged in the Belmont Business Permitting Process (see Appendix)
- Serving as a liaison where appropriate between the business community and town departments and boards
- Implementing and monitoring progress of the Town’s Economic Development Plan.
- Leading the Town’s new business recruitment strategies and marketing of existing businesses
- Designing Belmont’s business promotion strategy and creating town-wide events that promote businesses, e.g. “Fall Festival” or “Taste of Belmont”
- Articulating the importance of businesses to Belmont’s livability through public town events, ribbon-cuttings, and press releases
- Creating a quarterly list of properties available for sale or lease and distributing it to local developers, business owners, and landlords
- Participating in the creation of a local merchants’ association, modeled on the Main Street structure (see below)

Phase 3. Implement a Merchant Association by designating the corridor as a “Main Street”² district

The Watertown-Belmont Chamber of Commerce provides critical services in support of its member businesses. However, analysis of the Corridor’s commercial areas suggests that revitalization requires: 1) a formal structure for participation and coordination among all business owners along the Corridor; and 2) more unified coordination between Corridor business and commercial property owners and the Town.

This improved coordination could come about through a Corridor merchant association, and we propose the Main Street model as an appropriate starting point for structuring this entity. The Corridor would be designated as a Main Street district, and a public-private institutional structure composed of a range of Corridor stakeholders would oversee the Corridor’s revitalization over time, in concert with a larger Belmont economic development strategy.

The Main Street Program is a public and private partnership used by over 1,600 communities in the U.S. as a strategy to revitalize neighborhood or downtown commercial districts. Main Street models generally promote activities in four key areas, ensuring the participation of the full range of businesses in the designated district(s):

- Organizational development among stakeholders and volunteers
- Design-oriented physical and streetscape improvements to enhance the district’s attractiveness
- Promotion activities to coordinate marketing to shoppers, investors, new businesses, and residents
- Economic restructuring to strengthen existing businesses and attract appropriate new economic uses

As institutionalization is key to the sustainability of the endeavor, most Main Street models operate through an incorporated 501(c)3 structure. Paid and volunteer staff members are generally required, and funds can be raised through specific revenue-generating activities, local municipal matching grants, and contributions by businesses.

The initial efforts of a Main Street merchant association for the Corridor should be focused on:

- Developing and enhancing organizational structures and relationships among business owners along the Corridor and among business owners, residents and the town.
- Crafting and implementing strategies to market the Corridor’s existing business centers; such marketing will not only improve foot traffic and the mix and quality of businesses over time, but also help to attract attention to the area by current commercial property owners, interested new investors, potential developers, and the Town.

Suggested Implementation Timeline:

Phase	Action	Timeframe
1	Create the Economic Development Committee	Early 2005
2	Hire an Economic Development Director	End of 2005
3	Create a Trapelo Road / East Belmont Street Corridor Merchant Association, modeled on the Main Street Program	2006-2007

Recommendation 2: Improve the efficiency of the business permitting process

A large part of making a neighborhood business-friendly and economically successful is an efficient and clear permitting process. After reviewing Belmont's business application procedures, we found that the permitting process had been improved by making documents and procedures available on the town website and including a checklist for businesses to follow.

However, many of the steps chronologically listed on the checklist do not apply to all potential new businesses. In an effort to clarify the existing procedures, we formulated a flow chart that outlines the steps. The flow chart is organized to separate the steps and requirements for certain businesses from those applicable to all (see Appendix). We do not suggest procedural changes—only a rearrangement of the existing guidelines as listed on the Town of Belmont's website.

This flow chart revealed much about the barriers that businesses such as restaurants and those seeking structural change to their buildings can experience in the permitting process. The process favors non-food businesses and those not seeking building structure changes. For example, if a restaurant seeking a liquor license wanted to locate in Belmont, it would likely need to adjust an existing structure. Assuming that this business met the parking requirements, it would need to pass through eight permitting steps, of which a minimum of three entail separate application processes. This lengthy process may impede Belmont's ability to attract desirable medium- and large-sized restaurants when competing with other surrounding towns.

Hire an Economic Development Director (EDD) to serve as a business liaison
As mentioned in the "Organizational Structures" section, the proposed EDD would facilitate the permitting process through familiarity with business interests and Town requirements. The Economic Development Director could take over the role in the permitting process now served by the Office of Community Development Coordinator. The authorities of other existing decision-making bodies party to the permitting process would remain intact (see Appendix).

Recommendation 3: Attract restaurants by decreasing the parking requirements and minimum seat thresholds for liquor licenses

Local restaurants are integral to creating community; they become anchors of downtown areas and bring life to town centers once other businesses close for the day. Local residents could walk or drive a short distance to a destination restaurant along the Corridor and see other neighbors at a local establishment, increasing livability and sociability in the town. We believe this would be an appealing option compared to driving longer distances.

However, most restaurants cannot raise enough revenue on serving food alone. The high margins on alcohol are what enable many restaurants to be successful year-round. Aside from the few small pizza parlors, sandwich shops, and take-out restaurants, there are few dining options in town because restaurant establishment is difficult and costly. Current minimum parking requirements and seat thresholds make it extremely difficult for new, community-oriented businesses to obtain the liquor licenses they require (See Appendix for details on the Belmont business processes and regulations).

Decrease the parking requirement: Belmont's zoning by-law requires one parking space for every two restaurant seats; restaurants currently only qualify for a liquor license in Belmont if they have seating capacity for at least 120 patrons, which would in turn require a 60-car parking lot. Belmont's small parcel size and limited space for parking lots preclude many opportunities to obtain a liquor license. Understandably, the only full liquor license currently allocated in the town is to the Oakley Country Club, which has ample parking space on its property.

We therefore recommend a decrease in the minimum parking requirement to one parking space for every four restaurant seats and allowing restaurants to count existing street and lot parking. Parking demand for restaurants is timed differently than for businesses and stores with daytime hours of operation; more on-street parking becomes available in the evening. Given the suggested neighborhood orientation of new restaurants, limiting parking will encourage patrons to walk or carpool.

Decrease the minimum seat threshold: We recommend reduction of the minimum seat requirement for a liquor license from 120 to 60 seats. Given the limited and typically smaller size of the existing stock of commercial space along the Corridor, establishing a 60-seat restaurant is much more feasible than a large-scale 120-seat eatery. This reduction would also enable mid-size restaurants to better compete with surrounding communities.

Recommendation 4: Increase the number of full liquor licenses³

Other towns in Middlesex County with similar populations successfully incorporate restaurants with liquor into their community while maintaining community character. In comparison to other towns, Belmont has an unusually low number of liquor licenses. Given the ways in which current regulations effectively protect Belmont from more unsightly alcohol establishments, the number of full licenses could be increased while still preventing the town from being overrun by liquor purveyors.

Town	Full Licenses Available	Full Licenses Given	Wine/Beer Licenses Available	Wine/Beer Licenses Given
Reading	24	10	5	1
Wakefield	25	11	5	2
Melrose	24	12	6	0
Belmont	3	1	8	7

Decrease the annual permit fee for liquor licenses: Belmont is by far the most expensive town of its size in Massachusetts in which to apply for a liquor license, and the most expensive in which to obtain an annual permit.⁴ All of the application fees shown below are in addition to the \$200 Alcoholic Beverage Control Commission (ABCC) fee and costs of advertising to notify abutters.

Town	All Alcohol License	Wine/Beer License	Application Fee
Belmont	\$4,000	\$2,500	\$500
Weymouth	\$1,350	\$750	\$0
Newton	\$2,700	\$1,600	\$200
Lexington	\$3,500	n/a	\$100

The current price structure makes obtaining a liquor license economically infeasible in many cases. Current and potential Belmont restaurants are at a competitive disadvantage to neighboring towns that can have a much lower break-even point between alcohol revenues and the cost of their licenses. We recommend that Belmont bring its application and annual license fees into line with similar communities.

Recommendation 5: Compare ways to finance economic development programs

Generating and allocating Town funds in a manner commensurate to the importance of economic development would strengthen the vibrancy of Belmont's commercial and residential areas. Commitment to new financing mechanisms would also signal the Town's commitment to enhancing Belmont's commercial sector.

The following are a set of options that could be considered to finance initiatives such as façade and streetscape improvement, employment of a Town EDD, and improvement of Town services to businesses (including offering trash pick-up, snow removal, and sidewalk maintenance). Several of these options would also serve to discourage underutilization of prime store-front properties, making less-than-optimal commercial uses less affordable.

Option 1. Classify property in Belmont; levy a separate commercial tax rate

Like some other towns in Massachusetts, Belmont currently has the same tax rate for all types of property (residential, commercial, industrial, and personal). In 2003, this rate was \$10.78 per \$1000 of assessed value.⁵ Since commercial property is a relatively small percentage of the total assessed value of all Belmont property, only 4.6 percent of the town's tax revenues in 2003 came from commercial property.⁶ Meanwhile, nearby towns, including Watertown, Cambridge, and Lexington, have commercial tax rates almost twice those of residential property.⁷

According to the Massachusetts Department of Revenue Division of Local Services, to levy a separate commercial tax, the Town Assessor would have to classify all real property into four classes: Residential, Open Space, Commercial, and Industrial. After classification, either the Board of Selectmen or Town Meeting would determine how much each property class would contribute to the Town's tax base.

The following chart shows a two-phase option for increasing the commercial tax rate. Phase I could be implemented as soon as the properties are classified, and a new commercial tax rate is approved by Town Meeting. Once the benefits of a separate commercial tax rate are observed by business owners, Phase II could be implemented 3-4 years later.

	Tax Rate	Increase in Rate	Adjusted tax revenues	Increase in revenues
Y2003 Rate	\$10.78/\$1000	-	-	0
Phase I – Increase rate by 10%	\$11.86/\$1000	\$1.08/\$1000	\$2,401,918	\$218,356
Phase II – Increase rate by 10%	\$13.04/\$1000	\$2.26/\$1000	\$2,642,100	\$458,548

This recommendation does have implications for Proposition 2 ½, a state law that limits the property taxes that can be raised by a city or town. The main requirements of Proposition 2 ½ and their implication for a commercial tax increase in Belmont are described below. According to the law,⁸

- A community cannot levy more than 2 percent of the value of all taxable property. The 2003 levy ceiling amounted to \$109,377,985 (the total 2003 levy was only \$47,163,787). An increase of the commercial tax rate by 1.08/\$1000 would still keep the total tax amount levied by Belmont well below the 2 percent threshold. Classification of real property determines which class-of-property taxpayers will pay what share of a town's total property tax.
- The property tax levy can only increase by a certain amount from year to year. The levy limit, or the maximum levy in a given year, is determined by an automatic 2.5 percent increase each year, plus exceptions for new growth and overrides. As long as a community levies no more than its levy limit, there is no restriction on the dollar increase or percentage increase in the levy from year to year. The actual levy can increase by as high a percentage as the Town decides as long as the levy stays below Belmont's predetermined levy limit. The recommendation to increase commercial taxes by 10 percent in each of the two Phases does not violate Proposition 2 ½ as long as the \$2,642,100 levy from Phase II stays below the levy limit set by the Town for commercial property.

It is important to note that several of the business owners interviewed indicated that they would be willing to pay higher taxes if they translated into better municipal services. It is possible that some landlords will pass along the tax increase to their tenants (small business owners) in the form of higher rents, which could adversely affect these business owners in the short-term. However, the Town should consider the long-term benefits of a higher commercial tax rate – increased Town financial health, stronger business districts, optimized uses of commercial property, and enhanced livability for its residents.

Increasing the tax rate for commercial properties by \$1.08/\$1000 assessed value would be an increase in Town revenues of over \$200,000 annually – enough to fund an economic development staff person and to seed a small façade improvement program. As discussed in the recommendation to create the position of Economic Development Director, a new staff person would take an important role in strengthening the Town's commercial sector. Increasing the tax rate another 10 percent in Phase II to \$13.04/\$1000 assessed value would be an increase in Town revenues of almost \$460,000 annually, which would be used to provide more municipal services, such as consistent trash collection, snow removal, and sidewalk maintenance.

Option 2. Provide a package of services to area businesses for a fee

Since revenues from commercial taxes cannot be specifically earmarked to finance services in support of economic development, another option is for the Town to charge a fee for a package of services to all businesses within Belmont. The Town could introduce a program whereby business owners could opt to pay a fee (either flat or as a percentage of revenues) to finance services such as trash pick-up & recycling, marketing in town publications, and a few free employee parking permits. (Please see the "Parking" section of this report for details on this proposed program.)

Bundling these services into one package would reduce the administrative costs of separate billing for each service and increase the market for the package. (For instance, some business owners may only want the trash collection, but since it is bundled, they will be willing to buy the full package.) This fee could also be allocated for improvements such as sidewalk maintenance. However, since this fee for service would be an opt-in program, there could be a "free-rider" problem whereby businesses that are not paying for the package of services are still benefiting from corridor-wide services such as improved sidewalks.

Option 3. Create a betterment assessment district

Betterment assessments are defined as special property taxes that are imposed on a specific geographic area to pay for public improvements that directly benefit the assessed property owner. The property owner is assessed a proportionate cost of the improvement and may choose to pay for the betterment over a period of years (including interest) or pay in full up front. Betterments usually are assessed for sidewalk, sewer, or other infrastructure improvements.

In Belmont, this could translate into a betterment assessment district for both the commercial and residential areas along the Corridor. The revenues from the assessment could fund streetscape improvements and sidewalk maintenance. The town would need to calculate the cost of such improvements and apportion the cost appropriately among the commercial and residential abutters. Additionally, if a developer were interested in a project in Belmont, per Massachusetts General Law (M.G.L.) Chapter 80, the Town could offer abatements from the betterment assessment as an incentive to bring the project to the Corridor.

Option 4. Explore opportunities for Tax Increment Financing (TIF)

Since Belmont is overall an economically healthy community, there are not many opportunities for federal or state public incentive programs to fund business growth and infrastructure enhancements. However, Tax Increment Financing (TIF) programs, unlike many other business incentive programs in Massachusetts, are available to towns not located within specially designated “economic opportunity areas (EOAs).”

While most examples of projects that have used TIFs are located within EOAs, areas promoting job growth are also eligible. Massachusetts’ version of Tax Increment Financing allows municipalities to provide flexible targeted incentives to stimulate job-creating development. The TIF Plan, completed by the municipality, describes proposed public and private investment in the TIF Zone and is agreed upon by the municipality and all private owners in the TIF Zone. The real estate taxes generated by increased assessed value in a project area are then allocated by an agreed-on percentage to either: (1) exemption from real estate taxes; or (2) payment of a betterment fee in lieu of real estate taxes to finance related infrastructure. TIF serves to pass the tax savings on to property owners for use in project development while ensuring that the development risk is borne by those parties as well.

This tool may be appropriate for use on the McLean site or for some of the higher density proposals along Pleasant Street.

Option 5. Explore opportunities for District Improvement Financing (DIF)

Based on the same principal as TIF, the DIF program is a public financing alternative available to all cities and towns in Massachusetts. It enables municipalities to fund public works, infrastructure, and development projects by allocating future incremental tax revenues collected from a predefined district to pay for project costs. This financing strategy does not require raising taxes or otherwise affect municipal tax revenue, but it enables public investment in projects that will increase property values in the future. DIF would be a good option for financing streetscape improvements in commercial districts (see “Streetscape”), and perhaps partnering with local commercial landlords for building redevelopments to increase density or improve façades. The DIF program is new and has not been widely implemented, but it could prove to be a very useful tool for Belmont’s larger commercial areas.

More information on both of these financing strategies and other economic development resources can be found through the organizations listed in the “Resource Reference Guide” in the Appendix.

3. HARVARD LAWN

A. Existing Conditions

Harvard Lawn boasts a critical geographic location as the entrance to Belmont from Cambridge. However, the area is presently one of Belmont’s less privileged commercial locations. There are no primary squares to anchor the area, and it is not near the heart of Belmont’s retail areas. Based on interviews with business owners and residents, the Harvard Lawn commercial strip is largely seen as “forgotten” in comparison with other commercial centers in Belmont.

We identified approximately 50 businesses in the Harvard Lawn study area. Most are small, with one to three employees working at any one time. Destination businesses drawing regional customers occupy a significant share of the total, owing to their long presence on East Belmont Street or their niche products or service offerings. The existing retail mix is reasonably healthy, and vacancies are low. The commercial building stock is decent, although many structures and façades are in need of renovation or improvement. Some property and business owners have made important investments in updating building façades, creating attractive signage and placing benches and plantings in front of their businesses. Others would very much like to improve the appearance of their property, storefront, or place of business, but lack the resources or incentives to do so.

Type of Business	Number of Businesses	Percentage
Apparel/Accessories	3	5.9%
Auto Services	4	7.8%
Beauty Salons	4	7.8%
Books and Videos	2	3.9%
Dry cleaning/Laundry	3	5.9%
Food/Restaurant	9	17.6%
Health/Medicine	3	5.9%
Home/Furniture	5	9.8%
Other	15	29.4%
Professional Services	3	5.9%
Total	51	100.0%

The result is a commercial district that is filled with several real highlights that are hidden in a somewhat sprawling, discontinuous landscape. Enhanced commercial vitality is challenged by the lack of foot traffic, by limited parking availability and by an unappealing streetscape in many places. While it is difficult to estimate the ideal number of Harvard Lawn businesses that might service future local and

regional demand, we suggest that improved nodal concentration of commercial activity will encourage residents and visitors to linger and enable businesses to expand and thrive.

Our recommendations seek to establish mechanisms and incentives for commercial revitalization from which all owners of Harvard Lawn commercial properties and businesses can benefit. These recommendations are based on the key needs expressed by the area's business owners, commercial property owners and employees during interviews.

Interviews were conducted at random with those present in Harvard Lawn's places of business at the times of our visits who were willing to answer a few questions. We interviewed approximately 20 businesses, and we hope that we reached a representative sample of small and large businesses, and rented and owner-occupied businesses. We also consulted the work and reports of the Vision 21, the Belmont Business and Economic Development Planning Committee, and the Cecil Group Corridor Study.

Principal identified objectives in Harvard Lawn on which our recommendations are based include:

- Better management of distinct parking needs of business employees/owners and customers
- Increased foot traffic
- Increased investment by Town, commercial property, and business owners to improve the aesthetics of the area
- Improved support and service provision from the Town



Rendering of Trapelo and School Street intersection showing potential mixed use building and improved retail environment

B. Harvard Lawn Recommendations and Implementation

Most important to the economic revitalization of Harvard Lawn is the range of Corridor-wide recommendations presented earlier in this section. Active participation by the Town and by the Harvard Lawn business community can assure that those recommendations and options bring changes to bear on the neighborhood. Following are a set of recommendations specific to Harvard Lawn.

Recommendation 1: Participate in parking solutions

Since there are no existing municipal parking lots in Harvard Lawn or spaces in which to locate one, the neighborhood depends on the availability of on-street parking. The business hang-tag permit program proposed in the "Parking" section of this report responds to the specific parking requirements of Harvard Lawn's businesses. By allowing business owners and employees to park during opening hours within 100 feet of side streets, more on-street parking becomes available to customers.

Recommendation 2: Adapt current zoning to allow mixed use from School Street to Falmouth Street, require first-floor commercial

This area already contains a number of key anchor businesses and lies within one of the most trafficked areas of East Belmont Street. Required first-floor commercial here intends to achieve a commercial node over time, though existing commercial uses from Falmouth Street to the Cambridge line (Ericsson Street) will still be permitted.

Recommendation 3: Enliven the business environment

The Harvard Lawn business environment can be enlivened through active participation of the Harvard Lawn business community and the Town. Efforts to assure increased attention to the Harvard Lawn area include:

- Enhanced coordination and communication among owners of businesses and commercial properties in Harvard Lawn to voice concerns and propose solutions more collectively
- Active communication of concerns between Harvard Lawn businesses and proposed Economic Development Committee and Economic Development Director (see above section)
- Participation of Harvard Lawn businesses in the design of the proposed Corridor-wide Main Street program (see previous section)

Recommendation 4: Improve the pedestrian experience through enhanced streetscape

Making the corridor more pedestrian-friendly and visually appealing will lead to an increase in foot traffic and commercial vitality. This could be achieved through public or private interventions. Some proposals to enhance the streetscape include:

- Encouragement of public and private property reinvestment, and particularly the exploration of town-level incentives to encourage property and commercial façade improvements
- Private solutions such as setback landscaping and more attractive signage, priorities identified by a range of Harvard Lawn business owners, or the placement of benches or tables outside of some establishments during warmer months
- Public solutions such as sidewalk widening to 13 feet on East Belmont Street, addition of street trees, and exploration of means to signal the entrance to Harvard Lawn commercial areas—arriving from Cambridge—through small light post banners or similar features

Assuming availability of additional public and private revenues as outlined in the Corridor-wide section above, a streetscape improvement fund could support some of these changes.

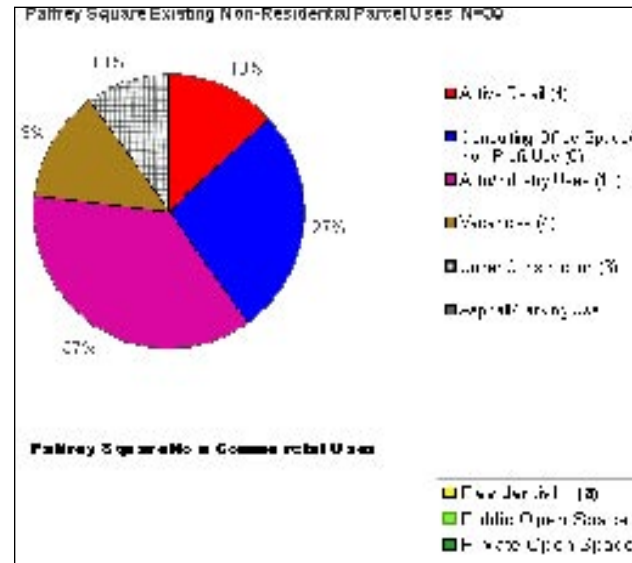
4. CUSHING AND PALFREY SQUARES

A. Existing Conditions

The economic vision for Cushing and Palfrey Squares seeks to create a place that succeeds economically and socially for the enjoyment of its residents and visitors alike. After analyzing previous recommendations in depth, identifying current conditions and speaking to business owners, employees and residents, we found that many of the obstacles preventing Cushing and Palfrey from becoming more economically vibrant were related to the lack of an economic development plan and to zoning restrictions.



Palfrey Square land use diagram



In this section we review various examples of what Cushing and Palfrey might look like if zoning, design, and business programming changes were implemented. Beyond the recommendations made in the Corridor-wide economic development section above, the following ideas recognize the current assets and capitalize on the great potential of Cushing and Palfrey Squares.

Cushing Square

Observations of Cushing Square revealed an area that works well but one for which streetscape and traffic improvements could make it a friendlier place for pedestrians. Important area assets could also be used to implement a larger town economic development vision. These assets include the municipal lot next to Starbucks and the soon-to-be-vacant CVS parcel. The potential for the municipal parking lot with regards to economic development is addressed in this Report's section on parking.

Palfrey Square

Our economic development analysis at Palfrey Square began at the corner of Harriet Avenue and Trapelo Road, along the block next to the site of the new CVS. Here we noticed a wide sidewalk which provided a great asset to the commercial store fronts with large windows. Although we saw great potential, we also noticed a lack of activity in the area signaled by the vacant corner storefront and the adjacent office spaces. Across the street near Flett Road, abundant curb cuts and lack of sidewalks created an unfriendly environment for pedestrians. This situation seems to serve auto uses well; however, it is neither attractive nor safe for pedestrians.

In terms of existing assessed property values, Palfrey Square in comparison to Cushing Square is not meeting its full potential. The Cecil Group study demonstrated that Palfrey and Central Squares combined have the highest assessed property values along the Corridor, but have the lowest value per acre. This suggests that while there are more parcels in Palfrey and Central Square when compared to

Cushing or Waverley, the current conditions of the area coupled with the uses of these parcels maintains assessed values below what they could be.

After mapping the parcel uses for Palfrey we found that only 13 percent (four businesses) of the non-residential parcels supported active retail.⁹ This does not include the new CVS development, which will add two more retail spaces to this category and raise it to 20 percent (six businesses). The most intense use of the existing parcels involved auto and semi industrial uses at 37 percent. Although the existing retail (including the L.C. Variety Convenience Store, Video Plus and the two hair salons) seems to be doing well, the lack of concentrated active retail might explain the limited pedestrian traffic. Based on the large number of underutilized parcels, we recommend that this area become an integral part of a new vision for Palfrey Square where residents, new employees and new visitors attracted by the CVS can enjoy a wealth of other services within walking distance.

2. Cushing Square and Palfrey Square Recommendations

Recommendation 1: Encourage new mixed-use development for underutilized parcels in Palfrey Square

A great advantage of Palfrey Square is that it has sites not yet built out, which can facilitate new development with greater square footage. Once some of the existing businesses on the larger auto/industrial use parcels relocate or become vacant they create a large opportunity for private developers.



A photo image showing what new mixed-use development in Palfrey Square, on the site of the old CVS, might look like.

The used car lot located at 263 Trapelo Road is as an example of what could potentially be developed if zoning regulations allowed for it. This site has potential because it is on a corner which faces Trapelo Road and will become a highly utilized intersection as pedestrians cross to get to and from CVS and Belmont Savings Bank. Ideally, the best commercial uses for new development capitalize on the increased foot traffic and new employees. A mixed-use building with a restaurant or other desired retail on the ground floor could attract area residents or employees, park visitors, or patrons of nearby businesses.

This site is currently classified as a Gas Service Station which might require site cleaning and has already been assessed by the Department of Environmental Protection.¹⁰ If required clean-up involves soil removal, an opportunity is created for underground or lower level parking. The current assessed value of the property is at \$535,000 for the land and \$167,000 for the building. The lot size of the site is 14,402 square feet which is about .33 acres.¹¹ This parcel size is large in comparison to the majority of parcels that are built out and would provide the space needed to build a two or three story building.

In order to give an accurate depiction of a possible development for the parcel we found a comparable building on a similar lot size that is within the allowable Floor Area Ratio (FAR) and meets our vision of mixed use with retail on the first floor and housing above. The sample building seen in the depiction is in Boulder, Colorado¹² and is on a site totaling .32 acres with a floor area foot print of 7,000 square feet at an FAR of 1 and includes retail on the first floor, parking, open space in addition to and six dwellings on the second floor. This type of development would not only add a sense of street life to the area, but would also create a healthy commercial area that the entire town could benefit from once these lots reach their full potential.

C. Implementation

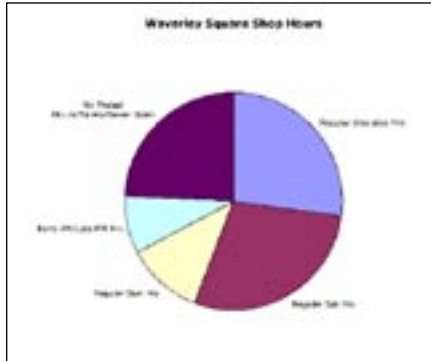
Implementation of the above recommendations is predicated on the adoption of the zoning changes discussed for Cushing and Palfrey in the “Zoning” section of this report. Adoption of a supportive Economic Development Plan is also assumed.

5. WAVERLEY SQUARE

A. Existing Conditions

The two commercial centers on Trapelo Road between Beech Street and Pleasant Street have a total of 71 businesses. Thirty-four of these businesses are in Waverley Square, while 37 are in Central Square. Waverley is a functional town square with a variety of commercial establishments including local convenience and destination businesses that draw a regional clientele, including Shaw's supermarket and Wheelworks. Central Square has more businesses than Waverley, but the overall character of the retail environment is not as vibrant.

For the purposes of this economic development analysis, Waverley Square to Beech Street will be treated as one economic entity and destination. The distance between the two commercial nodes is only .3 miles (a five-minute walk). We anticipate that as the streetscape becomes more unified and comfortable, it will create a connection between the squares. This will allow pedestrians and shoppers to smoothly flow from one square to another, rather than feeling that the squares are two separate entities. This enlarged retail "square" will create a more appealing destination for shoppers.



One of the challenges to creating this unified destination square is the inconsistency in shop hours. The "Waverley Shop Hours" chart illustrates that nearly 25 percent of the businesses from Waverley Square to Beech Street are rarely open, never open, or do not have posted hours. These underutilized store fronts impact the overall business environment by making the area look and feel neglected and deserted.

Another observation is that while Waverley could be described as a "community shopping center," there are many aspects of a healthy community shopping center that this area lacks. Most of the businesses in this area are used for convenience shopping – inexpensive neighborhood-oriented goods and services, such as take-out food, dry cleaning, and beauty salons. However, this area does not have the number of comparison good stores – clothing, furniture, gifts/novelty – that one would expect from a shopping center of this size. Consequently, Belmont residents are obliged to shop in other towns and districts that provide the goods they need, e.g. Arlington Center, Harvard Square, and Alewife.

B. Waverley Recommendations and Implementation

In order to address the issues regarding shop hours and lack of comparison goods businesses, we recommend the following:

Recommendation 1: Encourage businesses to enforce and post consistent hours

Shops with reliable, consistent hours will contribute to the creation of a vibrant environment where customers are more likely to come for one store and stay and shop in other stores. Also, having storefronts that are consistently open will create the perception that this end of Trapelo Road is "open for business." The new merchant association (see "Main Street" section above) should enforce consistent store hours across Waverley Square (at least 9 to 5 pm Monday through Friday and Saturday 9 to 2 pm). All businesses should post their hours in a visible location on their storefront window

Encouraging retailers to maintain consistent store hours across a commercial district is difficult and takes time. There must be enough customers in order for business owners to feel that it is economically viable for them to keep their stores open. Some retail districts have started this process by holding late afternoon or evening events to encourage shopping during extended hours. Eventually, if businesses see that there are enough shoppers during late afternoon or evening hours, they will post reliable extended hours. Clustering businesses that compliment each other would also encourage businesses to extend their hours and stay open more consistently. For example, a café by the movie theater near Beech Street could attract enough customers such that adjacent businesses (particularly apparel and gifts/novelty stores) would see an incentive to keep their businesses open.

Recommendation 2: Recruit businesses that will attract local shoppers

After reviewing the results from the BEDPG Survey and the Urban Land Institute's lists for community shopping centers, we recommend that Belmont attract the following complimentary businesses between Waverley Square and Beech Street:

- Restaurants with liquor
- Women's specialty/women's ready to wear
- Family shoes
- Cards & gifts
- Telephone/telecom store
- Cosmetic/beauty supplies
- Shops selling specialty foods, prepared foods & meals
- Art/craft/hobby

Recruiting these types of complementary businesses will provide an incentive for people to shop locally for their goods and services. In addition, a more vibrant retail district enhances the Main Street atmosphere that many residents would like to see on Trapelo Road. New complementary businesses will support already existing businesses—rather than competing with them—by increasing the number of shoppers, and overall revenues, in the retail district. An enhanced shopping district will ultimately increase property values, growing the Town’s tax base.

Attracting new businesses is not always an easy endeavor. There are various resources available that provide guidance on how to recruit new or expanding businesses to a commercial area. One such guide is the University of Wisconsin Extension’s Center for Community Economic Development’s Downtown and Business District Market Analysis Toolkit. A summary of their Business Recruitment Recommendations are summarized below:

- Create a business recruitment team (including realtors, bankers, current business owners, chamber of commerce, and property owners)
- Develop business incentive programs & activities
- Assemble marketing materials (including photos, demographic analysis, economic data, traffic data, and incentive programs)
- Generate leads (identify expanding businesses from other towns or identify new businesses through lawyers, bankers, and small business development centers)
- Negotiate and “close the deal”

This process takes time and Belmont should not expect to attract the entire list of businesses above in one year. The recruitment team must take a long-term view of their mission, be focused on the types of businesses it wants to recruit, and commit its time to “selling” Belmont to those businesses. It must also be noted that the job of the business recruitment team will be made much easier once some of the town-wide economic development, zoning, and transportation recommendations are implemented.

Endotes

- 1 Statistics based on assessed values as reported in Belmont’s 2003 Annual Report.
- 2 More information on the Main Street Program can be found at: www.mainst.org.
- 3 Source: State of Massachusetts’ Alcohol Beverage Control Commission (ABCC)
- 4 Source: State of Massachusetts’ Alcohol Beverage Control Commission (ABCC)
- 5 Town of Belmont 2003 Annual Report
- 6 \$2,183,562 (commercial taxes) / \$47,163,787 (total taxes)
- 7 Lexington: Residential = \$10.47/\$1000; Commercial = \$21.39/\$1000
Watertown: Residential = \$10.35/\$1000; Commercial = \$19.90/\$1000
Cambridge: Residential = \$7.78/\$1000; Commercial = \$18.28/\$1000
- 8 “Levy Limits: A Primer on Proposition 2 ½” provided by Massachusetts Department of Revenue
- 9 Active retail in this context refers to parcel use that fosters routine consumptive activity.
- 10 Department of Environmental Protection <http://www.mass.gov/dep/bwsc/brownfld.htm>
- 11 City of Belmont Assessor Property Record Card Listing at: <http://24.34.147.60/Belmont/>
- 12 Understanding Density and Floor Area Ratio. 2003. City of Boulder Colorado: Building Services. pp. 29-30. http://www.ci.boulder.co.us/buildingservices/jobs_to_pop/documents/density_floorarearatio.pdf

Open Space

1. OVERVIEW

There are several significant public open spaces along the Corridor. The expanse between Waverley Oaks, Beaver Brook, McLean, and Mount Auburn Cemetery consists almost entirely of residential and commercial land uses, and appears to offer few undeveloped green spaces and opportunities for outdoor recreation. With the exception of sporadically planted street trees and residential yards, natural resources seem almost nonexistent. However, the lack of visibility may be misleading, as several parks and important open spaces are hidden from view due to buildings or locations on side streets without signage. Our primary objective with regards to open space and natural resources along the Trapelo Road/East Belmont Street Corridor is to create visual connections improving awareness of and accessibility to the Corridor's open space and recreational resources.



Photos of, clockwise from top left, Grove Street, Payson Park Playground, and the Grove Street Playground

2. HARVARD LAWN

A. Existing Conditions

Harvard Lawn is fortunate to be home to several of Belmont's open space resources, which lie within easy reach of additional natural amenities in adjacent towns. Green spaces are visible on the Watertown side of the Grove and School Street intersections, and along the stretch of road abutting the Oakley Country Club's golf course. These resources add to the aesthetic appeal of the East Belmont Street section of the Corridor.

There are also several hidden public open space amenities, with no signage or visual connections that link them to the Corridor. Perhaps as a result of this, the green spaces at Payson Park, Grove Street playground and Belmont Cemetery appear to be underutilized.

Payson Park: This small park includes attractive modern playground equipment, and space for ball games surrounded by trees and benches. Dogs are not allowed due to uses targeted towards children. Access to the park on foot is along narrow sidewalks and there are limited parking options. The park is not signed from any direction, and must be discovered. During visits to the park in September, October and November, twice during school hours and once outside school hours, no one was seen using this park. However, it is the site of a summer music festival that several Belmont residents discussed positively.

Grove Street Playground: This is a large playing field area with two baseball diamonds, a soccer field, and four tennis courts. It is fringed with mature trees and on-street parking on both sides of Grove Street.

Belmont Cemetery: The Belmont Cemetery is a large site between Grove Street and Fresh Pond with the main entrance at the end of Marlboro Street. It is open from dawn to dusk for visitations, but dogs are not allowed.

Nearby Open Spaces: Fresh Pond provides a large open space for dog walking, jogging, and cycling with a golf course and playground. Mount Auburn Cemetery is also within walking distance of the town line, and, although there is no convenient point of access, once inside it offers a large area of historic interest with elegant mature trees. Both of these locations were significantly more populated in

similar off-peak hours than the smaller Harvard Lawn open space resources. Both are clearly visible from major traffic corridors and have sufficient size to be seen as driving destinations. In addition, there is a bicycle lane leading to Fresh Pond from the Cambridge section of Belmont Street.

B. Recommendations

Recommendation 1: Increase signage for open spaces

Signage of amenities is minimal at present, with the lone Harvard Lawn example being a discreet sign to the Benton branch of Belmont library. We recommend clear and pedestrian oriented signage for the open spaces adjacent to the Belmont Street corridor.

Recommendation 2: Improve visual links to existing open spaces by creating green sidewalks on key side streets

The wide side streets at Marlboro Street, Park Road, and Payson Road could be modified to provide a visual pedestrian connection to the open spaces. These three side streets, each with a right of way of approximately 50 feet, could be modified simultaneously with other proposed sidewalk realignments to create an attractive, wide sidewalk leading towards the open space amenities. Allowing 20 feet for two driving lanes and eight feet for parking on one side leaves 22 feet for enhanced sidewalks and/or a bike lane. Combined with signage, this would greatly enhance the visibility of Harvard Lawn's open spaces, and encourage walkers and joggers. Each of these side streets have mature street trees that have overgrown and cracked the existing sidewalks in many places. Adding new wider sidewalks would benefit the existing trees and greatly improve senior and wheelchair accessibility to these streets and parks.



Visual Corridors at Payson road and Marlboro Streets

Recommendation 3: Diversify the uses allowed in open spaces to include underserved populations

Harvard Lawn's current allocation of open space primarily to ball games and children's playgrounds is laudable; however, dog walkers and seniors may feel that their interests are underserved. A dog walking area/route at the Grove Street playground or a community ornamental flower community garden in one corner of either Grove Street playground or Payson Park would better serve these populations. Changes such as these would diversify the current open space use and encourage local residents to walk rather than drive their dogs to Fresh Pond.

Recommendation 4: Create a walking path through Belmont Cemetery to safely link pedestrians from Marlboro Street to Fresh Pond and the Grove Street playground

The strategic location of Belmont Cemetery could be used for a pedestrian right-of-way linking Marlboro Street to Huron Avenue. This would provide Harvard Lawn residents with safer and more direct access to Fresh Pond and the Glacken and Grove Street playgrounds. It would also increase the use and hence appreciation of the cemetery.

The combination of these recommendations can reasonably be expected to lead to an increase in foot traffic on the identified side streets, increased use of the open space resources, and likely increases in foot traffic to businesses on Belmont street. By creating safe and attractive walking routes linking open space resources to the main road, the health and vitality of the neighborhood can be improved.

C. Implementation

New signage is relatively affordable and could be most cost effective as part of a town or Corridor wide pedestrian signage program, rather than being implemented on a piecemeal basis.

Sidewalk improvements on Marlboro, Park, and Payson Streets are sorely needed. Some patchwork repairs and utility servicing is presently underway at present. However, it may prove most effective to incorporate sidewalk realignments into this report's sidewalk widening proposals for East Belmont Street, and use Chapter 90 funding when it becomes available.

The proposals for diversified uses, such as creating a pedestrian right of way through the cemetery, permitting dog walking, developing community gardening plots, or creating a more ornamental garden in the existing open space, will require a public outreach process to discern residents priorities and reactions to these ideas.

3. CUSHING AND PALFREY SQUARES

A. Existing Conditions

Pequosette Park: Pequosette Park, near Palfrey Square, is the largest municipal park on or near the Corridor. The seven-acre park features playing fields for soccer, little league baseball and other field sports, and is heavily used by youth sports leagues. The park also features a tot lot/play structure, four tennis courts and a basketball court, but is otherwise undeveloped.

Despite its value to the community, Pequosette Park also has shortcomings, especially in terms of its relation to Trapelo Road. The park's wedge-shaped parcel tapers toward Trapelo Road where the fenced-in tennis courts and Waverley VFW post building are located. These structures as well as surrounding parking lots effectively cut off visual and clear physical access to the park from Trapelo Road. It is likely that the park is widely known and appreciated only by close neighbors and families with children in sports programs. Other park entrances on Maple Street and Bartlett Avenue are not as hidden but are in less trafficked locations.

Pequosette has no facilities for passive recreation and enjoyment of the park. There is not much to attract visitors aside from the playing fields and tot lot. A simple seven-acre green swathe, there is little physical demarcation among the activity areas and unattractive chain link fences define the boundary between public park space and private yards.

Wellington Brook, one of the major drainages in Belmont and a tributary into the larger Charles River watershed, runs through Pequosette Park and the neighborhoods around Palfrey Square. Carrying street stormwater and natural runoff south to north, it crosses Trapelo Road and heads toward Belmont Center and Claypit Pond near Belmont High School. Though the brook runs above ground in its natural channel for a stretch behind the Belmont Library on Concord Avenue, in the Trapelo area it is channeled in culverts, completely underground and out of sight. Few residents in the area know of Wellington Brook's existence.

B. Recommendations

Given the existing conditions, Pequosette Park needs to be integrated with a revitalized Trapelo Road corridor as a key open space node. It will provide recreational opportunities for the entire community and highlight significant natural resources in the neighborhood. Results will include an enhanced sense of place; a neighborhood more valued by residents and visitors; and improved health for the local residents, environment, and economy.



Top: VFW block entrances and views to Pequosette Park; Bottom: Private yards border on Pequosette Park

Recommendation 1: Create a prominent and attractive gateway to the park on Trapelo Road

To create a Pequosette Park gateway on Trapelo Road, the green space of the park should be extended through either the town-owned VFW parcel or the privately-owned parcel immediately to the west that is currently being used as a commercial off-street parking lot. Existing hardscape would be replaced with appropriate landscaping, trees, walking paths, benches, lighting or other open space design elements to create physical and visual access to the park from Trapelo.

There are a number of alternatives for siting and developing the gateway:

1. Extend green space to Trapelo over the private parcel and the portion of the VFW parking area west of the VFW hall structure.
2. Raze the existing VFW hall structure and extend green space through the Town-owned VFW property. Use and ownership of the private parcel is unchanged.
3. Extend green space over the portion of the VFW parking area west of the VFW hall structure. Retain the structure. Use and ownership of the private parcel is unchanged.



Conceptual Plan for Pequosette Park



Rendering of Alternative 1 for Pequosette Park Gateway from Trapelo Road

Alternative 1 would require the town to gain site control over the private parcel. The present owner currently leases individual parking spaces to a variety of businesses for off-street truck parking, a use that pre-dates the site's LBIII zoning and is grandfathered under Belmont's zoning ordinance. Assessed value is \$388,000.

Options for gaining site control would include fee acquisition from a willing seller, an eminent domain taking, or swapping town land elsewhere in Belmont for the parcel. A land swap may be preferable, but only if the town can identify and offer a developable parcel with comparable or greater value. It should be noted that under current zoning, a new private, commercial off-street parking lot could not be developed anywhere in Belmont (except in the GB and PL zones presently occupied by town facilities).

The site's current and historic use as parking for oil delivery trucks (among other vehicles) suggests that soil contamination could be an obstacle for redeveloping the property as open space.

Developing a gateway on the VFW site (Alternative 2) will also present challenges. Towns are legally required to provide space for veterans' organizations, and razing the building would require the town to relocate the VFW Post and the American Legion Post, which share the existing space. The nearby Our Lady of Mercy and Knights of Columbus sites are potential new locations, as are existing municipal buildings.

Another option is a partial demolition and/or rehabilitation of the building to leave a smaller structure adequate for veterans' needs and provide new green space for a gateway. A rehabbed town-owned building might also serve additional community and municipal uses such as office and program space for the Recreation Department.

Each of the proposed gateway alternatives would sacrifice spaces of the existing, already limited, public parking area surrounding the VFW hall. To provide parking for the improved park and ensure access for emergency vehicles, the existing parking area should be extended into the area currently occupied by tennis courts. Although the tennis courts are in decent condition, their present location and high surrounding fence contributes to Pequosette Park's isolation from Trapelo Road. Ideally, they should be removed or relocated to the other end of the park as part of the gateway project.

The concept plan in Figures X.9 and X.10 represent the "Alternative 1" gateway. This is the preferred alternative that would maximize the value of the gateway, adding significant new green space, representing a favorable land use change on the private parcel, and retaining and possibly rehabbing the VFW building on the site for community use. It should be recognized, however, that Alternative 1 may also be the most challenging option to implement in terms of cost, time, and complexity. Alternative 3 would yield a more modest entrance to the park, with only a narrow ribbon of green space between the VFW building and the edge of the private parking lot, but would probably be most feasible to implement.

Recommendation 2: Improve Pequosette Park by providing new passive recreational facilities and spaces and better definition of existing facilities and public/private boundaries

The playing fields and tot lot at Pequosette Park are heavily used and highly valued by the community. Any improvements to the park must not decrease field availability or compromise the quality of the tot lot. There is, however, adequate "un-programmed" space in the park to provide facilities for passive enjoyment such as benches and walking paths. Trees, plantings, pathways, and other programming elements between the individual playing fields and facilities will better define these activity areas, break up the seven acre green expanse and

bring the overall space down to a more human scale. Similarly, landscaping to replace the existing chain link fences will create a more attractive and distinct boundary between the public park space and private adjacent private yard and parking space. Together, these interventions will help create a more inviting park, attractive for all members of the community to visit and linger.

Recommendation 3: Daylight Wellington Brook

To capitalize on a significant natural resource and add value to Pequotsette Park, Palfrey Square, and the surrounding neighborhoods, Belmont should consider “daylighting” the stretch of Wellington Brook within the park. In an area largely paved over and disconnected from its natural features, restoring the brook’s flow to an above-ground natural stream channel will provide a centerpiece for the park and a focal point for nature appreciation and education. Daylighting would involve excavating and removing the existing 36-inch culvert and constructing a new stream channel with appropriate landscaping and engineering features between Maple Street and the parking area on the VFW parcel.

Feasibility analysis for the daylighting project will need to explore several potential issues. The Massachusetts Rivers Protection and Wetlands Protection laws regulate development activities near water resources and land use controls could be triggered for the park and adjacent residential properties if a “new” stream were created. Engineering and hydrology analyses would determine flow and water quality characteristics of the brook and the flooding and stormwater management implications of the project. There are also nearby sewer mains that would factor into planning.



Left photo shows Wellington Brook behind Belmont Public Library; Photo on right shows and example of a daylighted brook in a public park.

C. Implementation

Possible funding sources for the gateway project and other park improvements include linkage payments from new development in the neighborhood and traditional town tax and bonding revenue. The primary state government source for renovation of town parks is the Urban Self-Help grants program administered by the Division of Conservation Services. According to the National Recreation and Park Association, a trend emerging nationally for park funding is partnerships with local businesses and service organizations with an interest in the public health benefits of open space.

There are a number of agencies, organizations and individuals in the Boston area that could assist in planning and executing the daylighting project. Many of these resources are referenced in a report published in 2000 by the Rocky Mountain Institute, *Daylighting: New Life for Buried Streams*. The report was funded by the New England regional office of the Environmental Protection Agency (EPA) for application in the Charles River watershed. It offers comparable case studies, cost estimates and technical observations.

One thousand dollars per linear foot is a widely accepted rule of thumb for the full costs of daylighting projects. If the project can be tied to stormwater management goals, a key external funding source is the EPA grant program under Section 319 of the federal Clean Water Act. Potential state government sources include the Executive Office of Environmental Affairs’ Riverways Program and grants from the Massachusetts Environmental Trust.

5. WAVERLEY SQUARE

A. Existing Conditions

Two public open spaces are located adjacent or in close proximity of Trapelo Road in the Waverley Square area: Beaver Brook Reservation and the open space on the McLean property.



The Beaver Brook Reservation, located along Trapelo Road at the Belmont town line with Waltham, was the first reservation established by the Metropolitan Parks Commission (later the MDC) in 1893.¹ The Reservation is 59 acres of open fields, wetlands, and woodlands (see photos below). In addition to Beaver Brook, Ponds, fields, marsh, and a cascading waterfall make the reservation a great place to walk or picnic. The more developed south section, adjacent to Trapelo Road, features ball fields, a wading pool, and a tot lot. Interpretive signage describes the amenities and the layout of the park at the entrance to the Reservation. Additionally, when staffing resources permit, the MDC offers natural

history programs at Beaver Brook that cover topics such as wildlife, the Waverley Oaks, and the ecosystem of ponds, wetlands, and woodlands.

For the McLean property, the Reuse Master Plan developed by The Keefe Company sets aside 140 acres, or 90 percent, of currently undeveloped land on the site, as permanently protected open space (above map). The open space will connect with the Massachusetts Audubon Society's Habitat Wildlife Sanctuary and with the Metropolitan District Commission's Beaver Brook and Rock Meadow



Beaver Brook Reservation²

reservations. The McLean open space is a critical link in the Western Greenway, a six-mile corridor from Belmont to Waltham. Although still in the planning stage, a network of pathways and bike trails in addition to access from Pleasant Street will be added to the McLean open space to provide increased recreational opportunities for visitors and residents of Belmont.³

B. Recommendations and Implementation

Raising awareness about Beaver Brook Reservation and the McLean open space will enhance the sense of place, increase recreational opportunities that will be made available by the McLean open space, and increase economic opportunities for businesses located in Waverley Square (e.g., Wheelworks and sporting goods store).

Recommendation 1: Promote and improve linkages to the significant recreational opportunities and natural resources available at Beaver Brook Reservation and the McLean open space

Given the close proximity of these two wonderful open spaces to Waverley Square; signage should be located on the village green directing potential park visitors to the available recreational amenities. From the village green, it is approximately a five-minute walk to either of these two open spaces. As described above, available recreational amenities can be used by everyone: young children using the tot lot in Beaver Brook Reservation, families wanting to stroll on the paths or picnic, individuals jogging or biking, others playing on the open fields, or just observing the natural resources, such as bird watching (although still in the planning stage, it is anticipated that the McLean open space will provide comparable amenities). Because of the diversity of activities available at Beaver Brook Reservation and the McLean open space, businesses in Waverley Square can derive economic benefits by offering goods and services tailored to the open space visitors. In addition, interpretive signage should also be located at the gateway to the McLean open space to describe the layout of the trails and paths, visitor amenities (e.g., picnic tables, play fields, and other natural resource features). The gateway should be located in close proximity to the Pleasant Street and Trapelo Road intersection.

Endnotes

1 Source: www.mass.gov/dcr/parks/metroboston/beaver.htm

2 Source of pictures: www.waltham-community.org/BeaverBrook.html

3 Source: www.keefecompany.com/mclean.htm

STREETSCAPE

Funding Sources

- Betterments (Special Assessments)

This method of funding streetscape improvements, including façade enhancements and street furniture, is detailed in the Economic Development section of this report. See also: chapter 80 / <http://www.mass.gov/legis/laws/mgl/gl-80-toc.htm>; City of Newton: http://www.ci.newton.ma.us/Legal/Ordinance/chapter_04.htm

- Massachusetts Chapter 90

Grant Amounts: N/A

This state program provides funding for improvements to state roads including paving, curbing and streetscape improvements. Requires a planned bike lane. <http://www.masspolicy.org/docs/BeardmoreChap90Brief0502.pdf>

- Massachusetts Chapter 121A Urban Redevelopment Corporations

A payment In Lieu Of Taxes Program which provides tax relief and is used to set predictable property taxes for development projects for a period of 15 to 40 years and to assist in the operation and maintenance of the development after construction.

- Massachusetts Chapter 121B Urban Renewal

Provides state assistance to municipalities for complex land assembly projects, which will restore blighted areas to productive use. Communities use the Urban Renewal Program assistance to develop revitalization plans, acquire property, clear the property of any substandard buildings, make necessary public improvements and sell the land to private entities for redevelopment under an approved plan.

- Mass Development Economic Development Financing

Loan Amounts: Up to \$3 million

This program provides loans for real estate development projects in Economic Target Areas that generate economic development benefits. Projects must demonstrate a need for financing due to insufficient available funds and a commitment to job retention/creation and community revitalization. The loans are capped at \$3 million and are charged a competitive interest rate for a maximum term of eighteen years.

- Massachusetts Chapter 108 Loan Guarantee

Designed to support local economic development projects within smaller communities.

- Massachusetts Development Predevelopment Assistance Programs

Grant Amounts: \$5,000 to \$25,000

Provides funding for environmental testing, market or feasibility analysis, preliminary architectural and engineering work, and other services needed to evaluate or prepare a project for development. To be eligible, a project must be within an Economic Target Area, have a sound concept and have the potential to generate significant economic benefits. A sponsor must match at least 50% of the funding. The grants are recovered if the project proceeds and secures permanent financing from Mass Development or another source.

- TEA-21: Surface Transportation Program (STP)

Grant Amounts: \$33.3 billion authorized.

This program is funded by the Federal Transportation Equity Act for the 21st Century, and is for safety improvements, sidewalk modifications to meet ADA, and transportation improvements. It may be possible to tap into these funds to provide some of the universal design requirements. These funds are authorized from FY 1998 through 2003.

- Federal Transportation Enhancements Program

<http://www.fhwa.dot.gov/environment/te/> Activities eligible for funding include pedestrian and bicycle facilities such as sidewalks and crosswalks, bicycle lane striping, landscaping and beautification improvements like lighting, public art and landscaping.

- Public Works Economic Development Funds

Grant Amounts: Up to \$1 million spent every two years

This federal program provides funding for public works infrastructure projects that result in economic enhancement, possibly including streetscape improvements in line with the economic potential of the improvements. The funding cycle occurs every two years.

- Zoning Overlay District Incentives - Develop incentives to municipalities to adopt zoning overlay districts for dense development in downtowns, around

transit nodes, and on underutilized commercial and industrial land appropriate for mixed-use redevelopment, such as those proposed by Commonwealth Housing Task Force.

- MBTA Bus shelter advertising

The cost of a new bus shelter, at \$10,000-15,000,¹ can be prohibitive to a smaller town. However, the MBTA recently signed an agreement with Cemusa, a Spanish street furniture maker, to provide over 200 new bus shelters around the Boston area². The shelters will be constructed at no cost to the MBTA or local municipalities. The shelters will be financed by advertising, which will generate revenue that will be shared between Cemusa, the MBTA *and the local municipality*.

Footnotes

¹ "T awards 10-year pact to build bus shelters," The Boston Globe, December 1, 2004 http://www.boston.com/business/articles/2004/12/01/t_awards_10_year_pact_to_build_bus_shelters/

² "Massachusetts Bay Transportation Authority Awards Cemusa Contract for System-Wide Bus Shelter and Advertising Program," Quote.com, November 30, 2004 http://finance.lycos.com/qc/news/story.aspx?symbols=QCNEWS:0&story=200411301823_PRN_CGTU045

Landscaping

Following is a list of trees, shrubs, and ground plants best suited for urban landscapes, as well as general instructions regarding planting and maintenance of the plants. The following plant species lists (Tables 1 through 3) are a compilation of plants used to create urban landscapes in Arlington Heights, Arsenal Street in Watertown, and Amesbury's Main Street.¹ These plants have been selected because of their successful establishment as street plantings.

Table 1 Trees

Botanical Name	Common Name
Pinus nigra	Pine Austrian
Fraxinus pennsylvanica "Summit"	Summit Green Ash
Acer rubrum "Red Sunset"	Red Sunset Maple
Acer rubrum "October Glory"	Red Maple October Glory
Pyrus calleryana "Chantecleer"	Chantecleer Pear
Pyrus calleryana "Aristocrat"	Aristocrat Pear
Betula nigra "Heritage"	Heritage River Birch
Ginkgo biloba "Fastigiata"	Columnar Ginkgo
Gleditsia triacanthos "Shademaster"	Shademaster Honeylocust
Malus "Indian Magic"	Indian Magic Crabapple
Malus "Kibele"	Kibele Crabapple
Malus "Spring Snow"	Spring Snow Crabapple
Malus "Snowdrift"	Snowdrift Crabapple
Malus "Robinson"	Robinson Crabapple
Platanus acerifolia	London Plane Tree
Prunus serrulata "Kwanzan"	Kwanzan Cherry
Tilia cordata "Greenspire"	Greenspire Linden
Tilia tomentosa	Silver Linden
Sophora japonica "Regent"	Regent Scholar Tree
Fagus sylvatica "River"	River's Purple Beech
Carpinus betulis "Fastigiata"	Fastigate European Hornbeam
Gleditsia triacanthos "Halka"	Halka Honeylocust
Acer rubrum "Armstrong Maple"	Armstrong Red Maple
Quercus rubra	Northern Red Oak
Prunus okame	Okame Cherry
Malus columnaris	Columnar Siberian Crabapple
Cornus kousa	Kousa Dogwood

Additional Sources

Streetscape Improvements, General

Many of the presentation and report images of safe and attractive streets were collected from various websites dedicated to documenting examples of streetscape improvements.

<http://www.greatstreets.org/GreatStreets/GreatStreetsElements.html>

<http://www.pedbikeimages.org/index.cfm>

<http://www.trafficcalming.org/>

<http://www.walkinginfo.org/>

Design Guidelines

These examples of design guidelines informed our recommendations for streetscape improvements and business vitality.

Downtown Design Guidelines for Hopkins, MN

<http://www.hopkinsmn.com/planning/design.html>

Portland Pedestrian Design Guidelines

<http://www.trans.ci.portland.or.us/DesignReferences/Pedestrian/default.htm>

Site Furnishings

Vendor websites for site furnishings are helpful for considering the variety of street furniture that can add aesthetic and comfort value to Trapelo Road.

Google Directory

http://directory.google.com/Top/Business/Construction_and_Maintenance/Materials_and_Supplies/Site_Construction/Site_Furnishings/

Public art can add character to a street, especially when combined with street furniture such as bus shelters.

Public art bus shelter program in Mesa, Arizona

<http://www.ci.mesa.az.us/arts/publicart/bussshelters.asp>

Public art bus shelter program in Baltimore, Maryland

<http://www.citypaper.com/arts/story.asp?id=4130>

Bus shelter mural program in King County, Washington

http://transit.metrokc.gov/prog/sheltermural/shelter_mural.html

PARKING

Some models for business permit programs are:

- Doylestown, Pennsylvania
Metered parking in lots. \$20/month for a booklet of 100 permits for businesses. Permits are handed out to employees and customers to park anywhere in downtown.

http://www.doylestownborough.net/DoylestownBorough.net/Government/Guides/parking_guide

- Cheltenhamtown, Pennsylvania
Employees can purchase permits for 12-hour parking in municipal lots. Permits cost \$164 per year. Employees must show pay stubs to purchase a permit. Number of permits are limited and first-come, first-served.

<http://www.cheltenhamtownship.org/business/parking.htm>

- Ottawa, Canada
Implemented a program called the Small Business Identity Card that gives permission to small businesses to park in residential areas for deliveries and pickups. This program would be a good model to follow for implementation (businesses buy a yearly card).

http://www.ottawa.ca/city_services/parking/16_4_en.shtml

- Pasadena, California
Guide on city website addresses common parking issues.

http://www.ci.pasadena.ca.us/trans/tpd/pdf/200308_ParkingOverview_noblink.pdf



Figure 5.3
Wineshield Card—
Shelby, N.C.
In Shelby, N.C., the Main Street manager has recruited key downtown employees to sign an "openness" not to give customers a hard time. The Wineshield card is placed on cars of employees who frequently park at the store.

Source: Shelby County Association



Figure 5.4
Wineshield Card—Alhambra, Iowa
In Alhambra, Iowa, a Wineshield card is placed on cars that remain in an area for too long. Additionally, there are designated long-term parking areas for downtown employees and merchants. Use of these areas requires an A.D. card. (See Figure 5.5)

Source: Alhambra Association

Example of "shame" techniques for street parking spots

ECONOMIC DEVELOPMENT

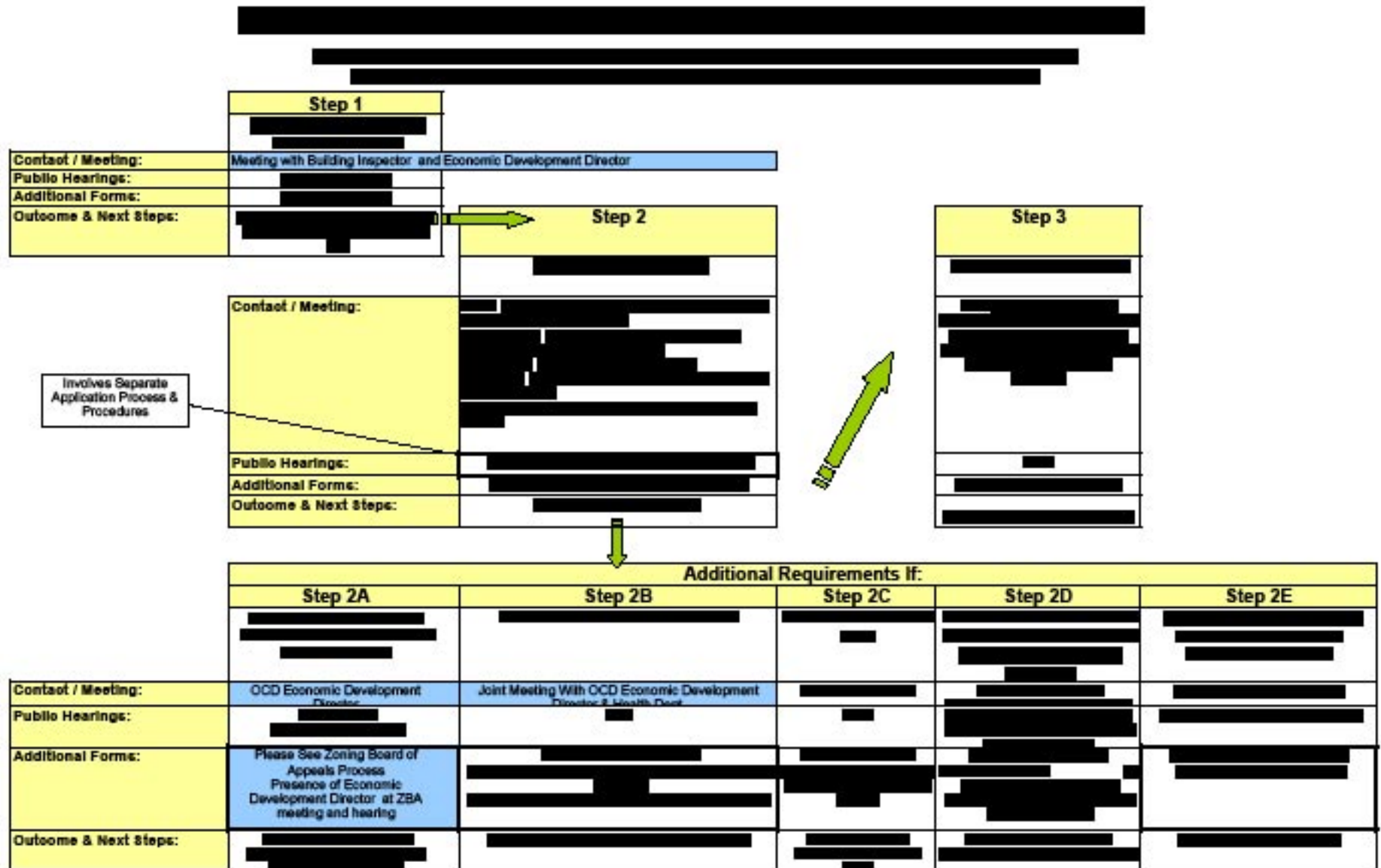
Organization	Contact	Description
STATE RESOURCES		
Massachusetts Office of Business Development, Northeast Region	600 Suffolk Street Lowell MA 01854 Telephone: 978-970-1193 www.magnet.state.ma.us/mobd	MOBD provides information, guidance, and coordination efforts on everything from site selection and permitting, to financing and workforce development assistance. They help businesses cut through red tape and secure available support from a variety of both public and private sources. The mission is to assist in the creation and preservation of jobs in Massachusetts. MOBD's five regional business centers and satellite operations provide a full array of services which include: professional responses to all business inquiries; facilitation of the regulatory, permitting and licensing processes; accessibility to federal, state, local and private financial resources; general information on starting a business in the Commonwealth; identification of training and recruitment resources; site selection service; focused industry and geographic specialization; and one stop environmental permitting.
Massachusetts Business and Economic Development Reference Online Center for Knowledge	W.E.B. Du Bois Library University of Massachusetts Amherst MA 01003 Telephone: 413-577-1026 www.massbedrock.org	MassBedrock provides high quality information about business and economic development in Massachusetts. The digital library consists of several tools to assist you in identifying and retrieving the business information you seek. It is both a database of resources and a directory to guide you to other places and people for further assistance.
Massachusetts Department of Economic Development/ Massachusetts Business Resource Team	1 Ashburton Place, Rm. 2101 Boston MA 02108 1-877-BIZ-TEAM www.mass.gov/bizteam	The state agency responsible for job creation and economic development in the Commonwealth, and operates the MOBD. The Department of Economic Development and its offices and divisions seek to promote job creation and long-term economic growth in Massachusetts. It seeks to attract new businesses to the state, help existing businesses expand, assist emerging firms in obtaining the human, financial, and technological resources necessary to prosper and grow, and provide assistance and training to the unemployed and underemployed. The Business Resource Team exists to help businesses identify and access state programs and resources that match their current needs.
Massachusetts Department of Revenue	PO Box 7010 Boston MA 02204. Telephone: 1-800-392-6089 www.state.ma.us/dor	Information on Massachusetts tax law, tax forms, publications, and statistical reports.
Massachusetts Division of Employment and Training	Charles F. Hurley Building 19 Staniford Street Boston MA 02114 Telephone: 617-626-5400 www.detma.org/default.htm	DET helps business make informed choices through access to DET's economic data on the state's laborforce, its occupations, and wages.
Massachusetts Small Business Development Center Network – Northeast Region	Salem State College, Enterprise Ctr., 352 Lafayette St. Salem MA 01970 Telephone: 978-542-6343 http://msbdc.som.umass.edu/	The Massachusetts Small Business Development Center Network provides high-quality, in-depth counseling, training and capital access which contributes to the entrepreneurial growth of small businesses throughout Massachusetts. The MSBDC was created in 1980 to pool the resources of federal, state and local government; academic institutions; and the private sector to provide small businesses with high quality technical assistance and educational programs.

Massachusetts Technology Development Corporation (MTDC)	148 State St, 9th Floor Boston MA 02109 Telephone: 617-723-4920 www.mtdc.com/	The MTDC was created as an independent public agency that provides venture capital financing to early-stage technology-based companies located in Massachusetts. MTDC generates significant employment growth in the state by investing in new and expanding companies unable to secure capital from more conventional sources. MTDC makes both debt and equity investments, usually in the form of subordinated debt or through the direct purchase of common stock, preferred stock, or warrants.
MassDevelopment - Northern Massachusetts Regional Office	600 Suffolk Street, 5th Floor Lowell MA 01854 Telephone: 978-459-6100 www.massdevelopment.com	MassDevelopment serves the communities of the Commonwealth as their state investment bank and real estate development agency. MassDevelopment uses a wide array of unique, specialized financial tools and real estate services to help businesses, institutions, and communities of all types and sizes throughout Massachusetts.
MassDevelopment Brownfield Redevelopment SCORE - Main Office	www.state.ma.us/massbrownfields Thomas P. O'Neill Federal Building 10 Causeway St., 2nd Fl. Boston MA 02222-1093 Telephone: 617-565-5591 www.scoreboston.org/	MassDevelopment provides an archive of resources for redeveloping and reusing brownfield sites in Massachusetts. SCORE is a nonprofit association dedicated to entrepreneur education and the formation, growth and success of small business nationwide. SCORE, founded in 1964, is a resource partner with the U.S. Small Business Administration.
Small Business Administration	Massachusetts District Office 10 Causeway St Boston MA 02222-1093 Telephone: 617-565-5590 www.sba.gov/ma/	The U.S. Small Business Administration provides financial, technical and management assistance to Business Assistance Agencies, Providers, Organizations, and Associations help Americans start, run, and grow their businesses. With a portfolio of business loans, loan guarantees and disaster loans, in addition to a venture capital portfolio, SBA is the nation's largest single financial backer of small businesses.
State Office of Minority and Women Business Assistance	10 Park Plaza, Suite 3740 Boston MA 02116 Telephone: 617-973-8692 www.somwba.state.ma.us/	The Commonwealth's agency charged with helping to promote the development of minority, women-owned business enterprises and non-profit organizations by facilitating their participation in Massachusetts' business and economic development opportunities.
FEDERAL RESOURCES		
Environmental Protection Agency Small Business Gateway (EPA SBG)	Telephone: 800-368-5888 www.epa.gov/smallbusiness	EPA SBG allows access to U.S. EPA information for small businesses.
U.S. Consumer Information Center - Small Business Consumer Information Center	Room G-142, (XC) 1800 F Street, NW Washington, DC 20405 Telephone: 202-501-1794 www.pueblo.gsa.gov/smbuss.htm	The CIS provides free small business publications from various U.S. Government Agencies.
U.S. Business Advisor	www.business.gov	U.S. Business Advisor is a one-stop electronic link to all the information and services that the U.S. Government provides for the business community. It is a source of information on government regulations in a variety of areas, including labor, taxes, and the environment.
U.S. Department of Commerce	Springfield, VA 22161 Telephone: 703-605-6000 www.doc.gov	The Department of Commerce promotes job creation, economic growth, sustainable development and improved living standards for all Americans by working in partnership with business, universities, communities and workers.
U. S. Small Business Administration	10 Causeway Street, Room 265 Boston MA 02222-1093 www.sbaonline.sba.gov	U. S. SBA mission is to stimulate and foster economic development through small business. The SBA provides financial, technical and management assistance to help Americans start, run, and grow their businesses.
BUSINESS ASSISTANCE ORGANIZATIONS AND ASSOCIATIONS		

Better Business Bureau	235 West Central Street, Suite 1 Natick MA 01760 Telephone: 508-652-4800 www.bosbbb.org	The BBB helps consumers and businesses maintain an ethical marketplace. The mission is to promote and foster the highest ethical relationship between businesses and the public through voluntary self-regulation, consumer and business education, and service excellence.
Environmental Business Council of New England, Inc.	333 Trapelo Rd Belmont MA 02478-1856 Telephone: 617-489-8555 Fax: 617-484-3192 www.ebc-ne.org	Environmental company executives who began meeting on a regular basis to exchange ideas and share experiences conceived the EBC in 1990. The EBC was the first organization in the United States established to support and foster the development of the environmental industry.
Massachusetts Alliance for Economic Development	1 Walnut Street, 2nd Floor Boston MA 02108 Telephone: 617-247-7800 www.massecon.com	MAED is a private, non-profit corporation dedicated to retaining and fostering economic growth in the Commonwealth. Launched in 1993 by a partnership of the state's utility companies, real estate trade associations, and the public sector, the Alliance is the business-to-business provider of customized information to companies seeking to expand or relocate within Massachusetts.
Massachusetts Bankers Association, Inc.	73 Tremont Street, Suite 306 Boston MA 02108-3906 Telephone: 617-523-7595 www.massbankers.org	The MBA is the commonwealth's premier banking trade group representing more than 200 commercial, savings and co-operative banks and savings and loan associations. Diverse membership gives the MBA a unique perspective on banking issues and has helped to maintain Massachusetts as one of the country's leading-edge banking states.
Massachusetts Business Development Corporation	50 Milk Street Boston, MA 02109 Telephone: 617-350-8877 www.mass-business.com	The MBDC is a privately owned corporation in which Massachusetts financial institutions pool money to provide medium and long-term loans to established companies that may need additional gap financing to supplement loans from conventional lenders. Their Small Business Capital Access Program (CAP) is used to promote lending to small businesses by providing credit enhancement that reduces the underwriting and credit risk to the lending institution.
Massachusetts Capital Resources Company	420 Boylston Street Boston, MA 02116 Telephone: 617-536-3900 www.masscapital.com	The MCRC is a privately owned limited partnership originally established by a group of seven Massachusetts-based life insurance companies. MCRC provides a source of risk capital - in the form of debt and equity financing - to small and medium-sized firms that are unable to obtain comparable financing from other conventional sources.
Massachusetts High Technology Council, Inc.	1601 Trapelo Rd Waltham MA 02451 Telephone: 781-890-6482 www.mhlc.org	The HTC is a non-profit, non-partisan corporation whose membership is comprised of respected business leaders of Massachusetts high technology and high-value-added service companies. The HTC is the lobbying group for Massachusetts technology companies and high-value-added service companies.
Massachusetts Manufacturing Extension Partnership	500 West Cummings Park Suite 400 Woburn MA 01801 Telephone: 800-MEP-4MFG www.massmep.org	The Massachusetts MEP is part of a nationwide network of more than 70 not-for-profit centers Business Assistance Agencies, Providers, Organizations, and Associations whose sole purpose is to provide small and medium-sized businesses with the help and solutions they need to succeed.
Massachusetts Software & Internet Council, Inc.	One Exeter Plaza, Suite 200 Boston MA 02116-2831 Telephone: 617-437-0600 www.msicouncil.org www.swcouncil.org	The Massachusetts Software & Internet Council is a non-profit trade association dedicated to promoting the Massachusetts software and Internet industry and to helping companies compete successfully in global markets. Member companies are involved in the design and delivery of digital products and services.
Massachusetts Specialty Foods Association	P.O. Box 985 Mashpee MA 02649 Telephone 508-457-5346 www.msfa.net	The MSFA's mission is to promote and preserve the rich heritage of food production in Massachusetts. The MSFA assists its members in obtaining marketing, promotional, management, technical, scientific, and financial assistance.

Massachusetts Telecommunications Council	230 Second Ave. Waltham MA 02451 Telephone: 781-684-0880 www.masstel.org	The Massachusetts Telecommunications Council is a nonprofit industry association representing 300+ telecom and affiliated companies in the state. Its charter is to develop initiatives and programs designed to advance the cause of the telecommunications industry in Massachusetts.
Metropolitan Area Planning Council (MAPC)	60 Temple Place Boston MA 02111 Telephone: 617-451-2770 www.mapc.org	MAPC is a regional planning agency representing 101 cities and towns in the metropolitan Boston area. MAPC serves as a forum for state and local officials to address issues of regional importance. As one of fourteen members of the Metropolitan Planning Organization (MPO), MAPC has oversight responsibility for the region's federally funded transportation program.
MIT Enterprise Forum, Inc.	28 Carlton Street, Building E32-328 Cambridge MA 02139 Telephone: 617-253-8240 www.mitforumcambridge.org	The MIT Enterprise Forum of Cambridge is a volunteer, non-profit organization based at MIT whose mission is to promote and strengthen the process of starting and growing innovative and technology-oriented companies by providing services and programs that educate, inform, and support the entrepreneurial community.
National Association of Industrial and Office Properties of Massachusetts	144 Gould Street, Suite 140 Needham MA 02494 Telephone: 781-453-6900 www.naiopma.org	NAIOP represents the commercial real estate industry through its strong legislative affairs efforts, exceptional educational programs, and its continual research into critical issues of business development. The Massachusetts Chapter of NAIOP, The Forum for Commercial Real Estate, is the leading voice for commercial real estate in the state and represents the interests of companies involved with the development, ownership, management and financing of commercial properties as well as those companies providing services to this industry.
Smaller Business Association of New England	204 Second Ave Waltham MA 02451 Telephone: 781.890.9070 www.sbane.com	SBANE is a nonprofit organization established to promote and protect small businesses.
TAX INCENTIVE PROGRAM RESOURCES		
Tax Increment Financing (TIF)	http://www.mass.gov/portal/index.jsp?pageID=dbtterminal&L=4&L0=Home&L1=Business+Assistance&L2=MA+Office+of+Business+Development&L3=MOBD+Services&sid	Link to detailed information about Tax Increment Financing in Massachusetts.
Tax Increment Financing (TIF)	http://www.mass.gov/legis/laws/mgl/40-59.htm	Massachusetts General Law detailing municipal requirement for TIF Plans.
District Improvement Financing (DIF)	www.mass.gov/portal/index.jsp?pageID=econmodulechunk&L=1&L0=Home&sid=Eecon&b=terminalcontent&f=DIF_Content&csid=Eecon	Link to detailed information and application procedures for District Improvement Financing in Massachusetts.

Permitting Process



ZONING

Chapter 40R

SUMMARY OF M.G.L. CHAPTER 40R

SMART GROWTH ZONING DISTRICTS

PASSED INTO LAW AS PART OF THE FY 2005 BUDGET

(includes a summary of related sections passed as part of the same budget)

Prepared by the Metropolitan Area Planning Council (MAPC)
60 Temple Place, Boston, MA 02111

July 22, 2004

Housing production within the Commonwealth has not kept pace with the growing number of households looking for an affordable place to live. To help meet this demand, the Commonwealth adopted Chapter 40R within the General Laws allowing municipalities to encourage housing production that is aligned with the principles of “smart growth.” Communities doing so may obtain funds through housing incentive payments.

This document summarizes the new law and related sections passed as part of the FY 2005 budget. We hope you find it useful. Please remember that reading a summary of legislation is not a substitute for reading the legislation itself. The legislation is more detailed and may answer questions the summary cannot.

M.G.L. Chapter 40R Smart Growth Zoning Districts

Section 1. Purpose

It is the purpose of this chapter to encourage smart growth and increased housing production in Massachusetts. Smart growth is a principle of land development that emphasizes mixing land uses, increases the availability of affordable housing by creating a range of housing opportunities in neighborhoods, takes advantage of compact design, fosters distinctive and attractive communities, preserves open space, farmland, natural beauty and critical environmental areas, strengthens existing communities, provides a variety of transportation choices, makes development decisions predictable, fair and cost effective and encourages community and stakeholder collaboration in development decisions.

Section 2. Definitions

This section defines terms used in the new law. A summary of critical definitions includes:

- “Affordable housing,” housing affordable to those earning less than 80% of the median income, and subject to an affordability restriction lasting for at least 30 years;
- “Approving Authority,” a unit of town or city government designated by the municipality to review and approve projects.
- “Comprehensive housing plan,” plan prepared by a municipality assessing housing needs within the municipality and strategies to address those needs;
- “Department,” the department of housing and community development;
- “Developable land area,” that part of the smart growth zoning district that can be feasibly developed as residential or mixed-use development, excluding land already substantially developed, parks, open space, and wetlands, and including land with underutilized residential, commercial, industrial, or institutional buildings that could be recycled or converted into residential or mixed use.
- “Eligible locations,” (1) areas near transit stations, including rapid transit, commuter rail, and bus and ferry terminals, (2) areas of concentrated development, including town and city centers, other existing commercial districts in cities and towns, and existing rural village districts, or (3) areas that by virtue of their infrastructure, transportation access, existing underutilized facilities, and/or location make highly suitable locations for residential or mixed use smart growth zoning districts;
- “Multi-family housing,” apartment or condominium units in buildings with more than three units;
- “New construction,” construction of new housing, substantial rehabilitation of existing buildings, or conversion to residential use;
- “Smart growth zoning district,” a zoning district adopted by a municipality under this statute that is superimposed over one or more zoning districts in an eligible location, within which a developer may elect to either develop a project in accordance with requirements of the smart growth zoning district ordinance or develop a project in accordance with requirements of the underlying zoning district.

Section 3. Authority

A municipality may adopt a “smart growth zoning district,” in accordance with

the provisions of Section 5, chapter 40A, in any eligible location allowing for primary residential use as-of-right and also permitting businesses, commercial and other uses consistent with primary residential use. Smart growth zoning districts may include areas eligible for Tax Increment Financing (“TIF”) and District Improvement Financing (“DIF”).

Section 4. Determination of Eligibility

Before adopting a smart growth zoning district, a municipality will apply to the department, which has 60 days to make a preliminary determination of whether the applicant would be eligible for the financial and other incentives in this chapter. The department will communicate this determination via a letter of eligibility. The department may also advise the applicant of deficiencies in the application. If the municipality adopts the district, along with any changes recommended by the department, the department has 30 days to issue a final approval.

Section 5. Application Requirements

To be eligible for a smart growth zoning district, the municipality must submit to the department an application that:

- identifies the boundaries of the proposed district;
- describes the developable land area within the proposed district;
- identifies other residential development opportunities for infill housing and the residential reuse of existing buildings and under-utilized buildings within already developed areas;
- includes a comprehensive housing plan (see Section 8);
- includes a copy of the proposed smart growth district ordinance or by-law; and
- establishes that the proposed district satisfies the minimum requirements of a smart growth zoning district (see Section 6).

Section 6. Minimum Requirements of Zoning District

(a) The minimum requirements of a smart growth zoning district include the following:

1. The proposed district must be determined an “eligible location” (see definition in Section 2).
2. The zoning ordinance must provide for residential use to permit a mix of housing such as for families, individuals, persons with special

needs, or the elderly.

3. Housing density allowed in the developable land area of a proposed district must be at least:

- § 20 units per acre for multi-family housing,
- § 8 units per acre for single-family homes, and
- § 12 units per acre for 2 and 3 family buildings.

4. The zoning ordinance for each proposed district will:

- § provide that not less than 20% of the residential units constructed in projects of more than 12 units will be affordable, and
- § contain mechanisms to ensure that not less than 20% of the total residential units constructed in each district will be affordable.

5. The zoning ordinance must permit infill housing on existing vacant lots and additional housing units in existing buildings, consistent with neighborhood building and use patterns, and consistent with building, fire, and safety codes.

6. Development in the district will not be subject to any limitation on the issuance of building permits for residential uses or any local moratorium on the issuance of such permits.

7. No restrictions on age or any other occupancy restrictions in the district as a whole. This provision does not preclude the development of specific projects that may be exclusively for the elderly, the disabled, or for assisted living, provided that not less than 25% of the housing units in such a project will be affordable housing.

8. Full compliance with federal, state and local fair housing laws.

9. The proposed district may not exceed 15% of the total land area in the municipality, except that the department may approve a larger land area if such an approval serves the goals and objectives of the chapter.

10. The total land area of all approved smart growth zoning districts in the municipality may not exceed 25% of the total land area in the municipality. (Note: unlike #9, above, this provision may not be waived.)

11. Proposed housing density will not overburden infrastructure as it exists or may be practicably upgraded.

12. The proposed zoning ordinance must define the manner of review for individual projects by the approving authority in accordance with Section 11 (see below) and specify the procedure for such review, in accordance with the regulations of the department.

(b-e) Within the zoning ordinance the municipality may:

- § modify or eliminate dimensional standards;

- § designate a limited percentage of the developable land area as dedicated perpetual open space through the use of a conservation restriction or other means; said open space will not be considered part of the developable land area for density calculation purposes.
- § provide for mixed use development;
- § the district may encompass an existing historic district or establish an historic district within an approved district; and
- § require more affordability than required by this chapter provided that affordability thresholds do not unduly restrict opportunities for development.

(f) Municipalities with fewer than 10,000 persons, for hardship shown, may gain approval from the department for a smart growth zoning district with lower densities than provided in this chapter.

(g) Any amendment or repeal of the zoning for an approved district will not be effective without the written approval by the department.

(h) Nothing in this chapter will affect a municipality's authority to amend its zoning ordinances under chapter 40A, so long as the changes do not affect the smart growth zoning district.

Section 7. Certificate of Compliance

Each year the department will send a certificate of compliance to all municipalities with approved districts where it has been verified by the city or town that the zoning district has been adopted, that no previous certificate has been revoked, that the district is being reasonably developed consistent with the density and affordability requirements of this chapter, and that projects have not been unreasonably denied by the approving authority within the municipality.

Section 8. Comprehensive Housing Plan

When applying for a determination of eligibility, the municipality will submit a comprehensive housing plan that estimates the projected number of housing units of new construction (see definition in Section 2) that could be built within the proposed district. Existing comprehensive housing plans may be submitted with additions relating to the newly proposed district.

Section 9. Housing Incentive Payments

Upon approval of the district, municipalities are entitled to zoning incentive payments for housing creation. Based on number of units of new construction (see definition in Section 2) projected in the smart growth zoning district, payments will range from:

- § \$10,000 for up to 20 units;
- § \$75,000 for 21-100 units;
- § \$200,000 for 101-200 units;
- § \$350,000 for 201-500 units; to
- § \$600,000 for 501 or more units of housing.

Additionally, a one-time density bonus of \$3,000 for each unit of new construction will be awarded upon issuance of a building permit. When awarding discretionary funds, the department and the executive offices of environmental affairs, transportation, and administration and finance will use a methodology that favors municipalities with approved smart growth zoning district, or other zoning policies that encourage affordable housing production.

(See Section 14 regarding repayment if no construction occurs.)

Section 10. Design Standards

Design standards may be adopted to ensure that the physical character of development within the smart growth zoning district will complement the adjacent buildings and structures, and not conflict with the comprehensive housing plan or any master plan for the community. The design standards may not add unreasonable costs to residential or mixed-use development, or unreasonably impair economic feasibility of proposed projects.

Section 11. Municipal Project Review

- The municipality may prescribe the contents of an application for project approval. It may require payment of reasonable consulting fees for peer review. It may refer applications for review by municipal entities in addition to the approving authority and such entities will have 60 days to comment.
- Zoning in effect at the time an application is submitted will govern the review of that application while it is being processed, during any appeal, and for three years after approval. If an application is denied, zoning will remain in effect with respect to any further application for two years after denial unless the applicant chooses otherwise.

- The approving authority will hold a public hearing consistent with the provision of Section 11 of Chapter 40A. The approving authority will make a decision within 120 days of filing or it is deemed approved.
- Project approval is subject only to those conditions that are necessary to ensure compliance with the smart growth zoning district ordinance and to mitigate only those impacts that are extraordinarily adverse to nearby properties.
- A court may overrule approval of a project only if it finds that the approving authority abused its discretion in approving the project. A plaintiff seeking to reverse a project approval must post a bond.
- In any court appeal of a project denial by an approving authority, the approving authority will have the burden of justifying its decision by substantial evidence in the record.

Section 12. Administration of Smart Growth Zoning Program

The department of housing and community development will serve as the administrator of the smart growth zoning district program. It will also be responsible for an annual review and report of data no later than November 15 of each year regarding the status of proposed smart growth zoning districts, the number of approved districts, development having taken place in districts to date, and monies paid to municipalities.

Section 13. Existing Zoning Districts

An existing zoning district may gain approval as a smart growth zoning district and receive incentive payments if it meets the requirements of this chapter. The application process will be consistent with that of a new smart growth zoning district. If such districts are approved, the community will not be eligible for the zoning incentive payment, but will be eligible, after the date of approval, for the one-time density bonus payment, and will be eligible for favorable review in the awarding of certain state funds. (See Section 9 for further information on these incentives.)

Section 14. Repayment

If no construction in the smart growth zoning district has taken place within three years of the date of the zoning incentive payment (see Section 9), the municipality must repay all monies paid to it under this chapter.

RELATED SECTIONS

M.G.L. Chapter 10, Section 35BB Smart Growth Housing Trust Fund

This section creates a Smart Growth Housing Trust Fund, funded by monies from the sale of surplus land, appropriations, or sanctions on communities. Without requiring further appropriation, available funds are to be disbursed by the department in accordance with the provisions of M.G.L. Chapter 40R.

M.G.L. Chapter 26, Section 548 Funding of Smart Growth Housing Trust Fund

The first \$25,000,000 of any proceeds realized from the sale of surplus state properties will be deposited into the General Fund. The second \$25,000,000 of any such proceeds will be deposited into the Smart Growth Housing Trust Fund. Any additional proceeds will be deposited into the Commonwealth Stabilization Fund. (Note: As a result of this section, funds from the sale of surplus state properties will enter the Smart Growth Housing Trust Fund only if annual sale proceeds exceed \$25 million, and the amount entering the Trust Fund cannot exceed \$25 million per year.)

Outside Section 367 Impact Study

The department, in consultation with the departments of education and revenue, will study the impact of the adoption of smart growth zoning districts on the educational systems of participating municipalities. The department will report to the Legislature on this study no later than July 1, 2006. The report will recommend a formula for ascertaining any actual additional net public school costs to which municipalities may become subject as a result of the adoption of smart growth zoning districts.

Proposed Zoning Changes

LBIII to LBI:

Use/Dimension	Existing Zoning (LBIII)	Proposed Zoning (LBI)
Restaurants up to 10,000 sq ft	Allowed by Special Permit (SP)	Allowed By Right
Take Out Restaurants	Allowed by SP	Change LBI to allow by SP (currently not allowed)
Place of amusement etc	Not Allowed	SP
Private club	SP	Allowed
FAR	1.05	1.25 and up to 1.5 with SP
Maximum Lot Coverage	35%	None
Front Setback	10	5
Side/Rear Setback	20	6 or none
Building height – stories	2 maximum	2, but 32' and 3 stories allowed by SP

Church Redevelopment

Our Lady of Mercy Properties: Existing Conditions

Parcel	Current Use	Building Square Feet	Lot Square Feet	Frontage
401 East Belmont St	Church	Approx 7200	24601 (9,270 for rectory, 13,669 for church)	107' on East Belmont
15 Lawndale	Rectory	4000		90' on Lawndale
23 Oakley Road	Senior Center	7488	13,169	100' on Oakley 127 on Lawndale
Corner of Oakley Rd. and East Belmont St	Parking Lot	N/A	15,212	Oakley and East Belmont

Our Lady of Mercy Properties: Redevelopment Scenarios

	Owner- ship	Applicable Zoning Provision	Use	Financial Package	Development Process	Timeline
<u>No Zone Change:</u>						
By right zoning:	Developer	Single Residence C 9,000 sf lots	4-6 single family lots, market-rate housing	None	Developer submits subdivision approvals, variances may be necessary	When property changes hands onward (permit process + approvals + development)
	Housing Authority	Elderly Housing (Section 6.4)	Elderly Multifamily Housing,	High cost to Town or Housing Authority	H.A. applies for special permit from Board of Appeals	Indefinite (permit process + development)
	Town	Single Residence C	Municipal, recreational, private school (for profit), private club or lodge (VFW)	High cost to town	Depends on use, private school and private club/lodge require special permit	Indefinite
40B Permit Filed	Developer	Local zoning overridden	Multifamily, mixed-income housing (25% affordability)	None	Developer files comprehensive permit application with zoning Board of Appeals for review	Indefinite
<u>Zone Change:</u>						
Church Re- Use Overlay District	Developer	Town revises existing School Re-Use District through Town Meeting	Allowance for: housing (6.3), place of assembly, entertainment, or exercise (3.3), commercial	None	Developer files Special Permit with Board of Appeals	Propose revision at next Town Meeting (Spring, 2005). Several months for permit approval
	Town (options same as by right)					

RTK Building Development

Waverley Development Options			
RTK & Waverley Insurance			
Rough Feasibility Analysis			
Retail (total sqft and rent/sf)	10800	20	\$216,000
Apartment (units and total rent)	20	2200	\$528,000
Scheduled Gross Income (annual)			\$744,000
less Vacancy		5%	\$(37,200)
Effective Gross building Income			\$706,800
Parking rent			\$0
Effective gross income			\$706,800
less: Operating Expenses		20%	\$(141,360)
Net Operating Income			\$565,440
Total Cash Flow			\$565,440
Value of Completed Project	Cap Rate	7.5%	\$7,539,200
less Development Cost:			
Bldg Construction Costs	32400	125	\$4,050,000
Parking costs: under		25000	\$0
Parking costs: outside	20	10000	\$200,000
Development Charges		10%	\$425,000
Construction Period Financing			\$320,000
Lease-up			\$50,000
Demolition			\$100,000
Land value RTK			\$655,000
Land value Wav ins			\$1,000,000
Total			\$5,045,000
Gain from Developing Land			\$2,494,200
		0.562	

TRANSPORTATION

Harvard Lawn Traffic Counts										
							Volume at	Between Intersections 1-way Peak		
Grove Street Intersection							Intersection			
BELMONT STREET										
AM		8:05 - 8:10	8:15 - 8:20	8:25 - 8:30	hourly	persons/hr				
onto Marion	car	0	0	1	4	4.8				
onto Grove	car	9	6	10	100	120				
through inbound (Cam- bridge)	car	55	28	32	460	552		460		
	pedestrian	0	0	0	0	0				
	cycle	2	1	6	36	36		36		
	bus	45	45	75	660	660	1196	25	621	
through outbound (Waltham)	car	21	55	40	464	556.8				
	pedestrian	0	1	0	4	4				
	cycle	0	0	0	0	0				
	bus	0	4	5	36	36				
onto Arlington	car	8	15	19	168	201.6				
onto Templeton	car	0	0	0	0	0				
PM		5:45 - 5:50	5:55 - 6:00	6:05 - 6:10	hourly	persons/hr				
onto Marion	car	2	1	0	12	14.4		12		
onto Grove	car	6	7	7	80	96		80		
	pedestrian	0	1	4	20	20				
through inbound (Cam- bridge)	car	36	39	31	424	508.8				
	pedestrian	1	0	0	4	4				
	cycle	0	0	0	0	0				
	bus	7	5	4	64	64				
through outbound (Waltham)	car	60	61	37	632	758.4	1324	632	775	
	pedestrian	2	1	0	12	12				

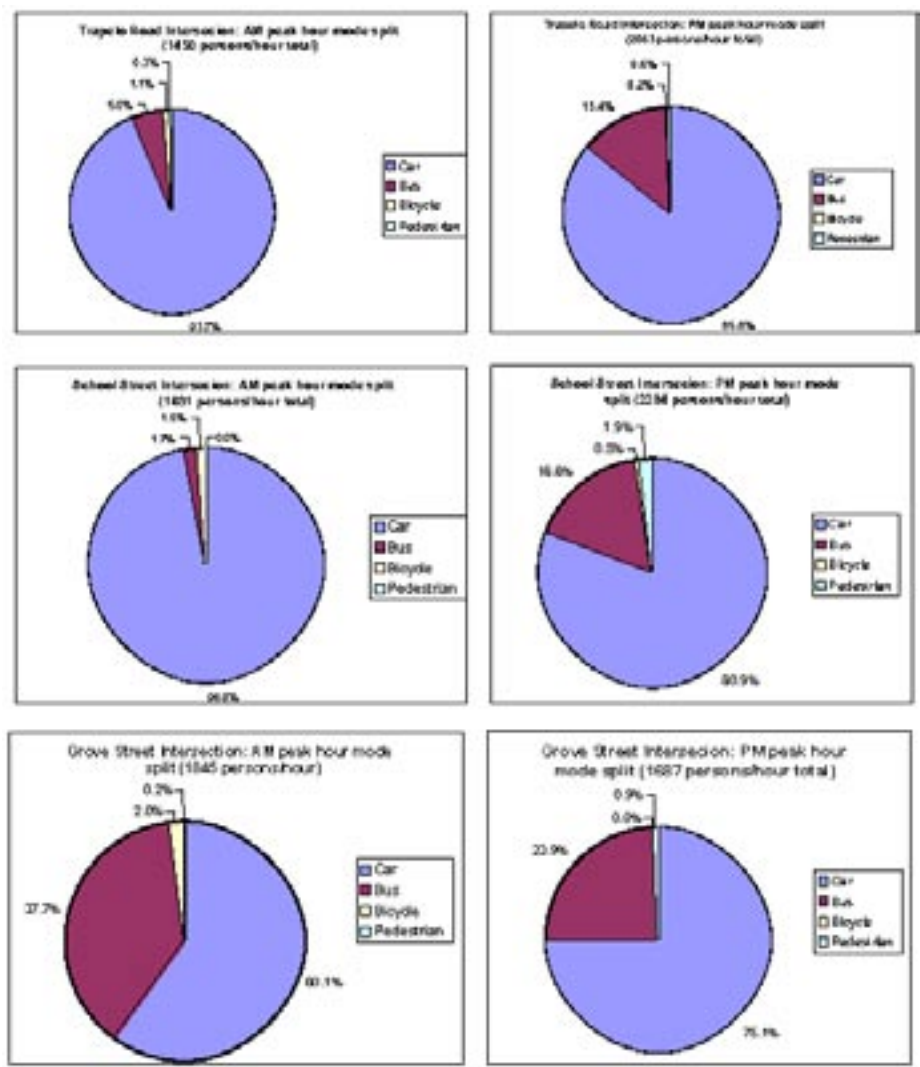
	cycle	0	0	0	0	0				
	bus	50	20	15	340	340		25		
onto Arlington	car	11	21	12	176	211.2		26		
onto Templeton	car	0	0	0	0	0				
GROVE STREET										
AM		8:05 - 8:10	8:15 - 8:20	8:25 - 8:30	hourly	persons/hr				
right onto Belmont	car	5	6	4	60	72				
	pedestrian	1	0	0	4	4				
	cycle	0	0	0	0	0				
left onto Belmont	car	7	5	6	72	86.4		72		
straight onto Arlington	car	32	31	49	448	537.6				
	pedestrian	0	0	0	0	0				
	cycle	0	0	2	8	0	808			
straight onto Templeton	car	4	0	0	16	19.2				
PM		5:45 - 5:50	5:55 - 6:00	6:05 - 6:10	hourly	persons/hr				
right onto Belmont	car	2	6	2	40	48				
	pedestrian				0	0				
	cycle	0	0	0	0	0				
left onto Belmont	car	3	4	7	56	67.2				
straight onto Arlington	car	25	25	17	268	321.6	840			
	pedestrian	0	0	0	0	0				
	cycle	2	1	0	12	12				
straight onto Templeton	car	0	0	0	0	0				
ARLINGTON STREET										
98145.451		8:05 - 8:10	8:15 - 8:20	8:25 - 8:30	hourly	persons/hr				
right onto Belmont	car	1	0	2	12	14.4		12		
left onto Templeton	car	1	0	0	4	4.8				
straight onto Grove	car	15	21	13	196	235.2				
	pedestrian	0	0	1	4	4				

	cycle	0	0	0	0	0				
PM		5:45 - 5:50	5:55 - 6:00	6:05 - 6:10	hourly	persons/hr				
right onto Belmont	car	3	1	2	24	28.8				
left onto Templeton	car	0	0	0	0	0				
straight onto Grove	car	38	32	43	452	542.4				
	pedestrian	0	0	1	4	4				
	cycle	0	0	0	0	0				
TEMPLETON PARKWAY\										
AM		8:05 - 8:10	8:15 - 8:20	8:25 - 8:30	hourly	persons/hr				
right onto Belmont	car	1	3	0	16	19.2		16		
	pedestrian	1	0	0	4					
left onto Belmont	car	1	0	1	8	9.6				
straight onto Grove	car	1	0	0	4	4.8				
PM		5:45 - 5:50	5:55 - 6:00	6:05 - 6:10	hourly	persons/hr				
right onto Belmont	car	0	1	2	12	14.4				
	pedestrian	1	0	0	4					
left onto Belmont	car	1	0	0	4	4.8				
straight onto Grove	car	1	1	2	16	19.2				
School Street Intersection										
BELMONT STREET										
AM		8:05 - 8:10	8:15 - 8:20	8:25 - 8:30	hourly	persons/hr				
onto School (north)	car	5	4	3	48	57.6				
	pedestrian	1	0	0	4	4				
	cycle	0	0	0	0	0				
through inbound (Cam- bridge)	car	67	84	53	816	979.2	1364	816	913	
	pedestrian	0	0	0	0	0				
	cycle	4	0	2	24	24				

through outbound (Waltham)	car	44	43	38	500	600				
	bus	0	7	0	28	28		25		
through onto School (south)	car	35	32	36	412	494.4				
PM		5:00 - 5:05	5:10 - 5:15	5:20 - 5:25	hourly	persons/hr				
turning onto School (right)	car	6	6	3	60	72				
turning into Watertown (left)	car	1	3	2	24	28.8				
	pedestrian	0	0	0	0	0				
	cycle	0	0	0	0	0				
through inbound (Cam- bridge)	car	60	76	61	788	945.6	1632	788	845	
	pedestrian	0	0	0	0	0				
	bus	19	12	28	236	236		25		
	cycle	0	0	0	0	0				
through outbound (Waltham)	car	67	60	61	752	902.4				
	pedestrian	9	0	2	44	44				
	cycle	2	0	1	12	12				
	bus	11	0	25	144	144				
turning onto School (left)	car	0	1	1	8	9.6				
filter into Watertown (south)	car	14	21	17	208	249.6				
SCHOOL STREET										
AM		8:05 - 8:10	8:15 - 8:20	8:25 - 8:30	hourly	persons/hr				
onto Belmont inbound	car	5	6	7	72	86.4		72		
onto Belmont outbound	car	7	1	4	48	57.6				
	pedestrian	1	0	0	4	4				
straight through	car	9	20	13	168	201.6				
PM		5:00 - 5:05	5:10 - 5:15	5:20 - 5:25	hourly	persons/hr				
onto Belmont inbound	car	2	3	3	32	38.4		32		
onto Belmont outbound	car	6	3	1	40	48				
	pedestrian	0	0	0	0	0				
straight through North	car	14	16	22	208	249.6				

straight through South	car	-	20	10	180	216				
Trapelo Road Intersection										
BELMONT STREET										
AM		8:05 - 8:10	8:15 - 8:20	8:25 - 8:30	hourly	persons/hr				
Trapelo Road	car	32	58	30	480	576				
	pedestrian	0	1	0	4	4				
	bus	0	5	0	20	20				
Belmont outbound	car	16	27	22	260	312				
Belmont inbound (Trapelo)	car	66	44	53	652	782.4		652		
	pedestrian	0	0	0	0	0				
	cycle	1	1	2	16	16				
	bus	22	6	10	152	152		25		
Belmont inbound (Belmont)	car	52	30	45	508	609.6	1900	508	1185	
	pedestrian	0	0	2	8	8				
	cycle	0	0	0	0	0				
Pine	car	1	0	1	8	9.6				
south	car	3	1	4	32	38.4				
PM		5:00 - 5:05	5:10 - 5:15	5:20 - 5:25	hourly	persons/hr				
Trapelo Road	car	59	68	75	808	969.6		808		
	pedestrian	1	0	0	4	4				
	bus	17	0	10	108	108		25		
Belmont outbound	car	58	46	54	632	758.4	2500	632	1465	
Belmont inbound (Trapelo)	car	51	57	59	668	801.6				
	pedestrian	0	2	0	8	8				
	cycle	1	0	0	4	4				
	bus	-	3	25	168	168				
Belmont inbound (Belmont)	car	32	37	29	392	470.4				
	pedestrian	0	0	0	0	0				

Harvard Lawn: Modal Splits by Peak Hour



Harvard Lawn: Level of Service

Urban Street class	I	II	III	IV
Range of speeds	55-45	45-35	35-30	35-25
Ave Travel Speed				
A	>42	>35	>30	>25
B	>34-42	>28-35	>24-30	>19-25
C	>27-34	>22-28	>18-24	>13-19
D	>21-27	>17-22	>14-18	>9-13
E	>16-21	>13-17	>10-14	>7-9
F	≤16	≤13	≤10	≤7

Waverley Traffic Counts						
Pleasant Street						
AM		8:10-8:15	8:20-8:25	8:30-8:35	hourly	persons/hr
onto Trapelo Road Inbound(Cambridge)	car	9	4	8	84	100.8
onto Trapelo Road outbound (Waltham)	car	36	15	45	384	460.8
	pedestrian	0	0	0	0	0
	cycle	0	0	0	0	0
	bus	0	0	0	0	0
Trapelo Road						
AM		8:15-8:20	8:25-8:30	8:35-8:40	hourly	persons/hr
outbound TR to Pleasant Street	car	8	15	4	108	129.6
inboundTR to Pleasant Street	car	11	18	16	180	216
	pedestrian	0	0	0	0	0
	cycle	0	0	0	0	0
	bus	0	0	0	0	0
Trapelo Road						
AM		8:45-8:50	8:55-9:00	9:05-9:10	hourly	persons/hr
neckdown (Hawthorne Street) inbound	car	58	55	53	664	796.8
	cycle	1	0	0	4	4
	bus (passengers)	15	7	9	124	124
	pedestrian	0	3	1	16	16
Trapelo Road						
AM		8:50-8:55	9:00-9:05	9:10-9:15	hourly	persons/hr
neckdown (Hawthorne Street) outbound	car	67	49	44	640	768
	cycle	0	0	0	0	0
	bus (passengers)	8	20	9	148	148
	pedestrian	3	1	2	24	24
Trapelo Road - Pleasant Street Intersection						
AM		8:10-8:15	8:20-8:25	8:30-8:35	hourly	persons/hr

outbound (Waltham)	car	82	98	85	1060	1272
	pedestrian	0	1	1	8	8
	cycle	0	0	0	0	0
inbound (Cambridge)	car	94	100	97	1164	1396.8
Trapelo Road - Beech Street Intersection						
AM		8:55-9:00	9:05-9:10	9:15-9:20	hourly	persons/hr
inbound (Cambridge)	car	49	30	36	460	552
	bus (passengers)	4	8	7	76	76
	pedestrian	2			8	8
left turn onto Beech Street	car	1	0	2	12	14.4
right turn onto Beech Street	car	1	1	2	16	19.2
Beech Street						
AM		8:55-9:00	9:05-9:10	9:15-9:20	hourly	persons/hr
straight	car	8	4	4	64	76.8
	pedestrian	0	1	0	4	4
left onto Trapelo Road	car	1	0	3	16	19.2
right onto Trapelo Road	car	4	1	1	24	28.8
Trapelo Road - Beech Street Intersection						
AM		8:50-8:55	9:00-9:05	9:10-9:15	hourly	persons/hr
outbound (Waltham)	car	55	36	44	540	648
	bus (passengers)	2	3	0	20	20
	pedestrian	1	1	0	8	8
left turn onto Beech Street	car	1	0	0	4	4.8
right turn onto Beech Street	car	2	1	2	20	24
Beech Street						
AM		8:50-8:55	9:00-9:05	9:10-9:15	hourly	persons/hr
straight	car	5	3	3	44	52.8
	pedestrian	0	1	0	4	4
left onto Trapelo Road	car	3	3	5	44	52.8
right onto Trapelo Road	car	6	4	5	60	72
Trapelo Road - Church Street Intersection						

AM		8:40-8:45	8:50-8:55	9:00-9:05	hourly	persons/hr
outbound (Waltham)	car	70	58	65	772	926.4
	pedestrian	1	0	0	4	4
	bus (passengers)	0	0	0	0	20
left turn to Church Street	car	4	8	10	88	105.6
	pedestrian	0	0	0	0	0
	bus	0	10	0	40	152
Trapelo Road - Church Street Intersection						
AM		8:45-8:50	8:55-9:00	9:05-9:10	hourly	persons/hr
Chruch Street onto inbound Trapelo Road (Cambridge)	car	10	11	7	112	134.4
	pedestrian	0	0	0	0	0
	bus (passengers)	0	0	0	0	0
Church Street onto outbound Trapelo Road (Waltham)	car	2	3	5	40	48
	pedestrian	0	0	0	0	0
	bus	0	0	0	0	0
Trapelo Road - Lexington Street Intersection						
AM		8:40-8:45	8:50-8:55	9:00-9:05	hourly	persons/hr
inbound (Cambridge)	car	61	75	69	820	984
	pedestrian	0	0	0	0	0
	bus (passengers)	0	0	0	0	0
left turn into Shaw's	car	0	1	1	8	9.6
	pedestrian	0	0	1	4	4
	bus	0	0	0	0	0
right turn onto Lexington Street	car	41	38	42	484	580.8
	pedestrian	2	0	0	8	8
	bus	0	0	0	0	0
Trapelo Road - Lexington Street Intersection						
AM		8:45-8:50	8:55-9:00	9:05-9:10	hourly	persons/hr
from Lexington onto outbound Trapelo Road	car	31	26	19	304	364.8
	pedestrian	0	1	0	4	4
	bus (passengers)	0	0	0	0	0

straight into Shaw's	car	5	4	3	48	57.6
Trapelo Road - Lexington Street Intersection						
AM		8:40-8:45	8:50-8:55	9:00-9:05	hourly	persons/hr
from Shaw's straight onto Lexington Street	car	16	13	7	144	172.8
	pedestrian	2	0	0	8	8
from Shaw's right onto Trapelo Road outbound	car	5	4	3	48	57.6
from Shaw's left onto Trapelo Road inbound	car	12	11	12	140	168

