

Route 40 Design Manual

Howard County, Maryland

July 2010

Howard County Department of Planning & Zoning
3430 Court House Drive
Ellicott City, MD 21043



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TABLE OF CONTENTS

■ INTRODUCTION	01
1 CHAPTER 1: APPLICATION OF STANDARDS	09
2 CHAPTER 2: ZONING DISTRICTS	11
3 CHAPTER 3: SITE DESIGN	19
4 CHAPTER 4: STREETScape DESIGN	45
5 CHAPTER 5: ARCHITECTURAL DESIGN	67
A APPENDICES	79



■ ■ INTRODUCTION

Chapter Intent

This chapter provides an overview of the Route 40 Design Manual (the Manual) and its purpose. This chapter also describes the context for Route 40 in terms of previous studies, its overall vision, corridor-wide principles and key design concepts. Finally, the Introduction describes the overall organization of the manual.

Purpose of the Manual

This Manual outlines design guidelines that, when applied to new development or redevelopment within the Route 40 Corridor, will enhance the overall aesthetics and function of the corridor. For properties with the Traditional Neighborhood Center (TNC) overlay district designation, adherence to most of the guidelines outlined in this document is required. For properties with other zoning district designations, adherence to most of the guidelines is recommended. In addition, some guidelines are required for all districts, while others serve as recommendations for all districts. This is explained further in *Chapter 1, Application of Standards*.

The guidelines set forth in this Manual are intended to be used in conjunction with other County, State and Federal documents that regulate development within the corridor. Throughout this Manual, references are made to these other documents that contain additional standards or increased detail regarding a particular topic. These documents include those outlined below, some of which are described in the paragraphs on the following pages:

1. The 2000 General Plan
2. 2003 Route 40 Enhancement Study Characterization Report
3. 2004 Route 40 Corridor Market Analysis
4. 2004 Route 40 Enhancement Study Final Report
5. 2009 Route 40 Streetscape Master Plan
6. 2010 Route 40 Expanded Corridor Analysis
7. Howard County Zoning Regulations
8. Howard County Subdivision and Land Development Regulations
9. Howard County Design Manual, Volume III
10. Howard County Landscape Manual
11. Howard County Sign Code
12. Maryland State Highway Administration (MD-SHA) Accessibility Policy and Guidelines for Pedestrian Facilities Along State Highways
13. MD-SHA Bicycle and Pedestrian Guidelines
14. MD-SHA 2006 Context Sensitive Solutions for the MD Historic National Road Scenic Byway
15. MD-SHA Guidelines for Development on a Scenic Byway
16. Corridor Partnership Plan for the National Road
17. AASHTO Guide for Transportation Landscape and Environmental Design

For all districts, if the requirements of the Manual exceed or are more restrictive than those of other documents, the requirements of this Manual shall apply, subject to Department of Planning and Zoning review.

Route 40 Corridor Defined

The Route 40 Corridor is defined as the approximately seven miles of U.S. Route 40 and the surrounding properties from the Howard County line at the Patapsco River west to the interchange with Interstate 70 (Refer to Figure 1A). Route 40 and the surrounding landscape have changed considerably over the past 100 years. From its mostly rural and agricultural character of the early 1900's, the corridor has experienced decades of automobile-oriented development in the middle and latter part of the century. Today it is characterized by commercial/retail hubs and suburban residential communities.

The evolution of land uses and pattern of development have resulted in a corridor that lacks definition or sense of place. Building setbacks, landscape treatments and architectural styles have varied over time, resulting in a corridor-wide lack of continuity. Pedestrian and vehicular linkages between uses and to the communities beyond the corridor are minimal and often non-existent.

The 2000 General Plan called for aesthetic, transportation and land use recommendations that would create a framework for future development, building upon the existing uses in the corridor while improving its appearance and function.

The Howard County Department of Planning and Zoning (DPZ) recognized the present day challenges facing the corridor and began a series of studies for the corridor to highlight the opportunities and present recommendations for future growth and development.

The Route 40 Enhancement Study was issued in 2004 and articulated the vision that *Route 40 be an economically vibrant corridor that is accessible by many modes of transportation and that has identifiable centers reflective of the corridor's historic context and landscape.* This manual is structured to assist in carrying out this vision.

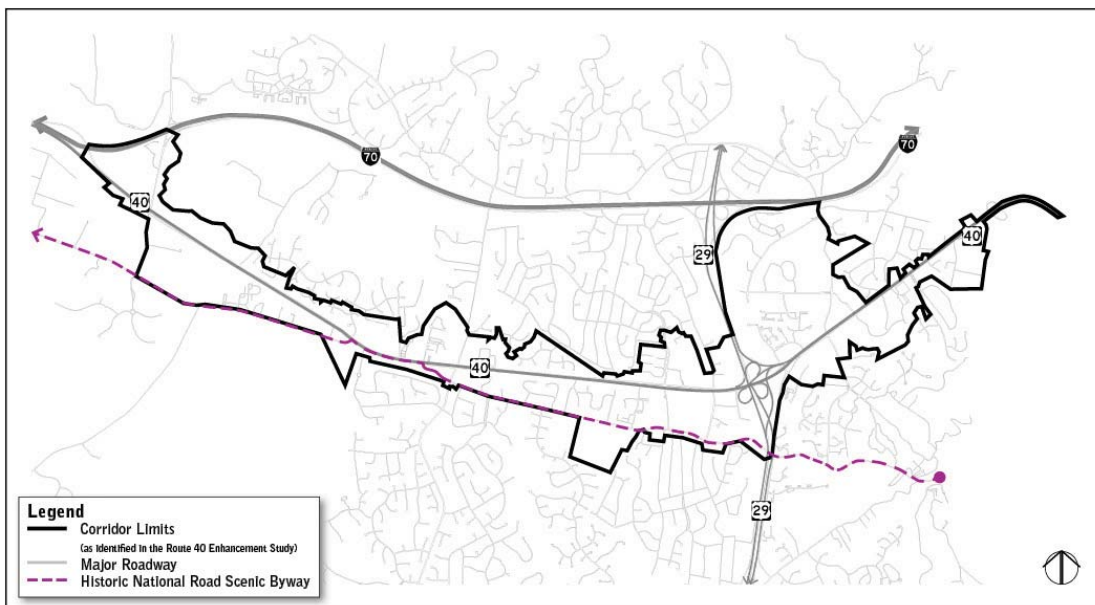


Figure 1A: The Route 40 Corridor

Route 40 Corridor Background

1. The 2000 General Plan

The 2000 General Plan (the Plan) describes a community planning process that included a recommended enhancement study for the Route 40 corridor. The Plan established a series of goals for the corridor that were summarized into the following key areas:

- A. *The Road and its Environment* - improving the transportation functions of Route 40; correcting unsafe conditions; and addressing transit needs, traffic level of service, pedestrians, bicycles, trucks, etc.
- B. *Redevelopment* - encouraging the renovation and redevelopment of older commercial sites and establishing guidelines for mixed use centers where appropriate.
- C. *Environmental Conservation and Restoration* - protecting the natural environment and restoring environmentally degraded areas.

The Plan called for further study of the corridor to address short and long term priorities and strategies that would focus on the issues.

2. Characterization Report

Building on the recommendations of the 2000 General Plan, a *Characterization Report* for the corridor was published in 2003. The report provided a snap-shot of the area, its history, people, land and communities. From its early days as a connector route between the ports of the east and points west, to its current suburban pattern of development, the Route 40 Corridor has served diverse functions as a transportation link as well as providing for communities where residents can live, work, shop, and play.

The report further defines population and demographic characteristics of the corridor, the land uses, patterns of development and the transportation network that serves the area. Some of the current land-use and transportation pattern challenges discussed include:

- A. *Auto-oriented commercial and retail uses do not relate or connect to one another or to the residential or employment uses located nearby.*
- B. *Inconsistencies in architecture, landscaping and setbacks of structures result in a fractured aesthetic.*
- C. *Bicycle and pedestrian access is limited and in many cases, not available at all.*

The report concludes that a more pedestrian-friendly network of streets and sidewalks developed around a consistent aesthetic would encourage the use of travel modes other than single-occupant vehicles.

3. Route 40 Corridor Market Analysis

In early 2004, the *Route 40 Corridor Market Analysis* was released. The purpose of the analysis was to examine the current and future market for retail and office space in the corridor. The analysis

identified that there are few undeveloped sites available for development in the corridor. It further concluded that there were limited opportunities for redevelopment based on the health and success of existing businesses. While the market analysis identified that there is additional opportunity for retail and office space, it was noted that there are other, more desirable office locations in the region and that an increase in retail development would likely be more successful along Route 40.

The market analysis reinforced the idea of creating mixed-use centers and improving site design standards. In addition, providing an enhanced level of connectivity was recognized as a key issue, especially related to pedestrian access. The analysis suggests that should space be made available or redevelopment become more viable, a new pattern of more compact mixed-use centers could be built around a pedestrian-friendly network of streets and sidewalks. Improving the aesthetic along Route 40 would likewise be beneficial to the corridor’s ability to compete with other retail/commercial establishments in the vicinity.

4. Route 40 Enhancement Study

In late 2004, the *Route 40 Enhancement Study* was issued. The study established a vision for the corridor, made recommendations about planning alternatives and provided advice on implementation strategies. The enhancement recommendations were organized around land use, transportation, site design and historic resource issues. Each issue area identified existing conditions, outlined a list of goals, and was followed by proposed actions or strategies to accomplish those goals.

The study identified that Route 40 had two roadway types: “parkway” sections and “suburban boulevard” sections. These two roadway types alternate along the corridor creating a series

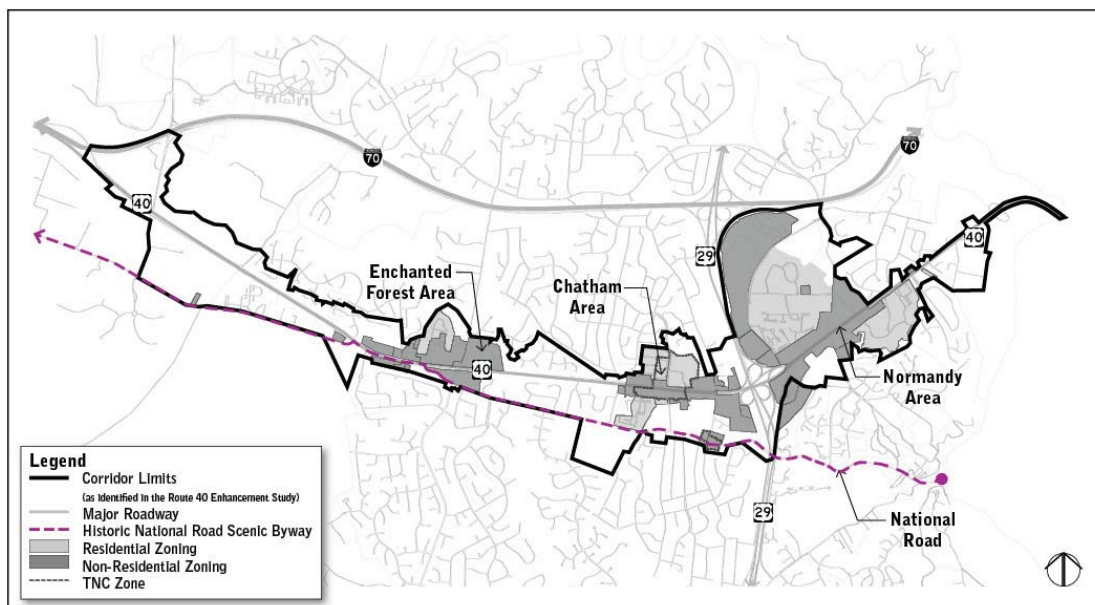


Figure 1B: Existing Commercial Centers

of three distinct, identifiable commercial centers. These commercial centers include the Enchanted Forest, Chatham and Normandy areas (Refer to Figure 1B).

5. Streetscape Master Plan

The *Route 40 Streetscape Master Plan (SMP)* was undertaken in mid-2009 to carry forward the recommendations of the *Enhancement Study* related to physical streetscape improvements to be considered within the Route 40 right-of-way. Concepts were presented at a public meeting and consensus gained for recommendations, including the provision for street trees and other landscaping, sidewalks and crosswalks.

In 2010, the *Route 40 Expanded Corridor Analysis* was also developed as part of this effort that highlighted the context of the three commercial centers along Route 40. The analysis illustrates the relationship among these commercial areas and other adjacent land uses and serves as a foundation for developing an interconnected network of roads and sidewalks to link land uses.

Corridor-Wide Principles and Design Concepts

The corridor is characterized by a fragmented land use pattern, inconsistency in aesthetic treatments and limited connectivity. At the same time, the corridor enjoys a high level of business success and is considered desirable by residents due to good schools, abundant open space and a high overall quality of life (Refer to Figure 1C). The following principles and design concepts, developed as part of this Manual and building upon the *Route 40 Streetscape Master Plan* and the *Route 40 Enhancement Study*, build upon the positive characteristics of the corridor by guiding new development and redevelopment to result in a cohesive vision and more efficient land use.



Figure 1C: Route 40 Existing Character Images

1. Principles:

- A. Create a unified and identifiable character for the full corridor and specifically for the Enchanted Forest, Chatham and Normandy commercial centers.
- B. Encourage development that is compatible with and exemplifies County-wide

sustainability principles and practices. Particular attention should be focused on the protection of natural and cultural resources, quality of life issues, water quality and emerging “green” initiatives.

- C. Focus the design recommendations of this Manual on the three commercial centers: Enchanted Forest, Chatham and Normandy. While guided by corridor-wide design concepts and clearly part of a unified character for the corridor, the three centers may still develop distinct design themes of their own.
- D. Use the TNC district to encourage redevelopment of underutilized parcels. Create compact, more mixed-use pedestrian and bicycle-friendly centers in locations that complement nearby residential communities.
- E. At the County line to the east and the interchange with Interstate 70 to the west enhance distinct gateway experiences as one enters the corridor. Establish appropriate transitions between the alternating roadway types and between land uses.
- F. Maximize opportunities to enhance connectivity within parcels, between parcels and along public rights-of-way, especially in the commercial centers and between commercial centers and adjacent residential communities.
- G. Configure new development to have a consistent and recognizable pattern of blocks and streets. Smaller block lengths promote greater pedestrian activity by providing more direct routes between destinations.
- H. Develop solutions that are compatible with and reflect the historic context of the corridor where appropriate and practical. Development solutions should respect the section of the Historic National Road Scenic Byway that coincides with Route 40 between the two Frederick Road intersections in the Enchanted Forest area and in other parts of the corridor between Route 29 and Marriottsville Road where Frederick Road is located along the southern perimeter of the corridor study area (*Refer to Figure 1A*).

2. Key Design Concepts

- A. Enhance the Route 40 right-of-way aesthetic by implementing streetscape improvements such as sidewalks, street trees and landscaping, street furniture and crosswalks, identified in the *Route 40 Streetscape Master Plan*.
- B. Enhance vehicular, bicycle and pedestrian connectivity in the street network serving the Route 40 corridor, between parcels along Route 40, and between Route 40 parcels and adjacent communities.
- C. Identify appropriate areas for pedestrian and bicycle-oriented, mixed-use developments.
- D. Orient buildings closer to the street, particularly along TNC streets. Locate parking to the side and rear of buildings.
- E. Provide enhanced access to transit and nearby destinations.
- F. Promote a more efficient pattern of development to maximize land resources and

encourage non-automobile forms of transportation.

- G. Orient buildings around open spaces and amenity areas. Link these spaces with a network of pedestrian sidewalks and bicycle-friendly streets within and between parcels.
- H. Locate amenity areas in highly visible and publicly accessible places.
- I. Encourage on-street parking in the TNC districts along streets other than Route 40.

3. Defensible Space / Crime Prevention Through Environmental Design (CPTED)

Because the design principles and concepts outlined above focus on creating a vibrant pedestrian environment along the corridor, safety and the perception of safety are very important considerations in whether or not people are comfortable using an environment, whether it be along a street, in a public park or within a private courtyard space. The guidelines outlined in this Manual, therefore, incorporate many of the principles of CPTED or Crime Prevention Through Environmental Design.

According to the National Crime Prevention Council, the basis of CPTED is that criminal activity and behavior can be controlled through the design of the physical environment. CPTED includes three primary elements:

A. Territoriality - “People have an innate desire to protect or defend space which they occupy.” This is achieved by:

- Improving the appearance of the environment
- Subdividing large areas into smaller areas that can be “claimed”
- Personalizing the environment
- Creating, maintaining and programming activity areas
- Designing facilities for various age groups
- Initiating neighborhood/association watch programs
- Establishing beautification programs

B. Natural Surveillance – “For people to take action to defend property or to prevent crime, they must be able to see illegal acts taking place.” This is achieved by:

- Improving exterior and interior lighting
- Removing blind spots and visual obstructions
- Adding windows and front porches to buildings
- Locating vulnerable elements near those which are actively used
- Training individuals in crime reporting
- Controlling growth of landscape

C. Access Control – “Access control helps to increase the risks perceived by offenders by restricting their movement and placing them under surveillance.” This is achieved by:

- Reducing the number of entrances to private areas
- Fencing-off problem areas
- Locating vulnerable areas near sources of natural surveillance

Application of the site design, streetscape and architectural guidelines outlined in Chapters 3, 4 and 5 will help to achieve most of the objectives of CPTED principles, particularly those relating to “natural surveillance.”

Manual Organization

This Manual outlines the approach that new development, redevelopment and expansion projects should take in the commercial centers along the corridor. The requirements for the streetscape, site, and building design generally follow the requirements outlined in the *Howard County Zoning, Howard County, Subdivision Regulations and Howard County Design Manual*. Key aspects of the existing regulations have been highlighted and in some instances enhanced. The requirements and recommendations outlined in this Manual reflect those design elements that add value and shall/should be incorporated in both the public and private realms as appropriate to the zoning district.

The Manual is organized into the following chapters:

Introduction: The Manual begins by establishing the context and reviewing past efforts for the revitalization of the corridor. This chapter also outlines the principles and design concepts that are to be applied to future development in the commercial centers located along Route 40.

Chapter 1, Application of Standards: This chapter identifies methods and means by which these standards are to be incorporated into future development proposals.

Chapter 2, Zoning Districts: This chapter describes the goals and objectives for development under existing zoning or for development using the Traditional Neighborhood Center (TNC) Overlay District. It includes design techniques and elements that should be incorporated into proposed development and provides graphic examples for reference.

Chapter 3, Site Design: This chapter outlines the planning and design elements to be considered as part of future development including building location and orientation, parking, landscape and pedestrian/bicycle amenities. Guideline requirements and recommendations in this chapter are identified with an “SD” (SD-1, SD-2, SD-3, etc.).

Chapter 4, Streetscape Design: The elements to be included within the public right-of-way of Route 40 and other streets are identified in this chapter. The zone between the street curb and the property line, and in some instances the building edge, are defined. The primary focus of the identified improvements is for the benefit of the pedestrian and is intended to enhance pedestrian/bicycle mobility and safety. Guideline requirements and recommendations in this chapter are identified with an “S” (S-1, S-2, S-3, etc.).

Chapter 5, Architectural Design: The aesthetic quality of the buildings and consistency in architecture can have a tremendous impact on improving the appearance of the corridor. This chapter provides general design recommendations and illustrative examples of building design appropriate for the commercial centers. Guideline requirements and recommendations in this chapter are identified with an “A” (A-1, A-2, A-3, etc.).

Appendices: This section includes supplemental information (Recommended Tree List).

1 CHAPTER 1: APPLICATION OF STANDARDS

Chapter Intent

This chapter provides guidance on how and when the guidelines outlined within this Manual are to be applied to a particular district as either requirements or recommendations, depending upon the zoning designation.

The requirements and recommendations of this Manual seek to augment and amplify the *Zoning Regulations* for the entire corridor but primarily for the districts found in the Enchanted Forest, Chatham and Normandy areas. Compliance with this Manual's requirements and recommendations will, ideally, result in achieving the aesthetic, land use and transportation goals identified for the Route 40 corridor.

Design Advisory Panel

In 2008, the County Council approved the establishment of a Design Advisory Panel (DAP). The DAP's purpose is intended to encourage excellence in architecture and site design, to improve design compatibility with the surrounding development, to promote revitalization and to enhance property values. Comprised of design professionals, the DAP reviews and makes recommendations to the Department of Planning and Zoning (DPZ) for development projects in the Route 40 Corridor.

DAP review is required for all projects subject to this design manual. DAP review precedes the departmental plan review process to allow the DAP's recommendations to influence the design of the development process at the earliest opportunity. The pre-submission community meeting set forth in the Howard County Code if required, comes before DAP review. Subtitle 15 of the *Subdivision and Land Development Regulations* describes the DAP's function and procedures.

New Development and Redevelopment

Specific guidelines are outlined in Chapters 3, 4 and 5 of this Manual for new development, redevelopment and expansion along the corridor. For properties in all zoning districts, property owners must comply with the guidelines identified as "**Requirements- All Districts**".

For properties in a TNC overlay district, property owners must also comply with the guidelines identified as "**Requirements – TNC Districts**".

For properties in zoning districts other than a TNC overlay district, property owners are encouraged to comply with the guidelines for a TNC district, however they are not required to comply. These guidelines are identified as "**Recommendations (All Other Districts)**".

In some instances, guidelines are provided but are not required for any district. These are identified as "**Recommendations (All Districts)**".

Interpretation

Interpretation of this Manual is the responsibility of the DPZ. Relief from any of the requirements of this Manual can be requested through an administrative process via an Alternative Compliance Request. A zoning variance is not required. Relief from any of the subdivision regulations can be requested through an administrative process via a waiver petition. Refer to Section 16.104 of the *Howard County Subdivision and Land Development Regulations*.

If DPZ finds extraordinary hardships or practical difficulties resulting from strict compliance with the requirements of this Manual, or if DPZ determines that the purposes of this Manual may be better served by an alternate proposal, then a modification to the requirements of this Manual may be granted.

Applicants seeking modifications to these requirements shall submit a Route 40 Manual Alternative Compliance Request form to the DPZ specifying the section of this Manual they propose to fulfill through alternative compliance. The request must demonstrate both of the following:

1. Strict compliance with the requirements is not feasible or practical.
2. An attractive alternative means of compliance is beneficial or preferred. An Alternative Compliance Request form is posted on the DPZ website.

CHAPTER 2: ZONING DISTRICTS

Chapter Intent

This chapter describes the purpose, land use goals and design intent for development, redevelopment and expansion of existing properties. The focus of these guidelines is the three commercial districts on Route 40: the Normandy, Chatham and Enchanted Forest areas.

Most of the property in these areas has been developed and is currently in productive use. There are a small number of parcels, however, that remain undeveloped, under-developed or vacant and rezonings may occur over time. As redevelopment and development opportunities occur, the guidelines set forth in this Manual will be integral to implementing the community vision for the corridor.

The text and illustrations in this chapter are intended to help property owners, developers and citizens envision the desired land use patterns and physical features of the corridor. They may implement these improvements as part of development proposed under the existing zoning, or in some locations, they may utilize the optional Traditional Neighborhood Center (TNC) overlay district. The introduction of the TNC overlay district affords the possibility of a mix of uses and more compact development pattern than that permitted by the existing underlying districts.

Existing Zoning Districts

The majority of the commercial property along the corridor is currently zoned Business-Local (B-1), Business-General (B-2) or Shopping Center (SC). In addition, there is a limited number of parcels zoned Manufacturing-Light (M-1), Planned Office Research (POR), and Community Center Transition (CCT). In addition, some properties also have the optional TNC overlay district designation (*Refer to Figures 2A, 2B and 2C*).

1. Purpose

The purpose of the B-1, B-2 and SC zoning districts is to provide for a relatively broad range of commercial, business and retail uses in a conventional suburban environment. The purpose of the remaining districts is to supplement and support the retail/commercial uses with light manufacturing, office and community-serving uses.

All of these uses will continue to be allowed under the existing zoning districts. As parcels and properties develop, redevelop or expand under these current districts, improvements to the streetscape and site design should seek to enhance the appearance of the corridor utilizing the design guidelines set forth in this Manual.

2. Land Use Goals

- A. Recognize the economic vitality of the corridor and continue to enhance existing uses.
- B. Develop a sense of identity.
- C. Establish vibrant, mixed-use, pedestrian-oriented centers in key locations.

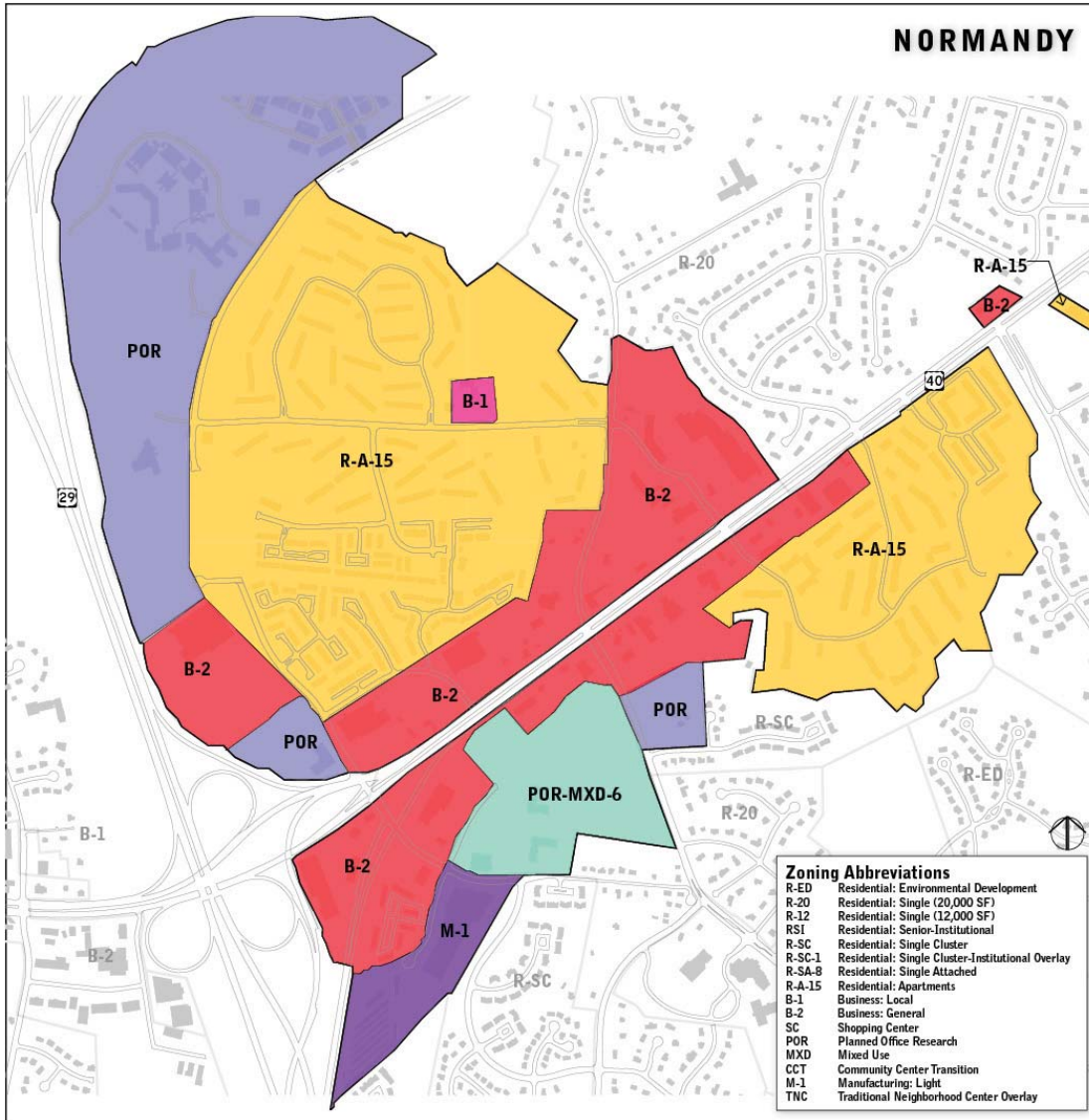


Figure 2A: Existing Zoning Normandy Area

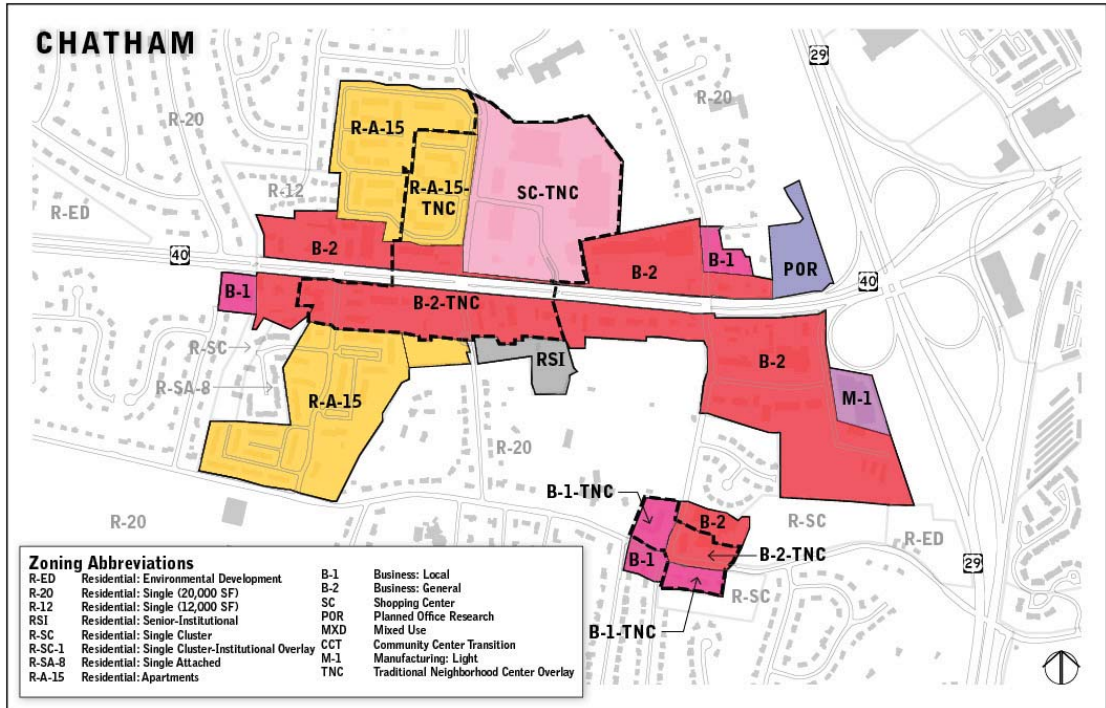


Figure 2B: Existing Zoning Chatham Area

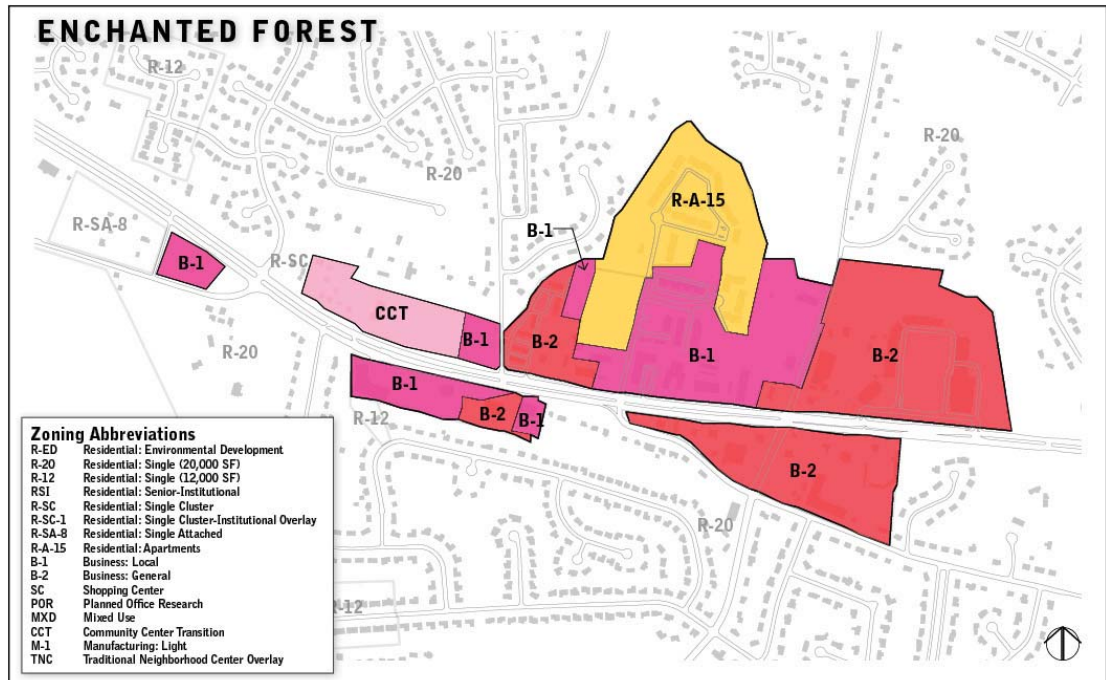


Figure 2C: Existing Zoning Enchanted Forest Area

3. Design Intent

- A. Promote safety for people walking and using cars, transit and bicycles.
- B. Provide site design flexibility that allows for automobile convenience while increasingly accommodating improved aesthetics and pedestrian activity.
- C. Encourage streetscape improvements that include sidewalks, street trees, landscaping, site furnishings and other pedestrian amenities.
- D. Promote access improvements and circulation enhancements within and between parcels to include pedestrian and transit modes of travel.
- E. Provide landscaping to enhance aesthetics for the corridor and properties.
- F. Implement the improvements along the Route 40 frontage identified in the *Route 40 Streetscape Master Plan*.

The images shown in Figure 2-D highlight several examples of how commercial uses developed under the existing zoning districts could be enhanced by applying the recommendations of this Manual. This figure also includes a plan diagram showing how site design can be applied to accomplish the goals of the Manual. A larger, version of this plan diagram with more specific guideline labels can be found in *Chapter 3: Site Design*.

Traditional Neighborhood Center District

There are several Traditional Neighborhood Center (TNC) overlay districts located along the Route 40 corridor.

1. Purpose

The Purpose of the TNC overlay district is to provide for the development of pedestrian-oriented, urban activity centers with a mix of retail, service, office and upper floor residential uses. The TNC district requirements should result in renovation and redevelopment that will strengthen nearby communities, provide for safe and convenient pedestrian travel, and improve the streetscape of Route 40 and intersecting streets.

2. Land Use Goals

TNC districts are adjacent to Route 40 and close to existing residential communities that will benefit from interconnectivity with pedestrian-oriented, local businesses. TNC overlay districts will:

- A. Provide for multistory buildings that define street edges.
- B. Promote first floor retail and service uses on frontages for Route 40, intersecting streets and internal street, with office and residential uses above.
- C. Reduce the expansion of strip commercial development by de-emphasizing most auto-oriented retail uses.
- D. Allow for housing as identified in the zoning regulations.



The above photographs illustrate desired site improvements for development /redevelopment within the existing zoning districts. Parking areas are buffered by landscaping and buildings are articulated architecturally.



Development patterns within in the existing zoning district should also include well-defined pedestrian networks, particularly through parking areas, attractive streetscapes and landscaping to screen parking, and attractive sidewalk areas in front of businesses.



The photograph above illustrates how planted medians and canopy shade trees can be used to reduce the negative impacts of large areas of parking.

Figure 2D: Preferred Images for Enhancements to Existing Zoning Districts When TNC Overlay District Recommendations Cannot Be Followed.

- E. Encourage an increase in the amount of public open space and amenity areas that can be used for gathering as opposed to just providing visually attractive green space.

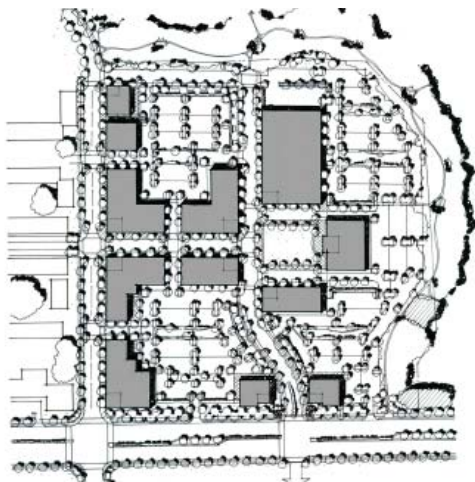
3. Design Intent

- A. Promote pedestrian-oriented streetscapes by requiring building facades to be located adjacent to and oriented to the street on which they front.
- B. Create pedestrian interest by activating building facades with windows, doors and other architectural articulation, especially at the first floor level adjacent to sidewalk areas.
- C. Relate the building facades to adjacent sidewalks.
- D. Require parking areas to be located to the rear and sides of buildings so that buildings can front onto street edges as described above. Allow parking in front of buildings (along Route 40 only) only if treated as a service street and limited to one bay in depth.
- E. Reduce the number of curb cuts along streets by requiring shared access drives and interconnected parking areas between adjacent properties.
- F. Provide pedestrian-oriented site improvements that include short block lengths, wide sidewalks, crosswalks, street trees, street furniture and pedestrian-scaled lighting.
- G. Implement the improvements identified on the *Route 40 Streetscape Master Plan* along the Route 40 frontage.
- H. In areas of distinct historic character or in places leading to historic areas, utilize new architectural designs that are compatible with existing buildings in height, mass and articulation.

The photographs in *Figure 2E* show examples of required development patterns for the TNC overlay district. Multi-use, multi-story buildings and compact development are required to be included in the building mix for this district. This figure also includes a plan diagram showing how properties can be designed to accomplish the goals of the Manual for the TNC overlay district. A larger, labeled version of this plan diagram can be found in *Chapter 3: Site Design*.



The above photographs illustrate the desired development patterns for the TNC district, including a mix of residential and commercial uses and buildings oriented to pedestrian-friendly streets.



The above photographs illustrate pedestrian-friendly streetscapes that are reinforced by building edges and animated with storefront windows, doorways, canopies, street furniture, and street trees. Paved areas provide opportunities for gathering and outdoor dining.

Figure 2 E: Preferred Images for Enhancements in TNC Overlay Districts

3 CHAPTER 3: SITE DESIGN

Chapter Intent

This chapter sets forth the requirements and recommendations for the planning of proposed site improvements and provides guidance on achieving new desired development patterns within the TNC overlay district and providing enhancements to development patterns within the existing zoning districts.

Design Intent

Most of the existing development patterns in the corridor reflect a suburban character, are surface parking intensive and are relatively low in density. The design intent is to encourage new land development patterns that make more efficient use of the land and create a more mixed-use, pedestrian-friendly and human-scaled character, especially in the case of the TNC overlay district (*Refer to Figure 3A*). The design intent for development, redevelopment and expansion of properties under the existing zoning is to promote an enhanced site design aesthetic and to provide for increased pedestrian and transit-friendly design standards within the existing, conventional suburban development patterns.

Specific Site Design Criteria

The following are goals and guidelines for a variety of site design elements including building location, vehicular and pedestrian circulation, parking areas, open space, landscape features and service areas. As described earlier, the guidelines are separated into “requirements” and “recommendations.” For properties built or redeveloped under the TNC overlay district, most of the guidelines are required. Adherence to the guidelines for existing zoning districts, unless specifically noted, is strongly recommended.

Figures 3B and 3C on the following pages illustrate how the site design guidelines described in this chapter can be applied to enhance large parcels of land (with multiple buildings or properties) developed under existing zoning districts or in the TNC overlay district. Figures 3D-3G illustrate how the site design guidelines can be applied to parcels of land with shallow depth.

1. Building Location

Goals: Locate buildings so that they reinforce and define important streets, sidewalks and open spaces. Locate buildings close to the street rights-of-ways and sidewalks to create a more pedestrian-friendly character. Organizing buildings along a common setback line results in a uniform edge that reinforces the adjacent streetscape or pedestrian walkways.

Requirements-All Districts:

SD-1. *Setback Requirements:* Follow setback requirements in accordance with the zoning district under which the property is developed (Note: While building setbacks in the TNC district are identified as “20’ minimum” along Route 40 frontage, the district also describes a 100’ maximum building setback.

Requirements-TNC District (Recommendations-All Other Districts):

- SD-2. *Building Frontage:* Locate buildings so that they occupy no less than 30% of the frontage on which they face, however, the desired approach is to achieve 50% or greater if possible. Depending on the size and shape of the property, it may be appropriate for the frontage street to be Route 40, an intersecting public street (Connector Street), an internal private street (Access Street), or a combination of more than one of these, as recommended by the DAP.
- SD-3. *Orientation to Street Corners:* Locate buildings at street corners to reinforce and anchor important intersections.
- SD-4. *Relationship to Multiple Buildings:* Where multiple buildings occur within a parcel or among adjacent properties, site buildings so that they relate to one another and reinforce courtyards and other gathering areas/open spaces between them.
- SD-5. *Design Unification of Site Elements:* Unify various site components, including buildings, accessory structures, fencing, walls, signage, etc. through the use of similar design themes, elements, materials and colors.

Recommendations – All Districts:

(Not Applicable)



Figure 3A: Example of site design standards required for development within the TNC overlay district. Multi-story/multi-use buildings define street edges and open spaces with parking resources located behind.

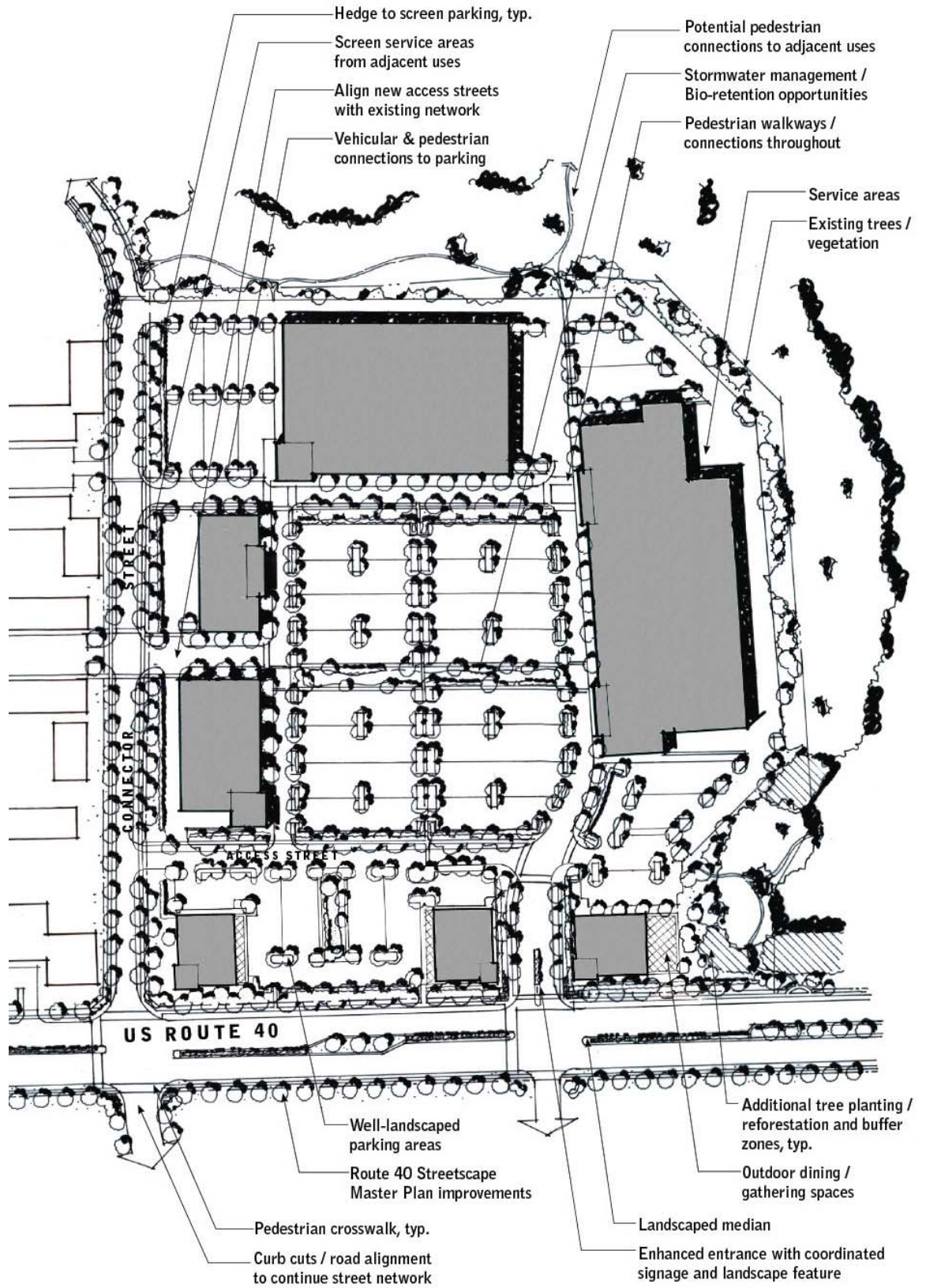


Figure 3B: Existing Zoning Districts Site Design (Large Land Parcel)

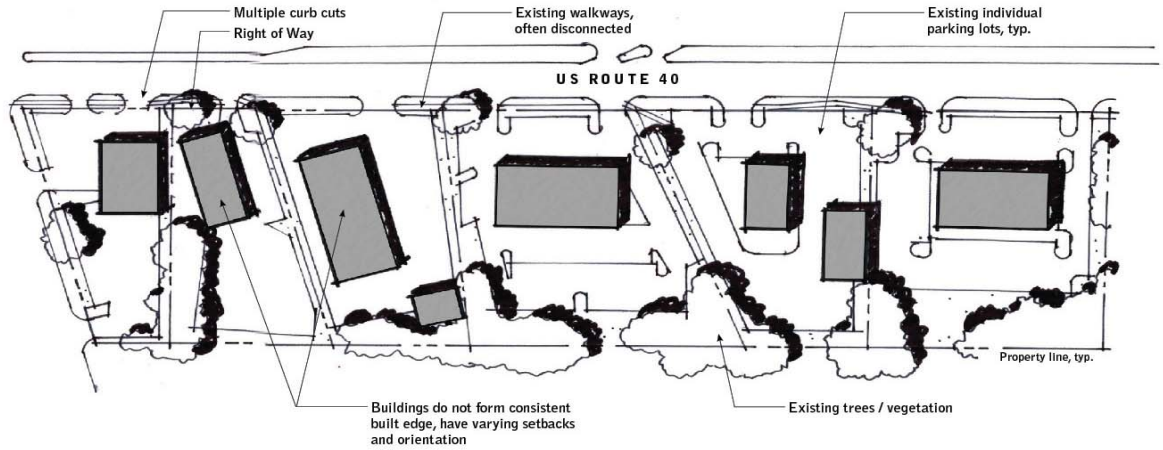


Figure 3D: Route 40 Existing Development Pattern for Shallow-Depth Parcels

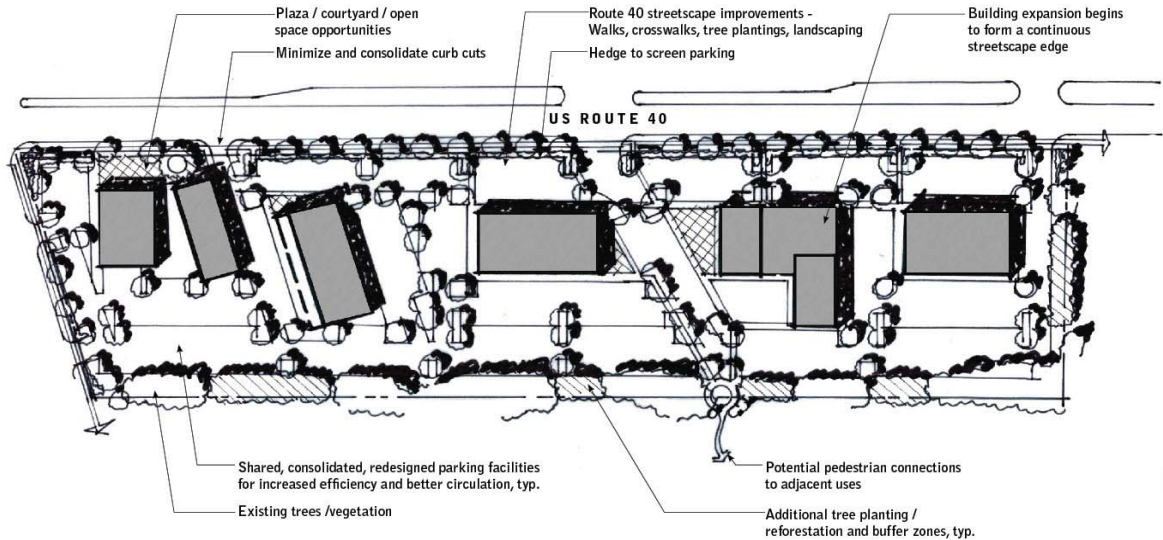


Figure 3E: Route 40 Minimal Enhancements for Shallow-Depth Parcels (Existing Zoning Districts)

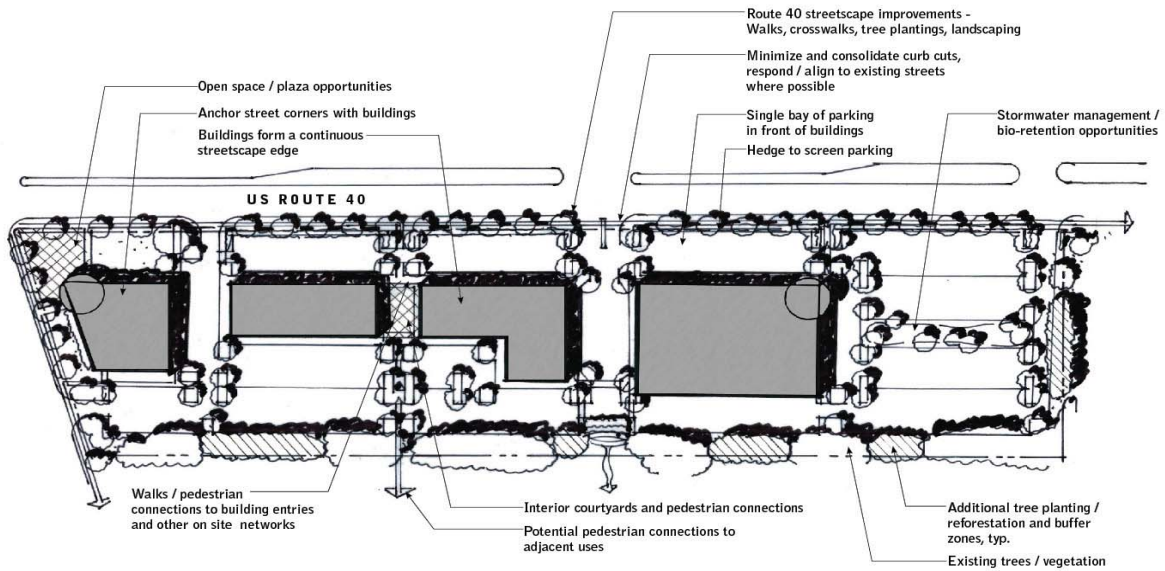


Figure 3F: Route 40 Minimal Enhancements for Shallow-Depth Parcels (TNC Overlay District)

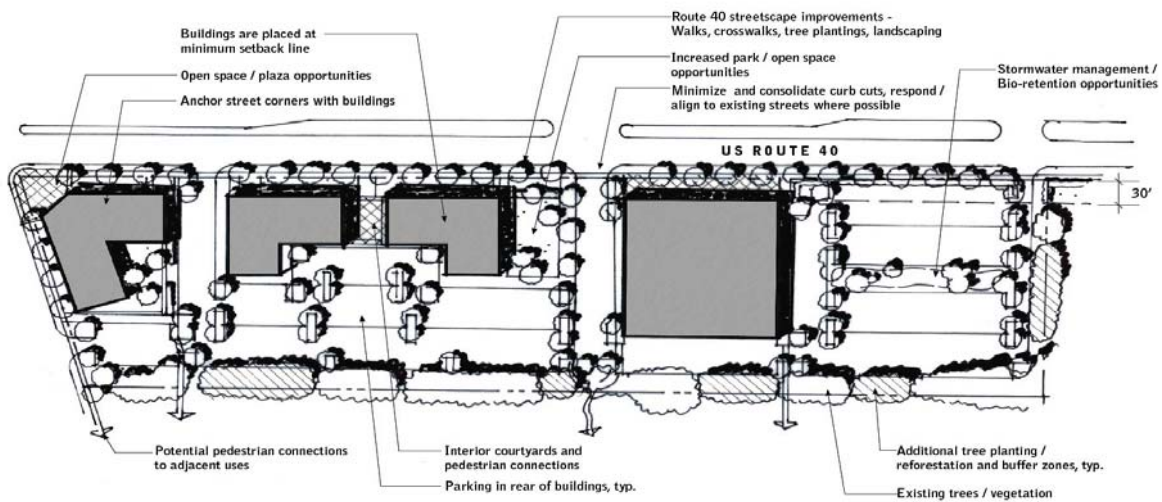


Figure 3G: Route 40 Preferred Enhancements for Shallow-Depth Parcels (TNC Overlay District)

2. Vehicular Access

Goals: Safe and efficient access for vehicles and pedestrians is critical to the success of the Route 40 corridor. Limiting the number of driveways and providing access from connecting streets, rather than from Route 40, will enhance both the appearance and the safety of the corridor. Accordingly, limit the number of curb cuts, consolidate entrances and clearly identify points of entry. Separate vehicular and pedestrian facilities to the extent possible. Clearly articulate pedestrian crossings to heighten driver awareness of pedestrian traffic.

Requirements - All Districts:

SD-6. *Access Requirements:* Comply with the access requirements in Section 16.119 (b) (4) of the Subdivision and Land Development Regulations, and the Design Manual, Volume III.

Requirements-TNC District (Recommendations-All Other Districts):

SD-7. *Access for Sites with Multiple Street Frontages:* Access sites that have multiple street frontages from the lower classification street (unless design conditions dictate otherwise), especially in immediate proximity to signalized intersections. The intent is to reduce dependence on Route 40 for access.

SD-8. *Curb Cuts:* Minimize the number of curb cuts by consolidating points of ingress and egress. This will help to promote traffic safety, minimize pedestrian/vehicle conflicts and maximize building frontage and pedestrian/landscape space. Use minimum practical turning radii on curb returns to shorten crossing distances for pedestrians and to provide traffic calming.

SD-9. *Site Entrance Articulation:* Articulate site entrances and make them more visible through building placement, use of landscape treatments, signage and low walls.

SD-10. *Crosswalks:* Provide crosswalk markings at driveways that serve as main entrances to developments. Utilize white striped markings (both the stop bars and horizontal striping unless otherwise required by state or county codes) as a minimum. Themed or decorative markings may also be appropriate provided they are consistent with the identity of the corridor, district on adjacent property(s) (Refer to Figure 3H).

SD-11. *Shared Access:* Provide shared access with adjacent parcels where feasible. Shared access reduces traffic congestion by consolidating entrance and exit points, and by allowing vehicular movement between properties without using the public streets. Conflict points between pedestrians and vehicles are also minimized resulting in a safer walking environment. Shared entrances also allow for greater opportunities to bring buildings to the street by providing a more consistent street edge.

SD-12. *Transit-Friendly Site Design:* Provide transit-friendly site design that can accommodate future bus/transit service within and adjacent to large development sites. In addition to the other design guidelines throughout this Manual that support transit use, design internal parking areas and access drives with designated transit stops and clear circulation routes.

Recommendations (All Districts):

SD-13. *One-Way Site Access:* If appropriate, design one-way vehicular entrances and exits so that they function as part of a frontage street design.



Figure 3H: *These photographs illustrate how parcel entrances can be made more legible and safer for pedestrians by utilizing crosswalk treatments, providing landscapes and low walls and locating buildings at the corner. These treatments also help to create and unify a pedestrian realm.*

3. Parking Areas

Goals: Convenient, efficient parking is necessary for the corridor to continue its history as a successful live, work, shop, and play environment. To enhance this environment, locate parking to the sides and rear of buildings to minimize impacts on the pedestrian and to be less visible from public street rights-of-way. Screen parking areas with landscaping, walls or low fences to soften the visual impact. Locate parking away from important pedestrian and open space areas.

Requirements-All Districts:

SD-14. *Landscape Requirements:* Comply with the requirements of the Howard County Landscape Manual and this Manual for parking buffer requirements. Where the requirements of this Manual exceed or are more restrictive than those of the Landscape Manual, the requirements of this Manual shall apply.

Requirements-TNC District (Recommendations-All Other Districts):

SD-15. *Parking Location at Side and Rear of Buildings:* Locate parking areas to the side and rear of buildings.

SD-16. *Circulation Hierarchy:* Design parking areas with a hierarchy of circulation drives including major access drives off of which are no parking spaces; major circulation drives off of which there are limited or no parking spaces; and parking aisles off of which are the majority of parking spaces.

SD-17. *Parking Limits Between Buildings and Street:* Limit parking areas located between buildings and street rights-of-ways to one bay in depth (*refer to Figure 3F*).

SD-18. *Landscape Islands and Medians:* Provide landscape islands and medians that divide parking areas and help define vehicular and pedestrian traffic patterns (*Refer to Figure 3I*).

SD-19. *Curbs or Wheel Stops:* Provide curbs to keep vehicles from damaging structures and landscaping. Allow wheel stops in place of curbs at parking edges where adjacent landscape areas serve as bioretention or infiltration for stormwater management.

SD-20. *Pedestrian Circulation within Parking Areas:* For safe pedestrian circulation, provide walkways, paths and crosswalks from and through parking areas to buildings and other site features (*Refer to Figure 3I*).

SD-21. *Relationship of Building and Parking Areas:* Utilize a combination of landscaped and hardscaped areas between parking areas and buildings, except for loading and service areas.

SD-22. *Internal Site Connections:* Provide internal site connections between on-site parking areas and parking areas on adjoining properties. The intent is to provide inter-parcel circulation within the corridor while minimizing the number of curb cuts along major public roads.

SD-23. *Treatment of Building Entrance Areas:* Do not locate parking directly in front of main entrances to buildings. Provide drop-off areas or expanded pedestrian areas with enhanced paving and planting materials.

SD-24. *Bicycle Parking*: Locate bike racks near the entrances to buildings or in central locations that are accessible to multiple buildings.

SD-25. *Pedestrian Circulation among Adjacent Properties*: Provide walkway connections from parking areas to pedestrian facilities on adjacent properties to facilitate non-vehicular access along the corridor.

Recommendations (All Districts):

(Not Applicable)



Figure 31: Examples of how parking islands can divide large parking areas into smaller “rooms” and how pedestrian access can be provided through and adjacent to parking areas.

4. On-Site Pedestrian Circulation

Goals: Provide for safe, convenient and efficient opportunities for walking within the corridor. Develop a continuous network of sidewalks and crosswalks to connect buildings to sidewalks along public street rights-of-way, link buildings and make connections to public amenities. It is important that the network make direct connections and be designed in a safe and attractive manner to encourage people to select walking as a viable mode of transportation.

Requirements-All Districts:

SD-26. *Sidewalk Widths within Public ROW:* Design sidewalks located in the public right-of-way to be a minimum of 5 feet wide, except in the Route 40 right-of-way, in which case they should be 6 feet wide (Refer to Figures 4G – 4J in Chapter 4, Streetscape Design).

Requirements-TNC Districts (Recommendations-All Other Districts):

SD-27. *Minimum Site Sidewalk Widths:* Design all sidewalks in TNC districts to be a minimum of 6 feet wide (Refer to Figures 4G – 4J in Chapter 4, Streetscape Design).

SD-28. *Pedestrian Facilities Between Buildings and Street:* Provide sidewalks, street trees and other landscaping and street furniture appropriate to the uses in the adjacent buildings in the zone between the street and the building (Refer to Figure 3J).

SD-29. *Connections to Building Entrance Areas:* Connect building entrance areas with other on-site structures and parking with conveniently located sidewalks. Provide sidewalk connections from building entrances to off-site destinations such as other buildings, destination-type uses and transit stops (Refer to Figure 3K).

SD-30. *Pedestrian Connections:* Provide clearly defined paved pedestrian connections in the following areas:

- Between public rights-of-way and building entrances.
- Between parking areas and building entrances.
- Between transit stops and building entrances.
- Along the front façade of a building with multiple entrances for multiple tenants. In multi-building complexes, design pedestrian circulation and internal landscape areas so they connect buildings together.
- Between uses on adjoining properties.

Refer to Figures 3L and 3M

Recommendations (All Districts):

(Not Applicable)



Figure 3J: Examples of wider pedestrian walkways along more intensely developed streets (right) and minimum width walkways in less intensely developed areas.



Figure 3K: Examples of clearly delineated pedestrian areas between buildings, through parking areas and adjacent transit stops.



Figure 3L: The above photographs (top left and right) illustrate how crosswalks can reinforce pedestrian circulation patterns and provide visual clues to motorists that they are in a pedestrian-friendly environment. The photograph at the bottom left illustrates how well-located sidewalks can reinforce pedestrian routes even through parking areas.



Figure 3M: The above photograph illustrates how openings can be provided between buildings to reinforce pedestrian connections between development parcels.

5. Open Space and Gathering Areas

Goals: Much of the open space in the corridor currently exists as small, odd shaped parcels that are often located to the rear of properties and characterized by steep slopes; fundamentally “left over space”. As part of new site plan proposals, incorporate open space as an important, visible and usable component of the project. Include plazas and courtyards in proposed projects, especially those with office, residential and retail uses. These amenity areas must be open to the public, easily accessible and comfortable for use for most of the year.

Requirements-All Districts:

(Not Applicable)

Requirements-TNC District (Recommendations-All Other Districts):

SD-31. *Site Organization:* Use open spaces to organize site plan layouts. Cluster buildings within multi-building projects around courtyards and plazas. Use open spaces as focal points and to emphasize arrival onto the site (*Refer to Figures 3N and 3O*).

SD-32. *Connected and Visible Open Space:* Connect public open spaces and amenity areas with sidewalks and locate them in visible locations near buildings and pedestrian ways.

SD-33. *Site Furnishings:* Provide site furnishings such as benches, tables, decorative lighting, planters, landscaping and bike racks as part of the open space design. Integrate design themes of the surrounding development. Appropriate quantities and types of site furnishings will be determined as part of the Design Advisory Panel (DAP) review process.

SD-34. *Integration of SWM/Open Space Design:* Current storm water management (SWM) practices encourage smaller water quality facilities be incorporated on-site in close proximity to the run-off source. Include SWM facilities as integral components of open space areas. Design and construct facilities to serve as pedestrian amenities in addition to providing storm water management functions (*Refer to Figure 3O*).

SD-35. *Variety of Seating Orientations:* Provide a variety of seating orientations; areas that receive sun and shade.

SD-36. *Appropriate Use of Landscape:* Use landscape to link open spaces with buildings while screening undesirable views. Provide for a variety of color, texture and seasonable interest.

Recommendations-All Districts:

SD-37. *Public Art:* Provide public art as part of the open space design.

SD-38. *Portable Furniture:* Provide portable chairs to maximize flexibility in how people use an outdoor space.



Figure 3N: The above photographs illustrate how buildings can be organized around open spaces and gathering areas. The uses help to activate the open spaces and the open spaces add value to the adjacent uses while knitting together separate properties. In addition to site furniture and other amenities, the open spaces should include open lawn or paved areas that provide flexibility for a variety of events and activities.



Figure 3O: This photograph (above left) illustrates how open spaces can be located between buildings to create active gathering spaces and outdoor dining venues. The photograph to the right illustrates how planting areas in open spaces can also be used to provide stormwater management benefits.

6. Trash Enclosures and Service Areas

Goals: Locate trash enclosures so they are not visible from public rights-of-way, building entrances and amenity areas. Locate so that they are convenient to the uses they serve and are accessible to service trucks.

Requirements-All Districts

(Not Applicable)

Requirements-TNC District (Recommendations-All Other Districts):

SD-39. *Dumpster Enclosures:* Provide dumpsters that are enclosed with a continuous, solid, opaque wall or fence or a Type D landscape screening treatment as identified in the Howard County Landscape Manual. Design screen walls as visual extensions of the adjacent architecture. They should be designed to extend the use of materials, colors and forms of and be compatible with the adjacent buildings (*Refer to Figure 3P*).

SD-40. *Trash Collection Consolidation:* Consolidate trash collection needs for multiple buildings into central locations to limit the total number of trash collection areas. Locate these facilities out of public view.

Recommendations-All Districts

(Not Applicable)

7. Lighting

Goals: Provide exterior lighting to meet the minimum requirements of the area or use being lit. Maximize efficiency while minimizing light pollution as defined by the International Dark Sky Association as “any adverse effect of artificial light including sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste.”

Requirements-All Districts:

SD-41. *Zoning Requirements:* Comply with the Outdoor Lighting section of the Zoning Regulations.

Requirements-TNC Districts (Recommendations-All Other Districts):

SD-42. *Light Fixture Design Coordination:* Select light fixtures that complement and reinforce the design of the architecture and/or landscape being proposed.

SD-43. *Sharp Cut-Off Fixtures:* Utilize sharp cut-off fixtures of a simple clean design for utilitarian fixtures such as those to be used in parking areas.

SD-44. *Lighting in Amenity Areas:* Use pedestrian-scaled, pole mounted and/or wall mounted decorative fixtures in open spaces and public amenity areas. The design may be either contemporary or traditional in style provided they are compatible with the overall design of the buildings and spaces (*Refer to Figure 3Q*).

Recommendations-All Districts:

(Not Applicable)



Figure 3P: *The photographs above illustrate potential methods of enclosing dumpsters.*



Figure 3Q: *The above photographs illustrate the quality of light fixtures that can be used within development sites. Fixtures include wall mounted and pole mounted and contemporary or traditional styles.*

8. Site Furniture and Amenities

Goals: Encourage active and comfortable gathering areas and open spaces by providing durable, high quality outdoor furniture and amenities.

Requirements-All Districts

(Not Applicable)

Requirements-TNC Districts (Recommendations-All Other Districts):

SD-45. *Benches:* Provide benches in gathering areas and important open spaces, particularly near building entrances. Locate benches to encourage social interaction such as in groupings and along important pedestrian circulation routes. Bench design can be either contemporary or traditional, provided it is coordinated with the design of the building and adjacent landscape. It is also acceptable to utilize the same bench standards used along the streets as described in Chapter 4 (*Refer to Figure 3R*).

SD-46. *Trash and Recycling Receptacles:* Provide trash and recycling receptacles in outdoor gathering areas, near building entrances and within parking areas along well-traveled pedestrian routes. Select trash and recycling receptacle designs and colors that are compatible with other site furniture.

SD-47. *Bicycle Racks:* Provide bike racks near building entrances and/or in open spaces that are compatible in design with other site furniture. They may be provided at each building or in a common area shared by multiple buildings.

Recommendations – All Districts:

SD-48. *Tables and Chairs:* Utilize tables and chairs to provide outdoor dining options for customers and employees. Where feasible, use portable tables and chairs to allow users to move them into groups, into the sun or into the shade. Contemporary or traditional designs may be appropriate depending upon the building design theme and other site furniture design theme.

SD-49. *Public Art:* Provide public art in areas of high pedestrian activity, particularly within gathering areas and near building entrances. Public art may include, but not be limited to, sculpture, murals on blank walls or within paving patterns. Bicycle rack designs may also serve as public art (*Refer to Figure 3R*).

SD-50. *Planters and Pots:* Use planters and pots to provide seasonal color and delineate different use areas within a public space (*Refer to Figure 3R*).

SD-51. *Fountains and Structures:* Consider the use of fountains, trellises, gazebos and other structures within important open spaces as appropriate.

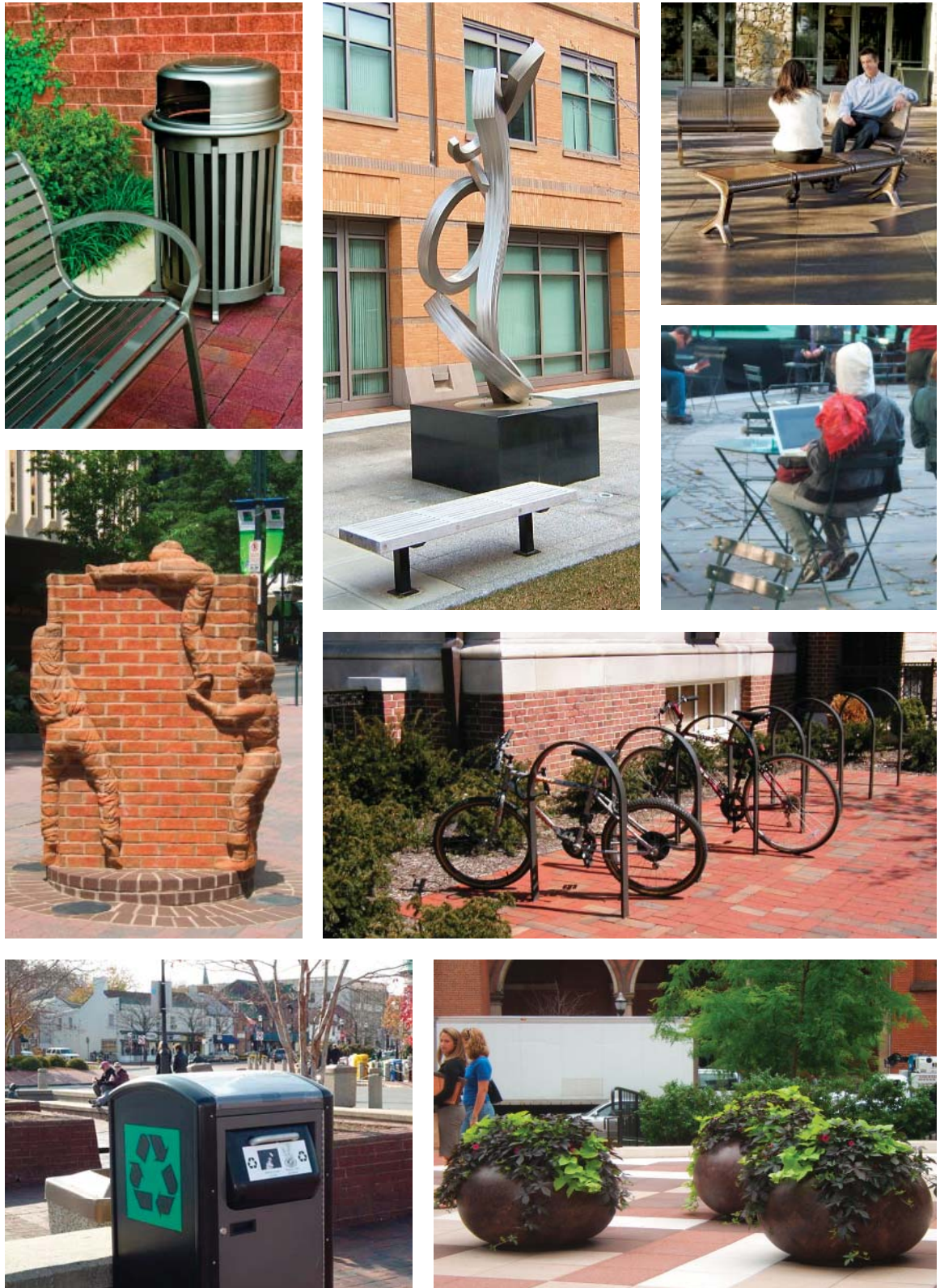


Figure 3R: The above photographs illustrate potential site furniture elements including benches, recycle receptacles, bike racks, public art, portable tables and chairs, and pots and planters. Design can be contemporary or traditional as coordinated with adjacent architecture.

9. Freestanding Signs

Goals: The signage along much of Route 40 is inconsistent in scale, materials and design. This contributes to a lack of cohesion in the aesthetic of the corridor. Providing a more consistent location, scale and orientation of signage could reduce the visual clutter within the corridor.

Requirements-All Districts:

SD-52. *Sign Code Requirements:* Comply with the requirements of the Howard County Sign Code, administered by the Department of Inspections, Licenses and Permits.

Requirements-TNC Districts (Recommendations-All Other Districts):

SD-53. *Ground-Mounted Signs:* Utilize ground-mounted freestanding signs instead of pole mounted signs.

SD-54. *Wall-Mounted Signs:* Where practical, integrate building or wall mounted signs into the building designs instead of using free-standing signs (Refer to Figure 3T).

SD-55. *Multiple Business Sign Consolidation:* Consolidate multiple business signs onto one ground mounted sign located where they have a shared access point (Refer to Figure 3S).

SD-56. *Coordinated Signage System:* Design regulatory, way-finding, pedestrian directory signs and banners as part of an overall signage system (Refer to Figure 3T and 3U). While banners are not allowed by right, they can be approved by requesting a special exception through the Department of Inspection, Licenses and Permits (DILP).

SD-57. *Design Coordination between Buildings and Signs:* Reference the materials, colors and design elements from the adjacent building architecture in the design of the signs.

Recommendations-All Districts:

(Not Applicable)

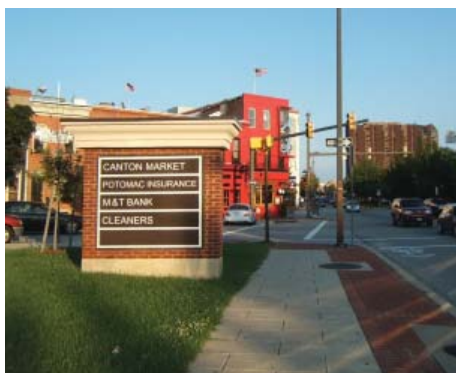


Figure 3S: These two examples show how multiple business names can be integrated into one ground mounted freestanding sign to minimize visual clutter along roadways.



Figure 3T: Examples showing how building-mounted signs can be integrated into the architecture (left). Examples also include pedestrian directory and way-finding sign.



Figure 3U: Examples of how banners and pedestrian directories can be successfully integrated into an overall design theme.

10. Landscape Planting and Screening

Goals: Utilize plantings along Route 40 to enhance the appearance of properties, assist in creating a more unified aesthetic and screen less desirable uses from view. Because of the linear nature of the corridor frontage and the appropriateness of a more urbanized approach to the development of the commercial areas in the corridor, more formal landscape treatments consisting of regular street tree placement, hedges to screen parking, low fences or walls, etc. are most appropriate. Where expanded space allows and in the interior of sites, more informal and curvilinear planting schemes may be appropriate (*Refer to Appendix B, Recommended Tree List*).

Requirements-All Districts:

SD-58. *Buffer Landscape:* Provide perimeter and right-of-way frontage buffer landscaping in accordance with the Howard County Landscape Manual.

SD-59. *Parking Buffer along Route 40:* Screen parking adjacent to Route 40 and intersecting public streets with a Type E buffer as identified in the Howard County Landscape Manual; however, the berm option is excluded to maintain consistency along the frontage of the commercial areas.

SD-60. *Stormwater Management within Parking Areas:* Opportunities to incorporate storm water management into parking lot islands shall be considered to meet Maryland Department of the Environment regulations. Bio-swales, infiltration trenches and rain gardens can provide effective water quality treatment as part of parking lot design.

Requirements-TNC Districts (Recommendations-All Other Districts):

SD-61. *Landscaping within Parking Areas:* Provide landscaping throughout parking areas to reduce the effect of heat and glare from pavement. Use tree-planted medians to break large parking areas into smaller “rooms”.

SD-62. *Service Area Screening:* Screen service areas, such as loading docks and trash enclosures, using a combination of fences, walls, and landscaping.

Recommendations-All Districts:

SD-63. *Use of Walls and Fencing:* Utilize walls, fences and plantings to define boundaries, control access and distinguish private and public areas.

SD-64. *Sight Lines:* Emphasize the use of high canopy trees and low shrubs and groundcover to maintain important sight lines to businesses/storefronts and public amenity areas unless screening of a view is required.

SD-65. *Shrub Plantings:* For shrub plantings, emphasize large masses of a limited number of plant types, particularly along Route 40 setback areas with higher travel speeds. Avoid “spotty” plantings consisting of a small number of many different plant types.



Figure 3W: The above images show how canopy trees can be used effectively along commercial streets. The left photo illustrates how views to storefronts can be maintained. The right photo illustrates how a tighter spacing of trees can create an “architectural” edge along surface parking areas and also screen undesirable views.



Figure 3X: The above photographs illustrate how low hedges can be effectively used to soften parking areas without blocking views. A consistent plant type allows for a strong definition of street edges where buildings are absent.



Figure 3Y: These photographs illustrate planting options along more urban streets. The left photo illustrates how periodic planting islands can be used along narrow sidewalks to accommodate street trees and provide shade. For wider sidewalk areas, tree pits can be used to accommodate street trees (right).

11. Utilities

Goals: Mitigate the visual and noise impacts of utilities, mechanical equipment, data transmission dishes, towers, antennas and similar equipment to the extent possible and practical.

Requirements-All Districts:

(Not Applicable)

Requirements-TNC Districts (Recommendations-All Other Districts):

SD-66. *Screening of Ground-Level Mechanical Equipment:* Screen ground level mechanical equipment with a continuous solid wall, fence or landscape treatment.

SD-67. *Utility Screening and Building Design Coordination:* Integrate screening solutions into surrounding building or landscape elements so that they do not appear to be free standing treatments. Coordinate materials, colors, and design elements with surrounding elements for continuity.

Recommendations-All Districts:

(Not Applicable)



Figure 3V: The above photographs illustrate how screening treatments can be integrated into the overall and architectural design of a building.

12. Stormwater Management

Goals: Utilize stormwater management (SWM) to improve water quality while minimizing the impacts of quantity run-off on the surrounding watershed, stream valleys and channels. Explore and implement innovative management techniques that meet the intent and design guidelines developed in the current Maryland Department of the Environment (MDE) regulations.

Requirements-All Districts:

SD-68. *County and MDE Compliance:* Comply with the current Howard County Design Manual for Storm Water Management and MDE Design Manual.

Requirements-TNC Districts (Recommendations-All Other Districts):

SD-69. *Site and SWM Design Coordination:* Integrate SWM facilities into the site design (Refer to Figure 3Z).

SD-70. *Bio-Retention Techniques:* Incorporate bio-retention and infiltration techniques in parking lot islands, open space areas and even plazas and courtyards as practical. If designed as an amenity, place in a visible location (Refer to Figure 3Z).

SD-71. *Innovative SWM Techniques:* Utilize innovative SWM techniques such as porous pavement, green roofs, rain barrels, rain gardens and/or rain water harvesting (Refer to Figure 3Z).

Recommendations-All Districts:

SD-72. *Minimal Impervious Surfaces:* Minimize impervious surfaces wherever possible.

SD-73. *SWM Retrofit:* Retrofit existing SWM facilities to the extent practical.

SD-74. *Sub-Surface SWM:* Consider underground storm water management where space is limited.



Figure 3Z: The photographs above illustrate a variety of storm water management and bio-retention techniques. The photo to the left shows how these facilities can be integrated into the overall site and planting design. The middle photograph shows a bio-retention swale integrated into a parking lot design. The photo to the right illustrates how street runoff can be captured and filtered in street tree planters.

4 CHAPTER 4: STREETScape DESIGN

Chapter Intent

This chapter describes the functional and aesthetic requirements and recommendations for the design of the public right-of-way for the Route 40 frontage as well as for the public streets that intersect Route 40. Additionally, guidance is given for private streets that provide access to and through potential development sites. These guidelines apply to streets developed in the existing zoning districts and the TNC district.

A well functioning road network, complete with coordinated streetscape improvements, is a key component to the continued success of the corridor. The appearance of the corridor is important to establish an identity for Route 40 and to create a sense of place. Additionally, a continuous network of sidewalks is paramount to pedestrian mobility and connectivity throughout the corridor and to adjoining residential communities.

The image and function of the streetscape does not end at the right-of-way. Improvements on private property beyond the right-of-way are an essential part of the streetscape as well. These are discussed here and in *Chapter 3, Site Design* and *Chapter 5, Architectural Design*.

Design Intent

The roadways in the Route 40 corridor exhibit an aesthetic that is reflective of the corridor's auto-oriented past. They are characterized by a development pattern primarily made up of relatively small properties, little architectural continuity, expansive surface parking with multiple access drives, little landscaping and a disconnected pedestrian network. The result is an aesthetic that lacks a sense of place, is not pedestrian-friendly and is in many instances unattractive.

The intent is to implement a continuous street sidewalk system and associated streetscape improvements to enhance pedestrian use and safety as redevelopment occurs over time in the Enchanted Forest, Chatham and Normandy commercial areas. The standards outlined in this chapter are intended to provide continuity along the various road types that exist or that may be anticipated in the corridor.

Related Studies

The following is a description of *The US Route 40 Streetscape Master Plan (SMP)* and *The Historic National Road Scenic Byway*, which have particular relevance to the street network within the Route 40 corridor.

1. US Route 40 Streetscape Master Plan

The SMP was prepared to identify opportunities for landscape, sidewalk and crosswalk improvements within the right-of-way of U.S. Route 40. Following on the recommendations of the *Enhancement Study*, the SMP seeks to identify specific physical improvements to implement the goals of developing greater continuity and an identifiable aesthetic for the corridor.

Two distinct street types were identified along Route 40: the areas with commercial development fronting onto the road referred to as “Suburban Boulevards”, and the sections with existing mature trees that serve as buffers between the road and adjacent residential communities referred to as “Parkway Sections” (Refer to Figure 4A-1). The recommendations of the SMP were to maintain the parkway sections in their current condition. Where gaps in the buffer exist or have been created, supplemental plantings should be installed to revegetate the openings. Additionally, it was suggested that a program to manage invasive species be considered, as it is common for invasive and non-native plants to get established along edges such as those in the parkway sections.

The majority of the improvements proposed in the SMP focus on the suburban boulevard sections. These are the areas that lack continuity and a sense of place, and exhibit challenges that negatively impact the pedestrian environment.

As development, redevelopment and expansion occur on properties that abut Route 40 in the commercial areas, the recommendations laid out in the SMP should be implemented. It should be noted that much of the corridor’s commercial frontage has existing sidewalks in place. It was not the intent of the SMP to make recommendations for replacing or expanding sidewalks. The existing typical sidewalk width is 4 feet, which does not meet current Maryland State Highway Administration (MD-SHA) requirements, and these sidewalks will need to be brought up to SHA standards over time. It is the intent of the guidelines in this Manual to encourage that upgrade as part of public and private projects that impact the Route 40 frontage. Figure 4A-2 includes illustrations prepared as part of the SMP.

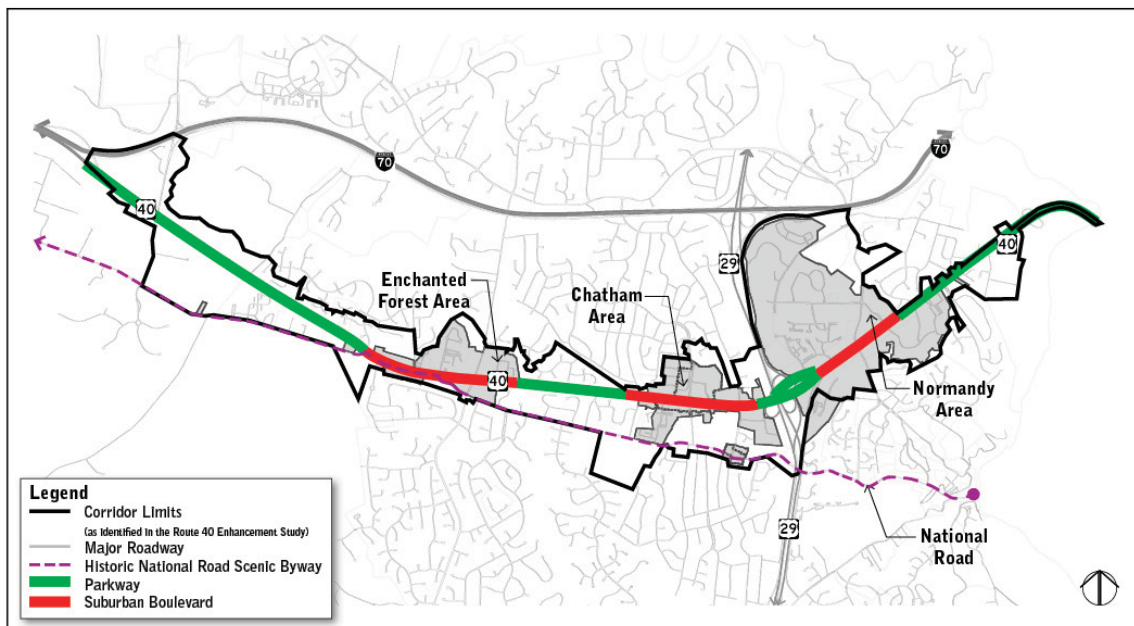


Figure 4A-1: Route 40 Suburban Boulevard and Parkway Sections



Plan View of Chatham Area showing typical improvements shown in the Streetscape Master Plan: sidewalks, crosswalks, street trees, median plantings and shrubs to screen parking.



Before



After



Before



After

Figure 4A-2: "Before and After" views illustrating the potential for the Route 40 landscape. Images were developed as part of the U.S. Route 40 Streetscape Master Plan

2. Maryland Historic National Road Scenic Byway

The Maryland Historic National Road Scenic Byway, also known as Old Frederick Road, intersects Route 40 in two locations in the Enchanted Forest area and is designated a federal scenic byway.

At least one historic stone marker is located in a triangular piece of open space at the eastern most intersection of Old Frederick Road and Route 40. The SMP identifies an opportunity to incorporate the marker into a formal usable open space (*Refer to Figure 4B*). In addition, there are two signs on Route 40 that identify the Historic Road. They are relatively small and difficult to see. It is suggested that the signs be incorporated into a more visible and meaningful statement as part of improvements in this area.

There are separate design resources for the historic road as governed by the Federal Highway Administration (FHA) and MD-SHA, including *MD-SHA Accessibility Policy and Guidelines for Pedestrian Facilities Along State Highways*, *MD-SHA Bicycle and Pedestrian Guidelines*, *MD-SHA 2006 Context Sensitive Solutions for the MD Historic National Road Scenic Biway*, *MD-SHA Guidelines for Development on a Scenic Biway*, and *The Corridor Partnership Plan for the National Road*. The National Scenic Byways Program also describes specific cultural and historic resources along the Historic National Road.



Figure 4B: Historic National Road stone marker (right) and example of how it could be incorporated into a usable open space.

Applicability

In this chapter, the requirements and recommendations for streets and streetscape improvements apply not only to Route 40 and intersecting public streets, but also to streets providing access to the commercially zoned properties located along the corridor in the Enchanted Forest, Chatham and Normandy areas. These requirements and recommendations apply to both of the following:

1. Public street improvements as made by the State or County government.
2. Improvements in the rights-of-way of Route 40, intersecting public streets and other streets proposed by private property owners. Where there is inadequate public right-of-way, improvements will be located on private property adjoining the right-of-way.

For all public street rights-of-way, private roads and access driveways, the *Howard County Subdivision and Land Development Regulations* and the *Design Manual, Volume III*, outline specific requirements for elements such as sidewalks, street trees, landscaping, access consolidation and driveway connections between parcels. This chapter articulates how these requirements should be incorporated into development in the commercial areas of the Route 40 corridor. Where the requirements of this manual exceed or are more restrictive than those of other documents, the requirements of this Manual shall apply.

The MD-SHA is not responsible for the installation or maintenance of street trees, pedestrian lighting or other streetscape improvements recommended by the Manual. SHA is not responsible for the maintenance of sidewalks within State right-of-way.

Property owners are responsible for the installation and maintenance of sidewalks, street trees, pedestrian lighting and other streetscape enhancements such as benches and trash receptacles within County or State rights-of-way abutting their property. If conditions exist that make installing street lights impractical at the time of site development, property owners shall pay the County the estimated cost of the proposed pedestrian street lights plus two years estimated maintenance costs so that the County may have them installed at an appropriate time.

Street Types

The following paragraphs outline design guidelines for public and private streets and their setback areas. The guidelines describe the overall street network and standard street types (*Refer to Figure 4B-2*).

1. Street Network

Goals: Building a network of street and associated sidewalk connections is fundamental to achieving the goals of developing vibrant, mixed-use, pedestrian-oriented centers within the Route 40 corridor.

Separate vehicular and pedestrian circulation systems to provide a safe and efficient road network. The safety and mobility of through-traffic can be enhanced by minimizing the number of access points to private property from public streets. Wherever feasible and supported by SHA and the County, utilize medians to improve the appearance of the corridor and to provide safe refuge for pedestrians crossing the street.

An interconnected network of roads and sidewalks that provide improved, direct, local circulation will provide for enhanced pedestrian, bicycle and transit opportunities. To the extent that greater parcel interconnections can be realized over time, pressure on Route 40 to carry all vehicle trips can be reduced.

Requirements-All Districts:

- S-1. *County Subdivision and Land Development Regulations:* Comply with the road design and construction requirements of the *Howard County Subdivision and Land Development Regulations*.
- S-2. *County Design Manual:* Comply with the *Design Manual, Volume III*, and its requirements for road construction.

- S-3. *SHA Requirements:* Comply with SHA requirements for improvements needed to obtain an access permit.
- S-4. *Right-of-Way Provisions:* If required by SHA or County agencies, provide enough right-of-way to accommodate acceleration/deceleration lanes, additional turn lanes, improvements to accommodate persons with disabilities, pedestrians, bicycles, and/or transit vehicles. Also, provide enough right-of-way to allow sufficient space for traffic control devices, especially at intersections to ensure compliance with ADA requirements.

Requirements- TNC District (Recommendations-All Other Districts):

- S-5. *Block Network:* Divide the road network into a series of blocks on larger, deeper parcels. Ideally, the blocks should be no more than 350-400' in length to maximize walkability.

Recommendations-All Districts

(Not Applicable)

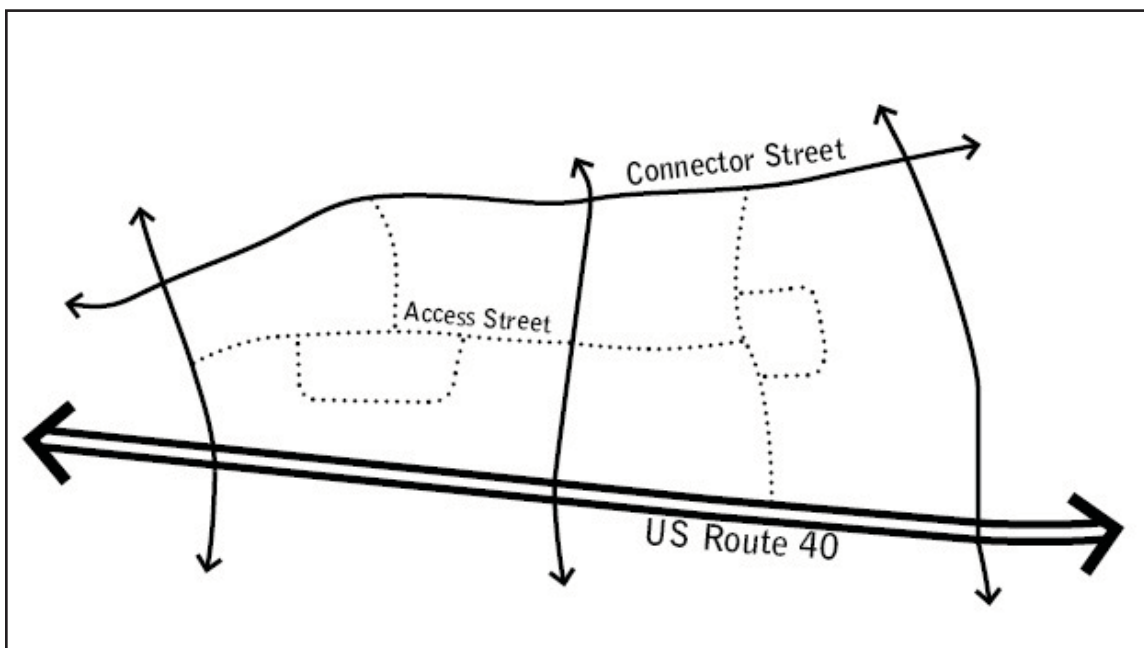


Figure 4B-2: Street Network

2. Route 40 Frontage (Suburban Boulevard)

Goals: The Route 40 commercial frontage represents the greatest opportunity to create a sense of continuity along the corridor, yet is currently the most disorganized in terms of appearance and development pattern.

Streetscape improvements along the Route 40 frontage are intended to enhance the pedestrian environment, screen parking, and provide increased continuity along the entire length through the implementation of a formal street tree program in association with supporting landscaping. While setbacks for parking and structures vary in the different zoning districts, the elements to be included in the frontage treatment are the same (*Refer to Figures 4C, 4D and 4E*).

Requirements-All Districts:

- S-6. *Route 40 Sidewalks:* Provide sidewalks (minimum width of 6 feet) along the Route 40 frontage. Also provide a minimum 6-foot wide grass strip between the curb and sidewalk on parcels that are to be redeveloped, with light fixtures, signs or other such amenities located within this zone (to be coordinated with and approved by MD-SHA).

Requirements- TNC District (Recommendations-All Other Districts):

- S-7. *Parking Area Screening:* Provide low shrubs to screen parking areas from Route 40. Space 3-feet on center and plant as a hedge or, if space allows, a large mass. Emphasize the screening or “softening” of views to the lower parts of cars while maintaining important sight lines to businesses and other destinations.
- S-8. *Maximum Building Setback:* While building setbacks for the TNC are identified as a “20’ minimum”, a maximum building setback of 100’ is permitted. This will allow for the required parking setback, one full bay of parking and sidewalk area adjacent to the building area if it is not feasible to locate the building at the street edge.

Recommendations-All Districts:

- S-9. *Use of Canopy Trees:* Wherever space is available, the use of large canopy trees is preferred to small ornamental trees. Large canopy trees reinforce spaces, provide more cooling shade and allow for sightlines beneath their canopies. Where conflicts with overhead utilities occur, select smaller canopy trees appropriate to the height of the wires and utilize single-stem varieties. Avoid dense “shrubby” ornamental trees that tend to block views and do little to reinforce a streetscape or pedestrian environment (*Refer to Appendix A: Recommended Tree List*).

Note:

Determining accommodations for dedicated bike lanes on Route 40 is not part of this manual or part of the Streetscape Master Plan effort. However, in measuring several locations along the corridor from the base mapping developed, it appears that 5-foot wide bike lanes could be accommodated without relocating the existing outside curbs along Route 40. Any additional dimension that would need to be made up to accommodate bike lanes could be taken out of the median; however, that needs to be balanced with pedestrian mobility strategies such as minimizing crossing distances and creating refuge areas in medians.

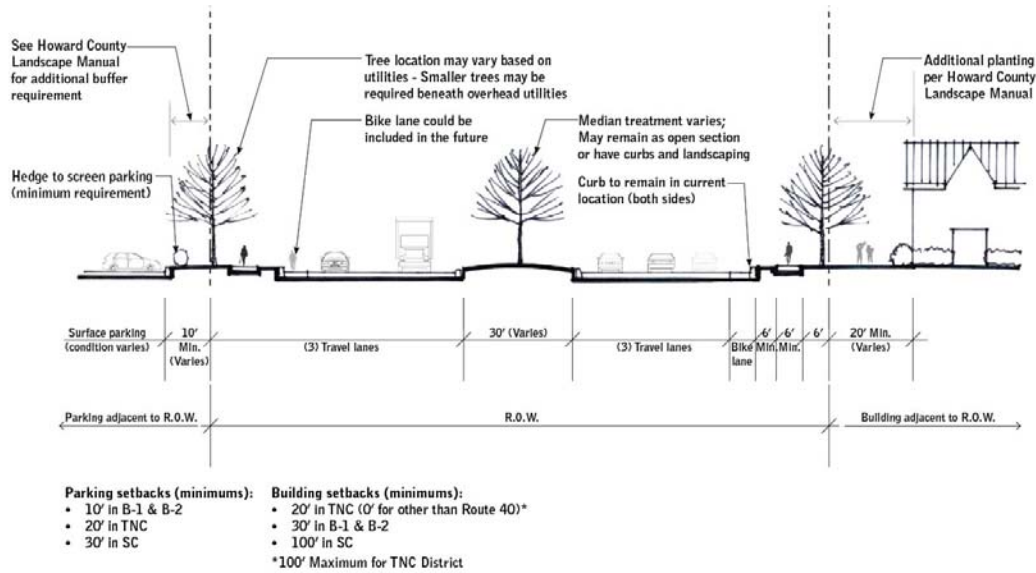


Figure 4C: Route 40 Proposed Cross Section

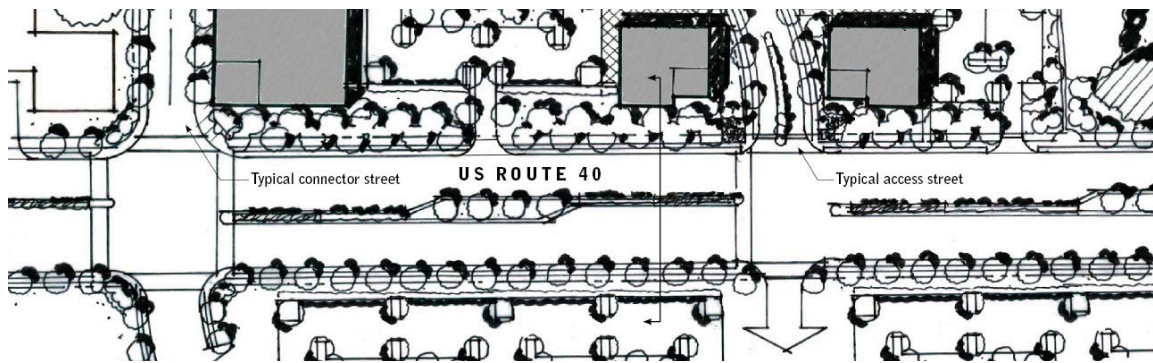


Figure 4D: Route 40 Proposed Cross Section

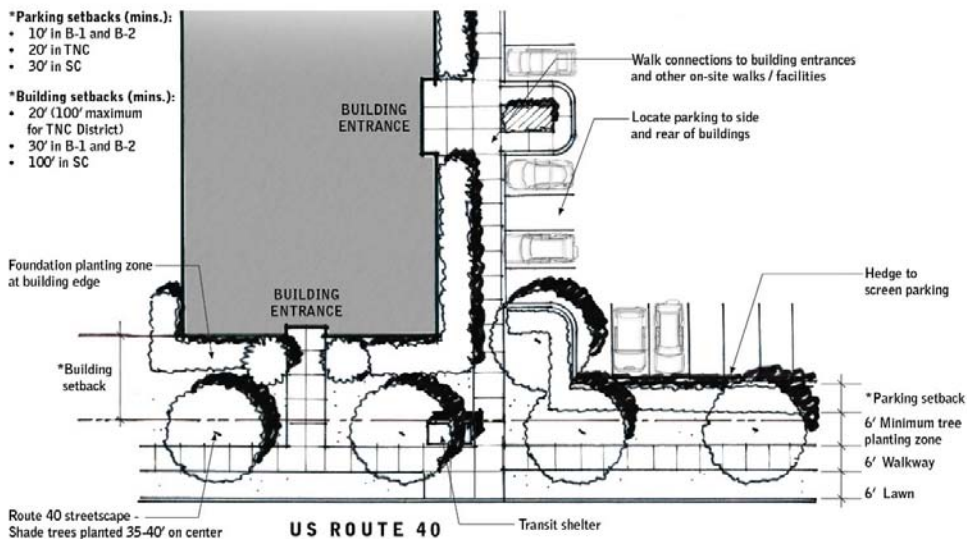


Figure 4E: Route 40 Frontage Plan Enlargement (Back of Curb)

3. Non-Route 40 Public Streets (Connector Streets)

Goals: The public streets that intersect with Route 40 and provide access to the three commercial areas as well as development beyond, such as North Chatham Road or Normandy Drive, can serve an important function in creating or reinforcing the character of the surrounding commercial centers. These streets, while carrying moderate volumes of traffic, should also be designed to be more pedestrian-friendly and may include on-street parking.

Requirements/Recommendations: Refer to the diagrams and requirements and recommendations described in the remaining sections of this chapter for general streetscape design (landscaping, sidewalks, crosswalks, street furniture and amenities, and street lighting).

4. Private Streets for Parcel Access (Access Streets)

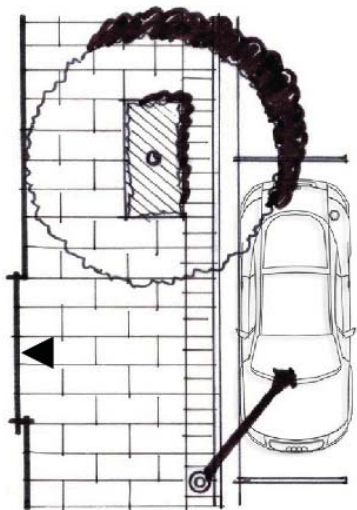
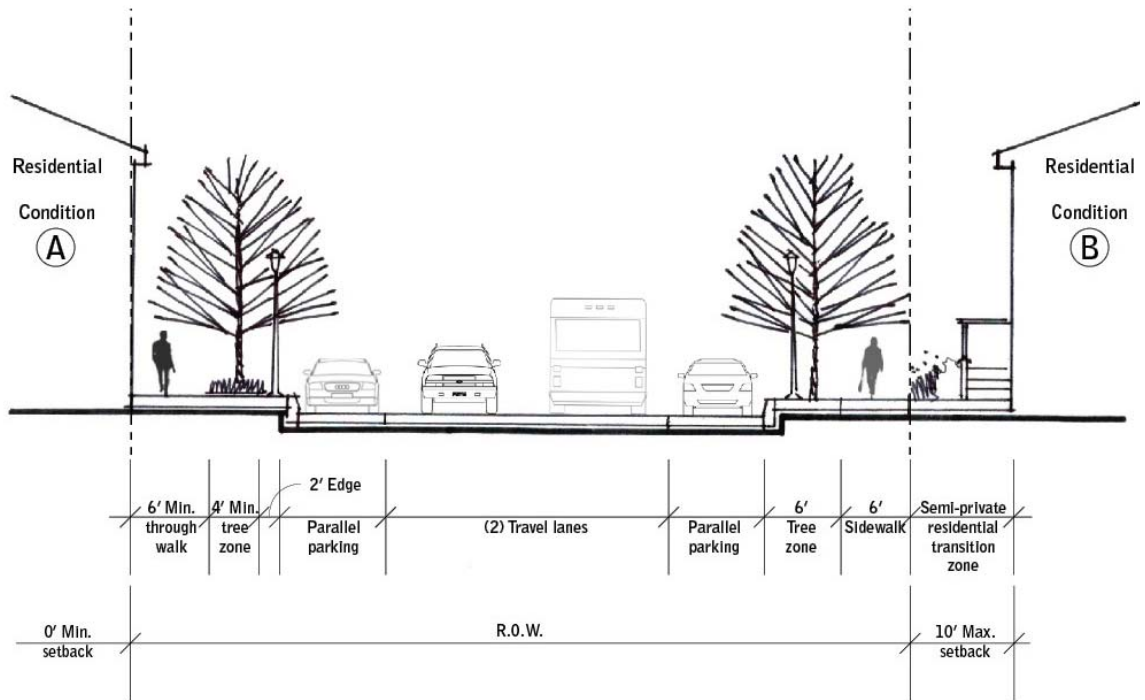
Goals: Private streets will be required to provide access from the public street network into and through development parcels. In addition to providing for vehicular access and circulation, these streets will serve as important pedestrian circulation streets and should also include on-street parking.

Requirements/Recommendations: Refer to the diagrams and requirements and recommendations described in the remaining sections of this chapter for general streetscape design (landscaping, sidewalks, crosswalks, street furniture and amenities, and street lighting).

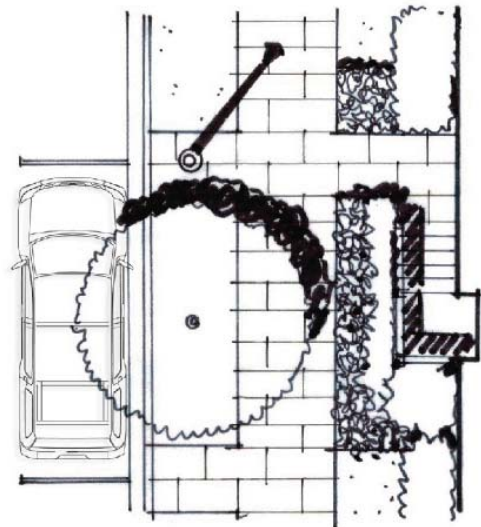
The images in Figure 4F illustrate the various treatments that may be appropriate along both Connector Streets and Access Streets depending on the zoning, the bordering use and the volume of traffic anticipated on the road.



Figure 4F: Connector and Access Streets *The photographs above illustrate the desired character for Connector and Access Streets. Areas of higher pedestrian activity would have wider sidewalks to accommodate greater pedestrian volumes and more pedestrian amenities such as outdoor dining.*

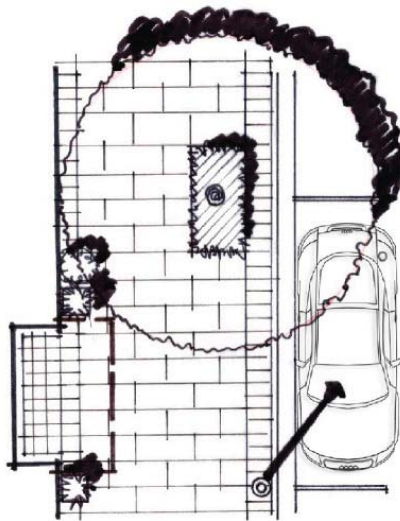
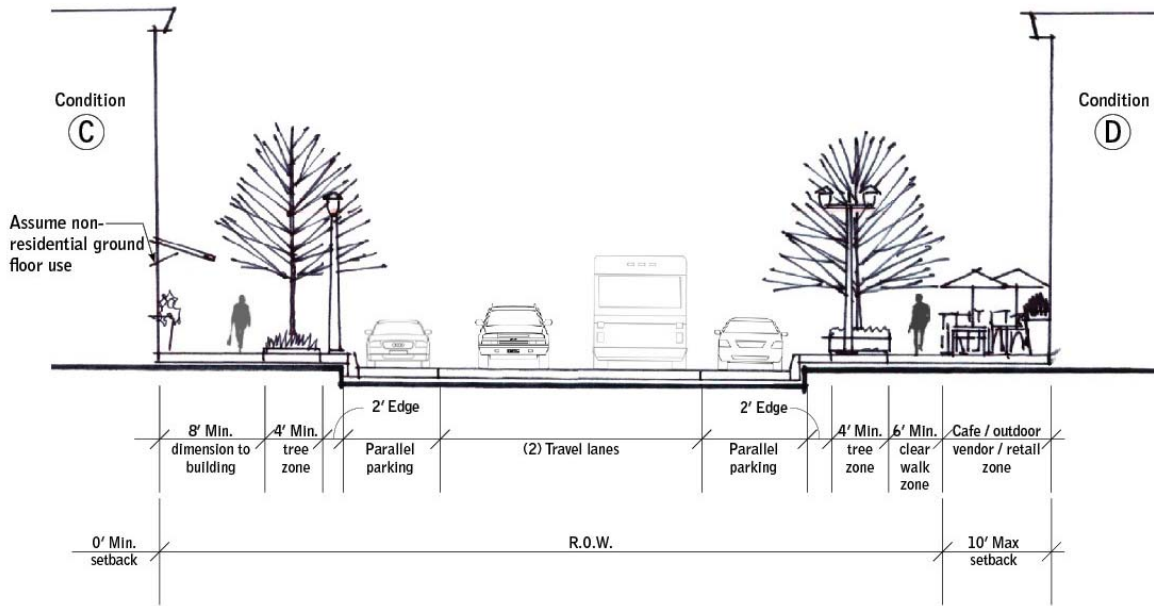


Plan View - Condition A

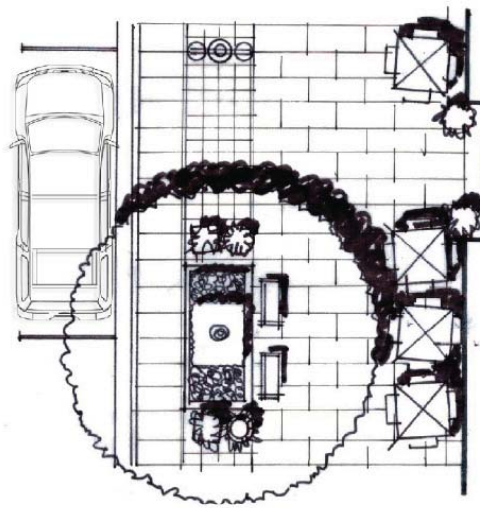


Plan View - Condition B

Figure 4G: TNC Residential Street (Public Connector or Private Access) *The above diagram illustrates a TNC Residential Street. Condition A illustrates the minimum setback with significant paving and Condition B illustrates a larger setback with the ability for more landscape area while still maintaining a strong street edge.*



Plan View - Condition C



Plan View - Condition D

Figure 4H: TNC Retail Street (Public Connector or Private Access) The above diagram illustrates a TNC Retail Street. Condition C illustrates the minimum setback and Condition D illustrates a larger setback with the ability for expanded outdoor uses, such as dining, adjacent to the building

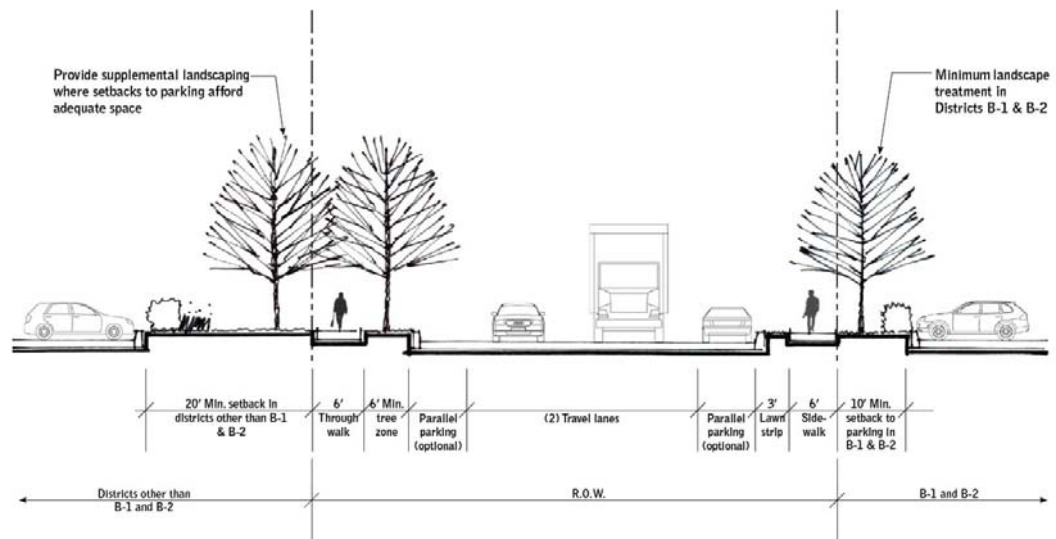


Figure 4I: Parking Setback from Public Street R.O.W. (Connector Streets) The above sketch illustrates parking setbacks along public streets. The right side shows minimum setbacks for B-1 and B-2 districts and the left side shows minimum setbacks for districts other than B-1 and B-2, including the TNC District. The section also shows required minimum sidewalk and landscape treatments.

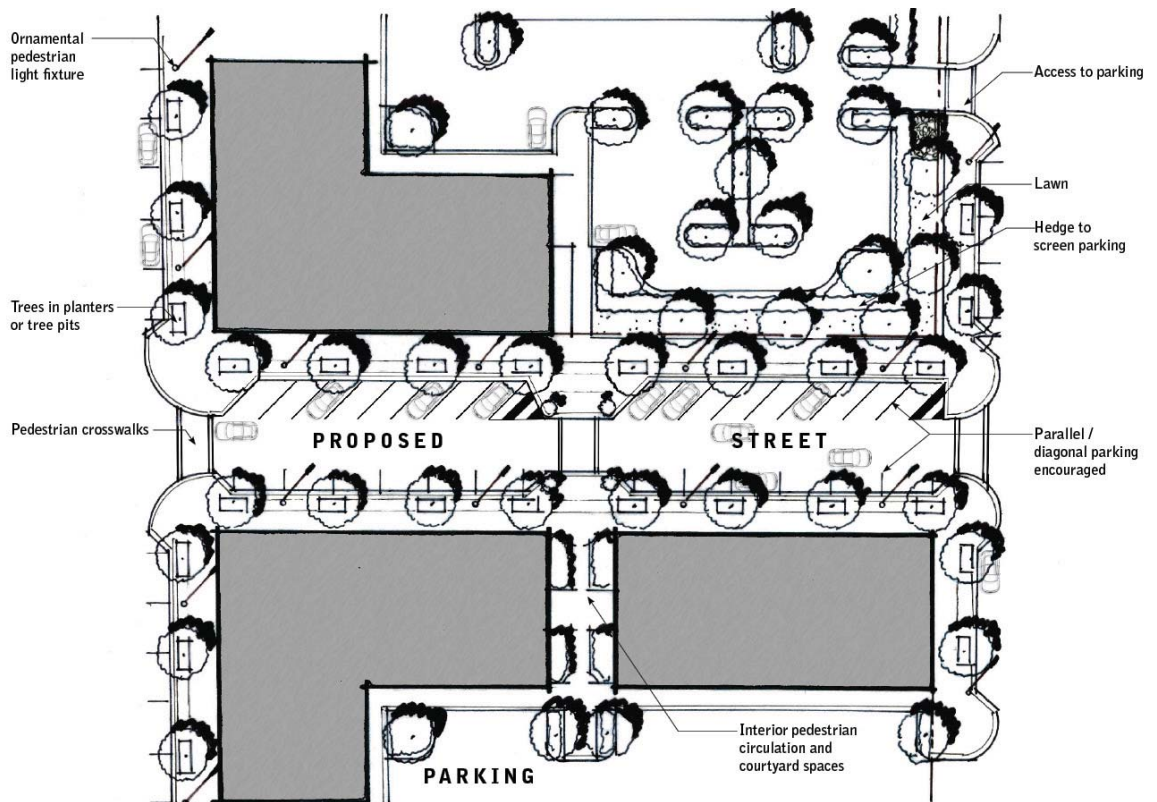


Figure 4J: Plan for Connector and Access Streets The above sketch illustrates desired conditions for Connector and Access Streets, with buildings oriented to street edges and parking lots lined with hedges and street trees to create a strong edge along the street. The sketch also illustrates the potential for on-street parking designed with parallel or angled spaces, as appropriate.

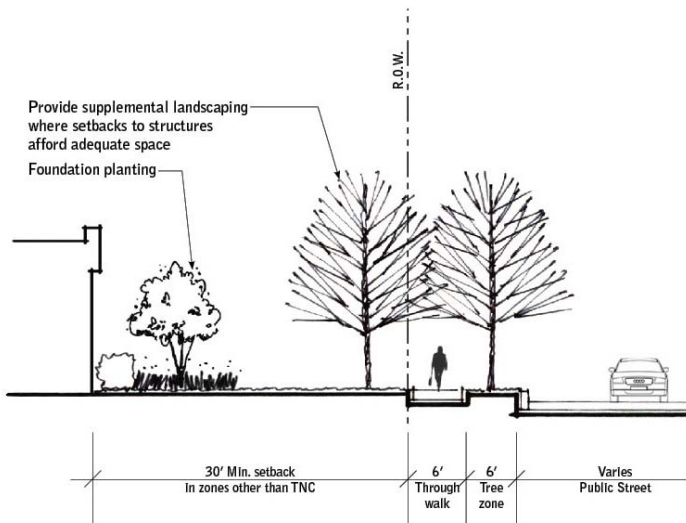


Figure 4K: Building Setback from Public Street R.O.W. (Non- TNC Zones)

General Streetscape Design

1. Crosswalks

Goals: Provide a continuous network of sidewalks and crosswalks along the Route 40 corridor to enhance pedestrian use and safety. Provide highly visible crosswalks at intersections and across driveways and drive aisles to enhance the visibility of pedestrians to motorists.

Requirements-All Districts:

S-10. *Crosswalk Striping/Paving:* The minimum acceptable treatment for crosswalks across streets and drive aisles is white striping. Provide 1-foot wide lines with the two outside lines parallel and spaced 10-feet apart. Stripe internal lines perpendicular to the edges and space 2-feet on center unless otherwise required by state or county codes (Refer to Figure 4M). The minimum acceptable treatment for crosswalks across driveway entrances is scored concrete, stamped concrete or stamped asphalt.

Requirements- TNC Districts (Recommendations-All Other Districts):

S-11. *Crosswalk Locations:* Provide crosswalks at all intersections with route 40, Connector Streets and Access Streets (Refer to Figure 4L).

Recommendations-All Districts:

S-12. *Decorative Crosswalk Treatments:* Consider other decorative crosswalk applications as appropriate and allowed to reinforce a theme for a specific project or an area (Refer to Figure 4M).

S-13. *Alternative Crosswalk Treatments:* On County rights-of-way and private streets, consider alternative materials for approval. These include stamped asphalt, stamped concrete and unit pavers such as brick or concrete pavers. These must be approved by the Department of Public Works and the Department of Planning and Zoning (DPZ).

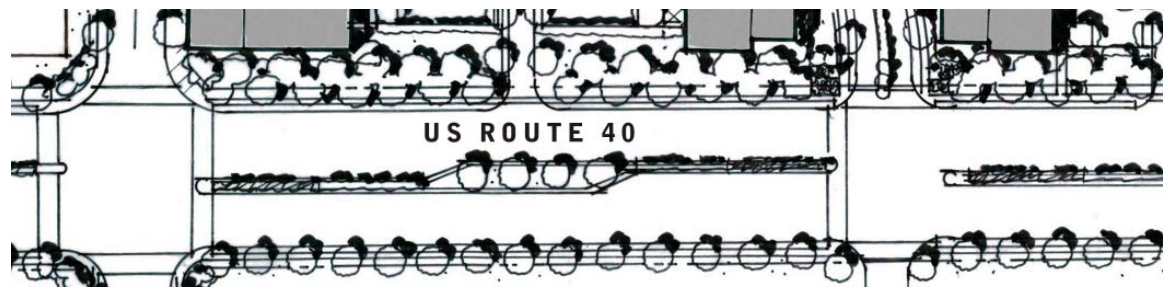


Figure 4L: This diagram illustrates how crosswalks should be provided in a variety of locations; across Route 40, across Connector Streets and Access Streets and across parcel access drives.



Figure 4M: These photographs illustrate a variety of crosswalk treatments. Regardless of the treatment, the goal is to create substantial and highly visible crosswalks.

2. Street Trees

Goals: The visual character of the corridor can be enhanced by the introduction of a comprehensive street tree program. Provide street trees along all public road rights-of-way, private access streets and access drives. Street trees enhance the public realm by defining edges, creating a sense of scale and providing shade. Street trees also provide environmental benefits including improved air quality, reducing ground level ozone, intercepting stormwater and moderating surface temperatures.

Requirements-All Districts:

S-14. *County Requirements:* Comply with the requirements for the installation of street trees in the *Subdivision and Land Development Regulations* and the *Howard County Landscape Manual*. Comply with the *AASHTO Guide for Transportation Landscape and Environmental Design*, current edition, BGE requirements and the *Howard County Design Manual*, for standards for street tree setbacks, clear zones and sight lines.

Requirements- TNC Districts (Recommendations-All Other Districts):

S-15. *Street Tree Locations:* Provide street trees along both sides of all public streets (Suburban Boulevard Sections of Route 40 and Connector Streets), private streets (Access Streets) and access drives in the corridor.

S-16. *Street Tree Sizes:* Where space allows, use medium to large deciduous trees with ultimate heights above 40 feet. Plant trees 40 feet on-center maximum and use trees with a 2.5 inch minimum caliper. See plant list in Appendix B for recommended species.

S-17. *Overhead Utility Conflicts:* Utilize small to medium height canopy trees in areas where overhead utilities represent an obstruction. Select trees based on their ultimate height as it relates to the height of the overhead utilities. Space smaller trees 30 feet on-center maximum. See plant list in Appendix B for recommended species.

S-18. *Streetscape Design Continuity:* To create uniformity along streets, use the same street tree type along both sides of each street except where prohibited by overhead utilities. The species can vary from block to block, however, if appropriate to the overall design. Along Route 40, it is not critical to use the same tree type along the entire corridor; however, an effort should be made to use the same street tree species within each of the three commercial areas to create continuity in each area: Normandy, Chatham and Enchanted Forest.

S-19. *Street Tree Types:* Select tree types that are native or adapted to the region and suitable as street trees based on the following criteria to minimize tree mortality: shape of canopy, drought tolerance, maintenance requirements, height relative to overhead utilities, tolerance of urban conditions and ability to maintain eye level views.

Recommendations-All Districts:

- S-20. *Use of Single Stem Ornamental Trees:* Consider using single-stem small ornamental trees as opposed to trees with multi-stem “shrubby” habits as they can obstruct views.
- S-21. *Prevention of Visual Obstructions:* Locate trees to minimize visual obstructions. Coordinate locations so storefronts and storefront signs are visible.
- S-22. *Street Tree Alignments:* Because planting zones will be fairly linear and narrow, align street trees as a consistent row. Where space allows, coordinate on-site tree plantings to form a staggered double row of trees with the street trees.
- S-23. *Enhanced Tree Planting Pits:* Consider the use of expanded soil panels through the use of structural soil or other techniques.



Figure 4N: The above images show how street trees can be effective in defining the pedestrian environment. High canopy shade trees are the most effective as they allow views beneath their canopies at maturity (top right).

3. Street Furniture and Amenities

Goals: Establish design continuity and provide for pedestrian comfort along the three commercial sections of the corridor through the use of a consistent family of street furniture and amenities along public and private streets.

Requirements-All Districts:

S-24. *Transit Stops:* Provide space for a bus stop or bus shelter as requested by DPZ. This includes the potential requirement for a parallel bus loading lane or pull-out.

Requirements- TNC Districts (Recommendations-All Other Districts):

S-25. *Site Furniture along Streets:* Provide benches in pedestrian activity areas, at bus stops and at regular intervals to provide resting places. Provide and locate trash receptacles in high activity areas (such as at intersections) and at bus stops.

S-26. *Site Furniture Design:* Provide street furniture (benches, trash receptacles and recycle receptacles) and infrastructure such as transit shelters along public and private streets in the Normandy, Chatham and Enchanted Forest areas to encourage walking and transit use. The street furniture and infrastructure shall utilize one of the three standards identified on the following page (*Refer to Figure 40*). The first development project will set the standard for each area, based on the site furniture selected. Each area may utilize a different standard.

Recommendations-All Districts:

S-27. *Additional Site Amenities:* Provide additional site furniture and amenities including bike racks, planters and flower pots, public art, etc. within open space areas and building entrances within the parcels of development as described in Chapter 3-8. The appropriate amount will be determined as part of the Design Advisory Panel (DAP) review process.

In most instances, the owner or developer of a property will grant permission to the County for, and may contribute financially towards, the installation of transit shelter improvements in coordination with DPZ, the Department of Public Works (DPW) and/or MD-SHA (*Refer to Figure 40*).

Department of Planning and Zoning, Division of Transportation Planning
3430 Court House Drive
Ellicott City, MD 21043
410-313-2350



Bench options by Victor Stanley should be 6-foot length (typical) and include one of the three following specifications or equal: 1) Steelsites RB Series Model #28, 2) Framers Modern Series Model #FMS-324, 3) Steelsites RB Series Model #RBF-28.



Trash receptacle options by Victor Stanley include one of the three following specifications or equal: 1) Ironsites Series Model #S-424, 2) Steelsites Series Model # NSDC-36, 3) Production Series Model #PRS-36.



Figure 40: The above images and specifications illustrate the street furniture options for public and private streets within the three commercial areas along the corridor. The transit shelter shown represents the “typical” for Howard County.

4. Street Lighting

Goals: Establish a distinct identity for the corridor and/or for areas within the corridor through the use of consistent decorative street lighting and pedestrian-scaled lighting.

Requirements-All Districts:

S-28. *Zoning Requirements:* Comply with the requirements in the Outdoor Lighting section of the *Zoning Regulations* and the *Subdivision and Land Development Regulations*.

S-29. *Light Installation and Maintenance:* Developers/property owners are to work with DPW to coordinate the purchase and installation of light fixtures along streets. For lights installed within SHA rights-of-way (along Route 40), the light poles must be located a minimum of 7' behind the face of curb for full cut-off fixtures. If the fixture is not adapted to be full cut-off or is semi cut-off, a setback greater than 7' may be required by DPW.

Requirements- TNC Districts (Recommendations-All Other Districts):

S-30. *Ornamental Pedestrian Lights:* Provide ornamental pedestrian lights along sidewalks within all street public rights-of-way including the Route 40 frontage, adjacent to private streets and in pedestrian activity areas in the three commercial areas of the corridor. Utilize the BGE standard "Maple Lawn Acorn" post-top fixture, adapted to be semi cut-off, mounted on a 12 foot tall black fiberglass pole with a shroud. This fixture has been selected as the most appropriate for the corridor (*Refer to Figure 4P*). The light source is high pressure sodium, 150 watt maximum, or an LED source with equivalent output (if approved by DPW). *Note: This fixture is subject to change per DPZ/DPW.*

S-31. *Ornamental Street Lights:* Utilize the BGE standard "Tear Drop fixture," adapted to be full cut-off, mounted on a 23' fiberglass pole for street lights where space allows and where the street width warrants a taller standard. The light source is high pressure sodium, 150 watt maximum, or an LED source with equivalent output (if approved by DPW).

S-32. *Light Spacing:* For both the ornamental pedestrian light and the ornamental street light, base spacing of poles and fixtures on standard practices and to DPW standards.

Recommendations-All Districts

(Not Applicable)

Refer to Chapter 3 for guidelines related to site lighting beyond that which occurs along public and private streets.



Figure 4P: The above photographs show the required (TNC) or recommended (existing zoning) ornamental street and pedestrian lighting for use along public and private streets.

5 CHAPTER 5: ARCHITECTURAL DESIGN

Chapter Intent

The intent of this chapter is to identify design requirements and recommendations for both building renovation and new construction along the Route 40 Corridor. The Traditional Neighborhood Center (TNC) overlay district describes a new pattern of more compact pedestrian-oriented development. The buildings in this new district should be developed with greater attention to detail and articulation than those commonly found in the corridor. Expansion or new construction proposed under the existing zoning districts is also encouraged to incorporate these design principles. The building design guidelines are intended to assist in achieving the vision for the corridor.

Design Intent

Because of concern related to the corridor's appearance and the goal to create a series of more pedestrian-friendly centers, increased attention should be focused on the scale and design of the buildings. For the frontage streets within a development, the height, articulation and attention to detailed design can have a significant impact on the appearance of the area and on the level of comfort afforded those traveling on foot.

It is not the intent of this chapter to dictate architectural design, but rather to identify basic design concepts related to building relationships, uses, height, massing and articulation.

The introduction of multi-story buildings to the commercial centers, through the use of the TNC overlay district, offers the potential to use the limited land resource more efficiently, mix uses and introduce new uses. Multi-floor buildings also serve to change the perceived scale and character of development by framing outdoor environments in ways that can be more conducive to pedestrian activity.

To ensure that proposed development complies with this Manual, applicants proposing under the TNC overlay district are required to include schematic architectural elevations as part of subdivision plans and more detailed elevations on site development plans, to illustrate how building design responds to this manual. For sites with topographic changes, include building sections to illustrate how the building and parking, including parking structures, relate to the grade change.

The images in Figure 5A illustrate the desired character of new and renovated buildings in the corridor. The following guidelines identify specific design criteria.

Specific Building Design Criteria

1. Height

Goals: Multi-story buildings help form an edge along streets and lend continuity to the aesthetics of the corridor along which they are located. In addition to adding scale and detail to the associated pedestrian environment, the increased density of the multi-story building pattern of development results in higher numbers of pedestrians, greater demand for pedestrian facilities and higher potential transit use. In the TNC district, ground floor retail and commercial uses with residential and office uses above are allowed as incentives to encourage multi-story, mixed-use development.

Requirements-All Districts:

(Not Applicable)

Requirements-TNC Districts (Recommendations-All Other Districts):

- A-1. *Expanded Parapets:* Provide expanded parapets for single-story buildings to add height.
- A-2. *Varied Building Heights within a Single Development:* Vary the building heights and numbers of floors of adjacent buildings within a single development to provide visual interest, particularly for focal point buildings.
- A-3. *Varied Building Heights between Adjacent Properties:* Vary building heights to transition between proposed building heights and those on adjacent properties.

Recommendations-All Districts:

- A-4. *Multi-Story Buildings:* Develop multi-story buildings to provide opportunities for upper floor uses and to reduce the land area required for a building footprint.



Figure 5B: The photograph on the left illustrates how multi-story buildings can be developed with retail uses on the lower levels and office/residential uses on the upper levels. The photograph to the right shows how a single story building can be designed to appear taller and make more of a positive influence on the street.

2. Massing and Articulation

Goals: The TNC overlay district encourages new buildings to be located closer to the street to help form a pedestrian-friendly character. In addition to building siting, the design of the building can add to the character of the area and the experience of the pedestrian. A building's proportion as well as the use and relationship of various design elements, such as windows, doors, and changes in vertical plane, contribute to the aesthetic of the structure and its fit into the overall built environment. When designing a building, it is important to understand and reflect the surrounding context. For multi-building developments, a comprehensive architectural concept should be developed to maximize design continuity.

In pedestrian-oriented development districts, greater attention to detail and building articulation are critical. People traveling on foot are moving at slower speeds than when in vehicles and are in immediate proximity to the building environment. Enhancing the pedestrian environment is paramount to people choosing to walk as a mode of travel.

This level of detail can be included in one-story buildings designed and constructed under the existing zoning districts as well.

Requirements-All Districts:

(Not Applicable)

Requirements-TNC Districts (Recommendations-All Other Districts):

- A-5. *Building Components:* Design new single and multi-story buildings with three distinct components: a base, middle and top (*Refer to Figure 5C*). Define each component with changes in plane, materials and/or color, or the use of openings and projections.
- A-6. *Building and Parking Structure Design Coordination:* Integrate parking structures with the design of the buildings they serve. If a parking structure is free-standing, utilize the same design concepts as those used on the building.
- A-7. *Articulation of Corner Buildings:* Buildings located on corner sites command prominent views from both drivers and pedestrians. For this reason, an enhanced level of architectural articulation on buildings occupying these important locations is required. Treat the design of corner entrances distinctively, to animate intersections while accommodating pedestrian flow (*Refer to Figure 5C*).
- A-8. *Treatment of Blank Walls:* If a building's function requires a large footprint or long expanses of blank walls along edges that are visible from the street or along major pedestrian links, exterior façade articulation is required to provide an enhanced level of architectural interest, such as changes in color, material or plane. If the façade is more than 100-feet long, design recesses and off-sets, additional building forms or other features to provide visual interest (*Refer to Figure 5D*).
- A-9. *Architectural Details:* Utilize high levels of detail and visual interest at the ground floor level, especially in pedestrian-oriented areas. Design architectural elements such as openings, columns, and changes in façade depth to create a balanced rhythm along the building and along the length of the street where multiple buildings are proposed (*Refer to Figures 5C and 5D*).

Recommendations-All Districts:

- A-10. *Programming and Articulation of Ground Floors:* Design parking structures to accommodate retail uses at the ground level along major pedestrian routes. Where blank facades abut sidewalks, design the ground level with visually interesting articulation (Refer to Figure 5F).
- A-11. *Limited Use of Reflective Glass:* Avoid large expanses of reflective surfaces and mirror glass on exterior walls to avoid heat and glare impacts on adjacent streets, sidewalks and properties.



Figure 5C: These photographs illustrate how buildings located at intersections can be articulated to respond to these conditions. The photos also illustrate façades articulated with a “base,” “middle” and “top”.



Figure 5D: Examples showing articulation of facades and roof lines, visual interest at the ground floor and articulation of blank walls facing streets.

3. Roof

Goals: Design roofs as an integral component of the building and to screen rooftop mechanical equipment. Roofs are important in providing visual interest as well as contributing to the style and character of the structure.

Requirements-All Districts:

(Not Applicable)

Requirements-TNC Districts (*Recommendations-All Other Districts*):

- A-12. *Parapet and Roof Screen Design:* Use parapets and roof screens and integrate them into the roof design of new buildings and additions. Select roof screen materials and colors to blend in with or recede from the main roof of the building.
- A-13. *Consolidation of Mechanical Equipment:* Consolidate mechanical equipment into a common location to hide from view with one screen unless multiple locations provide a better screening design. Screen equipment completely from view.
- A-14. *Articulation of Roof Line:* Divide long horizontal roof lines into shorter segments by providing breaks in the roof or articulation in the façade design. Articulations may include roof sections that vary in height or slope, or have changes in color, material, or form.
- A-15. *Roof-Mounted Equipment on Sloped Roofs:* Incorporate roof-mounted equipment into the overall design of sloped roofs through the use of equipment wells or other techniques.
- A-16. *Roof Edges:* Utilize decorative elements, such as projecting cornices, to enhance roof edges, especially for mixed-use buildings and ones that include retail uses.
- A-17. *Coordination of Green Roof and Building Design:* When green roofs are used, integrate green roof designs into the overall design of the building.

Recommendations-All Districts:

- A-18. *Mechanical Equipment Location:* Set roof-mounted mechanical equipment back from the edge of the roof so it is not visible from the public right-of-way. This may eliminate the need for roof screens.
- A-19. *Use of Green Roofs:* Use green roof technologies wherever possible to reduce storm water runoff. Make green roofs visible, if feasible, to help promote the use of green technologies.



Figure 5E: Examples showing how variations in roof lines, the use of parapets and a combination of flat and sloped roofs add interest to the streetscape while concealing mechanical equipment.

4. Fenestration / Window Openings

Goals: Exterior windows and doors provide visual interest, enhance the pedestrian experience and improve safety by providing “eyes on the street”. Especially in pedestrian-oriented areas, locate windows and doors prominently along the ground floor level. Integral to an attractive, well functioning streetscape environment is the transparency and activity generated by street level entrances and display windows.

Requirements-All Districts:

(Not Applicable)

Requirements-TNC District (Recommendations-All Other Districts):

- A-20. *Building Entrances:* Locate entrances directly off of the street-side walkways. Design entrances to be visible and provide paved connections to the adjoining sidewalk. Entrances offer an opportunity to break and/or punctuate the rhythm and articulation of the building.
- A-21. *Ground Floor Windows:* Use windows to maximize and enhance transparency at the ground floor level to provide visual interest for pedestrians.
- A-22. *Limited Use of Blank Facades:* Minimize long expanses of façades without windows and doorways along the public street and other major pedestrian routes.
- A-23. *Window Articulation:* Use individual windows (as opposed to long ribbon window) predominantly along building façades facing streets as they provide more visual interest in the façade *(Refer to Figure 5F)*.



Figure 5F: Examples showing articulation of individual window openings for buildings and parking structures. Larger storefront windows are used at the street level.

5. Green Buildings

Goals: Construct buildings that use environmentally sustainable techniques and materials to conserve resources in their construction and life cycle operations. Create healthy living, working and entertainment building environments.

Requirements-All Districts:

A-24. *County Green Building Requirements:* Adhere to current Howard County Green Building requirements. Refer to Title 3, Subtitle 10 of the Howard County Code.

Requirements-TNC Districts (Recommendations-All Other Districts):

(Not Applicable)

Recommendations-All Districts:

A-25. *Green Building Practices:* Utilize green building practices for all new building construction even if not seeking LEED certification. These practices may include the following:

- Water use reduction
- Use of green power
- Building or materials reuse
- Use of recycled content
- Use of rapidly renewable materials
- Increased ventilation
- Use of low-emitting materials
- Enhanced daylight and views and solar orientation

6. Signs Attached to Buildings

Goals: Integrate wall mounted and projecting signs into the design of the building to minimize visual clutter and achieve a more pleasing view from public streets.

Requirements-All Districts:

A-26. *Sign Code Requirements:* Comply with the *Howard County Sign Code*.

Requirements-TNC Districts (Recommendations-All Other Districts):

A-27. *Design of Building-Mounted Signs:* Integrate building-mounted signs into the overall design of the architecture (Refer to Figure 5G).

A-28. *Window Signs:* Limit signs in windows to no more than 20% of the total window area of each retail tenant on the ground floor. Limit window signs to retail uses only.

Recommendations-All Districts:

A-29. *Canopies and Awnings:* Provide canopies and awnings where possible.

A-30. *Canopies and Awnings as Signs:* Where canopies and awnings are used, business names and logos may be included as part of the canopy design as appropriate.

A-31. *Projecting Signs:* Use projecting signs to create visual interest along the sidewalk area (Refer to Figure 5G).

A-32. *Coordination of Sign and Building Design:* Coordinate the use of colors, materials, styles and design themes between the building and the signage.

A-33. *Sign Materials and Colors:* Use durable materials. Use bright colors carefully.



Figure 5G: Examples of building-mounted signs, awnings and projecting signs integrated into the overall architectural design.



Figure 5A: The above photographs illustrate the desired character, style and massing of new and renovated buildings within the corridor. Architecture includes articulated roof lines and facades, varied heights, window openings along streets and articulated entrances.

A APPENDICES

APPENDIX A: GUIDELINE SUMMARY MATRIX**Purpose:**

The following summary matrix is provided for the convenience of the users of this Manual and serves as a quick reference of the guidelines included within, identifying where adherence is required or recommended. For purposes of brevity, only the title of each guideline is included. Please refer to each chapter to understand the full intent of each guideline.

GUIDELINE	TNC	OTHER
CHAPTER 3: SITE DESIGN		
1. Building Location		
SD - 1 Setback Requirements	●	●
SD - 2 Building Frontage	●	○
SD - 3 Orientation to Street Corners	●	○
SD - 4 Relationship to Multiple Buildings	●	○
SD - 5 Design Unification of Site Elements	●	○
2. Vehicular Access		
SD - 6 Access Requirements	●	●
SD - 7 Access for Sites with Multiple Street Frontages	●	○
SD - 8 Curb Cuts	●	○
SD - 9 Site Entrance Articulation	●	○
SD - 10 Crosswalks	●	○
SD - 11 Shared Access	●	○
SD - 12 Transit-Friendly Site Design	●	○
SD - 13 One-Way Site Access	○	○
3. Parking Areas		
SD - 14 Landscape Requirements	●	●
SD - 15 Parking Location at Side and Rear of Buildings	●	○
SD - 16 Circulation Hierarchy	●	○
SD - 17 Parking Limits Between Buildings and Street	●	○
SD - 18 Landscape Islands and Medians	●	○
SD - 19 Curbs or Wheel Stops	●	○
SD - 20 Pedestrian Circulation within Parking Areas	●	○
SD - 21 Relationship of Building and Parking Areas	●	○
SD - 22 Internal Site Connections	●	○

- Requirement
- Recommendation

GUIDELINE	TNC	OTHER
SD - 23 Treatment of Building Entrance Areas	●	○
SD - 24 Bicycle Parking	●	○
SD - 25 Pedestrian Circulation among Adjacent Properties	●	○
4. On-Site Pedestrian Circulation		
SD - 26 Sidewalks Widths within Public ROW	●	●
SD - 27 Minimum Site Sidewalk Widths	●	○
SD - 28 Pedestrian Facilities Between Buildings and Street	●	○
SD - 29 Connections to Building Entrance Areas	●	○
SD - 30 Pedestrian Connections	●	○
5. Open Space and Gathering Areas		
SD - 31 Site Organization	●	○
SD - 32 Connected and Visible Open Space	●	○
SD - 33 Site Furnishings	●	○
SD - 34 Integration of SWM/Open Space Design	●	○
SD - 35 Variety of Seating Options	●	○
SD - 36 Appropriate Use of Landscape	●	○
SD - 37 Public Art	○	○
SD - 38 Portable Furniture	○	○
6. Trash Enclosures and Service Areas		
SD - 39 Dumpster Enclosures	●	○
SD - 40 Trash Collection Consolidation	●	○
7. Lighting		
SD - 41 Zoning Requirements	●	●
SD - 42 Light Fixture Design Coordination	●	○
SD - 43 Sharp Cut-Off Fixtures	●	○
SD - 44 Lighting in Amenity Areas	●	○
8. Site Furniture and Amenities		
SD - 45 Benches	●	○
SD - 46 Trash and Recycling Receptacles	●	○
SD - 47 Bicycle Racks	●	○
SD - 48 Tables and Chairs	○	○

● Requirement ○ Recommendation

GUIDELINE	TNC	OTHER
8. Site Furniture & Amenities (Continued)		
SD - 49 Public Art	○	○
SD - 50 Planters and Pots	○	○
SD - 51 Fountains and Structures	○	○
9. Freestanding Signs		
SD - 52 Sign Code Requirements	●	●
SD - 53 Ground-Mounted Signs	●	○
SD - 54 Wall-Mounted Signs	●	○
SD - 55 Multiple Business Sign Consolidation	●	○
SD - 56 Coordinated Signage System	●	○
SD - 57 Design Coordination between Buildings and Signs	●	○
10. Landscape Planting and Screening		
SD - 58 Buffer Landscape	●	●
SD - 59 Parking Buffer along Route 40	●	●
SD - 60 Stormwater Management within Parking Areas	●	●
SD - 61 Landscaping within Parking Areas	●	○
SD - 62 Service Area Screening	●	○
SD - 63 Use of Walls and Fencing	○	○
SD - 64 Sight Lines	○	○
SD - 65 Shrub Plantings	○	○
11. Utilities		
SD - 66 Screening of Ground-Level Mechanical Equipment	●	○
SD - 67 Utility Screening and Building Design Coordination	●	○
12. Stormwater Management		
SD - 68 County and MDE Compliance	●	●
SD - 69 Site and SWM Design Coordination	●	○
SD - 70 Bio-Retention Techniques	●	○
SD - 71 Innovative SWM Techniques	●	○
SD - 72 Minimal Impervious Surfaces	○	○
SD - 73 SWM Retrofit	○	○
SD - 74 Sub-Surface SWM	○	○

- Requirement ○ Recommendation

GUIDELINE	TNC	OTHER
CHAPTER 4: STREETScape DESIGN		
STREET TYPES		
1. Street Network		
S - 1 County Subdivision and Land Development Regulations	●	●
S - 2 County Design Manual	●	●
S - 3 SHA Requirements	●	●
S - 4 Right-of-Way Provisions	●	●
S - 5 Block Network	●	○
2. Route 40 Frontage (Suburban Boulevard)		
S - 6 Route 40 Sidewalks	●	●
S - 7 Parking Area Screening	●	○
S - 8 Maximum Building Setback	●	○
S - 9 Use of Canopy Trees	○	○
3. Non-Route 40 Public Streets (Connector Streets)		
Refer to Diagrams and Illustrations in Chapter		
4. Private Streets for Parcel Access (Access Streets)		
Refer to Diagrams and Illustrations in Chapter		
GENERAL STREETScape DESIGN		
1. Crosswalks		
S - 10 Crosswalk Striping/Paving	●	●
S - 11 Crosswalk Locations	●	○
S - 12 Decorative Crosswalk Treatments	○	○
S - 13 Alternate Crosswalk Treatments	○	○
2. Street Trees		
S - 14 County Requirements	●	●
S - 15 Street Tree Locations	●	○
S - 16 Street Tree Sizes	●	○

● Requirement ○ Recommendation

GUIDELINE	TNC	OTHER
S - 17 Overhead Utility Conflicts	●	○
S - 18 Streetscape Design Continuity	●	○
S - 19 Street Tree Types	●	○
S - 20 Use of Single Stem Ornamental Trees	○	○
S - 21 Prevention of Visual Obstructions	○	○
S - 22 Street Tree Alignments	○	○
S - 23 Enhanced Tree Planting Pits	○	○
S - 24 Transit Stops	●	●
S - 25 Site Furniture along Streets	●	○
S - 26 Site Furniture Design	●	○
S - 27 Additional Site Amenities	○	○
4. Street Lighting		
S - 28 Zoning Requirements	●	●
S - 29 Light Installation and Maintenance	●	●
S - 30 Ornamental Pedestrian Lights	●	○
S - 31 Ornamental Street Lights	●	○
S - 32 Light Spacing	●	○
CHAPTER 5: ARCHITECTURAL DESIGN		
1. Height		
A - 1 Expanded Parapets	●	○
A - 2 Varied Building Heights within a Single Development	●	○
A - 3 Varied Building Heights between Adjacent Properties	●	○
A - 4 Multi-Story Buildings	○	○
2. Massing and Articulation		
A - 5 Building Components	●	○
A - 6 Building and Parking Structure Design Coordination	●	○
A - 7 Articulation of Corner Buildings	●	○
A - 8 Treatment of Blank Facades	●	○
A - 9 Architectural Details	●	○
A - 10 Programming and Articulation of Ground Floors	○	○
A - 11 Limited Use of Reflective Glass	○	○

- Requirement ○ Recommendation

GUIDELINE	TNC	OTHER
3. Roof		
A - 12 Parapet and Roof Screen Design	●	○
A - 13 Consolidation of Mechanical Equipment	●	○
A - 14 Articulation of Roof Line	●	○
A - 15 Roof-Mounted Equipment on Sloped Roofs	●	○
A - 16 Roof Edges	●	○
A - 17 Coordination of Green Roof and Building Design	●	○
A - 18 Mechanical Equipment Location	●	○
A - 19 Use of Green Roofs	○	○
4. Fenestration / Window Openings		
A - 20 Building Entrances	●	○
A - 21 Ground Floor Windows	●	○
A - 22 Limited Use of Blank Facades	●	○
A - 23 Window Articulation	●	○
5. Green Buildings		
A - 24 County Green Building Requirements	●	●
A - 25 Green Building Practices	○	○
6. Signs Attached to Buildings		
A - 26 Sign Code Requirements	●	●
A - 27 Design of Building-Mounted Signs	●	○
A - 28 Window Signs	●	○
A - 29 Canopies and Awnings	○	○
A - 30 Canopies and Awnings as Signs	○	○
A - 31 Projecting Signs	○	○
A - 32 Coordination of Sign and Building Design	○	○
A - 33 Sign Materials and Colors	○	○

APPENDIX B: RECOMMENDED TREE LIST**Howard County Approved Street Trees Within:****LESS THAN 25' TO EITHER SIDE OF OVERHEAD UTILITIES*****Small Trees – less than 25' height***

Acer griseum	Paperbark Maple
Cercis canadensis (N)	Redbud (N)
Cornus kousa	Kousa Dogwood
Crataegus crusgalli 'inermis'*	Thornless Cockspur Hawthorn*
Lagerstroemia indica	Crapemyrtle
Styrax japonica	Japanese Snowbell
Syringa reticulata	Tree Lilac

* Hawthornes should be used in limited quantities away from sidewalks where thorns can create a liability. Hawthornes are also subject to disease.

25' – 40' FROM OVERHEAD UTILITIES***Medium Trees – 25' to 40' tall***

Acer campestre	Hedge Maple
Cladrastis lutea	Yellowwood
Gleditsia triacanthos inermis 'Imperial' (N)	Imperial Thornless Honeylocust
Prunus serrulata 'Kwanzan'	Kwanzan Cherry

40' FROM OVERHEAD UTILITIES***Trees over 40' tall- areas with no overhead or underground restrictions***

Acer rubrum 'Armstrong' (N)	Armstrong Columnar Red Maple (N)
Acer rubrum 'Autumn Flame' (N)	Autumn Flame Red Maple (N)
Acer rubrum 'Bowhall' (N)	Bowhall Red Maple (N)
Acer rubrum 'October Glory' (N)	October Glory Red Maple (N)
Acer rubrum 'Red Sunset' (N)	Red Sunset Red Maple (N)
Acer saccharum 'Green Mountain' (N)	Green Mountain Sugar Maple (N)
Aesculus hippocastanum 'Baumann'	Baumann Horsechestnut
Ginkgo biloba 'Autumn Gold'	Autumn Gold Ginkgo (male only)
Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo (male only)
Gleditsia triacanthos inermis 'Shade Master' (N)	Shade Master Thornless Honeylocust
Quercus phellos (N)	Willow Oak (N)
Quercus rubra (N)	Northern Red Oak (N)
Tilia americana 'Redmond'	Redmond American Linden (N)
Tilia cordata 'Greenspire'	Greenspire Littleleaf Linden
Sophora japonica 'Regent'	Regent Japanese Pagoda Tree
Zelkova serrata 'Village Green'	Village Green Japanese Zelkova
Zelkova serrata 'Green Vase'	Green Vase Japanese Zelkova

(N) Native to Maryland or cultivars

Note: All of the above trees can also be used outside of the street/utility areas.
Tree substitutions may be made subject to approval from Howard County

Department of Planning and Zoning and from BGE if within 45 feet of overhead power lines.

Sources: Howard County Landscape Manual
BGE Planting Zone Concept List

RECOMMENDED TREES OUTSIDE OF STREET/UTILITY AREAS

Deciduous Trees – Small to Medium – Ornamental or Understory

Amelanchier canadensis (N)	Shadblow Serviceberry
Cornus alternifolia (N)	Pagoda Dogwood (N)
Carpinus caroliniana (N)	American Hornbeam (N)
Chionanthus virginicus(N)	White Fringetree (N)
Magnolia stellata	Star Magnolia
Magnolia x soulangiana	Saucer Magnolia
Prunus serrulata ‘Kwanzan’	Kwanzan Cherry
Prunus Yedoensis	Yoshino Cherry

Evergreen Trees

Cedrus deodora	Deodar Cedar
Ilex opaca (N)	American Holly (N)
Picea abies	Norway Spruce
Picea omorika	Serbian Spruce
Pinus strobus (N)	Eastern White Pine (N)

Deciduous Trees – Large to Medium

Betula nigra (N)	River Birch (N)
Fagus grandifolia (N)	American Beech (N)
Fagus sylvatica	European Beech
Halesia tetraptera	Carolina Silverbell
Liquidambar styraciflua (N)	American Sweetgum (N)
Oxydendrum arboretum	Sourwood
Platanus x acerifolia ‘Bloodgood’	Bloodgood London Plane Tree
Quercus coccinea (N)	Scarlet Oak (N)
Salix babylonica	Weeping Willow
Sophora japonica	Japanese Pagoda Tree
Tilia cordata ‘Greenspire’	Greenspire Littleleaf Linden

(N) Native to Maryland or cultivar

Note: Tree substitutions may be made subject to approval from Howard County Department of Planning and Zoning (DPZ).

Sources: Howard County Landscape Manual
BGE Planting Zone Concept List
Howard County DPZ Recommendations



For information or alternative formats contact:

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