

Draft

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# Urban Design Guidelines

For the Twinbrook Area



Montgomery County Planning Department  
**The Maryland-National Capital Park and Planning Commission**





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Light Industrial Area

# HOW TO USE THE GUIDELINES

These guidelines are intended to implement the approved and adopted Twinbrook Sector Plan by providing design guidance for applicants seeking approval of private or public development or capital improvement projects. They reflect the Planning Board's expectations to create a unified place through outstanding design.

The guidelines were developed through work with property owners, residents, institutions, interest groups, and the County Executive.

These guidelines are approved by the Planning Board for use in developing and evaluating proposed building projects and other applications. They will be revised to reflect new technologies or field conditions and updated comprehensively at least once every six years.

With the exception of street standards and other specific recommendations in the Twinbrook Sector Plan, these guidelines are not regulations that mandate specific forms and locations for buildings and open space. They illustrate how sector plan recommendations and principles might be met, and they encourage applicants and public agencies to propose designs that create an attractive and successful public realm.

The guidelines emphasize the following three areas:

**Streets** - These guidelines are in conformance with the Road Code, and they are binding unless a waiver is granted by the Planning Board to achieve context sensitive design. Local street layouts illustrate design principles, and they are not mandated.

**Open Space** - The guidelines are illustrative except for specific recommendations for open spaces identified in the Sector Plan.

**Buildings** - The guidelines are illustrative and are intended to create an urban environment. The General Area Wide Design Guidelines and the Guidelines for Specific Districts provide guidance in accordance with the Twinbrook Sector Plan.



# 1 INTRODUCTION

The Twinbrook Sector Plan area includes three districts. These mutually supportive districts include:

- **Metro Core Area** - An area with a mix of residential, office and retail uses focused on the existing Twinbrook Metro Station. A significant portion of this district is within the City of Rockville. The design guidelines augment and enhance the high quality of design established in the approved projects.
- **Technology Employment Area** – An area located along Fishers Lane and Parklawn Drive with mixed uses featuring advanced technology and biotechnology activities. The design guidelines will focus on the design of the streets, open spaces and buildings that produce a high quality neighborhood competitive in the 21<sup>st</sup> century.
- **Light Industrial Area** – This area includes a mix of goods and service industries located around Carroll and Wilkins Avenues. The design guidelines support these industries and allow for expansion and architectural creativity in an urban setting.

These design guidelines are to be used with at least five other planning and urban design documents:

- Twinbrook Sector Plan
- Montgomery County Zoning Ordinance
- Forest Conservation Law
- Environmental Guidelines
- Historic Preservation Ordinance, Chapter 24A



## Purpose

In 2001, the Maryland-National Capital Park and Planning Commission led a discussion or design charrette between the Montgomery County Council and County Executive, area residents, local businesses owners, planners, architects, and others to create a plan for the future of the Twinbrook neighborhood. The result was the Twinbrook Charrette and Concept Plan. The goal of the plan was to create an alternative to sprawl by encouraging mixed-use development, and to create an alternative to the car by improving access for pedestrian and fostering use of transit use. The design charrette provided the outline for the Twinbrook Station project that is presently under construction.

The land area included in the Twinbrook Station project was annexed by the City of Rockville after the completion of the design charrette. The approved design for the Twinbrook Station project is consistent with the design charrette.

The Twinbrook Sector Plan also followed the design charrette. The Urban Design Guidelines for the Twinbrook area provide more clarity and extend the design principles established by the design charrette and the City of Rockville to the entire Twinbrook Sector Plan area. The purpose of the guidelines include:

- **Build a Community** - Create a distinct community character for the Twinbrook area.
- **Clarify Expectations** - Provide clarity of expectations and additional certainty for the design professionals, property owners, neighbors, and decision makers.
- **Preserve Flexibility** - Develop guidelines that allow the Planning Board to respond to new technology and better design alternatives.
- **Coordination** - Provide coordination of the design elements with the open space buildings and streets under construction in the Twinbrook Station project located in the City of Rockville.



*Above: Three districts in the Twinbrook Sector Plan Area*

## Context

### Other Master Plans and Sector Plans

**Germantown Employment Corridor** - This plan will establish mixed-use development of office, residential, retail, corporate offices, and biotechnology companies.

**Gaithersburg West** - This area provides significant biotechnology resources for Montgomery County located along the Corridor Cities Transitway.

**Shady Grove** - This area provides a housing resource for the corridor at the Shady Grove Metro Station.

**Twinbrook** - The Twinbrook plan supports a mixed-use community of residential and retail, advanced technology, and urban industrial uses.

**White Flint** - White Flint will be North Bethesda's downtown with mixed-use, high-rise development. Office, entertainment, and retail uses will be connected with improved pedestrian access between developments.

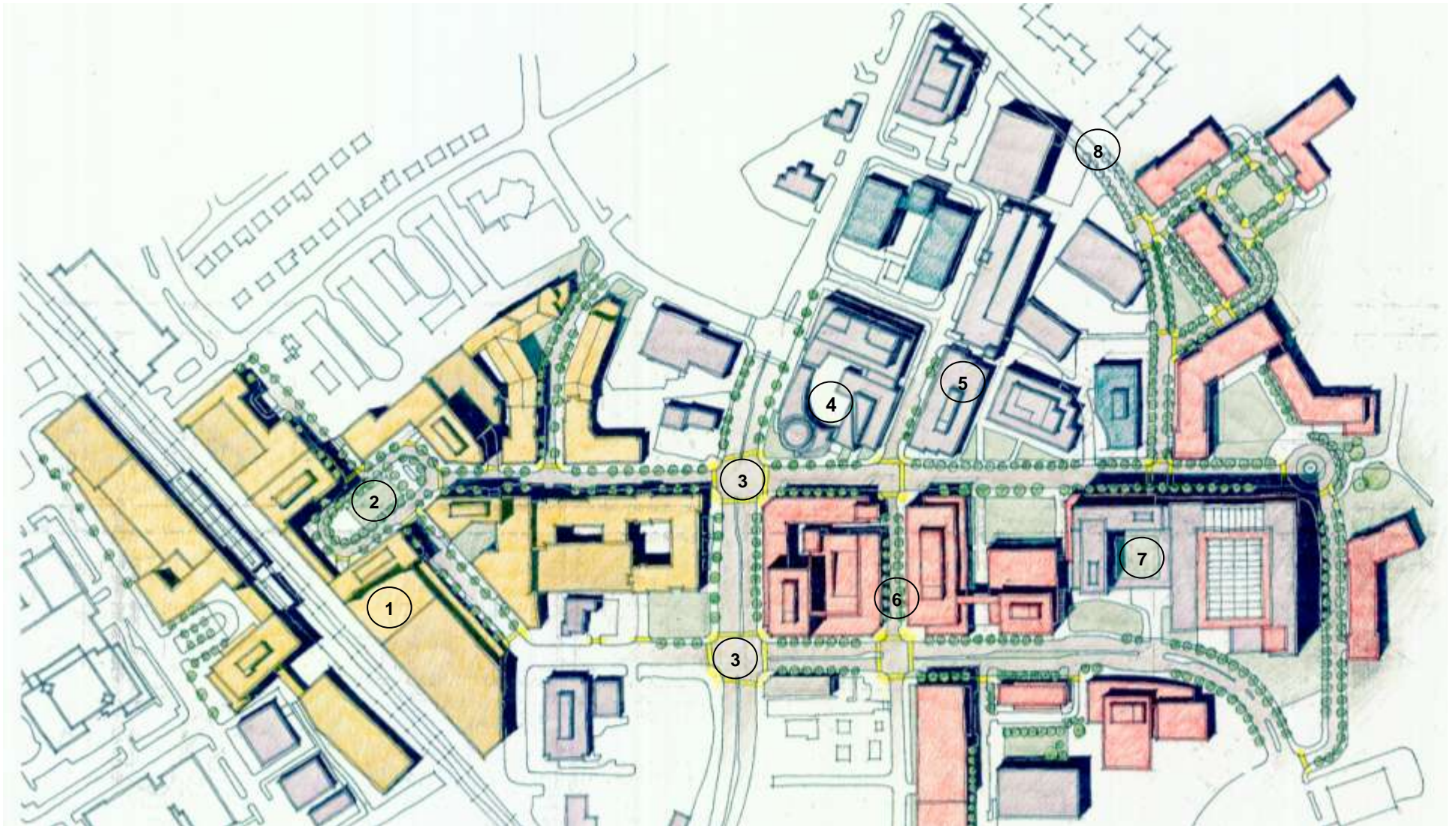
*Left: Area map of the I-270 Corridor from the District of Columbia to Frederick County, Maryland indicating the sector plans and master plans underway with design guidelines*





## Urban Design Concept

1. Twinbrook Station Development
2. Twinbrook Station Green
3. Intersection Improvements
4. U.S. Pharmacopeia
5. Fishers Place Development
6. Extension of Washington Avenue
7. Renovation of the Parklawn Building
8. Extension of Wilkins Avenue







# 2 GENERAL AREA WIDE GUIDELINES

This chapter includes the following sections:

- Streets
- Open Space
- Buildings
- Change and Adaptive Reuse
- Neighborhood Sustainability

## GUIDELINES FOR STREETS

The future Twinbrook Sector Plan area will have an interconnected system of streets that will provide better accessibility for vehicles, pedestrians, and bicyclists. The streets will be designed to:

- Provide an attractive and pleasant place to walk, bike, and drive
- Establish a streetscape with wide sidewalks, street trees, street furniture, and street lights
- Include landscaping with adjacent spaces that incorporate state of the art, low impact development strategies
- Provide pedestrian refuge areas and highly visible crosswalks

## GUIDELINES FOR STREETS

This page describes the general guidelines for the streets in the Life Sciences Center.



### Grid of Streets

Establish a grid of interconnected streets that will provide better connections throughout the Twinbrook Area. The grid system should improve access for vehicles, pedestrians, and bicyclists.



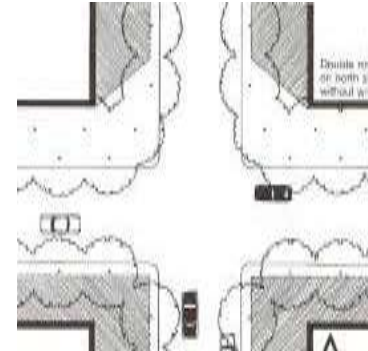
### Arterial Streets

Improve the character of Twinbrook Parkway and Parklawn Drive. Provide sidewalks along both sides, closely spaced street trees, improved crosswalks, and pedestrian scaled street lighting.



### Business District Streets

Extend Wilkins Avenue and Washington Avenue to Twinbrook Parkway. Improve the character of all Business District Streets. Allow on-street parallel parking, closely spaced street trees, and pedestrian scaled street lighting.



### Street Intersections

Improve the intersection of Twinbrook Parkway with Fishers Lane and Parklawn Drive to improve pedestrian access to the Twinbrook Metro Station.



### Street Details

Create intersections with crosswalks to improve pedestrian access without compromising safety. Require substantial streetscaping with street trees, street lights, and street furniture to establish an urban environment for pedestrians.

## Guidelines for Streets

The existing street pattern in Twinbrook is characterized by a combination of road types that includes roads built to recent County standards, and roads built to standards dating from the land's initial subdivision as a residential community. The Plan recommends that several of these older roads remain with minimal improvements if their current performance is adequate. The remaining roads, including those recommended by the Plan as new, shall adhere to current County standards as indicated by the diagrams to follow. The guidelines apply to all properties and the final route and right-of-way details for each will be determined through the review process.

## Grid of Streets

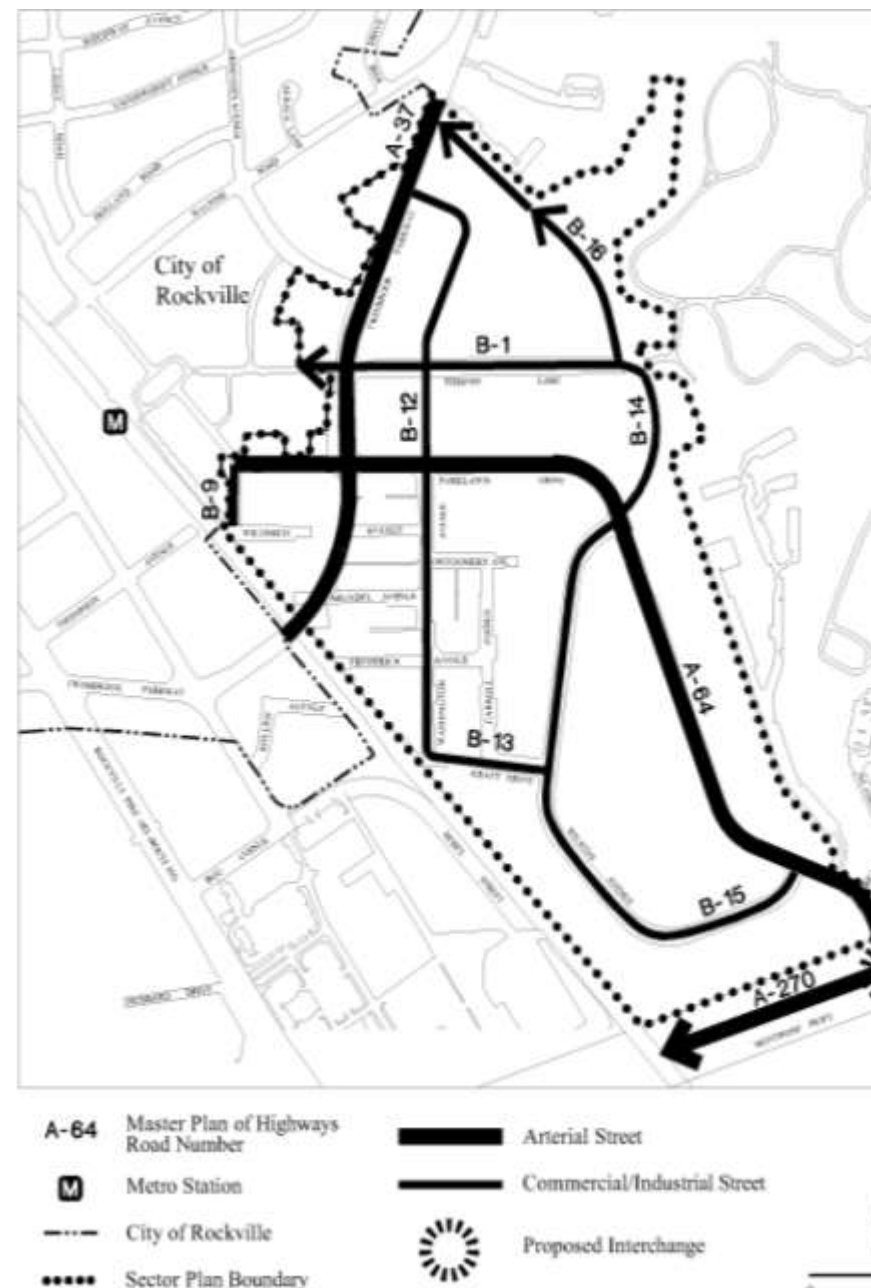
The approved sector plan and the design guidelines foster the creation of a grid of interconnected urban streets that provides alternatives for pedestrians and vehicles to move through the Twinbrook area. The proposed grid of streets will create short blocks to improve access. Improving the safety of pedestrian crosswalks will be a hallmark of development in the Twinbrook area.

## Arterial Streets

Four to six-lane streets that distribute traffic. City life occurs along these streets due to adjacent activating uses such as retail, office, and residential uses. Allow on street parking and special streetscape where specified. Arterial Streets include Twinbrook Parkway and Parklawn Drive.

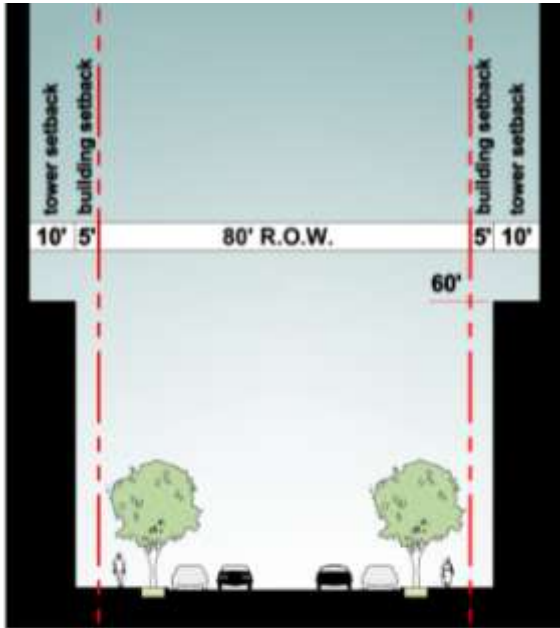
## Business Streets and Other Streets

Two-lane streets with permanent on-street parking, a single row of trees, and sidewalks on both sides will provide internal circulation within each district as shown on the district maps. Final street locations are to be determined during regulatory review. Business District Streets include Fishers Lane, Washington Street, and Wilkins Avenue. Examples of Local Non-Classified Streets include Wicomico Avenue, Frederick Avenue, Montgomery Avenue, Carroll Avenue and Kraft Drive.

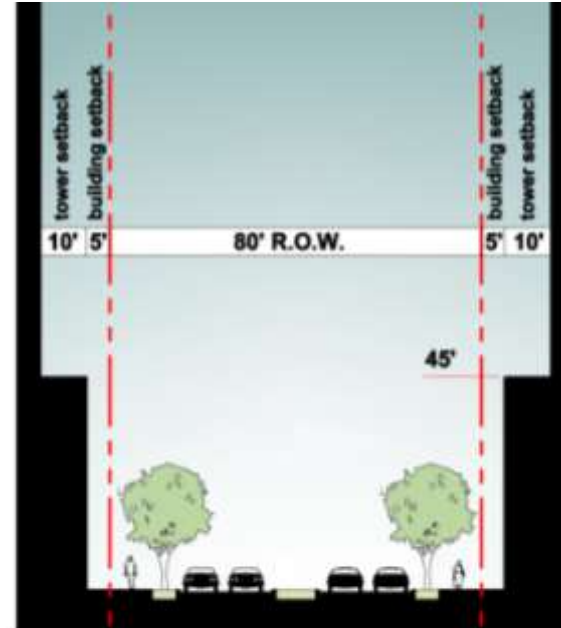




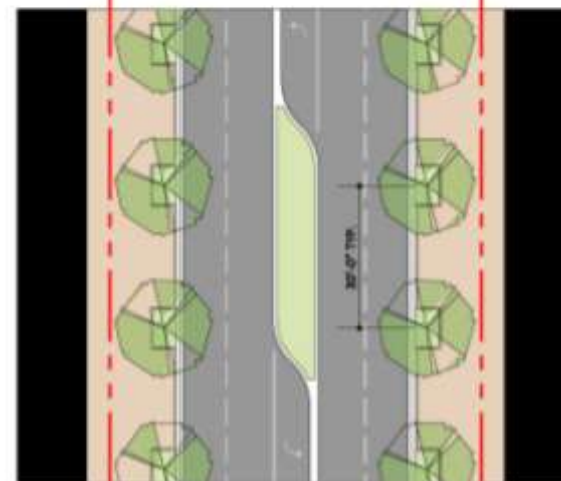
## Parklawn Drive



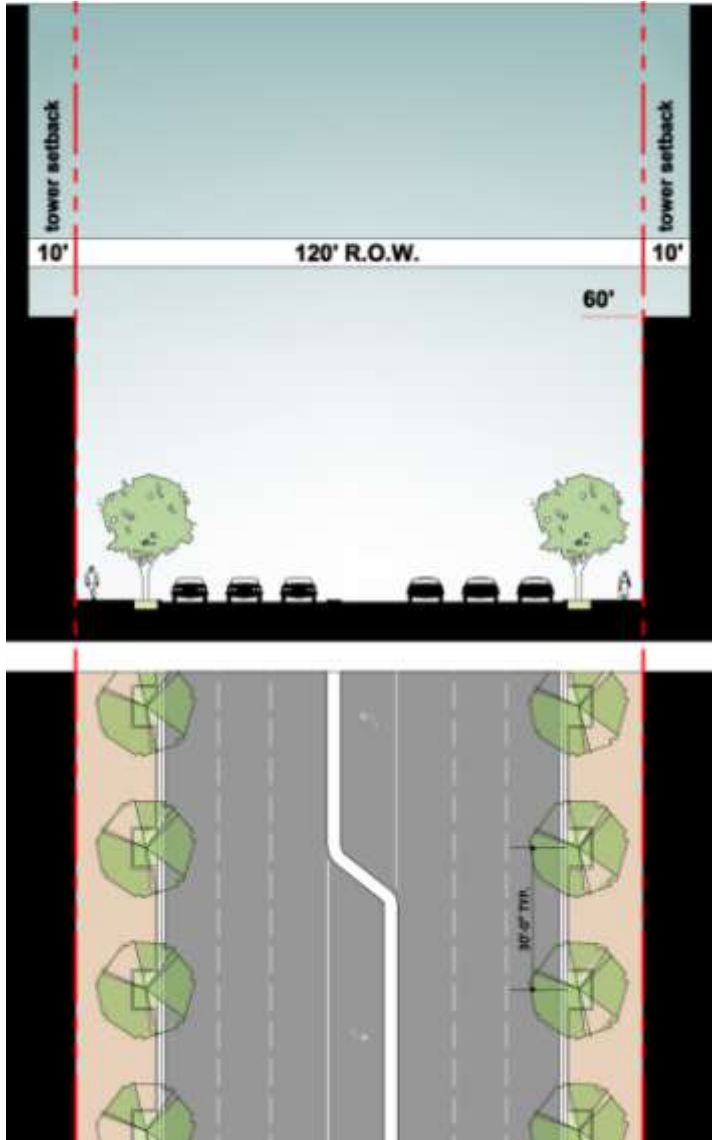
**Lanes:** 4 - Two way travel  
**Parking:** Both Sides  
**Sidewalk Width:** 20'  
**Trees:** 30'-35' o.c. max. on individual cut-outs.  
**Utilities:** Under sidewalk paving, within ROW limits, to be coordinated by MCDOT and utility companies.  
**Street Wall:** 60' high max.  
**Building Setback:** 5'-0" from ROW.



**Lanes:** 4 - Two way travel  
**Parking:** Off-Peak  
**Median:** Planted w/ turning lane  
**Sidewalk Width:** Per Road Code  
**Trees:** 30'-35' o.c. max. on individual cut-outs.  
**Utilities:** Underneath sidewalk paving, within ROW limits, to be coordinated by MCDOT and utility companies.  
**Street Wall:** 45' high max.  
**Building Setback:** 5'-0" from ROW.



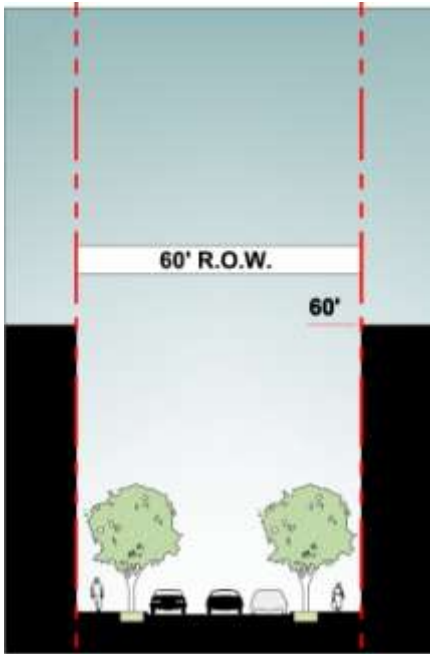
## Arterial Street - Twinbrook Parkway



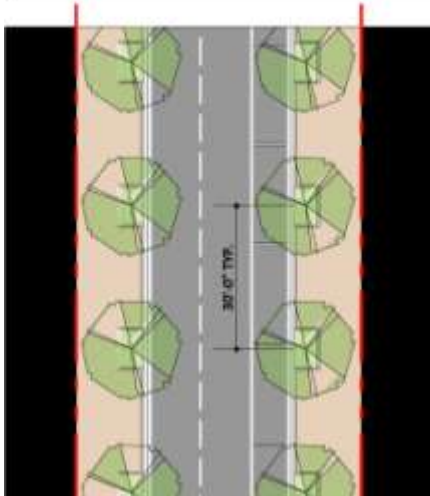
- Lanes:** 4 and 6 - Two way travel
- Parking:** Both sides between Fishers Lane and Parklawn Drive
- Median:** Left turning lanes
- Sidewalk Width:** Per Road Code
- Trees:** 30'-35' o.c. max. on cut-outs.
- Utilities:** Underneath sidewalk paving, within ROW limits, to be coordinated by MCDOT and utility companies.
- Street Wall:** 60' high max.
- Building Setback:** None

## Business District Streets and Other Streets

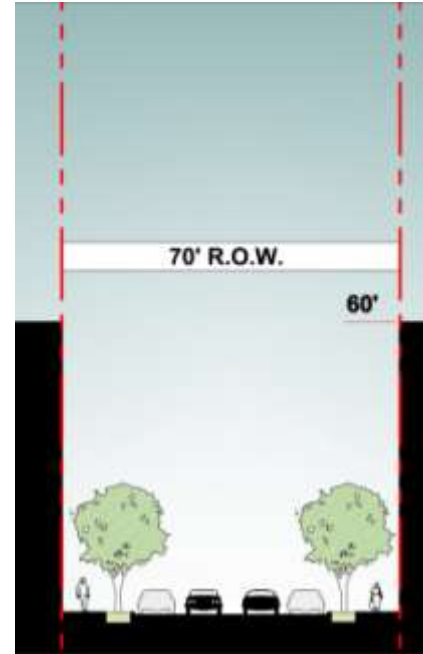
### B/12, B/14, B/16 - Washington Avenue



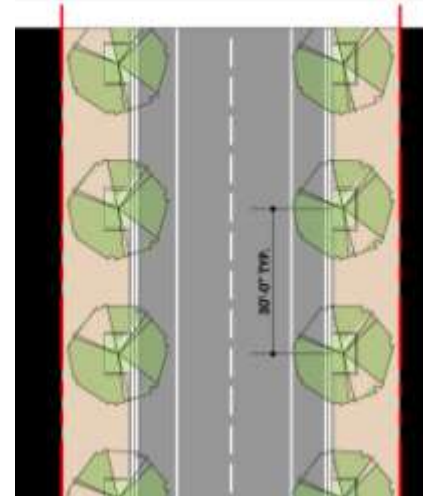
**Lanes:** 2 - Two way travel  
**Parking:** One side only  
**Sidewalk Width:** Per Road Code  
**Trees:** 30'-35' o.c. max. on individual pits.  
**Utilities:** Underneath sidewalk paving, within ROW limits, to be coordinated by MCDOT and utility companies.  
**Street Wall:** 60' high max.  
**Building Setback:** None



### Washington Avenue, Kraft Drive, and Wilkins Avenue



**Lanes:** 2 - Two way travel  
**Parking:** Both sides  
**Sidewalk Width:** Per Road Code  
**Trees:** 30'-35' o.c. max. on individual cut-outs.  
**Utilities:** Underneath sidewalk paving, within ROW limits, to be coordinated by MCDOT and utility companies.  
**Street Wall:** 60' high max.  
**Building Setback:** None





## Intersections

Improving the intersection of Twinbrook Parkway and Fishers Lane and Twinbrook Parkway and Parklawn Drive is a priority. These intersections provide primary connection to the Twinbrook Metro Station for pedestrians. They connect the Metro Core area to the Technology Employment Area and the Light Industrial Area. These intersections also carry a large amount of vehicular traffic. A variety of improvements are recommended in the guidelines including the following:

- Special paving for crosswalks including the use of asphalt paving
- Medians
- Special traffic signals for pedestrians and vehicles
- Signal timing to emphasize pedestrians
- Extensions of Washington Avenue and Wilkins Avenue to reduce traffic at the intersection of Twinbrook Parkway with Fishers Lane and Parklawn Drive



**Above left:** Crosswalk with asphalt paving

**Right:** Detail of Bethesda streetscape standard approved for use in Montgomery County

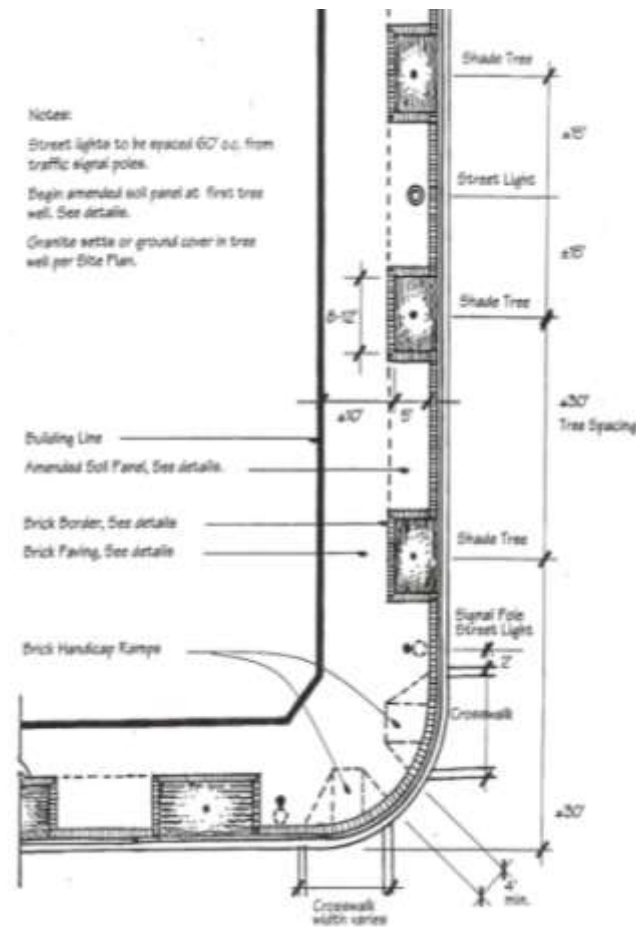
## Street Details

### Utilities

All utilities for new buildings must be located underground.

### Streetscape

The Twinbrook area will have a Streetscape Plan that specifies the different tree types for each street. Closely spaced street trees will be included along all streets. The following detail specifies the spacing and location of street trees for Business Roads:



## GUIDELINES FOR OPEN SPACE

The following outline identifies the open spaces in the Twinbrook Area.



### Twinbrook Station Green

This open space is located in the City of Rockville. This space is located adjacent to the Metro station. It will be constructed as part of the Twinbrook Station project.

### Designated Open Space and Parks

Two open spaces have been designated in the Twinbrook Area. These spaces provide important open areas to support the Technology Employment Area.

### Public Use Open Space

These small public spaces will be created during the review of specific projects. These spaces are specifically recommended in the Sector Plan. They will be important outdoor areas for public gathering.

### Historic Site

The Higgins Family Cemetery, designated as an historic site, will be preserved as open space. This small open space (14,400 square feet) is located near Washington Avenue and south of Parklawn Drive.

### Pedestrian Links

Two areas have been designated for through block connections in the Twinbrook Area. Both connections provide access for pedestrians between streets.

## Open Space Locations

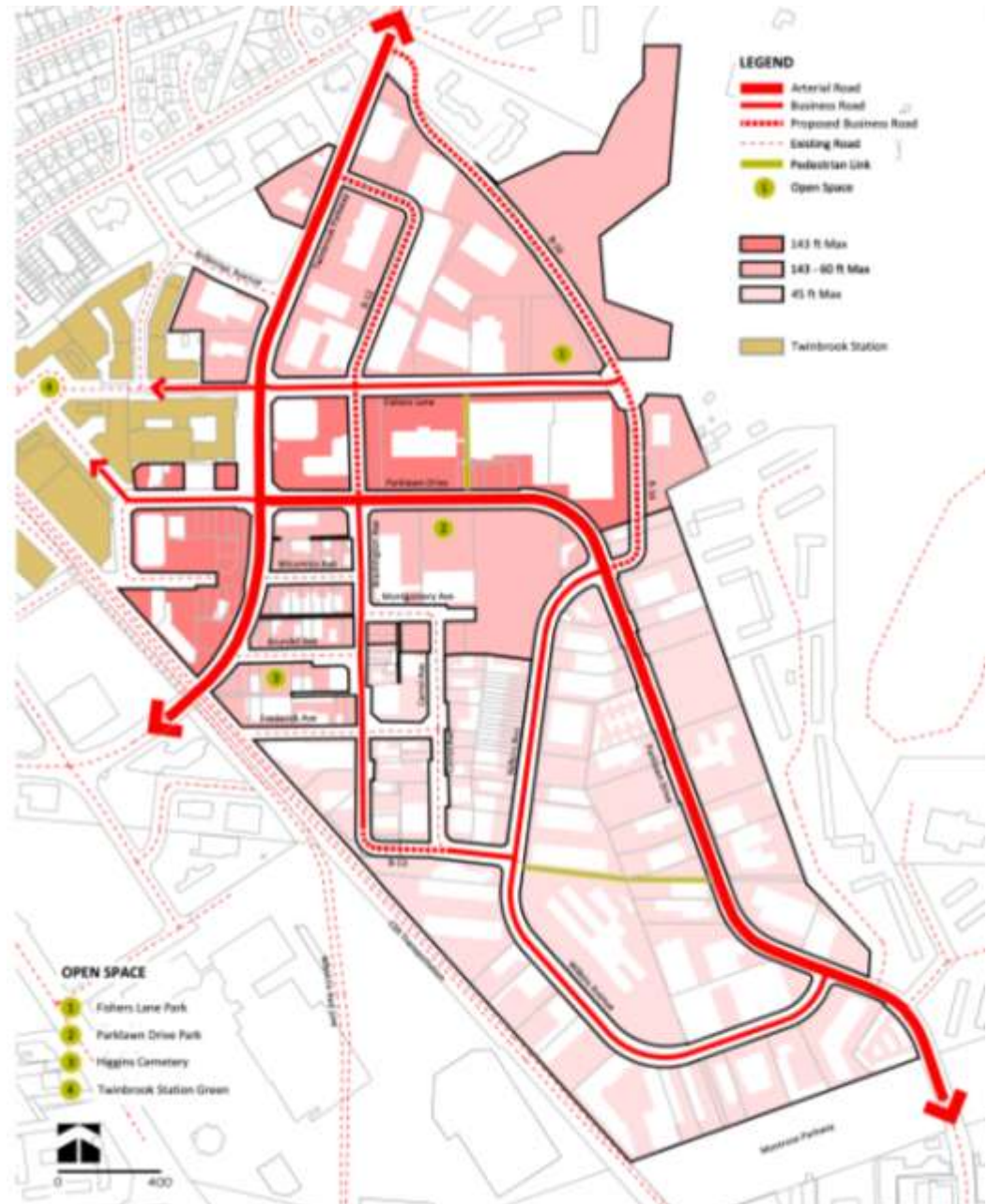
The adjacent map identifies the open spaces in the Twinbrook Sector Plan Area and the City of Rockville.

Open space contributes to quality of place. The best urban places incorporate substantial green elements as well as paved areas. Open space provides opportunities for recreation, socializing outdoors, collaborating, and maintaining a connection to nature. It provides trees and plants for shade, cooling, and cleansing of water and air. Open space also contributes to a community's identity, character, and civic pride. The compact development pattern in Twinbrook will include a system of comfortable, attractive open spaces that provide a range of experiences. The open spaces include:

- Twinbrook Station Green, City of Rockville
- Fishers Lane Park and Parklawn Drive Park, two designated open spaces in the Technology Employment Area
- Public Use Open Space
- Higgins Cemetery, historic site
- Pedestrian Links

The next section of the Design Guidelines identifies the recommended guidelines for each category of open space.

**Right:** The adjacent map identifies the location of the open spaces





## Open Space Guidelines

### Twinbrook Station Green

This public green provides significant open space that marks the Twinbrook Metro Station and provides a community focus. It will be mirrored by a similar, green open space located at the eastern end of Fishers Lane.

Twinbrook Station Green is part of an approved plan in the City of Rockville. The initial design of this open space was part of the charrette process conducted by the Montgomery County Planning Department and Design Collective Architects. After the charrette process was completed and a Zoning Case with a Development Plan was approved by the Montgomery County Council, the City of Rockville annexed the development and completed the review process. The key features of this open space include:

- Located adjacent to the Twinbrook Metro Station
- Approximately ½ acre
- Accommodates outdoor performances
- Substantial grass area
- Closely spaced trees
- Special perimeter paving
- Surrounded by high-rise residential and office building with ground floor retail
- Space for drop-off and pick-up for Metro patrons
- Improved visibility for the Metro station
- Space for civic art including a trellis, gazebo or band stand that provide a focus for the open space
- Variety of seating locations, orientations and arrangements



*Below: Twinbrook Station Green by the JBG Development Company and Torti Galas Architects*

## Designated Open Space

Two large open spaces have been designated in the Twinbrook Area. These spaces provide important open areas to support the Technology Employment Area.

Fishers Lane Park located at the eastern end of Fishers Lane near the Parklawn Building will mirror the similar Twinbrook Station Green located at the western end of Fishers Lane. Parklawn Drive Park will be located approximately half way between Fishers Lane Park and the Twinbrook Station Green along Parklawn Drive. Each of these open spaces should include the following:

- Approximately  $\frac{1}{4}$  to  $\frac{1}{2}$  acre
- Substantial grass area
- Substantial pervious area
- Tree canopy of over 50 percent
- Variety of seating locations, orientations and arrangements
- Pedestrian access and visibility directly from Fishers Lane or Parklawn Drive



*Above left: Concept for Fishers Lane Park*

## Public Use Open Space

These spaces can be active or passive and should be included as part of each development. Public use open space is part of the requirement for the approval of a Project Plan.

These outdoor public spaces will often be smaller than the designated spaces. Locating these spaces to separate buildings from public streets is discouraged. They must be visible and designed to invite people of various ages and mobility. Public outdoor spaces can also be combined from several projects to create a larger area for public use. These spaces should include:

- Seating
- Special lighting
- Electric outlets
- Visibility from adjacent streets
- Tree canopy of 50 percent
- Variety of seating locations, orientations and arrangements
- Public art



*Above center: Large Rockville civic green*



*Above right: Small public space*

## Historic Site (Higgins Family Cemetery)

The Master Plan for Historic Preservation has been amended to include the Higgins Family Cemetery as a designated historic site. This space is located in the 5700 block of Arundel Avenue. The plot holds 11 known burials of Higgins family members important in state and local history. A grass roots community project led to the incorporation of the Higgins Cemetery Preservation Association.

Future plans should include:

- Removal of invasive plants and debris
- Reconstructed Higgins monument
- Repair of gravestones
- Recreating a fence
- Installing appropriate landscaping
- Interpretive signs for future generations

## Pedestrian Links

These spaces can be active or passive and should be included as part of each development. Two pedestrian connections have been designated in the Twinbrook sector Plan. One space connects Fishers Lane with Parklawn Drive adjacent to the Parklawn Building. The other pedestrian space connects Wilkins Avenue to Parklawn Drive. In both examples, these pedestrian connections are designed to reduce the size of the existing blocks and improve pedestrian access. These spaces should include:

- Retail activity that complements street-oriented retail without compromising retail located along public streets
- Windows overlooking the connections for safety
- Special lighting
- Opportunities for public art



*Above left: Mid-block connections, Wisconsin Avenue*



*Above center: Through connection, Reston TC*



*Above right: Through connection with lighting and paving*



## GUIDELINES FOR BUILDINGS

The following describe the general guidelines for the buildings in the Life Sciences Center.



### Metro Core Area Buildings

The buildings in the Metro Core Area provide a mix of residential, retail and office uses. New sites must have a minimum of 25 percent residential space.



### Technology Area Buildings

Buildings will be designed to meet the needs of the advanced technology and biotechnology industries in addition to retail, office uses, and a limited amount of residential space will be provided in the area.



### Light Industrial Buildings

The buildings in the Light Industrial Area will be designed for service industrial uses. Buildings will often be located on smaller lots and the designs will provide for adaptive reuse.



### Building Height

Buildings located adjacent to the Metro station will be a maximum of 143 feet high. Buildings will step down to 60 feet adjacent to the residential neighborhoods.



### Building Transparency and Retail Priorities

Fishers Lane should be a priority for retail. Transparency through the use of glass is priority on all streets to provide safety and security for pedestrians along the sidewalk areas.

## Guidelines for Buildings in the Metro Core Area

The buildings in the Metro Core Area provide a mix of residential, retail and office uses. Each of the three areas in Metro Core Area of Montgomery County must have a minimum of 25 percent residential space.

- Retail to provide activation at street level on selected streets with office and residential uses above
- Variety of residential unit types, preferably on each block
- Two to five story base for buildings
- Retail for corner buildings at the intersection of Fishers Lane and Parklawn Drive
- Variety of building heights
- High quality building materials
- Buildings entrances along all streets with significant glass
- Compatibility with Twinbrook Station
- Parking garages located behind buildings
- Parking entrances and service areas away from Fishers Place

**Above right:** View of Twinbrook Station toward the Metro station along Fishers lane with a variety of building heights (JBG Development)



**Above left:** Five story residential building



**Above center:** Variety of building heights, Reston TC



**Above right:** Range of building heights, Reston TC





## Guidelines for Buildings in the Technology Employment Area

Buildings will be designed to meet the needs of the advanced technology industries. These buildings will accommodate the mix of uses and intensity needed to create a dynamic world class, public-private area. Guidelines for buildings in the Technology Employment Area include:

- Public buildings - Renovation for the existing Parklawn Building by the General Services Administration or as a private development
- Private buildings - For innovation in the advanced technology industries including retail, restaurants and services
- Access to transit and to high quality outdoor open space is critical to the employees in these industries.
- High quality interior and exterior space
- Mix of uses including laboratories, offices, conference space, and light manufacturing of prototypes

*Above left: U.S. Pharmacopeia Headquarters Building, Twinbrook*



*Above left: Fishers Lane toward the Parklawn Building*



*Above: Fisher's Place*



*Above: Laboratory space*



*Above right: University of Michigan Biomedical Center, Ann Arbor, Michigan*



## Guidelines for Buildings in the Light Industrial Area

The buildings in the Light Industrial Area will be designed for service and industrial uses. Buildings will often be located on small lots, and the building designs will often provide for adaptive reuse.

These buildings provide space for a variety of industries important to the neighborhoods in the central part of Montgomery County. These buildings provide space for service industries, materials and supplies for advanced technology companies, self storage buildings for residential and commercial users, and small scale retail and restaurants. Guidelines include the following:

- Minimum green space
- Minimum setback from streets and between buildings
- Oriented to streets
- Variety of building heights, 42 feet maximum
- Three stories maximum

*Right: Three story industrial office building*



*Above: Three small scale urban industrial buildings*



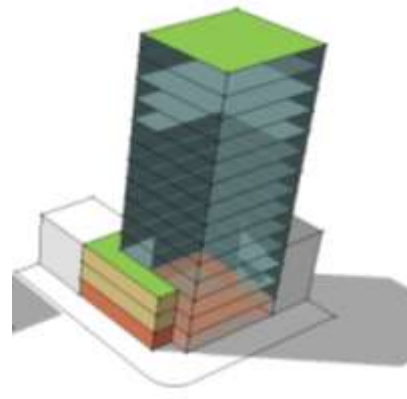
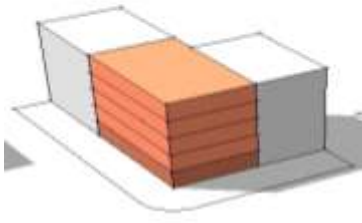
*Above right: Amalfi restaurant, Twinbrook*

## Guidelines for Building Height

The Twinbrook Sector Plan clusters the highest density and tallest buildings around the Twinbrook Metro Station. Densities and heights step down from the highest at the Metro station to the boundaries of the Sector Plan area.

A variety of building heights and character are proposed for the Twinbrook Sector Plan area. A summary of the building heights follows:

- Tallest buildings (approximately 143 feet high) are located adjacent to the Twinbrook Metro Station in the City of Rockville
- Within the Twinbrook Sector Plan area, locate the tallest buildings along Parklawn Drive and Fishers Lane with a maximum building height of 10 to 12 stories or 143 feet
- Step buildings down from a maximum of 143 feet along Fishers Lane and Parklawn Drive to approximately 60 feet along the northern edge of the planning area to establish compatibility with the adjacent garden apartments
- Orient all buildings to streets regardless of building height



### Base: Transition

- Transition Areas
- Light Industrial Area
- Retail on the ground floor
- Office or residential above
- 2 - 4 stories
- 60 feet high maximum

### Tower and Base: Mixed-Use

- Core and Technology Areas
- Variety of heights
- Retail on the ground floor
- Office or residential above
- 3-4 story base
- 143 feet high maximum

## Retail Priorities

Local retail should be incorporated into the ground floor of buildings along the streets near the Twinbrook Metro Station. Local retail includes grocery stores, commercial services such as hair salons, pharmacies, and dry cleaners that serve local needs within neighborhoods. The retail priority streets include:

- Fishers Lane and Parklawn Drive in the Metro Core and the Technology Employment Areas
- Washington Street between Fishers Lane and Parklawn Drive



**Bottom left:** Example of the requirement for locating priority retail along as recommended along Fishers Lane.

## Building Transparency

Significant transparency at the ground level (70 percent ) of buildings along the retail areas of Fisher Lane is a requirement. All buildings should include:

- Ground floor façades with glass including show windows, and doors
- Access from the public streets to the ground floor of all areas
- Recognize the importance of security for all public and private buildings that may reduce the need for transparency
- Avoid tinted glass



**Bottom right:** Example of an office building with extensive glass area.



## GUIDELINES FOR CHANGE AND ADAPTIVE REUSE

The design guideline expand the opportunities for allowing existing and future buildings to adapt to changing technologies and the need for new uses.



### Parklawn Building

The design guidelines support the adaptive reuse of the Parklawn Building. Renovation is encouraged. Additions should be allowed to improve access and internal circulation such as new elevators and stairways, atriums, and ground floor retail.



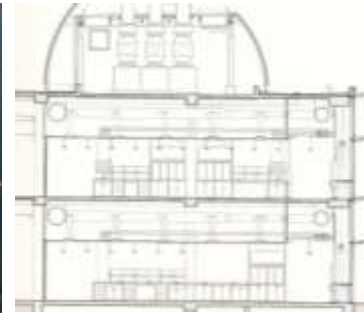
### Reuse of Smaller Buildings

The Light Industrial Area includes a variety of smaller scaled buildings that will be able to change uses, add limited residential uses, increase the floor area within the permitted zoning envelope, and establish a more urban setting.



### Changing Technology

The design guidelines are flexible to allow changes in building technology to be accommodated in the Twinbrook Area. As an example, the fast pace of change in the advanced technology industry requires rapid change from office to laboratory to conference space to light manufacturing.



### Flexible Development Standards

The sector plan changes the zoning from single use zones to mixed-use zones. As new buildings change uses, parking standards, residential use requirements, and amount and location of open space should be flexible.



### Design of Public Spaces

As existing buildings adapt and change, the design guidelines support substantial improvement to the public spaces or the public realm including sidewalks, open space and buildings that shape these spaces and create an urban setting.

## GUIDELINES FOR NEIGHBORHOOD SUSTAINABILITY

The following outline identifies the recommendations for the Twinbrook area.



### Green Neighborhoods and Buildings

A LEED Silver rating is required, and a minimum of LEED Gold rating is recommended. The use of solar cells, geothermal technology, and green roof technologies are encouraged for sustainability.

### Transportation Alternatives

Improving pedestrian access to the Metro, station, providing bikeways, through block pedestrian connections, and adding sidewalks to all streets is required.

### Tree Canopy

Maximize tree cover. Include closely spaced street trees along all streets. Provide a tree canopy within all public spaces.

### Green Open Spaces

Reducing the potential imperviousness is a key recommendation in the design guidelines. Include substantial grass areas in designated parks and public use spaces.

### Water Management

Increase the use of pervious surfaces. Providing creative solutions to stormwater management is a priority. Stormwater management includes the use of green roof technology.

## Neighborhood Sustainability Guidelines

The Twinbrook area will have a compact development pattern that allows residents and businesses to accomplish most daily activities by walking or biking. Construction techniques such as low-impact design (LID) for stormwater management, environmental site design (ESD), and LEED (Leadership in Energy and Environmental Design) or similar building standards will be used to develop individual sites.

## Green Buildings

Reducing the carbon footprint of buildings is a priority for the Twinbrook area. All new buildings in the area are required to have a LEED Silver rating as a minimum. The Twinbrook Station project already has received a Neighborhood LEED Gold rating - one of the first in the Washington region. The use of green technology should be a hallmark of development in the Twinbrook area.

Adaptive reuse of existing buildings is encouraged. The zoning envelope provides for the renovation and adaptive reuse of the Parklawn Building. The revised zoning in the Industrial Area also encourage renovation and adaptive reuse of existing buildings.

The following elements should be considered in the design of new projects in the Twinbrook Sector Plan area:

- Consider green roof areas for the building areas visible from taller buildings
- Integrate geothermal systems to reduce energy dependence
- Integrate solar panels in the design of buildings
- Provide sun shades to daylight interior spaces and reduce energy consumption



*Above left: Green roof technology*



*Above center: Roof mounted solar cells*



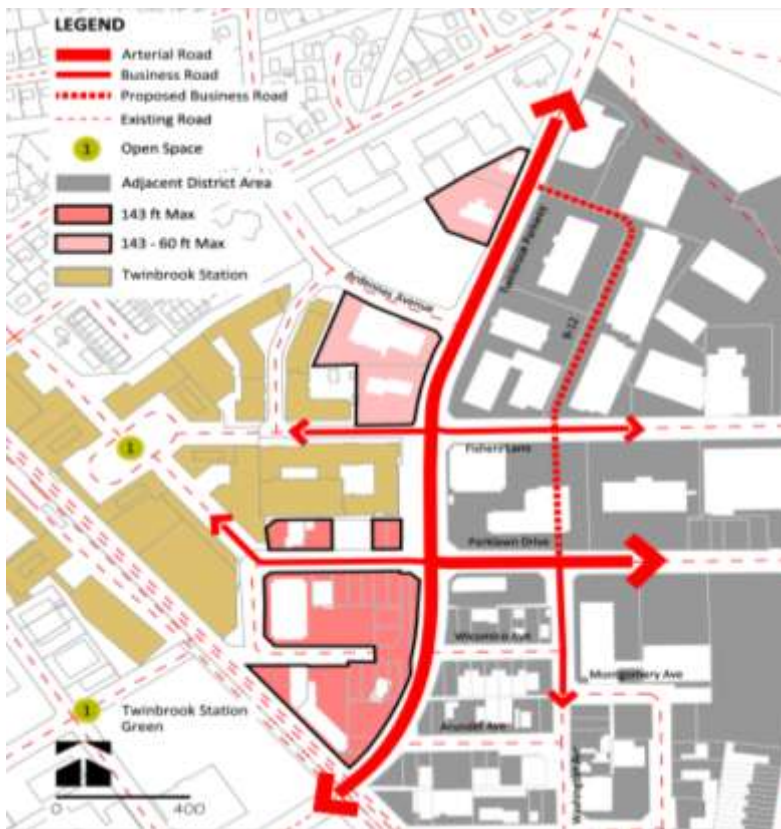
*Above right: Sun shading for daylighting*



## Transportation Alternatives

The guidelines increase the opportunities for connecting the districts, increasing pedestrian access to the Metro station, and reducing dependence on the automobile as follows:

- Establish a development pattern that allows residents and business employees to accomplish daily activities by walking or biking
- Include sidewalks on both sides of all streets
- Connect the districts

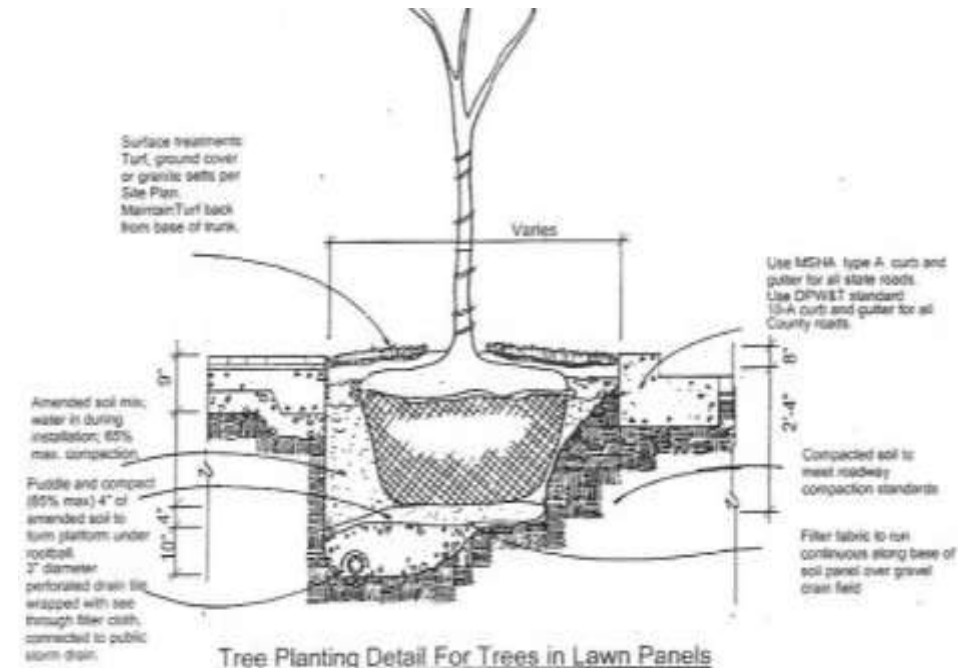


*Above left:* The above map shows the location of the Twinbrook Metro Station, and the variety of streets proposed for the Twinbrook area

## Tree Canopy

Maximize tree cover. Include closely spaced street trees along all streets. Provide a tree canopy within all public spaces (approximately 50 percent). The streets will be designed to minimize the impact on the natural environment as follows:

- Reduce paving width as indicated in the new Road Code for all Business Streets (e.g. 60-70 feet of right-of-way)
- Provide landscape panels and long cut-outs for street trees to reduce imperviousness
- Provide closely spaced street trees with an amended soil panel to support growth and reduce the “heat island” effect



*Above right:* This drawing shows street trees located in an amended soil panel. The amended soil panel extends continuously along each street. (Source: Bethesda Streetscape Plan)

## Green Open Spaces

Reducing the potential imperviousness is a key recommendation in the design guidelines. The Twinbrook area will have a variety of open spaces including Twinbrook Station Green in the City of Rockville, Fishers Lane Park and Parklawn Drive Park, public use open space, the Higgins Cemetery historic site, and pedestrian links. The guidelines provide for the following:

- Reducing the use of impervious surfaces along streets by the use of tree panels
- Reducing paving in public open spaces
- Designating the Higgins Cemetery as open space
- Increasing tree canopy in all outdoor spaces

## Water Management

Incorporating multiple environmental systems into the natural and built environment to control stormwater runoff will be an important design component. The priorities for stormwater management include:

- Controlling stormwater management in projects constructed before standards were established
- Improving the stormwater management as part of the adaptive reuse of existing buildings
- Incorporating green roof technology and on-site stormwater management facilities
- Reducing the amount of surface parking in all three of the Twinbrook districts



*Above left: Existing Open space in the Fishers Place development*



*Above right: Public use space with both pedestrian connections and major pervious areas*



# 3 GUIDELINES FOR SPECIFIC AREAS

This chapter applies the guidelines for the entire Twinbrook area identified in the previous chapter to specific areas. Guidelines for the following three specific areas are included:

1. Metro Core Area
2. Technology Employment Area
3. Light Industrial District

The aerial perspective identifies the entire Twinbrook area and the three specific areas to be discussed in the guidelines.





## Metro Core Area

### Urban Design Concept



The Metro Core Area is located adjacent to the Twinbrook Metro Station. This area includes the significant housing resources for the area. This area also includes neighborhood retail and office uses. A significant portion of this area is located in the City of Rockville.

The guidelines allow the tallest buildings to be located adjacent to the Metro station with the lowest buildings located along Twinbrook Parkway adjacent to the City of Rockville. The guidelines will support the emphasis on creating a pedestrian oriented environment, and a mix of uses.



**Top Left:** Proposed office building in the City of Rockville adjacent to the Twinbrook Metro Station.

**Top Right:** Aerial perspective of the Metro Core Area.

**Bottom Center:** Perspective of the future Fishers Lane from the intersection of Twinbrook Parkway. Street oriented buildings with neighborhood oriented retail and offices are shown.

## Metro Core Area

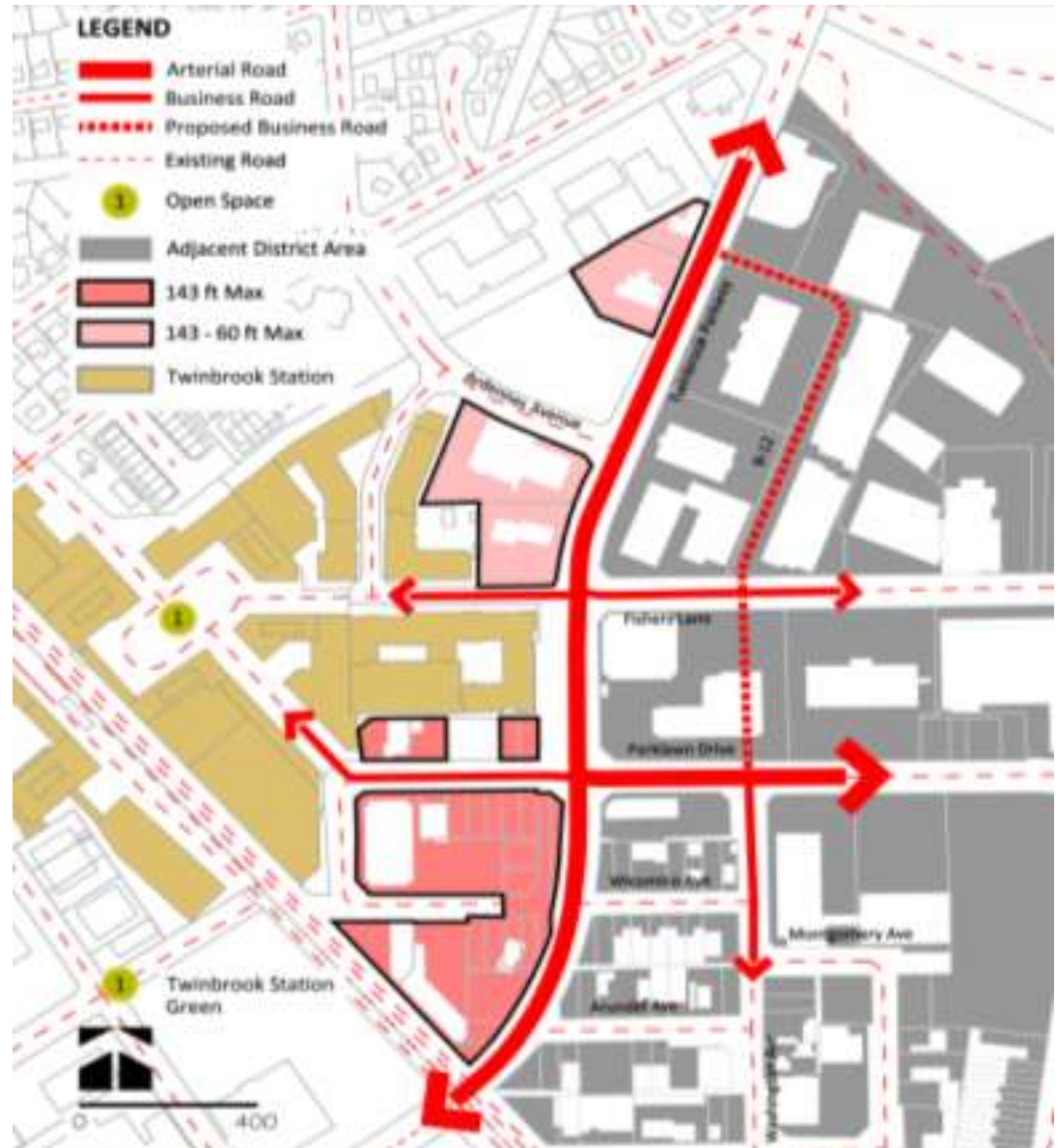
### Streets

The interconnected street network in the Metro Core Area is designed to facilitate pedestrian, bicycle and vehicular access. This network provides a bypass to the intersection of Fishers Lane and Twinbrook Parkway, and Parklawn Drive and Twinbrook Parkway to improve pedestrian connections to the Metro Station. This network provides a variety of street types.

**Arterial Streets** - These streets located east of Twinbrook Parkway include Twinbrook Parkway and Parklawn Drive. Fishers Lane and Parklawn Drive create the primary entrances into the Metro Core Area. These streets should have curbs, extensive landscaping, and lighting. Portions of Twinbrook Parkway will have a landscaped median.

**Business Streets** - The extension of Fishers Lane and Parklawn Drive located west of Twinbrook Parkway should be classified as Business District Streets. In addition, all the remaining streets (see dotted lines) shown on the adjacent map will also be classified as Business District Streets in the City of Rockville.

All the streets will have streetscape improvements including closely spaced street trees and pedestrian oriented lighting.





## Metro Core Area

### Open Space

The open space system for the Metro Core Area includes large public spaces such as the Twinbrook Station Green and smaller open spaces for public use.

**Twinbrook Station Green** - This new public space is located in the City of Rockville adjacent to the Metro station. It is presently under construction. It will provide the primary public gathering space in the Metro Core District.

**Public Use Space** - These smaller urban open spaces will be included in each project. These spaces are linked by the system of Business District Streets located both in the City of Rockville and Montgomery County.



### Building Form and Character

The design guidelines will create the opportunity to serve the functional needs of a Twinbrook area for the 21<sup>st</sup> century. The flexibility in the guidelines creates the opportunity for significant expansion of the development standards established in the Twinbrook Station project. The buildings located in the Metro Core must include 25 percent residential uses to obtain maximum density.

**Building Height** - The tallest buildings (143 feet) are located within the four block area adjacent to the Twinbrook Metro Station. The remaining areas provide a transition between the area around the Metro station and Twinbrook Parkway adjacent to the City of Rockville.

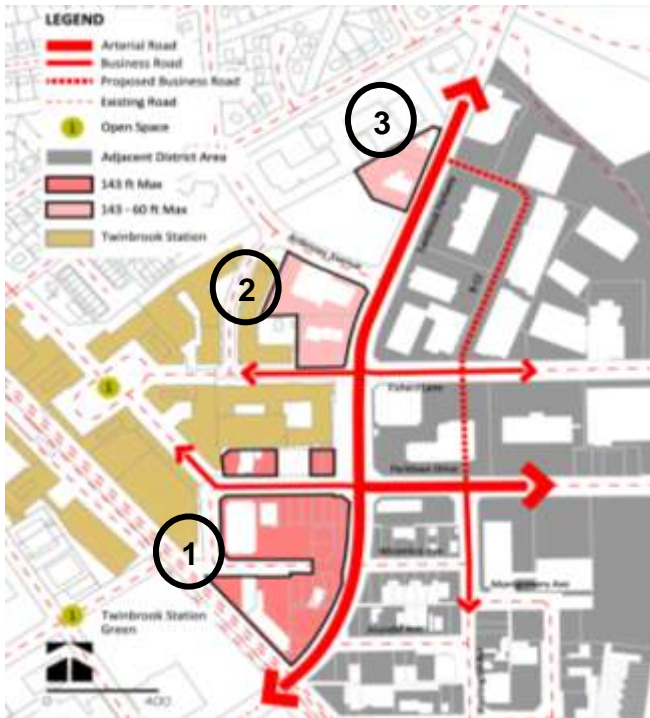
**Build-to Lines** - These guidelines recommend that buildings be located along all streets in the Metro Core Area. The build-to lines will foster a pedestrian oriented environment already established in the City of Rockville. Retail space should be concentrated along these streets.

***Left:** Open Space in the City of Rockville Adjacent to the Twinbrook Metro Station. Buildings are located along streets with extensive streetscape. Closely spaced street trees and pedestrian street lights are shown.*



## Metro Core Area

### Building Form and Block Character



Key to the block descriptions in the Metro Core Area

#### Block 1

This block contains approximately six acres. A minimum of 25 percent of the building areas must be residential. Building heights are limited to 143 feet. Structured parking should be located along the railroad tracks. Redevelopment should provide a pedestrian link from the Light Industrial Area underneath Twinbrook Parkway to the Metro station.

#### Block 2

This block is located north of Fishers Lane and forms the entrance to the Metro Core Area. Development should continue the pattern of street oriented buildings. Buildings are setback 15 feet minimum from the street curb. Street trees pedestrian oriented street lights and small urban open spaces should be provided in this area.

#### Blocks 3

These blocks are located near the boundary of the City of Rockville. The pattern of pedestrian oriented streets and streetscape should be extended to this area from the adjacent areas. Buildings should be limited to 60 feet to match the standards in the City of Rockville.

## Metro Core Area

### Building Form and Character Examples

*Retail and Offices*



*Future Retail along Twinbrook Parkway*



*Street Oriented Buildings*



*Future Streetscape along Fishers Lane*

*View along Fishers Lane at night*

*Office Building (143 feet high)*

Source of renderings: JBG Development Company



## Technology Employment Area

### Urban Design Concept



The Technology Employment Area will be an area for biotechnology and advanced technology employers. Housing and retail will also be permitted.

The Technology Employment Area will be designed to serve the needs of biotechnology and advanced technology employers in the 21<sup>st</sup> century. The owners of the Parklawn Building will be encouraged to renovate and significantly enhance the existing structure. The streets and sidewalks along Fishers Lane and Parklawn Drive will be significantly enhanced to improve the pedestrian connections to the Metro station. The mix of uses and the development standards will foster the creation of a lively pedestrian oriented environment that will attract high technology employees to the area.

The guidelines allow a variety of building heights from high-rise (143 feet) along Fishers Lane and Parklawn Drive to low-rise buildings (60 feet) adjacent to the existing garden apartments along the northern boundary of the area. The guidelines will support the emphasis on creating an urban environment.

**Top left:** Completed Fishers Place development with laboratories, green space and retail

**Top right:** Aerial perspective of the Technology Employment Area

**Bottom center:** Completed U.S. Pharmacopeia Building located along Fishers Lane in the Technology Employment Area.



## Technology Employment Area

### Streets

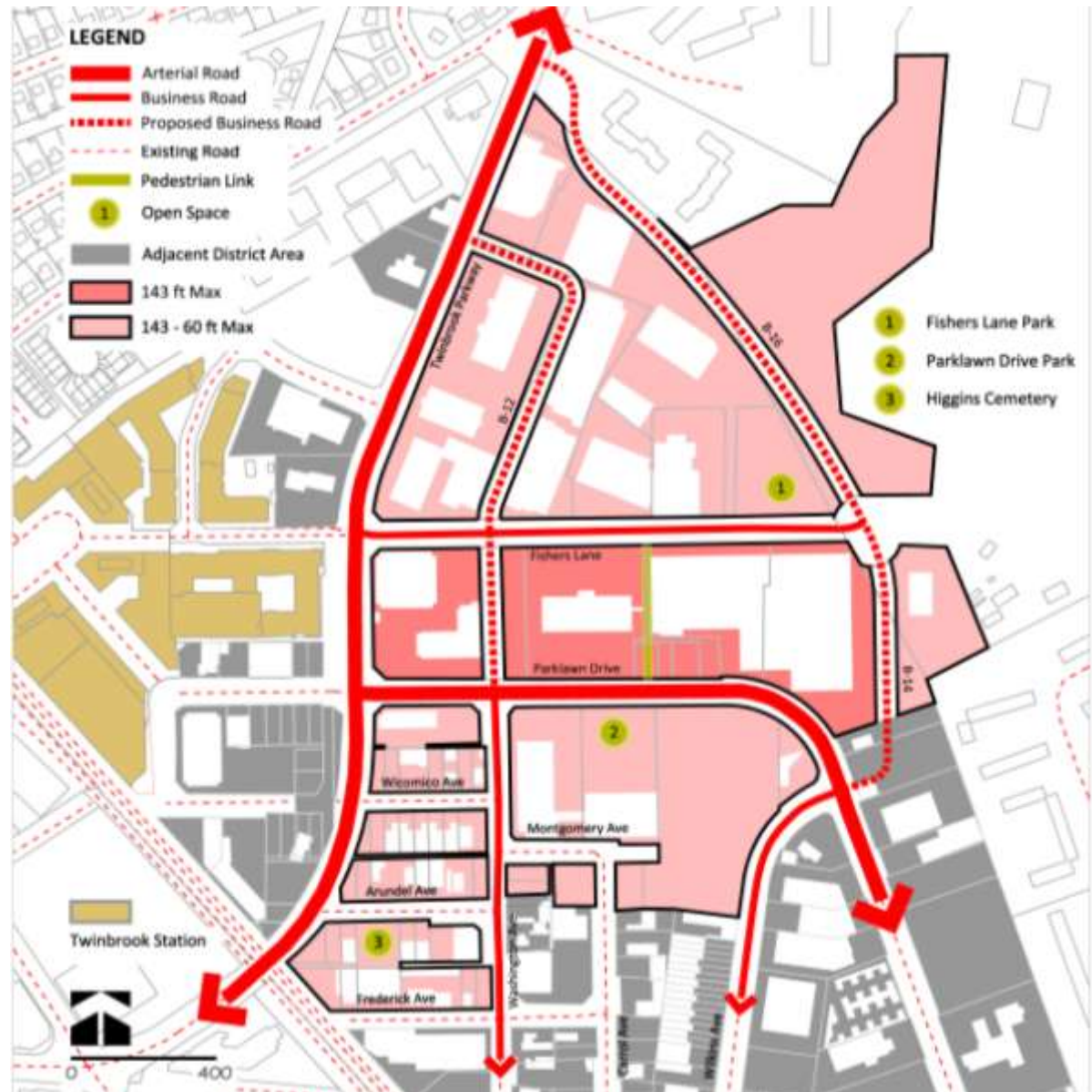
An interconnected system of arterials and new business streets will provide a safe pedestrian oriented district. The site is bisected by an arterial or Parklawn Drive.

**Arterial Roads** - Twinbrook Parkway and Parklawn Drive are arterial roads. A portion of these roads should include parallel parking during off-peak hours.

**Business Streets** - These new streets provide the primary pedestrian connections as well as local vehicular connection in the Technology Employment Area. These streets include:

- Fishers Lane - Major east west pedestrian connection to the Metro Station
- Washington Avenue Extended – This street connects the Employment Center to the Light Industrial Area. It also provides another connection to Twinbrook Parkway from Fishers Lane.
- Wilkins Avenue Extended – This new street provides a by-pass to the area and access to the northern portion of the area.

All streets will have significant streetscape improvements including closely spaced street trees and pedestrian oriented street lighting.



## Technology Employment Area

### Open Spaces

The open space for the Technology Employment Area includes both open spaces designed in the Sector Plan and future open spaces created as part of the development review process.

**Fishers Lane Park** - This new public space is located near the end of Fishers Place. It will provide a public space located across from the existing Parklawn Building. This space is designed to mirror the gathering space in the Metro Core District.

**Parklawn Drive Park and Public Use Space** - Parklawn Drive Park is an approximately ¼ acre open space designated in the Sector Plan. Public Use Spaces will be established during the review process.

**Higgins Cemetery** - This existing open space has been designated on the Master Plan of Historic Sites.



### Building Form and Character

The design guidelines will serve to achieve a vibrant, high quality mixed-use community for residents, workers and visitors. This district will serve as the primary location for advanced technology and biotechnology uses.

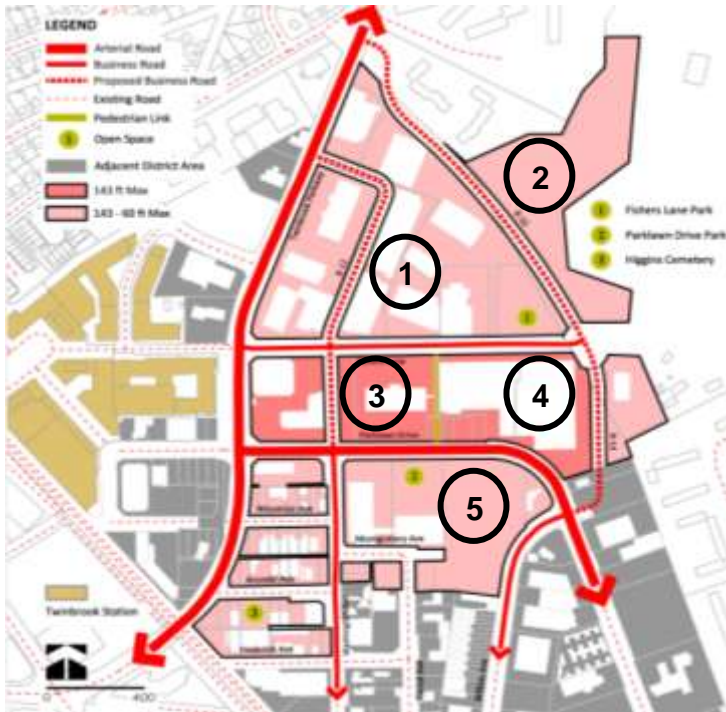
**Building Height** - The tallest buildings (143 feet) are located along Fishers Lane and Parklawn Drive. The remaining areas provide a transition between Fishers Lane and the adjacent garden apartments located along the northern boundary of the technology Employment Area.

**Build-to Lines** - The guidelines recommend that buildings be located along streets especially along Fishers Lane and Parklawn Drive. The build-to lines will foster the creation of a more urban character where shops, restaurants, laboratory buildings, office buildings and residential building front onto wide tree-lined sidewalks.

*Bottom left: Existing public use open space including trees, lawn area, outdoor seating as approved in the Fishers Place development*

## Technology Employment Area

### Building Form and Block Character



Key to the block descriptions in the Metro Cote Area

#### Block 1

This area contains the U.S. Pharmacopeia building. This existing biotechnology building company with a wide sidewalk and street trees forms the entrance to the Technology Employment Building along Fishers Lane. The remainder of this block includes the existing Fishers Place development and a larger commercial center that could be redeveloped for advanced technology companies. The future Wilkins Avenue extended provides access to this area. This area includes an open space.

#### Block 2

This area provides an opportunity for housing and office use. It includes two existing parcels or approximately 9 acres currently used as surface parking lots for the Parklawn Building. Redevelopment of this area must address the green space and stormwater management needs for the area.

#### Block 3

This area is located south of Fishers Lane. Redevelopment of this area provides an opportunity for Washington Avenue to be extended to Fishers Place. This area provides a significant redevelopment opportunity.

#### Blocks 4

This area includes the existing Parklawn Building. The design guidelines foster the creative adaptive reuse of this existing building. Options range from a major remodeling of the existing office space to revising the existing building to accommodate a variety of uses including office, laboratory, housing, hotel and retail uses. This area includes a pedestrian connection between Fishers Lane and Parklawn Drive adjacent to the eastern side of the Parklawn Building.

#### Block 5

This area is located south of Parklawn Drive. A portion of the site includes a surface parking lot to serve the Parklawn Building. Redevelopment will provide an opportunity to create an urban pattern with buildings edging the street, a new public open space, and pedestrian sidewalks along Parklawn Drive and Washington Street. Buildings should be a maximum of 143 feet in height.



## Technology Employment Area

### Building Form and Character Examples

*U.S. Pharmacopeia Building*



*Existing Parklawn Building from Parklawn Drive*



*Fishers Place Open Space*



U.S. Pharmacopeia Building



Streetscape along Fishers Place



Recreation Center along Twinbrook Parkway

## Light Industrial Area

### Urban Design Concept



Approximately 109 acres of the 2,500 total acres of industrial land in Montgomery County are located in Twinbrook. The design guidelines foster the retention and enhancement of this important land resource in the central portion of Montgomery County. The Light Industrial Area will also provide significant science and technology resources for the area. The guidelines allow a variety of facilities for research and technology to serve the functional needs of the 21<sup>st</sup> century as well as service commercial uses.

The Light Industrial Area is located along Wilkins Avenue and Parklawn Drive with direct access to the future Montrose parkway. A limited housing for the on-site workforce and retail space will also be permitted in this district.

The guidelines will support the enhancement and augmentation of existing buildings as well as new building construction. Building height will be limited to 42 feet. The guidelines will support the emphasis on creating a pedestrian oriented environment, and a mix of uses in a more urban setting.

**Top left:** Example of existing buildings in the Light Industrial Area.

**Top right:** Perspective of existing buildings in the Light Industrial Area.

**Bottom right:** Example of existing buildings in the Light Industrial Area.



## Light Industrial Area

### Streets

The interconnected street network in the Light Industrial Area is designed to facilitate pedestrian, bicycle and vehicular access. This network provides a variety of street types.

**Arterial Road** – Parklawn Drive is an Arterial Road. This road serves as spine for the Light Industrial Area connecting Twinbrook Parkway to the future Montrose parkway.

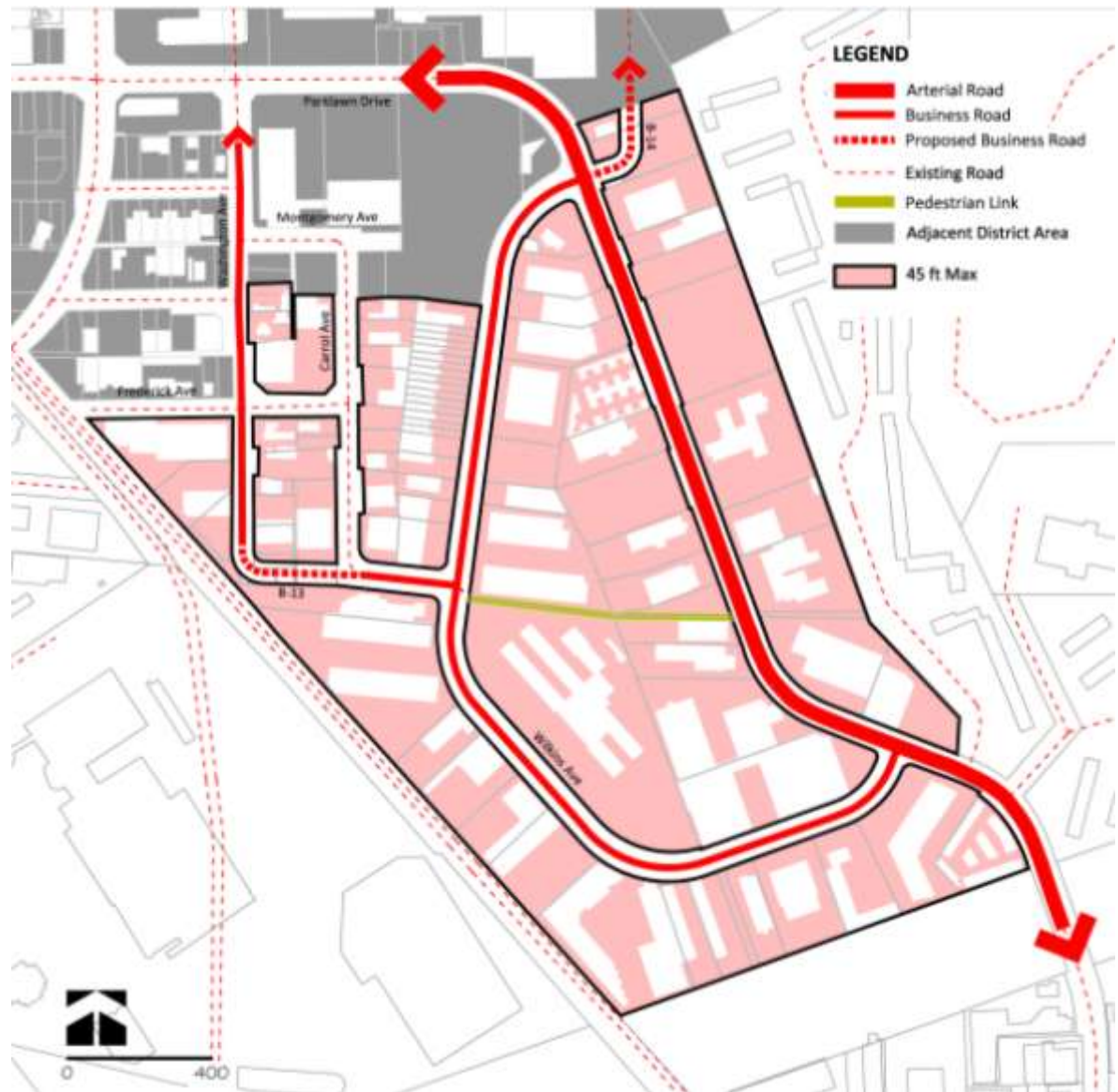
**Business Streets** - A variety of Business District Streets to serve this area including:

Wilkins Avenue - This street provides another connection for the land use in the area.

Washington Avenue - This street provides a connection to the Technology Employment Area located to the north.

All other streets - All the other streets in the area are classified as Business District Streets to serve the Light Industrial Area.

In comparison to the Metro Core and the Technology Employment Areas, all the streets in the Light Industrial Area will have more limited streetscape improvements.





## Light Industrial Area

### Open Space

The description of the open space system for the Light Industrial Area follows:

**Green Area** - The I-4 Zone for this area requires 10-20 percent of the net lot area to be green. This green space should be generally available for entry and use by occupants of the building or the Light Industrial Area. This space should enhance the development by providing landscape features for the benefit of the occupants. The green space may include outdoor seating areas, sidewalks and walkways, and landscaped areas.

**Sidewalks** - Improving the sidewalks should be focus of the public space in the Light Industrial Area. Providing public and more private space for outdoor seating and dining is encouraged.

**Pedestrian Connection** - A pedestrian connection is shown on the adjacent map on the previous page. This connection provides access for pedestrians from Wilkins Avenue to Parklawn Drive.

### Building Form and Character

The design guidelines will create the opportunity to serve the needs of a significant area for light industrial uses. Buildings located on the perimeter of the LSC have more flexible guidelines that allow for growth and change within the building height limits and street wall requirements without compromising the programmatic needs.

**Building Height** - The buildings in the Light Industrial Area are limited to 42 feet

**Build-to Lines** - These guidelines recommend that buildings be aligned along the streets. Build-to lines will foster the creation of a more urban character necessary to promote pedestrian activity and transit accessibility.



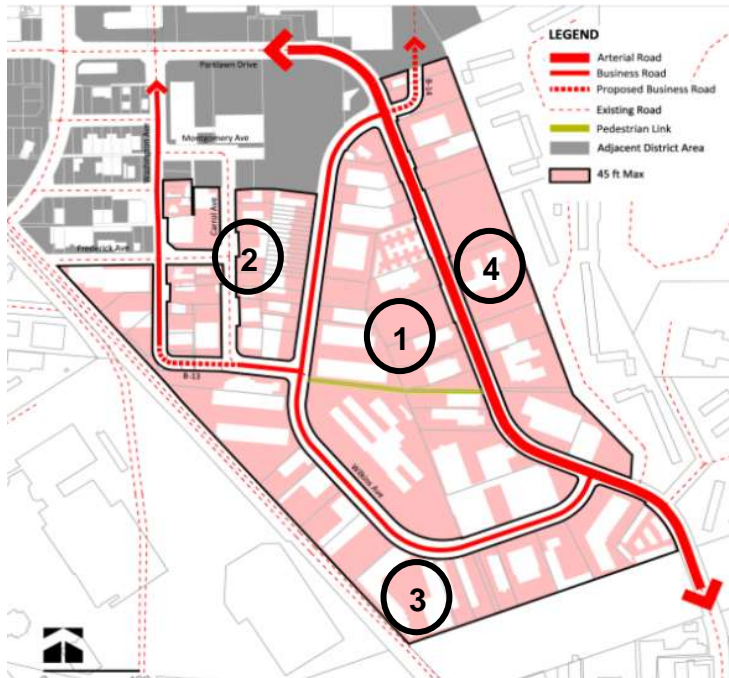
*Above: Sample of open space adjacent to Twinbrook*

*Below: Low rise building (42 feet maximum)*



## Light Industrial Area

### Building Form and Block Character



Key to the block descriptions in the LSC Central Area

The design guidelines do not recommend extensive building and parking setbacks in the Light Industrial Area. Setbacks from the adjacent garden apartments may be reduced if the Planning Board finds that the resulting development would not have an impact. The minimum one acre lot size does not apply in this area. The purpose is to provide a more urban setting for this industrial area and to encourage the retention of this area for light industrial uses. The guidelines encourage the retention of small lots, construction of smaller buildings, and renovation and expansion of existing buildings.

Adaptive reuse of the existing buildings should be a hallmark of the building form in this area. Streetscape should focus on improving access for pedestrians and safety instead of special paving and street furniture. This approach to the guidelines will establish a unique character for this area of Montgomery County where light industrial uses will thrive.

#### Block 1

This block is the central portion of the Light Industrial Area. Redevelopment should occur through adaptive reuse and by providing small additions to existing buildings. Buildings should be oriented to the street. Sidewalks should be completed to improve access between properties.

#### Block 2

This area is located along both sides of Washington Avenue and west of Wilkins Avenue. Buildings should be oriented to Washington Avenue to encourage pedestrian connections to the Employment Area. Large setbacks of buildings from the streets should be avoided. Infill development should be encouraged.

#### Block 3

This block is located south and west of Wilkins Avenue. This area includes laboratories, small offices and service and commercial uses. Additions to existing buildings and adaptive reuse are encouraged. Large setbacks of buildings from the streets should be avoided. Sidewalks should be completed to improve access between properties and address safety.

#### Blocks 4

This area provides a transition from the buildings along Parklawn Drive to the adjacent garden apartments. Buildings should be oriented to Parklawn Drive to accommodate a preferred setback of 50 feet from the adjacent garden apartments. The Planning Board may approve a lesser setback if no adverse impact occurs.

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## Technology Employment Area

### Building Form and Character Examples

Existing Buildings in the Light Industrial Area and Adaptive Reuse of Existing Industrial Buildings



Source: \* McInturf, Architects







# Urban Design Guidelines

For the Twinbrook Area

Montgomery County Planning Department  
**The Maryland-National Capital Park and Planning Commission**

8787 Georgia Avenue  
Silver Spring, Maryland 20910

**[MontgomeryPlanning.org](http://MontgomeryPlanning.org)**