



Marbledale Road Design Guidelines

Village of Tuckahoe, Westchester County, NY



January 7, 2019



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Marbledale Road Design Guidelines

January 7, 2019

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Village of Tuckahoe

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1.0. INTRODUCTION

Marbledale Road has a storied history, as it was originally the location of the Tuckahoe marble quarry, which spurred the growth of the village in the 19th century. While the marble industry left in the 1930s, the corridor remained industrial in nature. Many of the properties and the streetscape in general have suffered from neglect over the years. This report is part of a Village initiative to promote the long term transformation of the corridor to make it a more positive environment for both businesses and village residents, and to help it to become more cohesive and connected to the surrounding village context. The Village wishes to do this with few major capital expenditures that would affect taxpayers. Improvements could be advanced in partnership with a redeveloper, another partner or grants pursued by the Village. While no major roadway realignments are anticipated, minor improvements such as bump-outs shall be considered for certain locations identified later in this report.

The goals of the Marbledale Road Design Guidelines are to:

- Enhance Marbledale Road's streetscape and built environment by establishing an overall design vocabulary and parking strategy;
- Provide design recommendations for use by the Planning Board in reviewing new developments;
- Enhance the corridor as a business corridor for the Village and attract new economic opportunities; and
- Create a more attractive pedestrian environment between Main Street and Fisher Avenue.

It is recognized that there are some vacant and underutilized parcels within the area that would benefit from revitalization. These sites present opportunities for redevelopment, adaptive reuse and creation of streetscape connectivity and/or additional open space. Improving these areas will help to enhance the livability of the neighborhood and provide improved connections to Main Street and Fisher Avenue.

The primary function of this document is to provide the Village and the development community with a set of guidelines for ways to improve the public realm. The document provides a palette of options with regard to site design, lighting, landscaping, site circulation, and parking. The intent of the guidelines are to be used by the Planning Board during the site plan approval process. **These guidelines are not meant for construction; rather they are meant as a visual guide for designers and decision makers. It is intended that proponents of projects, Village staff, the Planning Board and the general public, where public review or approval is required, should be open to creative variations from the provisions presented in the guidelines as long as the core values expressed are being served.**

This report also informs future planning by the Village, which may include decisions related to land use, zoning, and capital expenditures along Marbledale Road.



1.1: BACKGROUND AND HISTORY

Historically, Marbledale Road was the site of Tuckahoe's marble quarry, which is where the road gets its name. Tuckahoe marble was known worldwide for its superior beauty, strength, and durability, and it was used in many iconic buildings throughout the country. Tuckahoe marble was used for the Washington Monument, the New York Public Library and the Washington Square Park Arch.

Tuckahoe's marble industry began in the 1850s and became an economic driver for the Village, employing between 300 and 500 quarry workers and stone cutters at its peak. By the end of the 19th century, the marble resources were largely depleted and the quarry eventually closed in the late 1920s.

The former quarry and surrounding lands on Marbledale Road remained industrial in nature after the marble industry left. The quarry itself was empty until the early 1950s as an open pit until it began to be used for disposal of municipal waste. The surrounding areas were developed in the 1970s to 1990s with light industrial uses such as auto repair and auto storage facilities.

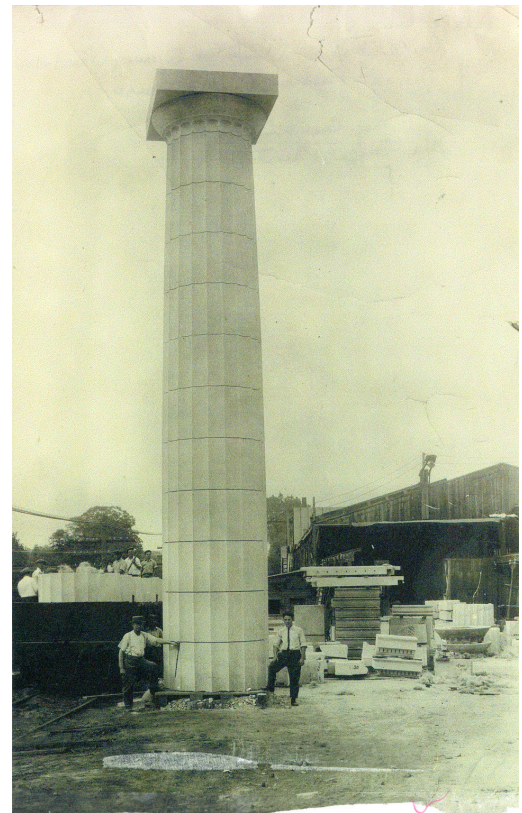
Over the years, residents have expressed concern about Marbledale Road's industrial character, such as its cleanliness; appearance of buildings; unkempt parking lots, landscaping and sidewalks; health of local commerce, and parking and traffic challenges.

The Village has long acknowledged the need to revitalize Marbledale Road, which was once the key economic driver for the Village. The Village's Comprehensive Plan, adopted in 2008, recommended the "Industry" zoning classification of Marbledale Road be changed to General Business, recognizing the decline of the marble industry and the need to encourage businesses that both serve community needs and are more neighborhood-friendly compared to the legacy industrial uses. The Village subsequently rezoned this area General Business. Redeveloping the area was also seen as an opportunity to "clean up" properties that suffered neglect over the years. An example of a new use along the corridor is the Marriott Springhill Suites hotel due to open in 2019.

Recently there has been discussions regarding plans to redevelop or adaptively re-use some of the buildings within this corridor. As discussed earlier, the intent of this study is to ensure that any redevelopment improves the public realm and helps to create a more neighborhood-friendly business corridor. These guidelines also provide additional recommendations for the Village to consider pertaining to: zoning changes; placemaking opportunities; on-street parking facilities; crosswalks; burial of utility lines; and bicycle infrastructure.



Monument commemorating marble industry



Tuckahoe Marble Column at Soldier Field, Chicago, ca. 1920

Courtesy of Eastchester Historical Society

1.2: STUDY AREA

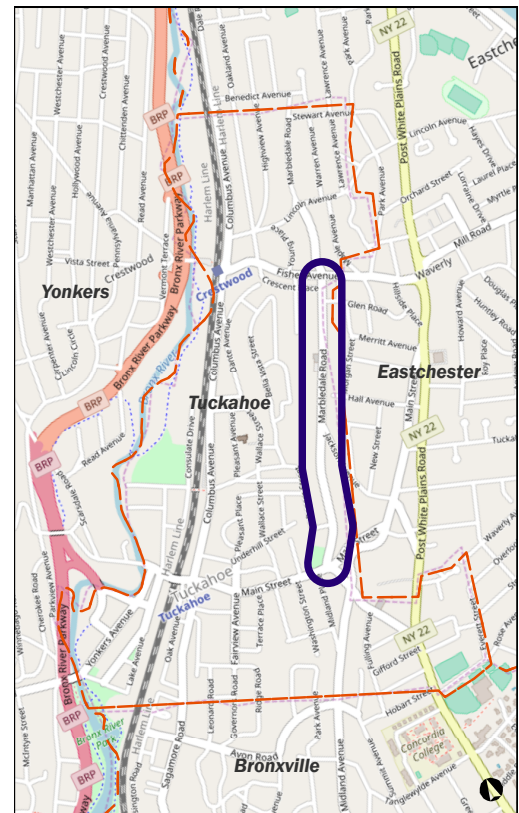
The study area for this report includes only the industrial areas of Marbledale Road found along the 0.6 mile segment from Main Street to Fisher Avenue. It does not include the residential areas north of Fisher Avenue. Noteworthy uses are shown in Figure 1. Properties along the corridor are largely privately owned. The Village owns Main Street Park and the DPW site at the southern portion of Marbledale Road.

Marbledale Road itself is owned by the Village of Tuckahoe. The width of the road is 35-36 feet from curb to curb. The total right-of-way owned by the Village is 50 feet which includes 7 feet on each side of the curb before the property line begins. Despite being owned by the Village, maintenance of sidewalks and landscaping in this area is the responsibility of the adjacent property owner.

The public right-of-way gives the municipality the authority to use the roadway for the installation and maintenance of public utilities and for the clearing of the roadway from snow. The municipality also has the right to keep the travel way clear for safety reasons and therefore can elect to prune trees and bushes or remove them altogether if they should present a hazard.

The study area is largely within Tuckahoe's General Business (GB) Zoning district. The General Business district allows for a variety of office, commercial, warehouse, restaurant and retail uses. Residential uses are not permitted. The only portion along the corridor not in the GB district is the northern portion near Fisher Avenue, which is zoned for multifamily homes. Zoning regulations are discussed further in Section 4.

Parcels on the west side of Marbledale Road are generally deeper than those on the opposite side of the street. For example, on the segment of the road between Fisher Avenue and Jackson Avenue, parcels on the west side tend to be between 200 and 220 feet deep, while those on the east side are between 80 and 120 feet deep.



Marbledale Road Study Area

Marbledale Road Design Guidelines



Fisher Park



Industrial and residential uses at northern end



Phoenix Fitness



Paws and Play



CubeSmart Self Storage



Main Street Park

Parcels

1. Fisher Park
2. Verizon
3. Stoffel Polygon Systems
4. Home Ice Advantage
5. Rocco's
6. Broken Bow Brewery
7. Restaurant (proposed)
8. Medi-Ray
9. Phoenix Fitness
10. Bessen Oil
11. Jonard Tools
12. Ki Martial Arts (vacant)
13. Marriott Springhill Suites (in development)
14. Fleetwood Collision
15. Elide
16. Lucente Landscaping
17. Paws and Play
18. Westy Self Storage
19. Ai Design
20. CubeSmart Self Storage
21. Shiloh Baptist Church
22. DPW
23. Mobil Gas and Car Wash
24. Main Street Park

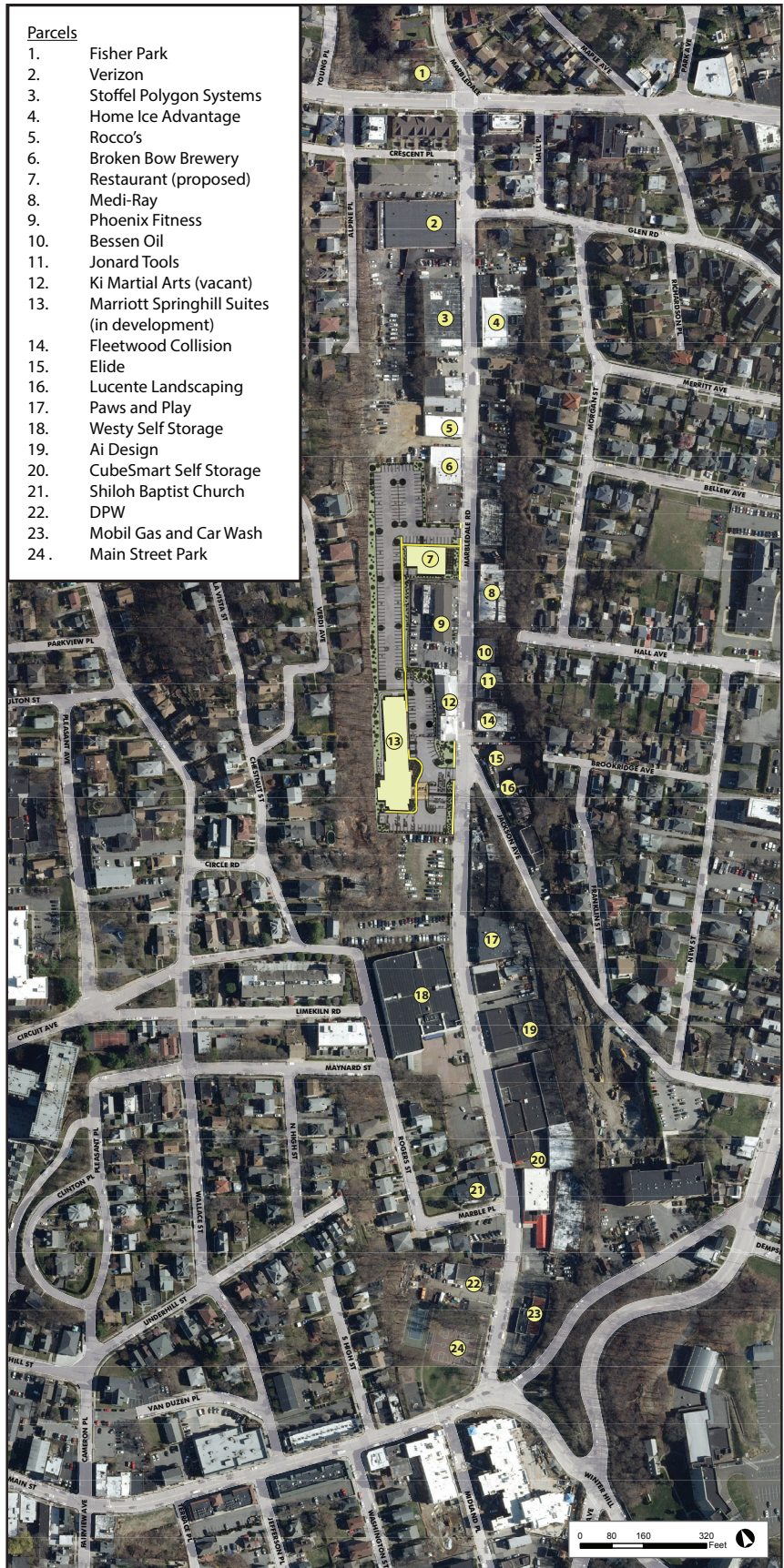


Figure 1: Study Area

1.3: SUMMARY OF ISSUES

This visual analysis of Marbledale Road focused on the street's major design qualities and assets. The more attractive streetscape features are, however, marred by number of negative features that reduce the area's inherent attractiveness and limit its value as a walkable business corridor. The key issues are summarized below and elaborated upon later in this report:

Design Unity

Marbledale Road lacks a strong overall theme or design unity due to the variety of building forms and the lack of a consistent design approach for sidewalks and other streetscape elements. Factors such as the long length of the street and the varied topography also add to the lack of design uniformity. The street wall is often interrupted by buildings that are separated from the sidewalk by parking areas, and by large open space areas that are often poorly maintained or lack a sense of purpose. Poorer quality streetscape elements, such as facade treatments that lack town character, signage, window displays and awnings, need to be upgraded in order to establish a more consistent and attractive commercial corridor for Tuckahoe.

Vacant/Underutilized Sites and Properties in Disrepair

Some properties or sidewalks on the corridor are either not well maintained or are actively deteriorating. There are also a number of properties that are either entirely vacant or contain empty buildings. Enduring vacancies can be highly detrimental to neighborhoods over time, because they can create a feeling of abandonment and can reduce the sense of security that results from having many "eyes on the ground."

Sidewalk Conditions

While some areas along the corridor have well maintained sidewalks, others have sidewalks in poor condition (i.e. heaving pavement, cracked concrete, no curbing) and need to be replaced or repaired. There are some areas where unmaintained landscaping has grown into the pedestrian walkway, causing an obstruction. Utility poles, signs, and fire hydrants also obstruct the sidewalk in many locations. There are some gaps in the sidewalk network, the largest of which is at the Smith Cairns owned vacant site, just south of the Marriott Springhill Suites project.

Landscaping and Street Trees

Street trees and other landscaping along the corridor is sparse. Aside from a row of trees adjacent to Westy's Self Storage, the corridor lacks consistent tree plantings. Very few properties have any kind of landscaping between the sidewalk and the building or parking areas. Improved screening and landscape treatment needs to be considered for a number of sites, particularly where surface parking areas abut the sidewalk. Individual property owners are responsible for maintaining



CubeSmart Self Storage



Mix of uses on Marbledale Road



Mix of uses on Marbledale Road



Sidewalk in disrepair



Attractive sidewalks at Main Street Park

Marbledale Road Design Guidelines

landscaping and sidewalks between their lots and the road. Consequently, landscaping and trees are planted at the discretion of the owners.

Off-street Parking and Driveways

With few exceptions, all of the properties in the study area contain some supply of on-site parking. The supply on the west side of the street is greater because these lots tend to be larger and deeper. The roadway network and topography restrict access for most parcels to Marbledale Road. As a result, there are an abundance of driveways along the corridor. Many of the driveways are excessively wide. The number and width of curb cuts raises the opportunity for conflicts between vehicles, pedestrians, and bicyclists. As the corridor transitions, the Village access management techniques should be applied to improve the safety and efficiency of Marbledale Road.

Many of the existing parking lots are located in the front of the building and sidewalks in these areas are not clearly defined. This represents a potentially unsafe condition for pedestrians and vehicles. It also discourages use of the sidewalk as a walking corridor. Parking lots should be separated from sidewalks with visually reinforced edges to present a clean, orderly appearance. Parking lots should be in the rear of buildings as opposed to the front wherever possible. Driveway widths should be limited to improve the pedestrian experience and reduce the opportunity for conflicts with vehicles.

On-street Parking and Loading

On-street parking along Marbledale Road has a mix of free and metered parking. The current regulations range from 2-hour to 4-hour limits, with other areas that do not have posted regulations. Parking regulations appear to be customized to individual properties, which has created a patchwork of different time-limits and meter regulations. Meters are currently in operation in front of two properties.

The corridor needs a cohesive approach to on-street parking that encourages turnover. Parking regulations should be reviewed so that on-street parking primarily serves the people visiting businesses along the corridor and accommodates loading for properties that cannot accept deliveries on-site. Parking regulations should also be limited to 2-4 hours to discourage long-term parking. The northern end of Marbledale Road has seen increased use by commuters using the nearby Crestwood Station. The Village should consider installing meters along the corridor, potentially in conjunction with redevelopment opportunities as they arise.

Lighting

Presently, there is intermittent “cobra head” lighting (arms mounted on wood utility poles) on Marbledale Road. Pedestrian-scaled lighting fixtures should be considered for the corridor. The lighting fixtures would continue in style from those used along Main Street.



No separation between off-street lots and sidewalk



Vehicles parked on the sidewalk



Parking meters at one location on Marbledale Road

Overhead Utility Lines

The overhead lines form a major presence along the western side of the street. The utility poles are also frequently placed within the sidewalk, causing obstructions on the sidewalk. The overhead wires also present difficulty in planting street trees. Typically small trees need to be planted so that they do not conflict with the wires. If large trees are planted they tend to be misshaped as pruning occurs to keep the clear of the wires.

Bicycle Infrastructure

Currently, there is no bicycle infrastructure along Marbledale Road, which is partially due to the fact that road is generally narrow with little or no shoulder. While Marbledale Road is not currently a bicycle route, it is the second north-south collector road within the Village that will likely see increased use in the future. Marbledale Road could be designated as a “shared” bicycle route, marked with shared-road “sharrow” markings and “share the road” signage. Additionally, new development should be encouraged to provide bicycle parking. These recommendations are further discussed later in the report.



Overhead utility lines

1.4: EXISTING CONDITIONS

Existing Sidewalks

The map on the following page illustrates sidewalk conditions along the corridor. Examples of sidewalk and crosswalk conditions are shown in Figure 2. As can be seen, the conditions vary greatly. There are many sections along the corridor that have conditions unfriendly to pedestrians such as narrow sidewalks; sidewalks on only one side of the street; obstructions in the sidewalk; and large curb-cuts where no sidewalks are present. Gaps in the sidewalk network, such as at the Smith Cairns vacant site south of Marriott Springhill Suites should be filled.

Widths of the sidewalk range from 3 feet to 6 feet. Narrow pavement widths, and obstructions in the sidewalk (i.e. street trees, utility and light poles, parking meters and other street furnishings) further limit the space available for pedestrians and discourage strolling. The walk zone, or area between the building and street that is clear of amenities/obstructions, should be a minimum of 5' wide and be continuous along the length of the street. The sidewalk walking area should never be less than 32" width for a distance of 24" (i.e. when obstructions are present), in order to provide enough space for a wheelchair to pass through.

Some sidewalks are either not well-maintained or are actively deteriorating. The Village should work with property owners to improve sidewalk conditions. All new development within the study area should require high-quality sidewalks. Guidelines for sidewalks are provided in Section 2.1.



Well-maintained sidewalks at Westy Self Storage



Gap in sidewalk network at Smith Cairns site

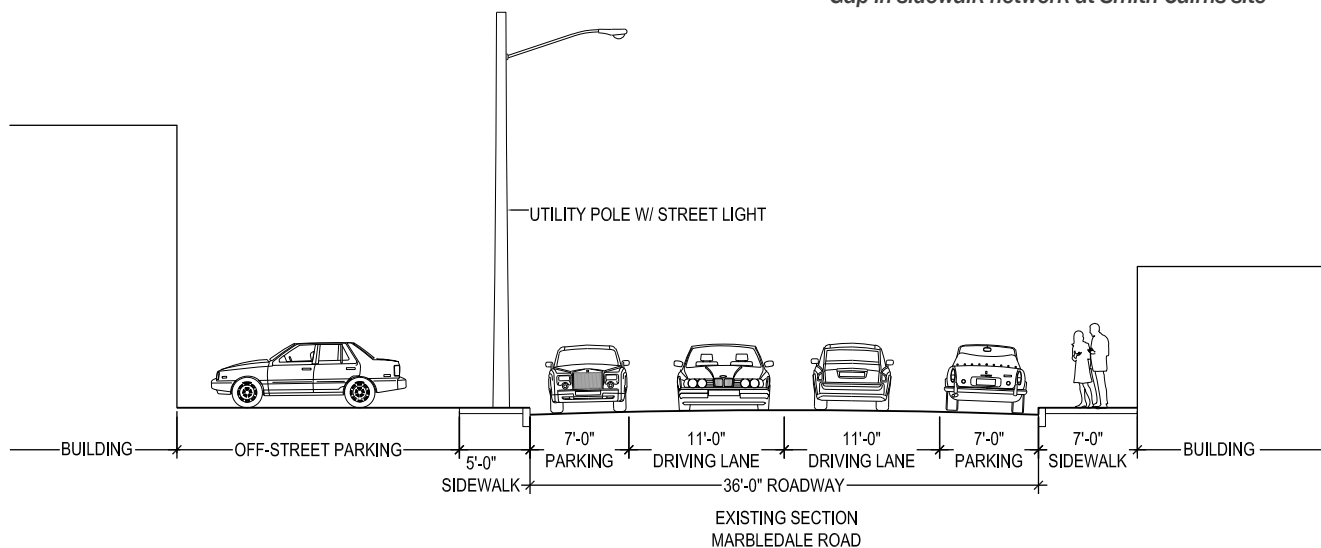


Figure 2: Existing Roadway and Sidewalk Widths

Source: RGR Landscape



Sidewalk in disrepair/heaving



No sidewalk, large curb cut.



No sidewalk at corner of Jackson Ave and Marbledale Rd.



No sidewalk, obstructions (telephone pole and stone wall)



Sidewalks in disrepair



Sidewalks and curb in disrepair, obstructions in sidewalk

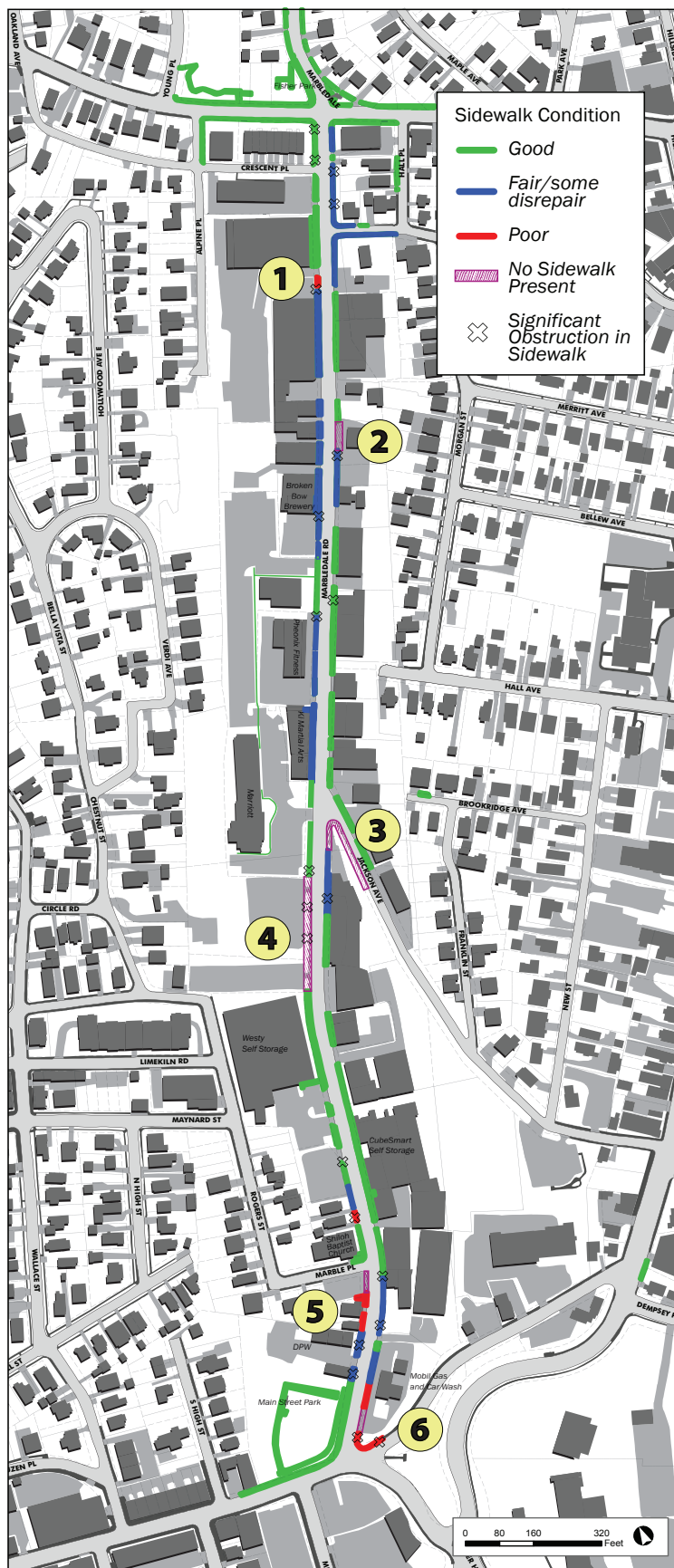


Figure 3: Existing Sidewalk Conditions

Good Conditions



Scored concrete and brick buffer at Main Street Park



5 foot wide sidewalk, linear tree plantings



Sidewalk with landscaped buffer

Poor Conditions



Sidewalk in disrepair, unmaintained landscaping



Obstructions in sidewalk



Poor definition between sidewalk and parking area



No sidewalk present



Figure 4: Existing Sidewalk Conditions

2.0. DESIGN GUIDELINES FOR NEW DEVELOPMENT

The following section is intended to be a user-friendly resource for property owners looking to develop along Marbledale Road. In addition to recommendations, photographs are provided to show attractive examples with regard to site design, lighting, landscaping, site circulation and parking. These guidelines should also be considered by the Village for improvements along the corridor.

The diagrams below show how the design guidelines together with the zoning recommendations discussed in the following section would promote development that will create an attractive streetscape with ample sidewalks, landscaping in the front, and parking in the side and rear of the building. The diagrams show:

- 15 foot front setback including 7 feet for the walking area and an 8 foot landscaped buffer with continuous street trees;
- Landscaping in parking lot
- Reduced width for curb cut
- Interconnected parking lots
- Parking in rear of building
- No parking between street and building
- Pervious pavement

The example shown is for two underutilized sites on the east side of the street. Parcels on the east side are generally 100-120 feet deep, while those on the west side are between 200 and 220 feet deep. Therefore, parcels on the west side have more space to accommodate parking and floor space. As shown in the diagram, while the 120 foot depth is narrow, there is enough space for 15 feet with the sidewalk and front yard setback, a 45 foot building depth and a 60 foot double-loaded parking lot.

There are some lots on the east side of Marbledale Road where lot depths are less than 100 feet. For these lots, developments may have limited space to fit a building, the required parking, and a 15-foot setback. The Planning Board can provide slight relief from parking or front setback requirements as needed, to be decided on a case-by-case basis.

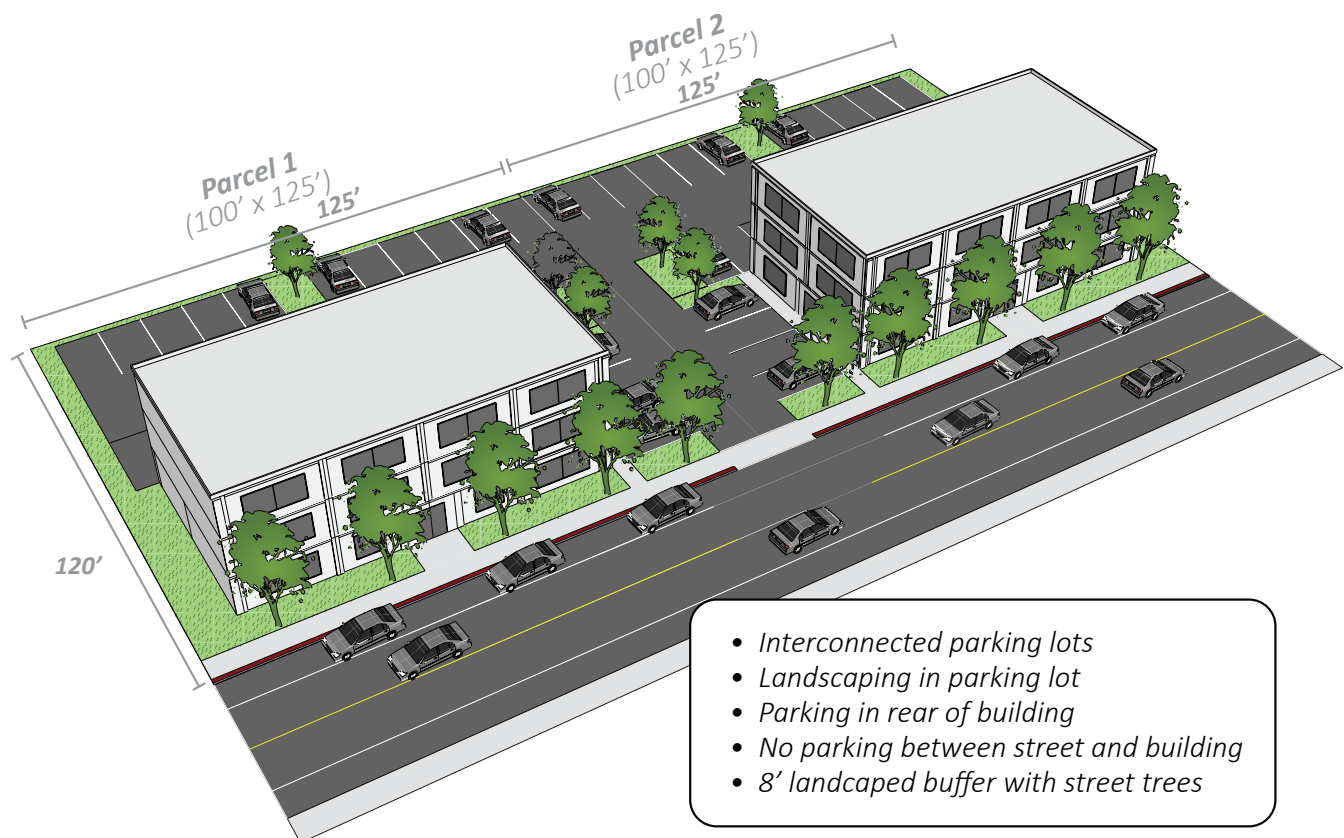


Figure 5: Redevelopment Concept with Design Guidelines

2.1: SIDEWALKS

Any redevelopment should include sidewalks and linear plantings along the street.

The sidewalks along Main Street and the southern portion of Marbledale Road (adjacent to Main Street Park) have a brick treatment. The use of brick paving adds to the texture and character of Main Street. This pattern should be continued throughout Marbledale Road where feasible as a paver strip. The sidewalk guidelines are illustrated below.

Sidewalk Guidelines

- Scored Concrete: Regular concrete, 2'x3' running bond scoring pattern, 5'-6" wide.
- Brick Verge: Natural Brick in two shades –medium red and grey, basket pattern, 1'-0" wide.
- Curbing; Granite Curb: Light Grey, Sawn or Thermal top Split-face, 5" x 18" x 5'-0" long, Georgia Granite, NC Granite or approved equal.



Scored concrete, brick buffer, and granite curbing found at Main Street Park and Main Street

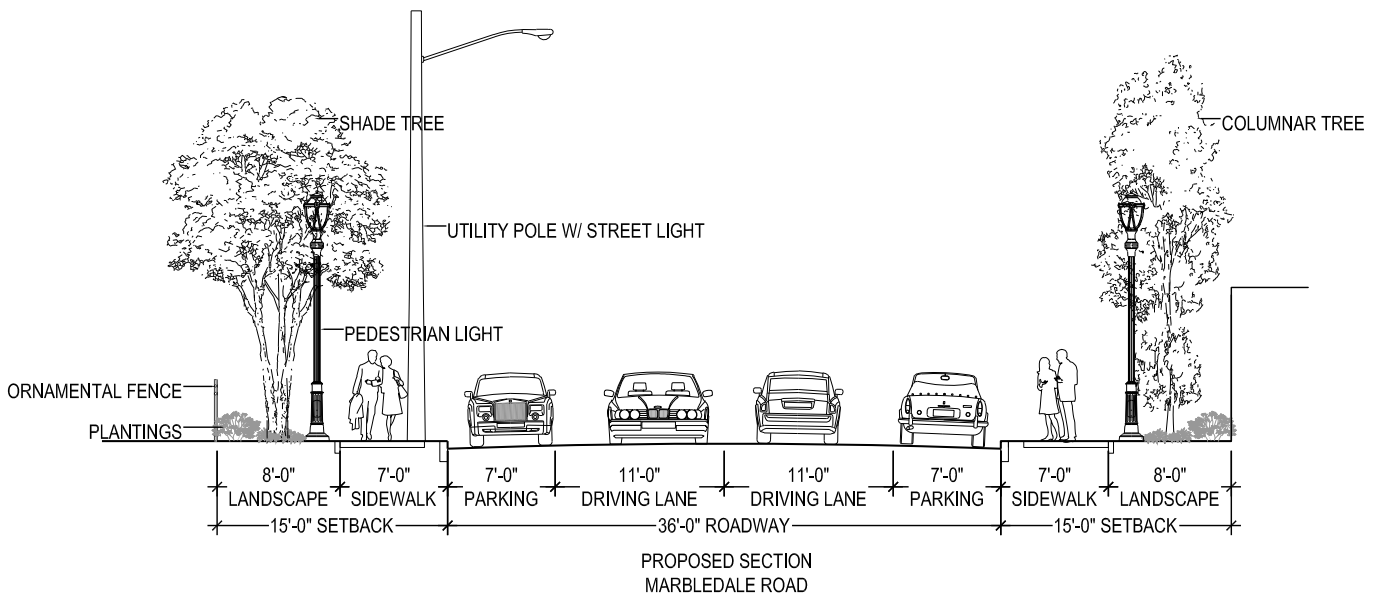


Figure 6: Proposed Roadway, Sidewalk Width, and Front Yard Setback

Source: RGR Landscape

2.2: STREET TREES AND LANDSCAPING

Trees are essential to the development of a livable street. Plantings enhance street quality by providing shade, texture and seasonal color. They provide a buffer between the sidewalk and buildings. Trees improve air quality and can modestly reduce noise. Well-executed street trees are rows of mature, appropriately spaced trees that continue the whole length of the streets with breaks at intersections. Street trees along Marbledale Road would add an attractive canopy and increase comfort for pedestrians.

Tree selection on the west side of the street should consider the overhead utility lines. Trees that grow through power line cables would have to be pruned over time. Proper selection of tree species could help to reduce maintenance problems. Street trees beneath overhead wires should have a mature height less than 25 feet and an upright or vase-shaped habit with a canopy of 15-feet in diameter or less. Trees with a strong central leader (the main upright stem) should be avoided due to pruning by power companies. Where planting sites do not conflict with overhead wires, larger trees should be selected.

Plantings also help to soften the often hard-edged urban landscape, dominated by buildings and streets. Similar to the shading effects of trees, plantings also provide ecological benefits by reducing the paved area to cool the streets, absorb stormwater runoff and attract birds and butterflies. Landscaped areas should be used to frame and soften structures, to define site functions, to enhance the quality of the environment, and to screen undesirable views. Landscaping should work with buildings and surroundings to make a positive contribution to the aesthetics and function of both the specific site and the area.

Street Trees and Landscaping Guidelines

Trees:

- Recommended (1) 3" caliper tree per 25 linear feet of frontage.
- Tree pits should be a minimum of 5'x5' or 4'x6' with 5'x10' pits recommended.
- Recommend planting in a continuous landscape strip with other plantings to provide adequate space for roots to grow. (See Figure 6.)
- If there is a tree well, it needs to accommodate the tree at maturity. Street trees need to be large enough at planting to allow pedestrians to pass under the lowest branches (about 8' clear) where directly adjacent to the walk surface.

Plantings:

- Use of native plants and trees is recommended wherever possible.
- There should be sufficient number of shrubs and perennials to cover 100% of planted area within two years.
- Service and trash areas should be screened from view on all sides.



Acer Miyabei



Cercis Canadensis



Carpinus Betulus

Recommended Landscaping Species/Elements:

- Landscape Edging: Jumbo Granite Block 4"x7"x11", light grey, tumbled.
- Grasses: Pennisetum alopecuroides, Calamagrostis x acutiflora 'Karl Foerster', Sporobolus heterolepis or as approved by Tuckahoe DPW.
- Perennials: Liriope muscari, Hemorocallis species, Rubeckia 'Goldsturm' or as approved by Tuckahoe DPW.
- Shrubs: Spirea japonica 'Anthony Waterer', Ilex glabra, Rhus aromatic 'Low Gro' or as approved by Tuckahoe DPW.
- Large Shrubs/ Small Trees to screen Parking: Lagerstroemia x indica, Hibiscus syriacus, Juniperus virginiana or as approved by Tuckahoe DPW.
- Small Street Trees for Planting below overhead wires: Cercis canadensis, Syringa reticulata 'Ivory Silk', Malus 'Donald Wyman', Malus 'Prairiefire', Malus 'Professor Sprenger', Cotinus obovatus, Acer miyabei 'Morton' or as approved by Tuckahoe DPW.
- Columnar Trees: Prunus sargentii 'Columnaris' Carpinus betulus 'Columnaris', Ginkgo biloba 'Princeton Sentry', Quercus robur 'Fastigiata', Quercus robur x bicolor 'Long' and Zelkova serrata 'Musashino'
- Medium to Large Street Trees: Acer x freemanii 'Autumn Blaze', Eucommia ulmoides, Tilia tomentosum, Tilia x euchlora 'Laurelhurst', Quercus robur 'Skymaster', Ulmus 'Accolade', Gleditsia tricanthos inermis 'Skyline' or as approved by Tuckahoe DPW.

2.3: VEHICULAR CIRCULATION (OFF-STREET PARKING AND ACCESS MANAGEMENT)

Marbledale Road's circulation system should promote efficient movement of vehicles in a clear and well-defined manner that minimizes conflicts with pedestrians and bicycles. Any new development shall review the potential impacts on the surrounding roadway network, by the utilization of a traffic study at the discretion of the Planning Board. In particular, the review shall include the signalized intersections at both ends of the corridor. If the traffic study finds that there will be an impact on the existing signalization the developer will responsible for the cost of modifying the signalization.

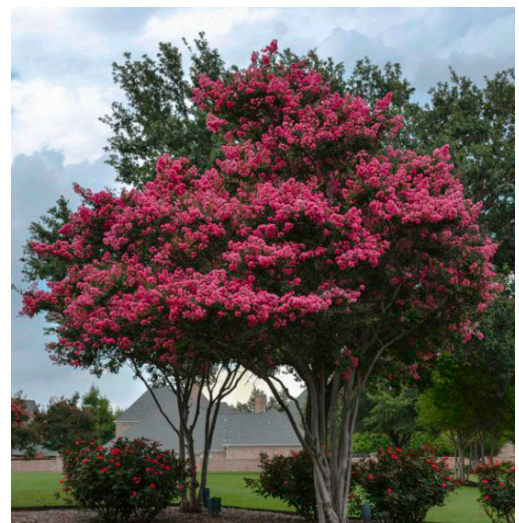
Motorists should find that access driveways are clearly defined and easy to access. Access management is key to achieving these goals and maintaining the corridor's streetscape. Whenever possible, the properties should minimize the number of driveways/curb cuts, provide access via a side street or adjacent driveway, and add landscaping to improve parking configuration and circulation.



Lagerstroemia indica



Prunus sargentii 'Columnaris'



Tuskegee Crape Myrtle

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Parking for each of the sites is provided in off-street parking lots, however most of these lots do not share parking with neighboring uses. One effective parking management strategy is to encourage shared parking among different buildings and facilities in an area to take advantage of different peak periods. Shared parking can allow parking lots to be used more efficiently. Additionally, where possible, parking areas should be integrated with and/or linked to parking areas on neighboring properties.

Many of the existing off-street parking areas are located in the front of the building and sidewalks in these areas are not clearly defined. Parking should be separated from sidewalks with visually reinforced edges to present a clean, orderly appearance. Perimeter screening (such as a hedge, berm, decorative metal fencing and/or masonry or stone wall) is a good way to eliminate significant safety hazards and visually separate and screen the parking lot from roads, pedestrian paths, and other facilities.

Vehicular Circulation Guidelines

- All new development shall consider traffic impacts on the adjacent roadway network. Projects expected to generate a significant amount of traffic should study potential impacts at the signalized intersections at Main Street and Fisher Avenue.
- Parking lots visible from a street should be continuously screened by a 3-4 foot high wall, fence, or hedge. The fence should be of high quality, and should match or compliment the style of fence utilized at Main Street Park (shown to right). Parking lots adjacent to a residential use should be continuously screened by a 6-foot high wall, fence or hedge, unless there is enough buffer area that landscaping can provide adequate screening. Chain-link fences shall not be used.
- Parking between buildings and the street disrupts the pedestrian experience. Surface parking lots should be located to the rear or to the side of principal buildings. Surface parking should not be located between a building and a street.
- Driveways should be narrowed and/or consolidated to reduce the number of curb cuts along Marbledale Road. Shared access driveways and cross-easements should be encouraged to consolidate vehicular access and egress points. It is recognized that a shared driveway requires the consent of both owners and a maintenance agreement to coordinate items such as snow plowing. It is also recognized that shared driveways may not always be appropriate because of security and facility concerns.
- Surface parking should not extend more than 70 feet in width along any street without being interrupted with a principal building or a landscaped island.
- In all off-street parking areas containing 25 or more parking spaces, at least 10% of the interior of the parking area shall be curbed and landscaped with trees, shrubs and other material.
- Permeable pavers/pavement and other green infrastructure (e.g. bio swales, rain gardens, planter boxes) shall be utilized to mitigate stormwater runoff, reduce the urban heat island effect and create a more walkable built environment.



Fencing at Main Street Park



Fence and sidewalk at Westy Self Storage

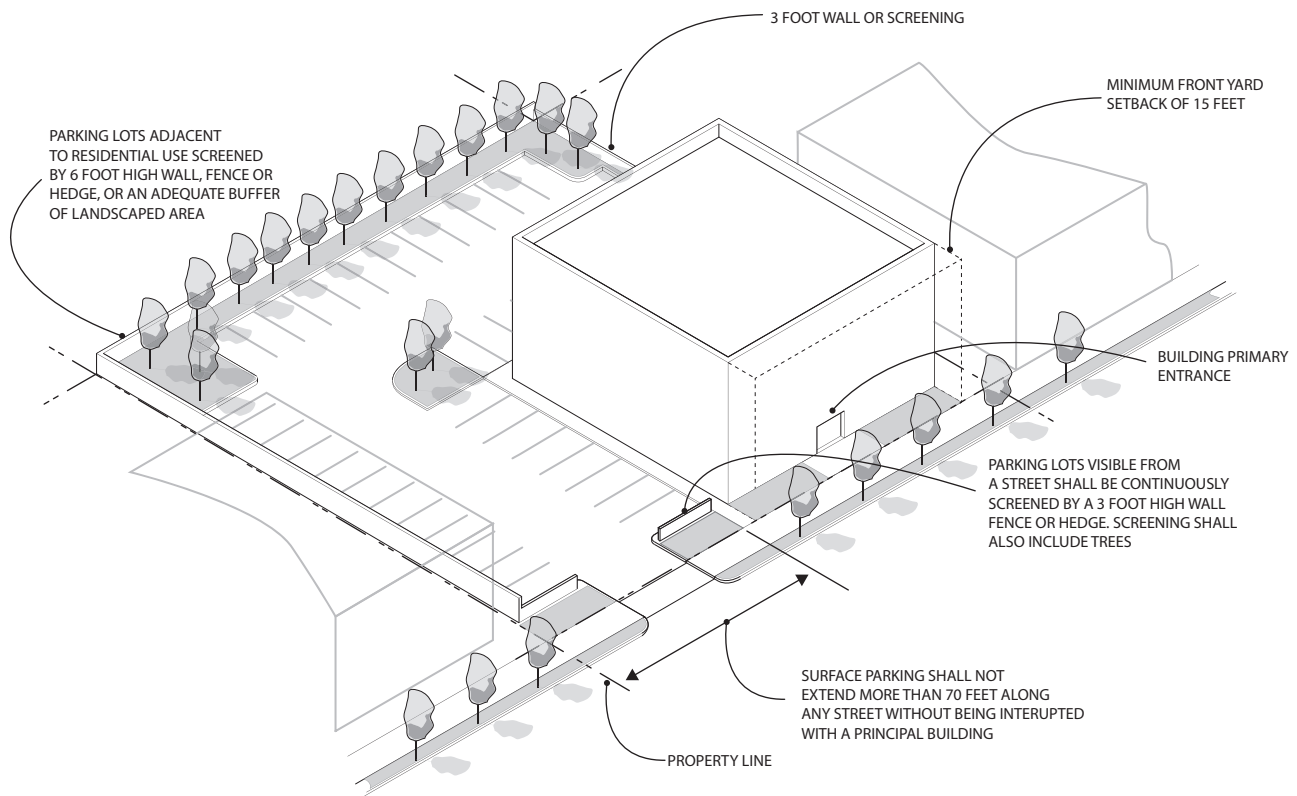


Figure 7: Proposed Off-Street Parking Guidelines

2.4: STREETSCAPE AMENITIES

The term “streetscape amenity” refers to streetscape elements in or near the street right-of-way such as street furniture, signs, streetlights and public art. These elements can help to make the environment feel friendlier to all users, and can benefit local businesses by attracting a diversity of users.

The streetscape could be improved with lighting, benches, trash cans and street furniture. These fixtures contribute to a sense of community by creating an inviting atmosphere that encourages public use and relaxation. Walkability, safety, and access should be a primary consideration for all improvements. A well-designed streetscape can protect pedestrians, reduce glare and soften the suburban environment.

Presently, there is intermittent “cobra head” lighting (arms mounted on wood utility poles) on Marbledale Road. However, pedestrian-scaled lighting fixtures should be considered for the corridor. The lighting fixtures would continue in style from those used along Main Street.

Streetscape Amenity Guidelines

Benches/Seating:

- Benches should be provided as deemed appropriate by the Planning Board.
- Benches to match Main Street Standard, 6' or 8' long with arms on concrete pad.

Lighting

- Lighting should contribute to the overall safety of the development, and landscaping should incorporate safe-by-design standards. These standards promote crime reduction through design methodology and functional planning.
- Landscaping and lighting should be used to identify entrances, pathways, and public spaces.
- Pedestrian Lights: One (1) 12' Pedestrian Fixture per 50 linear feet of frontage.
- Light Pole: Match Village Standard at Main Street, 12' high pole painted black with extension to hold a flagpole and waterproof gfi receptacle (electric outlet) for holiday lighting.

Signage at Key Nodes of Activity

- Match style of signage at Main Street Park and Fisher Avenue Park.

Fencing

- Ornamental Fence: 4' high aluminum picket fence, painted black.
- Stone Piers: Incorporate into fencing and/or signage. Natural stone to match elements at Main Street and Marbledale Road.

Trash receptacle

- One (1) trash/recycling receptacle should be provided as deemed appropriate by the Planning Board.

2.5: BICYCLE PARKING

As part of site plan approval, new development, such as the Marriott Springhill Suites, should be encouraged to provide bicycle parking. It is possible that the Village may also be served by Lime Bike or other bike share program. Off-street bike storage is an important component of an overall strategy to promote bicycle ridership.

Bicycle Infrastructure Guidelines

- Bicycle parking should be provided for most use categories as deemed appropriate by the Planning Board.
- Facilities should be secure enough, should be within easy access of the road, and should have adequate lighting to encourage the use of bicycles for short and long stays.



Above: Signage, bench and fencing at Main Street Park



Trash receptacle in Tuckahoe

2.6: OTHER ENVIRONMENTAL STANDARDS

It is recognized that the Marbledale Road corridor is in a valley adjacent to stable residential neighborhoods to the east and west. Because of the adjacency and the topography, impacts (i.e. noise, light, smoke, etc) from commercial activities are of particular concern.

Any new development shall be designed to co-exist with and complement the surrounding land uses. The General Commercial (GC) district has performance standards, which establish specific standards in several categories (noise, vibration, smoke, odors, light, heat, etc), in order to minimize adverse impacts on surrounding properties and the community.

The GC District also has an Environmental Standards Bonus, which allows for a small density bonus if certain actions are taken to “mitigate potentially adverse environmental impacts or to improve the subject site’s environment.”

It is recommended that the environmental standards become a requirement for future development. In general, applicants should use “Green building design,” the practice of increasing the efficiency with which buildings use energy, water, and material resources while reducing building impacts on human health and the environment during the building’s life cycle.

Applicants shall demonstrate to the Planning Board that green (sustainable) design measures will be used. All buildings shall be consistent with the Village’s building code and should strive to be LEED® -certified or the equivalent.

Of particular interest to the Village are techniques that will help with retention and detention of stormwater runoff. This may include roof gardens, bioswales, and permeable surfaces. Permeable surfaces allow water to percolate into the soil to filter out pollutants and recharge the water table. Impermeable surfaces such as asphalt and concrete should be minimized.



Permeable asphalt (top) and permeable pavers (bottom)

3.0. ZONING RECOMMENDATIONS

Existing Zoning

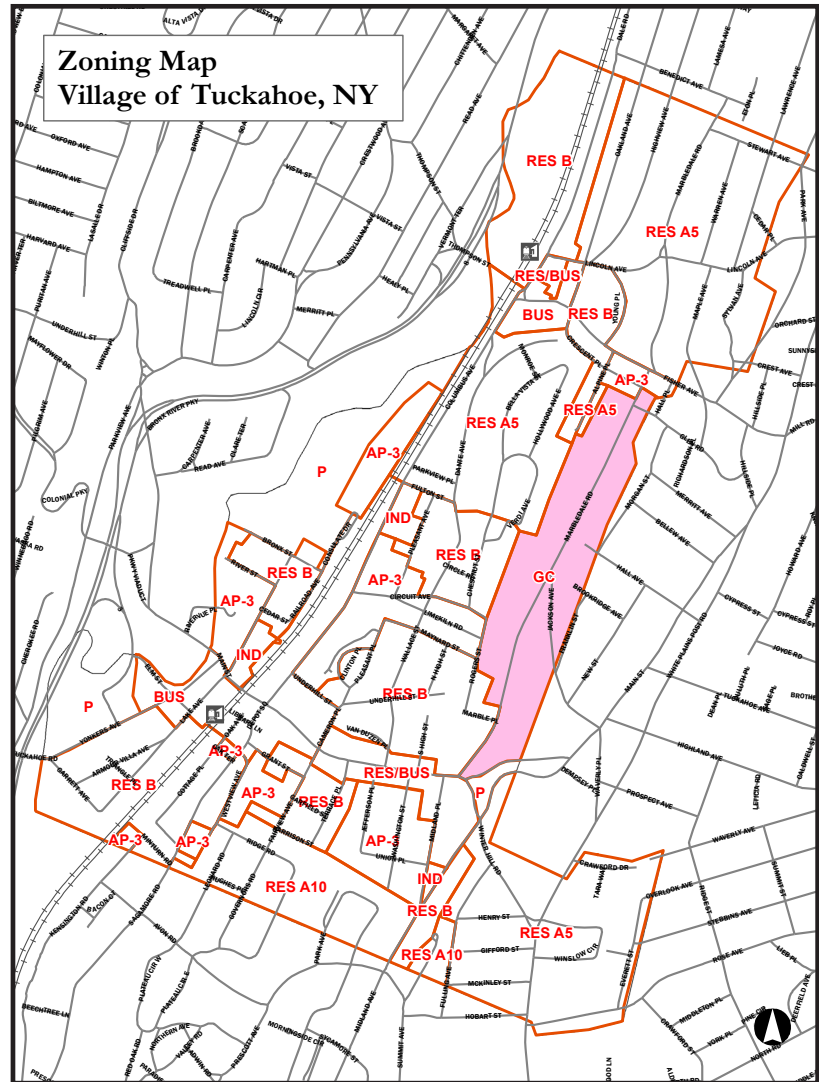
The Marbledale Corridor business district is largely located within the General Business (GB) Zoning district. The northern end of the corridor adjacent to Fisher Avenue is zoned Apartment 3 District, which reflects the existing multi-family homes in that area.

The General Business district allows for a variety of office, commercial, warehouse, restaurant and retail uses. Residential uses are not permitted. Some uses are allowed by special permit including motor vehicle filling stations, auto repair shops, outdoor storage, and manufacturing facilities.

The zoning code regulates the size and bulk of buildings through various controls. Building heights are generally limited to 50 feet with a maximum site coverage of 70%. The bulk of the building (or total square footage) is controlled by the Floor Area Ratio (FAR). The FAR number multiplied by the lot size yields the maximum total square footage of built area allowed on a site. The FAR for the GB district is 1.6.

Buildings in the GB district have a minimum front yard setback of 10 feet (measured from the curb line). Buildings above 40 feet in height are required to have a 20 foot setback. Buildings are also required to have a 10 foot side yard and a 20 foot rear yard (50 feet from boundary of residential district).

The GB district includes an “Environmental Standards Bonus” which incentivizes green building design and innovative approaches to stormwater management, pollution mitigation and sustainable energy. If an application demonstrates to the Planning Board’s satisfaction that the proposed development complies with the standards listed in the zoning code, the Planning Board may award a density bonus up to 2.0 FAR and/or a height bonus up to 60 feet.



Zoning Map and General Commercial (GC) District
(in pink)

Zoning Recommendations

General Business (GB) District

The Village shall consider the following changes to the General Business (GB) Zoning district, which is only located on Marbledale Road. Recommended changes to Section §4-8 of the zoning code are provided in Appendix A.

- **Marbledale Road Design Guidelines:** Include guidelines in this report as part of consideration in site plan approval. The guidelines will need to be interpreted on a site by site basis by the Planning Board. Guidelines for new construction may be more demanding than those for the upgrading or expanding of existing structures.
- **Reduce allowable height:** It is recommended that the allowable height be reduced from 50 feet to 45 feet and 4 floors. 45 feet will allow for 10 foot floor to ceiling heights and an attractive cornice, a pitched roof, or another architectural feature that adds interest to a building's design.
- **Reduce FAR:** It is recommended that the allowable FAR be reduced to 1.4 (from 1.6). As shown in Figure 5 on page 13, it will be difficult for developers to achieve a 1.6 FAR as the amount of buildable space is primarily limited by the parking requirements for the proposed use rather than the allowable FAR. In the example shown, without incorporating a garage, an office use on the east side of the street would only be able to achieve an FAR around 1.0, and not 1.6 as currently allowed in the district.
- **Environmental Standards Bonus:** There is currently a provision that allows for a 0.2 – 0.4 FAR bonus if certain environmental standards are met (Section §4-8.5). It is recommended that these standards become a requirement for site plan approval and not a bonus. In no case should a building be larger than 45 feet/4 stories. Applicants shall demonstrate green building design, whether LEED® -compliant or the equivalent, before the certificate of occupancy is granted. See appendix to this report for details.
- **Front Yard Setback:** Change minimum front yard setback to 15 feet (from 10 feet) from the curb to the building. This will allow space in the front for a wide, attractively designed sidewalk, and an 8-foot landscaped area in front of the building. Buildings should be built no more than 25 feet from the street. Parking should be located in the rear of the building and not within the front yard setback.
- **Shared Parking:** Off-street parking requirements should provide some flexibility to promote greater efficiency in use. This may include the sharing of parking on a site with multiple uses. The reduction in parking would be evaluated by the Planning Board based upon a shared parking study. Additionally, a small parking reduction could be given to developments that are able to integrate/link parking areas with neighboring properties. With better access management, having fewer lots minimizes the number of ingress and egress points.

Village-wide Recommendations

The following recommendation zoning recommendations should be incorporated into the Village code for all zoning districts, not just the General Business district.

- **Access Management:** Promote safety and efficiency by requiring developers to demonstrate use of the following access management techniques:
 - Provide access from side street or adjacent property
 - Sites with multiple driveways should show whether one driveway could be closed.
 - Proper driveway widths: multi-lane driveways should ideally be 24 feet wide or up to 30 feet in width if used by trucks.

4.0. RECOMMENDATIONS FOR VILLAGE TO CONSIDER FOR FUNDING AND GRANTS

The following recommendations are those that would be primarily initiated by the Village, and would likely require public funding. While sponsored by the Village, some of these projects would require coordination with private property owners and/or Con Edison who owns and maintains the utility lines over the street. These are seen as future capital budget projects subject to federal, state, and county grants.

4.1: PLACEMAKING OPPORTUNITIES

Placemaking is the process of creating quality places where people want to live, work, play, and learn. A part of placemaking is creating experiences that will promote an area's identity, inspire interest, and help visitors understand and enjoy a place. There are a number of opportunities along the Marbledale Road to create small nodes of open space which will help to beautify the corridor, improve walking conditions, calm traffic, and also express the character of the community. These nodes could incorporate attractive signage, streetlights, enhanced landscaping and potentially standalone design elements to evoke Marbledale Road and the Village's history which was once closely tied to the marble industry. The Village should encourage the revival and celebration of historic structures such as the abandoned rail lines at the Jackson Avenue intersection. Redevelopment projects should be encouraged to include Tuckahoe Marble in design elements, particularly when the stone is discovered on-site. Developing a logo for the corridor would also help to create a more cohesive message on signage and other promotional materials.

Gateways

Gateways and public/open spaces play an important role in creating a sense of place within a neighborhood. Gateways create a sense of arrival and provide residents and visitors with a first impression of a neighborhood. The intersection at Main Street and Marbledale Road is in effect a gateway to both the Village of Tuckahoe from Bronxville and Eastchester, and to the Marbledale commercial corridor. This intersection already has a number of attractive features, including Main Street Park, the World War 1 memorial, and the recently built Quarry Place development. The Village should maximize use of this gateway to create a stronger sense of arrival and improve Tuckahoe's sense of place.

As seen in Figure 3 on page 10, there are a number of locations on the southern portion of Marbledale Road where sidewalk conditions are fair to poor, including the gateway at Main Street. While the corner on the east side of Marbledale Road (next to the Mobil Gas Station) has some landscaping, the sidewalk is generally in disrepair and in need of improvement. The Village should consider enhancing this location by replacing the sidewalks and removing sidewalk obstructions, improving



Landscaped area at Main Street and Marbledale Road in front of Mobil Car Wash



Landscaping, signage and bench at Fisher Park

Marbledale Road Design Guidelines

the landscaping in front of Mobil, and adding lighting and signage to call attention to visitors.

The gateway at Fisher Avenue and Marbledale Road is less of a priority relative to Main Street. The corner at Fisher Park on the opposite side of the street has attractive landscaping and signage, such as the gateway sign for the Village of Tuckahoe. The sidewalks on both sides of Fisher Avenue are in good condition.

Jackson Avenue

The southwest corner of the intersection at Marbledale Road and Jackson Avenue is currently in disrepair and is in need of improvement. As seen in the photos to the right, this area currently does not have a dedicated sidewalk or a curb, and it is utilized as a driveway by the adjacent property owner, Richards Conditioning (70 Marbledale Road). The landscaping at that property is unmaintained and the fence is of poor quality. One can still see the rail lines buried in the asphalt of the driveway, a remnant from Marbledale Road's industrial past. On the Jackson Avenue side of the corner, there is an attractive landscape treatment. While there is a sidewalk on the northern side of the street, there is no sidewalk on the southern side.

As a condition of site plan approval for the Marriott Springhill Suites project, the Planning Board requested that the developer improve pedestrian conditions at the Jackson Avenue intersection. The approved site plan includes new sidewalks and crosswalks at the three crossing locations. As seen in the site plan image above, the existing crosswalk would be moved slightly to the south to align more closely with the intersection. The new sidewalk at the corner would have a curb-cut to allow for vehicles to access the driveway at 70 Marbledale Road.



Jackson Avenue and Marbledale Road

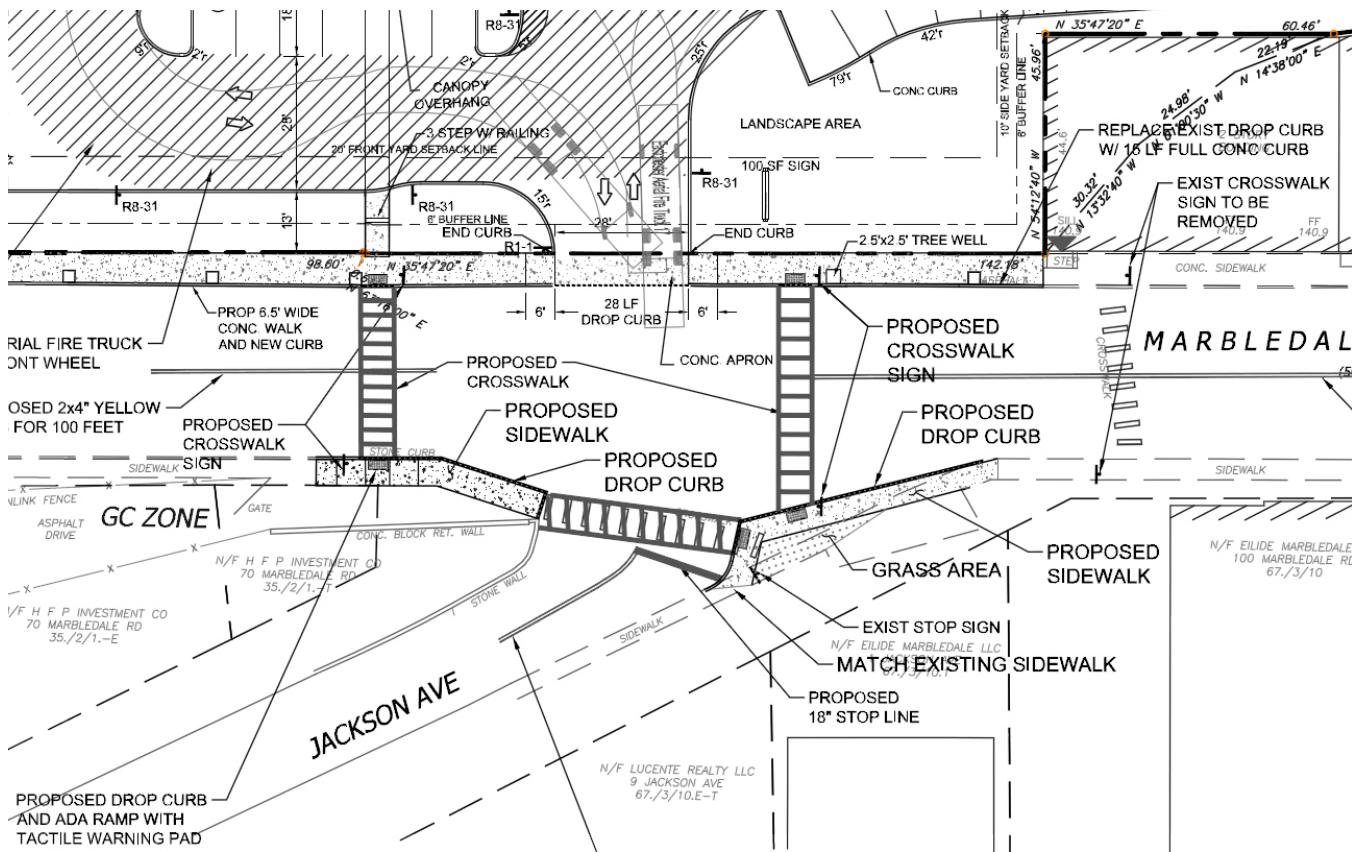


Jackson Avenue (100 foot gap in sidewalk on south side of street)



Jackson Avenue and Marbledale Road

Marbledale Road Design Guidelines

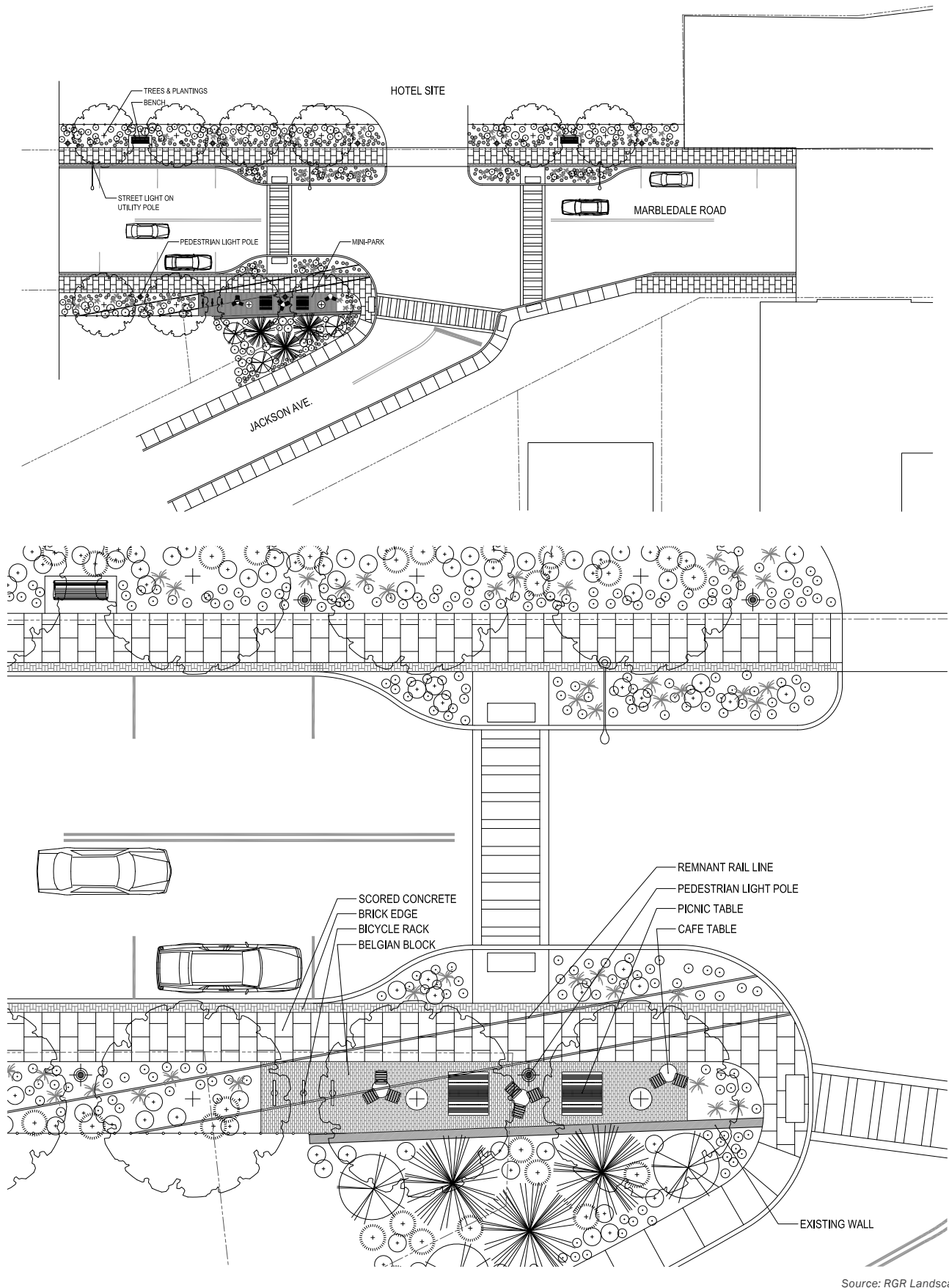


Intersection improvements to be completed as part of Marriott Springhill Suites project

If the 70 Marbledale Road site were ever to be redeveloped, it would present an opportunity for the Village to transform the corner of the intersection into a pocket park. In order to accomplish this, the Village would have require the access road to be located further away from the Jackson Avenue intersection. The corner could then be used as an open space with additional landscaping, seating and lighting. The park could reclaim and incorporate the rails that are currently buried in the asphalt. This feature, together with descriptive signage would help to highlight the area's industrial history and create a sense of pace along the corridor. It is important that the intersection be designed so trucks have enough space at the intersection to turn between Jackson Avenue and Marbledale Road. This conceptual design is shown on the following page.

Two improvements for the village to consider that could be achieved without redevelopment of the 70 Marbledale Road site include:

- Curb extensions on the Marriott side of the crosswalks to reduce pedestrian crossing distances, calm traffic, and improve safety
- Building a sidewalk on the southern side of Jackson Avenue to fill in the 100 foot gap in the sidewalk network.



Source: RGR Landscape

Figure 8: Jackson Avenue/Marbledale Road Intersection Improvement Concept

Curb Bumpouts

A curb bumpout is essentially an extension of the sidewalk into the street. At intersections, bumpouts narrow the roadway and can improve safety by defining pedestrian crossing areas, reducing crossing distances, and encouraging drivers to reduce speeds. They are also increasingly being used as opportunities to insert small landscaped spaces that can also provide green infrastructure (i.e. bio-swales or stormwater catchment basins), which help reduce stormwater overflow on village streets.

On Marbledale Road, bumpouts should be considered to widen the sidewalk, provide some landscaping and open space. This may be appropriate in situations where there is no front yard setback to the building and existing sidewalks are narrow. This would only apply to situations when a developer chooses to adaptively reuse an existing building. When buildings are completely redeveloped, they should provide sidewalks and landscaping as indicated in Section 2. The trade-off in this scenario is that on-street parking spaces would be lost. These bumpouts should be considered on a case-by-case basis, and parking supply would need to be sufficient in other locations to serve the site.



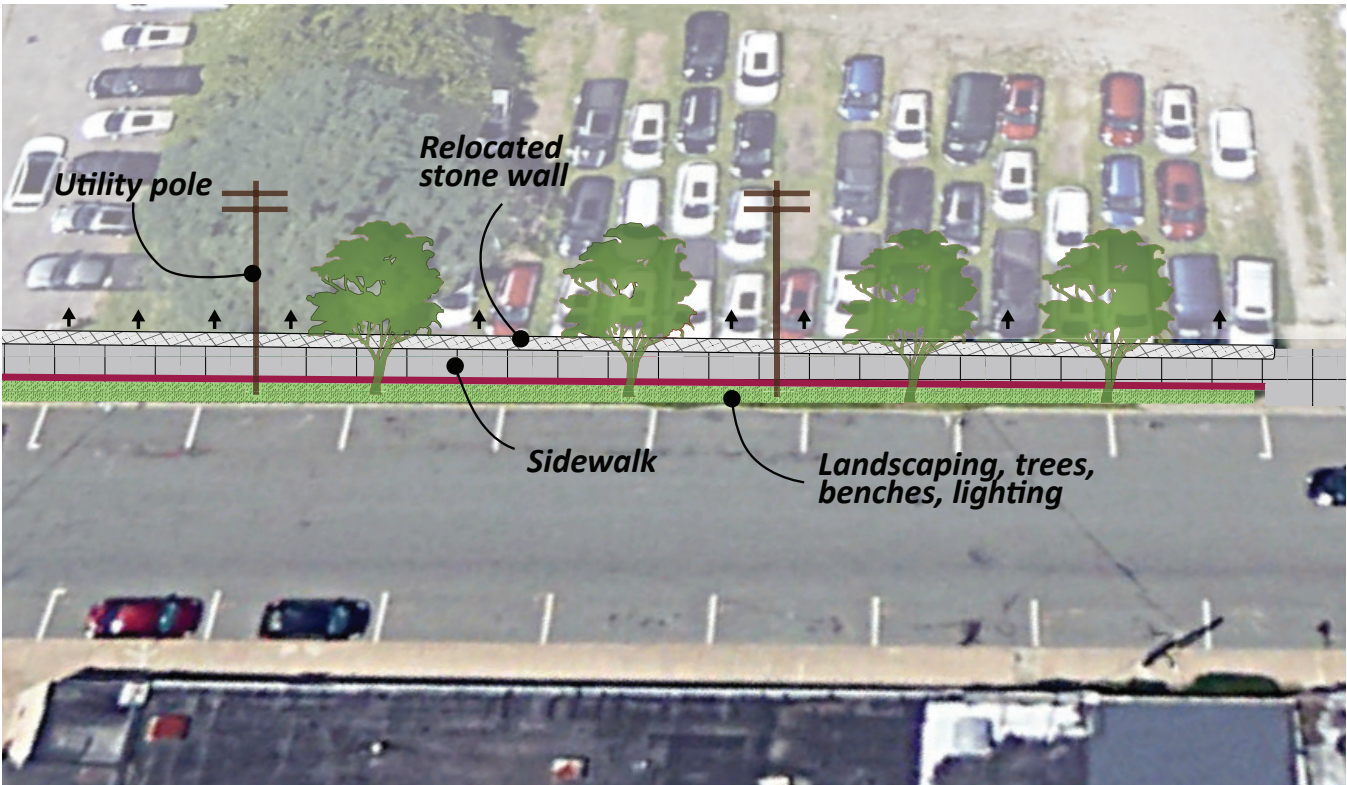
Stone wall and utility pole in walking area

Smith Cairns Site

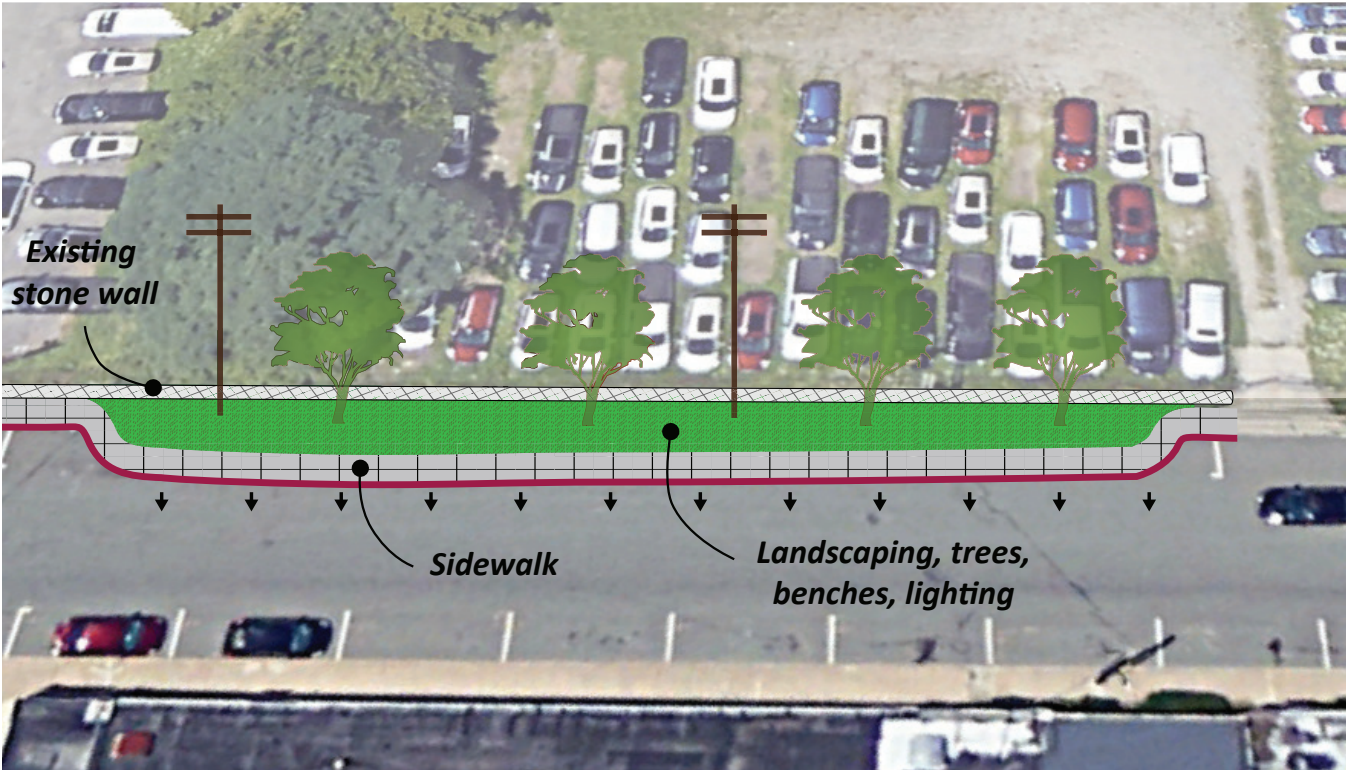
There is a gap in the sidewalk network on the west side of the street at the vacant Smith Cairns site. The site is currently used for car storage and it is reasonable to assume that it will be developed at some point in the future. Development of the site will help to fill this important gap in the road. Providing trees and landscaping at this location will also provide much needed greenery, slow down traffic, and break up the expanse of the road.



Existing conditions



Concept 1: Relocate stone wall to accommodate sidewalk and landscaping



Concept 2: Replace on-street parking with curb extension that includes sidewalk and linear green space

Figure 9: Smith Cairns Site Sidewalk Concepts

Marbledale Road Design Guidelines

There are a few obstacles to building sidewalks at this location. While the stone wall is an attractive feature that could be retained, there is only four feet of space for a sidewalk from the wall to the curb. There are also two locations where utility poles obstruct the walkway. This report presents two different options (shown on the following page) for the Village to consider to connect the sidewalk network.

Concept 1: Relocate the stone wall five feet or more into the property to provide adequate space for a five foot sidewalk and a landscape buffer for street trees. The advantage of this concept is that all costs would be borne by the developer of the site. The existing street parking would be kept. The disadvantage is that the stone wall would need to be moved.

Concept 2: Replace the on-street parking and create a curb extension, potentially for the length of the property. This would create additional space in the pedestrian way for a wide sidewalk, trees, and streetscape amenities such as benches, lighting, and signage. An advantage to this concept is the stone wall would remain in place. However, new curbing would need to be constructed in the street bed and approximately seven on-street spaces would be lost.



Stamped asphalt crosswalk

4.2: CROSSWALKS

Crosswalks are a critical element of the pedestrian network. They indicate to pedestrians the appropriate place to cross and help make clear possible conflict points with traffic. There are crosswalks along Marbledale Road in three locations: at Main Street, at Jackson Ave, and at Fisher Avenue. The sidewalks at Jackson Avenue will be re-striped as part of the completion of the Marriott Springhill Suites development.

Currently, crosswalk pavement markings are also in various states of repair. While the Jackson Avenue crosswalks will be newly striped, the Main Street crosswalk has faded. Re-striping these areas will give better guidance to drivers, pedestrians and bicyclists. The Village should consider using different treatments for the crosswalk such as stamped concrete to better define the pedestrian crossing and help to create a sense of place.

4.3: ON-STREET PARKING

Parking along Marbledale Road should prioritize short-term parkers, who are generally most sensitive to parking conditions. To increase the opportunity for available on-street parking, time-limit regulations and metering should be used to encourage turnover. To improve user-friendliness, regulations along the corridor should be cohesive, stepping away from the current mix of time-limit regulations, and standardizing it to two- or four- hour parking throughout the corridor. Parking meters should be present throughout the corridor. It is generally understood that meters promote commercial activity by ensuring steady turnover in short-term parking spaces. The time-limit regulations coupled with continued enforcement will reduce the number of commuters parking. Long-term parking for employees should be accommodated on-site or through shared-parking agreements. In the case where properties are entirely redeveloped, the Village should push developers to provide meters as part of site plan approval.

There are also some locations where on-street parking is located relatively close to driveways. These spaces should be off-set at least 10 feet from driveways to allow for sufficient sight lines for drivers entering and exiting the facility.



Existing two-head parking meters in Tuckahoe

4.4: UTILITIES

As discussed in earlier sections, the presence of utility poles in the sidewalk is an obstruction for pedestrians. Where these hindrances exist, there are limited options to relocate the poles because the space between the road and buildings are so narrow. Overhead power lines and communications cables also form an unaesthetic feature of the streetscape and can result in conflicts with existing street trees. Trees that grow through power line cables would have to be pruned over time. Proper selection of tree species could help to reduce maintenance problems.

The Village should consider the possibility of burying the lines to improve the pedestrian walkway, enhance, and beautify the street. Buried lines also fare better in storms because they are not affected by downed trees. While feasible, burying the utilities would be a significant challenge. The effort would require a significant amount of coordination between the Village, private property owners and Con Edison. Burying the lines is an expensive and disruptive undertaking, as the poles would need to be taken down and the street would have to be excavated and repaired. There would also be a significant cost to this project. For comparable projects in the past, Con Ed has estimated that it would cost \$1 million per mile to bury lines. A cost estimate would have to be developed for Marbledale Road. Individual properties would also have to connect their buildings to the buried utility lines.

The Village should consider contacting Con Ed for the purpose of engaging in a project that would develop a realistic long-range plan for burying some or all of power lines along the corridor. It is appropriate now to consider planning for this project in a thoughtful and constructive manner, recognizing that such a project would be complex, costly and require years to put into effect.

As an interim measure, the Village should require all new developments to connect to existing utility poles via underground connections. This would help to ensure that no new overhead wires are added and it would facilitate future connections to underground utility lines. The Village should also undertake engineering studies and an examination of potential funding sources should be undertaken to review the feasibility of placing utilities below grade.



Existing utility poles in sidewalk path



Overhead utility lines

4.5: BICYCLE INFRASTRUCTURE

Currently, there is no bicycle infrastructure along Marbledale Road, which is partially due to the fact that road is generally narrow with little or no shoulder. Marbledale Road is not a natural bicycle route. Main Street and Fisher Avenue provide east-west connections to the train station and Columbus Avenue is the more natural north-south connection to these stations. The Columbus Avenue corridor has a mixture of uses including residential, restaurant, retail and public uses such as the community Center, making it a more natural route for cyclists.

Marbledale Road is not only narrow but also has significant truck and service traffic due to the general commercial and industrial uses in the area such as the Verizon facility.

For these reasons, the Village does not see Marbledale Road as having a dedicated bicycle route. The road, however could be designated as a “sharrow” route. This means signing the road with markings, or placing signs that notify drivers to “share the road” with bicyclists. These markings do not provide dedicated space for bike lanes, but alert drivers of the presence of cyclists on the road.

As discussed earlier, as part of site plan approval, new development should be encouraged to provide bicycle parking. This would be either in on street bike racks or off-street bike storage as determined by the Planning Board.



Sharrow pavement markings

5.0. IMPLEMENTATION

The implementation of the recommendations as described within this report will require many coordinated actions over a period of several years. The measures below are priority measures that the Village can take to implement this plan.

Adoption of Marbledale Road Design Guidelines

A first step is a ratification or adoption of this plan as an addendum to the Village's Comprehensive Plan so that it is officially recognized by the Village and can form a basis for grant applications, capital budget allocations and zoning changes.

Zoning Text Adoption

Once the plan is adopted, it can form the basis for the Planning and Zoning Commission to consider the zoning changes for the General Commercial (GC) District. Proposed revisions to the GC district are shown in Appendix A.

Funding Partners/Capital Budget

Some of the recommendations of this report will need funding to accomplish specific projects. The Village will need to work with funding partners on a range of issues. Grants for these improvements may be available and should be pursued by the Village. Grants often require a local match, which could come from the capital budget or from private sources.

APPENDIX A: RECOMMENDED ZONING TEXT CHANGES

§ 4-8. General Commercial District. [L.L. No. 10-2009, § 1]

4-8.1 Within any General Commercial District, no building or land shall hereafter be used for any purpose other than any of the following uses, or any combination thereof, that will satisfy the performance standards that are set forth immediately following the list of said uses:

(a) Permitted uses.

1. Offices for executive, administrative or clerical purposes.
2. Scientific or research laboratories.
3. Warehouse and storage facility enclosed within a building.
4. Schools.
5. Sports and health clubs.
6. Hotels.
7. Restaurants.
8. Retail and service businesses.
9. Churches.

(b) Special Permit Uses.

1. Motor vehicle filling stations or motor vehicle repair/body shops.
2. Outdoor storage. In case of temporary outdoor storage for a duration less than 90 days, permission may be granted by the Village Building Department.
3. Manufacturing, including the fabrication and assembly of products, and incidental storage, sale and distribution of such products, but excluding heavy industrial processing where products are extracted from raw materials.

4-8.2 Performance Standards for Special Permit Uses. No use listed in § 4-8.1(b)(1), (2) or (3) shall be established, maintained or conducted so that the same will cause any:

- (a) Dissemination of smoke, gas, dust, odor or any other atmospheric pollutant outside the building in which the use is conducted or, with respect to a use or any part thereof that is not conducted within a completely enclosed building, any such dissemination whatsoever.

APPENDIX A: RECOMMENDED ZONING TEXT CHANGES

- (b) Noise in violation of Article II of Chapter 15 of the Code of the Village of Tuckahoe, entitled "Noise and Other Enumerated Nuisances."
- (c) Discharge of any waste material whatsoever into any watercourse.
- (d) Dissemination of glare or vibration beyond the immediate site of the use.
- (e) Traffic on any street primarily serving residential districts that is incongruous with the traffic normal to such streets.
- (f) Physical hazard, by reason of fire, explosion, radiation or similar cause, to property in the same or an adjacent district.

4-8.3 Accessory Uses. The following uses may be established and maintained so long as they are incidental and subordinate to a principal or special permit use:

- (a) Within a hotel, a public dining area or restaurant, recreation space, a lounge, a pool or a meeting room or meeting rooms.
- ~~(b) Quarters for caretakers or watchmen on the site of the use to which the same are appurtenant.~~
- (c) Satellite earth station or dish antenna less than 24 inches in diameter.
- (d) Signs (subject to §§ 3-16 through and including 3-31 of the Village Code).
- (e) Fences and walls.
- (f) Garages or parking structures.

4-8.4 Uses Prohibited. All other uses are hereby prohibited. It is the intent of this chapter to exclude all residential uses as being inappropriate therein and in conflict with the purposes of this chapter and to confine the uses therein to those that are specifically listed in this section as being permitted therein.

With respect to any application for a building permit or a certificate of occupancy, the Building Inspector may require such evidence as he may deem to be necessary to determine whether or not the proposed use will reasonably conform to the performance standards set forth above in this section and with the site plan approved in accordance with the provisions of § 4-8.8. If the Building Inspector is in doubt, he shall refer the matter to the Planning Board, which shall make a determination in the case, in connection with which it may obtain expert advice, at the expense of the applicant, and payment in advance of the amount of such expense shall be a condition of further consideration of the application.

APPENDIX A: RECOMMENDED ZONING TEXT CHANGES

4-8.5 Height; Open Space. The following regulations shall apply:

- a) No building shall exceed a height of ~~50~~ 45 feet and 4 floors. Notwithstanding the foregoing sentence, subject to Planning Board approval, buildings satisfying the environmental standards set forth in § 4-8.5(g) may be built to a height as set forth in said § 4-8.5(g).
- b) All the buildings on a site, as shown on the site plan thereof, as provided in § 4-8.8. shall not cover an aggregate area of more than ~~70%~~ 60% of the area of such site. Additionally, at least 15% of the site must be in open space that is landscaped, permeable and open to the air.
- c) The floor area ratio for the General Commercial District is ~~1.6~~ 1.4. ~~Notwithstanding the foregoing sentence, subject to Planning Board approval, buildings satisfying the environmental standards set forth in § 4-8.5(g) shall have a floor area ratio that does not exceed the floor area ratio set forth in said § 4-8.5(g).~~
- d) Front Yard. There shall be a front yard along each street line with a depth of not less than ~~10~~ 15 feet. The front yard shall be measured from the curbline, and the sidewalk, if any, shall be included in such computation and measurement. ~~For a building above 40 feet in height, such building shall be set back an additional 10 feet.~~
- e) Side Yard. All buildings shall be located at no point less than 10 feet from any side boundary of the site on which the same are situated, provided that no building shall be located at a distance of less than 50 feet from the boundary of any residential district established by this chapter. The provisions of this section shall not apply to sites which are completely separated from other district boundaries by streets, rivers and main tracts of railroads.
- f) Rear Yard. All buildings shall be located at no point less than 20 feet from any rear boundary of the site on which the same are situated, provided that no building shall be located at a distance of less than 50 feet from the boundary of any residential district established by this chapter. The provisions of this section shall not apply to sites which are completely separated from other district boundaries by streets, rivers and main tracts of railroads.
- g) On the site of any development that is contiguous to the outside boundary of the district, there shall be provided a belt of landscaping having a width of not less than six feet. On the site of any development that is contiguous to the boundary of any residential district there shall be provided a belt of landscaping along such boundary having a width of not less than 20 feet. Landscape belts shall be included in a comprehensive landscape plan for review and approval by the Planning Board and subject to the review of an outside licensed landscape architect. Landscape belts shall include a variety of deciduous and evergreen trees, small flowering trees with a minimum diameter at breast height of three inches and deciduous and evergreen shrubs. All species shall be noninvasive. Such belt shall be planted and maintained in accordance with requirements made as a part of the action by the Planning Board on a site plan as provided in § 4-8.8 of this chapter, and in conformity with any specifications as to such landscaping that may be adopted by the Planning Board, with approval by the Village Board. The provisions of this

APPENDIX A: RECOMMENDED ZONING TEXT CHANGES

section shall not apply to sites which are completely separated from other district boundaries by streets, rivers and main tracts of railroads.

h) Every use, or any part thereof, that is not conducted within a building completely enclosed on all sides shall be completely enclosed within a wall or fence of such material, construction and height as to screen completely all operations conducted within such wall or fence from observation from outside thereof. The requirements as to such wall or fence, supplemented by such landscaping as may be necessary to accomplish any of the purposes of this chapter, shall be specified by the Planning Board as a part of its action on the site plan of the use, as provided in § 4-8.8 of this chapter.

i) Environmental Standards **Bonus**.

~~a. Conditions for Bonus. At the discretion of the Planning Board, a density bonus may be granted to an applicant under the following conditions:~~

~~i. If the applicant demonstrates to the Planning Board's satisfaction that the proposed structure and/or use shall comply with at least half the standards listed below in Subsection (g)2, in any combination, then the Planning Board may award either or both a density and a height bonus.~~

~~1. Such density bonus shall allow an increase in floor area ratio from 1.6 to no more than 1.8.~~

~~2. Such height bonus shall allow an increase in height from 50 feet to no more than 55 feet.~~

~~ii. If the applicant demonstrates to the Planning Board's satisfaction that the proposed structure and/or use shall comply with all the standards listed below in Subsection (g)2, then the Planning Board may award either or both a density and a height bonus.~~

~~1. Such density bonus shall allow an increase in floor area ratio from 1.6 1.4 to no more than 2.0 1.6.~~

~~2. Such height bonus shall allow an increase in height from 50 45 feet to no more than 60 55 feet and 5 floors.~~

b. Environmental Standards. The following items are actions, materials, or programs that an applicant in the General Commercial District **may** shall adopt either to mitigate potentially adverse environmental impacts or to improve the subject site's environment.

i. Green Building Design. "Green building design" is the practice of increasing the efficiency with which buildings use energy, water, and material resources while reducing building impacts on human health and the environment during the building's life cycle.

APPENDIX A: RECOMMENDED ZONING TEXT CHANGES

1. Generally, the applicant shall demonstrate to the Planning Board that green (sustainable) design measures will be used. Some measures are:
 - a. Site planning: e.g., responsiveness to climate features such as sun and wind, microclimate management, solar orientation (long axis facing south); landscaping for summer cooling effect and for blocking winter winds; parking areas designed to limit heat absorption.
 - b. Efficient water use: e.g., use of water conservation measures, including dual water systems if available, water recycling.
 - c. Efficient energy, materials and resources use: e.g., use of daylighting; use of appropriate glass for minimizing heating and cooling loads, use of building materials in construction and maintenance of site features, use of materials in environmentally sound ways, such as Energy Star® products and certified lumber, use of insulation beyond minimum standards, use of renewable energy for heating and cooling, use of energy-efficient motors, use of energy-efficient lighting, use of energy management systems.
2. Specifically, one set of criteria for green building design is known as "LEED"® and is promulgated by the U.S. Green Building Council (USGBC). LEED® (Leadership in Energy and Environmental Design) is a certification program aimed at design and construction practices. LEED® provides technical and criteria-based standards for environmentally sustainable design, construction and operation. The program includes a building rating system for new construction for use by designers, builders, developers, and building owners.
3. ~~To qualify for a bonus,~~The applicant ~~shall~~ **should** demonstrate green building design, whether LEED® -compliant or the equivalent, ~~before the certificate of occupancy is granted.~~

APPENDIX A: RECOMMENDED ZONING TEXT CHANGES

- ii. Stormwater Management. ~~To qualify for a bonus,~~ The applicant shall demonstrate that the stormwater management program includes, among other components, **two or more of** the following permanent components:
 - 1. Roof garden, also known as a "green or living roof."
 - 2. Bioswales and/or rain gardens.
 - 3. Permeable surfaces to replace impervious surfaces for on-site parking, driving, and walking.
 - 4. Grey water recycling systems.
- iii. Pollution. ~~To qualify for a bonus,~~ The applicant shall demonstrate that:
 - 1. Light pollution. No outdoor light generated on the site shall spill over the property line.
 - 2. Noise pollution. Mechanical noise emitted from roof-mounted equipment shall not be perceptible beyond the property line. Mechanical equipment shall not be allowed on green roofs. [See Subsection (g)2ii(1) above.]
- ~~iv. Sustainable Energy. To qualify for a bonus, the applicant shall demonstrate that the project will use one or more of the following energy technologies:~~
 - ~~1. Thermal mass technology.~~
 - ~~2. Photovoltaic technology.~~

4-8.6 Automobile Parking Spaces. Automobile parking spaces shall be provided on the site of any development in an amount determined by the Planning Board, as a part of its action on the site plan of this development as provided in § 4-8.8 of this chapter, to be adequate to provide for the parking of the vehicles of all persons employed on the site and all other persons who may be expected to visit the site at any one time for any purpose, whether as customers, purveyors, official visitors, guests or otherwise. In making such determination, the Planning Board may take into account the likelihood of multiple use of the parking space in connection with other uses on the site.

4-8.7 ~~(Reserved)~~ Marbledale Road Design Guidelines
The Planning Board shall grant site plan approval only if it finds that the project is consistent with the Marbledale Road Design Guidelines.

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- 4-8.8 Site Plan Approval. In any development established (after the effective date hereof), the location of main and accessory buildings on the site and in relation to one another, the traffic circulation features within the site, the height and bulk of buildings, the provision of off-street parking space, the provision of other open space on the site landscaped buffer, the display of signs, and the provision of fences, walls and landscaping shall, in addition to conforming to any and all regulations pertaining thereto that are specifically set forth in this chapter, be in accordance with a site plan or plans or subsequent amendment thereof approved by the Planning Board. The parking space provisions, landscaping, fences and walls included in any site plan approved by the Planning Board shall be provided and maintained as a condition of the establishment and maintenance of any use to which they are appurtenant. In considering any site plan hereunder, the Planning Board shall endeavor to assure safety and convenience of traffic movement, both within the limits of the site and in relation to access streets, harmonious and beneficial relation among the buildings and uses on the site, and satisfactory and harmonious relation between the site and contiguous land and buildings and adjacent neighborhoods, all in furtherance of the purposes of this chapter.
- 4-8.9 Enforcement and Guaranties. No building permit or certificate of occupancy shall be issued for any building or use except in accordance with a site plan approved as provided in § 4-8.8. The purpose of requiring such approval is to safeguard the purposes of this chapter and the developmental policy set forth herein and to protect the general welfare of the Village and the values of the property therein against the detrimental effects of possible failure actually to complete a development in any such district as contemplated in the rezoning of land therefor and the leaving of the same in an unfinished and unsatisfactory condition. To these ends, the Planning Board shall require such guaranties or conditions as it may deem to be necessary in order to assure that such development will actually take place and will proceed to completion.