

WINTER HILL AND MAGOUN SQUARE COMMUNITY PLAN 2012



MASSACHUSETTS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF URBAN STUDIES AND PLANNING

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11.360 COMMUNITY GROWTH AND LAND USE PLANNING PRACTICUM

FINAL REPORT

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The Winter Hill and Magoun Square Community Plan outlines a vision and key recommendations for the future of Winter Hill and Magoun Square in Somerville, Massachusetts. The City of Somerville engaged graduate students in the Community Growth and Land Use Planning course at the Massachusetts Institute of Technology (MIT) to develop a plan that envisions the future development in this area. With the Green Line Extension coming to Somerville, this a crucial time to propose a plan for the area that articulates the needs and desires of the community and the potential for redevelopment. Within the context of the SomerVision Comprehensive Plan for Somerville, this plan both reflects the vibrant history of Winter Hill and Magoun Square and identifies strategies for sustainable growth.

GUIDING PRINCIPLES

There are four guiding principles reflected throughout this plan in our methodology, analysis, and recommendations.

- Accessibility to all streets, places, and spaces
- Affordability for all socioeconomic groups
- Environmental sustainability through a combination of interventions and education
- Public participation in the planning process

VISION

This plan focuses on “the public realm”: the **streets** on which you travel, the **spaces**

where you gather, and the **places** that you visit. Our vision for Winter Hill and Magoun Square is:

- A neighborhood that is pedestrian-friendly and well connected by public and private modes of transportation.
- A neighborhood that supports an inclusive and economically viable mix of commerce, daytime employment, and community activity centers that cater to both local residents and visitors.
- A neighborhood with an engaging public realm to which residents feel connected and in which visitors feel welcome.

FOCUS AREAS

The plan identifies four focus areas within Magoun Square and Winter Hill that present immediate opportunities for redevelopment. For each of these areas, elements of overall neighborhood recommendations are pulled together into a site-specific, comprehensive vision.

Magoun Square has historically been an exciting node of commercial activity and today has the potential to rival similar squares in Somerville. Through a combination of strategic land use planning and urban design, the vision for Magoun Square aims to encourage economic development by encouraging new office spaces, expanding daytime populations, and improving pedestrian access. The plan envisions full-scale build out of underused and vacant properties as well as a redesign of key commercial lots that have the potential to

provide better public space and accessibility.

The intersection of Temple Street and Broadway is in the heart Winter Hill. Recently rezoned as a Corridor Commercial District, it has not yet been developed to its full zoning potential. The vision for this area includes redevelopment of the long vacant Star Market site, streetscape improvements to enhance the sense of place, and wayfinding signage to mark this area as a destination within the neighborhood. In this plan, we refer to this area as **Temple Square**.

The Broadway Corridor and Temple Street near Mystic Avenue are important connector routes in the neighborhood. The vision for Broadway is a linear park with space for cars, pedestrians, and bicycles. Stormwater management and tree planting harness the environmental sustainability aspects of the plan’s recommendations. Mystic Avenue is a gateway into the neighborhood that has seen recent improvements through the work of the Somerville CDC. This area can be enhanced with a flexible use of streets and wayfinding signage that directs car and foot traffic to the activity along Broadway.

THE NEIGHBORHOODS

WINTER HILL

Based on multiple site visits and resident feedback, our team quickly learned Winter Hill and Magoun Square are treated as separate neighborhoods. The Winter Hill neighborhood is located roughly north of Medford Street, west of McGrath Highway, and east of Magoun Square. Broadway is its main thoroughfare (see Figure 0.1). Winter Hill gets its name from the 120-foot-hill that occupies its landscape. Paul Revere's Midnight Ride crossed through Winter Hill and is re-enacted each year as part of the Patriots' Day festivities in the Boston area.

The intersection of Broadway and Temple Streets is the local shopping district for the Winter Hill neighborhood with Winter Hill Bakery, Leone's Subs, Winter Hill Liquors, Cambridge Health Center, and Winter Hill Bank, being most prominent. A Star Market grocery store site has been vacant since 2007. Throughout this report, we will refer to this intersection as Temple Square.

MAGOUN SQUARE

Magoun Square is one of Somerville's more unique commercial districts, at the intersection of Broadway, Medford, and Lowell Streets. This strategic location enables its businesses to serve both local and regional customers. Recent roadway and streetscape projects have resulted in aesthetic improvements as well as high quality pedestrian infrastructure on Medford Street (see Figure 0.1), where some of the notable businesses in the area like Olde Magoun's Saloon,



Figures 0.1: Broadway in the 1960s (top) and Medford Street in 2012 (bottom)

Lil' Vinny's Italian Restaurant, and Marcelino's Exotic Star Birds are located.

CVS Pharmacy, located at the intersection of Medford Street and Broadway, acts as an anchor store. On Broadway, service establishments such as Pini's Pizzeria, Wang's Chinese Cuisine, On the Hill Tavern, and Dunkin' Donuts generate foot and vehicular traffic. The remaining occupied storefronts host several small businesses primarily focused on ethnic shoppers. With the planned extension of the MBTA Green Line, Magoun Square seems well-positioned for a period of renewed growth.

Despite these strengths, both neighborhoods have been hit particularly hard by the current recession. Many commercial buildings have experienced long-term vacancies or recurring business failures. Numerous commercial structures show signs of poor maintenance. Several of the surviving retail establishments are uninviting or undifferentiated. In this plan, we have studied and proposed projects and recommendations at three key "catalyst" sites for spurring community and economic development. These are: Magoun Square, Temple Square, and the Broadway Corridor.

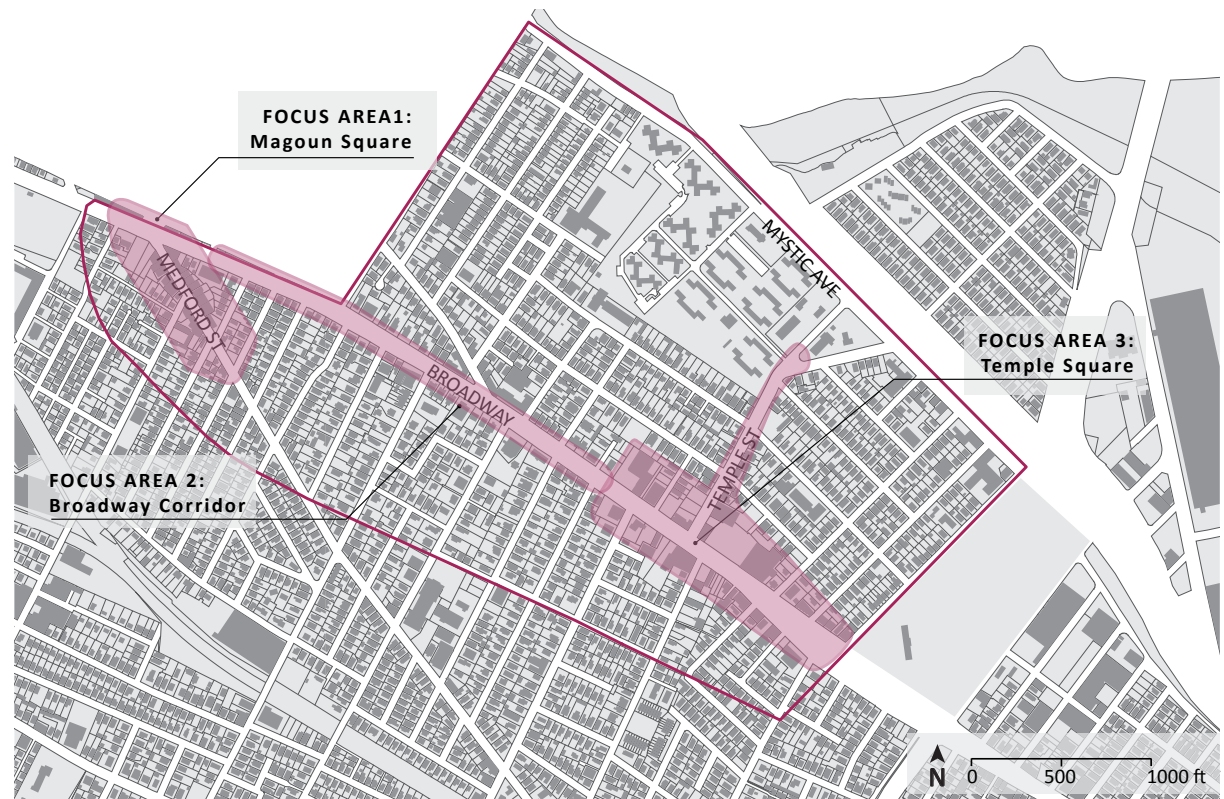


Figure 0.2: Map of the project area

WINTER HILL & MAGOUN SQUARE DEMOGRAPHICS

Winter Hill and Magoun Square have a combined population of 9,326, approximately 12% of Somerville's population. The median annual income of the census tracts comprising our study area is considerably lower than in Somerville as a whole (\$65,356 compared to \$74,338). This area also boasts significant ethnic diversity. Somerville has historically developed as a city of immigrants. Approximately one in five residents of Winter Hill is Hispanic. The percentage of Hispanic residents in Magoun Square is the same as that in Somerville at large, at about 10%. In Winter Hill and Magoun Square Haitian, Latin American, Asian, and Indian populations live alongside historic Italian, Jewish and Irish populations.

Three census tracts overlap with the study area (see Figure 0.4). The two largest tracts divide the area to the north and south of Broadway. A third tract contains Magoun Square. According to 2010 census data, 92% of residents in the southern half are high school educated, compared to only 79 percent in the north. Similarly, the south has a higher percentage of college-educated residents (42%) as compared to the north (33%). Median incomes in the southern tract are \$59,978, and \$47,231 in the northern tract. A considerable number of people in both tracts speak languages other than English; 48% in the north and 38% in the south.

During interviews, we heard the arrival of the Red Line station in Davis Square has steadily pushed lower income groups towards East Somerville.

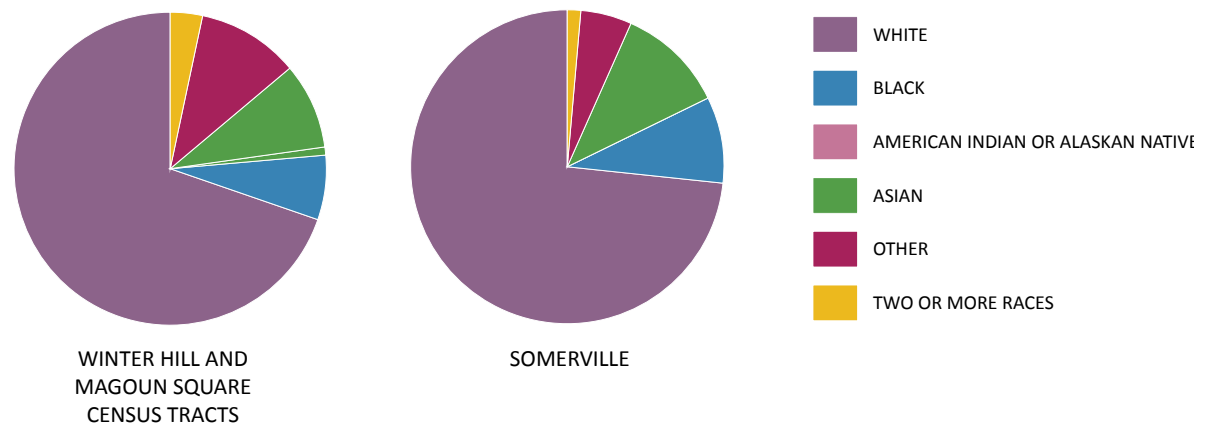


Figure 0.3: Racial composition of Winter Hill compared to all of Somerville

With a Green Line station planned to open near the project area, there are fears by some in the community that the same thing will happen here.

While some residents might be able to withstand the effects of rising prices once the Green Line station opens, others could be adversely affected. As has happened in other neighborhoods, many fear that lower socio-economic groups and populations of ethnic minorities will feel the greatest impact of rising rents and rising costs of services. Our conversations have suggested that, despite the best efforts by the City of Somerville, many within these populations are excluded in the planning process due to language barriers, immigrant status, and scheduling challenges.

Through a focus on accessibility, affordability,

environmental sustainability, and public participation, our plan aims to alleviate some of the issues of stratification in this area while highlighting its incredible diversity.

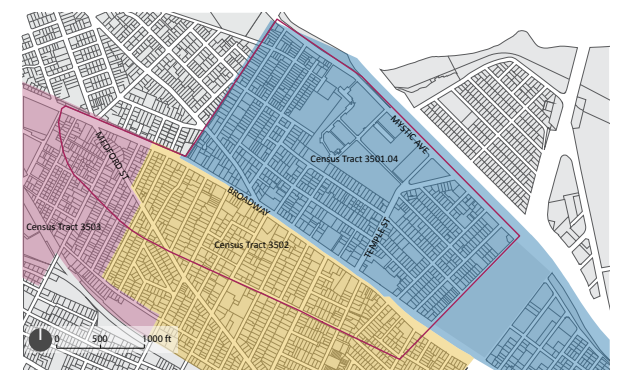


Figure 0.4: Census tracts overlapping the study area

WHAT WE HEARD

Interviews with a wide range of stakeholders have informed our project development and recommendations. Stakeholders were identified through the Mayor's Office of Strategic Planning & Community Development, including non-profit groups, local business owners and engaged community members. To supplement this feedback, we reached out to additional community members. Additionally, we presented our proposals at two public meetings at which we collected input from residents (see Figure 0.5).

These conversations provided a sense of the study area's character, and defined the two distinct neighborhoods. Our sources also gave us a sense for the study area's past and present conditions, and the constellation of individuals and groups working to improve economic, social, and physical circumstances for area residents. Ultimately, it was interviews, feedback, and casual conversation that formed the basis for the guiding principles, recommendations, and proposals contained within this plan.

Common themes informing our work hinged on the need to respond to changes that have taken place, as well as impending shifts. Many residents spoke of a historically vibrant community with high levels of foot traffic and fewer vacancies, particularly around Magoun Square. Some business owners and their patrons cited parking as their greatest concerns for the livelihood of Magoun Square. Many shared their ideas and hopes for the revitalization of both Winter Hill and Magoun Square. To the greatest extent possible, we have incorporated these perspectives.

Many of the non-profits we spoke to strive to increase access to city services for our project area's diverse population, particularly for non-native English speakers. These groups articulated that some members of the local community are currently isolated, and face the real possibility of being priced out as the area continues to develop. They pointed to other parts of Somerville as examples of where this has already happened, especially after expansion of the T-system to Davis Square. To this end, groups like the Somerville Community Corporation have undertaken partnerships, particularly with The Welcome Project, to ensure that community members have access to planning processes undertaken by the City of Somerville.

Many residents also cited a lack of public space; both open green space, as well as urban public space like plazas and promenades. Closely related to this was a concern for general public safety. Of greatest concern was the lack of lighting along the Broadway corridor and the high speed of traffic. Residents shared their stories of loved ones who had been hurt or simply scared of crossing Broadway near the top of the hill.

Effectively, we have tailored our plan around the concerns articulated by the residents of Winter Hill. While our list of stakeholders is far from exhaustive, we feel it is fairly representative of the neighborhood's overall character. As parts of this plan continue to move forward we strongly encourage the city to continue to solicit feedback from citizens.



Figure 0.5: Presenting our preliminary findings at a public meeting

ALIGNMENT WITH SOMERVISION

We used SomerVision, the 2012 Somerville Comprehensive Plan, as a framework for our explorations of Winter Hill and Magoun Square, and tried to incorporate many of the broader city goals into our plan. The SomerVision recommendations were generated through a series of community engagement strategies that were designed to be inclusive of all sectors of the city. The document is structured around a series of interrelated goals, the majority of which were directly applicable to our planning for Winter Hill. We have chosen to highlight four focus areas: Neighborhoods; Commercial Corridors, Squares and Growth Districts; Resources; and Transportation and Infrastructure.

NEIGHBORHOODS

One of the stated goals in generating and implementing SomerVision was to engage the community to the greatest extent possible in the plan-making process. To this end, the SomerVision Steering Committee employed a variety of tools to capture and incorporate feedback from all sectors of Somerville's diverse population. In line with these goals, our plan has prioritized the establishment of a unique and vibrant identity for Winter Hill and Magoun Square. Class research and observations, which highlight both the threats and opportunities inherent in redevelopment, led to an emphasis on affordability, accessibility, community synergy, environmental sustainability, and public participation as guiding principles in all plan recommendations.



SomerVision

City of Somerville, Massachusetts
Comprehensive Plan | 2010-2030

Endorsed by the
Somerville Board of Aldermen
April 12th, 2012

Adopted by the
Somerville Planning Board
April 19th, 2012



**Somerville: an Exceptional Place to
Live, Work, Play, and Raise a Family**

Figure 0.6: SomerVision Comprehensive Plan

COMMERCIAL CORRIDORS, SQUARES & GROWTH DISTRICTS

Our plan's emphasis on mixed-use and transit-oriented development, local business opportunities, and pedestrian-scale commercial environments is directly linked to the goals of SomerVision. As in other neighborhoods, the City has reiterated its goal of fostering commercial

growth that both serves the community and better supports the area by reducing reliance on state aid and residential taxes. In the context of the study area, this translates to integrated planning strategies for primary economic redevelopment of areas such as Magoun Square and Temple Square.

RESOURCES

In establishing interactive public spaces and environments that engage diverse sectors of the population, our plan highlights the SomerVision goal of a “. . . healthy and attractive public realm that fosters community connection, including streets, sidewalks, and other public spaces.” Daily interaction between neighbors is vital to establishing a cohesive, integrated, and inclusive identity for the Winter Hill and Magoun Square neighborhoods.

TRANSPORTATION AND INFRASTRUCTURE

Our plan directly supports the SomerVision goal of creating a comprehensive and easily accessible mass transit network that links neighborhoods and makes it easy to traverse the region. Transportation recommendations are reflective of the city’s desire to accommodate multiple transportation modes, create a pedestrian and bicycle-friendly environment, and manage parking supply and demand. In addition, our plan includes suggestions for improving the environmental health of Winter Hill by addressing such concerns as stormwater runoff and air quality.

PLANNING IDEAS

Our urban design principles for this project spring primarily from the ideas of Kevin Lynch and Allen Jacobs. According to city form theorist Kevin Lynch, nodes are intensive centers to and from which you travel. They can be junctions, places of break in transportation, convergences of paths, or simply concentrations of activity. Nodes that serve as concentrations of activity are often the focus and epitome of the larger district

in which they lie. For instance, if the Winter Hill area is a district, the intersection of Broadway and Temple is a node.

Lynch writes that “the image cannot carry too many nodal centers”(Lynch, Kevin. *The Image of the City*. Cambridge: MIT Press, 1960. p 75). Therefore in this project, we decided to focus on the intense activity centers at Magoun Square and the Broadway-Temple intersection. Nodes can be defined in a number of ways. According to Lynch, nodes should have at least one or two objects that catch people’s attention visually, and the form of streets and buildings should present a coherent spatial form. Lynch also argues that nodes should feature at least one strong boundary. Further visual elements, such as signs and landmarks, can define this boundary and keep nodes from trailing off.

Also relevant to our study is Lynch’s concept of a “thematic unit” (Lynch, Kevin. *The Image of the City*. Cambridge: MIT Press, 1960. p 68-69). A thematic unit includes 3-4 characteristics such as colors, textures, materials, surfaces, scale, facade details, lighting, or planting. Standardizing these visual cues helps create a coherent sense of place, and firmly establish a node as a place of interest.

Allen Jacobs’ ideas inform our street design principles. Jacobs drew a list of characteristics of great streets:

REQUIRED QUALITIES OF GOOD STREETS

- Places for people to walk with some leisure: Involvement with urban environment and other

people mostly happens on foot

- Physical comfort: warmth, sunlight, shelter from wind
- Definition of streets: both vertical (height of buildings/walls/trees) and horizontal (length, spacing)
- Qualities that engage the eyes: signs, evidence of habitation, etc
- Transparency: at edges where public realm and private realm meet
- Complementarity: buildings fit with each other, e.g., matching pedestrian-scale commercial on each side of Broadway (Jacobs, Allan B. *Great Streets*. Cambridge: MIT Press, 1993. p 271-289).

QUALITIES THAT CONTRIBUTE

- Trees
- Beginnings and endings: great streets have notable starts and stops- special physical qualities that denote ends are helpful
- Many buildings rather than few
- Special design features, i.e. details
- Places: stopping places, pauses, reference points along the path
- Accessibility: ease in getting from one place to another and ease of getting to the street itself (Jacobs, Allan B. *Great Streets*. Cambridge: MIT Press, 1993. p 293-303).

Finally, a recent Brookings Institute study on the relation between built-form and economic development has informed our planning and design process. In “Walk this Way: The Economic Promise of Walkable Places in Metropolitan Washington, D.C.”, Christopher Leinberger and Mariela Alfonzo found, among other things, that more walkable places perform better

economically than non-walkable places. Walkable places benefit from being near other walkable places. Residents of more walkable places have lower transportation costs, higher transit access, and higher housing costs. Furthermore, residents of places with poor walkability are generally less affluent and have lower educational attainment than those of walkable places.

According to this study (Leinberger, Christopher B. and Alfonzo, Mariela. “Walk this Way: The Economic Promise of Walkable Places in Metropolitan Washington, D.C.” *The Brookings Institution*, May 12, 2012. p 6), factors that influence economic development outcomes are:

- Aesthetics (e.g. attractiveness, open views, outdoor dining, maintenance)
- Connectivity (e.g. potential barriers such as wide thoroughfares)
- Density (e.g. building concentrations and height)
- Form (e.g. streetscape continuity or discontinuity)
- Pedestrian amenities (e.g. curb cuts, sidewalks, street furniture)
- Personal safety (e.g. graffiti, barred windows)
- Physical activity facilities (e.g. recreational uses)
- Proximity of uses (e.g. presence of non-res land uses)
- Public spaces and parks (e.g. playgrounds, plazas, playing fields)
- Traffic measures (e.g. signals, traffic calming)

We believe that improving these factors in the project area will lead to better economic performance and development.

PRINCIPLES

Our intention in laying out overarching principles is to highlight what matters most to the residents with whom we spoke. These principles informed each aspect of our plan and recommendations. Based on stakeholder interviews, two public meetings, and many visits to the study area we developed the following principles:

ACCESSIBILITY

We advocate accessibility for residents and visitors to all streets, spaces, and places. We believe this to mean environments that are safe and equally accessible to all, from young children to adults, as well as those with specific needs, be they language translation or barriers to movement. We believe Winter Hill needs to consider accessibility in terms of walking, biking, driving, and public transportation. Finally, our



plan illustrates our commitment to more parks and open spaces, with ease of entry and safety as primary concerns. Related to this, our plan also strives to encourage activity around the clock. Many of the residents we spoke to asserted that they did not feel safe at night and noted minimal daytime foot traffic.

AFFORDABILITY

With each of our recommended social, economic, physical, and political interventions, we have endeavored to ensure we are not excluding lower socioeconomic groups from our plan. In keeping with concerns we heard, current residents should not be priced out of housing or shopping options in the name of “improved quality of life.” Short-, medium-, and long-term redevelopment should be inclusive from an economic perspective from

housing to fresh, healthy food and local services like transportation.

The City of Somerville already supports initiatives in response to these kinds of concerns. For example, we found there are networks of translation services for public meetings, and mobile farmers markets. We believe the City should continue to explore initiatives like these, particularly with an eye toward retaining residents of different socioeconomic backgrounds.

ENVIRONMENTAL SUSTAINABILITY

Environmental sustainability pertains not only to physical infrastructure, but also to education and awareness for how residents and visitors interact with their neighborhood. Broadly, the long-term environmental vision for this neighborhood entails both design interventions as well as education efforts aimed at ensuring these interventions are lasting and shared among residents and visitors.

PUBLIC PARTICIPATION

This component presents the greatest opportunity to understand the neighborhood, and tailor our recommendations to its present and future needs. Our process involved public responses to design and policy proposals; however, as implementation moves forward, public input is as important as ever. As noted, the City engages in a variety of measures to solicit public input, such as its Green Line Extension “Somerville by Design” sessions. We commend the City for these efforts and recommend that it continue considering the ways in which its current process could be improved.

SYNERGY BETWEEN ETHNIC/ECONOMIC GROUPS

As we considered our principles, we thought about the interaction between people living in our study area. While not a stated principle, to the greatest extent possible, we have endeavored to highlight cultural diversity while minimizing opportunities for specific groups to become isolated. We hope to foster an integrated and inclusive approach that encourages residents of Winter Hill to take pride in their community and its strong immigrant history. As aspects of our plan move forward, progress should center on social inclusion strategies, such as neighborhood-wide events and celebrations. Apart from such intermittent approaches, there should be a focus on public space that provides opportunities for daily interaction between neighbors. This includes parks, plazas, and streets, but also corner stores, restaurants, coffee shops, and any other venues that might serve as gathering points.

VISION

This plan primarily considers non-residential land uses i.e., “the public realm.” Thus, the vision for Winter Hill and Magoun Square focuses on three aspects of the neighborhood experience “beyond your front door”: the **streets** on which you travel, the **spaces** where you gather, and the **places** that you visit.

Tied directly to the streets-spaces-places framework are issues of transportation, connectivity, environment, streetscape, open space, land use, and economic development. The plan is organized using this framework with a

focus on the experience of residents and visitors in the neighborhoods. After an analysis of existing conditions and outreach to community members, the following vision for Winter Hill and Magoun Square was articulated by our class:

- *A neighborhood that is pedestrian-friendly and well connected by public and private modes of transportation.*
- *A neighborhood that supports an inclusive and economically viable mix of commerce, daytime employment, and community activity centers that cater to both local residents and visitors.*
- *A neighborhood with an engaging public realm to which residents feel connected and in which visitors feel welcome.*

Finally, the vision for Winter Hill and Magoun Square includes a redevelopment process that ensures community involvement in decisions regarding neighborhood changes, and that reflects the diversity of the communities in these neighborhoods.

I. STREETS

“Streets and their sidewalks – the main public places of a city – are its most vital organs . . .” - Jane Jacobs, The Death and Life of Great American Cities

The street and sidewalk network in Winter Hill and Magoun Square shapes the experiences of residents and visitors. Streets are gateways to the neighborhood, and our starting point for analyzing Winter Hill and Magoun Square’s assets and opportunities. As mentioned in our introduction, our approach is guided by the principle of accessibility. We envision a future in which all residents of our project area can access neighborhood resources like shops, services, and each other.

TRAFFIC

After passenger rail services were discontinued in Somerville in 1958, the private automobile

Road	Vehicles/Day
I-93*	150,000
McGrath Highway*	65,000
Broadway*	20,000 - 30,000
Washington Street	29,000
Medford Street*	21,000
Highland Avenue	13,000

Figure 1.1: Average daily traffic; asterisks denote roads in the study area
Source: MassDOT

became the primary mode of transportation. This led to overwhelmingly car-oriented urban planning, with significant consequences for travel behavior and growth patterns. Today, Winter Hill and Magoun Square are still dominated by automobile traffic. Figure 1.1 shows the average number of vehicles per day on the six busiest roads in Somerville. I-93, McGrath Highway, Broadway, and Medford Street all border or intersect our study area, which illustrates how heavily trafficked Magoun Square and Winter Hill are. It is interesting to note that, while Broadway is wider than Medford Street, the traffic counts are comparable. Commuter data from the 2010 Census also indicate heavy reliance on cars, as shown in the pie charts in Figure 1.2.

Despite the fact that Broadway’s paved driving surface is between 45-50 feet wide, segments of this corridor are heavily congested during rush hour. This congestion is due in part to high traffic volumes and uncoordinated traffic signals.

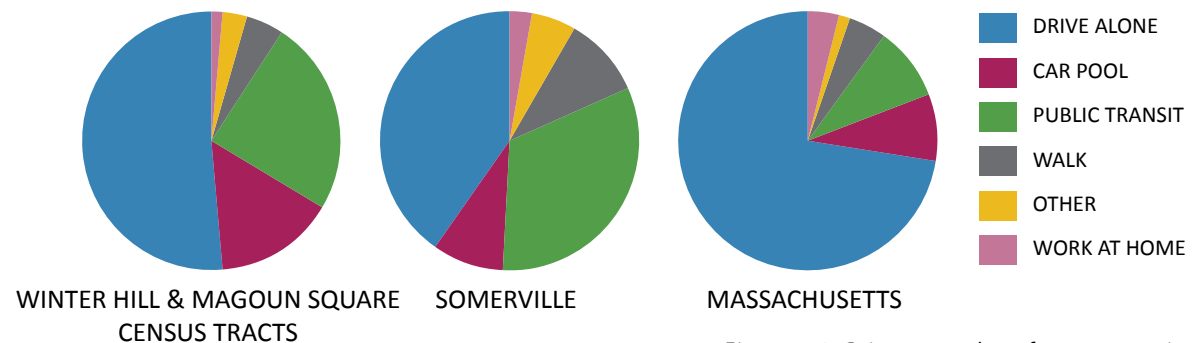


Figure 1.2: Primary modes of transportation

TRANSIT HISTORY

Broadway, formerly known as Winter Hill Road, was one of the earliest roads built in Somerville in the 1630s. In 1858, two-horse cars were put into service along Broadway, later becoming horse-powered street railways and even later streetcars. Passenger rail came to Somerville in 1841 and continued until 1958. The image below shows the former Winter Hill Station on the Lowell Line, from a postcard mailed in 1907.



The Green Line Extension represents the culmination of a decades-long effort to bring rapid transit back to Somerville. In 1945, the Report of the Legislative Commission on Rapid Transit proposed the construction of several new rail lines through Somerville, West Medford, and Winchester to Woburn.

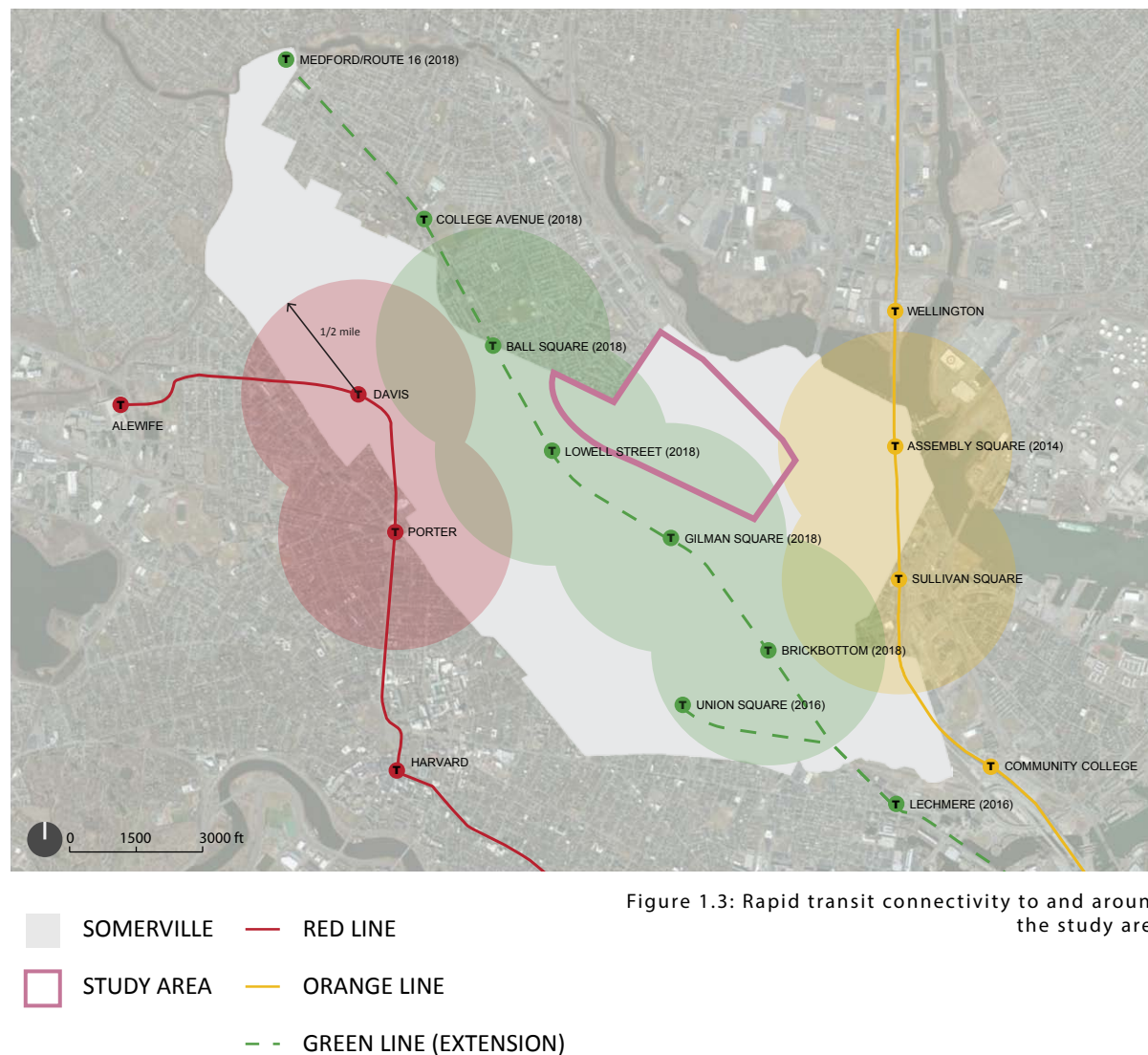
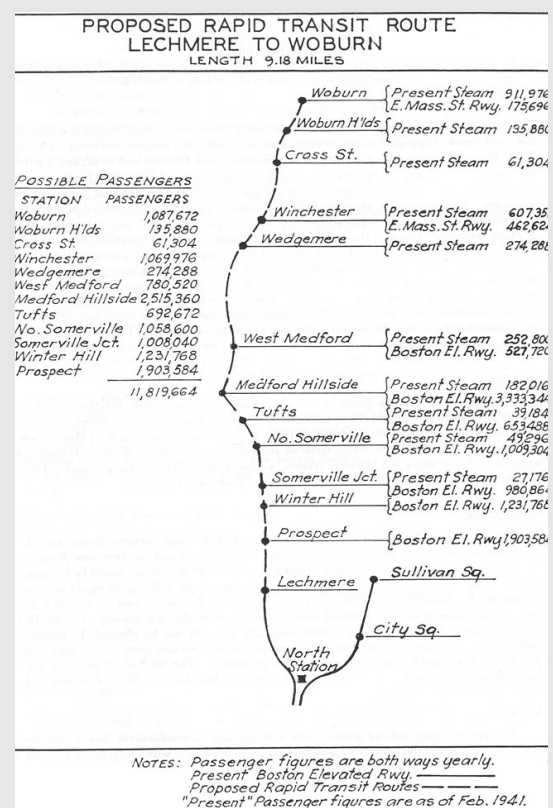


Figure 1.3: Rapid transit connectivity to and around the study area

TRANSIT

Part of the neighborhood's automobile dependence is due to a lack of public transportation options. Figure 1.3 illustrates the lack of accessibility to MBTA rail lines. One-half mile radii from existing Red and Orange Line stations do not intersect the study area, and even when the new Assembly Square station opens in 2014, the study area will remain largely inaccessible by subway.

MBTA bus service provides some connectivity and access to this area, although most routes are primarily feeder routes to T-stations and other bus lines. Magoun Square and Broadway are served by MBTA Bus Routes 80, 89, and 101. These routes connect our study area to Malden and Sullivan Square (Orange Line), Lechmere (Green Line), and Davis Square (Red Line) T-stations. Along Mystic Avenue, MBTA Bus Route 95 provides services from West Medford to Sullivan Square Station. Broadway is well served by buses. However the lack of north-south connectivity, remains an issue. Furthermore, as Figure 1.4 shows, headways have greatly increased between 1980 and 2010, making lower bus frequency a concern as well.

Route	Route Name (2010)	Span of Service	1980 Headways (min)	2010 Headways AM (min)	2010 Daily Riders
80	Arlington Center – Lechmere	5:05AM – 1:21AM	7-17	20-35	1872
89	Clarendon Hill or Davis Square – Sullivan	4:33AM – 1:22AM	6-15	9-30	3431
95	West Medford – Sullivan	5:17AM – 1:24AM	12-20	20-30	1751
101	Malden – Sullivan	4:56AM – 12:57AM	12-15	9-30	4116

Figure 1.4: Bus route service and ridership
Source: MBTA Blue Book

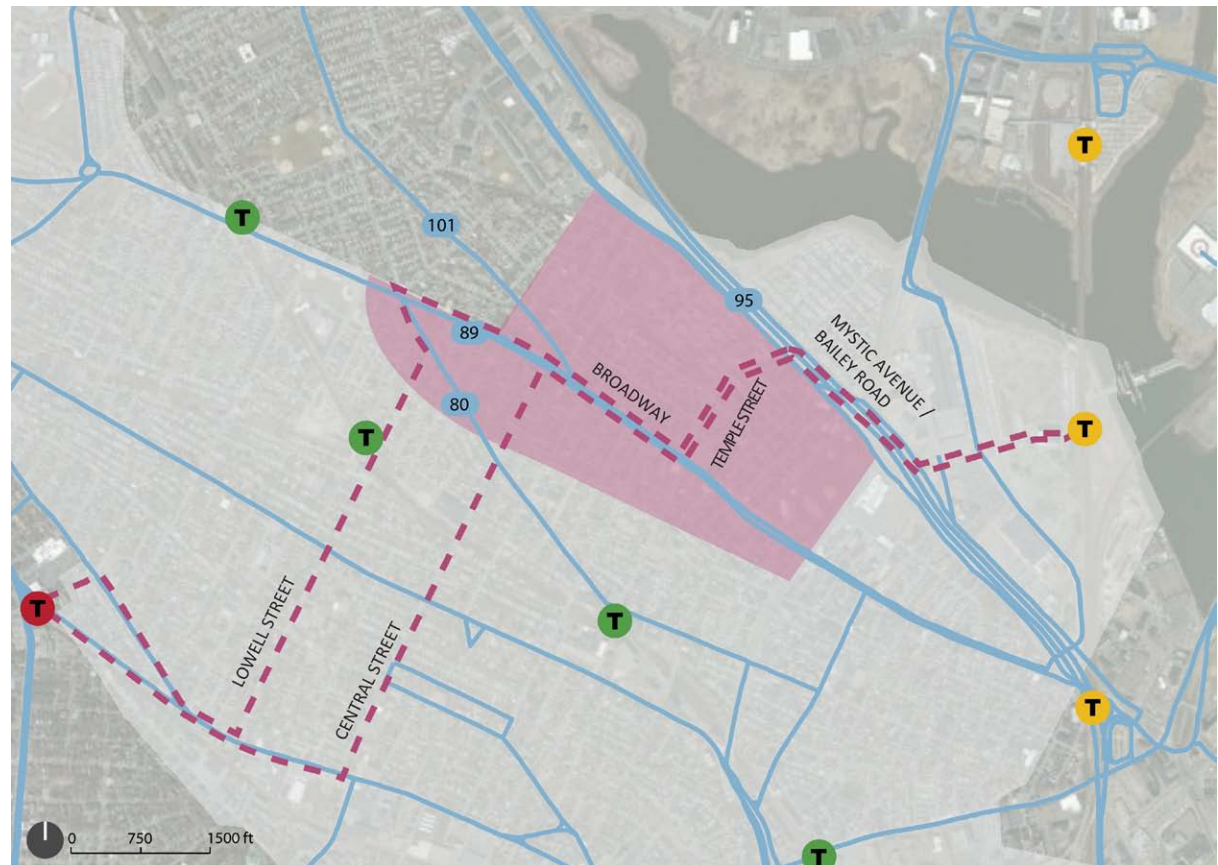
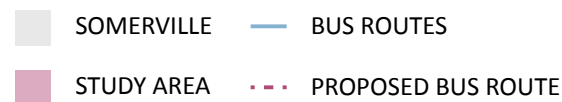


Figure 1.5: Existing and proposed bus routes

One of the most important future developments in transportation will be the addition of the Green Line Extension (GLX) to the subway network. This project is the most significant air quality mitigation measure remaining from the Central Artery (Big Dig) Tunnel Project and is a key component of the Clean Air Act State Implementation Plan (SIP). Recent agreements signed in July 2012 by the City of Somerville and

MassDOT/MBTA have made a commitment to begin construction of the first phase of the GLX by spring 2014.

Union Square and Washington Street stations are supposed to be operational by late 2016 or early 2017. At the first public meeting for this plan in October 2012, the community expressed their uncertainty about the timeline for construction

of the GLX, and that the future of the neighborhood should not be wholly dependent on this development.

While our recommendations do not center on the GLX, we do recognize that it will bring change to the neighborhood. The City now has an opportunity to proactively plan for future redevelopment that meets the needs of current residents and attracts new residents and visitors to Winter Hill and Magoun Square. Not only will the GLX spur development, but travel times will be dramatically reduced. For example, instead of the current 23 minutes required to travel between Lechmere Station and College Avenue on bus route 80, it will take only 9.5 minutes on the Green Line.

The future construction of the GLX also presents an opportunity to reexamine connectivity in the neighborhood, most importantly the current lack of north-south connectivity. When the Red Line Extension brought rail service to Somerville and Medford in 1985, many bus routes were altered. These routes have been untouched since. With the GLX, existing bus routes could be altered to serve as feeder routes to the new stations and enhance connectivity.

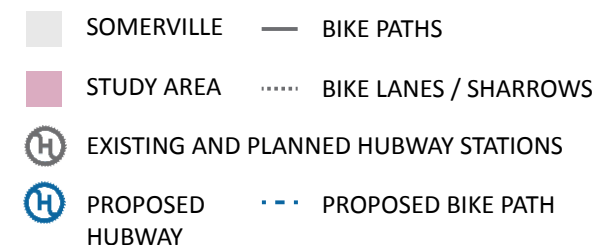


Figure 1.6: Existing and proposed infrastructure

Figure 1.5 illustrates our recommendation for a new bus route that would link the forthcoming Lowell Street and Assembly Square T-stops to the existing Porter Square red line station. Appendix A-1 also provides guidelines for consideration in future bus route alterations and additions to enhance accessibility and connectivity. This recommendation was well received by Winter Hill and Magoun Square residents who attended our community meeting in early December 2012.

An alternative to adding a new bus route is to introduce a commuter connection service like the EZRide Shuttle. EZRide currently provides shuttle service between Cambridgeport, MIT, Kendall Square, Lechmere Station, and North Station, and is operated by the Charles River Transportation Management Association. Shuttles are open to the general public for a \$2.00-fare and free to all members with a proper ID or access sticker. A similar service could be established through a partnership among organizations such as Tufts University and the Cambridge Health Alliance, and establishments along Broadway and in Assembly, Davis, Magoun, and Porter Squares. This alternative would increase connectivity in the area and provide requisite feeder service to existing and future T-stations.

BICYCLING

Bicycling is becoming an increasingly popular mode of transportation in Somerville; Winter Hill and Magoun Square are no exception. In 2006, approximately 3.5% of Somerville workers commuted to work on bicycle. This is a significant increase from the 2.8% share in 2000, and 2.0% in 1990 (US Census 2000). The City has

already created bike lanes along Broadway to the northwest of the project area, and plans to install them to the southeast (“Trends in Somerville: Transportation & Infrastructure Report,” 2009). Additionally, Hubway has installed stations in locations around the study area, but not in it, leaving a noticeable gap in service (see Figure 1.6). There are some existing bike racks in the study area, but few in Magoun Square, along Broadway between Magoun Square and Main Street, Temple Street, and Mystic Avenue (see Figure 1.7).

To address this lack of cycling infrastructure in the short term, we recommend painted sharrows and a trial period in which ridership counts are measured to assess daily use. In addition, the installation of bike racks at strategic points along Broadway will encourage bicyclists to stop, visit businesses, and make use of public spaces in the area.

The City should create dedicated bike lanes along the Broadway Corridor (see Chapter 8) and along streets that connect Broadway to existing and future T stations. Establishing new Hubway stations at these key connection points will enhance the accessibility of Winter Hill and Magoun Square and further encourage bicycling in Somerville.

THE PEDESTRIAN EXPERIENCE

Winter Hill and Magoun Square are home to a variety of institutions, restaurants, bars, businesses, and services that are of potential interest to pedestrians. The map in Figure 1.8 is an illustration of our observations and what we

heard from residents and business owners about pedestrian traffic in the study area. We identified clusters of pedestrian-oriented businesses and highlighted the lack of connectivity among these clusters. Figures 1.8 and 1.9 illustrate the same condition in photographs. While the study area is home to many businesses and institutions that attract foot traffic, the corresponding intersections are vast and unsafe. Broadway is marked by a large number of curb cuts for cars, deep setbacks, and vast parking lots. The large width of Broadway, coupled with high wait-times for pedestrian walk signals and fast moving vehicular traffic, make walking an unsafe and unattractive travel option for residents.

North-south pedestrian connectivity across Broadway is an additional challenge. Residents have articulated safety as a major issue in the study area, and the pie chart of traffic incidents in Figure 1.10 illustrates this concern. From January 2011 to November 2012 there were 478 accidents in and around the study area. Most of these were motor vehicle accidents, but there have also been incidents involving pedestrians and bicyclists. The table further breaks down this data to show the intersections with the highest numbers of incidents during this time period, highlighting the particularly dangerous areas in our study area. In order for the study area to become more pedestrian-friendly, streets must be safe to walk along and to cross. The study area should be accessible to everyone, regardless of age or ability.



Figure 1.7: Areas of concentrated activity and lack of pedestrian and bicycle connectivity

WAYFINDING

With an enhanced transportation system and greater accessibility, it will be necessary to direct people to the key hubs of activity within the neighborhood. Wayfinding signage at the new T-stations can guide residents and visitors to these centers (see Figure 1.11). At the same time, it helps advertise the important establishments and destinations that Winter Hill and Magoun Square have to offer. Signage can include maps to orient people, as well as posts with arrows, directions, images, and information about important sites to visit. Signage is also part of pedestrian infrastructure. It should provide effective wayfinding for pedestrians and call attention to anchor businesses and other institutions in the area. Wayfinding elements should be multilingual in order to serve the diverse community of residents and visitors. In sum, these elements can contribute to the identity of the neighborhood and make it more welcoming and accessible.

TRAFFIC CALMING

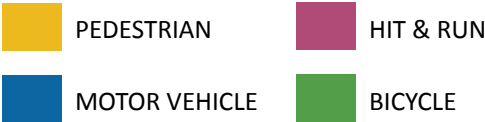
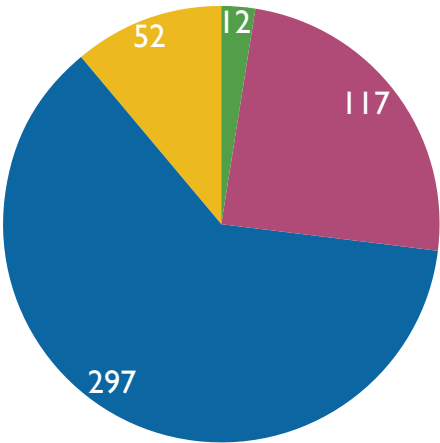
To address safety issues that make the neighborhood a challenging place for pedestrians to navigate, a variety of traffic calming measures are recommended. We present both short-term, low-cost options; and longer-term, more capital-intensive options.



Figure 1.8: Pedestrian-oriented retail, food, and services (clockwise from top left): small businesses along Medford Street, restaurants on Temple Street, a hair salon on Walnut Street, and the Elizabeth Peabody House on Grant Street



Figure 1.9: Intersections (clockwise from top left): Magoun Square, Temple Street, Walnut Street, and Grant Street



Intersection	Accidents
Broadway & Medford Street	13
Broadway & School Street	8
Broadway & Walnut Street	7
Medford Street & Central Street	10
Medford Street & School Street	19

Figure 1.10: Number of Incidents in the Study Area
Source: Somerville Police Department, Crime Analysis Unit

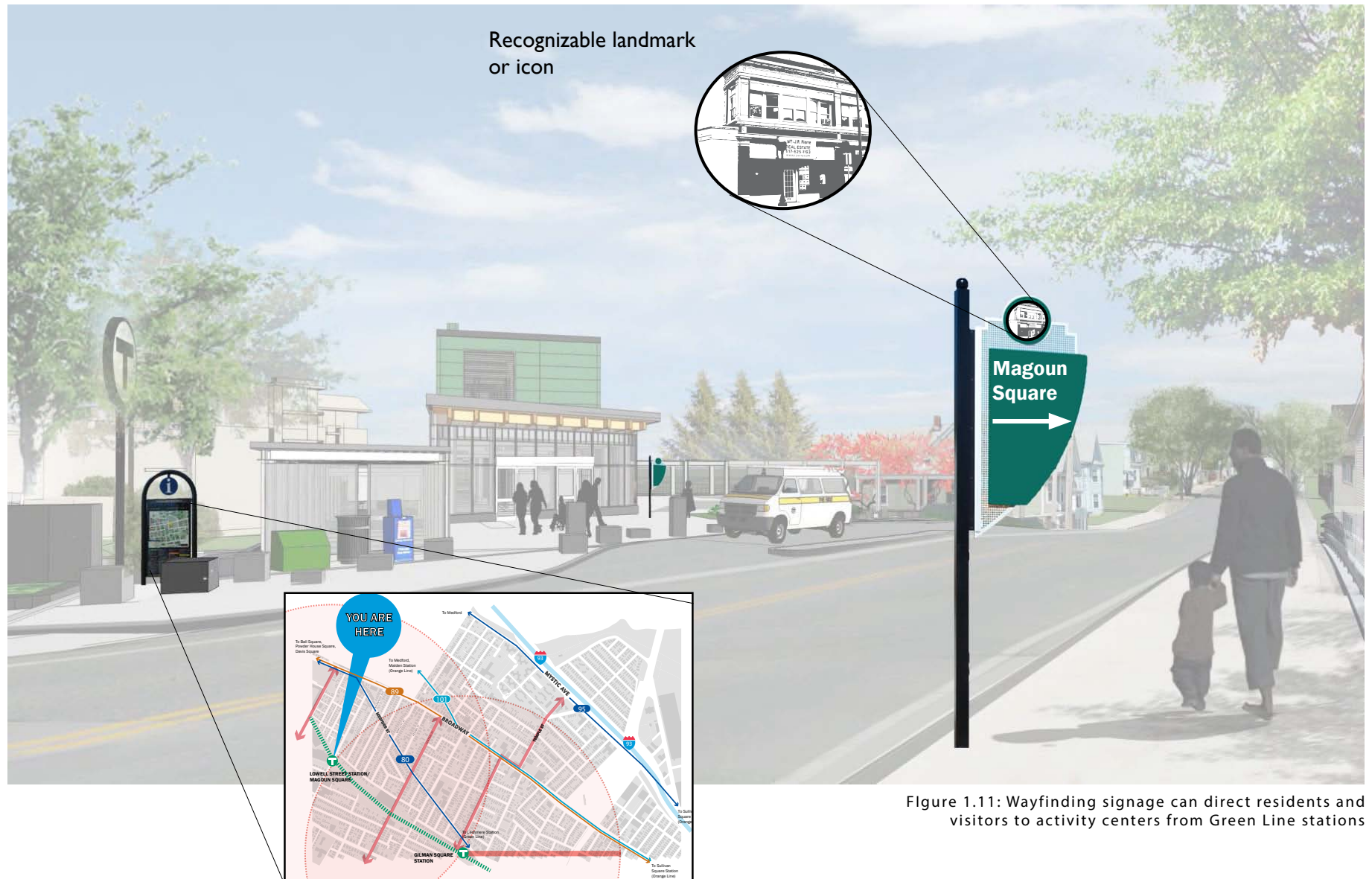


Figure 1.11: Wayfinding signage can direct residents and visitors to activity centers from Green Line stations

In the short term, traffic safety can be improved by introducing pavement marking. Line painting that delineates traffic lanes for cars and establishes bike sharrows or bike lanes will provide clearly demarcated, hassle-free areas for drivers and bicyclists alike. Painted turn symbols that direct traffic make it easier to control and predict the movement of cars. This strategy is particularly effective when combined with other longer-term physical interventions.

Paint can also be used to install crosswalks where they are missing and to highlight existing crosswalks. Painting an intersection a different color makes it more visible and pedestrian crossing safer.

Medium-term intersection interventions include raised crosswalks that slow cars down, increasing safety for bicyclists and pedestrians. Care must be taken in deciding the type of texture to use in accordance with the Americans with Disabilities Act (ADA) and to minimize disruption in traffic flow.

To enhance the pedestrian environment, pedestrian signal wait-time must be reduced. Wait times average over 90 seconds at the Magoun Square intersection. Also, pedestrian signal crossing duration around Magoun Square, and at Temple Square intersections should be increased to at least 20, and preferably 30 seconds. Current signal duration is too short for the aged, pregnant women, children, and people with many shopping bags. Together, these measures would increase the level of pedestrian traffic in the area. At the intersections that lack



Figure 1.12: Examples of traffic calming measures (clock wise from top left): a bike sharrow, a conceptual restriping plan for Magoun Square, curb extensions, and a speed hump

pedestrian crossing signals, a sign that reads “State Law – Yield for Pedestrians in Crosswalks” should be installed.

Long term traffic calming interventions include physical changes to the geometry of the street, including raised crosswalks, speed humps, and curb extensions that slow traffic and shorten crossing distances for pedestrians. Appendix A-2 outlines these and other traffic calming interventions.

II. ENVIRONMENT

Sustainability is crucial to our plan. One of SomerVision's goals is to "maximize environmental sustainability in design and implementation of all infrastructure systems." The City should continue to take advantage of opportunities for neighborhood engagement to enhance the longevity and efficacy of infrastructural improvements. There are a number of recent environmental initiatives that inform our work, including the City's 2007 Sustainability and Energy Conservation Plan; the 2008 Urban Forest Initiative and Forest Management Plan; as well as the 2011 stormwater and pervious pavement policies. Our plan builds upon these efforts to make recommendations toward a more sustainable Winter Hill and Magoun Square.

AIR QUALITY

SomerVision highlights public air quality as an important category of sustainability program implementation. Air quality is a particular concern for Winter Hill because of its proximity to several major roads and interchanges. Interstate 93 runs along the north side of Winter Hill, and many cars exit at Temple Street in the direction of Broadway. Roadways create local concentrations of pollutants and particulates from vehicle exhaust.

There is consensus among public health experts that spending significant amounts of time near major roads increases the risk of adverse health effects such as heart disease, asthma, and lung cancer. Health risks associated with this exhaust are linked to proximity, traffic volume, length of

exposure, and the presence of wind, which acts to disperse pollutants. Houses, schools, and recreational facilities located within 100 meters of major roads and 150 meters of highways are considered at higher risk for heart disease and other illnesses.

Planting vegetation near major roadways may be the most effective means of reducing pollutants. Urban vegetation cleans air; plant leaves take up pollutants such as ozone, sulfur dioxide, and nitrous oxides, and plant surfaces intercept and capture particulate matter. Although there are many deciduous trees planted near Mystic Avenue and I-93, their ability to improve air quality is greatly reduced during winter because they do not have leaves.

SomerVision directed the City to "consider the creation of a living wall (e.g., sound and visual barrier that also contains plant materials) to address air quality issues and mitigate the impact of Route 93 on the Mystic River, boat launches, paths, and other waterfront vistas." (Figure 2.1 provide examples of what such a wall might look like).

RECOMMENDATIONS

We recommend that staff at the Urban Forest Initiative and Somerville Housing Authority landscaping division prioritize the quantity and health of urban vegetation closest to Winter Hill's busiest roadways and I-93. In the short term:

- Prioritize new tree plantings in areas closest to major roadways and I-93, as shown in Figure 2.2.
- Place particular emphasis on maintaining the health of street trees close to highways, e.g., by

protecting trees from the damaging effects of winter salt; and

- Include air pollutant cleaning capabilities to the list of criteria used to pick street trees. Conifers, as well as trees with high surface area, sticky surfaces, and structures that maximize in-canopy airflow are considered particularly efficient at capturing ultrafine particulates.

In addition, the City should consider ways for small pocket parks to be planted with conifers to provide air quality benefits; create



Figure 2.1: Examples of living walls in the U.K.

a coniferous screen around Healy School's outdoor recreational facilities; and work with Department of Conservation and Recreation (the DCR) to plant a coniferous screen around Foss Park's recreational facilities.

We imagined what a living wall and dense coniferous screen between Mystic Avenue and I-93 could look like as a longer-term air quality improvement measure (See Figure 2.3). The

involvement of MassDOT would be required for this proposal.

Resident engagement could become a greater part of the City's tree planting and air quality mitigation efforts. We heard from Somerville's Urban Forest Initiative that some residents object to new street trees because they do not wish to clean up falling leaves or are concerned that limbs and roots will damage property. As part of existing Urban Forest Initiative outreach, the City should

EXISTING PROGRAMS

In 2008, Somerville created the Urban Forest Initiative to implement an urban forest management plan and promote green infrastructure. The City's tree planting efforts are currently focused on maintaining existing trees and adding trees to create a continuous street tree canopy in Somerville. There are almost 1,000 street trees in our study area.

The Community Assessment of Freeway Exposure and Health (CAFEH) is a research initiative at Tufts University advised by a coalition of local organizations including the Somerville Transit Equity Partnership (STEP), Boston Public Housing, and Chinatown Resident Association. CAFEH researchers work to document and publicize the air quality and health impacts of highways using a mobile air quality testing lab.

During circuits within 100 meters of I-93, researchers calculated very high concentrations of ultrafine particles, linked to heart disease.

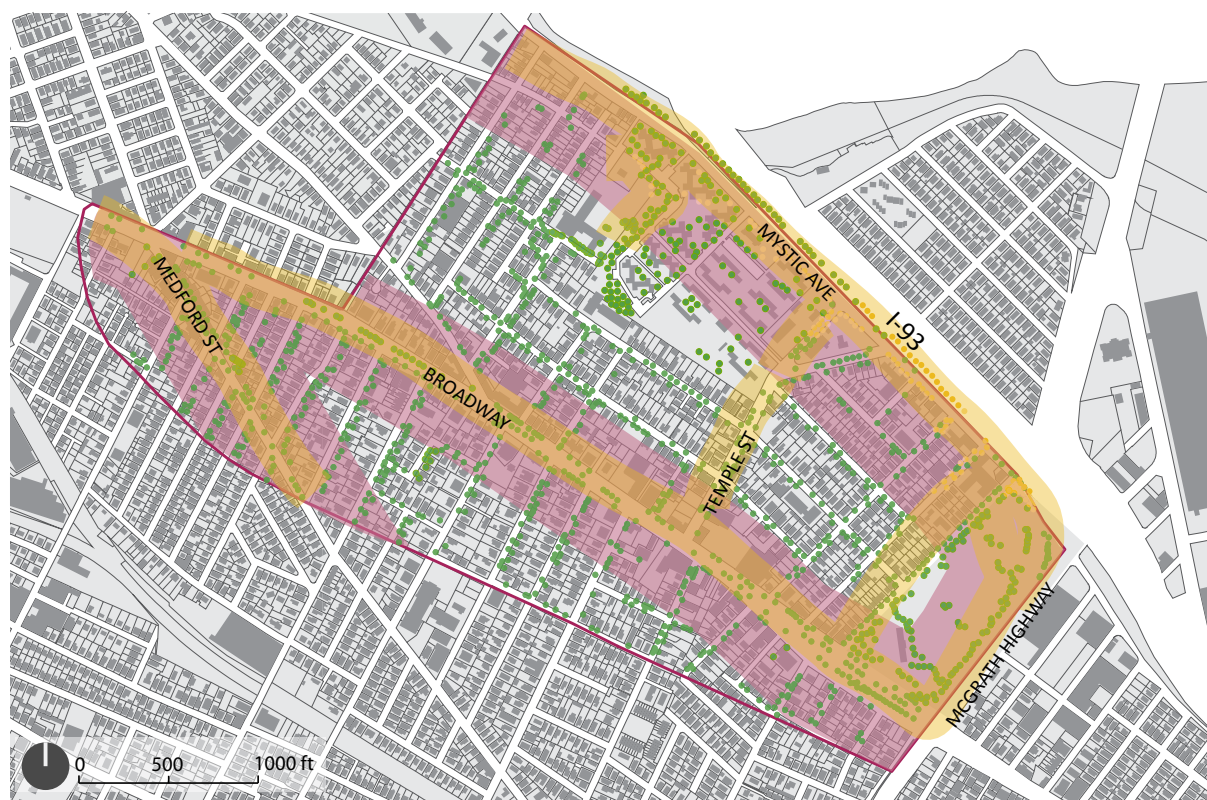


Figure 2.2: Areas within 100m of major roads and 150m of I-93 with city park and street trees (pink), as well as recommended areas for priority street plantings (yellow)

communicate the air quality benefits of urban vegetation to residents. In addition, Somerville could convene a group of residents, business owners and air quality experts from Somerville and Tufts University (e.g., the Community Assessment of Freeway Exposure and Health) to develop a more comprehensive strategy for vegetation and encourage residents to assist in the care of street trees. The City could similarly work to educate Mystic Avenue businesses about the benefits of installing living walls, which can include reduced energy consumption in addition to air quality improvements.

STORMWATER MANAGEMENT

Underneath Somerville's streets lie miles of municipal sewer infrastructure, much of it dating to the 19th century. There are several related challenges facing the sewer system in Winter Hill and Magoun Square. First, much of Winter Hill and Magoun Square is served by combined stormwater and sanitary infrastructure. When it rains, the combined system in Winter Hill and Magoun Square risks overflowing directly into the Mystic River at a combined sewer outfall (CSO) to the east of the Fellsway. CSOs have a negative impact on Mystic River water quality; the EPA has rated Mystic River water quality in the Cs and Ds since rating began in 2006. Cleaning the Mystic is one component of SomerVision's goal to increase use of the Mystic River as a community asset.

Because of Winter Hill's elevation and Somerville's institutional arrangements with the Massachusetts Water Resources Authority, in the short term Somerville's City Engineer does not consider it feasible to separate the Winter



Figure 2.3: Proposed living wall and coniferous screen between Mystic Avenue and I-93 from Temple Street

Hill and Magoun Square sanitary and sewer infrastructure. Therefore, the City must reduce the amount of water entering the sewer system.

Somerville's stormwater infrastructure is at capacity because buildings or impervious paving cover over 70% of its land (see Figure 2.4). When it rains, water is channeled from impervious areas to the combined sewer system. In highly impervious areas, it is estimated that over 50% of yearly precipitation throughout the year becomes runoff; this number is even higher during storm

events. Runoff from streets, parking lots, and driveways carries oil and other pollutants into the Mystic River, further compromising its water quality.

RECOMMENDATIONS

Reducing stormwater flows through water infiltration, capture, and retention in Winter Hill and Magoun Square would minimize stress to area combined wastewater infrastructure and reduce CSO discharge.

Future action should build upon existing policies. Since 1990, the City has enforced a moratorium on new stormwater hook-ups, and in 2011 began requiring new developments that would create 2,000 gallons in wastewater per day to retain four times this amount of rainwater during storms on site. In January 2011, the Somerville Board of Aldermen passed an ordinance amending the zoning code to add a definition of pervious area and setting minimum pervious area requirements for residential zones (30%-35% minimum).

SomerVision outlines proposals for preventing CSO discharge, including directing new projects to include provisions for stormwater, specifically street reconstruction and renovation projects such as medians. It also recommends increasing the number of healthy trees on Somerville's streets.

Streetscape improvements provide the opportunity for enhanced stormwater management. As a short-term strategy, we recommend installing infiltration planter boxes along Lowell, Marshall, and Moreland Streets. We recommended interventions here in particular

because Marshall Street and Lowell Street will be the paths into our study area from future Green Line stations, and because runoff from the Moreland Street area empties directly into the Mystic River. Infiltration planter boxes on these streets would capture and filter stormwater from the streets and aid in wayfinding up Marshall Street from the future Gilman Street T-stop. Planters generally contain native flowers, grasses, shrubs, and trees that do well in wet environments. Design of these planters for Somerville's streets would have to be sensitive to the wide driveways that exist along Lowell

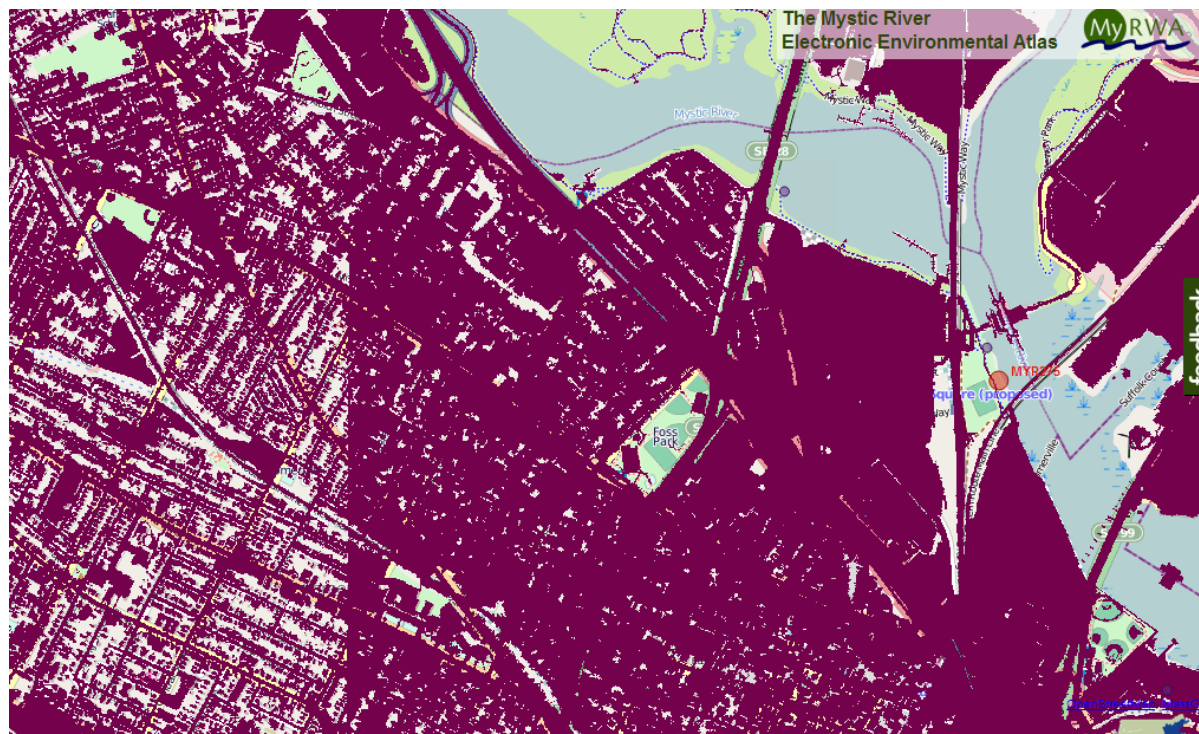


Figure 2.4: Impervious surface coverage, Mystic Watershed Association

Street, and ensure that the planters would not be overloaded by too much runoff. Feature design would also have to be sensitive to the slope of Somerville's streets, as steeply sloped streets are not desirable for planter boxes.

Infiltration planter boxes are a relatively low-cost green infrastructural improvement. Installation and materials generally cost around \$8 per square foot, with maintenance costing an additional \$.80 - \$1 per square foot per year. Assuming that planter boxes of 4' width were installed along half the length of Lowell Street from the future T-Station up to Magoun Square, installation could cost roughly \$18,000, with maintenance costs of \$1,800- \$2,300 per year. Installing planter boxes along Moreland Street and Marshall Streets could cost around \$48,000, with maintenance costs of \$4,800- \$6,000 per year. Actual costs would vary based on dimensions as well as the materials and plants used. When considering financial feasibility, the City should compare the costs of green infrastructural improvements to avoided costs from water treatment, flooding, stormwater sewer system maintenance, and upgrades.

There are a variety of potential sources of funding for municipal green infrastructural improvements. Federal funds for green infrastructure include the EPA Clean Water State Revolving Fund and the EPA Clean Water Act Nonpoint Source Grant. Some cities have set up new fees and taxes to fund green infrastructure. Somerville could adopt a stormwater management fee, and offer discounts for reductions in impervious surface coverage. In addition, the City should consider how funds for

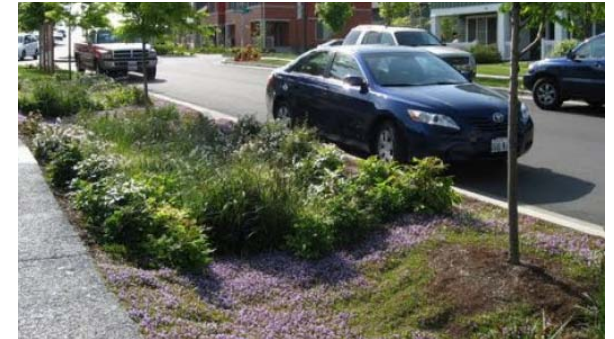


Figure 2.5: Examples of urban infiltration planter boxes (left) and bioswales (right) from around the United States

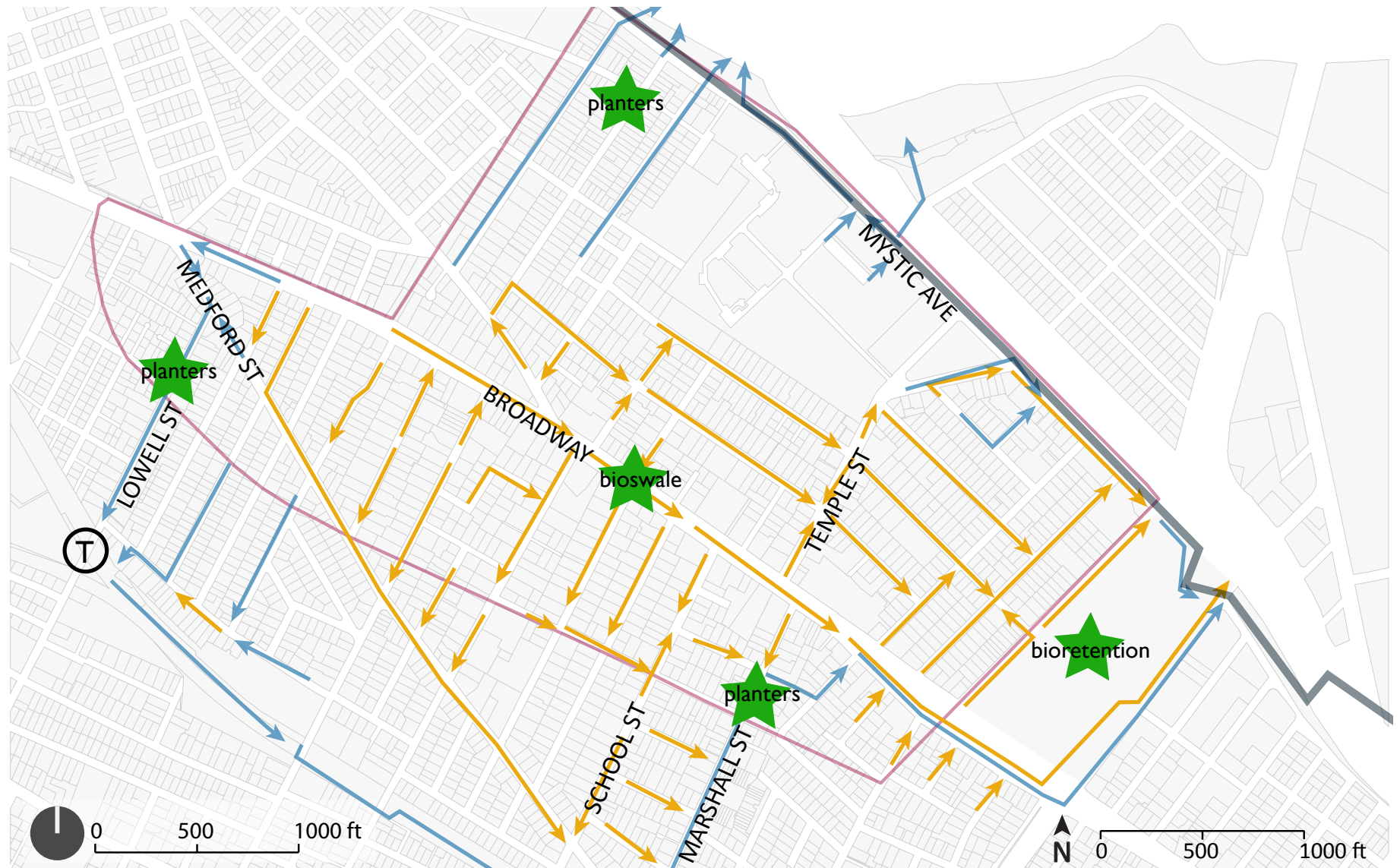


Figure 2.6: This map summarizes stormwater flows, with orange arrows indicating flows of combined sewer lines, and blue arrows indicating flows of separated stormwater lines. Key opportunities for intervention are starred

ANALYSIS & GENERAL RECOMMENDATIONS

traditional sewer infrastructure improvements could be used for green infrastructure projects.

Somerville should also continue to engage with residents to increase stormwater infiltration at private homes. In the short term, there could be opportunities for the City to collaborate with organizations sponsoring de-paving parties; perhaps by providing free rain barrels for projects that plan to install gardens. The City could also promote de-paving in city newsletters and other communications to encourage greater participation. In addition, in the medium-term Somerville could develop guidelines and recommendations for residential-scale green infrastructure for residents who might not be sure what to do with their yards after they have been de-paved. The City could distribute these at community events and meetings.

As a long term strategy, the City should maximize the potential for City-owned open space in Winter Hill and Magoun Square to capture and retain stormwater. Costs of biofiltration green infrastructure are around \$10-\$12 per square foot. Foss Park, owned by the Massachusetts DCR, is outside of the scope of this plan, however the park's potential to store water is significant and deserves mention. Future planning of Foss Park at the Commonwealth and city levels should include water retention and filtration as a top priority.

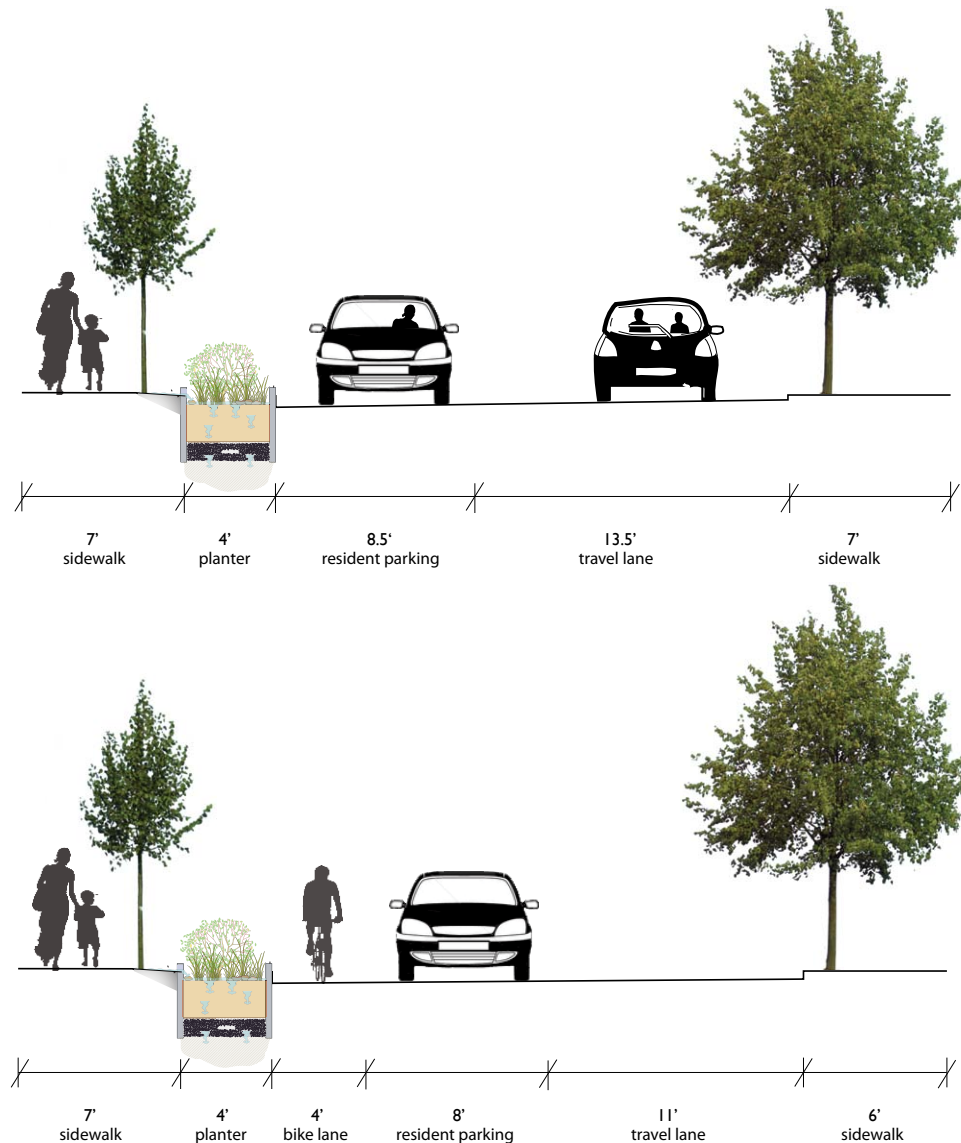


Figure 2.7: Proposed planters on Lowell Street (two-way; top image) and Marshall and Moreland Streets (one-way; bottom image), both accommodating residential parking

III. PUBLIC SPACE

“To those who participate in active recreational activities like soccer, basketball, running, and bicycling, open space means grass playing fields, asphalt courts, and multi-use pathways. For others, it means playgrounds, sandboxes, and climbing structures for younger children. And for still others, whose numbers are growing, open space is synonymous with ‘greenspace’ – public areas that feature lawns, trees, and other vegetation and that promote more ‘passive’ recreation, such as reading, social interaction, and appreciation of nature” (Somerville Open Space and Recreation Plan, 2008-2013)



As indicated in the Somerville Open Space and Recreation Plan, “open space” is a broad term that encompasses different types of space with many different uses and purposes. It is an essential part of any community, and is important to cities, neighborhoods streets, and individual homes. Public space can be interpreted to include open space, streets, and sidewalks. Even though parking lots are not generally meant for recreation, our plan treats parking lots as shared public space to maximize opportunities for people-oriented open spaces in an area where open space is at a premium.



Figure 3.1: Public space assets in and around the study area; Henry O. Hansen Memorial Park (left) and Trum Field (right)

EXISTING PUBLIC SPACE INITIATIVES

SOMERVISION

The City of Somerville’s comprehensive plan, considers public space a priority.

SOMERVILLE OPEN SPACE AND RECREATION PLAN

This plan describes a series of goals and strategies, a comprehensive 5-year action plan, and a detailed open space plan for Union Square.

REGIONAL INITIATIVES

MetroGreen

MetroPlan 2000

MetroFuture

MAPC Inner Core Committee and the Mystic River Corridor Strategy

Mystic River Assessment and Action Plan

Mystic River Master Plan

Mystic River Active Transportation Initiative

Alewife Brook Master Plan

MASSACHUSETTS INITIATIVES

State Bicycle Plan

Commonwealth Connections

State Comprehensive Outdoor Recreation Plan

Multiple planning efforts by the City of Somerville have emphasized the importance of public space as a city priority. The sidebar on page 36 summarizes some past and present initiatives focusing on public space in the city. Public spaces serve environmental functions, enhance the quality of life for the community, and provide a place for community members to gather and interact. Current city initiatives, though impressive, do not sufficiently discuss open space specifically within our study area.

EXISTING AMENITIES

Drawing on citywide initiatives as they apply to our project area, there are numerous assets and opportunities, as well as challenges, inherent in the existing public space. Our study area contains a range of public space types that are currently serving the community in different capacities and to varying degrees of success.

The study area is bookended by two large parks: Trum Field and Foss Park. Both parks are tremendous assets to the area; they provide the surrounding neighborhoods not only with a significant amount of green space, but also with resources for programmed and active recreation. However, these parks are not easily accessible to many of the study area residents, and thus not fully integrated into the fabric of the neighborhood (See Figure 3.3).

Within our study area there is a lack of usable and accessible public space (See Figures 3.2 and 3.3). There are very few small-scale public spaces



Figure 3.2: Inventory of existing public space

suitable for residents to linger and interact, and those that do exist serve only a limited portion of the area due to their size and location. Much of the existing public space within the neighborhoods consists of vacant properties and parking lots. These certainly can be considered public space, but are rarely utilized as areas for the community

to gather, socialize, and relax, and are often viewed as unattractive or unsafe. These spaces have great potential to be transformed into more substantial community assets, particularly in the vicinity of Temple Square.

CONNECTIVITY

The public spaces that exist in our study area are limited, and generally disconnected from one another and from surrounding residential and business areas. Despite their proximity, Magoun Square and Winter Hill are perceived as different neighborhoods. Residents interviewed for this study tended to look toward either Magoun Square or Winter Hill as their “neighborhood” rather than feeling a sense of connection with the broader community. While Broadway physically connects the two neighborhoods, it does so more for cars than pedestrians, which leads to unique identities for the two locations. A public space network could encourage a greater cohesion and collaboration between the two neighborhoods.

CHARACTER

The public space amenities that do exist in our study area do not adequately convey the character of these neighborhoods. There are few noticeable landmarks that signal one’s arrival in a place of interest. Broadway is a historic street, and was an integral part of Paul Revere’s Midnight Ride, but that fact is commemorated only by the 0.2 acre Paul Revere Park, which does not adequately signify the importance of the site. This and similar significant areas could be more prominently recognized to create a clearer representation of the area’s history. Furthermore, the lack of landmarks makes wayfinding difficult. The commercial centers of the study area, Medford Street in Magoun Square and Temple Square in Winter Hill, lack visual cues that would serve to highlight them as destinations. Such spaces could certainly be of interest to passersby if they were aware that they were entering a distinct area.



Figure 3.3: Areas within 5 minute walking distances of green spaces (top) and community spaces (bottom)



PHYSICAL CONDITIONS

The intimidating width of Broadway leads to safety and comfort concerns for pedestrians and cyclists. The extra width, originally used for streetcars, has now become part of the street, and prevents fluid connectivity between the neighborhoods to the north and south. The City's addition of a planted median on parts of the street has been beneficial, but many parts of Broadway are still completely uninterrupted and impervious, particularly close to Magoun Square. Broadway divides the area and prevents the community from capitalizing on its diversity and achieving its full potential as a vibrant, multicultural part of Somerville.



The current lack of distinctive identity in our study area and the problems with the width of Broadway are compounded due to the topography of Winter Hill. The hill is discouraging for pedestrians and cyclists. It is a major barrier between Magoun Square and Winter Hill. Winter Hill is one of the highest points in the urban Boston region and has stunning views of Boston's skyline. Though it has tremendous potential as a public space, residents do not utilize it as such. Targeted interventions could turn the hill into a strong neighborhood asset.

Figure 3.4: Existing open space in the study area with potential for enhancement. The Star Market parking lot (top) and the intersection at Broadway, Medford Street, and Dexter Street (bottom)

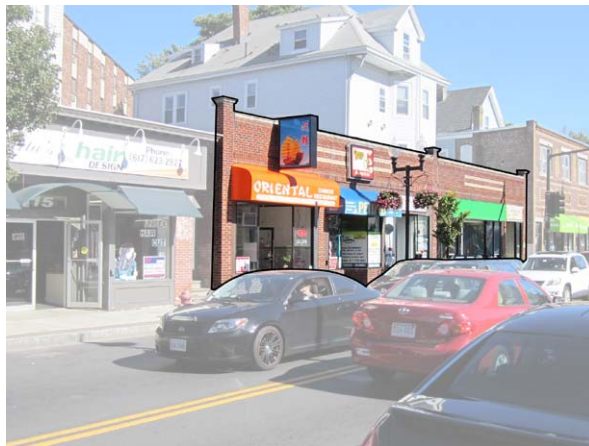


Figure 3.5: Existing streetscape assets. Clockwise from upper left: differentiated crosswalk; consistent streetlighting with hanging planters; iconic signage; storefronts with distinctive architectural details, including cornices, recessed entryways, and transparent facades.

STREETSCAPE ASSETS

There are many aspects of streetscapes that contribute to quality and walkability. Streets need to be adequately lit so they feel safe. They should have benches and resting places for people to stop while shopping or gather with neighbors. They should have consistent design that indicates continuity between places. Consistent streetscape elements like planters, waste receptacles, streetlights, and sidewalk treatments can unify segments of a corridor and help create a sense of place on a street.

While there are parts of our study area in which the streetscapes could be improved, there are also formal assets that enhance the pedestrian experience. Colorful and iconic signs mark some of the storefronts along Broadway and Medford Street. These signs attract commercial activity and add character to the streetscape. The different languages on storefront awnings reflect the diversity of the community. Architectural details of the storefronts include cornices, recessed entryways, and transparent facades; these elements make the storefronts inviting. Recent infrastructure development on Medford Street has included sidewalk improvements, enhanced crosswalks, and consistent streetlighting with hanging planters. The pedestrian experience along Medford Street is remarkably different from that along most of Broadway, so adopting these elements along other parts of Broadway and Temple Street would provide consistency within the neighborhood and build upon the existing character of the built environment.

STREETS AS PUBLIC SPACE

Somerville has made great use of its streets by opening them up to public events. Somerstreets is an annual event that includes live music, food, and activities for children and adults. The City hosts parades on its streets like the Memorial Day parade. And festivals like Carnaval provide the space for people to celebrate culture and diversity in a safe, walkable environment. The normally automobile-dominated streets are transformed temporarily for solely pedestrian use, and public space is instantly created.

We would like to highlight the importance of the use of streets as public space and the community benefits that result from turning normally inaccessible roadways into complete pedestrian environments. Parades and festivals provide opportunities for community engagement and celebration.

ELSEWHERE IN SOMERVILLE

Throughout Somerville, many events take advantage of the opportunity to use streets as public space.



Memorial Day Parade 2012
Source: City of Somerville Photo Gallery

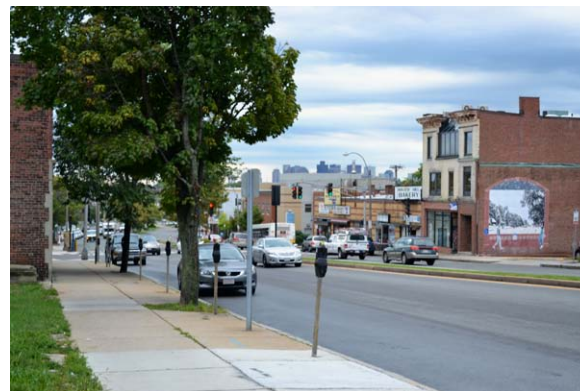


Figure 3.6: Existing streetscapes along Medford Street (left) and Broadway at Temple Street (right)

RECOMMENDATIONS

From the analysis above, it is clear that the community would greatly benefit from increased access to quality public space. This public space can take a variety of forms. Three major themes can be extracted from the analysis above and used to guide the proposals for future public space in the study area: improving connectivity/accessibility, enhancing sense of place, and creating human scale environments.

CONNECTIVITY/ACCESSIBILITY

Our study area could benefit from improved connectivity and accessibility to its public spaces, which could be achieved through re-visioning Broadway. As the only road to run the entire length of Somerville, Broadway is the spine of city. Rather than trying to impose a city-long commercial corridor, the City could tailor each segment of Broadway to meet local needs. The use and character of the road would change in each neighborhood. While non-linear concentrations of commercial activity are the basis for Somerville's reputation as a "city of squares," Broadway should be a focal point of the neighborhoods through which it passes. Building on the City's major streetscape renovation project in East Somerville, a linear park would become the next piece of a re-imagined Broadway that could proceed westward, in segments, to the Arlington border.

SENSE OF PLACE

The neighborhoods in our study area are rich with historical significance and cultural diversity. As described above, however, this is not reflected in the existing public realm. In *The*

Image of the City, Kevin Lynch describes nodes as the intensive foci in a district to and from which you travel: concentrations of activity, junctions, and convergences of paths. We have identified Medford Street in Magoun Square and Temple Square in Winter Hill as the two nodes in our study area that could benefit from a stronger image, which would improve the overall quality of the public realm.

HUMAN SCALE

Public space should be attractive, comfortable, and subject to a variety of uses at different times of the day and night. The study area should have frequent, appropriately scaled breaks in the streetscape for people to gather and engage with neighbors. This can be accomplished by creating small-scale public spaces along the linear park and in the nodes to give people space to interact. Proposed public spaces would be accessible and welcoming to all members of the community, including residents on both the north and south sides of Broadway. Pedestrian access to public spaces is paramount when considering Broadway streetscape improvements.

WHAT WE HEARD

Comments from stakeholders and residents of the study area guided the formation of these recommendations:

"There's a need for incubator spaces in catalyst sites."

"Renaming the intersection Temple Square will make it feel more 'Somerville.'"

"There's a need for trees along Mystic Ave."

"It needs to be easier and safer to cross the street."

"I'm concerned about safety in dark public spaces at night."

"Somerville has the largest amount of asphalt per resident in Massachusetts."

CREATE A LINEAR PARK

The study area would benefit from a linear park running the length of Broadway. The park would connect not just Trum Field and Foss Park, but also Magoun Square and Winter Hill, the two main commercial nodes in our area.

Following from the principle of accessibility, and emphasizing connectivity, the linear park would also help generate a larger vision for Broadway. The park would reclaim the width originally designed for streetcars to create a pleasant, comfortable, pedestrian space. The park would be designed to make it easier and more appealing to walk or bike along this stretch at all times of the day and night. It would provide a flexible, attractive, and distinct space by capitalizing on Winter Hill's location and views, appealing to both visitors and passersby. The park would provide environmental benefits by reducing impervious surfaces and providing an area that would be healthy for neighborhoods and better for stormwater management.

ENCOURAGE FLEXIBLE SPACES

The City should create new public spaces and adapt existing ones to encourage flexible uses. This would provide residents with more options for recreation, interaction, and relaxation.

Since Trum Field and Foss Park are excellent outdoor recreational facilities, the focus of new public space within the neighborhood should be flexible, unprogrammed space. The linear park would be pleasant and meandering, creating a natural environment and providing tree and plant cover. Pocket parks on the street and within

ELSEWHERE IN SOMERVILLE

Linear parks have been successful elsewhere in Somerville. The Alewife Linear Park/Somerville Community Path currently runs from Cedar Street to Davis Square, continuing to Alewife station in Cambridge, and connecting with the Minuteman Bikeway that runs out through Arlington and Lexington to Bedford. This path is used heavily for recreation and commuting on weekdays and weekends year-round.



The Alewife Linear Park (top) and the Somerville Community Path (bottom)

the linear park would be flexible and inviting for picnicking, reading, small performances, and gathering. The City should also provide incentives for businesses to turn underutilized parking lots into temporary event spaces for flea markets, farmers markets, festivals, and performances.

EMPHASIZE DIVERSITY & HISTORY

Public space improvements should draw on the strong historical significance and cultural diversity of the area to create a more distinctive sense of place.

- **Landmarks:** People use landmarks as a guide when imaging their city. Neither node in the study area has any strong landmarks that signal arrival at a place of interest. A public space landmark is particularly important for the intersection of Broadway and Medford Street.



- **Signage:** When approaching a node, signs should provide visual cues that the pedestrian or driver has arrived at a place of interest. New signs in Magoun Square and Winter Hill would be welcoming and would highlight the vibrancy of the neighborhoods while providing clear directional indicators.
- **Patterns:** New public space features would mimic existing human-scale architecture and streetscape interventions. The physical features of the nodes would simultaneously promote consistency and variety: there should be a strong sense of place, but public space should also be unique and interesting.
- **Topography:** One of the study area's primary assets is its view of Boston's skyline. Public space interventions should highlight this to make the area synonymous with this vantage point.



Figure 3.7: The Central Square farmers market transforms a parking lot once a week (left) and Lafayette Square in Cambridge creates a comfortable pedestrian space out of what was once a dangerous intersection (right)

ENHANCE STREET ENVIRONMENT

Encourage the use of street furniture such as movable tables and chairs to enhance the streetscape and provide outdoor resting places, where applicable.

Consistent streetscape elements contribute to the creation of a neighborhood identity and a sense of place for residents and visitors. They also make sidewalks more comfortable and attractive spaces to travel, rest, and gather. Providing amenities for pedestrians along commercial corridors would make the neighborhood businesses convenient to visit. Sidewalk treatment can delineate furnishing zones along the curb and keep the rest of the sidewalk free for easy pedestrian and ADA access.

USE BANNERS TO ARTICULATE IDENTITY

Design neighborhood banners that can be installed on streetlights to brand the neighborhood and contribute to a sense of place for residents and visitors. Banners have been successful in other neighborhoods in the Boston area and could be considered a tool for enhancing the neighborhood identity.

IV. ECONOMIC DEVELOPMENT

Local businesses are places of primary importance to Magoun Square and Winter Hill residents. They provide access to everyday amenities and define the character and vibrancy of the community in a way that reaches beyond the public realm addressed in the Streets and Public Space sections of this plan.

Our project area has a number of commercial clusters that serve both the local community and visitors from the greater Boston Metropolitan area. These include three main commercial areas: Magoun Square, Temple Square, and the intersection of Temple Street and Mystic Avenue. We also identified one smaller cluster on the Broadway Corridor at the intersection of Broadway and Main Street. These clusters are nodes of activity serving the surrounding residential areas.

The study area includes three general commercial zoning categories: two mixed-use commercial districts, Neighborhood Business (NB) and Business B (BB), and one new designation created in 2010, the Commercial Corridor Districts (CCD) (See Figure 4.1). Neighborhood Business Districts are intended “to establish and preserve areas for small-scale retail stores, services and offices which are located in close proximity to residential areas” (Neighborhood Business Districts). Business B also allows industrial services and light industry, which are forbidden in neighborhood business areas. Commercial Corridor Districts were created to encourage more mixed-use, mid-rise development, while

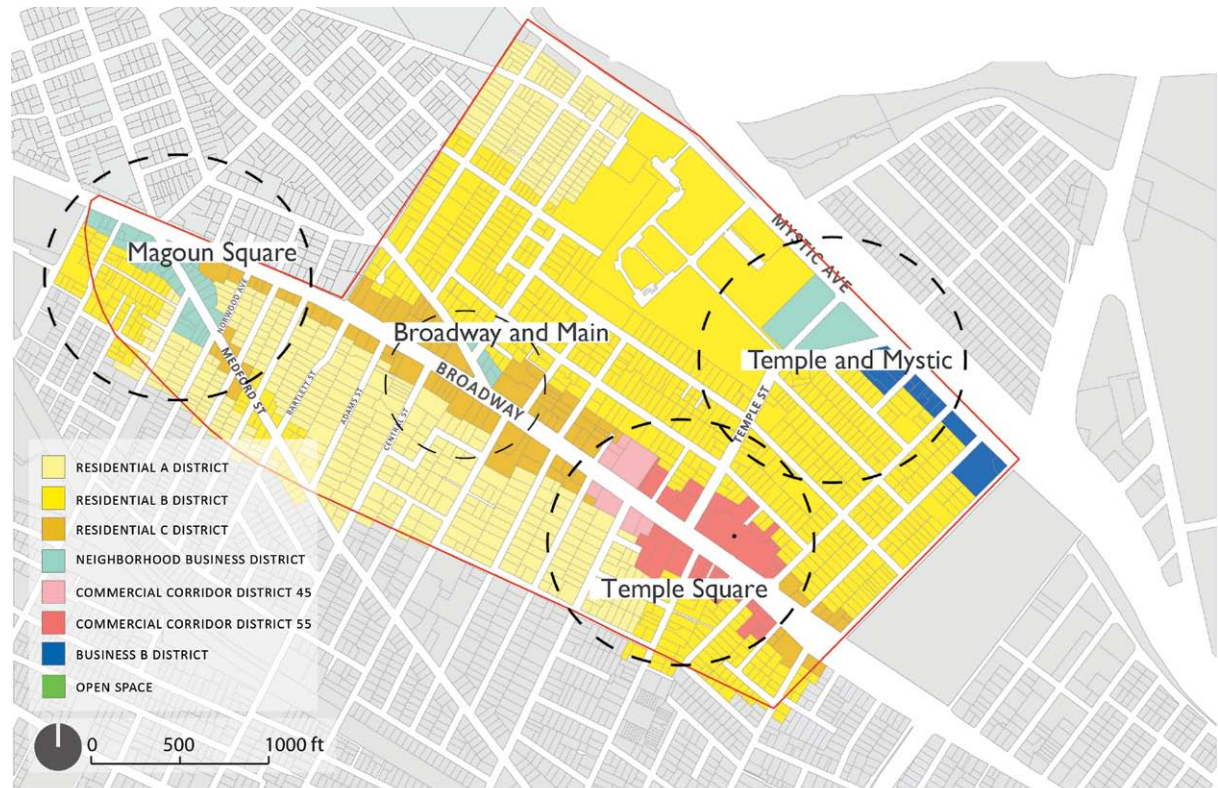


Figure 4.1: Commercial clusters and current zoning

encouraging a balance between new and old and focusing on creating a high quality public realm. This zoning category is applied at Temple Square.

For more details on the Somerville Zoning Ordinance and our analysis and recommendations for zoning in the study area see the Zoning section (Chapter 5) of this plan.

STRENGTHS, CHALLENGES & OPPORTUNITIES

NEIGHBORHOOD DIVERSITY

A diverse mix of primarily small businesses characterizes Winter Hill and Magoun Square’s commercial clusters. Food and grocery establishments showcase the neighborhood’s cultural diversity. For example, Model Bakery caters largely to the local Brazilian population.

PEDESTRIAN-ORIENTED NEIGHBORHOOD COMMERCE

Winter Hill and Magoun Square first developed as affluent suburbs of Boston, later becoming neighborhoods of immigrants who worked in local Somerville industries or commuted to Boston via streetcar. Shops and local groceries offered the necessities of daily living within easy walking distance.

While the area was once well suited to pedestrians, the advent of the automobile era and the decline of industry in Somerville left the area's commercial clusters facing a number of challenges. The lack of local employment (81.6% of area residents work outside of Somerville) imposes longer commutes and removes a valuable potential market-base for neighborhood commerce. Smaller-scale businesses face stiff price competition from chain retail. Additionally, the start-up risk is much greater for local entrepreneurs than for retail chains. This means locally owned businesses require specially tailored support programs. Local businesses have an advantage, however, in that they have more personal connections to the local community.

The neighborhood lost a major community asset when the Star Market on Broadway closed in 2007. Since then, residents have been faced with limited local options for purchasing basic amenities. Those with cars can access low-priced food, produce, and other necessities at larger Somerville stores. Figure 4.3 shows the large-scale shopping centers and grocery stores around the study area. Yet these options are not equally available to all residents.



Figure 4.2: Examples of existing businesses

Local small businesses suffer from a lack of foot traffic. Some establishments like Olde Magoun's Saloon and On the Hill Tavern draw clientele who drive in from well beyond the immediate neighborhood. Other establishments are more explicitly car-oriented, such as the suburban-style

Walgreen's on Broadway or the Dunkin Donuts in Magoun Square. While these businesses are evidence of the commercial viability of the area, their car-dominant orientation neither increases the street-life needed to support other businesses nor helps achieve the more sustainable pattern

WHAT WE HEARD

"Adding offices to supply shops with daytime customers though transportation is key."

"Not enough foot traffic."

"Need a walkable supermarket!"

"you want shops that residents will use, not too expensive..."

"Where can residents buy a pair of sneakers, book, birthday present, food?"

of economic development outlined in the SomerVision goals. It also contributes to standing parking challenges.

DAYTIME POPULATION

Winter Hill and Magoun Square face challenges related to appropriate use clustering. A May 2011 memo by the City of Somerville Office of Strategic Planning and Community Development identified low daytime population as a particular challenge for Magoun Square. The significantly lower share of office and service businesses in Magoun, compared to Winter Hill or Ball Square, was identified as one of the causes of this low population (see Appendix B-1). Daytime population is an important component of a

vibrant business district because employees provide a reliable customer base for merchants.

THE GREEN LINE EXTENSION

The Green Line Extension to Gilman Square, near Temple Square, and Lowell Street, just south of Magoun Square, could increase accessibility to study area businesses for a broader Boston-area market. Nevertheless, these stations are not located immediately within these centers, and the introduction of mass transit will not increase their commercial viability without other economic development policies.

VACANCY & TURNOVER

Vacancy and high turnover for storefronts threaten the viability of commercial nodes. Figure 4.4 shows a vacant storefront in Magoun Square, and Figure 4.5 shows the locations of currently vacant storefronts based on our visual survey of the neighborhood. Vacant storefronts represent lost business and limit the quality of the urban experience. Vacant storefronts make walking less appealing for pedestrians

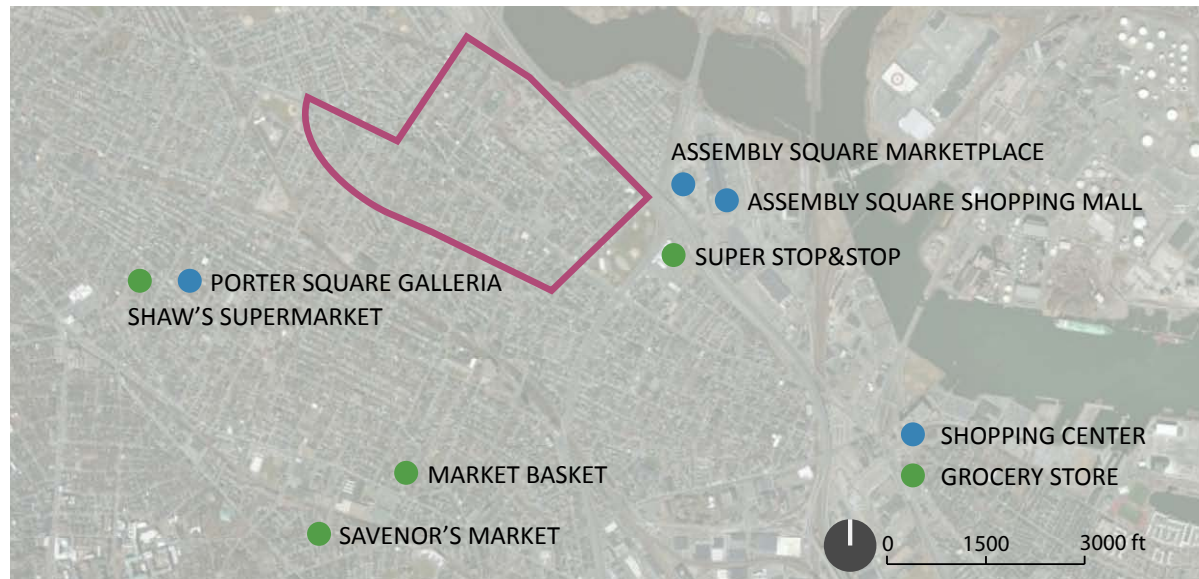


Figure 4.3: Competition from big box retail poses a challenge to local small businesses



Figure 4.4: A vacant storefront in Magoun Square

BUILDING A SUCCESSFUL NEIGHBORHOOD SQUARE

ACTIVITY-BASED ANALYSIS OF COMMERCIAL USES

The following analysis of other successful squares in Somerville and Cambridge informs the task of building an appropriate activity-mix to serve the local community. Inman and Union Squares were selected as comparative cases because, like Magoun Square and Winter Hill, these areas are served primarily by bus transit and are not easily accessible by rail. Figure 4.6 shows Inman and Union Squares in relation to our study area. The extension of the Green Line will bring rail stations closer to the neighborhood.

Appendix B-2 includes a table with the data collected for Union and Inman Squares, as well as the comparable data from the Magoun, Temple, and Mystic areas in our plan's study area. Figure 4.7 and Figure 4.8 compare the business mix of each area.

Given the priority of developing an adequate client base for businesses serving the local community, we developed an inventory of businesses categorized according to their ability to generate mutually supportive activity and travel patterns.

For example, convenience goods such as grocery stores or pharmacies are often visited by people on their way to or from work, and are not destinations in their own right. In contrast, "destination businesses" are desirable because of their ability to create pedestrian traffic that



Figure 4.5: Map of vacant commercial properties

and discourage potential business owners from locating in the area, perpetuating the problem. A report by the Brookings Institute found that more walkable places perform better economically than non-walkable places. Therefore, addressing

the physical appearance of vacant storefronts even prior to securing long-term commercial tenants can improve the economic vitality of the area by making it pedestrian-friendly.

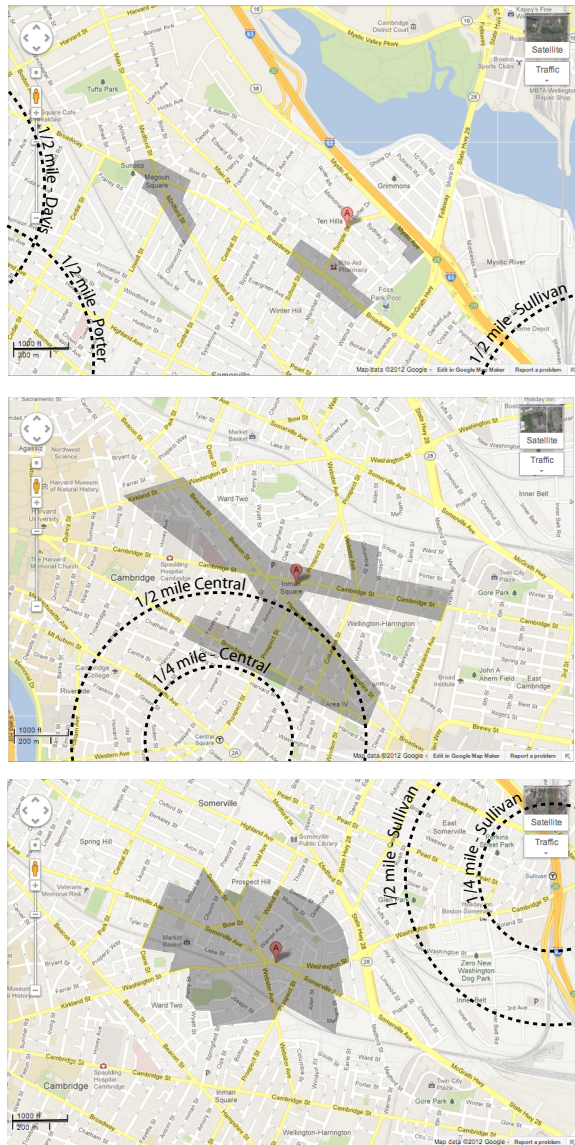


Figure 4.6: (from top to bottom) Study area; Inman Square; Union Square

will support other area businesses. Another way to increase daytime population is to recruit businesses that serve clients, such as health or architecture offices. These businesses draw both employees and clients. Artist studio space, co-working spaces, and smaller flexible office space, targeted at startups and small businesses, can also attract a diverse set of users with flexible schedules. According to the Somerville Arts Council, artist studio spaces elsewhere in Somerville already have wait lists, indicating high demand. The Boston Metropolitan area economy is increasingly associated with the “innovation economy.” As a result, there is a financial premium placed on locations closer to downtown. Magoun Square and Winter Hill could leverage their proximity to downtown to eventually attract “innovation economy” businesses that are priced out of other areas like Kendall Square. Identifying these opportunities now will be important when the Green Line

increases access for the Boston area population, expanding the labor market.

Aggregating data from each square reveals important differences among Union or Inman Squares and the commercial nodes in our project area. Magoun and Temple have smaller proportions of client-oriented office uses than either Inman or Union has. Magoun and Temple also seem to be characterized by an overrepresentation of convenience goods that do not serve as destination businesses or activities. This is consistent with our zoning analysis, which found undesirably high square footage allowance for convenience uses in the Neighborhood Business and Commercial Corridor Districts. It is also consistent with what we heard from stakeholders.

The presence of recreational facilities seems to play an important role in determining whether a

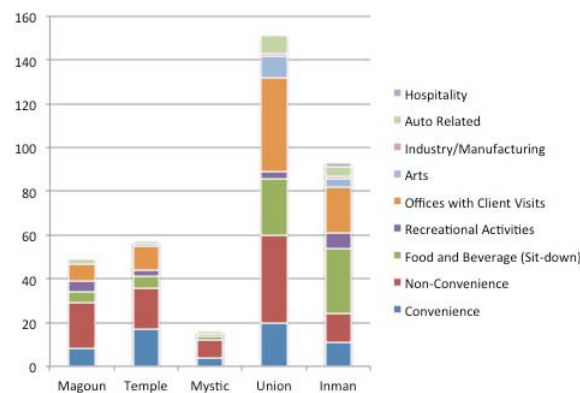


Figure 4.7: Commercial use comparison by number of businesses

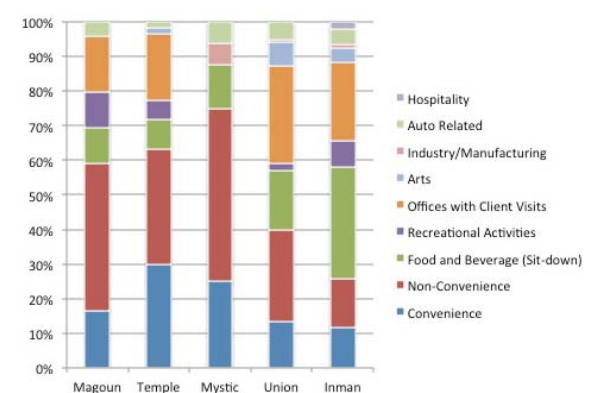


Figure 4.8: Commercial use comparison by percent business mix

square appeals to local area residents and visitors. Sit-down food and beverage establishments encourage visitors and residents to spend more time experiencing the squares. Both Inman and Union have a defined arts presence, which in the case of Union Square, is supported by zoning. Inman offers a wide variety of recreational activity centers like yoga studios and health centers. Together, these provide reasons for local residents to visit these commercial squares near their homes.

BUSINESS MIX RECOMMENDATIONS

Based on these observations, we recommend keeping the following in mind:

- Consider encouraging establishments that bring in clients on a daily basis;
- Avoid increasing the proportion of convenience stores that do not serve as destination businesses;
- Target sit-down food and beverage rather than take-out only;
- Encourage establishment of arts-related businesses and ensure zoning compatibility with arts uses; and
- Consider recreational activities that target local participation.

LONG-TERM ECONOMIC DEVELOPMENT FRAMEWORKS

We recognize economic development is complex, and that any successful program or proposal will require significant input from the community. We have outlined a general strategy of identifying existing capacity within Winter Hill and Magoun Square and looking for innovative implementation methods. The following are a

EXISTING PROGRAMS

The City of Somerville currently offers two loan/financial assistance programs and three business improvement programs that are relevant to the economic development needs of Winter Hill (City of Somerville 2012).

LOAN/FINANCIAL ASSISTANCE PROGRAMS

The city works with ACCION USA to offer loans of up to \$50,000 for existing businesses and \$30,000 for new businesses through their Small Business Loan Program. Eligibility requirements apply, and program applications are available in English, Portuguese, and Spanish.

The City of Somerville also provides businesses access to Open4Business, a free web portal for business funding. Access to individual funding programs depends on eligibility, but the search itself is free. The web portal provides full program and contact details, local information/contacts, and news bulletins on business issues in the area.

BUSINESS IMPROVEMENT PROGRAMS

In addition to the loan and financial assistance programs, the city also offers business improvement programs. The Best Retail Practices program uses workshops or individual consultations with marketing specialists to help business owners learn how to best attract new customers through store management, marketing, interior design, and other strategies. More than 20 businesses have

participated in the program. The Churrasco Steakhouse on Medford Street in Magoun Square participated in November 2010 and the consultation addressed the exterior and approach, the design and experience, and marketing. The recommendations included strategies to promote the business, improve signage, and provide better lighting.

The Storefront Improvement Program assists businesses in improving the exterior appearance. Through the Matching Grant Program, the city provides \$3 for every \$1 invested capped at \$35,000 per project. Olde Magoun's Saloon, in Magoun Square, participated in the project in 2010, and the owner, Greg Coughlin, has reported satisfaction with the improvements (City of Somerville Office of Strategic Planning and Community Development 2011).

Maryom Hair Design, at 2 Main Street, also used the Storefront Improvement Program to improve the salon's exterior.

Additionally, the City of Somerville, East Somerville Main Streets, Union Square Main Streets, ACCION USA, and the Somerville Chamber of Commerce conduct business development workshops year round.

SITE FINDER

The Mayor's Office of Strategic Planning & Community Development (OSPCD) maintains a database of vacant commercial properties to help link entrepreneurs looking to open new businesses or existing business owners looking to relocate with available spaces.

number of guiding principles and a framework that the community can use to move forward.

We recommend an overarching framework to organize input from local business leaders and residents, and to ensure ongoing management from the community. The idea of creating a business association has already been introduced by at least two sources. Ward 4 Alderman Tony Lafuente wanted to create a local business association to help Winter Hill businesses “freshen up”. The Magoun Square Business Planning Study suggests creating a community-based business network. The Magoun Square Business Planning Study also suggests the business network could be modeled on the Main Street program or the Business Improvement District (BID) model described below.

BUSINESS IMPROVEMENT DISTRICT

The goal of a Business Improvement District (BID) is to target a commercial area and help improve commercial activity. BIDs are special districts where property owners work together to provide services beyond those provided by the local municipal government. These additional services are financed by a special assessment on properties within the district boundaries. The BID tries to address the issue of lack of consistent funding for volunteer-driven efforts, such as the Main Street program, by utilizing a professional management entity. The professional management entity can either be the Board of Directors, which directly manages the BID, or a separate entity, such as an existing downtown organization or a Community Development Corporation. BIDs are authorized by M.G.L. Chapter 400. There are currently three

established BIDs in Massachusetts: Springfield, Hyannis, and Westfield. One issue with BIDs is that local property owners may not be willing or able to put in the time for successful outcomes.

MAIN STREET PROGRAM

The Main Street program, created by the National Trust for Historic Preservation, is composed of three elements: a revitalization strategy, a network of linked communities, and a national support program. In Somerville, there are successful Main Street programs in Union Square and East Somerville. The program strategy follows the Main Street Four-Point Approach.[®]

The Main Street program represents an opportunity to institutionalize an economic development framework that is centered on citizen participation. Main Street relies on the contributions of volunteers serving in committees, allowing them to have a direct impact on the direction of the program. With the guidance of a program director, citizens can have an active role in improving the commercial success of their local neighborhood. Because the program is so targeted, it is able to react more nimbly to local needs rather than going through many layers of organizational structure that tend to slow things down. More details on the Main Street program are available in Appendix B-3.

SHORT-TERM ECONOMIC DEVELOPMENT INITIATIVES

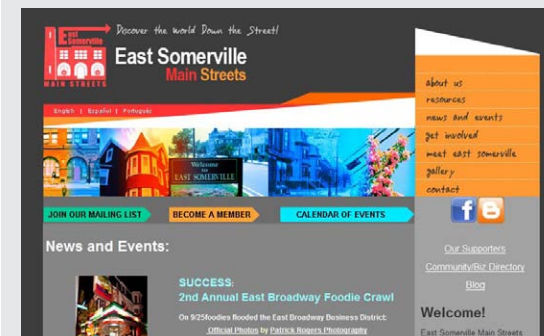
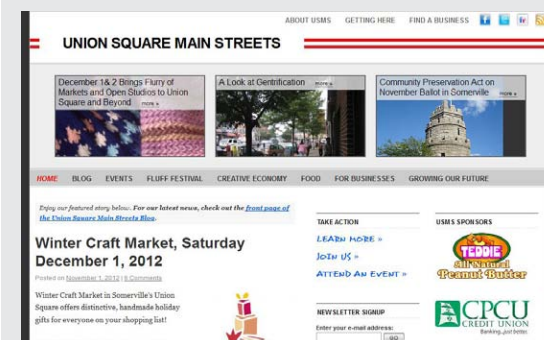
USING ART TO ACTIVATE STOREFRONTS & NEIGHBORHOOD CENTERS

Building the commercial base within Magoun and

ELSEWHERE IN SOMERVILLE

The Union Square Main Streets Program’s goal is to create “a vibrant neighborhood by enhancing the Union Square business district as the heart of the East Somerville Community”

East Somerville Main Streets is “dedicated to rebuilding the East Broadway Business District as the heart of the East Somerville Community”



Websites of other existing Main Streets programs in Somerville

Temple Squares is a process that will not occur overnight. Arts can be used as a temporary way to enliven vacant storefronts, as well as encourage street life that will attract new customers and businesses. An arts program would both improve current conditions and lay the groundwork for a transition to more vibrant commercial corridors and squares.

Somerville's previous experience in arts-related projects can be paired with best practices from other cities to create a new Storefront Arts Program. The Storefronts Seattle program in Seattle, Washington provides a template for the kind of program that could successfully be established within the Magoun and Temple Square areas. Naturally, these practices will be modified to fit Somerville's unique character.

Established in 2010 by a local non-profit, Storefronts Seattle is jointly sponsored by area business associations, foundations, and the City of Seattle. It partners property owners managing vacant space with artists looking for an exhibition or project space. A similar structure could be managed within a Main Streets program or some similar framework.

DETAILS OF THE PROPOSED PROCESS FOR STOREFRONT ARTS

The organization set up to manage the storefront arts program would sign a month-to-month lease with property owners for some minimal amount (e.g. \$1/month). Storefront Arts would cover some or all of the overhead costs associated with bringing arts to the vacant storefront. For example, the program might pay a landlord's

EXISTING PROGRAMS

The City of Somerville and the volunteer board Somerville Arts Council already administer a considerable number of arts programs and well-developed institutional capacity that can be targeted to support new arts programs in Winter Hill and Magoun Square. The range of projects already in Somerville demonstrates the City's ability to use art to engage with the community and showcase neighborhood diversity. The following section outlines prior project-based experience in Somerville. More information on available arts-oriented funding sources and the regulatory mechanisms and oversight tools than can be used to support arts-related land uses are provide in the Appendix B-4.

THE MYSTIC MURAL PROJECT



Image Source: Somerville Arts Council

- Combined arts program, environmental education, and teen engagement
- Cultural exchange: sharing music and food while making art
- Precedent for community involvement with arts production

SWITCHBOX PROJECT



Artist: Jef Czekaj

- Small grants (\$50) for anyone to paint an electrical switchbox
- Precedent for open and accessible small grant programs that engage the community

INSIDE-OUT GALLERY



Image Source: Somerville Arts Council

- Display for artists and local organizations in Davis Square CVS
- Precedent for more formal art curation and storefront activation

WINDOWS ARTS PROJECT

- Annual exhibit in storefronts and public spaces
- Goal: "To intersect art and businesses within the community for mutual benefit"
- Precedent for combining arts and programming to bring energy to business areas

utility bill, insure the project, secure any necessary zoning changes or licenses for the arts projects, and possibly invest in permanent improvements.

Potential arts projects fall into three categories: 1) Installations, which are view-only; 2) Residencies, which offer artists work and display-space that will be open to public viewing; and 3) Enterprises, which allows entrepreneurs to establish pop-up stores, galleries, or other programs that can then be used as springboard for a full launch of a new business.

Additional information on using arts to activate storefronts is available in Appendix B-4.

OVERALL ECONOMIC DEVELOPMENT RECOMMENDATIONS

In the short-term, we recommend conducting a survey of resident commercial needs. The National Trust for Historic Preservation has provided a list of survey tips for market analysis or promotions. Better understanding the commercial needs of residents will inform any economic development programs pursued.

Additionally, the two other current Main Street programs might present an opportunity to pool resources, in terms of knowledge and potential staff members. This would benefit all current and future Main Street programs in Somerville. However, it is important to assess exactly which types of resources make sense to share and which should remain place-specific. Community members should be able to associate a face

with a project. Therefore we recommend each program continue to have site-specific executive directors. On the other hand, it may be beneficial for the various programs to create a foundation together so they are not competing for funds. Site-specific funding could continue, as local businesses that contribute funding would likely want assurance that their money is going to serve their area's needs. Applications for grants from the federal government or other organizations could be a shared task.

The presence of two successful Main Street programs also suggests that a Main Street model might be better suited to Winter Hill than a BID model. The main advantage of the former is the opportunity for many people in the community to be closely involved with improving the commercial success of the neighborhood. A new economic development program in Winter Hill or Magoun Square could be an officially designated Main Street program, or could borrow elements from the program and incorporate them into a standalone plan.

The first step in exploring the viability of the Main Street program in Winter Hill or Magoun Square is to create working groups to fully evaluate the level of interest and commitment to a formal revitalization program. Carrie Dancy, the Executive Director of East Somerville Main Streets, recommends holding a series of charettes to define specific goals for the community, as well as determine the limits of what the organization can do. It is important to identify main goals to form communities and compel people to volunteer their time. To be successful,

the community must assert ownership of this program and not feel it is being imposed from the outside.

Economic development policies, whether they are implemented within a Main Streets framework or not, should also use the results of the business mix analysis outlined earlier.

LANDLORD ENGAGEMENT

Based on community feedback, one of the issues hindering economic development in Winter Hill and Magoun Square is limited investment in the building stock. Some landlords have low expectations for financial return and are therefore unwilling to invest in property improvements. The deterioration of such buildings deters potential tenants from choosing to locate in this area of Somerville. We have identified a number of common strategies for dealing with landlord engagement challenges. Beyond the loan and financial assistance programs already outlined earlier in this plan, we found one additional strategy in our investigation that is particularly relevant to this area: Tax Increment Financing (TIF) to help encourage property investment.

Somerville has been designated an Economic Target Area (ETA) by the Massachusetts Economic Assistance Coordinating Council (EACC) through the Economic Development Incentive Program (EDIP). In order for the study area to be eligible for certain programs, such as TIF, the project area would also need to be designated an Economic Opportunity Area (EOA). A TIF program allows property owners to be exempted from up to 100% of the tax increment after they have made

improvements to their property. The program allows upfront tax relief to a developer to help offset the construction costs of improvements (Executive Office of Energy and Environmental Affairs n.d.).

The Community Advisory Committee for the City of Lowell's Downtown Plan compiled a list of common strategies for dealing with landlord engagement and lacking property investment. These strategies categorized them into three groups: financing strategies, enforcement strategies, and management strategies (City of Lowell Downtown Plan Community Advisory Committee n.d.), and these are discussed in greater detail in Appendix B-5.

V. ZONING

The City of Somerville regulates the size, density, land use, and character of development through its zoning ordinance. Through zoning, the City aims to promote an appropriate mix of uses, protect and enhance the physical environment, and shape the character of neighborhoods. The ordinance divides Somerville into classes of districts, with regulations of size, density, and use appropriate to the distinct characteristics of each district.

City of Somerville base zoning districts (see Figure 5.1):

- RA (Residence Districts A): one- and two-family homes.
- RB (Residence Districts B): medium density neighborhoods of one-, two-, and three-family homes.
- RC (Residence Districts C): multi-family residential and other compatible uses.
- NB (Neighborhood Business Districts): small-scale retail stores, services, and offices; located in close proximity to residential areas.
- CBD (Central Business Districts): central business areas for retail, business services, housing and office uses; strong pedestrian character and scale.
- BA (Business A, Commercial Districts): business areas bordering main thoroughfares; attractive to a wide range of uses. Anticipated mode of transportation is mainly motor vehicle, but the area should be safe for pedestrian traffic.
- BB (Business B, Commercial Districts): general commercial and high density residential areas; multi-family developments, shopping centers,

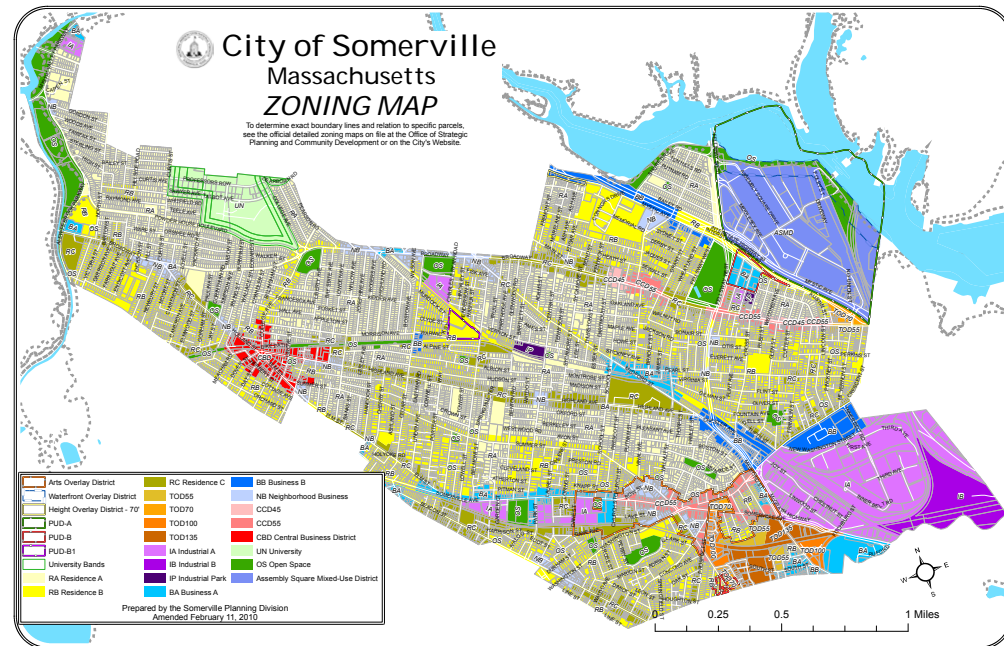


Figure 5.1: Existing zoning designations in Somerville

- commercial strips and automobile related establishments; customers travel primarily by automobile.
- IA (Industrial A, Industrial Districts): industrial and related uses which are not incompatible with commercial uses.
- IB (Industrial B, Industrial Districts): industrial and related uses that require isolation from many other kinds of land uses.
- IPA (Industrial Park Districts): an environment free of excessive nuisance, such as noise and odor.
- OS (Open Space Districts): open space for parkland, reservations, community gardens.

- UD (University Districts): areas primarily for university uses.
- CCD (Commercial Corridor Districts): promote appropriate infill development along heavily traveled transportation corridors.

In addition to these base districts, Somerville has established seven additional overlay districts that promote specific uses or dimensions. Different overlay districts apply to waterfront areas, building height, floodplains, planned unit development, arts overlay districts, and transit oriented development. Currently none of these overlay districts are in our study area.

CURRENT EFFORTS TO REFORM THE ZONING ORDINANCE

As observed in the City's RA/RB Report, the language and structure of Somerville's Zoning Ordinance is difficult to navigate, vague, and not always fit for its purpose. The City is currently undertaking a major restructuring of its zoning ordinance.

RA/RB REPORT

The RA/RB Report summarizes the City's analysis of the implications of residential zoning regulations in relation to the goals of SomerVision. RA and RB districts cover 60% of Somerville's land area and 80% of its parcels. However, according to the report, over 99% of the parcels do not conform to the current zoning ordinance (see Figure 5.2). The City also found that its residential zoning regulations do not provide predictable outcomes and are, in many instances, failing to preserve the unique character of Somerville's residential neighborhoods.

The RA/RB Report proposes consolidating the RA and RB districts into a single Neighborhood Residential District. The report also recommends regulating by building types instead of districts, as is the case in the current regulatory framework.

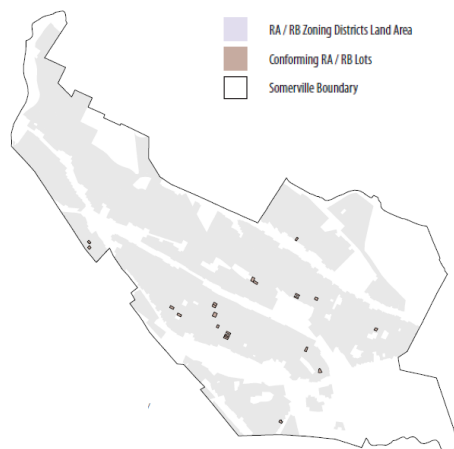


Figure 5.2: Conforming parcels from the RA/RB report

ZONING REFORM

The City has proposed consolidating land use designations into seven categories: Neighborhood Residential, Urban Residential, Neighborhood Mixed Use, Urban Mixed Use, Transformational Mixed Use, Civic Space, and Open Space, as shown in Figure 5.3.

We used Geographic Information Systems (GIS) to calculate the existing total gross square footage of development in each zoning district in our study area. We then estimated existing

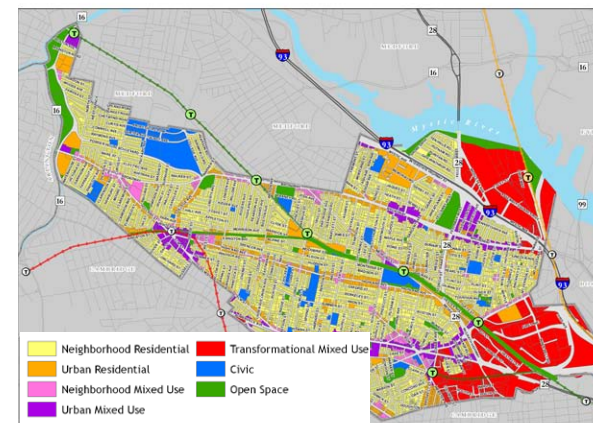


Figure 5.3: Proposal for zoning reform from SomerVision

development capacity according to current FAR limits. As shown in Figure 5.4, the Residence A zone is over its development capacity, whereas the Residence B zone has additional development capacity of 426,000 sq ft. This will be important for the City of Somerville to take into account as it considers the future of the RA and RB districts. CCD 45 and CCD 55 zones have additional development potential of around 200,000 sq ft each. This is a significant amount of development capacity given the fact that parcels zoned as CCD comprise only five percent of our entire study area.

	RA	RB	RC	NB	CDD-45	CDD-55	BB
Possible Maximum Build-Out	1,271,000	3,596,000	977,000	476,000	244,000	367,000	250,000
Existing Gross Square Footage	1,925,000	3,170,000	859,000	264,000	71,000	158,000	141,000
Possible Additional Development	-654,000	426,000	118,000	212,000	173,000	209,000	109,000

Figure 5.4: Build-out analysis of the study area (all areas in square feet)

ZONING DISTRICTS IN WINTER HILL AND MAGOUN SQUARE

Our study area is mostly composed of Residential Districts A and B. The main thoroughfare in this area, Broadway, is lined by the largest Residential C district in the study area at the top of Winter Hill, the highest point in the project area. This area features rows of multi-family housing and offices along the Broadway Corridor. Magoun Square, the Temple Street and Mystic Avenue intersection, and the area near Paul Revere Park are designated as Neighborhood Business Districts. In 2010, Somerville changed the zoning of the Broadway and Temple Street intersection from Neighborhood Business to Commercial Corridor District (CCD). The city applied CCD zoning to promote appropriate infill development along heavily traveled transportation corridors. A small portion along Mystic Avenue is designated as a Business B district. There is a limited amount of formally designated open space within our study area; however, there are major green spaces just outside. Connecting these open spaces to our study area is a key component of our public space recommendations.

Below, we consider whether Somerville's zoning ordinance serves its intended purpose in our study area by analyzing what development is allowed and encouraged. Where it does not serve its intended purpose, we provide recommendations for zoning amendments to further the City of Somerville's goals as articulated in SomerVision. Our analysis focuses on the commercial and business districts in our study area because the City's recent RA/RB Report provides substantial guidance for reforming residential districts.

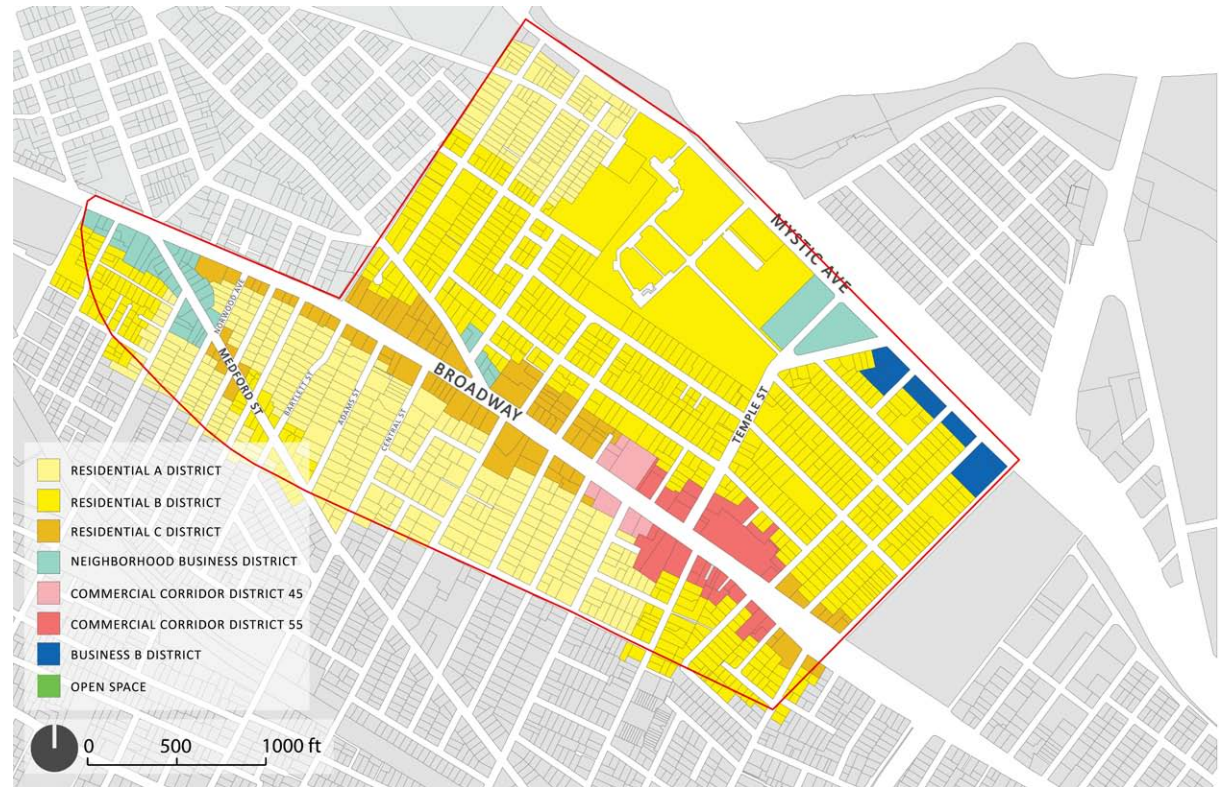


Figure 5.5: Study area zoning districts

More importantly, major private developments are more likely to happen in commercial and business districts. By providing recommendations for future private development in these districts, we hope to preserve and enhance the unique characteristics of each district, as well as promote economic growth.

The dimensional requirements for each district are contained in Article 8, Section 5

of the Somerville Zoning Ordinance. Figure 5.6 summarizes key existing dimensional requirements and recommendations for each district within our study area. Recommended zoning amendments are highlighted in red.

EXISTING ZONING

Zoning District	Height (ft)	Height (# of stories)	FAR	Maximum Ground Coverage (%)	Minimum Landscaped area (% of lot area)	Minimum pervious area	Minimum parcel frontage (ft)	Minimum front yard (ft)
RA	35	2 1/2	0.75	50	25	35	50	15
RB	40	3	1	50	25	35	50	15
RC	40	3	2	70	25	30	50	15
NB	40	3 stories / 40 ft *	2	80	10	N/A	N/A	N/A
CCD 55	55 **	N/A	3	80	10	N/A	30	N/A
CCD 45	45	N/A	2.5	80	10	N/A	30	N/A
BB	50	N/A	2	80	10	N/A	N/A	15

* 4 stories / 42 ft is allowed when all floors are residential use or where the first floor is commercial/business and the top three floors are residential

** Lots with a depth of 55 ft or less shall have a maximum FAR of 2.0 and height limit of 45 ft

RECOMMENDED ZONING

Zoning District	Height (ft)	Height (# of stories)	FAR	Lot Coverage Range (approx. %)**	Minimum Landscaped area (% of lot area excluding building footprint)	Minimum pervious area	Minimum Building frontage (ft or %) ****	Front Setback Range (approx. ft)
RA	35	2.5	0.75	50	25	35	N/A	15
RB	40	3	1	50	25	35	N/A	15
RC	40	3	2	70	25	30	N/A	15
NB	40	3 stories / 40 ft	2	60-80	25	30	100% (80% with Special Permit)	0-5
CCD 55	55	N/A	3	60-80	20	25	60% (40% with Special Permit)	10 (not applicable to public open space)
CCD 45	45	N/A	2.5	60-80	20	25	60% (40% with Special Permit)	5 (not applicable to public open space)
BB	50	N/A	2	50-80	15	30	N/A	15

*** We recommended to change the maximum percentage of ground coverage to a range of percentages that specifies the minimum, as well as maximum ground coverage for NB District, CCDs, and BB district. This is to discourage excessive amount of surface parking coverage and to encourage pedestrian-friendly walking experience with continuous building frontages.

**** Instead of regulating the minimum parcel frontage along streets, we propose to regulate the percentage of building frontage along the streets for districts that are mainly commercial in character. By doing so, we anticipate to have continuous building frontage that will enhance the walking experience of the commercial areas.

Figure 5.6: Existing and recommended zoning requirements

NEIGHBORHOOD BUSINESS DISTRICT ZONING ANALYSIS & RECOMMENDATIONS

The purpose of the Neighborhood Business (NB) District is to establish and preserve areas for small-scale retail stores, services, and offices, i.e. the neighborhood businesses that serve nearby residential areas.

NEIGHBORHOOD BUSINESS DISTRICT USES
Neighborhood Business zoning currently provides for a mix of commercial and residential uses. Neighborhood Business Districts allow 1-3 dwelling residences by right and multi-family dwellings with special permit. Up to 5,000 sq ft of office, medical office, grocery, convenience, retail, specialty food stores, liquor stores, and furniture/home equipment stores are allowed. Up to 2,500 sq ft of eating and drinking establishments are allowed by right, with up to 10,000 sq ft with special permit. Up to 5,000 sq ft of business services is allowed by right, with up to 10,000 sq ft with special permit. The Neighborhood Business District generally allows smaller square footages than in the Business B District, and does not allow industrial services, light industrial, or motor vehicle washes, services, or sales. The NB District allows up to 5,000 sq ft of bank and credit union uses without drive-in windows by right as well as bank drive-in service with special permit. It prohibits some uses that generate traffic and quick stops, including car washes and fast order food establishments with drive-through service.

We recommend amending Neighborhood Business zoning to further the City's goals of

encouraging small-scale business districts that are destinations for residents from surrounding neighborhoods. In the long term, many of our proposed changes may be relevant beyond our project area. In the short term, the City could amend neighborhood business zoning in our study area by renaming local districts as "Neighborhood Business-Magoun" and "Neighborhood Business-Mystic." Our recommendations are:

- No longer permit drive-up bank windows in the NB District;
- Allow artist live/work space to promote the potential for artistic activities to enliven and spur investment;
- Allow theatres and assembly halls by right, which currently require special permits.

We also recommend the City reduce the allowable square footage of convenience retail

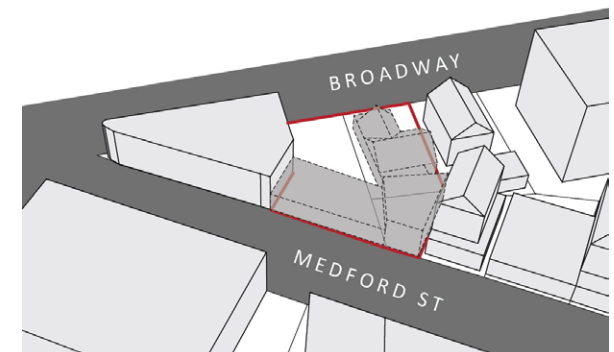


Figure 5.7: Development scenario site

to discourage development that encourages quick-stop trips to Neighborhood Business areas. The City might also wish to allow only 500 sq ft of first floor banking and credit union activities to limit the presence of these non-active uses on the ground floor.

Because of the importance of attracting greater daytime uses and activity, the City should consider whether Neighborhood Business District zoning should be revised to attract office and service organizations to these areas. Currently, only 5,000 sq ft of office and business service uses are allowed by right, and only up to 10,000 sq ft of business service uses are permitted. A summary of these use-related recommendations is in Appendix C-1.

FIGURE 5.8: EXISTING CONDITION



Consolidated parcel size: 7800 sq ft
Allowable gross square footages according to the Floor to Area Ratio (F.A.R.)=2.0: 15,600 sq ft
Allowable height: 3 stories / 40 ft (or 4 stories / 42 ft)

DEVELOPMENT SCENARIOS

Using as-of-right parking and dimensional requirements, we generated development scenarios for a sample site in the Magoun Square Neighborhood Business District to examine the nature of development allowed as-of-right under the current zoning ordinance. To do this, we chose a site that allowed us to consider the potential impacts of site-consolidation, given the neighborhood's relatively recent experience with the construction of the CVS building in Magoun Square. In the early 2000s, CVS consolidated five small parcels to construct a two-story building with extensive surface parking. Although this development complies with current zoning, we consider it incompatible with the character of Magoun Square. We believe that the charm of Magoun Square lies in its continuous single-story

storefronts that create a pleasant pedestrian experience.

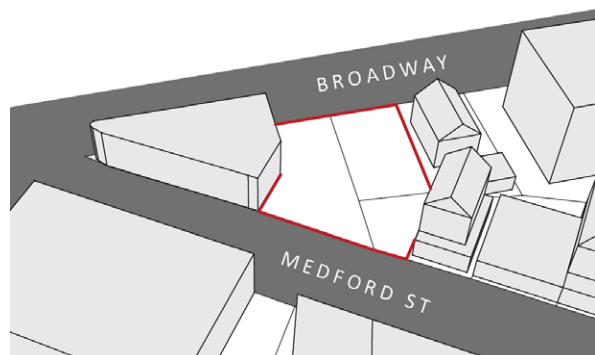
We generated development scenarios on hypothetical Site A (see Figures 5.7 and 5.8), the result of consolidating three adjacent parcels, to examine whether current NB District zoning allows for pedestrian-friendly developments.

We found that the maximum number of parking spaces possible on this site, while maintaining a reasonable building footprint, is sixteen. Given minimum parking requirements, allowable commercial development amounts to only 8,000 sq ft, just above an FAR of 1.0. This means it is impossible for developers to maximize allowable development. As shown, this development scenario furthermore fails to create a

pedestrian-friendly walking environment due to the dominant presence of surface parking (see Figure 5.10).

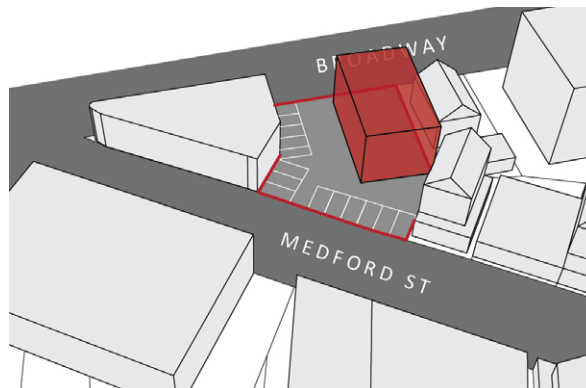
The alternative scenario (see Figure 5.11) features only a few on-site surface parking spaces. This scenario illustrates 15,000 sq ft of new development, which would require approximately 20 parking spaces. However, in this scenario, we have assumed that the developer provides one level of below-grade parking by taking advantage of the topography of the area. Parcels along the north side of Medford Street have roughly one level (8-10 ft) of elevation change between Broadway and Medford street. Therefore, it would be possible for a developer to provide one level of below-grade parking without substantial financial burden.

FIGURE 5.9: CONSOLIDATED PARCEL



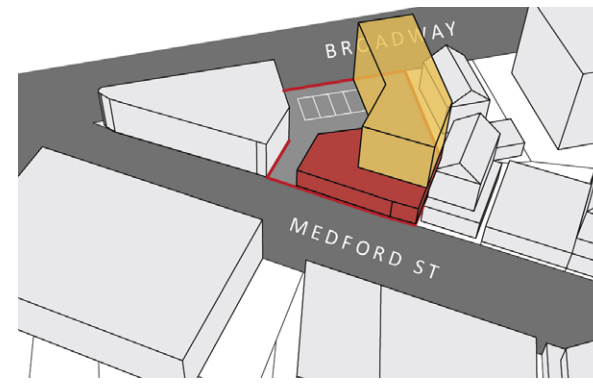
Required parking space, if max gsf gets developed:
27 spaces (all commercial)
Required parking space, if max gsf gets developed:
25 spaces (all residential with 15 2-bedroom dwelling units)

FIGURE 5.10: AS-OF-RIGHT SCENARIO



Total amount of development (Gross Square Footage):
8,000 sq ft
Total number of parking spaces (surface parking only): 16 spaces
F.A.R.: 1.0

FIGURE 5.11: ALTERNATIVE SCENARIO



Total amount of development (Gross Square Footage):
15,000 sq ft
Total number of parking spaces : 20 spaces (16 below-grade and 4 surface parking)
F.A.R.: 2.0

COMMERCIAL CORRIDOR DISTRICT ZONING ANALYSIS & RECOMMENDATIONS

The purpose of the Commercial Corridor District (CCD) is to promote appropriate infill development along heavily traveled transportation corridors. There are two CCD districts: CCD-55 and CCD-45. The main difference between the two is that CCD-55 allows building heights up to 55 ft and CCD-45 allows up to 45 ft (amended from original 50 ft). The major objectives of the districts are to:

- Encourage mid-rise commercial and residential uses;
- Encourage retail that is largely neighborhood-serving in multi-tenant, mixed-use buildings;
- Preserve and complement historic structures;
- Discourage inappropriate auto-oriented, significant trip-generating uses;
- Promote pedestrian and bicycle activity.

COMMERCIAL CORRIDOR DISTRICT USES

Uses in CCDs fall into “use clusters,” allowing more square footage of development for office and retail uses by right than in NBs. However, CCDs allow less eating and drinking development by right than in NBs, and do not allow multi-family housing.

No development has occurred since CCD zoning was applied to Temple Square, so it is difficult to know how the above regulations have worked in practice. We can still examine CCD use regulations according to their capacity to contribute to the goals of the CCD in creating an active, mixed-use area. Allowing 15,000 sq ft

of office and R&D development, including labs, by right is a positive step toward encouraging daytime uses. This district also does not allow by right or by special permit drive-through banks and food establishments, prohibiting establishments typically accessed by private automobiles. CCD zoning allows convenience and banking establishments up to 1,500 sq ft in a use cluster less than 10,000 sq ft. CCD zoning is generally fit for its purpose.

CCD zoning requires a special permit for convenience and banking establishments greater than 5,000 sq ft or for developments with several convenience, banking, and other retail establishments reaching 5,000 sq ft, combined through the medium retail and service clusters. In our opinion, allowing 5,000 sq ft of convenience and banking development is significant for an area already characterized by convenience-oriented, quick-stop uses.

It is not clear why disallowing by-right multi-family housing would be beneficial to this area. As the area begins redeveloping, multi-family housing would enable financial return for developers. This, in turn, could make commercial investment more desirable.

We recommend allowing a certain number of multi-family residential units by right, perhaps in conjunction with other use clusters. Further, we recommend an increase in allowable bar and restaurant development from 1500 to 2500 sq ft. As recommended in the NB section, the City might also wish to allow only 500 sq ft of first-floor banking and credit union activities. Up to

EXISTING INITIATIVES

Additional information regarding Somerville’s motivations for applying the CCD designation in Winter Hill were detailed in the planning staff report (available on the City’s website) recommending denial of the Cohen Co.’s application to build an Ocean State Job Lot discount store on the vacant Star Market site.

The report noted that “... community members expressed their support for zoning that encouraged a balance between old and new... The community identified a preference for the establishment of more mid-rise mixed-use development in the area, and the importance of a high quality public realm for pedestrians and bicyclists especially in light of the forthcoming Green Line Extension which will bring rapid transit to nearby Gilman Square. As a result of this process, the zoning amendment balanced an up-zoning of development capacity along much of the corridor with the establishment of strict development standards and design guidelines to ensure that development meets or exceeds community expectations.” Furthermore, they hoped that the area’s new FAR of three would “provide a catalyst for transformative development that will change the nature of Broadway, fill the gaps in the streetscape, and encourage new business that will complement the existing business mix and encourage shoppers to visit multiple businesses within the neighborhood on single trips.”

5,000 sq ft of banking activities are currently allowed by right in mixed-use clusters. These changes would make the area more desirable to establish a business or office by encouraging uses that will support around-the-clock activities.

COMMERCIAL CORRIDOR DISTRICT PARKING REQUIREMENTS

The CCD prohibits uses other than those expressly authorized in the appropriate use clusters. Parking space requirements are specified by use cluster. A table showing permitted use clusters in CCD districts with its parking requirements can be found in Chapter 6.

Parking minimums are lower in CCDs than NB districts. Developers can also choose to pay \$18,500 per space through the “Payment in Lieu of Parking” program (Article 6.1.22 section G 7) upon the approval of the Special Permit Granting Authority.

Below grade parking is excluded from the FAR calculation, which can be an incentive for developers to provide parking spaces without reducing the development capacity. On the other hand, structured parking is counted toward the FAR calculation, hence discouraging the construction of structured parking.

DEVELOPMENT SCENARIO FOR COMMERCIAL CORRIDOR DISTRICT

Using the as-of-right parking and dimensional requirements, we generated development scenarios for a sample site in the CCD to examine the nature of development allowed under the current zoning ordinance. To do this, we chose the site where the Rite-Aid and vacant Star Market building are located. The site is composed of three abutting parcels. Although not all parts of parcels are designated as CCD, we have included the portions designated as RB District since they are under the same ownership. We believe that the future development impact of these three parcels will significantly influence the image of Temple Square, as well as Winter Hill as a whole. It is vital to examine whether the current zoning ordinance furthers the City’s vision for Winter Hill, and if not, make changes where necessary.

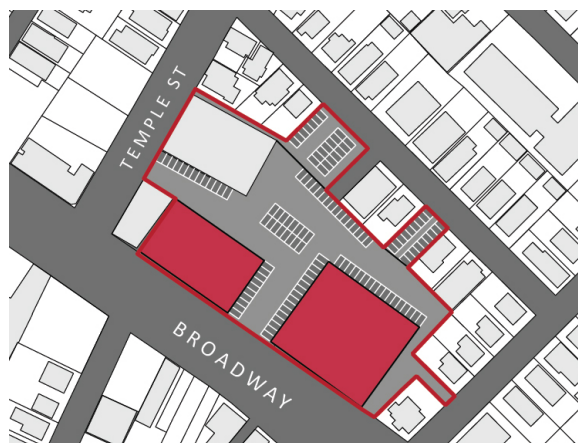
As stated earlier, the CCD designation was established to promote appropriate infill development along heavily traveled transportation corridors. Development in the CCD ranges from approximately four to five stories. The following scenario was conducted to see whether current zoning allows for such moderate-scale and -density developments.



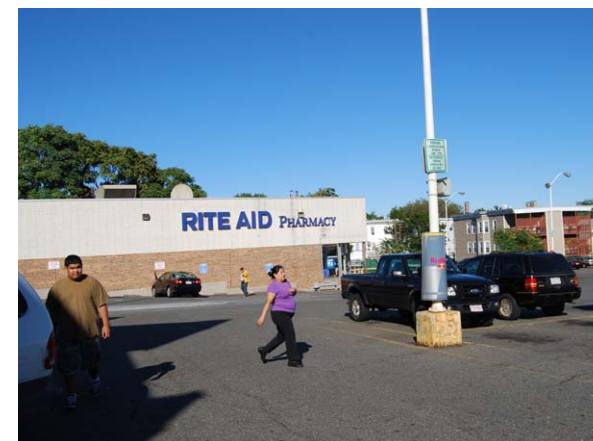
Figure 5.12: Development scenario site

Total parcel size: 114,000 sq ft
 Over 120 surface parking spaces
 Allowable GSF according to the FAR=3.0: 342,000 sq ft
 Required parking space if maximum GSF is developed: 856 spaces for large retail, service and office use (428 spaces with Special Permit)

FIGURE 5.13: DEVELOPMENT SCENARIO A



Total amount of development (Gross Square Footage): 103,000 sq ft (Red: commercial)
 Total number of parking spaces (surface parking only): 128 spaces
 F.A.R.: 1.0



This image depicts the pedestrian experience of a single-story large-scale commercial development with only surface parking.

FIGURE 5.14: DEVELOPMENT SCENARIO B



Total amount of development (Gross Square Footage): 220,000 sq ft (Red: commercial, Yellow: residential, Green: open space, Coral: structured parking)
 Total number of parking spaces: 220 spaces (200 structured parking and 20 surface parking)
 F.A.R.: 2.0



This image depicts the pedestrian experience of a multi-story mixed-use development with surface and structured parking.

SUMMARY OF THE DEVELOPMENT SCENARIO

This scenario adds additional building mass along the sidewalks and proposes increased height to the Star Market parcel. As shown in Scenario A (Figure 5.13), the total amount of development is 103,000 sq ft and the total number of surface parking is 128 spaces. This scenario falls short in significantly improving pedestrian experience due to an excessive amount of surface parking.

Scenario B (Figure 5.14) illustrates a total of 220,000 sq ft of development with 220 parking spaces. In this scenario, the parking space requirement is lowered from 1.25 per 1000 sq ft (by special permit) to 1 per 1000 sq ft (by right). In addition, this scenario proposes building one multi-level parking structure that can accommodate up to 200 parking spaces. By constructing a single, multi-level parking structure, we expect the pedestrian walking experience will be significantly improved.

Recommended zoning changes for the CCD district(s) are found in Appendix C-2.

VI. PARKING

Automobile transportation is a crucial component of accessibility in Magoun Square and Winter Hill, especially given current public transit gaps. At the same time, parking that is easily and cheaply available contributes to traffic and air pollution by encouraging driving. This can counteract the City's efforts to promote walking, biking, and dense urban development. Through site visits and conversations with city officials, residents, and business owners, we observed several main challenges regarding parking in Magoun Square and Winter Hill:

- Minimum parking requirements in Neighborhood Business Districts (NBs) and Commercial Corridor Districts (CCDs) are too high to encourage pedestrian-friendly and urban-scale development, and they make it difficult for developers to reach maximum allowable Floor Area Ratio (FAR). High minimums are the most pressing parking-related challenge facing our study area.
- An excess of surface parking, particularly in Winter Hill, demonstrates that areas with high daytime and evening parking demand are not sharing parking resources.
- The prominence of surface parking and curb cuts negatively impacts the pedestrian experience along Broadway in Winter Hill and in Magoun Square (see Figure 6.1).
- Excess surface parking contributes to high impervious coverage in Winter Hill, stressing



Figure 6.1: The prominence of surface parking in Magoun Square negatively impacts conditions for pedestrians

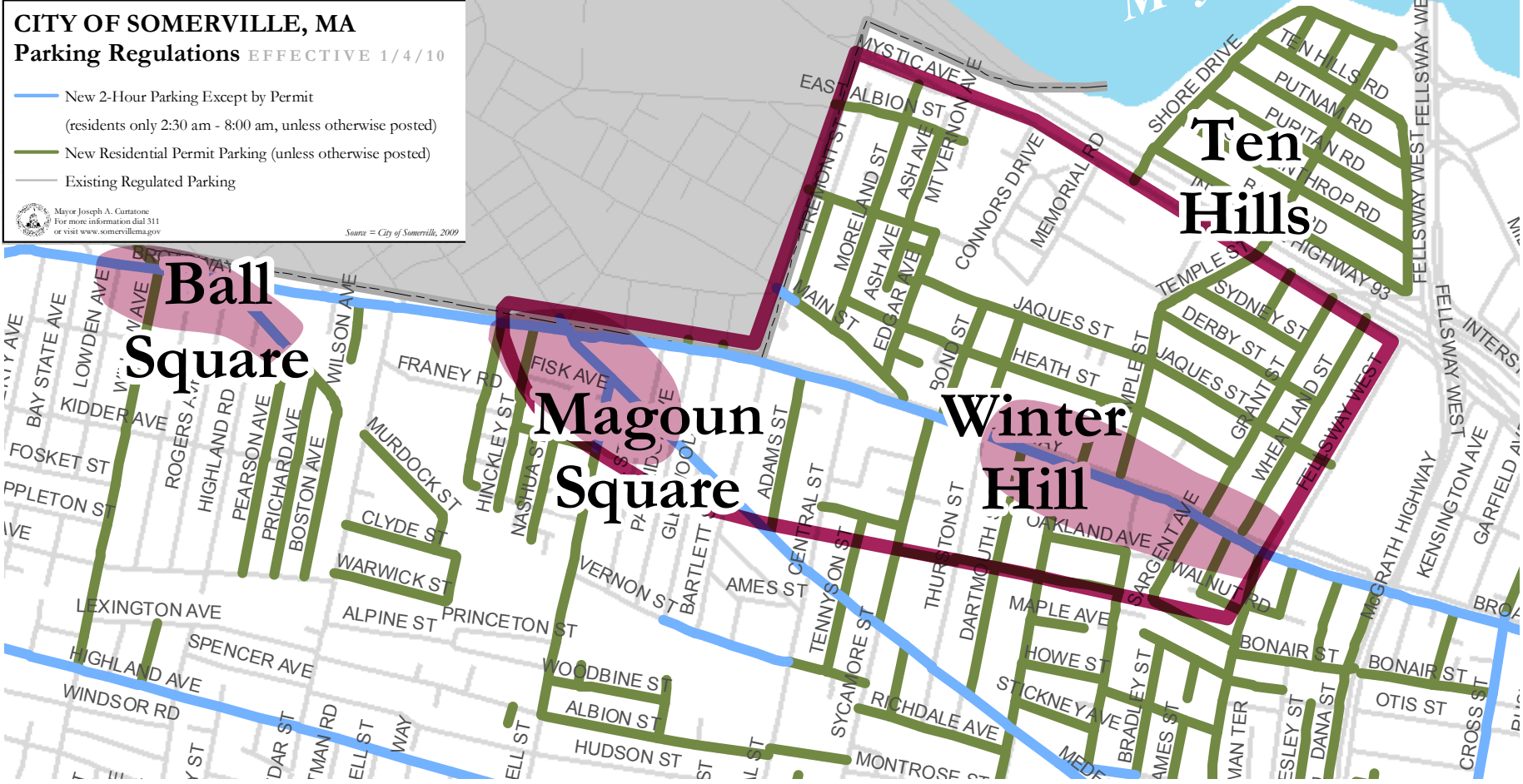
Somerville's sewer system and negatively impacting Mystic River water quality.

- Some business owners and residents in and near Magoun Square are dissatisfied with what they perceive to be overly strict enforcement of Somerville's two-hour parking zones, which exist citywide. We determined, however, that the City's decision to provide three-hour parking in 45 spaces in the Magoun Square municipal lot sufficiently addressed this concern.

By making multiple site visits and examining satellite imagery, we developed an approximate inventory of non-residential parking spaces in Magoun Square and at Temple Square, as well as in nearby Ball Square. We looked at Ball Square

for comparison because, like Magoun Square, it is a small Neighborhood Business District surrounded by Residence A and B zones. Unlike Magoun Square however, Ball Square is a busy commercial area without vacancies.

Magoun Square's shared parking assets include 45 spaces in the municipal lot adjacent to CVS, as well as a significant number of on-street spots on Broadway, Medford Street, and Lowell Street. Magoun Square has greater shared parking assets than nearby Ball Square and Temple Square. Apart from on-street parking along Broadway, Winter Hill's parking is predominantly off-street accessory parking, built to accommodate retail customers. Parking management strategies in Magoun Square and Winter Hill should reflect their different parking profiles.



Non-Residential Parking Spaces (approx.)				
	On-Street Public	Off-Street Public	Off-Street Accessory	Total
Magoun Square	100	45	30	175
Ball Square	60	-	30	90
Temple Square	65	-	345	410

Figure 6.2: Existing Somerville parking regulations in and around the study area

ZONING RECOMMENDATIONS

Zoning is the most important mechanism cities can use to affect private parking supply. As demonstrated in the earlier development scenario analysis, Somerville's current off-site parking minimums preclude developments from reaching maximum FAR and, absent expensive underground parking, favor less urban and pedestrian-friendly development. The City's current parking requirements in NB Districts and CCDs are summarized in Figure 6.3.

There are at least three ways the City could address these high parking minimums. First, Somerville could establish lower parking minimums (see our recommendations in Figure 6.3). We have suggested these minimums based on our development scenarios. For example, we found that reducing parking requirements to one third of the current requirements allowed for a more realistic and feasible building footprint. Our recommendations are also based on parking literature, specifically Donald Shoup's *The High Cost of Free Parking* (1995) and Todd Litman's *Parking Management Best Practices* (2006). Both Shoup and Litman discuss the negative economic and land use implications of high parking requirements in urban areas, which result from the misapplication of conservative estimates for peak parking demand for suburban areas.

Second, the City should institute parking maximums in NB Districts and CCDs. Parking maximums exist elsewhere in Somerville; the Assembly Square and Union Square overlay districts have maximums lower than minimums

Current Parking Minimums Minimum Parking Spaces per 1,000 square feet of use unless otherwise noted			
Neighborhood Business		CCD 45/55	
Office	1.74	Office/R&D	1.25
Medical	2	-	-
Retail/sales	2	Small retail/service	0.67
Business/service	1.82	Medium retail/service	1.25
-	-	Large retail/service	2.5 (special permit can reduce requirements to 1.25)
Restaurant	whichever greater: 9.09 or 1/4 seats + .75/employee	Eating/drinking	2.5
Take-out	20 per 1000 sf of customer waiting area + .75/employee	Edu/Rec/Institutional	2.5

Proposed Parking Minimums Minimum Parking Spaces per 1,000 square feet of use unless otherwise noted			
Neighborhood Business		CCD 45/55	
Office	0.75	Office/R&D	0.75
Medical	1	-	-
Retail/sales	0.5	Small retail/service	0.5
Business/service	0.5	Medium retail/service	0.5
-	-	Large retail/service	0.5
Restaurant	1/6 seats	Eating/drinking	1/6 seats
Take-out	1/6 seats	Edu/Rec/Institutional	0.75

Figure 6.3: Existing (top) and proposed (bottom) parking minimums

Proposed Parking Maximums Maximum Parking Spaces per 1,000 square feet of use unless otherwise noted			
Neighborhood Business		CCD 45/55	
Office	1	Office/R&D	1
Medical	1.25	-	-
Retail/sales	0.67	Small retail/service	0.67
Business/service	0.67	Medium retail/service	1
-	-	Large retail/service	1
Restaurant	1/5 seats	Eating/drinking	1/5 seats
Take-out	1/5 seats	Edu/Rec/Institutional	1

Figure 6.4: Proposed parking maximums

elsewhere in Somerville. In NB Districts and CCDs, maximums would encourage urban-scale development and non-automotive uses while preventing developers from supplying amounts of parking comparable to existing ratios, which are inconsistent with the City's goals. Potential parking maximums are described in Figure 6.4.

Third, there is a compelling body of literature surrounding municipal parking requirements that argues that cities should do away with parking minimums altogether and simply adopt parking maximums. This would eliminate the need to craft additional flexibility in the Somerville Zoning Ordinance. It would also eliminate potential revenue from payment-in-lieu of parking. No one has used payment-in-lieu of parking in Winter Hill, however, and this provision should not be considered a substitute for funding shared parking and demand management improvements.

If Somerville decides to retain parking minimums, it must ensure there is adequate flexibility in the zoning ordinance so that parking supply is context specific. The Somerville Zoning Ordinance details special parking provisions that provide some flexibility to developers. For example, §9.6.3. “Proximity to Rapid Transit or Public Parking” allows for non-residential parking to be reduced based on these criteria:

- “Uses within six hundred fifty (650) feet of municipal parking garages or lots shall be entitled to a ten percent (10%) reduction in required parking...”
- Uses within one thousand (1,000) feet of a rapid transit station shall be entitled to a twenty percent (20%) reduction in required parking...”

This is a positive provision, however it is limited in scope. Should Somerville retain parking

minimums, this provision should be expanded so that non-residential uses within 1 mile of rapid transit can reduce parking, with smaller distances resulting in greater parking reductions. Reductions for proximity to municipal parking should be established on a district-by-district basis to reflect municipal parking supply as well as context-specific parking constraints. For example, in Magoun Square, where there is ample daytime parking supply, offices and businesses with daytime peaks in parking demand, should be able to reduce parking demands beyond a quarter mile.

The Somerville Zoning Ordinance currently allows reductions in parking where projects can demonstrate the potential for shared parking and loading. (§9.13.e Shared Parking/Loading). This provision requires applicants to obtain a special permit, and lots must be contiguous. The City could encourage more shared parking by simply requiring that lots be within $\frac{1}{4}$ mile of each other. The City could also establish a set amount of reduction through a demonstration of shared parking abilities, i.e., a 20% reduction for 20% shared parking, and by no longer requiring a special permit.

The Somerville Zoning Ordinance also provides additional flexibility through application for a special permit (§9.13.f Reduction of Required Parking for Specific Use):

“Where it can be demonstrated that a use or establishment needs a lesser number of parking spaces or loading bays than is required ... the number of such parking spaces or bays may be



Figure 6.5: Existing on-street parking in Magoun Square

reduced by not more than twenty percent (20%). An applicant shall submit documentary evidence satisfactory to the Director of Traffic and Parking that the parking or loading experience of the specific use justifies a lesser number of spaces or bays. A special permit granted under this authority shall lapse upon change to a different type of use and shall not be considered to constitute a legal nonconformity with respect to parking for any new use.”

The City has already built flexibility into its parking regulations. This is reflected in the regulatory burden created by having high parking minimums, both because projects are seeking relief through means other than site variances, and because the review of special permits for reductions requires additional oversight. Reducing parking minimums will arguably reduce the amount of resources devoted to parking regulation administration as well as the time and costs associated with development in Somerville. Should Somerville retain its parking minimums, a few provisions currently used in Cambridge could provide flexibility in parking requirements without increasing administrative demands. Cambridge does not currently require additional parking spaces when floor area (but not intensity of use) increases by less than 15%. Cambridge also allows Parking and Loading requirements to be waived for non-residential uses in business and commercial districts where the use would require four or fewer spaces (City of Cambridge Zoning Ordinance §6.32).

SHARED PARKING STRATEGY

Allowing context-specific flexibility and encouraging private shared parking are two aspects of the approach the City should take in managing parking across a district rather than at a site scale. Reducing parking minimums is the first step toward district-wide parking management.

Shared parking, both on-street and off-street, results in more efficient space allocation, and Somerville should continue its efforts to encourage the efficient use of private shared spaces. To do this, the City should establish district-specific parking inventories to determine the appropriate balance of municipal and private parking in different places under future



Figure 6.6: Adjacent parking lots for the US Postal Service and residences on Broadway in Winter Hill

development scenarios. For example, in Winter Hill, the City should consider whether to aggressively target policies and programs that increase private shared parking between non-competing uses, and whether it should increase municipal shared parking in the future.

Somerville should also develop a long term parking strategy for Magoun Square and Winter Hill that establishes how new parking supply should evolve as the Green Line stations at Lowell Street and Gilman Square are created. This strategy should include a time table of decreasing parking maximums to provide certainty and consistency to developers. Otherwise, the City runs the risk of allowing for parking to be overbuilt in the years leading up to opening of the stations.

A revised payment in-lieu of parking program could provide Somerville with additional resources to improve shared parking resources. Payment in-lieu of parking already exists in CCDs and TODs. Developers can pay \$18,500 per space in order to reduce required parking amounts; the City can then use these funds to acquire land and finance or construct municipal parking (see Municipal Ordinance Chapter 1, Section 10, Zoning Ordinance §6.1.22.G). The current price of \$18,500 seems too high for the Winter Hill and Magoun Square areas given that the price of structured parking is roughly \$3,000 per space. The City should also expand the scope of activities that can be funded by payment-in-lieu of parking to include parking demand reduction as well as shared parking supply projects. Acceptable uses of in-lieu fees should include funding pedestrian and bike improvements as well as enhancements

in shared on-street space management such as smart metering.

Many recommendations contained elsewhere in this plan relate to parking. Design requirements for surface parking lots could reduce stormwater runoff by creating standards for on-site capture and filtration. The City should also consider improvements in pedestrian and cycling infrastructure as part of an overall parking management strategy. Finally, the City could also consider adopting design guidelines for structured parking, such as requiring other ground floor uses and minimizing curb cuts in order to mitigate the negative effect that parking structures can have on street life.

VII. MAGOUN SQUARE



This section of the plan details site-specific recommendations for the three focus areas identified during the analysis phase, beginning with Magoun Square, located at the intersection of Broadway and Medford Street, and the smaller Dexter Street. Medford Street crosses into the City of Medford just north of this intersection. Significant portions of the properties along the north side of Broadway are within the Medford City boundary. Trum Field, a major recreational asset to the community, marks the western border of Magoun Square. To the west of Trum Field is Ball Square, followed by Powder House Square and Tufts University. To the east, Broadway connects Magoun Square to the rest of Winter Hill, Foss Park, and East Somerville.

Magoun Square is a mixed-use urban area characterized by a mix of small businesses and a few retail chains. Zoned as a Neighborhood Business District (NB), Magoun Square has a history as a walkable neighborhood commercial

cluster. The building assets on Medford Street reflect this square's rich history. More recently, however, Magoun Square has faced challenges related to business viability—specifically, vacant properties—and high turnover.

Because of its location along two major roads that cut through Somerville (Broadway and Medford), Magoun Square has a large pool of potential visitors. Current attractions for through-traffic are the Dunkin Donuts and CVS, where drivers often stop en route to or from work. Bus stops for routes 89 and 80 also serve the square. Olde Magoun's Saloon, On the Hill Tavern, Model Bakery, and a number of other businesses have devoted clientele that drive into the neighborhood to patronize them. Magoun Square's biggest challenge is attracting adequate



Figure 7.1: Difficult intersection at Magoun Square

pedestrian traffic to support a diverse mix of neighborhood businesses.

The intersection at the center of Magoun Square is difficult for both pedestrians and drivers to navigate. The five-way traffic flow is by no means

clear to drivers, and makes it nearly impossible to cross on foot. At the same time, the square itself is barely visible to drivers passing through via Broadway, and there is a lack of clear landmarks that characterize Magoun. Our proposals, therefore, attempt to augment visual elements that will define Magoun Square's distinct identity as a commercial node and community activity center.

DRIVING FORCES & RECENT INVESTMENT

The Green Line Extension project includes two stations in close proximity to Magoun Square: Ball Square to the west and Lowell Street to the south. This expected investment highlights both the opportunities and challenges of development. The Green Line may significantly increase Magoun Square's accessibility and eventually induce development, but it will not guarantee the successful future of the area. It is up to the community to determine the best combination of commercial and residential investment to support the revitalization of this historic neighborhood. Therefore, the proposals presented here provide guidance for short-, medium-, and long-term actions that can be taken by the City and the community to enhance existing strengths within Magoun Square and address some of its current shortcomings.

There have been a number of recent infrastructure investments by the City in this area, including streetscaping and pedestrian amenities. Medford Street benefits from an improved pedestrian realm: new crosswalks, streetlights with hanging planters, and other street furniture such as benches have all had an impact on walkability.



Figure 7.2: Streetscape improvements, Medford Street

Similarly, new medians and pedestrian islands have been constructed in the eastern section of the area.

Broadway is also wide enough to test the installation of angled parking adjacent to Trum Field. There is a high demand for parking in the evenings due to the presence of Olde Magoun's Saloon and On the Hill Tavern, both of which are popular with people who drive in from outside the community. These planned parking spots may help address this concern.

In our proposals for Magoun Square, we sought to recognize future opportunities, build on current city efforts, and respond to input from members of the community. Accordingly, we have prepared the following set of short-, medium-, and long-term proposals for both physical and process-based improvements in the Magoun Square area.

DUNKIN DONUTS & CVS LOT: GATEWAYS

From the west, both the Dunkin Donuts and CVS parcels could be highlighted as important gateways to Magoun Square. In many ways, this area already serves a community function, in that it draws a high level of daily activity, particularly in the mornings. The high traffic through this area offers significant potential for increasing engagement, visibility, and wayfinding to the rest of Magoun.

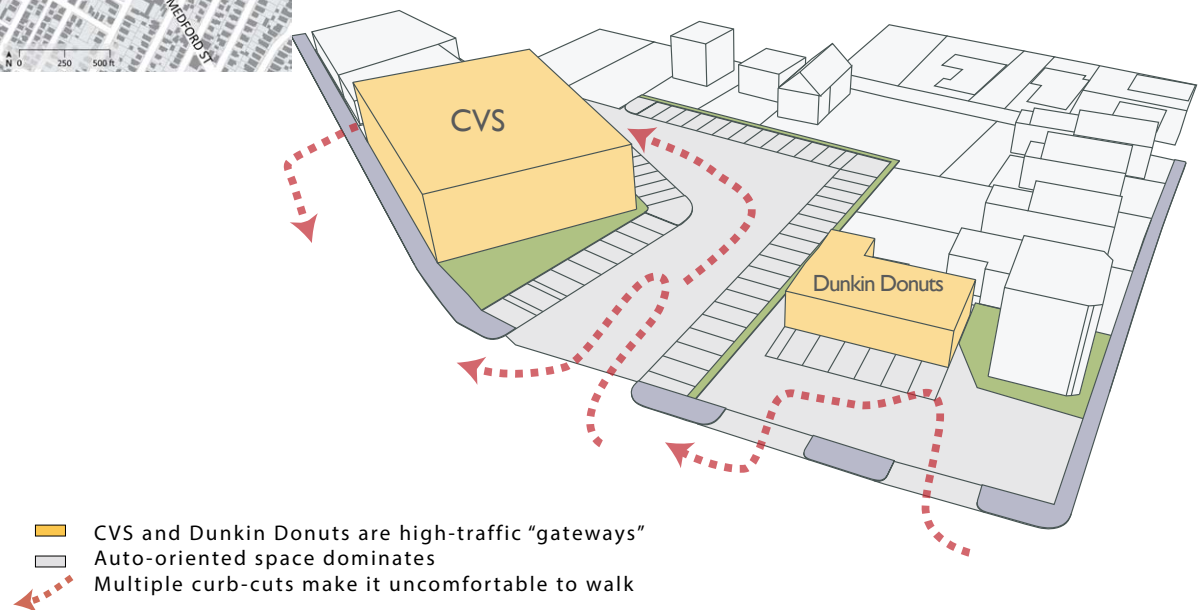


Figure 7.3: Uncomfortable pedestrian environment

The adjacent parking lots, however, are not pedestrian-friendly (see Figure 7.3). There are multiple curb cuts and wide swaths of paved surface that provide few safe places for those on foot. Moreover, the gap in street frontage caused by the Dunkin Donuts setback means that

Figure 7.4: Existing conditions at CVS and Dunkin Donuts

pedestrian connectivity between Trum Field and points west to Magoun Square is interrupted.

SHORT-TERM VISUAL CUES

There are several design changes that could be implemented relatively quickly with little funding and minimal construction. First, we propose a new landscaped strip along the edge of the Dunkin Donuts lot to better separate the sidewalk from the parking lot (see Figure 7.6, Location 1). Vertical elements such as flags would increase visibility for pedestrians and signal to vehicles that they are in a shared space (see Figure 7.5). Second, raised platforms with moveable seating could be installed in front of the Dunkin Donuts (see Figures 7.5 and 7.6, Location 2). This would give the current auto-oriented form an updated character that is more inviting for people to sit in and enjoy. The Dunkin Donuts already serves the function of a community gathering location, with students having coffee before they head to the nearby Somerville High School or grandparents coming in regularly with their grandchildren. Wayfinding signage could be installed adjacent to this new seating to communicate the existence of other nearby businesses. Finally, installation of the Magoun Square sign the City of Somerville has already promised in this very visible location will signal the presence of the square to visitors, both in their cars and on foot (see Figure 7.6, Location 3).

MEDIUM-TERM REORGANIZATION OF VEHICULAR CIRCULATION

Medium-term proposals involve more significant infrastructure changes. We propose reorganizing the traffic pattern for the two adjacent parking

lots. The current curb cuts are unnecessary. The entrances could be combined into a one-way entrance at the current signalized municipal lot curb cut. Two exits would then be provided: (1) the current exit onto Medford Street and (2) a new curb cut exit onto Hinckley Street (see Figure 7.6, Location 4). This simplification of vehicular traffic would not only make the intersection less complicated, it would also be safer for pedestrians.

Additionally, the space gained from making the municipal lot curb cut entrance-only could then be allocated to an expansion of the current pocket park adjacent to the CVS (see Figure 7.6, Location 5). No parking spots would be lost, they would simply be shifted outward into the former two-way driving lane. Expansion of the pocket park would increase the amount of public space in Magoun Square and improve the continuity of the pedestrian realm stretching from Trum Field to Medford Street.



Figure 7.5: Short-term visual cues

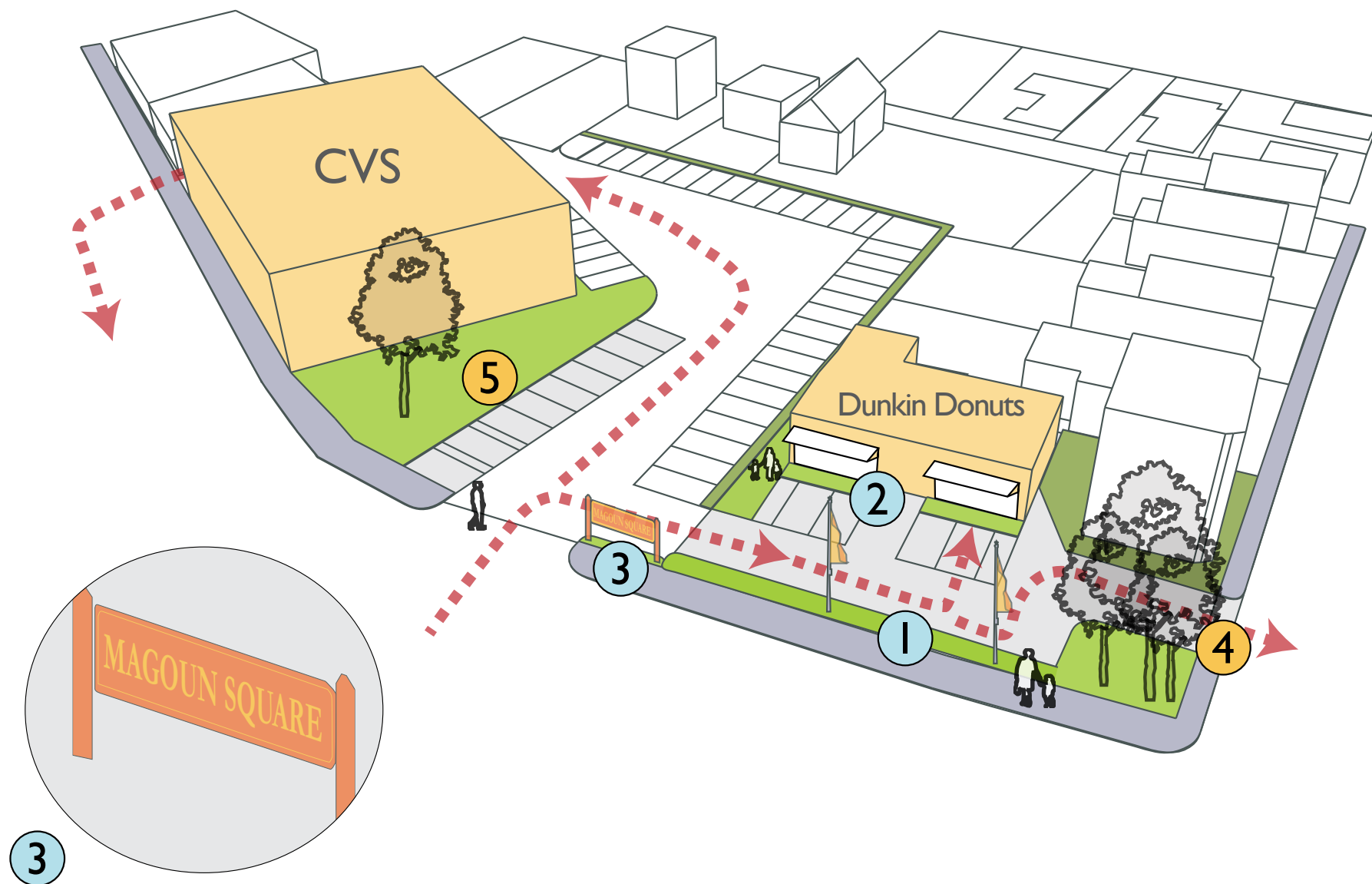


Figure 7.6: Short and medium-term recommendations

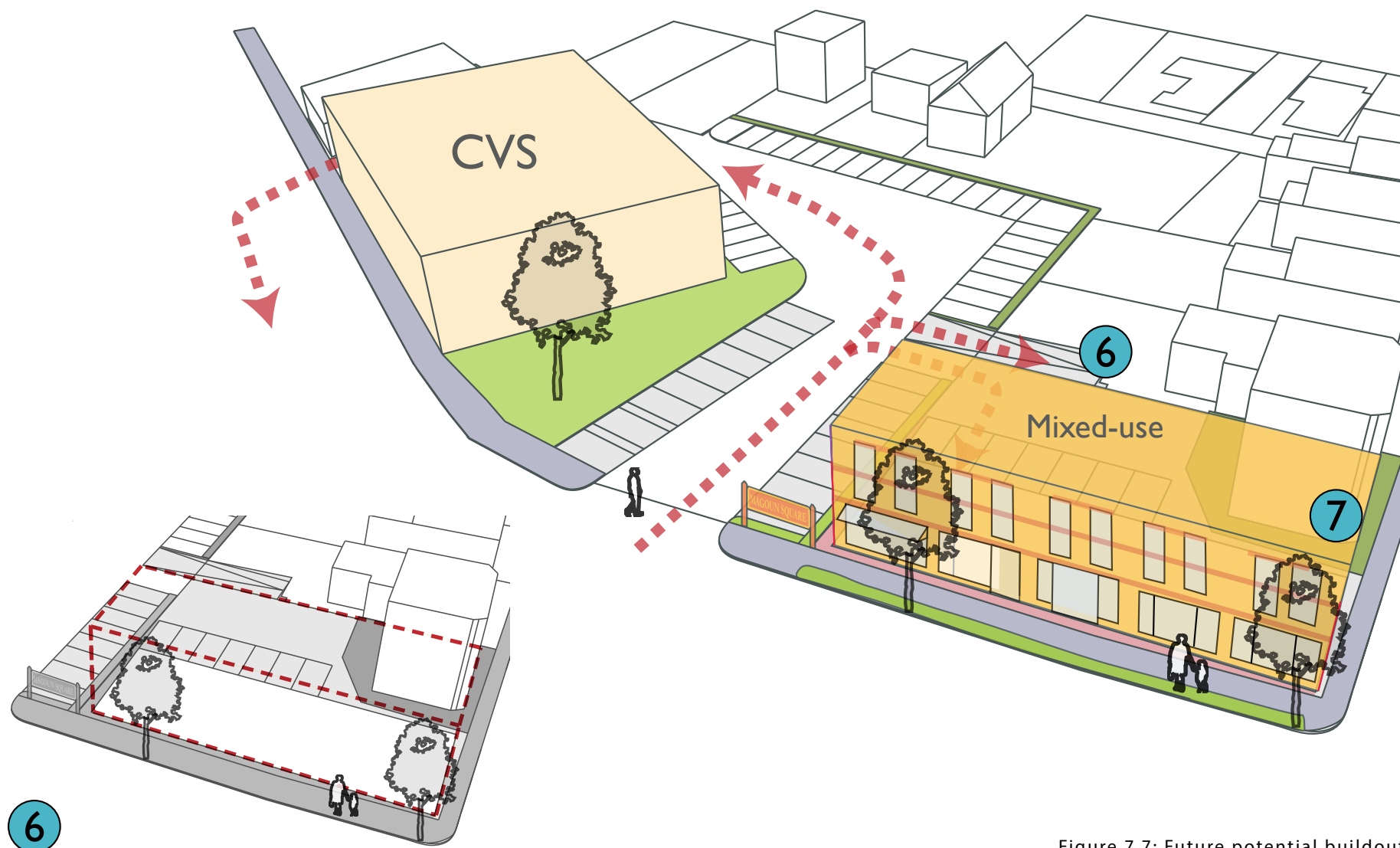


Figure 7.7: Future potential buildout

FUTURE POTENTIAL BUILD-OUT

While we recognize the Dunkin Donuts is an active and vibrant part of Magoun Square, we also encourage long-term thinking about desired development patterns if that parcel is repurposed in the future. To that end, we have developed a long-term build-out scenario for a three-story, mixed-use building with retail on the ground-floor (4,000 GSF) and 8 3-bedroom units on the upper stories (8,000 GSF total) (see Figure 7.7, Location 6). Under current zoning regulations, such development would require 25 parking spots. As discussed in our zoning analysis, we believe these requirements are too high for a neighborhood business district. It is not possible to create continuous street frontage while still providing that many parking spaces. Ideally, any future development would create a more active sidewalk to support a vibrant pedestrian experience.

By reducing parking requirements from 1/500 sq ft to 1/1,000 sq ft for retail, and from 2 to 1.5 spaces per 3-bedroom residential unit, the required number of spots would be 16. Some of those spots would fit at ground-level in the rear of the development. The remaining parking could be accommodated by making use of the elevation drop on Broadway at the rear of the parcel (see Figure 7.7, Location 6). This would reduce the cost of building below-grade parking.

This example is intended to illustrate the type of development that could be used in the future

to attract residents, increase foot-traffic, and support local retail. It also highlights the need for modifications to current parking regulations. The specific square footage and selected mix of residential units (studios, 3-bedroom units, etc.) could be adjusted to meet market demand and developer interest.

NORTH SIDE OF BROADWAY

The block opposite Dunkin Donuts on the north side of Broadway has significant redevelopment potential. Currently the low building heights do not match the significant width of Broadway. These one-story structures do not adequately define the street, therefore failing to provide a sense of place. Without greater enclosure,



Figure 7.8: Redevelopment potential on the north side of Broadway

pedestrians are left unsheltered in an uncomfortably wide expanse. Medford Street, because of its narrow width, is adequately defined by one-story buildings, yet Broadway lacks clear boundaries.

Beyond the aesthetics of definition, this block also provides a pragmatic opportunity for the future siting of smaller office or artist live-work spaces that could contribute to the daytime population of Magoun Square (see Figure 7.8). As the city boundary line cuts through the parcels in this area, buildings on this block are governed by zoning in both Medford and Somerville. Given that the existing building stock will eventually need to be redeveloped, we recommend the City of Somerville begin discussions with Medford to resolve this process constraint and encourage less burdensome redevelopment.

STREETSCAPE & PEDESTRIAN IMPROVEMENTS

The expansive intersection at Broadway and Medford serves as a major entry point into Magoun Square. Currently, the intersection is notorious for its heavy traffic, wide streets, and lack of navigational directions for pedestrians and drivers. In addition, there is no legible sense of identity, making it easy for visitors to overlook the area's assets.

With the intent of making the intersection more user-friendly and identifiable to both drivers and pedestrians, we propose a set of changes that could be implemented in the short- and medium-term.

SHORT-TERM

SURFACE PAINTING OR TEXTURE

The addition of textured ground area at the intersection, along with welcoming text, will help visitors and drivers identify the area. This will not only calm traffic but also establish a distinct identity for Magoun Square (see Figure 7.9, Location 1).

CONTINUANCE OF LINEAR PARK ELEMENTS

As detailed in the overall recommendations, one of our key design proposals spanning the entire study area is the development of a linear park along the north side of Broadway. Each segment will have unique characteristics, including Magoun Square.

The addition of plants and trees would extend the linear park along sections of Broadway into the entry points at Magoun Square (see Figure 7.9, Location 2). This would increase connectivity between Winter Hill and Magoun Square and establish a physical and aesthetic connection between the two areas. Bus stops and areas adjacent to pedestrian crosswalks should be targeted for the installation of landscape elements, street furniture like benches and waste receptacles, and wayfinding signage.

PAVEMENT MARKINGS

The last three interventions refer to pavement marking, which can be used for anything from on-street parking to accentuating existing features and creating new ones (see Figure 7.9, Locations 3, 4 & 5). Using pavement markings to

Textured pavement includes the use of stamped pavement or alternate paving materials (e.g. bricks, concrete pavers, and stamped asphalt) to create a recognizably different surface. It may be used to emphasize either an entire intersection or a pedestrian crossing. Textured pavement is useful in "Main Street" areas where there is substantial pedestrian activity. Some of the advantages of this treatment include reduced vehicle speed and aesthetic value.

The City will need to work with the local community to select the best combination of design and material for textured paving. Cost varies by material. Some materials can make crossings more difficult for the mobility and visually impaired. Given the intent to make street crossings more accessible to the entire population, such outcomes should be avoided. One approach would be to use texture paving to increase visibility in the center of the intersection or before crosswalks, leaving standard crosswalks where pedestrians actually walk.

*As proposed in the overall recommendations, the addition of clear and visible signage, designed specifically to suit the character of Magoun Square, would help establish a unique identity for the area. It would also aid in **wayfinding**, mark entry points, and act as a visual cue. Special attention should be given to points of entry, such as the intersection of Lowell and Medford Street on the path from the planned Green Line station.*

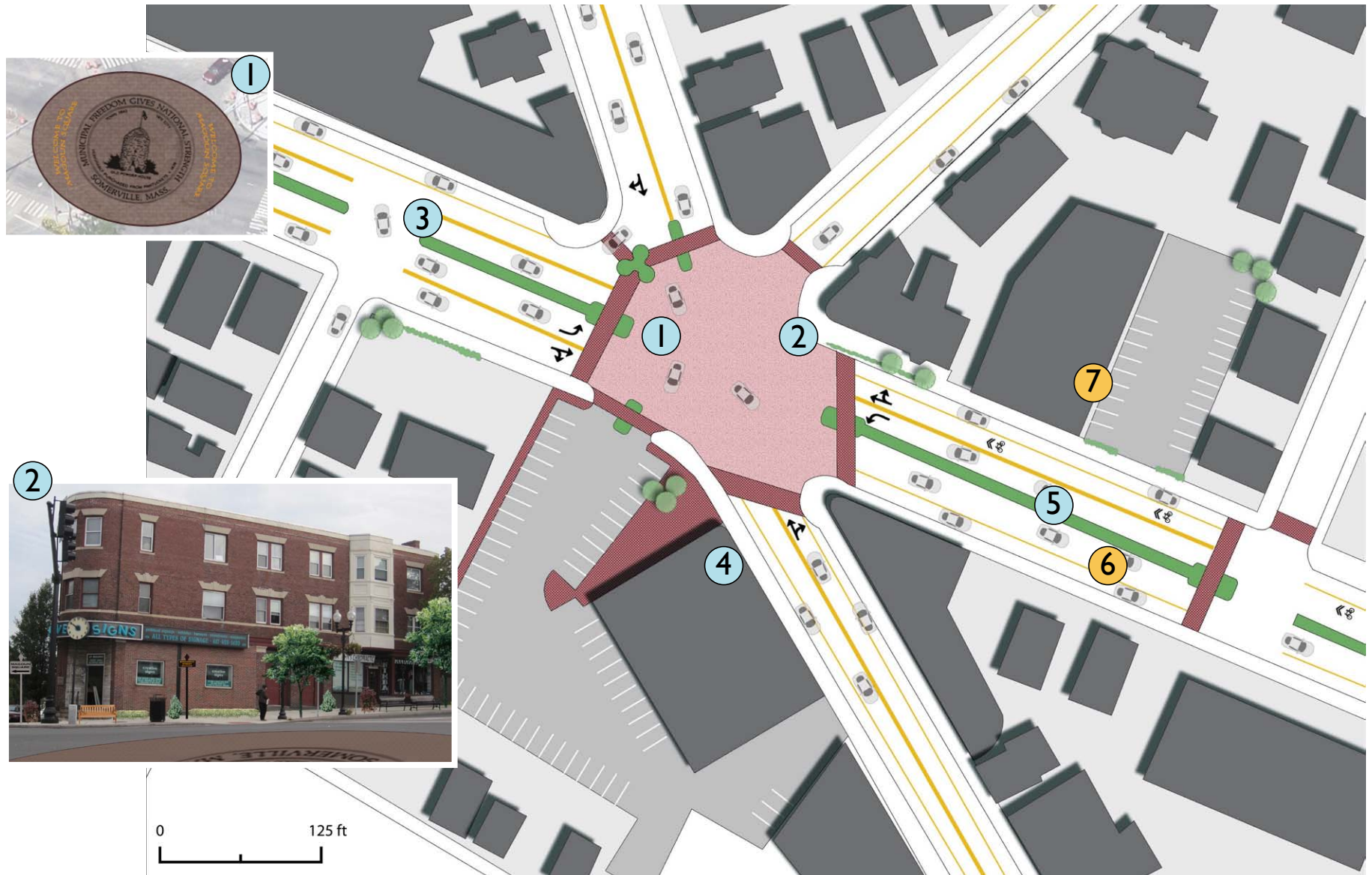


Figure 7.9: Streetscape and pedestrian improvements

indicate areas where on-street parking is allowed creates a safer parking environment and also directs traffic in the area. The main advantage of this approach is its low cost. Pavement marking should be considered along with the other proposed measures. Markings, however, can have a limited effect in reducing vehicle speed, must be maintained, and are not easily visible under snow or water. Therefore, the City of Somerville must pay special consideration to maintenance and coordination with other vertical signage or pavement treatments that enhance visibility, such as textured paving.

MEDIUM TERM

EXTENSION OF BROADWAY MEDIAN, PEDESTRIAN CROSSWALKS

As mentioned above, the City of Somerville has already constructed medians, pedestrian islands, and crosswalks, mostly in the east section of Magoun Square. We suggest the extension of the median along Broadway, which will connect to the linear park elements that are being suggested for the Broadway Corridor (see Figure 7.9, Location 6). This will also reduce the width of this section of Broadway, allow for better definition of traffic, and provide for safer pedestrian crossings.

In contrast to the shorter-term proposals, the cost for a median extension would be more significant, approximately \$15,000-\$20,000 per 100 feet. This estimate is based on generalized costs from the Institute of Transportation Engineers (ITE), and would have to be refined to the specific context of Somerville.

STOREFRONT ARTS PROGRAM IMPLEMENTATION

The proposals thus far have focused on Broadway. This next set of proposals are more programmatic in nature and are intended to strengthen Medford Street's pedestrian environment.

The built form of Medford Street is, on the whole, fairly successful at creating an intimate pedestrian street experience. The challenges on Medford Street deal not with building form, but with the high proportion of vacant properties in the area. For example, the block just southeast of CVS contains two successful businesses, Olde Magoun's Saloon and the K-2 Market, as well as a number of vacant storefronts. This is the perfect location for implementing a Storefront Arts Program as presented in our overall recommendations. Vacancies hinder street life, deter potential renters, and have a negative impact on other businesses. Transforming vacant windows would give life to the street and improve

conditions for existing businesses (see Figure 7.10). The opening of new arts installations could also be used as a catalyst for Magoun Square events organized by the Square's business association or Main Streets program. In pairing community programming with arts, Magoun Square could use its pedestrian environment to support the local economy and promote its streets as unifying public spaces.

INFILL & ENHANCEMENT OF MEDFORD STREET

Medford Street forms the core of Magoun Square as a walkable neighborhood commercial cluster. Its narrower street width and continuous storefronts create a pleasant pedestrian experience. The intention of our proposal in this area is to preserve and enhance the existing character of Medford Street.

Figure 7.11 shows a before and after rendering of what future infill redevelopment might look like under proposed zoning changes. Ground-floor retail or office space on the first floor with transparent facades provides active street-frontage. Upper stories are residential. Reduced parking requirements and minimal setbacks ensure that this small-scale business district can grow without losing the qualities that make this street the heart of Magoun Square.

SHARED PARKING

As discussed earlier in our overall recommendations, one district-level approach to parking management is to consider demand by time of day. The Salvation Army parking lot

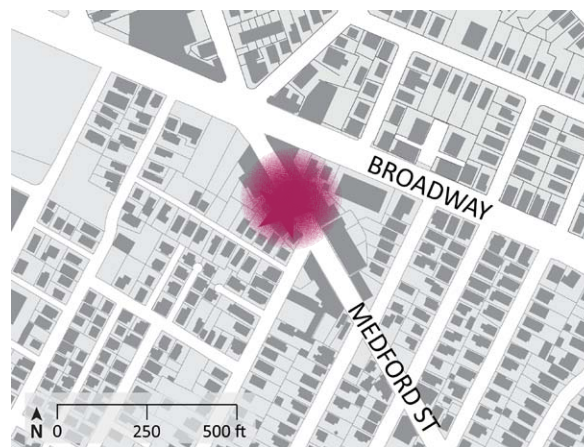




Figure 7.10: Storefront arts program implementation

SITE SPECIFIC RECOMMENDATIONS

along Broadway is largely unoccupied (see Figure 7.9, Location 7) especially at night. Local business owners have expressed concern about the availability of parking in Magoun Square during evening hours. We suggest transforming the Salvation Army parking lot into shared neighborhood parking lots, especially during weekends and/or evening hours. The addition of plants, trees, and street lamps to the lot would improve its appearance and increase the sense of safety for those residents concerned about the negative impacts of such a policy. This could also provide the opportunity for the City to test new design guidelines for surface parking.

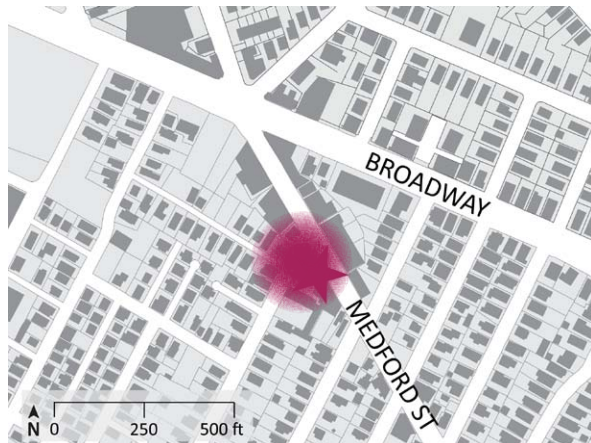


Figure 7.11: Infill and enhancement of Medford Street's current character

VIII. BROADWAY CORRIDOR



Broadway crosses the entire length of Somerville and is the major thoroughfare in our study area, connecting Magoun Square to Foss Park. The street's tremendous width, which is over 70 feet in some areas, is a remnant of its past as a streetcar line. Today, however, Broadway's width can be intimidating to pedestrians, and it serves to separate the north and south sides of Winter Hill. Our recommendations focus on transforming Broadway into a corridor that connects north and south, and is well used by pedestrians and bikes, as well as cars.

LINEAR PARK

The concept of a linear park is intended to promote physical and visual connectivity between Foss Park and Trum Field, the two major open recreational spaces that bookend our study area. In the section of Broadway between Magoun Square and Temple Street, the combination of the natural topography of Winter Hill, the extreme scale of Broadway, and the harsh edge condition

of the Frontage Road wall effectively divides the project area in half, (see Figure 8.1). Broadway is the only street that crosses the entire length of Somerville, and yet it fails to link Magoun Square and Temple Square because pedestrians find it uncomfortable, uninteresting, and unsafe.



Figure 8.1: Existing conditions along Broadway between Magoun Square and Main Street



Figure 8.2: Proposed linear park design

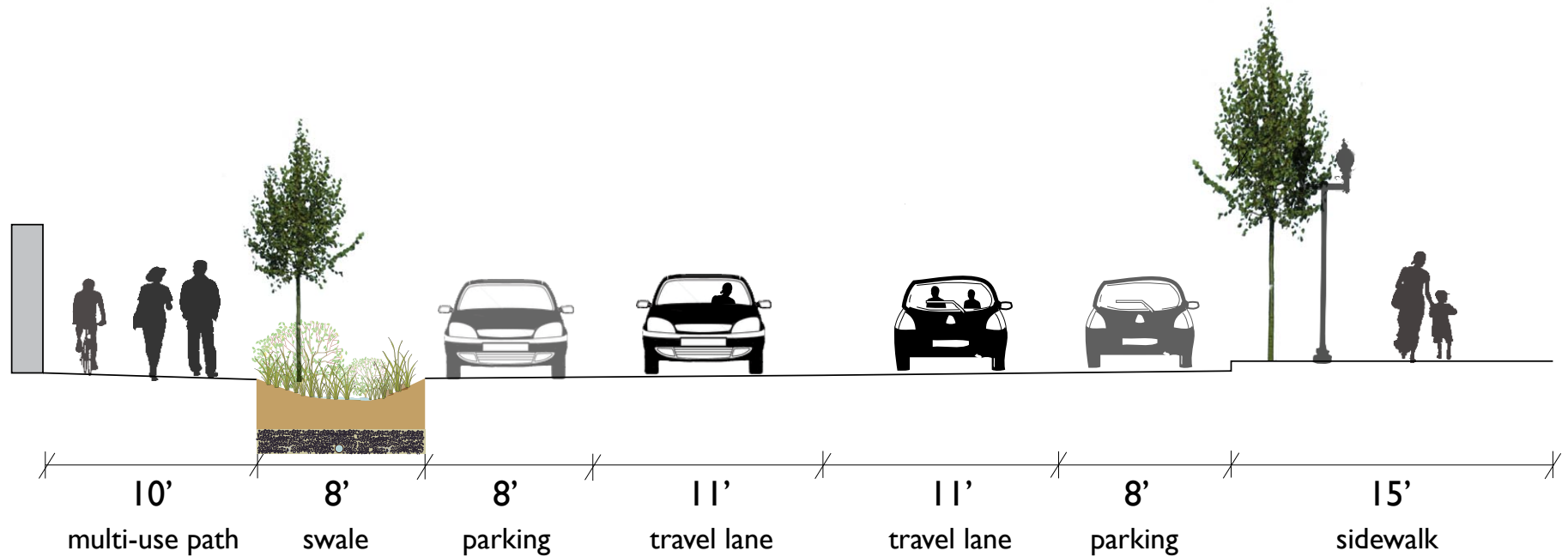


Figure 8.3: Proposed narrowed section of Broadway

Seeking to enhance connectivity, foster a sense of place, and design human-scaled spaces conducive for people to linger and relax, the proposed linear park takes on a distinct form in the walled section of Broadway. Here, the linear park turns the corridor's main obstacles (namely, the topography, street width, and wall) into assets to create a unique public open space that caters to pedestrians and cyclists while tying the neighborhood together.

This section of Broadway is approximately 50 feet wide, with two parking lanes (each 8 feet wide) and two driving lanes (each approximately 17 feet wide). Our plan narrows the driving lanes to 11 feet and leaves the parking lanes at their current width. The resulting 38-foot wide roadway frees up 12 feet of space to be combined with the existing sidewalk adjacent to the wall and redesigned as a shared pedestrian/cyclist pathway buffered from the street by a landscaped parkway. The existing sidewalk on

the north side of Broadway varies in width, so the combined width of the shared pathway and parkway will range from 12-to-18 feet. In order to accommodate cyclists in both directions, as well as pedestrians, the recommended width of the shared path is 10 feet. All remaining space between the shared path and parking lane will be landscaped and, where space permits, designed as a bioswale to capture stormwater runoff (see Figure 8.3).

In addition to narrowing the width of Broadway, our plan recommends the use of various traffic calming techniques to improve pedestrian and cyclist safety. Two possible interventions, sidewalk bumpouts and differentiated crosswalks, are illustrated in Figure 8.2. Installed at each intersection, sidewalk bumpouts slow traffic and reduce the distance pedestrians need to traverse. Differentiated crosswalks alter intersections visually and/or physically to indicate to drivers that they are entering a different space and need to slow down. Options range from fast and inexpensive (painting intersections a different color) to more time intensive and expensive (installing a textured material or raised crosswalks). Irregular surface patterns are not best suited for navigation by the physically or visually handicapped. Therefore, raised crosswalks should integrate wide-enough strips of even surface that are friendly to the physically or visually impaired.

Given that there are no stop signs or traffic lights in this section of Broadway, the safety of pedestrian crosswalks can be improved by installing a specific type of crosswalk signal, known as Rectangular Rapid Flash Beacons (RRFB), Light Emitting Diode (LED) Rapid-Flash System, and Stutter Flash or LED Beacons (see Figures 8.4 and 8.5). These signals are user-activated amber LED signal lights that supplement warning signs at unsignalized intersections or mid-block crosswalks. Pedestrians can activate them manually by push button, or the signals can function passively via a pedestrian detection system. Examples of these crossing features can be found at intersections in other parts of

Somerville. The height of these signals would be especially useful in spaces where driver visibility is reduced, such as points at which the hill crests. These signals should also be audible in order to increase accessibility for the visually impaired. According to the Federal Highway Administration, costs are approximately \$10,000 to \$15,000 for purchase and installation of two units (one on either side of a street). More information can be found on the FHA website.



Figure 8.4: Rectangular Rapid Flash Beacon
Source: www.tapcosignal.com



Figure 8.5: Rectangular Rapid Flash Beacon push-button
Source: Cindeka Nealy/Reporter-Telegram, www.mywesttexas.com



Figure 8.6: Broadway with proposed living wall



Figure 8.7: A green wall softens this harsh edge

ESTABLISHING A DESTINATION

The above-mentioned recommendations significantly alter the physical scale of Broadway. However, people still need additional motivation to seek out and take advantage of public space. The following recommendations build upon the existing conditions, turning obstacles into assets.

The lack of cross streets along the north side of Broadway presents a unique opportunity for

pedestrians and cyclists to walk or ride for six uninterrupted blocks. To be protected from thru-traffic in this manner is incredibly rare in an urban environment.

Multiple strategies can be applied to the wall to make the shared pathway more pleasant to walk along. The first is a living, vegetated wall, similar to that recommended in SomerVision. In addition to being visually appealing, it would also improve

air quality and act as a traffic noise buffer. The second approach uses the wall as space for murals to tell the history of the neighborhood (see Figures 8.6 and 8.7). Using both of these strategies would be ideal, as one goal of the linear park is to make the space as interesting and engaging as possible. It is important to maintain clear visibility of the pathway from the street to ensure people feel comfortable and safe. Decisions around landscaping should be based

on preserving lines of sight at eye level. The pathway should also be adequately illuminated at night.

Pedestrians and cyclists who are typically deterred by the incline of Winter Hill might consider traveling along Broadway if they are aware of the opportunity to take in the views of Boston afforded by the natural topography (see Figure 8.8). The wall offers an ideal vantage point. The addition of visible signage and seating will make it recognizable and comfortable.

The linear park is a long-term infrastructural undertaking. For the sake of comparison, the 13-block Divisadero Streetscape Improvements Project in San Francisco cost \$6.5 million and took approximately two years to complete. The project was funded through a combination of a Transportation for Livable Communities (TLC) federal grant, local matching funds, and the American Recovery and Reinvestment Act (ARRA). Improvements consisted of new curb extensions, median widening, landscaping and irrigation, lighting fixture upgrades, new street trees, site furnishings, and street resurfacing. More information is available on the San Francisco Department of Public Works website. The cost of the Broadway linear park could be higher or lower, depending on a range of factors.



Figure 8.8: View of the Boston skyline from top of the Frontage Road wall near Broadway and Main St.

HISTORY & IDENTITY

There are numerous historical sites throughout our study area, that present an opportunity to strengthen community identity and establish the area as a destination. Paul Revere Park, at the intersection of Main Street and Broadway, is the most well known of these historic sites. Like most others scattered across the neighborhood, however, it is small and poorly marked. It is easy to walk past the smallest parks in Somerville without noticing the plaques commemorating Paul Revere's Midnight Ride, the Winter Hill Fort, and Anne Adams-Tufts, due in part to fencing, lack of signage, and poor maintenance.

Our plan recommends that Paul Revere's plaque be repositioned toward Broadway so it is more visible to pedestrians. An accompanying educational plaque would help orient passersby and provide additional historical context and information. Adding a distinctive color to the

park, through markers, signage, or a flag, will further help it stand out from its surroundings.

Nearby Hansen Park on Medford Street serves as an example of good signage. Another option would be to mark the actual route of the Midnight Ride with extended cobblestone paths similar to that of the Freedom Trail in Boston (see Figure 8.10). To celebrate local heritage and history, we recommend an "experiential history walk" that follows the path of Paul Revere's Midnight Ride, connecting with other historic sites along the way. One option would be to incorporate the history walk into the linear park and pathway.

FUNDING FOR PAUL REVERE PARK

The city should coordinate with The Paul Revere House in Boston downtown or with The Paul Revere Memorial Association for community events like an experiential historical walk in remembrance of Paul Revere Day.



Figure 8.10: Precedents for marking historical significance: Henry O. Hansen Memorial Park (top) and the Freedom Trail (below)



Figure 8.9: Paul Revere Park

WAYFINDING

One of our recommendations is to install a wayfinding element at the intersection of Broadway and Main Street for pedestrians, bicyclists, and drivers to locate themselves. Arrows toward Magoun Square, Temple Square, and School Street should indicate direction to travellers. A map of the neighborhood, referencing the Somerville Museum and Paul Revere Park would aid connectivity, since this specific area is between Winter Hill and Magoun Square.

FUNDING FOR WAYFINDING

Installing wayfinding signage and markers is relatively inexpensive. As with street furniture, we believe this low-cost and highly effective installation can be done throughout the city.



Figure 8.11: Sample directory signage

BRUNELLO SITE

In its current state, the vacant Brunello Bistro is surrounded by a parking lot, eliminating the opportunity for it to contribute to street life. Former customers have cited the atmosphere of the site as a major detraction. Given this quality, prospective tenants may also be deterred from locating here if the existing conditions persist. Despite these challenges, the location of this property provides an incredible view of the Boston skyline and presents a prime opportunity to attract development. Uses could include another restaurant or coffee shop that would be able to capitalize on outdoor, street-front space with a view.

Although the success of this site depends largely on the prospective tenant and their business, the

City of Somerville can take a proactive approach by making alterations to the street infrastructure. As mentioned before, one of the parking lot's two entry points curves across the front of the site. Demonstrated in Figures 8.12 and 8.13, this driveway could be diverted to create open space. However, the proposed alteration will only work if a section of the median on Broadway is removed to accommodate the change in site entry and exit. This would be costly, but worthwhile if the site is able to attract a destination business.

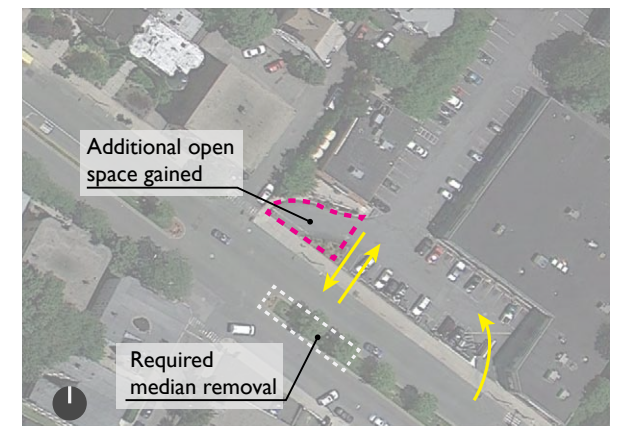
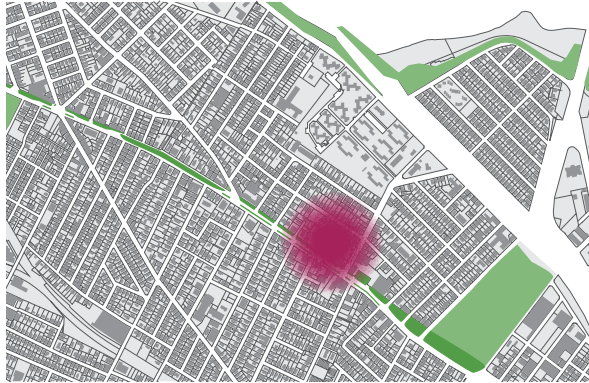


Figure 8.12: Circulation at the Brunello site; current conditions (left) and proposed changes (right)



Figure 8.13: Proposed redesign of the Brunello facade and parking lot

IX. TEMPLE SQUARE



Temple Square, the commercial area surrounding the intersection of Broadway and Temple Street, is the heart of Winter Hill. This neighborhood is noteworthy for its interesting architecture, excellent views of the Boston skyline, and local businesses, many of which have been there for decades. It serves as a major connector from Somerville to the region, especially via nearby Mystic Avenue and I-93. There are several major sites in the neighborhood that could serve as catalysts for redevelopment, including the abandoned Star Market on the corner of Broadway and Temple. Further, there are multiple opportunities to treat Broadway itself to promote neighborhood cohesiveness and pedestrian activity.

POTENTIAL STAR MARKET INTERVENTIONS

The Star Market grocery store on Broadway has been closed since 2007. Given its prominent location in the neighborhood and its considerable

size, the City of Somerville considers this location a key opportunity for development in Winter Hill.

The building is currently oriented such that the entrance faces the parking lot and a blank wall fronts Broadway. Its configuration amounts to a large, undifferentiated space with one main point of egress facing away from the main roadway. This type of orientation is more appropriate for a car-dominated, suburban setting rather than a dense urban neighborhood like Winter Hill.

SHORT-TERM INTERVENTIONS

There are several intervention options for this site that could result in a more appropriate buildout for the neighborhood context. A quick, low-cost intervention would utilize the existing building for a new market or other large retail use, but convert a portion of the building fronting Broadway into small retail stores with entrances facing the street (see Figures 9.1 and 9.2). While the majority of the building would remain in its current form, pedestrian-oriented retail facing Broadway would bring a diversity of scales and users to the neighborhood. This will help invigorate economic activity in the area irrespective of whether the retail store is big-box or locally owned, and the local economy will benefit because of its spillover effects. The change in orientation from the parking lot to the street would help create a more vibrant environment that is friendly to pedestrians, matching the building forms across Broadway and thus bridging the currently existing gap between the two sides of the street.



Figure 9.1: Existing condition with egress from parking lot (above) and low-density option adding street access (bottom)

LONGER-TERM INTERVENTIONS

A more expensive and longer-term intervention would involve demolition of the existing Star Market building and incorporation of additional land parcels for new mixed-use development. Figure 9.3 illustrates potential built form of this development. Existing buildings are shown in gray and proposed buildings are shown in white. Orienting buildings toward the street helps

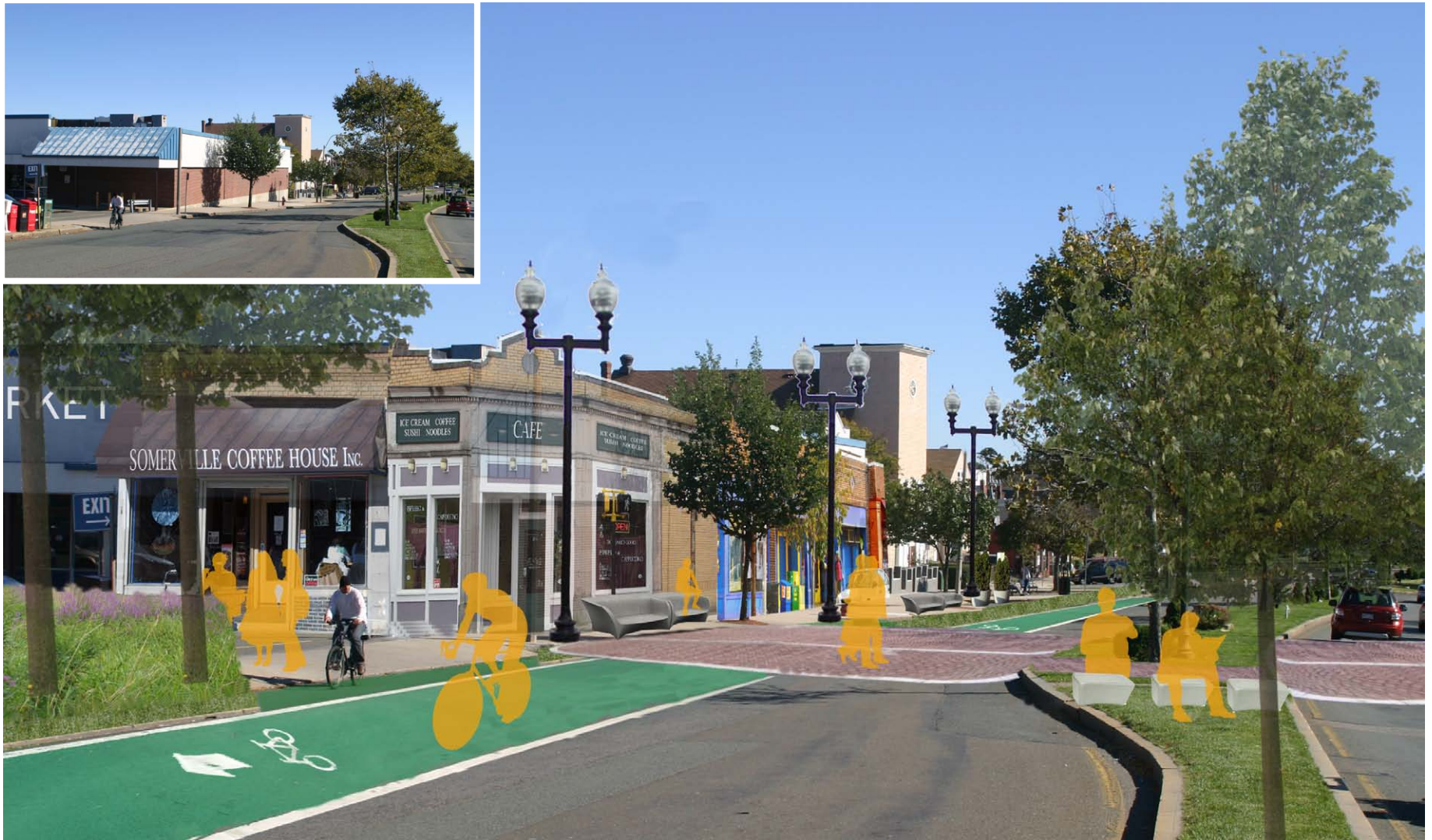


Figure 9.2: Low density option with retail frontage on Broadway

build a pedestrian-friendly character. Building heights would increase, taking advantage of the maximum allowance under current zoning law (55 feet). This height option accommodates a variety of configurations from three- to five-stories. The City of Somerville is currently in talks with the property owner of the three lots at the northeast corner of Broadway and Temple to build a four-story mixed-use building. This is reflected on the West edge of Figure 9.3, and complements the vision for the Star Market site. The buildings in the Star Market lot as shown provide approximately 29,000 sf of retail and 96,000 sf of residential floor space. The building on the northeast corner of Broadway and Temple as shown provides approximately 13,000 sf of retail and 45,000 sf of residential floor area.

PUBLIC REALM/LINEAR PARK

Consistent with the plan's goals to create a public realm where residents feel connected to their community and visitors feel welcome, the recommendations for Temple Square incorporate public and green spaces (See Figure 9.4). The linear park along Broadway will continue east, past Temple Street and parallel to the existing landscaped medians on Broadway. This is an important intervention intended to break up the enormous width of Broadway to make it safe and comfortable for pedestrians to cross. In addition, one of the proposed buildings on the Star Market site is set back from the street in order to extend green space of the linear park. Finally, the building at the northeast corner of Broadway and Temple is also set back at the corner to create additional public space.



Figure 9.3: Star Market build out scenario with linear park

To better serve other modes of transportation, bike lanes run along both sides of Broadway (see Figure 9.3 and 9.4). Raised crosswalks slow cars, creating a safe and comfortable space for pedestrians to cross the street. The landscaped median also serves as a pedestrian refuge for two-stage crossings (from one side of Broadway to the median and from the median to the other side of Broadway). The addition of these public and green spaces helps reaffirm the pedestrian- and neighborhood-oriented nature of these recommendations.

The inset image in Figure 9.5 shows an existing aerial view of the Star Market site, and Figures

9.5 and 9.6 illustrate different options for the future mixed-use development on this site. All of the options include taller buildings than currently existing, building frontage along Broadway, the extension of the linear park, and new bike lanes. The exact architectural styles would depend on the developer and the architect, but these options give a sense of what the future neighborhood might look like. First-floor retail stores oriented toward Broadway and the addition of the linear park, bike lanes, improved crosswalks, and more open space all ensure the taller building heights do not take away from the pedestrian scale of the neighborhood.



Figure 9.4: Linear park at Temple Street

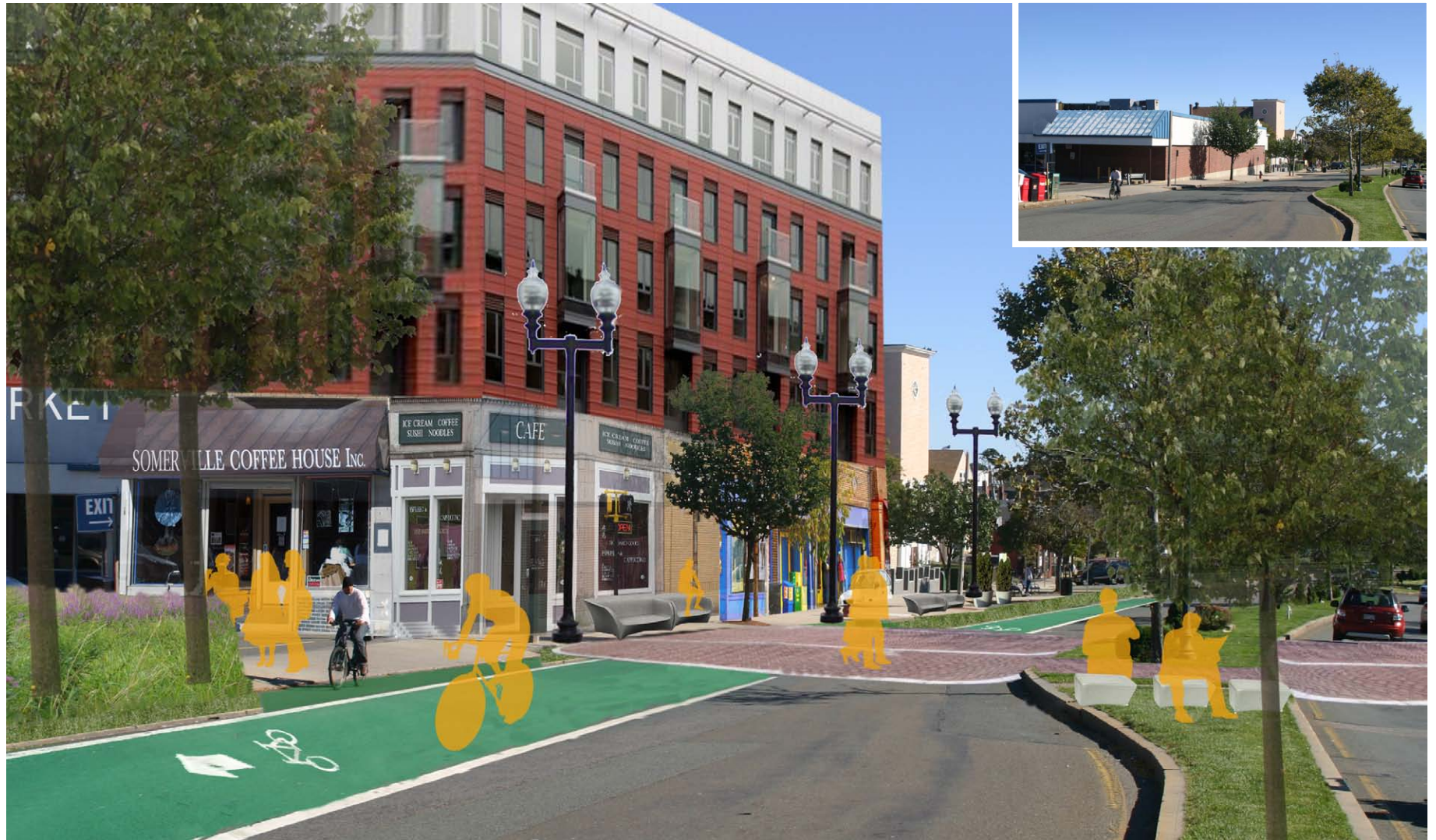


Figure 9.5: Full buildout permitted under zoning

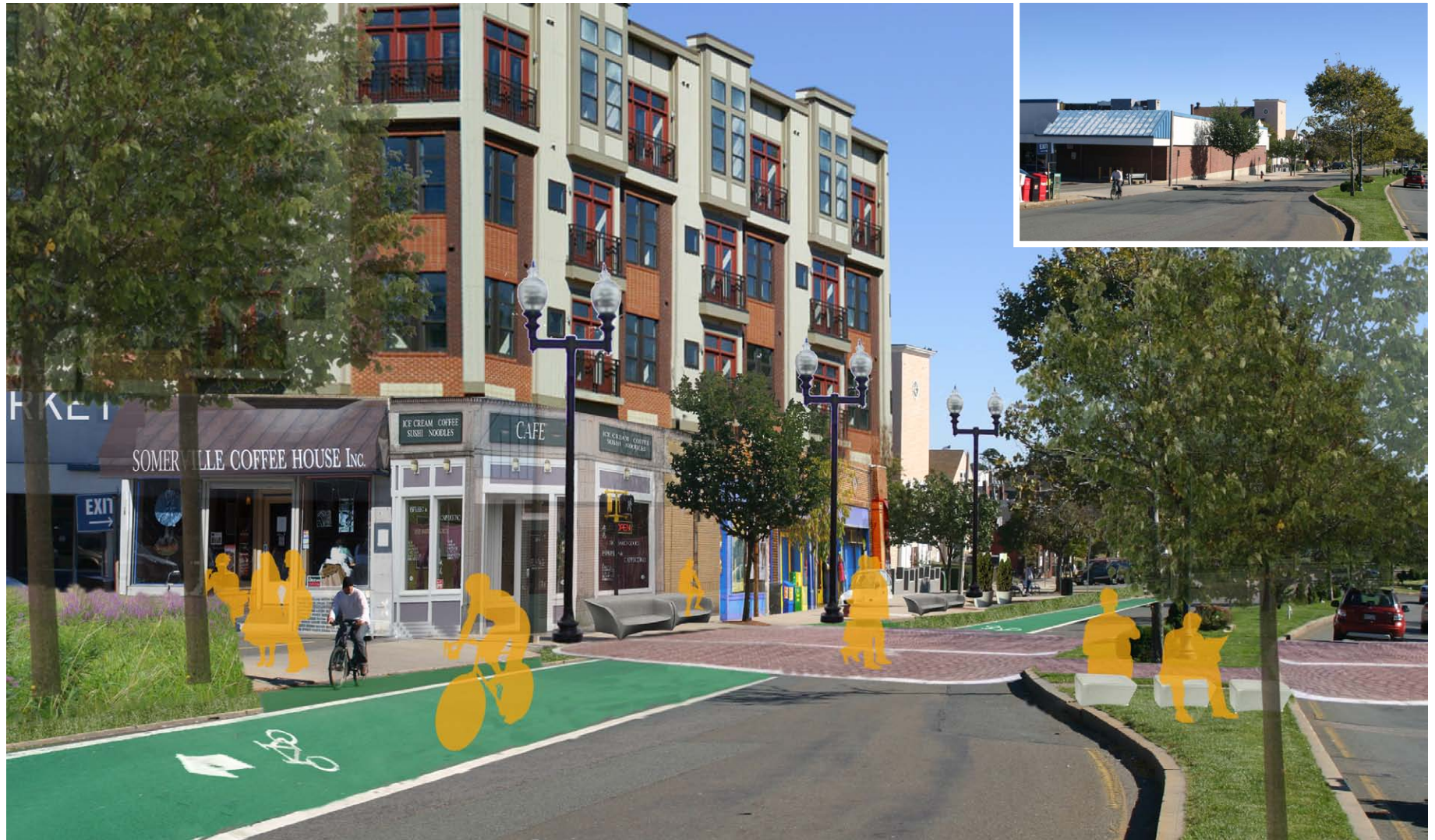


Figure 9.6: Another mixed-use option for higher density built-out

FLEXIBLE SPACE

The widest stretch of Broadway is between the former Star Market and Foss Park (see Figure 9.8). The dramatic width makes it daunting for pedestrians to cross here. In addition, the traffic signal at the Broadway/Walnut Street intersection directs pedestrians to walk while traffic is still oncoming.

The configuration of medians and current parking arrangement result in an inefficient use of space. There is parallel parking along Broadway on the north side of the street, as well as off-street parking. A rarely-used pocket park directly adjacent to Foss Park is redundant.

Figure 9.8 details recommendations for this section of Broadway. The proposal for redevelopment provides a smooth transition from Foss Park to the start of the linear park, which will run along the entire length of Broadway. Removal of the median separating lanes of traffic and the parallel parking along the north side of Broadway creates more space on the north side and effectively narrows the street to a more manageable crossing distance for pedestrians. This flexible space does not decrease currently available off-street parking, but actually provides them better access to area businesses. The off-street parking area is converted to a flexible space where cars and pedestrians can safely occupy the same area as needed. Hard-paved areas are provided where people can linger. The redesign provides separation for northeast-bound (towards Magoun Square) bicyclists from vehicular traffic through a landscaped barrier.



Figure 9.8: Flexible space with off-street parking

The estimated cost of redesigning this space is approximately \$1 million. This is largely due to the cost of incorporating permeable surfaces. Permeable surface requires digging deeper, which often results in having to relocate utilities. Using brick pavers (about \$25 per square foot) would

slightly reduce costs. Renovation costs could be further reduced if the permeable surface is replaced with asphalt or stamped asphalt. The total project cost would then range from roughly \$150,000 to \$350,000, for plain asphalt and stamped asphalt, respectively.



Figure 9.9: Public space is augmented and activated with plantings and surface treatment

SIGNAGE IMPROVEMENTS

Improved signage is essential for Winter Hill to achieve its full potential as a vibrant urban neighborhood and meet the vision for an engaging public realm where residents feel connected and visitors feel welcome. It also serves as a short-term recommendation that can have a significant impact on the neighborhood. The current signage does not signify arrival at a place of interest and does not convey a sense of uniqueness.

Temple Square represents the best of a classic old-style city neighborhood commercial center. Its compact commercial area is designed to serve surrounding residential areas. At the same time, it is connected to the larger city and region through Broadway and Mystic Avenue at the other end of Temple Street. Signage should emphasize this strength and accentuate what this neighborhood center has to offer.

BUILDING ON STRENGTHS

Some commercial signs in Winter Hill work well and add to the character of the neighborhood. The sign at Leone's Sub and Pizza (see Figure 9.10), for instance, is iconic. It has a historical, golden age feel, and is well maintained. The sign manages to draw visitors towards the business while creating a sense of place and scale for both pedestrians and drivers. Other distinctive signs include that on the south corner of Broadway and Sargent Avenue and that for M. James Coiffeur (see Figure 9.10) along Temple just north of Broadway.



Figure 9.10: Signs in need of emphasis (left) and iconic signage drawing in passersby (right)

Key Winter Hill businesses, especially those that are longstanding and indicative of the neighborhood's ethnic diversity, should be modeled after the Leone's sign in scale and design. For instance, even though the Winter Hill Bakery attracts customers from the neighborhood as well as devotees from elsewhere, the signage is almost imperceptible, especially from afar. The Moe Wen Fencing Club sign is another example of underemphasized signage. Signs that do

not contribute to sense of place, such as the billboard above Winter Hill Liquor Mart and the suburban-style sign at Winter Hill Plaza, should be de-emphasized.

Signage for storefronts would be at private expense, but for frame of reference, the cost of a new sign would range from \$1,500 to \$15,000.

AMEND THE SIGN ORDINANCE

Signage for businesses around Temple Square is particularly important. One key to the success of Winter Hill is drawing residents in from neighborhoods north of Broadway and residents and commuters traveling along Mystic Avenue. Accordingly, as one travels south on Temple Street between Mystic and Broadway, there should be visual cues that indicate one is approaching a place of interest. Much of this can be accomplished by improving the signage associated with unique businesses located at this intersection. In order to accomplish this, signs for small businesses should emulate the retro, colorful character of the Leone's sign to establish a sense of arrival in a diverse and vibrant place.

In order to accomplish this, the City should amend the Somerville Zoning Ordinance with respect to signage regulations. Specifically, Section 12.4.1(b) of the Zoning Ordinance regulates wall signage attached parallel to buildings in nonresidential districts. The provision provides that such signage is permitted so long as it conforms to the following:

“A wall sign attached parallel to a building which projects no more than fifteen (15) inches from the building surface, provided that the top of such sign is no higher than whichever of the following is lowest:

- Twenty-five (25) feet above grade;
- The top of the sills of the first level of windows above the first story;
- The lowest point of the roof surface except in the case of a one-story building with a continuous horizontal parapet, the top of said parapet.”



Figure 9.11: More prominent signs alert pedestrians and motorists that they've arrived at a destination

The effect of this provision is to prevent signs that extend above the roof of a commercial establishment. While this restriction is logical in many contexts, Winter Hill would benefit from consistent, decorative, above-roof signs that assist in wayfinding, especially above the building

at 310-318 Broadway. This structure is a series of connected, one-story shops that is visible across Broadway from Temple Street. Figure 9.11 illustrates an example of what could be possible if signage regulations were relaxed to permit above-building signage at this intersection.

BUTLER DRIVE STREET EVENTS

The vacant St. Polycarp site presents an opportunity to create a northern gateway from Mystic Avenue to Temple Square. To generate interest in the site and support commercial establishments along Mystic Avenue, Butler Drive, a short, one-block connector street, can be closed off to thru-traffic on a weekly or monthly basis for community events such as farmers markets, craft fairs, or block parties. These events would bring residents together and highlight its distinct culture. Semi-regular street closures are inexpensive and highly visible ways to activate dormant sites, engage community members, and attract non-locals to the neighborhood. A successful programming of the space may also spark redevelopment interest in the St. Polycarp school building, which could become a neighborhood landmark.

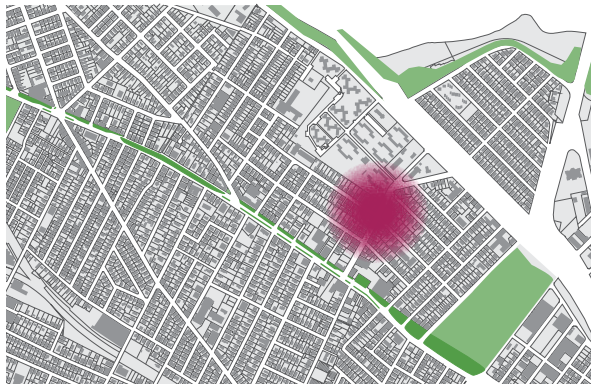


Figure 8.14: Proposed closure of Butler Drive at St. Polycarp

CREATE PEDESTRIAN DIRECTORY SIGNS

A final problem with the existing signage in Winter Hill is that pedestrian shopping activity is discouraged due to a lack of wayfinding for small businesses. One reason that small businesses benefit from location in a commercial area is the capture of spillover from patrons of other businesses. There are many unique businesses in Winter Hill, including those that reflect the neighborhood's tremendous diversity. Those businesses would benefit if customers who walked or drove to Winter Hill for larger anchor businesses were informed of their presence and proximity. Several businesses, such as the Moe Wen Fencing Club, a major fencing facility, and Shivalic Food + Spices, one of the only South Asian markets in the area, are within feet of the major businesses in Winter Hill, but might not be noticed by a casual shopper.

To address this problem, the neighborhood would benefit from directory signs placed at intersections, in front of major businesses, and in parking lots. Examples of directory signs are shown in Figure 9.12. These signs would alert shoppers and neighbors to the diversity of businesses within Winter Hill and provide directional indicators to guide them there. Improving the directory signage would help support local businesses as well as help both residents and visitors with wayfinding.



Figure 9.12: Wayfinding directory signs that work for both pedestrians and motorists



This plan has imagined some of the many possibilities open to the neighborhoods of Magoun Square and Winter Hill. In summary, we recommend:

- Narrowing Broadway to create a linear park and to improve pedestrian accessibility in both Magoun Square and Winter Hill
- Using vacant storefronts as a vehicle for promoting the arts in Magoun Square and Winter Hill and creating a more welcoming environment for reinvestment
- Building upon the City of Somerville's Urban Forest Initiative and stormwater policies to support runoff reduction and air quality improvement measures
- Amending the Zoning Ordinance to make Neighborhood Business Districts more contextually appropriate
- Creating a comprehensive vision for private investment in the Winter Hill commercial area
- Encouraging new and improved signage to benefit both residents and visitors

The tables on the following pages summarize our short-, medium-, and long-term recommendations.

TIMEFRAME	PLAN CHAPTER	RECOMMENDATION	APPROX. PROJECT COST not including city staff time	POTENTIAL PARTNERS	OUTSIDE FUNDING SOURCES	COST SOURCE
SHORT (0-1 year)	Streets	Line painting (pedestrian crossings, bike lanes, etc.)	\$0.00645 - \$2.3475 per linear ft	Traffic & Parking Department	MassDOT, MAP-21	1
	Streets	Reduce pedestrian crosswalk wait times and increase pedestrian signal duration	n/a	Traffic & Parking Department		
	Streets	Wayfinding	TBD	Main Street program executive directors, Traffic & Parking Dept.		
	Streets	Introduction of banners on streetlights	\$175-200 per banner	New main street organizations		
	Environment	Prioritize tree plantings/maintenance near major roads	n/a	Urban Forest Initiative, Somerville Housing Authority		
	Environment	Outreach regarding green infrastructure and air quality	n/a	Groundwork Somerville, Somerville Climate Action, CAFEH		
	Public Space	Use streets as public space: Butler Drive event closure	n/a	St. Polycarp's Village, Somerville Housing Authority		
	Public Space	Introduction of new festivals / events	n/a	Residents, Somerville Arts Council		
	Economic Development	Assess volunteerism for a Winter Hill Main Street program	n/a	Main Street program executive directors		2
	Economic Development	Survey residents regarding desired commercial development	n/a	n/a		
	Magoun Square	Dunkin Donuts outdoor seating	Encourage private investment	Property owner	Storefront Improvement Program (block group eligibility)	
	Magoun Square	Dunkin Donuts landscaping along sidewalk	\$25-\$50 per shrub	Property owner		3
	Magoun Square	Textured paving at pedestrian cross walks	\$7-\$8 per sq ft	MassDOT		4
	Temple Square	Change signage ordinance	n/a	n/a		
	Temple Square / Magoun Square	Encourage new signs	Private cost of \$1,500 - \$15,000 per sign	Storefront Improvement program, store owners		5
	Temple Square	Directory signage	\$1,500-\$15,000 per sign	n/a		5

COST SOURCE	LINK
1	http://www.thesomervillenews.com/archives/19071
2	http://www.preservationnation.org/main-street/about-main-street
3	http://www.ncdot.gov/bikeped/download/bikeped_planning_albemarle_AppendixE.pdf
4	http://www.bentonvillear.com/docs/planning/traffic_calming_guidebook.pdf
5	http://www.howmuchisit.org/how-much-do-signs-cost/

CONCLUSION

TIMEFRAME	PLAN CHAPTER	RECOMMENDATION	APPROX. PROJECT COST not including city staff time	POTENTIAL PARTNERS	OUTSIDE FUNDING SOURCES	COST SOURCE
MEDIUM (1-5 years)	Streets	Study area Hubway stations	n/a	Hubway		
	Streets	Traffic calming (Speed bumps, raised intersections etc... - See Appendix A-2)	TBD	Traffic & Parking Department		
	Environment	Coniferous screen and living wall along Mystic-I-93	\$250 - \$650 per tree	MassDOT, CAFEH		6
	Environment	Infiltration planters	\$8 per sq ft & .80-\$1 per sq ft per year	Mystic River Watershed Association, DPW, EPA	Fees, federal funds, sewer system budget	7
	Public Space/ Environment/ Broadway Corridor	Broadway linear park & bioswale	\$4-\$7 million	DCR, Parks Department	MAP-21, Somerville's Community Preservation Act; Transportation for Livable Communities Federal Grant	8
	Economic Development	Winter Hill Main Streets program	n/a	Main Streets program executive directors	Somerville Main Streets program foundation	9
	Economic Development	Magoun Square storefront arts program	\$250-\$1,000 artists fee per installation, plus insurance	Somerville Arts Council, Main Streets program or neighborhood business association	Local Cultural Council (LCC) Grants	10
	Zoning	Amend use/dimensional requirements	n/a	n/a		
	Zoning/Parking	Amend parking requirements in zoning ordinance	n/a	n/a		
	Parking	Develop municipal shared parking strategy	n/a	Traffic & Parking Department		
	Magoun Square	Dunkin Donuts reorganization of vehicular traffic	\$30,000-\$40,000 for new curb cuts	Property owner, Traffic & Parking Department		11
	Magoun Square	Extension of Broadway median	\$15,000 - \$20,000 per 100 SF	Traffic & Parking Department	MassDOT, MAP-21	11
	Broadway Corridor	Removal of street median and new curb cut in front of Brunello site to allow newly aligned access to site and creation of parkette	TBD	Traffic & Parking Department		
	Broadway Corridor	New flashing LED pedestrian signal lights at unsignalized lights or mid-block crosswalks	\$10,000-\$15,000 per crossing	Traffic & Parking Department	MassDOT	
	Temple Square	Triage or mixed-use option for Star Market site	Private cost	Private developers		

TIMEFRAME	PLAN CHAPTER	RECOMMENDATION	APPROX. PROJECT COST not including city staff time	POTENTIAL PARTNERS	OUTSIDE FUNDING SOURCES	COST SOURCE
LONG (more than 5 years)	Streets	New southwest-to-northeast bus route	\$250,000 per year	MBTA		12
	Environment	Foss Park bioretention and infiltration	\$10-\$12 per sq ft for bioretention	DCR	Fees, federal funds, sewer system budget	13
	Magoun Square	Dunkin Donuts future build-out	Private cost			
	Magoun Square	Broadway infill	Private cost	City of Medford		
	Magoun Square	Medford St infill	Private cost			
	Temple Square	Broadway flexible space	\$150,000-\$1 million	Area storeowners and landowners	MAP-21	
	Broadway Corridor	Historical identity / connection to Paul Revere legacy	n/a	Paul Revere House, Paul Revere Association		
	Broadway Corridor	Narrowing / Re-engineering sections of Broadway	TBD			
	Broadway Corridor	Brunello Bistro street frontage redevelopment	TBD	Private developer, City of Somerville		
	Temple Square	Broadway flexible space	\$150,000-\$1 million	Area storeowners and landowners	MAP-21	

COST SOURCE	LINK
6	http://somervilleresistat.blogspot.com/2011/07/why-is-city-paving-over-tree-sites-its.html
7	http://www.crwa.org/projects/bmpfactsheets/crwa_stormwater_planter.pdf
8	http://sfdpw.org/index.aspx?page=101
9	http://www.preservationnation.org/main-street/about-main-street
10	http://www.seattle.gov/arts/email/space/02_01_12.html
11	http://www.mdt.mt.gov/publications/docs/brochures/bozeman_tranplan_study_chap8.pdf
12	Estimated from the MIT Saferide shuttle budget, MIT Transportation Office
13	http://www.crwa.org/projects/bmpfactsheets/crwa_raingarden.pdf

KEY FUNDING SOURCES

As our major publically funded proposal is a pedestrian and bike project along Broadway, we want to call attention to possible sources of capital for this project: federal MAP-21 grants and Somerville's Community Preservation Act.

There have been recent changes in federal legislation dealing with transportation funding. Congress passed MAP-21 (Moving Ahead for Progress in the 21st Century) in June 2012. It is a two-year bill that extends funding at current levels but also reorganizes some of the program definitions. Most relevant for this project is the designation of a new Transportation Alternatives Program that combines a number of programs including: (1) Transportation Enhancements and (2) Safe Routes to Schools.

The total budget for Transportation Alternatives under MAP-21 is \$808 million per year, distributed across all states. Funding is available in two different ways: one distributed by population and one via grants.

The Boston Metropolitan Planning Organization will receive the population-distributed funding and is responsible for running a competitive grant process. Local governments are eligible to apply for this money. The City of Somerville will also be eligible to apply directly for the funding through the grant program run by the Massachusetts Department of Transportation.

All projects are subject to an 80% federal/20% local matching structure.

Relevant qualifying project types are:

- Construction, planning, and design of on-road and off-road trail facilities for pedestrians, bicyclists, and other non-motorized forms of transportation, including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure, and transportation projects to achieve compliance with the Americans with Disabilities Act of 1990
- Construction, planning, and design of infrastructural projects and systems that will provide safe routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needs
- Any environmental mitigation activity, including pollution prevention and abatement activities to address stormwater management and water pollution prevention, especially that related to highway construction and runoff

Safe Routes to School (SR2S): Infrastructural projects that include the planning, design, and construction of public roads, bicycle or pedestrian pathways or trails in the vicinity of schools that will substantially improve the ability of students to walk and bicycle to school.

Somerville already has a Safe Routes to School program in place, with a designated coordinator, as part of the Shape Up Somerville initiative. Given the safety concerns associated with students crossing Broadway, we recommend

collaborating with the program on plans for the Broadway linear park.

In addition, Somerville's residents recently voted to approve "Question 4," or the Community Preservation Act (CPA). CPA establishes a 1.5% surcharge on property taxes to fund projects in the city. CPA funds apply to open space, historic preservation, and affordable housing.

The estimated funds raised by the tax in the first year amounts to about \$1.2 million. Somerville is eligible to receive matching funds from the state of at least \$0.22 on the dollar.

Somerville will be establishing a Community Preservation Fund that would be managed by a local committee. Government and non-profit groups can apply to the committee. The committee will make recommendations and the Somerville Board of Alderman will have the final say to approve projects. CPA funds may be spent on the acquisition, creation, and preservation of open space. They may also be spent on improvements to outdoor recreational spaces such as trails. The City should capitalize on the opportunity to make the linear park eligible for these funds.

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APPENDIX LIST

STREETS (Chapter 1)

A-1 Bus Route Changes & Services

A-2 Traffic Calming Guidelines

ECONOMIC DEVELOPMENT (Chapter 4)

B-1 Business Mix Comparison

B-2 Comparative Survey of Businesses

B-3 Main Street Program Description

B-4 Storefront Arts Program

B-5 Strategies for Addressing Landlord
Engagement

ZONING (Chapter 5)

C-1 Neighborhood Business District
Selected Uses

C-2 Commercial Corridor District
Selected Uses

STREETS

A-1 BUS ROUTE CHANGES & SERVICES

Unless altered, buses that serve Winter Hill will not connect the future Green Line stations in the study area to the Orange and Red rail networks in Somerville and Medford. According to plans for the first phase of the project, only two bus routes, 80 and 89, will provide services to the new stations.

In order to capture the value of the new Green line, we recommend the introduction of a new bus route, which will provide service between the Red and Orange Line via the new Assembly Square station and Porter Square station. This new route will begin from Assembly Square, proceed along Mystic Avenue to Temple Street, head south to Broadway, west to Central Street, south to Somerville Avenue, arriving at Porter Station. The return route would travel via Lowell and Medford Streets and turn east at Broadway in Magoun Square, continuing to Temple Street and Mystic Avenue to Assembly Square.

It should be noted that this route can potentially connect to the future Green Line Station at

Lowell. Additional detailed studies will be needed to determine the final alignment, in which geometric considerations for the existing road network, redundancy of services, origin and destinations of trips, amongst other factors, are taken into consideration.

When designing the route consider:

- Levels of service
- Accessibility to station ($\frac{1}{4}$ to $\frac{1}{2}$ mile)
- Travel times
- Transit fares
- Reliability - adherence to published schedules
- Convenience - nearby, frequent services with good public information
- Comfort
- Safety
- Site Design Characteristics

A-2 TRAFFIC CALMING

Traffic calming infrastructure is intended to improve traffic safety and quality of life in neighborhoods. Traffic calming is defined as the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users (Institute of Transportation Engineers, 1997).

The Institute of Transportation Engineers and the Federal Highway Administration classify traffic calming measures in four types:

- Vertical deflections (speed bumps, speed table, raised intersection)
- Horizontal shifts (traffic circle, chicane)
- Roadway narrowing (choker, center island)
- Closures (diagonal diverters, half closures, full closures, and median barriers)

Generally, the first three measures are intended

to reduce speed and enhance the street environment for non-motorists, while the latter are intended to reduce cut-through traffic by obstructing traffic movements in one or more directions.

Traffic calming measures are not appropriate for all locations and should be installed to address documented safety and traffic concerns supported by traffic engineering studies. In order to determine the eligibility of a location, the full array of potential improvement actions need to be considered. The following considerations should be addressed:

- Citizen Support
- Traffic Advisory Committee
- Street Classification
- Traffic Volumes
- Traffic Speeds
- Geometric Data

- Accident History
- Public Safety Agency Input
- Alternative Traffic Calming Measures
- Implementation Plan
- Final Report Approval
- Evaluation Plan

The functional objectives of traffic calming measures are to: (1) reduce vehicle speeds, (2) reduce the number and severity for motor vehicle accidents, (3) increase safety for non-motorized users, (4) reduce the need for police enforcement, (5) enhance the street environment, (6) increase access for all modes of transportation, and (7) reduce cut-through motor vehicle traffic.

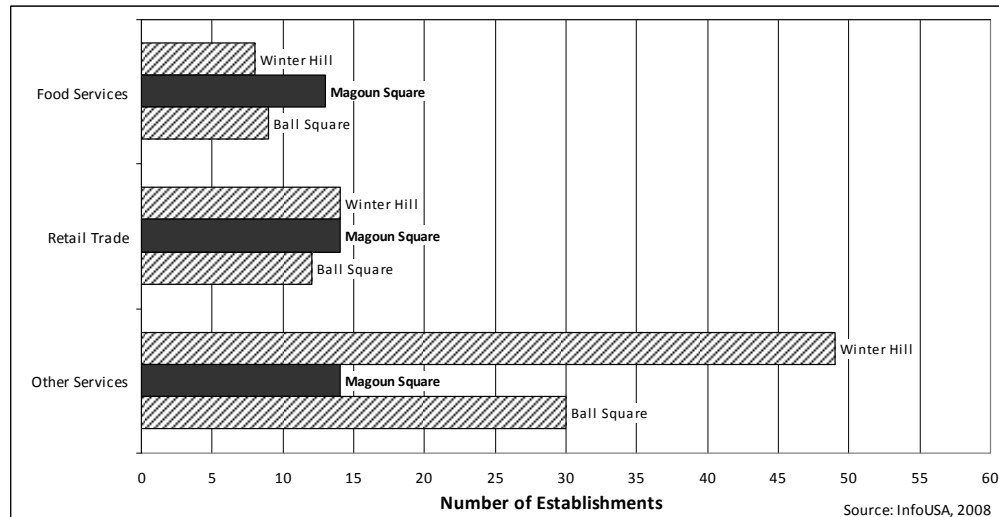
Based on the Institute of Transportation Engineers and a study done by the Street Transportation Division of the City of Phoenix, AZ, the following generalized assessment of traffic calming measures is presented.

Traffic Management Device	Traffic Reduction	Speed Reduction	Noise and Pollution	Safety	Traffic Access Restriction	Emergency Vehicle/Access	Maintenance Problems	Level of Violation	Cost
Speed Humps	Possible	Limited	Increase	No Documented Problems	None	Minor Problems	None	N/A	Low
Stop Signs	Unlikely	None	Increase	Unclear	None	No Problems	None	Potentially High	Low
No Left/No Right Sign	Yes	None	Decrease	Improved	No Turn(s)	No Problems	Vandalism	Potentially High	Low
One-Way Street	Yes	None	Decrease	Improved	One Direction	One Direction	None	Low	Low
Chokers	Unlikely	Minor	No Change	Improved for Pedestrians	None	No Problems	Truck Hit Curbs	N/A	Moderate
Traffic Circle	Possible	Likely	No Change	Unclear	None	Some Constraints	Vandalism	Low	Moderate
Median Barrier	Yes	None	Decrease	Improved	Right Turn Only	Minor Constraints	None	Low	Moderate
Forced Turn Channelization	Yes	Possible	Decrease	Improved	Some	Minor Constraints	Vandalism	Potentially High	Moderate
Semi-Diverted	Yes	Likely	Decrease	Improved	One Direction	Minor Constraints	Vandalism	Potentially High	Moderate
Diagonal Diverted	Yes	Likely	Decrease	Improved	Thru Traffic	Some Constraints	Vandalism	Low	Moderate
Cul-de-Sac	Yes	Likely	Decrease	Improved	Total	Some Constrains	Vandalism	Low	High

Generalized Assessment of Traffic Calming Measures (Institute of Transportation Engineers)

ECONOMIC DEVELOPMENT

B-1 BUSINESS MIX COMPARISON(LAMBOY 2011)



The above chart is drawn from the 2011 Magoun Square Business Planning Report, and was used to analyze daytime population characteristics (see page 50).

Appendix B-2 (Comparative Survey of Businesses) is an inventory of businesses in three nodes within our study area and in two nearby squares also not served directly by rail (Union Square, Inman Square). We gathered data for our study area in October and November 2011. Data on Union Square were taken from the Union Square Creative Uses Report (Crugnale 2008), and data on Inman Square were gathered from the InmanSquare.com website. An analysis of these data is available on pages 51-53 of this report (see Activity-Based Analysis of Commercial Uses). As some businesses could be described by more than one category (e.g., an office with client visits serving the arts), the number of businesses in each category is estimated. Two categories of businesses (education and hospitality) are omitted because education is not primarily commercial in function and because there are no hospitality uses in the study area.

B-2 COMPARATIVE SURVEY OF BUSINESSES: STUDY AREA, UNION SQUARE, & INMAN SQUARE

Category	Examples	Activity/Travel Behavior	Area	Estimated Number	Estimated Percentage
Convenience	Grocery, Pharmacy, Take-out/Drive-In Food, Banking, Laundry	Visited on the way to/from work; Can serve daytime employee population; Foot-traffic generation depends on local transit/walk share, accessibility, and level of daytime population	Magoun	8	17%
			Temple	17	29%
			Mystic	4	25%
			Union	20	13%
			Inman	11	11%
Shopper Goods	Apparel, Home Furnishing, Home Improvement, Misc. Special Retail (e.g. arts)	Can benefit from clustering that combines a destination business (anchor) & pass-by businesses that need foot-traffic; The goal is to create multi-stop shopping; multiple strategies are appropriate: Community Oriented / Destination District	Magoun	21	46%
			Temple	19	33%
			Mystic	8	50%
			Union	40	26%
			Inman	13	13%

Category	Examples	Activity/Travel Behavior	Area	Estimated Number	Estimated Percentage
Food and Beverage (Sit-down)	Cafes, Bars, Restaurants	Benefit from clustering with destination businesses and other activities with staying-power; Destination and/or Community-Oriented	Magoun	5	11%
			Temple	5	9%
			Mystic	2	13%
			Union	26	17%
			Inman	30	29%
Recreational Activities	Dance, Yoga, Health Training, Art/Music	Community-oriented; Destination uses: bring people to an area; Have staying power	Magoun	1	2%
			Temple	3	5%
			Mystic	0	0%
			Union	3	2%
			Inman	7	7%
Offices with Client Visits	Health Services, Design Firms, Professional: Law, Medical., Consulting, Professional Training	Creates daytime employee population and attracts client visits; Can be community-oriented but often serves a wider-market	Magoun	8	17%
			Temple	11	19%
			Mystic	0	0%
			Union	43	28%
			Inman	21	20%
Arts	Gallery/Performance Space, Live/Work Studio	Community-oriented; Some daytime population as well as catering to flexible schedules and after-work visitors	Magoun	0	0%
			Temple	1	2%
			Mystic	0	0%
			Union	10	7%
			Inman	4	4%
Industry/Manufacturing	Warehouse, Factory	Daytime population; Draws heavy vehicles	Magoun	0	0%
			Temple	0	0%
			Mystic	1	6%
			Union	1	1%
			Inman	1	1%
Auto Related	Gas Station, Auto Sales	Motorized-vehicle oriented	Magoun	2	4%
			Temple	1	2%
			Mystic	1	6%
			Union	8	5%
			Inman	4	4%

B-3 MAIN STREET PROGRAM DESCRIPTION

The Main Street Four-Point Approach® (National Trust for Historic Preservation 2012) is as follows:

1. **Organization:** One of the key goals of the program is to build partnerships among stakeholders. A governing board of directors and standing committees serve as the organizational structure of this volunteer-driven program. In addition to volunteers, the program also has a paid program director. An average-sized Main Street program has roughly 40-60 active volunteers and standing committees have approximately 5-10 people. The East Somerville program has a core group of about 20-35 people with an 18-member board.
2. **Promotion:** Another goal of the program is to create a positive image that bolsters community pride and helps build consumer and investor confidence.
3. **Design:** The program works to create an area in great physical shape that is safe and inviting for all users of the area. Good design helps convey a positive message.
4. **Economic Restructuring:** This strategy seeks to retain and expand successful businesses, sharpen business owners' skills, attract new businesses that can be supported in the market area, and convert unused/underused spaces.

The Main Street program has an impressive history of results. In 2011, \$53.6 billion from both public and private sources was reinvested in physical improvements, and there was a net gain of over 100,000 businesses and almost 450,000 jobs. The reinvestment ratio was \$18 of reinvestment for every \$1 spent.

The Main Street program does not provide any funding but does provide professional training, network access to other organizations, technical assistance, and national resources. Funding typically comes from sources such as the public sector, business/property owners, residents, and corporate/foundation grants. Annual budgets typically range from \$45k to \$100k. The East Somerville Main Street program has an annual budget of \$100k with two-thirds of the funding coming from a federal community block grant allocated to the program by the City. The Union Square program also receives \$67k annually from the City. The City has notified the executive directors that they might not be able to continue to provide funding for the two existing programs in the future, so new programs should aim to be financially self-sufficient.

The Main Street website lays out specific steps to get started using the official Main Street approach. The first step is to begin building support for a commercial revitalization program.

B-4 STOREFRONT ARTS PROGRAM

Existing Arts Funding Mechanisms in Somerville Local Cultural Council (LCC) Grants:

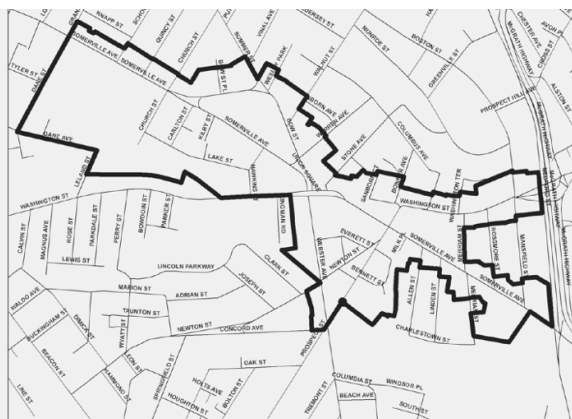
- Awarded by the Arts Council
- Funded by the Massachusetts Cultural Council
- Artist fellowships (\$1200 maximum) and Project and Education Grants (\$250-1500)

Arts Regulatory Mechanisms

ArtsUnion Arts Overlay District (AOD) - zoning categories and tools available (Curtatone 2009)

- Adopted in April 2009
- Clarifies definition of live-work use
- Defines a new artist's studio use
- Clarifies studio space as a "Home Occupation"/ accessory residential use
- Establishes an artist certification program
- 25% FAR bonus for deed-restricted Artist Live/ Work space in the AOD RA/RB zones
- 50% FAR bonus for deed-restricted arts-related uses in the AOD non-residential zones

JOINT MARKETING APPROACH



Boundaries of the Union Square Arts Overlay District (Curtatone 2009)

A business association or Main Street program would provide the framework for community involvement to ensure that properties are matched with appropriate arts uses. Every two to six months if the storefront is still up for lease, a new project would be rotated into the space. Openings of new projects would provide the opportunity and catalyst for planning other public events. For example, a "crawl" through the various storefront projects in the neighborhood

would continue Somerville's tradition of connecting joint marketing of business areas and public arts programming.

As an example of the kind of marketing that can be paired with such a program: Storefronts Seattle creates maps of the current projects within a neighborhood and makes them available online.



Storefronts Seattle Walking Map

RECRUITMENT OF LONG-TERM TENANTS

Not only will the storefront arts program improve the pedestrian experience and environment for existing businesses, it would also make the commercial nodes more marketable to potential new tenants. Owners can continue to show their properties while the arts projects are in place. The arts installation will improve the appearance of the property to prospective renters. An Enterprises program may even be a way of securing a long-term renter, once they have had the opportunity to test the viability of their business venture. Once a property owner has secured a renter, the arts project will disappear in 30 days or less, often leaving the property in better condition than before the Storefronts Art program.



Storefronts Seattle Arts Installations

B-5 STRATEGIES FOR ADDRESSING LANDLORD ENGAGEMENT

The landlord engagement strategies below are from the City of Lowell Downtown Plan Community Advisory Committee.

1. Financing strategies address financial issues that hinder building development.
 - a. Tax Incentives: Somerville has been designated an Economic Target Area (ETA) by the Massachusetts Economic Assistance Coordinating Council (EACC) through the Economic Development Incentive Program (EDIP). In order for the study area to be eligible for certain programs, such as tax increment financing (TIF), the project area would also need to be designated an Economic Opportunity Area (EOA). A TIF program allows property owners to be exempted from up to 100% of the tax increment after they have made improvements to their property. The program allows upfront tax relief to the developer to help offset the construction costs of improvements (Executive Office of Energy and Environmental Affairs n.d.). If Winter Hill and Magoun Square have not been designated an Economic Opportunity Area (EOA) yet, the City should apply to do so. Once the area has been designated thus, the City could then apply for TIF approval. Generally, when the municipality approves a TIF, the Massachusetts Economic Assistance Coordinating Council (EACC) also approves the project.
 - b. Loan and Financial Assistance: The city already offers several economic programs that may encourage landowners to be more engaged. In partnership with ACCION USA, the city offers a

Small Business Loan Program of up to \$50,000 for established businesses and \$30,000 for startups. They can also help locate other funding sources through the Somerville4Business search. The other business improvement programs offered by the city may also spur landlords to make a change. Some of the relevant economic development programs are detailed in the context portion of the Economic Development section.

2. Enforcement strategies call for aggressive administration of city ordinances to create a hassle for landlords if they manage their properties poorly.
 - a. Aggressive Code Enforcement: Landlords could be required to upgrade any buildings that do not follow exterior building codes. Further, the city could force landlords to cease participating in activities not allowed under current zoning such as renting parking spaces in a CCD zone.
 - b. Licensing of Vacant Buildings: Somerville could create an ordinance like St. Paul, Minnesota that requires landlords to register an unoccupied building with the city if the unoccupied building is unsecured, secured by other than normal means, is a dangerous structure, is condemned, has multiple housing or building code violations, or is condemned and illegally occupied. Landlords are required to submit a Vacant Building Registration Form within 30 days, which describes the plans for rehabilitation and reoccupation or demolition. They must also disclose all pertinent ownership information, pay an annual Vacant Building Registration fee within a set time frame, and provide complete access to inspectional services and the fire department for any needed inspections.

3. Use innovative management strategies to change current management structure or ownership of properties
 - a. Joint Marketing of Vacant Properties: Landlords could work together to develop a program to jointly market their vacant properties. A business association and/or a Main Street program could support this type of effort.
 - b. Purchase Critical Properties: The City or a separate non-profit entity could purchase properties from landlords. While private entities might not be able to purchase these properties due to high purchase prices and low profit margins, non-profit entities can purchase property as a “bargain sale.” When a property owner sells their property for less than fair market value, they can treat the difference between the purchase price and fair market value as a tax-deductible charitable contribution. Tax-Exempt Bond Financing is also available to 501(c)(3) organizations, but not to private “for-profit” entities.
 - c. Eminent Domain: If all other avenues fail, the city could consider acquiring properties by exercising eminent domain. In the *Kelo v. New London* Supreme Court decision, the court ruled that a comprehensive economic development plan fit in with the broadly defined idea of “public purpose.” The city would need a comprehensive economic plan for the area that it could point to in its rationale for the taking.

ZONING

C-1 NEIGHBORHOOD BUSINESS - SELECTED USES

Use	Amount	Current Zoning	Proposed Changes	Reason
Residences	1-3 DU	allowed		
	4+ DU	SP/R		
Artist Live/Work Space	6 units or less	SP	6 units or less= allowed	Allowing artist community space would contribute to day-time occupancy as well as neighborhood artistic assets
	more than 6	SP/Site		
Artist Studio Space	<5000 sf	allowed		
	> 5000 sf	SP		
Office	< 5000 sf	allowed		
	> 5000 sf	SP/R		
Business Services (tailor, salon, laundry, dry cleaning, real estate office, repair shop, arts/vocational school)	< 5000 sf	allowed		Permitting business services larger than 10,000 sf would contribute to daytime occupancy
	up to 10,000 sf	SP/Design	> 5,000 = SP/R	
Eating & Drinking (bars, taverns, dance halls)	< 2,500 sf	allowed		
	up to 10,000 sf	SP/Design		
Retail (grocery, convenience, specialty food, liquor, furniture, appliances, home equipment)	< 5000 sf	allowed	Convenience < 5000sf = SP/Design	Adjusted to match fast-order food requirements
	> 5000 sf	SP/R	Convenience > 5000 sf = SP/Site	
Fast Order Food (take out, eat in)	< 5000 sf	SP/Design		
	> 5000 sf	SP/Site		
Bank without drive-up window	<5000 sf	allowed	<500 sf allowed ground floor	Limits presence of inactive storefronts on first floor
	>5000 sf	SP/R		
Bank with drive-up window	< 5000 sf	SP	not allowed	Drive-through windows contribute to traffic and are a car-oriented use
	> 5000 sf	SP/R	not allowed	
Commercial Health Facility	<10,000 sf	allowed		
	>10,000 sf	SP/Site		
Theatre, cinema, public assembly	<10,000 sf	SP	<10,000 = allowed	These uses should be encouraged to contribute to area economic and community activity
	>10,000 sf	SP/Site		
Medical Office	< 5000 sf	allowed		
	> 5000 sf	SP/R		
Fast Order Food with Drive-Up Service	-	not permitted		
Motor Vehicle Sales, Service, Parts, Wash	-	not permitted		
Commercial/Industrial Services (bakery, welding)	-	not permitted		
Light Industrial	-	not permitted		

C-2 COMMERCIAL CORRIDOR DISTRICT- SELECTED USES

Use Cluster	Allowed by Right	Proposed Changes	Reason
Office/R&D	15,000 sf SP for laboratory		
Small Retail/Service (less than 1500 sf per establishment)	10,000 sf of general merchandise, department store, supermarket, convenience, pharmacy, specialty foods, goods, hardware, crafts, rentals, laundry, etc	Limit convenience and banking to 1500sf by right	Convenience goods establishments encourage short trips
Medium Retail/Service (1500-10,000) sf/establishment	5,000 sf of same uses as Small Retail/Service	Limit convenience and banking to 1500sf by right	Convenience goods establishments encourage short trips
Large Retail/Service (more than 10,000 nsf)	0 sf by right; SP for market, pharmacy, department store, general merchandise, supplies, hardware, laundry, dry cleaning, bank without drive-through, convenience		
Eating & Drinking	1,500 sf of restaurant, bar, dance hall, and fast order food establishment without drive-up service	Increase to 2500sf	Currently neighborhood business areas allow up to 2500sf of eating and drinking uses
Multi-family Dwellings	0 sf	Allow some multifamily by right	This would encourage mixed-use developments
Education/Recreation/Institutional Services	5000 sf		
Light Industrial (taxi, printing, trades, fabrication)	5,000 sf		

SP =use requires special permit. SP/Site = use requires special permit and site review. SP/Design = use requires special permit and design review. SP/R = uses requires special permit ; both site plan and design review are required , but at different sizes of development