



# Design Guidelines

January 15, 2009

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The Design Guidelines have been developed to encourage good design that will contribute to a safe, attractive and vibrant Town Center. The Guidelines are intended to provide direction to businesses, property owners, developers and Town Departments involved in public and private development and improvement projects in the Town Center which encompasses the entire study area.

The Guidelines also serve as a reference for the Planning Board and other Town Departments involved in the review process of projects in Town Center and are integral with the creation of the four Overlay Districts in the two existing zoning districts:

- Needham Center Business District
- Chestnut Street Business District

The Guidelines provide a clear and consistent standard so that project applicants will understand the Town’s design goals and thus facilitate a smoother, more efficient review process.

These Guidelines build upon the 1995 Design Guidelines for the Business Districts and are the result of a working partnership between the Town government, Needham business community and residents. The Guidelines have been developed through an open and inclusive process of public discussion, workshops and review that has benefited from a broad range of individuals and groups within the Town.

**Traffic, Parking & Pedestrian Improvements**

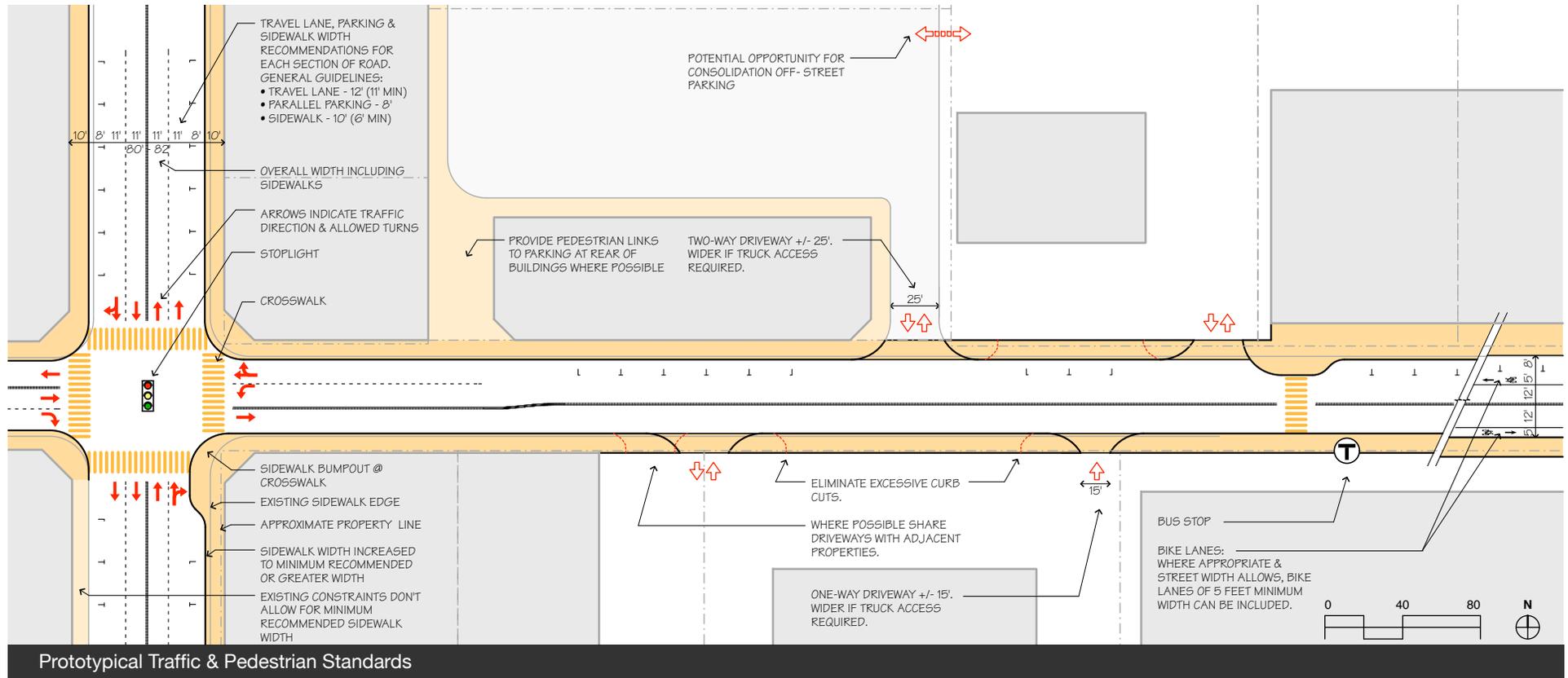
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The Design Guidelines include recommendations for improvements to roads, parking, sidewalks and pedestrian links. These recommendations are documented in a plan of the study area. This plan is meant to serve as a master plan for coordinating traffic and pedestrian improvements. This plan is not a final design. No changes will be made without consulting property owners. These recommendations will be referred to when proposed projects are reviewed by the Town.

The objectives of these recommendations are:

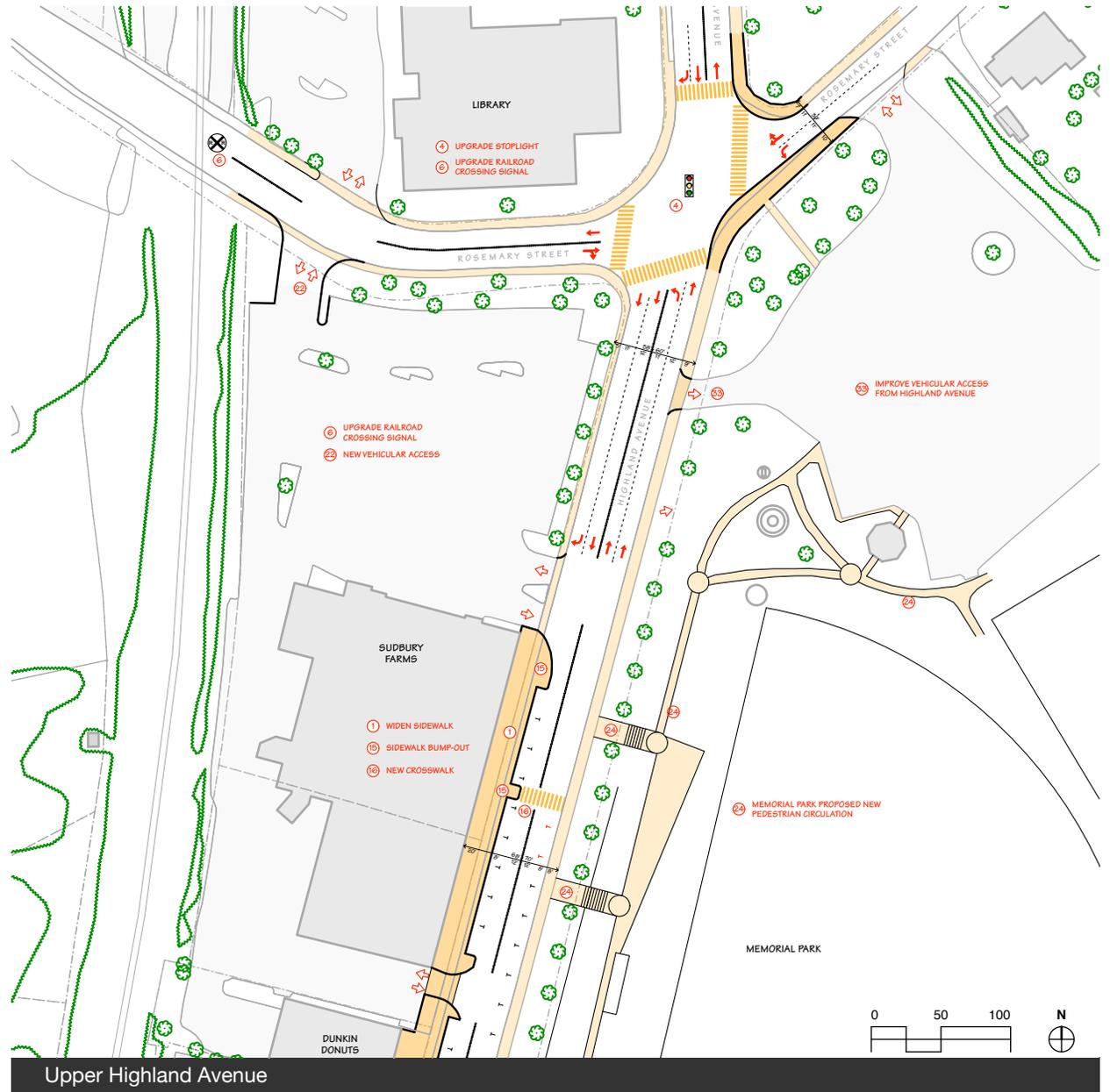
- Improvements for increased traffic and pedestrian safety
- Better traffic flow by optimizing lane layouts and traffic signal upgrades
- Consolidation of off-street parking
- Improvements to pedestrian circulation in concert with streetscape and urban form recommendations discussed above

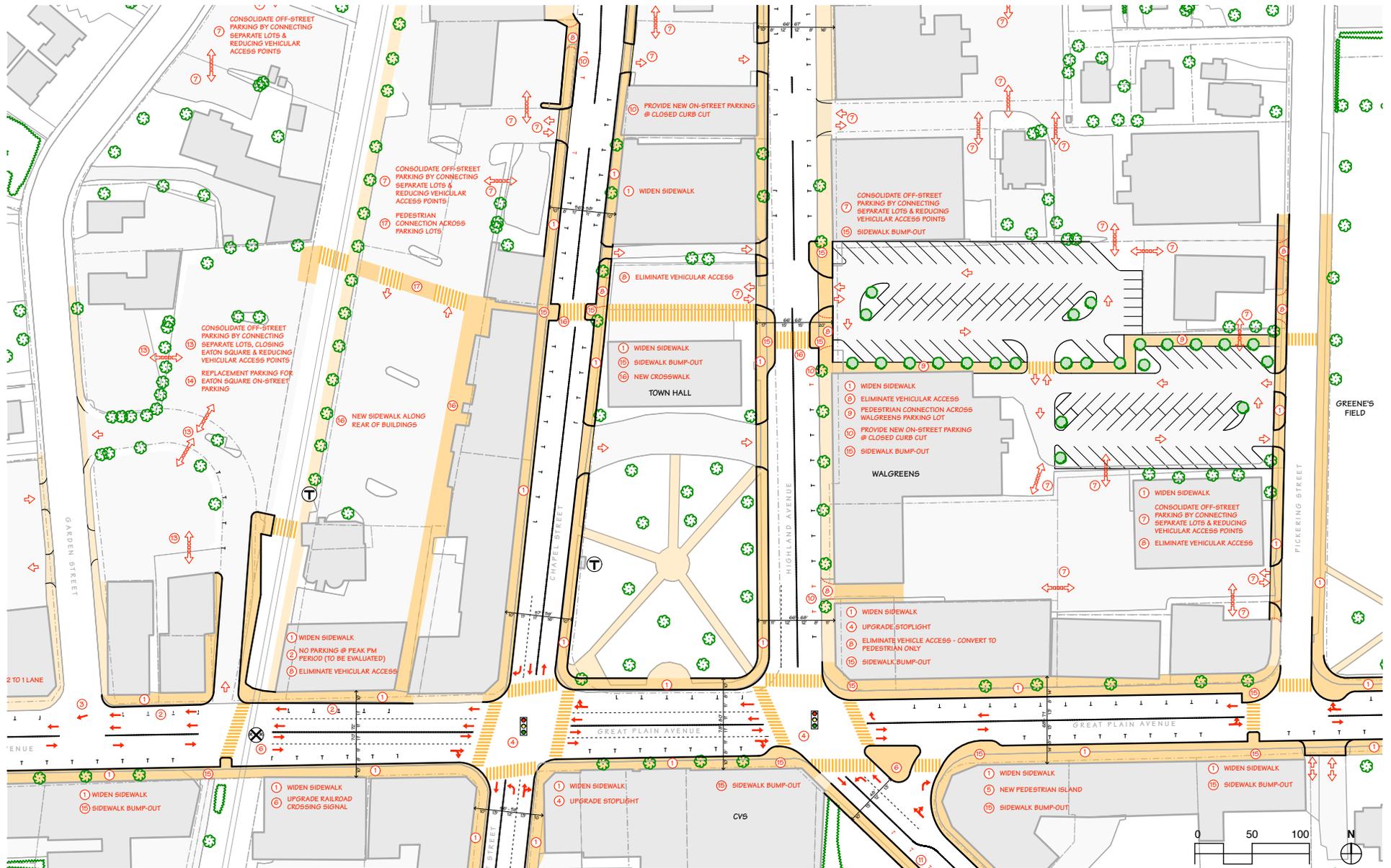
Layout and dimensional standards are documented in the prototypical plan above. This plan serves as a legend to explain the recommendations in the plan of the study area as discussed below. The illustrations show recommendations for crosswalks, sidewalk bumpouts, traffic signal upgrades etc. The plan above also provides dimensional standards for traffic lanes, bike lanes, sidewalks and curb cuts for driveways.

A plan with recommendations for the entire study area at a larger scale is available for review at the Planning Department. An excerpt of the plan from each district is included below.

**Highland Avenue Business District**

The plan to the right shows the northern most portion of the Highland Avenue Business District. Included in the plan are improvements currently under construction at Memorial Park. Traffic safety can be increased here by the addition of a second vehicular access to the Sudbury Farms parking lot off of Rosemary Street. Pedestrian safety can be improved with the addition of crosswalks from Memorial Park across Highland Avenue to retail businesses along the western side. One crosswalk is shown in the plan to the right and a second one is at the southern corner of Memorial Park.





Needham Center at Town Common / Town Hall

**Center Business District**

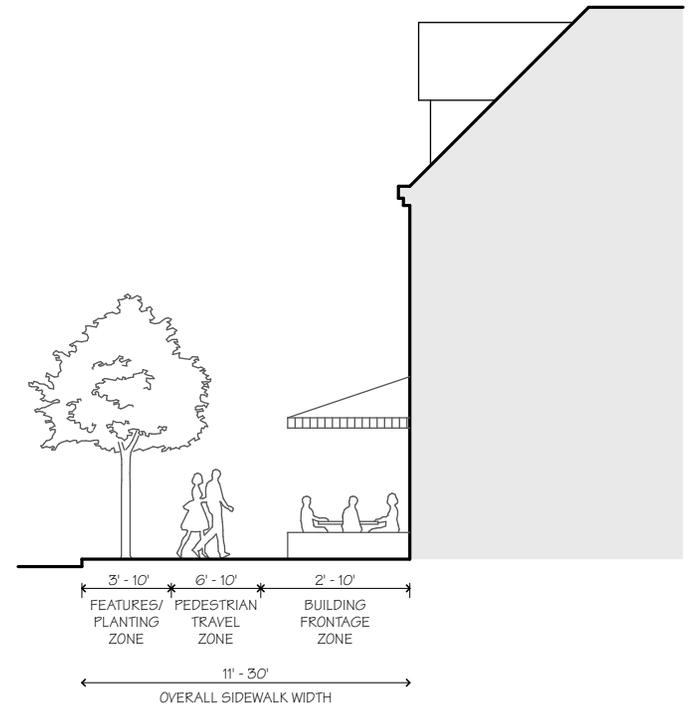
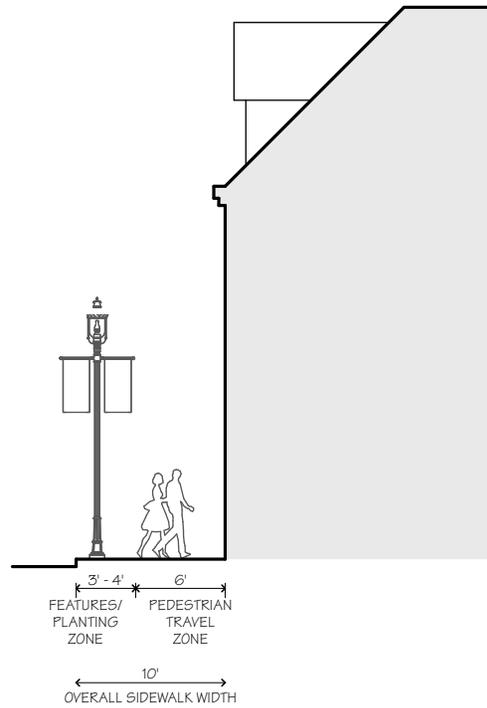
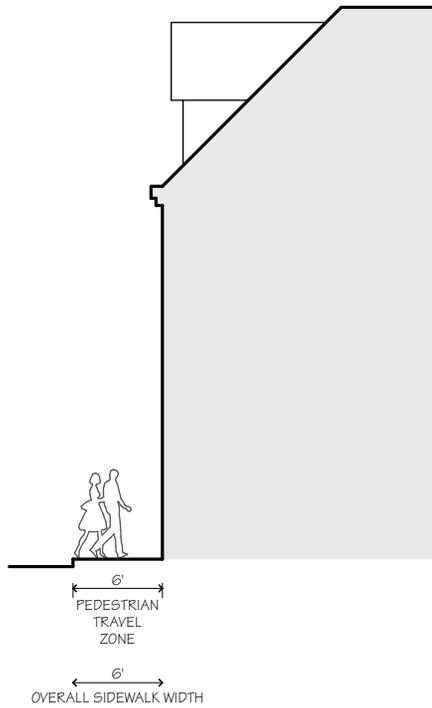
The excerpt from the plan to the left is centered on Town Common and Town Hall. Traffic flow improvements include recommendations for upgraded signals and new traffic lane layouts along Great Plain Avenue, Dedham Avenue, Chapel Street and Chestnut Street. Increased pedestrian safety is provided by improved existing pedestrian crossings and the addition of new mid-block crosswalks.

Review of the existing conditions has shown that many of the sidewalks in this area have the opportunity to be increased in width to at least the minimum recommended 10 feet. The development of a pedestrian link from Needham Station to Greene’s Field is also encouraged as shown in the plan. Finally there are many opportunities for consolidation of off-street parking as shown.

**Chestnut Street Business District**

The excerpt to the right shows the lower portion of Chestnut Street. The plan incorporates the proposed Hospital Expansion project to the north and the Chestnut Street reconstruction and tree planting project from Marsh Road to the south. There is a significant opportunity to consolidate curb cuts and to consolidate off-street parking along Chestnut Street.





**Minimum Width**  
Where Constrained by Existing Conditions

**Minimum Recommended Width**

**Preferred Width**

Sidewalk Dimensional Guidelines - Sections & Plans

### Sidewalk Design Standards

Sidewalks are an important streetscape element in attaining a pedestrian-focused and enjoyable streetscape. Wider sidewalks are essential for a thriving village environment and the increased area encourages foot traffic. The wider sidewalks will also provide sufficient room for businesses to offer outdoor seating and displays conducted in accordance with Town's requirements. The wider sidewalks also provide additional room to move existing obstructions, like streetlights, sign poles and sidewalk signs, out of the path of travel for pedestrians.

Pedestrian crossings and bicycle access are important components of achieving a pedestrian focused streetscape environment. Safe and comfortable street crossings promote foot traffic and discourage unsafe and illegal street crossings in mid-block areas.



Photographs of Successful Streetscapes Top & Bottom

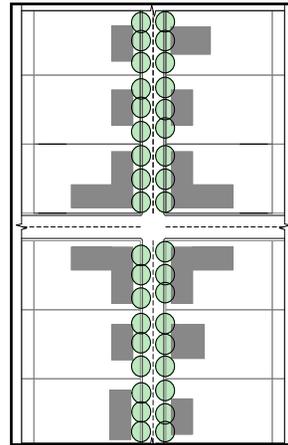
**Building Frontage**

The existing, scattered placement of buildings, often with parking in front, makes for an unfocused, poorly defined street space. Massing is encouraged that brings the building to the street edge. This approach to massing serves to create a framework for village spaces with an opportunity for streetscape improvements that encourage vibrant and pedestrian friendly environments.

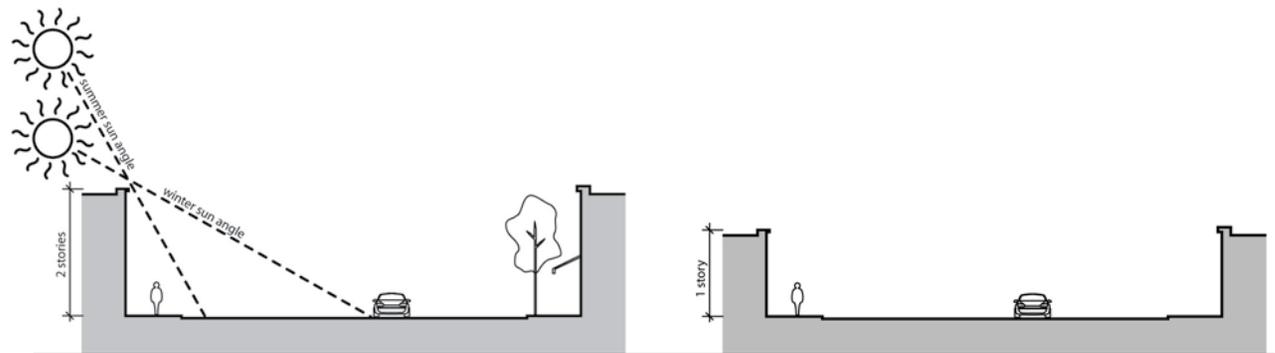
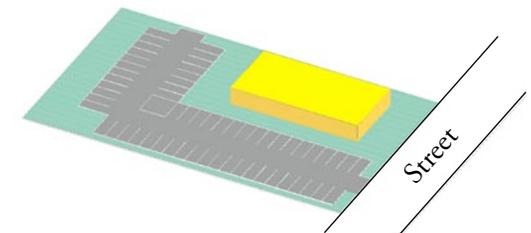
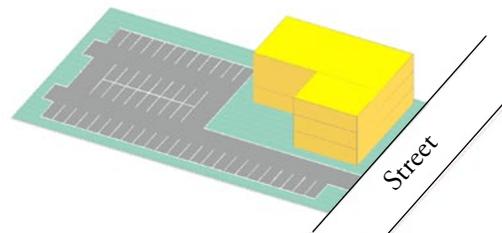
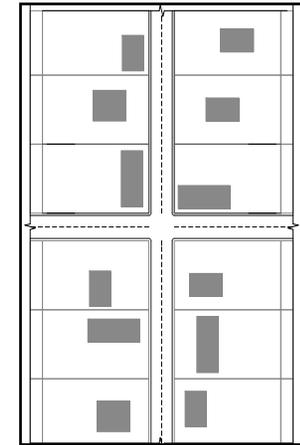
Massing is encouraged that better defines and improve the village spaces of Downtown along major streets. Parking should be located behind buildings and not on street frontage.

Multi-story massing along the street edge also helps to define the street space and is preferred over one-story massing.

**Do**



**Don't**

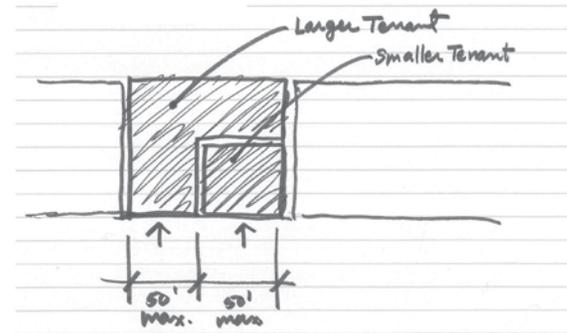
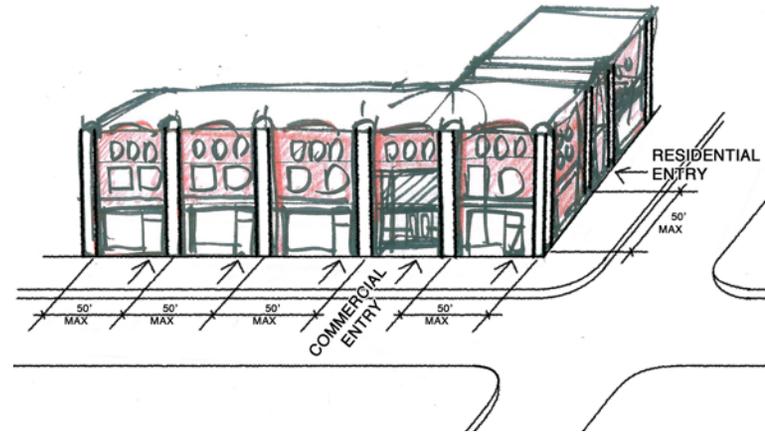


Building Frontage - Examples of Do's and Don'ts - Site Plans, Axonometric Drawings and Street Cross Sec-

### Maximum Ground Level Frontage Requirement

To encourage more diversity within commercial areas, a single business should not occupy more than 50 feet of continuous ground level frontage along major streets. Residential entries to ground floor dwelling units are to be located on the side and / or rear of building (A entrance to a lobby for upper floor dwelling units and other uses can face the street front).

Larger tenants can be accommodated on the ground level as shown in the plan to the right, extending behind a smaller tenant. Alternatively, a larger tenant can also extend up to the second floor.



Ground Level Frontage Requirement Illustrations - Axonometric Drawing & Plan

### Vehicular Access

Vehicular access should be located and designed with the goal of promoting walkability and pedestrian safety. Curb cuts should be avoided or minimized on major street frontage to the fullest extent possible. Minimize the width of curb cuts. Where feasible, use a separate entrance and exit that are spaced well apart or separated by a landscaped island. Creative solutions are encouraged, working in partnership with other adjoining public and private property owners.

Refer to prototypical and pedestrian standards above for additional dimensional guidelines for curb cuts.

**Do****Don't**

Vehicular Access - Examples of Do's and Don'ts - Rendering and Photograph

**Parking**

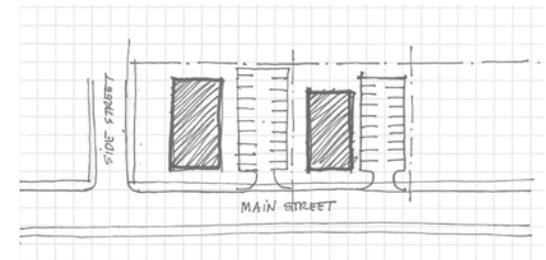
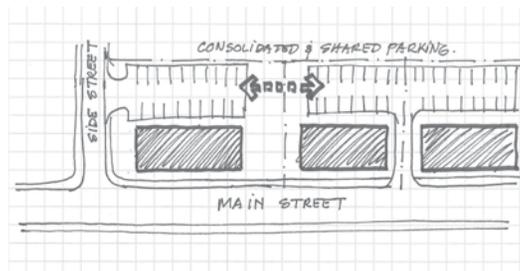
Parking areas should be located behind buildings where possible and its visibility minimized by appropriate landscaping. Where parking cannot be located behind buildings, screen the parking lot using fences, stone walls, plantings or earth berm. Screening should be at least 3 feet high. Landscaping beyond the requirements of the zoning bylaw are encouraged. It is recommended to use attractive landscaping, fences and walkways to dress up the parking area. The added height from planting trees in the setback between the parking lot and street creates a pedestrian scale which contributes to the goal of enhanced streetscape to make a more walkable Town Center.

Creative solutions are encouraged, working in partnership with other adjoining public and private property owners to share vehicular access to parking lots. One example of such an approach is the plan on the left which shows three properties sharing parking reducing the number of access points.

**Do**



**Don't**



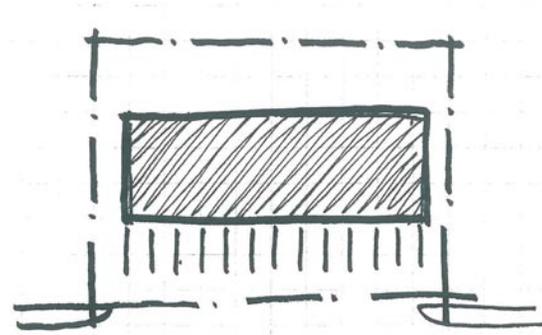
Parking - Examples of Do's and Don'ts - Aerial Photographs and Plans

### Remediation of Front-In Parking

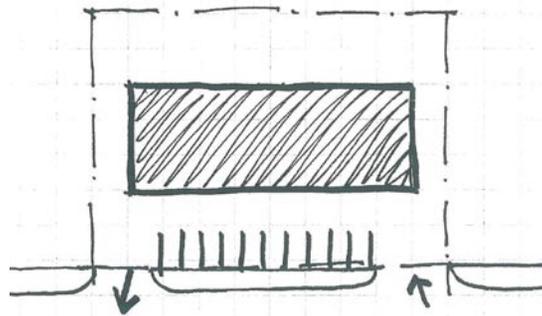
For those circumstances where an existing property with non-complying, front-in parking is being redeveloped, but not to the extent that the existing building will be torn down, the property owner is encouraged to remediate the negative impact of front-in parking. The examples to the right show a typical front-in parking condition and different options for improvements.

At its worst, front-in parking has completely eliminated a sidewalk as shown. The minimum improvement is to add a sidewalk with separate entrance and exit vehicular access points as shown in options A, B and C.

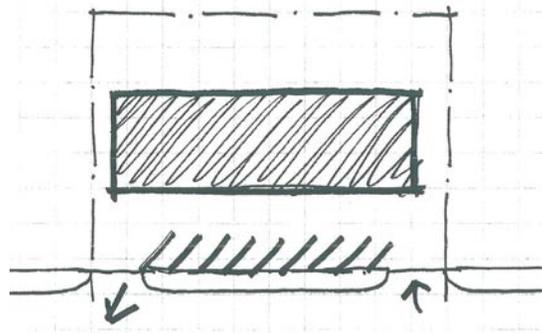
The final two examples take the advantage of opportunities to enhance the streetscape and contribute to the pedestrian environment. Option D adds a sidewalk that is offset in front of the building which allows for on street parking and the opportunity for generously widened sidewalk which can be further improved with appropriate streetscape furniture and appropriate supporting activities for the ground level building use such as sidewalk sales and dining. Option E provides access to parking available behind the building and converts the parking area in front of the building to a small plaza which similar to Option D can be designed to contribute to the streetscape.



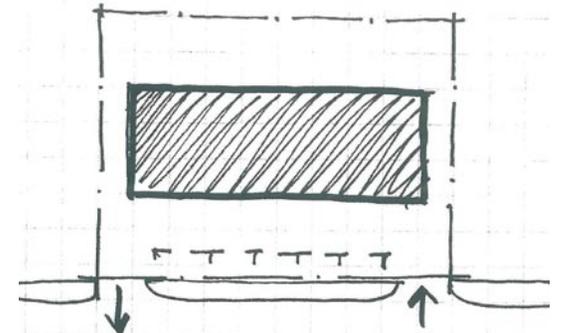
**Existing Front-In Parking**



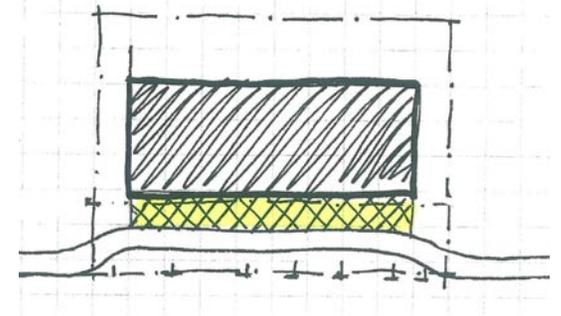
**Option A**



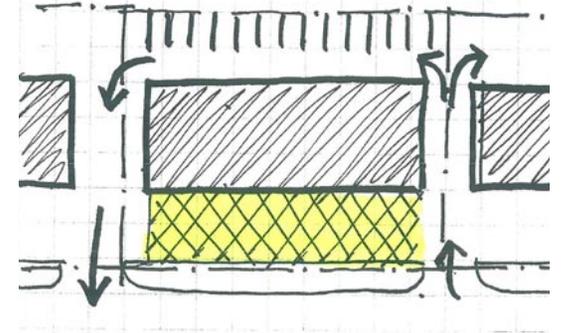
**Option B**



**Option C**



**Option D**

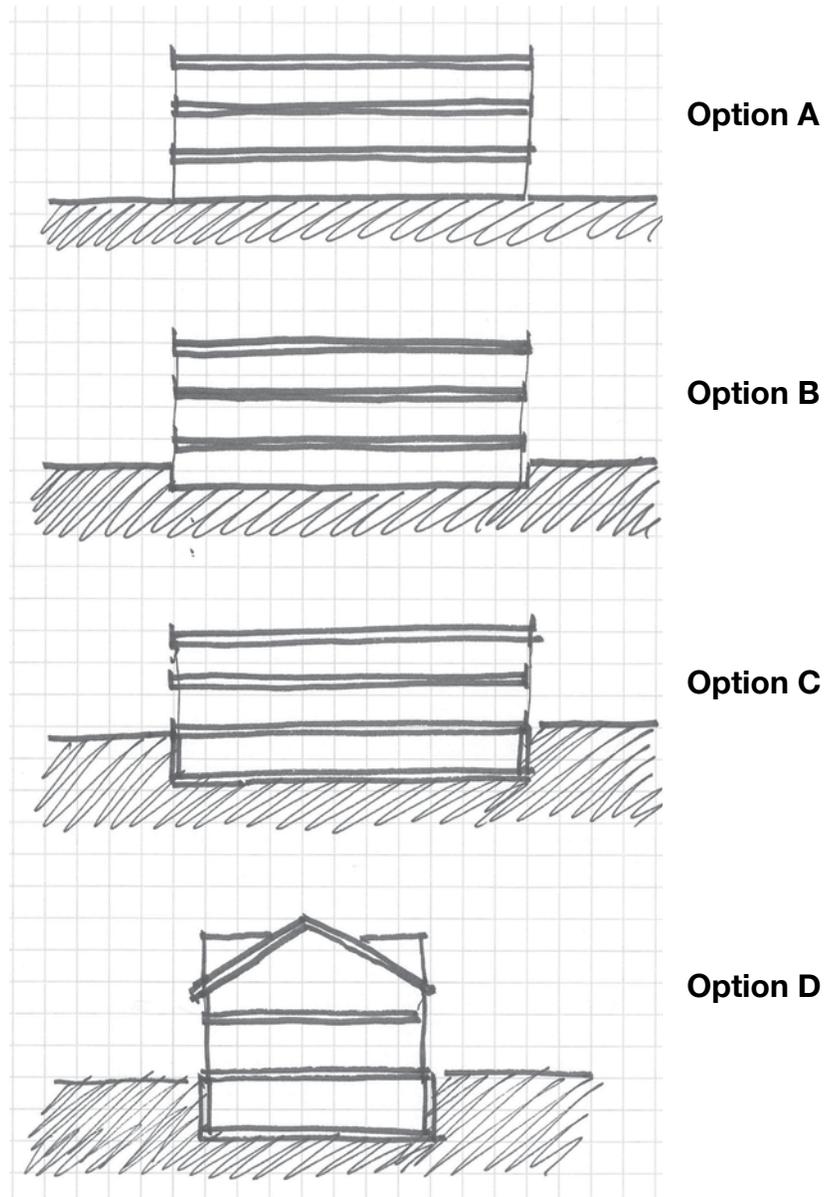


**Option E**

Remediation of Front-In Parking - Examples - Site Plans

## Parking Structures

The building cross sections to the right show a range of approaches to designing a parking structure. Option A does the least to soften the imposing character. Option B lowers the first level of parking a half level below ground reducing the height and massing. Option C takes this one step further by completely submerging one level of parking below ground. The preferred option D goes one step further by further softening the parking structure with a gable roof to better blend into desired village aesthetic.



Parking Structures - Examples - Building Cross Sections

**Alley Ways & Pedestrian Links**

These passages are recognized as valuable pedestrian routes to and from stores, parking and streetfronts. They also can further extend pedestrian networks further the goal of a more walkable Town Center.

Public / private partnerships for the embellishment of these spaces are encouraged. Improvements include lighting, planting, wall surface treatments, landscaping and the addition of street furniture.



Alley Ways & Pedestrian Links - Examples of an Unimproved Alley and Improved Pedestrian Links

**Landscape & Open Spaces**

Trees and other plantings can expand the landscape character of Needham Center, especially of the Town Common. Existing landscaping should be preserved. Tree-lined streets help create a consistent streetscape and scale.

Landscaping will play a central role in defining the character of the proposed streetscape. Landscape elements will be incorporated into nearly all aspects of the streetscape design and includes parkway trees, at-grade planting beds and raised planters in strategic locations. Moveable planters and hanging baskets may be incorporated on a more limited basis given their higher maintenance requirements.

Trees, planters and other streetscape landscaping can be a defining element and are an important part of the plan to develop a village environment.

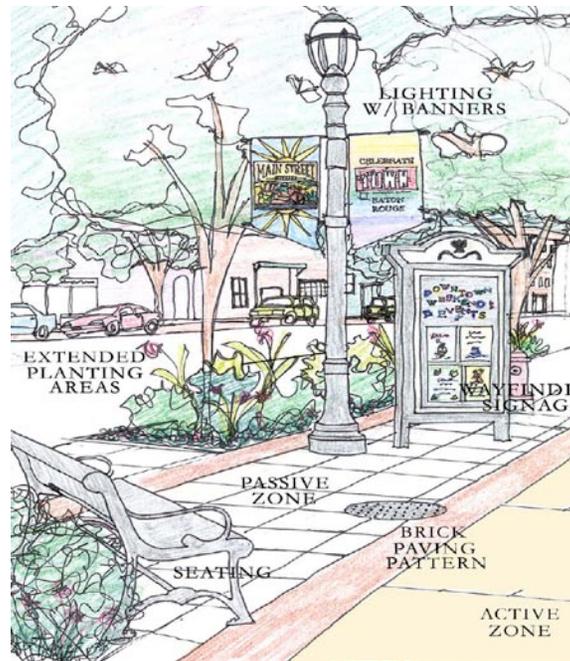


Landscape & Open Spaces - Examples of Successful Open Spaces in Needham (Center Right & Left) in Other Locations, & Rendering of Proposed Improvements along Highland Avenue at Memorial Field

**Street Furniture**

Varied street furniture (benches, trash receptacles, bicycle racks) must be carefully selected for function, size, appropriate use and especially location at sidewalks to enhance streetscape.

Street furniture and pedestrian amenities can provide a detailed feel to the streetscape environment. When taken together, these elements establish the overall aesthetic appearance of the streetscape. A package of street furniture and amenities should be integrated into the streetscape design. Street furnishings, such as benches, receptacles, streetlights, bicycle racks, should be selected from the same family of products to provide a unified design element in the streetscape. Consideration should also be given to long-term maintenance and how they hold up over time and exposure to the elements. Trash and recycling receptacles as well as newspaper racks may be incorporated into landscape areas or a separate, aesthetically consistent enclosure to minimize obstructions and soften the visual impact of these accessory furnishings.

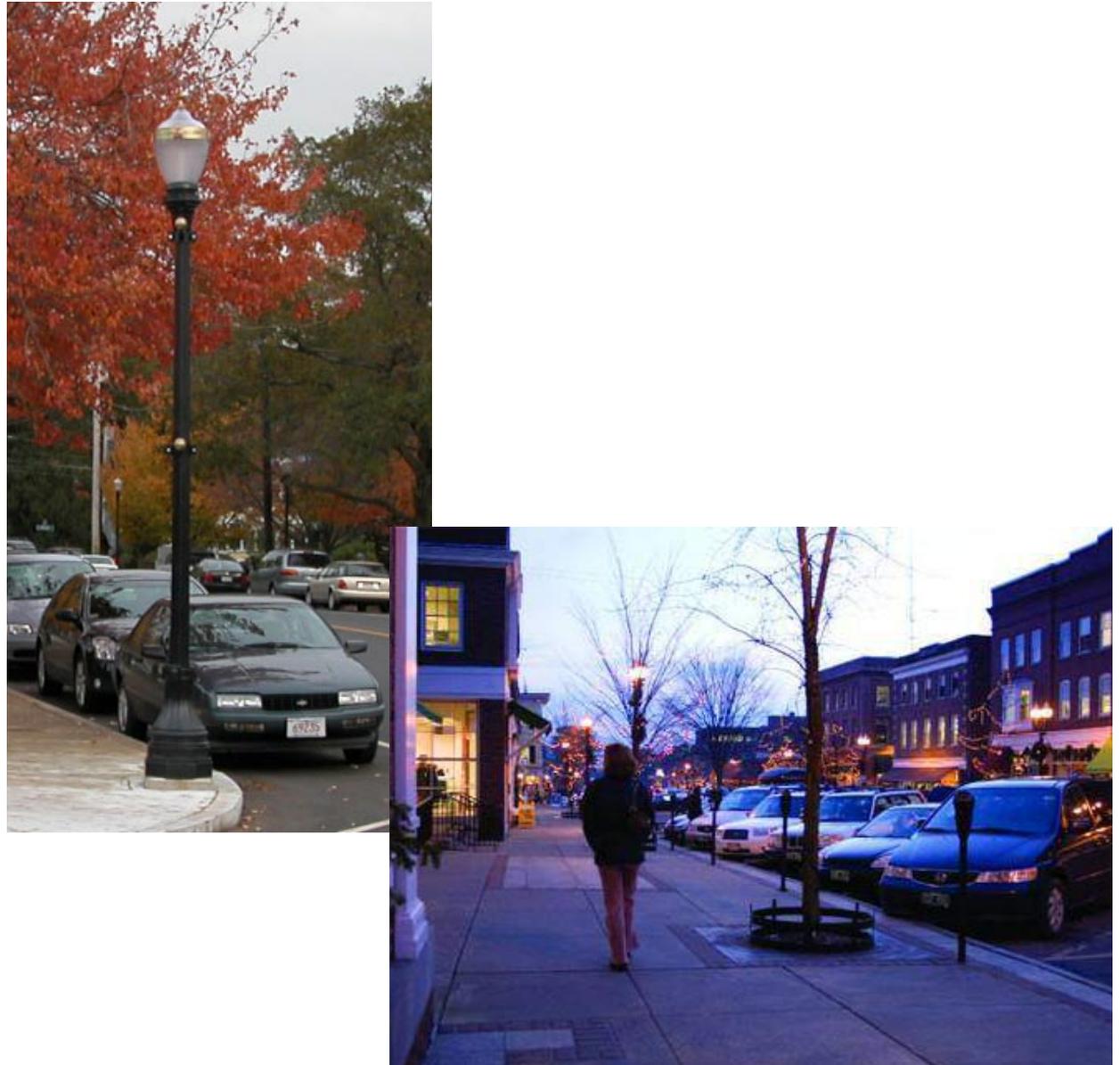


Street Furniture - Examples of Benches, Banners, Lightposts, Bicycle Racks and Trash Receptacles

## Lighting

Lighting should be functional and appropriate for its intended purpose. Where possible street lights should be at pedestrian scale for lighting sidewalks and major public streets. Storefront lighting should specifically highlight the main signage and the window display.

Maintaining an appropriate light level of street lighting for safe and comfortable evening shopping is important when establishing a pedestrian-oriented environment. Light levels need to be bright enough to address concerns over safety and visibility but not so bright that the light is overwhelming and uncomfortable. Lighting must also provide adequate roadway lighting while also lighting pedestrian areas sufficiently. Intermediate light fixtures at lower heights than the existing streetlights could provide additional ambient lighting for pedestrians. Decorative street lights and poles are a prominent but costly component of a streetscape. Care should be taken in selecting a fixtures that have an appearance which is compatible with the overall aesthetic goals of the streetscape plan and that provide sufficient light levels. Light fixtures should incorporate the latest energy efficient technology.



Lighting - Light Post Installed at Greene's Field. Example of the Vibrant Impact of Street Lighting

## Scale

Human scaled, outdoor spaces are one component of the village aesthetic. To create the sense of being within an outdoor room, it is important that the built environment does not lack human scaled elements which would result in an environment that overwhelms the pedestrian.

The proportions and relationships between doors, windows and other building and site elements should relate to a human scale and be compatible with the scale, rhythm and character of those portions of the surrounding environment compatible with the village aesthetic. Bays, dormer windows and other projections are encouraged that relate to the scale and character of village architecture and reduce the overall mass and bulk of the building.



Examples of Architectural Details Providing Scale - Renderings & Photograph

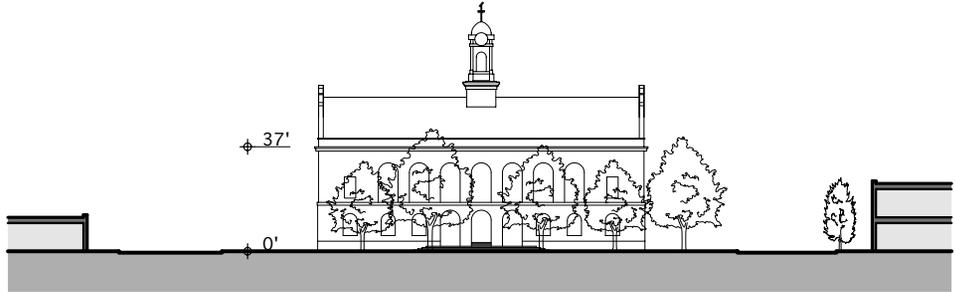
### Building Height

Building heights of three and four stories is encouraged in the Town Center. Buildings should be at least two stories minimum to achieve a pleasing sense of enclosure along a walkable street.

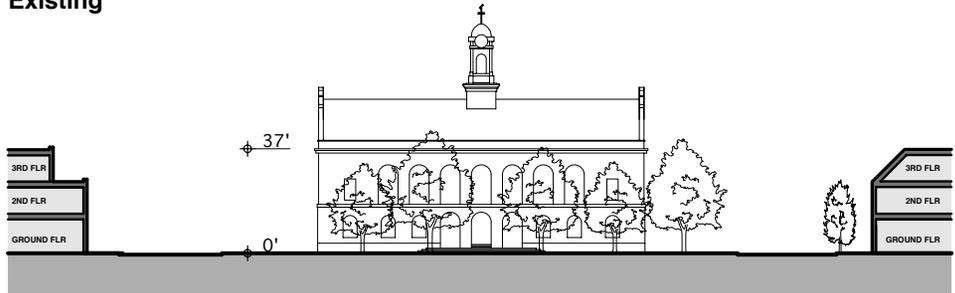
Slightly less than half of the commercial buildings in Downtown Needham are built to the current height limit of 2 1/2 stories (35 feet). Building heights up to 2+1 and 3+1 stories should be considered for new projects, as greater height can enliven and further define the public environment. Parts of Great Plain Avenue currently have little sense of enclosure, being flanked by low buildings on either side across a broad expanse of street.

Attention should also be paid to the tops of buildings. The proposed zoning regulations encourage a gabled roof or setback top story.

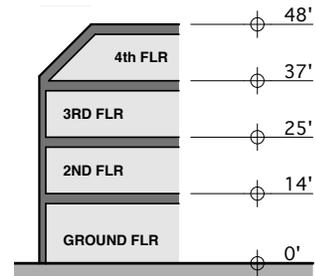
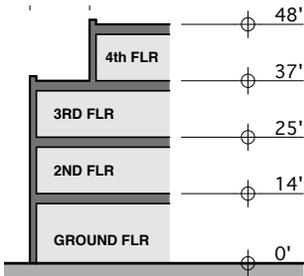
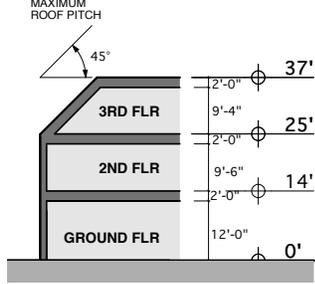
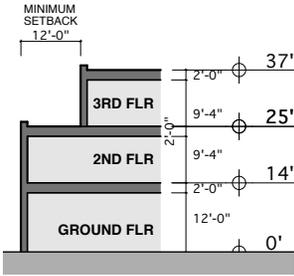
Increased building heights have been set in different zones to relate to reflect the context of the district. The maximum height in the area surrounding Town Hall has been limited to three stories so that the surrounding buildings do not overwhelm the prominence of this civic focus of Town Center.



Existing



Proposed



Building Heights - Top - Existing and Proposed Height Limits Surrounding Town Hall. Bottom - Prototypical 2 + 1 and 3 + 1 Maximum Height Limits

### Materials & Colors

Use materials and colors which are compatible with the character of the building and Needham Center. Almost all buildings are either brick with stone trim; brick with wood trim, usually panelized; wood with wood trim; or brick and stucco.

New construction should in general conform to one of the types of construction described above and use trim details in a manner akin in spirit to those existing buildings in which the Town takes pride. Careful attention to small scale details is encouraged to add to the visual interest of the pedestrian level streetscape.

Good use of color takes cues from the architecture of the building. Limit the number of colors selected. Highlighting numerous details in different colors may look too busy. Major building elements, such as piers, columns and signbands, should be painted the same color throughout the building. It should be kept in mind that signage, when applied, will add yet another layer of visual complexity to the facade. Masonry has its own natural color and should rarely be painted, except under special circumstances.

### Renovation and Restoration

Preserve and enhance facades with character defining architectural features of high quality or historic buildings. Do not cover distinct original features of the building and take steps to improve rear of building.



Materials & Colors - Existing Buildings in Needham Center

## Facades, Windows & Doorways

Design should be compatible with buildings in office and residential areas. Building style should be in keeping with a predominantly residential New England community. Architectural cohesiveness must be encouraged to allow the character of Needham to develop consistently with the concept of village center. Building facades in Needham Center are often divided into smaller bays by a clear frame of vertical piers, which usually, but not always, reflect the location of structural columns or walls. The repetition of bay units of similar sizes helps to establish a common visual theme, scale, rhythm and texture among buildings of different eras. Buildings should be compatible in design with the composition of the Center's older commercial architecture; distinguish and coordinate the design of upper and first floors, and divide facades into smaller bays. Windows and other elements on the upper stories should be designed to relate to the design elements of the first floor.

### Special Treatment of the First Floor

Encourage large display windows along the first floor to maintain strong visual connections between the interior and exterior. Include a zone for signs on buildings within which each storefront can have an individual identity.



Renderings Illustrating Guidelines for Facades, Windows and Doorways

### Storefronts

Storefronts should be open and welcoming and help to establish an individual identity for the store. The storefront and the storefront frame are the key elements in the design of the first floor facade. The storefront is an opportunity to establish the individuality and character of each business, drawing attention to a business and the goods or services it provides. The storefront frame is a common element among Needham Center's storefronts, providing a common theme which helps to establish a cohesive quality for the commercial area. By providing a clear separation between stores, the frame allows each store to establish its own special character and identity.



### Outdoor Displays

Outdoor displays can contribute to creating an enticing storefront and enlivened streetscape. The storefront design should be strong on its own and not be dependent on the use of outdoor displays. Outdoor merchandising provides an opportunity for seasonal and special displays.

Use outdoor displays, planters and other outdoor elements to enhance the storefront and the streetscape. Displays should neither clutter the sidewalk nor obstruct pedestrian traffic.

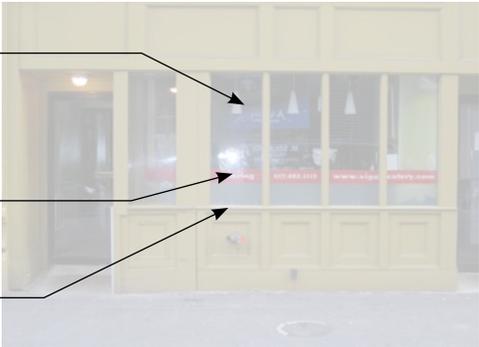


Storefronts - Rendering & Photographs of Existing Storefronts in Needham Center

Interior lighting does not work to make interior visible or inviting.

Signage identifying store is too small and should not be attached to window.

Window sill height to high.



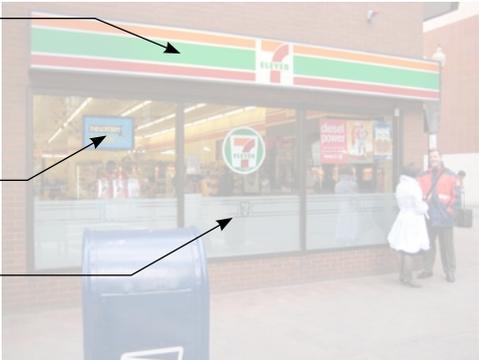
Unappealing Storefront



Although signage identifies store clearly, its style is not appropriate to the village aesthetic and should be reinterpreted to better relate.

Decals on windows block visibility into store.

Although window sill is adequately low, the lower half is opaque.



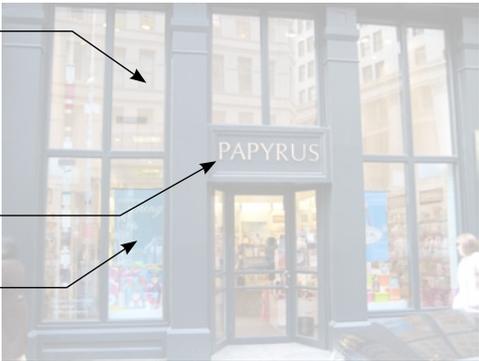
Minimally Improved Storefront



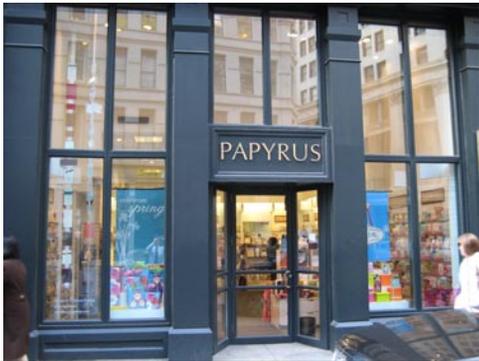
Lighting is designed to highlight window displays and reinforces an overall transparency inviting the pedestrian's eyes to explore the interior.

Signage helps to establish the identity of the store.

Large transparent glass display windows provide ideal display opportunities. Merchandise displays are designed with creative themes to catch the attention of the passers-by.



Attractive Inviting Storefront



Storefront Examples

## Awnings

Awnings are a traditional way to embellish a storefront. Awnings can also include signage. At the rear of buildings awnings can be an effective way to improve the general character of parking areas.

The color and style should be coordinated with the storefront and building facade. Use of a single awning for multiple storefronts is discouraged. Awnings should be proportioned to suit the building. The vertical drop of an awning is a critical element in determining whether it will appear properly proportioned when installed. Too short a vertical drop will make the awning appear insignificant within its opening. Too long a drop will start to obscure a large portion of the display window, especially when viewed from afar. Awnings should not cover important architectural details of the building.

Awning fabrics come in a variety of colors, patterns and finishes. Stripes or accent bands can easily be sewn to a solid color for a custom look. Fabric awning covers should be properly maintained and need to be replaced every two-three years, depending on color and fabric content. Internally illuminated, preformed awnings are discouraged.



Awnings

### Signs & Banners

Freestanding signs should be large enough to be seen from cars with single easy to read letters or images. Wall signs on multi-tenant buildings should be compatible with one another and should be scaled to be read from the parking lot.

Public kiosks or directory-style signage should be located in the central area of each pedestrian environment. The directory would list the location, name and type (restaurant, retail, office, service, etc.) of all of the businesses. Additional kiosks could be located at or near parking lots. The kiosks could dispense printed materials such as maps, business descriptions and promote local town events.

Commercial and business signage recommendations and guidelines will help enhance, complement and preserve the streetscape. Projecting signs, wall signs, awning signs, window signs, ground signs and sidewalk/sandwich signs serve both the motorist and pedestrian audience. However, it is important that businesses community recognizes the importance of complying with signage requirements. Some of the purposes of the sign regulations are to preserve the value of private property by assuring compatibility of signs with surrounding land-uses and also to enhance the physical appearance of the village. Likewise, the Town should work cooperatively with the downtown business community to enforce signage regulations in an equitable manner. Village banners are also a good method of introducing seasonal variations and promotions for downtown.



Signs & Banners