

GROSV "NOR TRATHORE NETRO AREA MINOR MASTER PLAN PLANNING BOARD DRAFT JULY 2017 "MONTGOMERY COUNTY PLANNING DEPARTMENT



Abstract

Introduction

An area master plan, after approval by the County Council and adoption by The Maryland-National Capital Park and Planning Commission, constitutes an amendment to The General Plan (On Wedges and Corridors) for Montgomery County. Each area master plan reflects a vision of future development that responds to the unique character of the local community within the context of a County-wide perspective. Area master plans are intended to convey land use policy for defined geographic areas and should be interpreted together with relevant County-wide functional master plans.

This Minor Master Plan Amendment contains text and supporting maps for a minor amendment to the 1992 North Bethesda/Garrett Park Master Plan. The minor amendment process provides an opportunity to reassess the Plan area and analyze alternative land use redevelopment, design, and zoning opportunities. The review considers existing development and reevaluates the area's potential within the context of a changing market in the region, the intent and rationale of the 1992 North Bethesda/Garrett Park Master Plan, community input, and impacts to the surrounding land uses and transportation network.

This Plan makes recommendations for land use, zoning, design, transportation, environment, and community facilities. Plan recommendations provide comprehensive guidelines for the use of public and private land and should be referenced by public officials and private individuals when making land use decisions. Public and private land use decisions that promote plan goals are essential to fulfilling a plan's vision.

Master plans look ahead 20 years from the date of adoption, although they are intended to be revised every 10 to 15 years. Circumstances at the time of a Plan's adoption will change and the specifics of a plan may become less relevant over time. Plans do not specify all development possibilities for a particular property or area. Their sketches are for illustrative purposes only, intended to convey a sense of desirable future character rather than a recommendation for a particular design.

In order to understand the full range of development options, the reader should be aware of additional land uses and development potential available through permitted conditional uses; variances; transferable development rights (TDRs); moderately priced dwelling units (MPDUs); rezoning by local map amendments; public projects and the mandatory referral process; and municipal annexations.

SOURCE OF COPIES The Maryland-National Capital Park and Planning Commission 8787 Georgia Avenue Silver Spring, MD 20910-3760

Online at: http://www.montgomeryplanning.org/community/grosvenor-strathmore/



Table Of Contents

Executive Summary	8
Introduction	11
Plan Background	
Demographic Profile	
Vision	
Land Use & Zoning	19
Urban Design & Design Guidelines	25
Public Realm	
Context Sensitive Urban Form	
Placemaking	
Mobility	47
Transportation Demand Management	
Bicycle and Pedestrian Connectivity	
Transit Recommendations	
Roadway Recommendations	
Sustainability	57
Natural Resources	
Water Quality	
Air Quality and Carbon Emissions	
Carbon Emissions Policy Guidance	
Parks & Open Space	65
Policy Guidance	
Parks and Open Space Hierarchy	

Community Facilities	
Public Schools	
Implementation	
Zoning	
Public Amenities and Benefits	
Subdivision Staging Policy	
County Capital Improvements Program	

List of Figures and Tables

Figure 1: Minor Master Plan Area and its surroundings	13
Figure 2: Master Planning efforts in the vicinity of the Minor Master Plan Area	15
Figure 3: Grosvenor Sector Plan boundaries from the 1992 North Bethesda-Garrett Park Master Plan	16
Figure 4: Existing land use	21
Figure 5: Existing zoning	23
Figure 6: Recommended zoning	23
Figure 7: Recommended height diagram	24
Figure 8: Opportunities within the Minor Master Plan Area	27
Figure 9: Challenges within the Minor Master Plan Area	29
Figure 10: Public realm framework	30
Figure 11: Major connectors within and around the Plan area	31
Figure 12: Gateways and signature building location diagram	33
Figure 13: Recommended public spaces at the Metro site	35
Figure 14: Illustrative Metro site plan	36
Figure 15: Illustrative aerial view looking east from Rockville Pike	37
Figure 16: Illustrative aerial view looking west	37
Figure 17: Building placement diagram	38
Figure 18: Diagram showing the various zones within a typical sidewalk	39
Figure 19: Recommended height diagram	41
Figure 20: Recommended step back along Tuckerman Lane within the Transition Zone	41
Figure 21: Commercial ground floor activation diagram	42
Figure 22: Residential ground floor articulation diagram	42
Figure 23: Massing recommendations diagram	43
Figure 24: Diagram showing existing, planned and recommended bike connections	51
Figure 25: MCDOT's re-striping project section	52
Figure 26: Long term section option#1	53
Figure 27: Long term section option#2	54
Figure 28: Existing parkland and tree canopy	59
Figure 29: Watersheds within and around the Plan area	61
Figure 30: Existing impervious surfaces within and around the Plan area	61
Figure 31: Public realm diagram	71
Figure 32: Recent master plans within the Walter Johnson High School cluster	75
Figure 33: Recommended zoning map	81

Table 1: Bikeway classification	55
Table 2: Street classification	56
Table 3: Parks and open space analysis	68
Table 4: Recommended zoning table	81

Executive Summary

This Plan is an amendment to the *1992 North Bethesda/Garrett Park Master Plan.* It builds upon the recommendations of the 1992 Master Plan for the Grosvenor-Strathmore area and advances Montgomery County's goal of transit-oriented development at Metro stations to keep up with the County's housing demand in a sustainable manner.

The Plan area contains approximately 117 acres of land, including the Grosvenor-Strathmore Metro Station, Strathmore Hall, and the residential communities of Symphony Park, Strathmore Park Condominiums, Parkside Condominiums, Stoneybrook Townhouses, the Meridian at Grosvenor Station, and Avalon at Grosvenor Metro. The Plan area is close to natural areas; however, it lacks central gathering spaces, connectivity and active recreational amenities. The Metro site is the only parcel currently under consideration for redevelopment. It is also one of the few remaining undeveloped sites at a Metro station in the County.

The Plan recommends increasing and concentrating future growth at the Metro site. The 1992 Master Plan recommended up to 1,403 units for the 45acre Metro site, of which 545 units remain unbuilt. This Plan recommends rezoning the Metro site from Residential R-60 to Commercial Residential CR3.0, C-0.5, R-2.75, H-300, which would allow the unbuilt portion of the Washington Metropolitan Area Transit Authority (WMATA) land (the Metro site) to generate more housing units. The Plan envisions the Metro site to have a small amount of retail for the surrounding communities and for Metro riders.

The Plan protects adjacent residential neighborhoods from the negative impacts of future development by recommending stepping down building heights from Rockville Pike to Tuckerman Lane where the Metro site fronts low-rise condominium buildings. The Plan provides recommendations and design guidelines to ensure that new development will preserve access to light and air and be compatible with the adjacent existing developments.

The Plan recommends the creation of public open spaces that are currently lacking in the Plan area, and fills gaps in the network of existing parks and open spaces. It proposes creating a central Civic Green at the Metro site, exploring recreation facilities atop the Metro garage, developing a fitness loop, expanding the Arts Walk, and building a small retail plaza near the Metro station entrance. It also focuses on enhancing visibility and connectivity both to the Metro station and Strathmore Hall and creating a shared identity through public spaces and art.

Enhanced pedestrian and bicycle connectivity is a major goal of the Plan. It envisions a network of sidewalks, bike lanes and paths to connect to key destinations within and adjacent to the Plan area such as Strathmore Hall, Rock Creek Park, the Bethesda Trolley Trail, the Metro Site, nearby schools, and the residential communities to the east and west of Rockville Pike. And it envisions a high percentage of residents relying on Metro for their daily commutes. It recommends employing transportation demand management strategies, and installing bikeshare and bike parking facilities at the Metro station to achieve this vision.

The Plan envisions the area to be more green and sustainable. It preserves existing natural resources including a stream and its buffer area, a forested area protected by conservation easements, and the Champion white oak tree along Rockville Pike. It improves the sustainability of the Metro site by minimizing impervious cover, increasing tree canopy, and incorporating green design principles and onsite renewable energy generation.

The Plan recognizes that the redevelopment of the Metro site will occur over many years and recommends activating the site in the interim through pop-up retail and recreation opportunities, public art, and creating temporary public spaces.

10 GROSVENOR-STRATHMORE METRO AREA MINOR MASTER PLAN AMENDMENT PLANNING BOARD DRAFT JULY 2017

Introduction

Perest Stilles Pitte

Grosvenor L

Charles-Wav-

SLener

© 2016 Google

355

Introduction

The Grosvenor-Strathmore Metro Station is situated along the Metrorail Red Line, just north of Interstate 495 and east of Rockville Pike. The Grosvenor-Strathmore Metro Area Minor Master Plan (the Plan) includes 117 acres bounded by Rock Creek Park to the south, MD 355 (Rockville Pike) to the west, the Town of Garrett Park to the north, and low density residential areas and Holy Cross Academy to the east.

Metro stations and centers to the south include the Walter Reed National Military Medical Center and National Institutes of Health, a large federal employment center, and downtown Bethesda, a major mixed-use central business district. Metro stations and centers to the north include White Flint and Twinbrook, which are undergoing substantial transformation from suburban strip centers and single-purpose uses to dynamic mixed-use centers.

The General Plan *(On Wedges and Corridors)* has guided land use in the County for fifty years, establishing the policy of concentrating the most intense development at the Metro stations. Downtown central business districts, such as Silver Spring and Bethesda, have the highest densities, tallest buildings and largest variety of uses and amenities. Development around suburban Metro stations, such as Twinbrook, have a variety of building types and heights, and provide access to some amenities and services. Suburban centers without Metrorail, such as Rock Spring, have lower densities and fewer amenities.

Development of the Grosvenor-Strathmore area has been guided by the 1992 North Bethesda/Garrett Park Master Plan (1992 Master Plan), which covered more than 5,700 acres. The 1992 Master Plan's recommendations for the Grosvenor-Strathmore area were two-fold: *"to provide additional housing in the* Plan area; and to expand potential Metro ridership." The General Plan and the 1992 Master Plan set the framework for the County's major growth and new development to occur near transit to maximize the investment in infrastructure; create mixed-use centers with jobs, housing, and retail; reduce sprawl; and conserve land.

Development around the Grosvenor-Strathmore Metro station is predominantly residential with a mixture of high-rise and mid-rise apartment buildings and lowrise condominiums and townhouses. There are wellestablished private and public educational institutions in the vicinity. The Music Center at Strathmore opened in 2005 and has become a regional attraction as a cultural performing arts, music, and educational center. With Rock Creek Park and the open spaces around Strathmore, the educational institutions, the residences, as well as conservation areas, the area is verdant and lush. The Grosvenor-Strathmore Metro Station area is suburban in character – the predominant use is housing, there isn't a mix of uses, it is not a town center, and it lacks both the density and the amenities of other Red Line Metro stations in the County. But its development pattern is established and well-defined, and this Plan's recommendations build upon that existing pattern and the principles set forth in the 1992 Master Plan. This Plan recognizes that new development on the last parcel

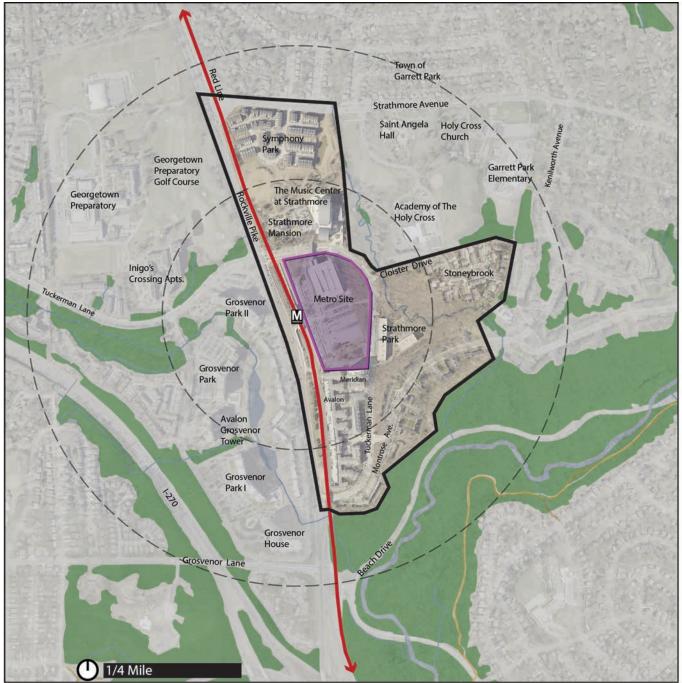


Figure 1: Minor Master Plan Area and its surroundings



The Plan Area and its surroundings today. Clockwise from top left: Beach Drive, Grosvenor-Strathmore Metro entrance, Montrose Avenue, Meridian Apartments, and the Music Hall at Strathmore.

at this Metro station should take optimum advantage of the site, but should fit within the context and established character of this community.

This Plan seeks to preserve the area's residential neighborhoods, its unique cultural identity and access to natural resources, while enhancing walking and biking connections, and adding housing and small neighborhood retail shops. It maximizes the potential of the remaining developable parcel at the Metro station by creating a sense of place, introducing public open spaces and adding additional housing at transit.

Plan Background

The 1992 Master Plan covered a large geography, including the Metro stations at Grosvenor-Strathmore, White Flint and Twinbrook, as well as the office park at Rock Spring. Since then, these communities have been the subject of separate area plans, including the 2009 *Twinbrook Sector Plan*, 2010 White Flint Sector Plan, and Master Plans currently underway for White Flint 2 and Rock Spring, as well as this Plan.

The 1992 Master Plan described the Grosvenor-Strathmore area as the gateway to North Bethesda. At the time, WMATA owned 45 acres (the Metrosite) at the Grosvenor-Strathmore Metrorail Station, and the agency was contemplating a joint development project with a private developer. The 1992 Master Plan recommended high-rise towers as part of the proposed development. *"The existing towers will continue to function as landmarks and, together with the proposed high-rise residences east of the Pike, will form a gateway to North Bethesda."*

The 1992 Plan called for 1,403 dwelling units to be built on the Metro parcel. Since then, 858 units have been built in the following residential developments on the original WMATA parcel: Meridian at Grosvenor Station (Meridian); Avalon at Grosvenor Metro (Avalon); and Strathmore Park Condominiums (Strathmore Park).

The remaining 15-acre Metro site includes the Metro garage, the surface parking lot, bus loop, Kiss-and-Ride,

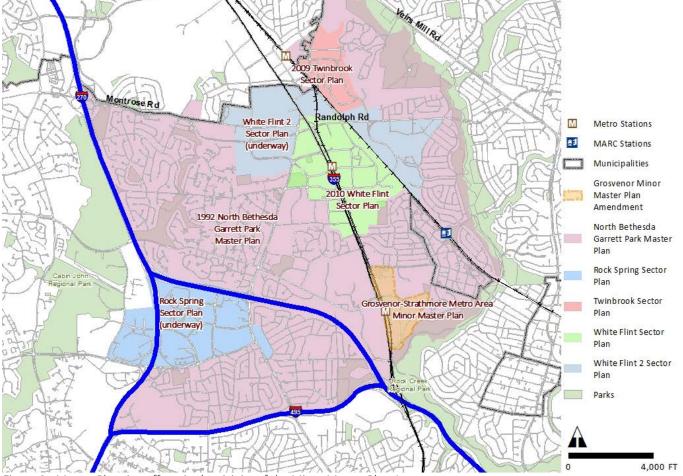


Figure 2: Master Planning efforts in the vicinity of the Minor Master Plan Area

a stormwater pond, and a small grove of trees, and is the only redevelopable parcel in the Plan area. In 2013, WMATA released a Joint Development Solicitation for redevelopment of this 15-acre site requiring retention of the garage, bus loop, Kiss-and-Ride, and replacement of existing surface parking spaces in a new parking structure or addition to the existing garage, and selected a development partner. The parking lot and the rest of the land area will be redeveloped through a publicprivate partnership, as contemplated in the Joint Development Agreement.

The 1992 Master Plan also supported development of a cultural/arts campus at Strathmore. A 1,976-seat concert hall and education center (Strathmore Hall), competed in 2005, is a treasured cultural resource and has rapidly become a regional destination. It has partnerships with the Baltimore Symphony Orchestra, Washington Performing Arts, National Philharmonic, Levine Music, CityDance and Maryland Classic Youth Orchestras and offers classes for youths and adults. Adjacent to Strathmore Hall to the north, the Symphony Park Townhomes were built along Strathmore Drive in 2013.

Demographic Profile

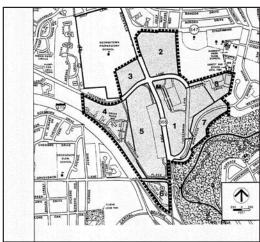


Figure 3: Grosvenor Sector Plan boundaries from the 1992 North Bethesda/Garrett Park Master Plan.

The demographic and housing profile of the Plan area is based on the United States Census tract boundaries and is slightly larger than the Plan boundary. The census tract has a population of approximately 3,573 people. With 70 percent of residents identifying as white, the area is less ethnically and racially diverse than the

County.

The area's average household size of 1.95, is considerably lower than the county average of 2.75. There is a significantly smaller population of school-age children (5- to 19-year-olds) and a significantly larger population of 20- to 34-year-olds. A full demographic profile for the area can be found in the Appendix.

There are 787 multifamily units, 67 percent of which are occupied by renters compared to 34 percent countywide. Of the total number of rental units, 88—or 11 percent—are Moderately Priced Dwelling Units (MPDUs). The two multifamily buildings in the area, Meridian and Avalon, provide 8 percent and 13 percent MPDUs, respectively. Symphony Park, has 112 townhomes and 15 percent, or 17 units, are MPDUs. A full housing profile for the area can be found in the Appendix.

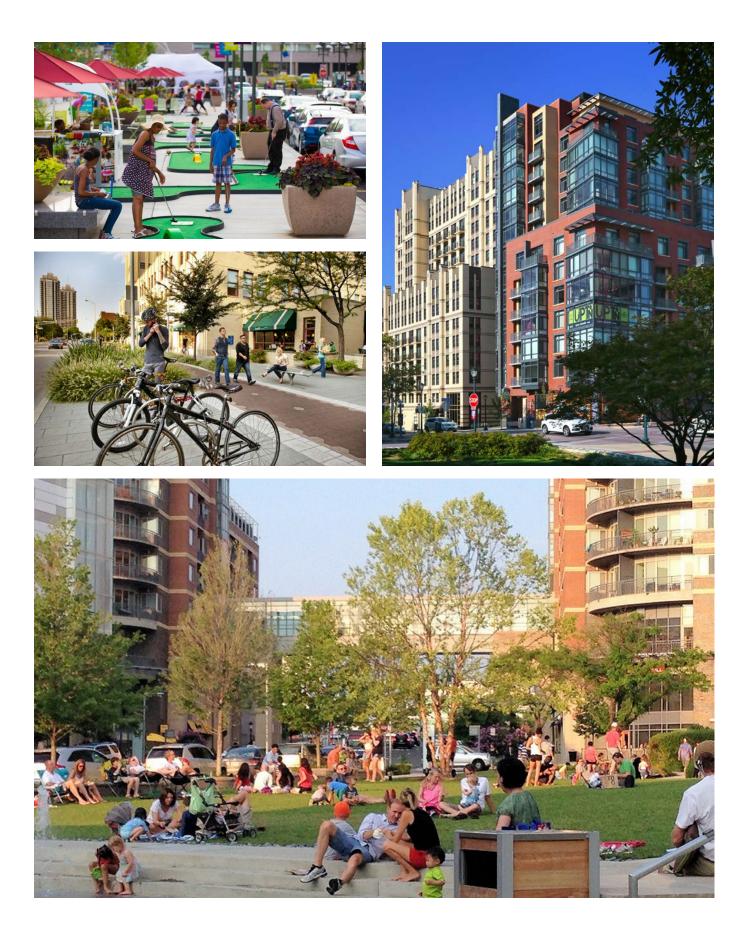
Vision

In 20 years, the Plan area will remain primarily residential with a diversity of housing types. Strathmore Hall will continue to be a regional attraction, offering world class performances and educational opportunities. Rock Creek Park Trail and Bethesda Trolley Trail will draw visitors from around the county and beyond as premier recreation trails.

The area will have improved mobility through Bus Rapid Transit (BRT) along Rockville Pike. New and improved bike and pedestrian connections will link the existing and new community to adjacent neighborhoods and resources such as Strathmore Hall and the nearby trails and parks.

The Metro site will be a walkable, transit-oriented development with a cluster of residential buildings of various sizes and heights with a civic green as the focus and gathering spot for the community. Residents and commuters using Metro will be able to shop for small purchases on their way home. The civic green and other open spaces will provide places for neighbors and families to meet, relax, and play.

Public art, improved connections to Strathmore Hall, and a network of well-designed open spaces will create a sense of place at the Metro Station, making the Plan area a destination for residents and visitors alike.



This page intentionally left blank

Ender Contract of the second s

ON

Fi

i

Land Use & Zoning

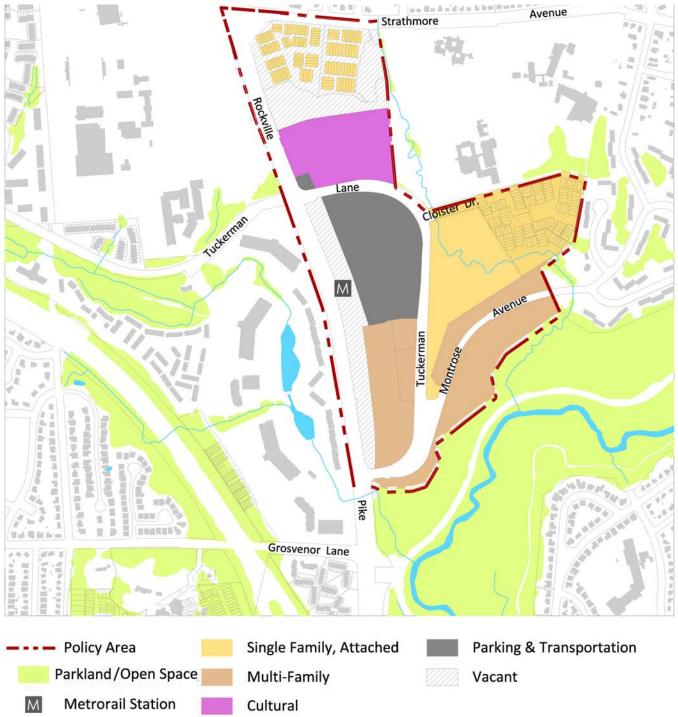
The Plan area is a predominantly residential community lying between White Flint to the north and the major employment center of Walter Reed National Military Medical Center and National Institutes of Health to the south. It includes the Music Center at Strathmore (Strathmore Hall), and the historic Mansion at Strathmore (the former Corby Mansion), which is designated on the County's Master Plan of Historic Preservation.

The Washington D.C. region has one of the most stable and strong economies. The quality of life and robust employment opportunities make the region a magnet for people looking for jobs and places to live. With the dwindling supply of greenfield sites available for new developments, and the increasingly congested roadway network, sites within walking distance of Metro stations are the most desirable locations to absorb new growth in the region and the County. Density at transit locations reduces the traffic that would be generated by the same amount of development in non-Metro locations. When done under appropriate development standards and guidelines, it creates attractive, walkable places that are more sustainable than the typical suburban sprawl of the past few decades. As the population in Montgomery County continues to grow, pressures on the diminishing supply of land have risen. Over the past 25 years, more people have chosen to live in transit centers where they have easy access to public transit, walkable neighborhoods, and retail amenities. The land use recommendations in this chapter increase density at the Metro site in a compatible manner with the surrounding community.

Goal: Establish a primarily residential, walkable, mixed-use development at the Metro station.

The Metro site is one of the few remaining undeveloped areas at a Metro station in the County. Any redevelopment here should follow best practices and principles of planning and design—smart growth, excellent design, context sensitivity, sustainability, and exemplary open spaces. It should strive to increase the supply of affordable housing in the county; and it should have an appropriate building framework that is well integrated with the surrounding neighborhoods.

With the goals of accommodating desirable growth, provision of infrastructure, preservation of the existing community, and the protection of the environmental



resources, this Plan evaluated low-, moderate-, and high-density scenarios for the Metro site, ranging from 2.0 to 3.5 Floor Area Ratio (FAR). Along with meeting the County's prescribed traffic congestion and school capacity standards, the Plan focused on compatibility as one of the more important goals for the new development at the Metro site.

Recommendations within this Plan are based on a midrange scenario of 3.0 FAR (approximately 1,905,315 square feet) because it provides additional density, meets WMATA's requirements of retaining existing Metro functions, and creates a walkable place with open spaces, retail, improved connections to the existing amenities and heights that are compatible with the adjacent developments.

With the addition of new residents at the Metro site, the area should be able to support some neighborhood serving retail. Providing small retail and services will allow people to buy necessities on the way to or from work or while strolling and biking in the area. It will also create a more active streetscape at the Metro site and help bring vitality to the Metro plaza and other open spaces at the site. Therefore, the Plan recommends up to 0.5 FAR (317,552 square feet) of commercial floor area at the Metro site. However, given the Metro site's isolated location and low visibility from Rockville Pike, it is unlikely that the full 0.5 FAR of floor area for retail will be built.

Metro Site Recommendations

- Rezone Metro site from R-60 to Commercial Residential CR-3.0 (C-0.5 R-2.75 H-300).
- Allow two signature buildings up to 300 feet high along Rockville Pike.
- Allow one building of up to 220 feet high on Tuckerman Lane.
- Limit building height for all other buildings at the Metro site to 160 feet (see Urban Design Chapter for detailed guidelines).
- Promote the creation of flexible first floor spaces that can house adaptable retail and/or live work space.
- Provide 15 percent MPDUs on the Metro site.

Goal: Maintain residential character of Plan area.

The Plan seeks to preserve the existing communities in the area by retaining their current zoning framework. Montgomery County adopted a new Zoning Ordinance effective October 30, 2014. Several zones in the Plan area, such as the PD-25 (planned development) and the RT 12.5 (townhouses), were discontinued under the new Ordinance. Four existing developments-Stoneybrook, Strathmore Park condominiums, Avalon, and Meridian-- are affected by this change. As part of the new master plan, all zones must be updated to reflect equivalent zones in the new ordinance. Therefore, except for these four properties and the Metro site, the Plan recommends retaining existing zoning. For these four properties, the Plan recommends rezoning them to the equivalent zones per the new Zoning Ordinance.

Recommendations:

- Retain R-60 Zone for the Strathmore parcel and Symphony Park townhomes.
- Retain R-30 Zone for the Parkside Condominiums.
- Rezone Stoneybrook from RT 12.5 to Townhouse Medium Density (TMD) Zone.
- Rezone Strathmore Park Condominiums from PD-25 to R-30 Zone.
- Rezone Meridian Apartments from PD-25 to Commercial Residential CR-7.25 (C-0.25 R-7.25 H -180).
- Rezone Avalon from PD-25 to CR-0.5 (C-0.25 R-0.5 H-40).



The Plan seeks to preserve the predominantly residential character of the area.

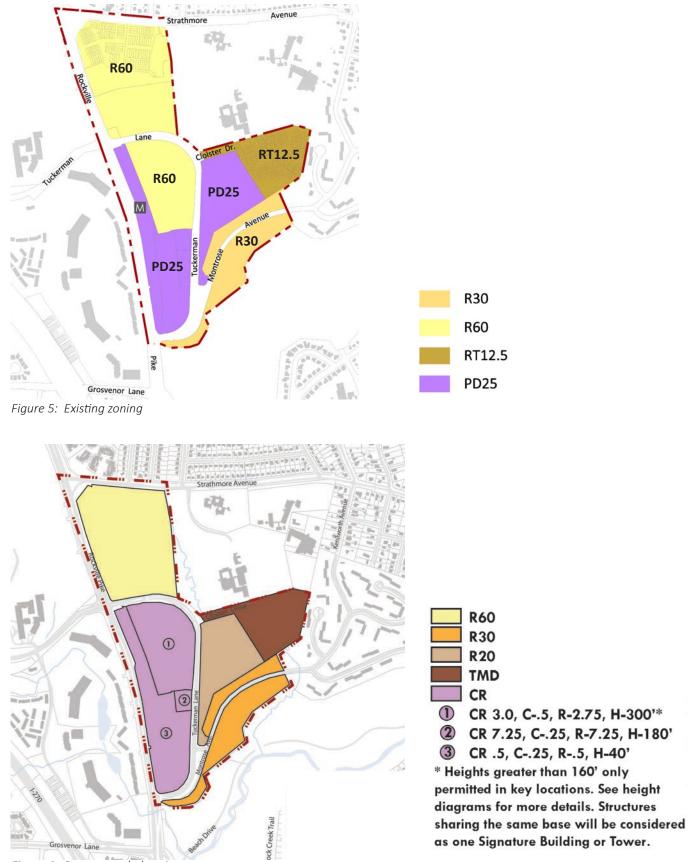


Figure 6: Recommended zoning

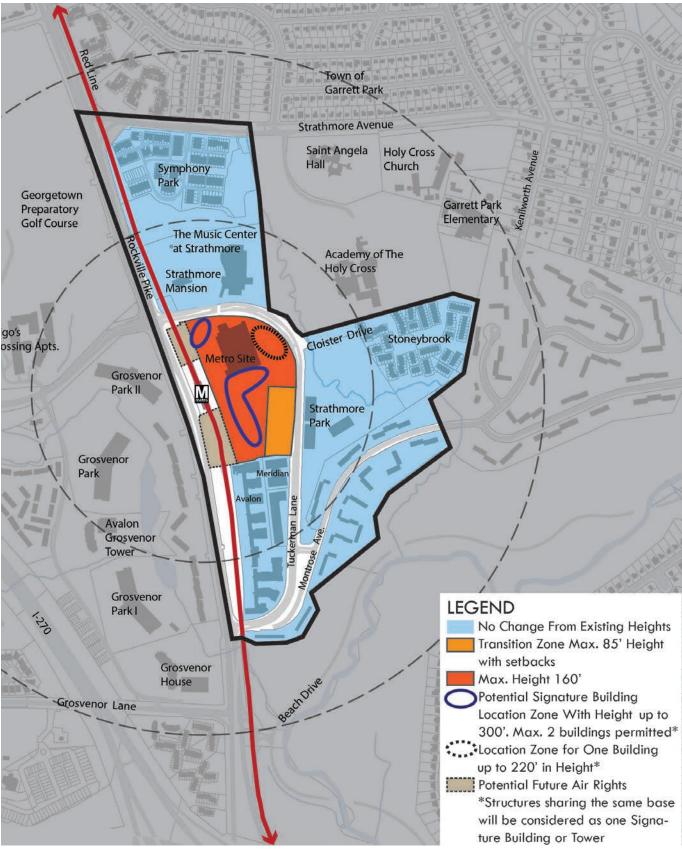


Figure 7: Recommended height diagram.

Urban Design & Design Guidelines

Urban Design & Design Guidelines

The quality of life for a neighborhood's residents depends greatly on their daily experience within public spaces – streets and sidewalks, storefronts, parks and plazas, and other publicly accessible spaces which constitute the public realm. The urban design framework of the Plan uses best practices in transitoriented development and context-sensitive design to create a vibrant, mixed-use core at the Metro site that is well-connected to surrounding neighborhoods.

The Plan envisions all public spaces to be inviting, attractive, safe, easily accessible and supported by sufficient population density to maintain a sense of vibrancy and activity. Development at the Metro site will enhance the interactions people will have with each other and the built environment, maintain access to sunlight and nature, and provide space to socialize. Recommendations in this chapter constitute the design guidelines for the Plan area.

Opportunities

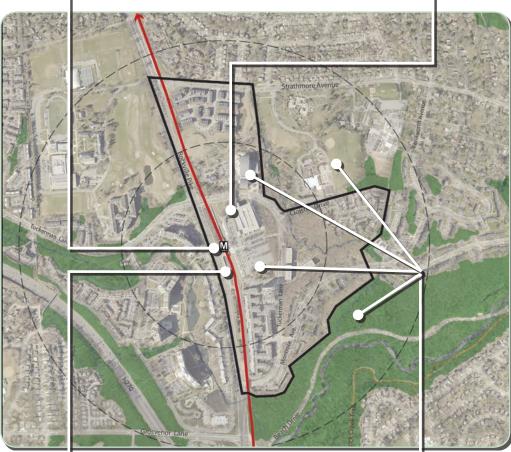
- Existing Metrorail and Bus, as well as the planned Bus Rapid Transit can support smart growth in a mixed-use, walkable development at the Metro site.
- The redevelopment of the Metro site can create a central gathering space for future residents and the surrounding community.
- A network of well-designed sidewalks, bikeways, trails and publicly accessible open spaces can enhance connectivity to the area's current assets such as Metrorail, Strathmore Hall, local schools and Rock Creek Park.
- New redevelopment along Rockville Pike could create signature buildings that showcase sustainability and design excellence, while creating an identity for the Plan area.

Existing and planned transit infrastructure can support smart growth.



Redevelopment at the Metro site can create a central gathering space.





New redevelopment along Rockville Pike could create signature buildings.



Paths and trails can make the area's assets easier to reach for residents and visitors.



Figure 8: Opportunities within the Minor Master Plan Area

Challenges

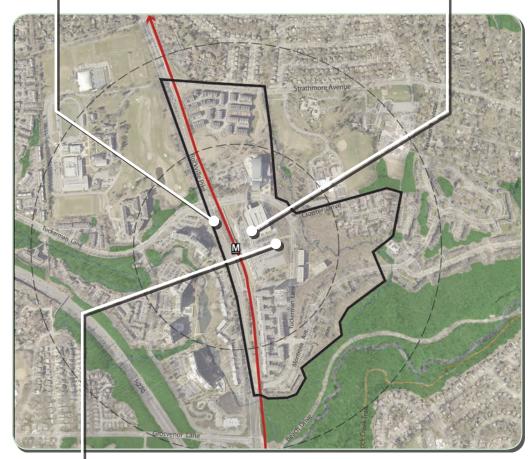
- Metrorail and Rockville Pike act as a barrier, creating accessibility constraints.
- The Metro site has topographical constraints, limiting vehicular and bike connections along Tuckerman Lane.
- A large part of the Metro site will continue to house WMATA parking, Kiss-and-Ride and Bus operations, reducing the size of buildable land to create a walkable, connected community with appropriate densities, open spaces and buildings compatible with the adjacent developments.
- Surrounding neighborhoods have limited framework of streets, making access to the Metro site difficult and limiting the potential for a walkable grid of blocks.

Metrorail and Rockville Pike create a barrier.



A large part of the Metro site will continue to house WMATA parking and operations





The Metro Station Site has topographical constraints.



Figure 9: Challenges within the Minor Master Plan Area

The recommendations in this section are design guidelines intended to create a robust urban design framework for achieving the vision for the Plan area by providing the essential ingredients for great public places. They are organized into three distinct categories:

- Public Realm
- Context-Sensitive Urban Form
- Placemaking

Public Realm

This Plan preserves existing open spaces and natural resources, and recommends new types of public spaces that are currently lacking within the Plan area. A key feature of the Plan will be the various bike and pedestrian connections that will link existing spaces to new ones and improve access for Metrorail riders, visitors to the Strathmore Hall, as well as current and future residents.

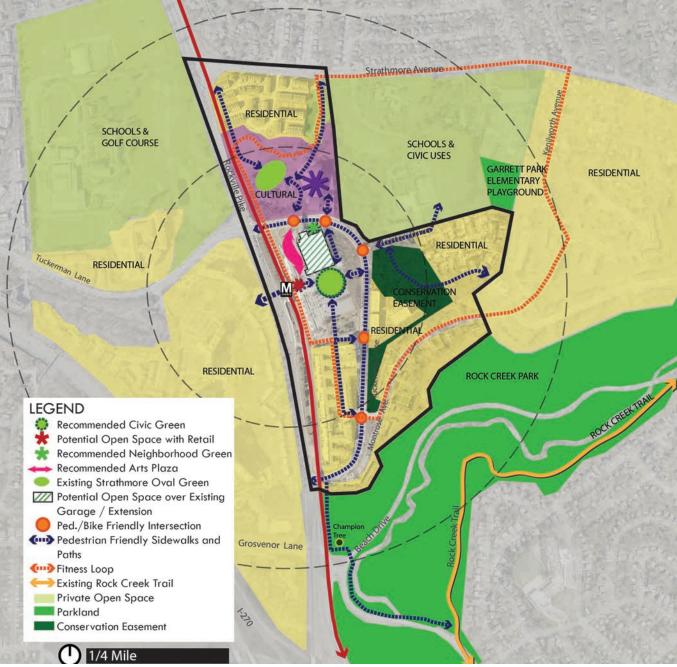


Figure 10: Public Realm Framework

Goal: Enhance pedestrian and bike connections to the area's key destinations to reduce reliance on cars to access these amenities.

Recommendations:

 Promote walkability to schools, the Metro station, Strathmore Hall, Bethesda Trolley Trail and Rock Creek Park through improved sidewalks, bikeways, and signage for the following streets:

- Montrose Avenue
- Tuckerman Lane
- Cloister Drive
- Grosvenor Lane
- Kenilworth Avenue
- Enhance the tunnel connection under Rockville Pike to the Metro station using lighting, public art and signage.

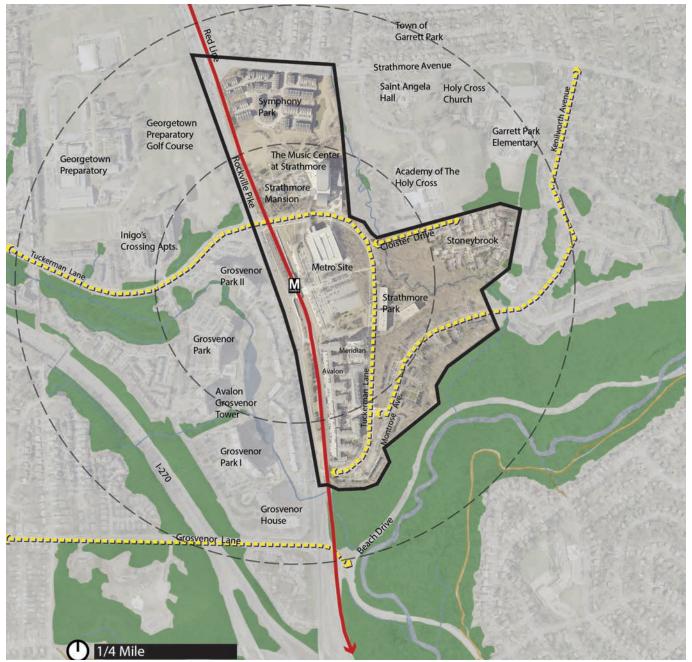


Figure 11: Major connectors within and around the Plan area

Goal: Create visually distinct "Gateways" into the Plan area.

Recommendations:

- Use streetscape, public art and façade enhancement techniques to visually mark these key intersections along Rockville Pike as gateways into the Plan area:
 - Rockville Pike and Strathmore
 Avenue
 - Rockville Pike and Tuckerman Lane North
- Use the underside of Metrorail overpass for Public Art installation at the following locations:
 - Rockville Pike and Tuckerman Lane
 South
 - Rockville Pike and Grosvenor Lane
- Coordinate with Maryland State Highway Administration (SHA) and Montgomery County Department of Transportation (DOT) to install gateway markers or signs on Rockville Pike celebrating the presence of Strathmore Hall.
- Design signature buildings along Rockville Pike on the Metro site that become beacons for the Plan area.



Trails can celebrate an area's natural assets and cultural heritage.



Iconic buildings anchor public spaces and enhance the skyline.



Public art can enliven utilitarian spaces like bridges and make them more inviting.

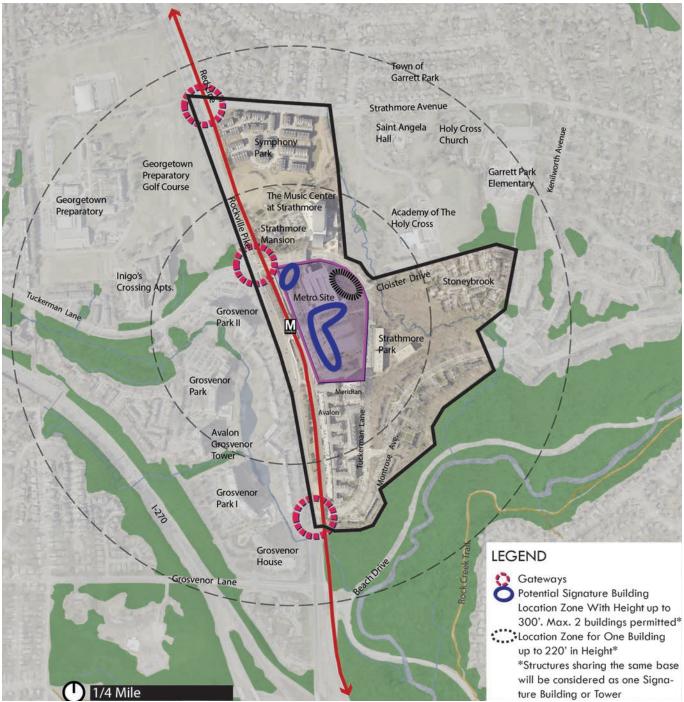


Figure 12: Gateways and signature building location diagram

Goal: Create public spaces of the right size and character for the Plan area.

Recommendations:

- Create a Civic Green of 1.25 acres at the Metro site. The exact size and configuration of the civic green will be determined during the regulatory review of the project. (See Parks section for more details.)
- Create a plaza at the station entrance with retail and other active uses. Include features such as hardscape, tree plantings for shade, movable seating, interesting lighting for nighttime use, and highly transparent ground floor facades. Retail plaza could be designed as a part of the Civic Green.
- Expand the existing Arts Walk into a wider, linear Arts Plaza that connects the Metro station

entrance to Strathmore Hall, with features such as public art on the ground or surrounding buildings that celebrates music, hardscape, and tree plantings for shade.

- Use the topography of the Metro site to connect the new development to surrounding neighborhoods through wide and visually appealing stairs.
- Consider open space/recreational amenities on the roof of the existing WMATA garage and its potential addition.
- Incorporate stormwater management into the landscape of public open space, where appropriate without compromising the usability of the space.
- Locate a dog park or other active recreation amenity for the community at the northern edge of the Metro garage and Tuckerman Lane.



Civic Green with family friendly activities.



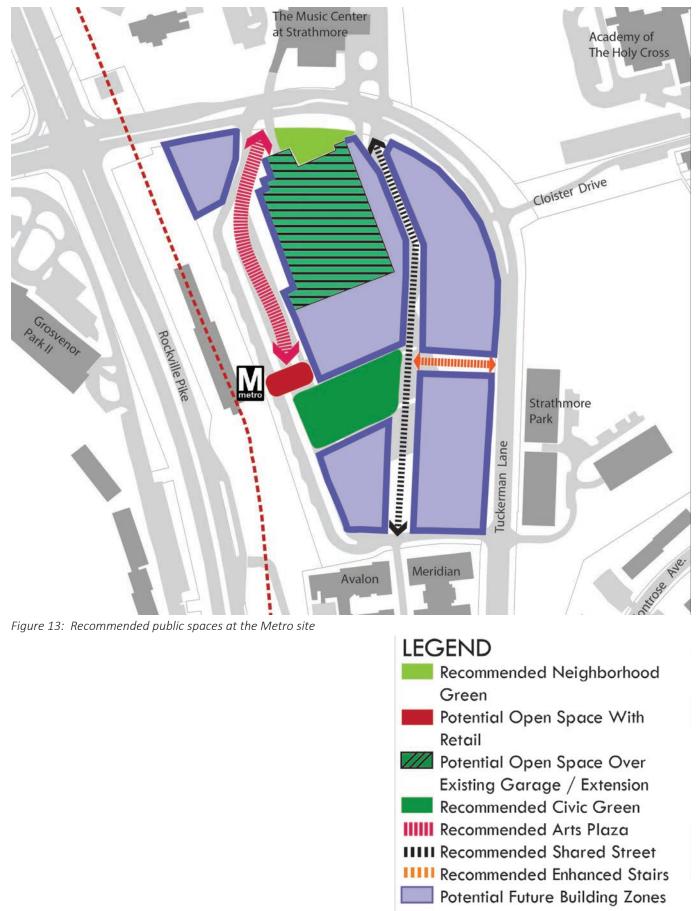
Linear Plaza with outdoor rooms for art and recreation.



Well defined seating areas along sidewalks.



Well landscaped steps that connect major spaces to streets.



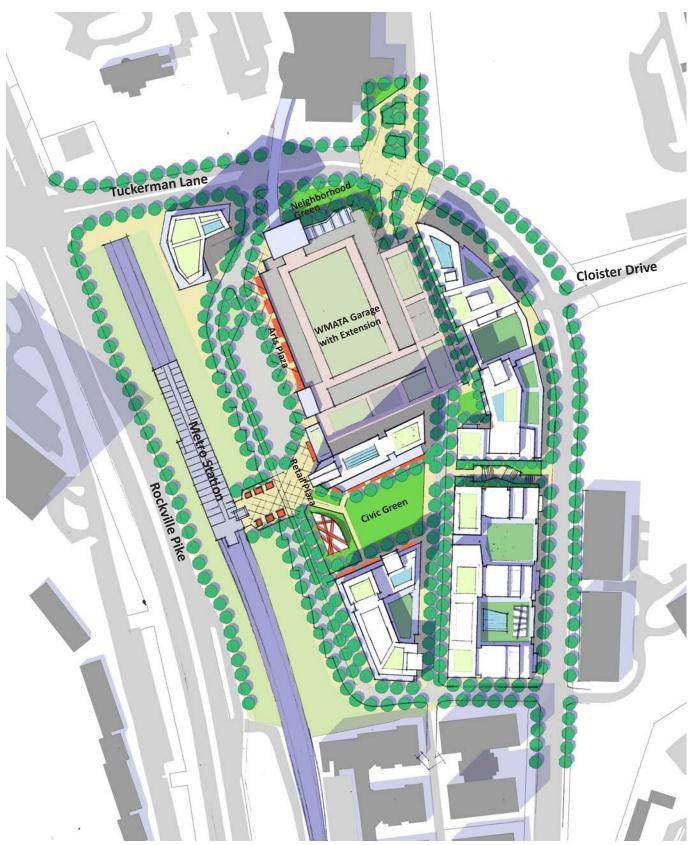


Figure 14: Illustrative Metro site plan (exact configuration of buildings and open spaces to be determined through the Optional Method Site Plan Approval Process under the recommended CR zone).



Figure 15: Illustrative aerial view looking east from Rockville Pike (exact configuration of buildings and open spaces to be determined through the Optional Method Site Plan Approval Process under the recommended CR zone).



Figure 16: Illustrative aerial view looking west (exact configuration of buildings and open spaces to be determined through the Optional Method Site Plan Approval Process under the recommended CR zone).

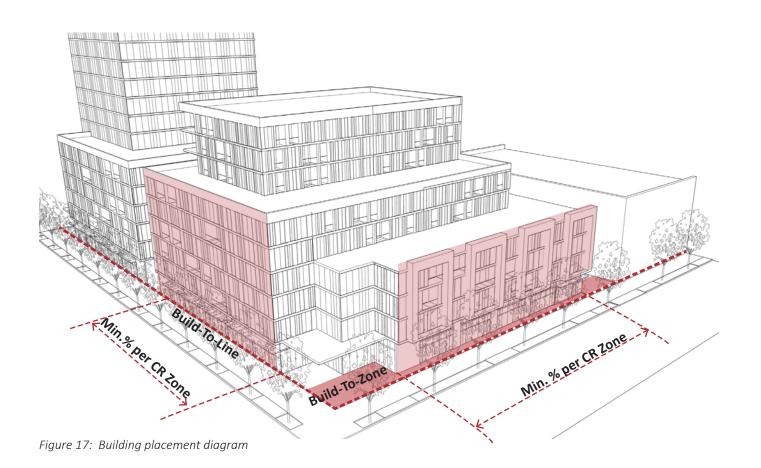
Goal: Locate buildings to frame streets and open space.

Recommendations:

- Place the base of the buildings along the edges of streets, parks and open space to create enclosure of the public realm.
- Locate the façade of the building base within the build-to-area or along the build-to-line per the CR zone development standards.
- Provide greater building setbacks, where appropriate, to improve pedestrian amenities, including more space for tree planting, wider sidewalks, forecourt plazas and other publicly accessible open spaces.

Goal: Ensure that the buildings along streets and open spaces provide a safe and attractive environment for pedestrians.

- Provide individual entrances to units that open onto the street or open space.
- Locate building service activities and parking away from the public realm and public view.
- Provide appropriate sidewalks across driveways.
- Allow a sufficient setback from the curb for adequate Planting/Furnishing Zone with seating and additional planting along non-residential frontages, a Pedestrian Zone for all users and spillover activities, and a Frontage Zone to provide privacy for ground floor units.





Individual entries to ground floor residential units.



Minimal presence of service entries onto the public realm.

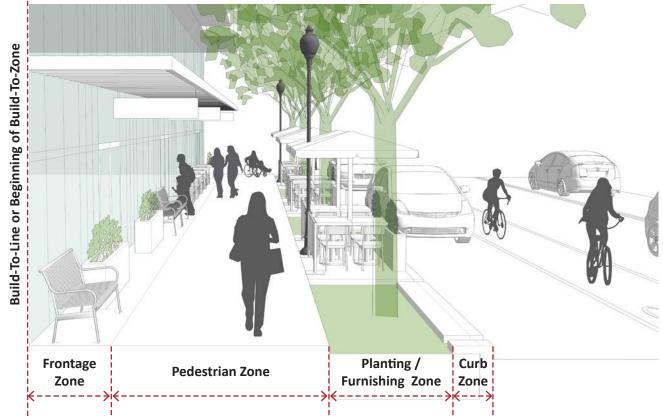


Figure 18: Diagram showing the various zones within a typical sidewalk

Goal: Complement the public open spaces at the Metro site with a range of private open spaces and amenities.

Recommendations:

- Provide a variety of high quality, comfortable, private and shared amenity spaces throughout the Metro site development.
- Locate shared private amenity space to maximize access to sunlight.



Private terraces designed to maximize solar gain.

Context-Sensitive Urban Form

The highest buildings at the Metro site should be located along Rockville Pike, with buildings stepping down to Tuckerman Lane. The Metro site's prominent location along Rockville Pike should be used to locate signature buildings that will become beacons for the Plan area.

All buildings within the Metro site should consist of three carefully integrated parts:

- Building Base: Recommendations regarding building base apply to all buildings within the Metro site.
- Middle Section: These recommendations apply to the portion of all buildings that are taller than four stories.
- Top: These recommendations apply to the tops of buildings taller than 120 feet at the Metro site.

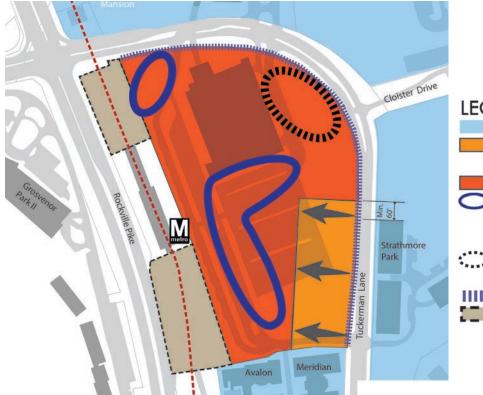
Together, the design of these three components should create structures that deliver adequate density and signature buildings, without compromising the integration of the human scale and pedestrian comfort at ground level.

Goal: Ensure that the existing buildings surrounding the Metro site will not be adversely affected by the new development.

- Locate building heights at the Metro site as illustrated in the height diagram. (Figure 19)
- Step back buildings along Tuckerman Lane as illustrated in the step-back diagram. (Figure 20)



Buildings step back to provide appropriate transition along the street.



LEGEND



Figure 19: Recommended height diagram

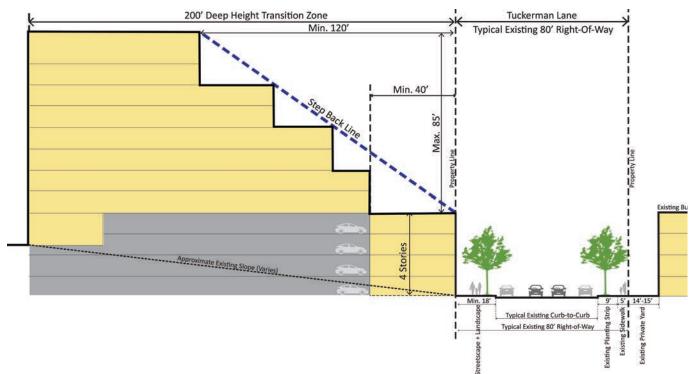


Figure 20: Recommended step back along Tuckerman Lane within the Transition Zone

Goal: Create a human-scale architecture with active ground floors, façade articulation and appropriate transition between public and private spaces.

Recommendations:

- Clearly articulate a low-rise building base of four to five stories that frames the street.
- Line the building base with street-activating uses to promote a safe and animated public realm.
- Avoid large, blank retaining walls.
- Filter and screen views into private dwelling units at the ground floor using additional setbacks



Active commercial ground floor

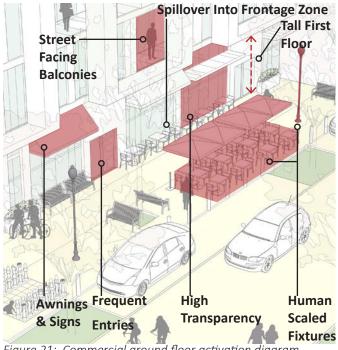


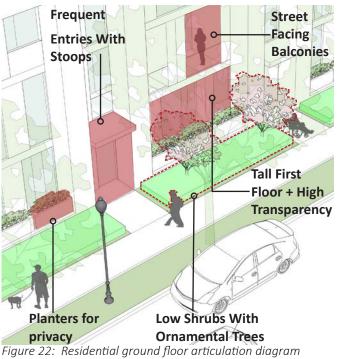
Figure 21: Commercial ground floor activation diagram

and landscaping, but ensure views to streets and open spaces for natural surveillance.

- Provide mid-block pedestrian connections through blocks longer than 500 feet.
- Break down large building masses and façades through façade articulation, materials, fenestration and other techniques to create visual interest within a building's base.
- Utilize architectural elements that enhance the pedestrian experience including stoops, loggias, arcades, covered walks, trellises, canopies over



Well articulated and buffered residential ground floor



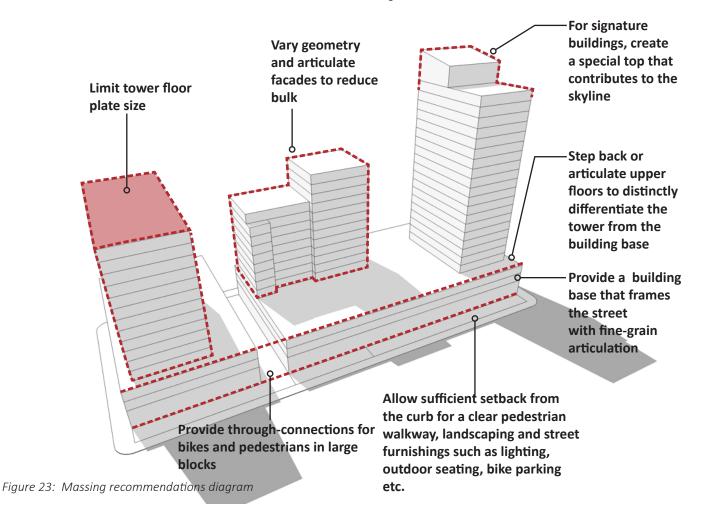
building entrances and drop-off zones and portals acting as a transition between public and private open spaces.

Goal: Create building massing that limits shadows on the public realm, allows sky view and also improves the quality of the indoor environment.

- The size of the tower floor above the building base should prevent the creation of large slab blocks. Towers sharing a common base will be considered as one building for counting signature buildings.
- Differentiate the tower from the building base through step back, cornice line or other façade articulation techniques.
- Create enough distance between towers to allow access to light and air, and limit the impact of shadows on the public realm.



Massing broken down into smaller volumes to reduce bulk



Goal: Signature buildings should create an identity for the Plan area.

- Create aesthetically pleasing building tops that contribute positively to the area's skyline.
- Integrate roof-top mechanical and telecommunications equipment, and amenity space, where appropriate, into the design and massing of the upper floors.



Rooftop equipment is integrated into an iconic top

Placemaking

Throughout the community outreach process, stakeholders expressed a strong desire for public spaces that foster social interaction, preserve natural landscapes, and provide publicly accessible amenities. This Plan proposes the creation of energized public spaces that offer multiple reasons for people to visit and stay, with opportunities for daily interaction, celebration of community identity, and access to retail and recreation.

The redevelopment of the Metro site will be a multiyear process, with different public open space being built at different phases. Temporary interventions can be very effective to create the excitement and activity to help define a place early on, test long-term ideas and establish community interest. The Plan strongly encourages such activities by private developers and public agencies in a coordinated manner.

Goal: Leverage the presence of Strathmore Hall as a unique asset adjacent to the Metro site.

- Integrate public art throughout the Metro site that celebrates music and the performing arts. The following locations should be prioritized:
 - Arts Walk
 - Metro Tunnel and Station Structure facing Rockville Pike
 - WMATA garage facades facing Rockville Pike and Tuckerman Lane
 - New buildings and public spaces
 - Custom and functional bike racks
- Coordinate with Strathmore Hall to hold performances at the proposed Civic Green and Metro entrance plaza.



A performance stage housed within a public art installation



Musical swings installed along bus stops and waiting areas



Public art that enlivens an existing tunnel

Goal: Use short-term improvements and temporary uses for recreation, retail and entertainment events, and to test viability of long-term, permanent installations.

- The private developer, WMATA, and the Montgomery County Department of Parks should explore the potential for the following:
 - Ways to continue pop-up retail activities at the proposed Civic Green, Metro entrance plaza and other public spaces.
 - Creation of temporary "Green Space" and parklets within the WMATA surface lot if excess parking becomes available through the various phases of the development at the Metro site.
 - Weekend programming at the WMATA surface lot with activities such as "Touch a Truck", "Bike Rodeo", etc.
 - Deploying a movable "Placemaking Kit of Parts", including movable chairs and tables, planters, table tennis kit, chess, board games, shade structures, skate tracks etc.



Garage rooftop that is used for concerts during off-peak hours



Temporary activities to energize public spaces

Mobility

RG

Mobility

Situated along Rockville Pike, just north of the Capital Beltway, the Plan area is served by the Metrorail Red Line, five bus routes, sidewalks, bikeways, park trails, as well as arterial and local roads. The Metro Station is currently designated as a turnaround station, which means nearly half of all trains terminate at the station. Four Ride On bus routes converge at the Metrorail station (#6, #37, #46, and 96).

In addition, in July 2016, Montgomery County Ride On launched a new free rapid shuttle service, the Rock Spring Express, that connects the Grosvenor-Strathmore Station to the office campuses at Rock Spring Park. The proposed 355 South Bus Rapid Transit system will connect Bethesda to the Grosvenor-Strathmore Metro Station and the neighborhoods along Rockville Pike to the City of Rockville.

An established network of arterial and local roads serves the Plan area. The Plan recommends further study to identify strategies for improving vehicular circulation in the area. All streets within the Plan area should be designed and constructed to support safety and accessibility for all users.

The vision for the Plan area is a healthy, sustainable, and vibrant transit-oriented development. Creating safe and attractive spaces for walking and biking is vital for achieving this vision. This Plan recommends infrastructure improvements that support future growth and improved connectivity to the surrounding residential neighborhoods. Streetscape and public realm recommendations can be found in the Urban Design chapter.

Transportation Demand Management

The Plan area is in the North Bethesda Transportation Management District (TMD), which promotes strategies to increase the Non-Automotive Driver Mode Share (NADMS). The NADMS is the percentage of employees or residents who commute to work by transit, carpool, walking or biking. According to the 2011-2015 American Community Survey, the NADMS in the area is 41 percent.

Transportation Demand Management (TDM) incorporates programmatic strategies that encourage a shift from single-occupancy vehicles to other travel modes. TDM programs are not based on large infrastructure investments but often rely on a combination of education, information, incentives, services, and existing infrastructure. The Plan area's current NADMS (41 percent) is comparable to downtown Bethesda (42 percent) and is higher than White Flint (31 percent).

Setting a higher NADMS goal for this Plan area is appropriate given its proximity to Metrorail and the fact that the area will be served by a future bus rapid transit route. In addition, mixed-use redevelopment at the Metro station will provide more opportunities for walking, biking, and riding transit. The NADMS goal will be achievable through a combination of land use and zoning requirements, transit improvements, and supportive TDM programs, such as shuttles and bikesharing.

Goal: Achieve a 45 percent Non-Auto Driver Mode Share (NADMS) by 2040 for the Plan area.

- Improve and enhance pedestrian and bicycle connections.
- Support shuttles, such as Rock Spring Express, to fill transportation gaps.
- Employ transportation demand management strategies for the Metro site through the North Bethesda TMD.
 - Allow appropriate densities, mix of uses, and reduction in parking spaces to reduce single-occupancy vehicle usage.



Enhanced bike and pedestrian connections



Car-Share Facility



Bikeshare Facility

Bicycle and Pedestrian Connectivity

Improved bicycle and pedestrian connectivity is an essential component of a comprehensive mobility network designed to reduce reliance on cars. The Plan improves pedestrian and bicycle connectivity through new and improved connections, and emphasizes that all streets should be designed to enable safe connections to nearby destinations for all users. Intersections should be safe to cross at all hours of the day with pedestrianscale light poles and fixtures for sidewalks and bikeways.

There is an existing pedestrian tunnel that residents on the west side of Rockville Pike use to access the Metro. It should be enhanced with improved lighting and signage for the comfort of people walking and biking.

Goal: Improve pedestrian connections to allow people to walk safely and comfortably between destinations.

Recommendations:

- Provide ADA access with crosswalks at Grosvenor Lane and Beach Drive while protecting the critical root zone of a county champion tree at this location.
- Complete sidewalks from Grosvenor Lane to Pooks Hill Road across the Capital Beltway by filling in gaps along the east side of MD 355.
- Consider a full movement, tabletop intersection with special paving on Tuckerman Lane at the traffic light near the WMATA garage entrance to enhance the connection between the Metro Station and Strathmore Hall.
- Enhance the at-grade, mid-block crossing from the Metro station to the ramp leading up to Strathmore Hall.
- Provide adequate crosswalks at all intersections in the Plan area.
- Improve the existing stairway connecting the Metro site to Tuckerman Lane.
- Enhance the tunnel connection under Rockville Pike to the Metro station using lighting, public art and signage.
- Improve pedestrian crossing at Strathmore Avenue and Stillwater Avenue.

Goal: Create a low-stress bicycle network with connections for existing and future residents to the area's key destinations.

- Create a two-way, separated bike lane along Tuckerman Lane within the Plan area. Figure 26 represents the preferred long-term option for Tuckerman Lane. Closer to the intersections with Rockville Pike, the configuration shown in Figure 27 may be utilized.
- Construct a sidepath along Rockville Pike between Edson Lane in the north to Beach Drive in the south to provide access to Rock Creek Trail.
- Construct a sidepath along Grosvenor Lane between Rockville Pike and Old Georgetown Road.
- Construct a sidepath along Strathmore Avenue between Rockville Pike and Beach Drive.
- Connect existing and planned bikeways to the Metro station entrance.
- Connect the Plan area to Rock Creek Park Trail via a pedestrian and bike path along Rockville Pike.
- Study additional connections from the Plan area to Rock Creek Trail.
- Support the MCDOT 2015 Bicycle and Pedestrian Priority Area Plan recommendation to implement a signed-shared roadway on Grosvenor Lane linking the Plan area to the Bethesda Trolley Trail.
- Install wayfinding signs for the Bethesda Trolley and Rock Creek Park Trails.



Precedent showing a pedestrian-friendly table-top intersection

Goal: Enhance bicycle amenities at the Metro Site to create complete streets.

- Provide a Bikeshare at the Metro site.
- Provide a full-service bicycle storage facility located directly adjacent to the Metro station, either in the WMATA parking garage or the redevelopment of the Metro site.
- Explore the feasibility of providing covered bike parking on the west side of MD 355 at the pedestrian tunnel entrance.

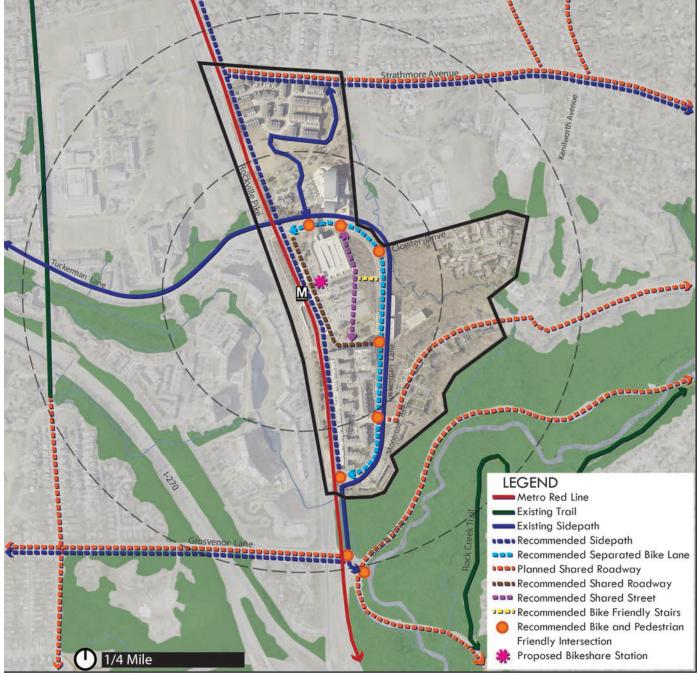


Figure 24: Diagram showing existing, planned and recommended bike connections

MCDOT's restriping project for Tuckerman Lane will provide two one-way bike lanes along Tuckerman Lane. In the long-term, the Plan recommends creating a permanent two-way separated bike lane along Tuckerman Lane. Figure 26 represents the preferred long-term option for Tuckerman Lane. Closer to the intersections with Rockville Pike, the configuration shown in Figure 27 may be utilized. The final configuration of the bike lanes will be decided through the site plan for the Metro site or a capital improvement project for this portion of Tuckerman Lane. The interim and long-term recommendations are illustrated in Figures 25, 26, and 27.



Painted one-way bike lane.

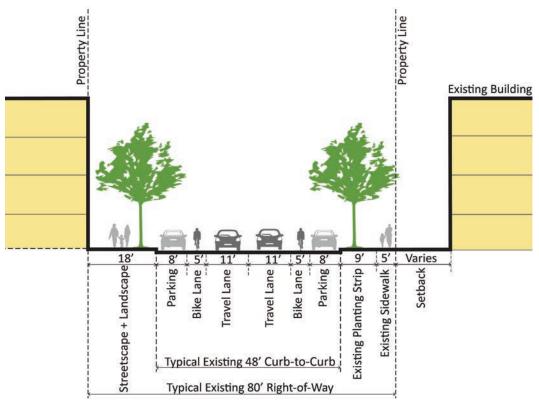


Figure 25: MCDOT's re-striping project section



Separated, two-way bike lane.

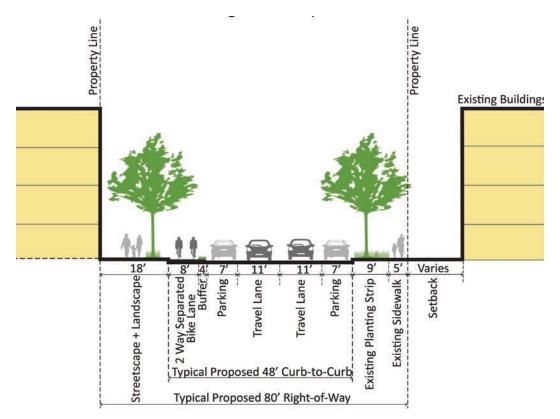


Figure 26: Long term section option#1



Separated, two-way bike lane.

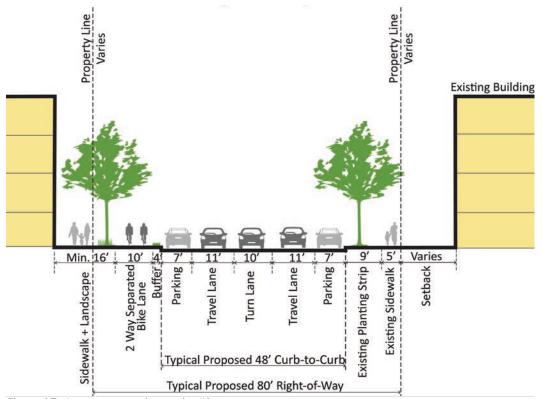


Figure 27: Long term section option#2

Bikeway Classifications

Table 5: Bikeway Classifications

Street/Road	From	То	ID	Status
Sidepath				
Rockville Pike (MD- 355)	Edson Lane	Beach Drive	SP-40	Proposed (East Side. Note: A portion of this sidepath exists between Tuckerman Lane and Beach Drive)
Grosvenor Lane	Old Georgetown Road (MD-187)	Rockville Pike (MD- 355)	SP-46	Proposed (Side TBD)
Tuckerman Lane	Old Georgetown Road (MD 187)	Rockville Pike (MD- 355)	SP-42	Existing
Strathmore Hall	Strathmore Avenue (MD-547)	Tuckerman Lane	SP-11	Existing
Strathmore Avenue (MD-547)	Rockville Pike (MD- 355)	Kenilworth Avenue	SP-45	Proposed (South Side)
Separated Bike Lanes				
Tuckerman Lane	Rockville Pike (MD- 355) at Tuckerman Lane (North)	Rockville Pike (MD- 355) at Tuckerman Lane (South)	SP-43	Proposed
Shared Roadway		÷		
Grosvenor Lane	Cheshire Drive	Rockville Pike (MD- 355)	SR-36	Planned
Strathmore Avenue (MD-547)	Rockville Pike (MD- 355)	Beach Drive	SR-18	Planned
Montrose Avenue	Tuckerman Lane	Weymouth Street	SR-57	Planned
Beach Drive	Grosvenor Lane	Town of Kensington	SR-16	Planned
Flanders Avenue	Rockville Pike (MD- 355)	Strathmore Avenue (MD-547)	PB-41	Planned

Transit Recommendations:

- Support the 2013 Countywide Transit Corridors Functional Master Plan alignments of both the MD 355 South (Corridor 4) and the North Bethesda Transitway (Corridor 6) routes in the Plan area.
- Explore the possibility of creating a layover area for buses on the west side of Rockville Pike to unload passengers who would take the existing below grade passage under Rockville Pike to reach the Metro station.

Roadway Recommendations:

- Study removing the median on Tuckerman Lane and allowing left turns onto Tuckerman Lane from Cloister Drive.
- Explore adding a traffic signal at the intersection of Tuckerman Lane and Cloister Drive.
- Study the intersection of Grosvenor Lane and Rockville Pike to improve clarity and create a connection for eastbound vehicles from Grosvenor Lane to Beach Drive.

Goal: Ensure safe and efficient vehicular circulation at the Metro site.

Recommendations:

- Create a new shared street that extends from the intersection of Strathmore Park Court and Strathmore Hall Street to the traffic light at Tuckerman Lane near the drop-off area for Strathmore Hall. Figure 24 shows the street alignment. The new street should be designed to minimize the segregation of pedestrians, bicyclists and vehicles, and slow traffic speeds.
- Encourage reduced off-street parking to the minimum needed to encourage transit use.

- Create shared parking facilities, where feasible, to limit points of ingress and egress to improve vehicular, bicycle and pedestrian circulation in the area.
- Create signed shared roadway along the Kissand-Ride and bus loop from the Metro station entrance to Tuckerman Lane.

			r				
Street	From	То	Road	ROW	Travel Through		
			Number	(feet)	Lanes*		
Major Highway							
Rockville Pike (MD-	Strathmore Avenue	Grosvenor Lane	M-6	150	6, divided		
355)				(162**)			
Rockville Pike (MD-	Grosvenor Lane	1-495	M-6	200	6, divided		
355)							
Arterial							
Tuckerman Lane	Old Georgetown Road	Rockville Pike (MD-355)	A-71	80	4		
Strathmore Avenue	Rockville Pike (MD-355)	Beach Drive	A-272	80	2		
(MD-547)							
Minor Arterial							
Grosvenor Lane	Cheshire Drive	Rockville Pike (MD-355)	MA-5	70	2		
Business District							
Tuckerman Lane	Rockville Pike (MD-355)	Rockville Pike (MD-355)	B-1	80	2		
Primary							
Montrose Avenue	Tuckerman Lane	Weymouth Street	P-1	60	2		

Table 6: Street Classification

*The number of planned through travel lanes for each segment, not including turning, parking, acceleration, deceleration.

** The Rockville Pike 150-foot right-of-way can be expanded to 162 feet (additional feet to be obtained through reservation).

Sustainability

Sustainability

The Plan area, set in a suburban context, is adjacent to the extensive natural area preserved by the Rock Creek Stream Valley Park and includes a forested Rock Creek tributary stream buffer.

This Plan examines the most feasible sustainable use of land to balance environmental concerns with the demand for new development. While redevelopment will not disrupt important habitats or high quality tree stands, it will lead to the removal of trees and a storm water pond. Concentrating density into compact, mixeduse development at the Metrorail station will help reduce per-capita carbon emissions and help improve air quality. Growth at the station will help reduce sprawl, protecting sensitive land and natural resources further from the urban core. In addition, mixeduse development generally reduces per-unit energy consumption by approximately 40-50 percent due to smaller dwelling units, centralized heating and cooling systems, shared walls and fewer windows.

The Plan aspires to reach a net-zero energy goal at the Metro site where the amount of energy generated balances with the amount of energy consumed through onsite energy generation and building design placement. The Plan's recommendations for sustainability contribute to long-term economic productivity, physical and mental health and well-being, social equity, and efficient use of resources.



The Plan area features residential development set within a natural context



The Station Site has impervious parking lots surrounded by vegetated areas and a stormwater pond



Grounds of the Strathmore Mansion feature dense tree plantings

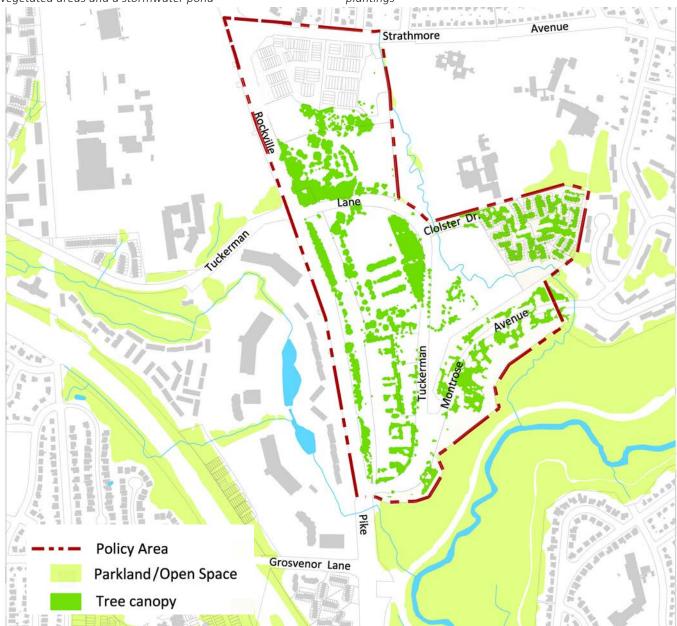


Figure 28: Existing Parkland / Open Space and Tree Canopy

Natural Resources

Sustainable development always begins by identifying and preserving the most important existing natural resources. The most significant natural resources in the Plan area are the forested stream buffer on the eastern edge of the planning area, and the nearly 10-acre forest conservation area surrounding Strathmore Park.

Goal: Preserve, enhance and extend the natural resources throughout the Plan area.

Recommendations:

- Preserve the environmental resources protected by existing preservation easement.
- Protect the critical root zone (CRZ) of the County champion white oak tree when planning and implementing any trail connections or road improvements.
- Incorporate multiple layers of native vegetation in landscaping.
- Plant native vegetation that are highly attractive to pollinators to provide food sources for declining populations of native pollinator species.



Trees along Cloister Drive sit within an existing preservation easement area

Water Quality

The Plan area drains to the lower Rock Creek watershed. Biological monitoring at the sampling station downstream of the Plan area has documented poor to fair water quality over the past two decades, which is typical of older developed watersheds. The loss of forest land and increases in impervious surfaces have contributed to water quality degradation.

Portions of the Plan area are covered with impervious surfaces that seal off the soil layer that naturally filters rainwater and infiltrates it back into the water table to feed streamflow. The area slated for the most significant redevelopment has a particularly high impervious cover, although the land within the overall Plan boundary has a large pervious area. Water quality can be improved by reducing or limiting new impervious areas where feasible, and by intercepting, detaining and treating stormwater and infiltrating it back into the water table.

Stormwater treatment currently exists on the Metro site; however, approaches to stormwater control and treatment have changed significantly since the site was constructed. Redevelopment offers opportunities to update the stormwater treatment and improve water quality flowing to the Rock Creek.

Current stormwater management regulations are designed to mitigate the impacts of development and improve water quality through Environmental Site Design (ESD). ESD is a comprehensive approach to developing the land, which incorporates strategies such as green roofs, underground storage, bioretention and tree planting. Not only will ESD improve water quality, but it can provide green space within the redevelopment.



Existing stormwater pond at the Metro Site



Luxmanor Branch Bethesda Mainstream Kengar Tributaries

Figure 29: Watersheds within and around the Plan area

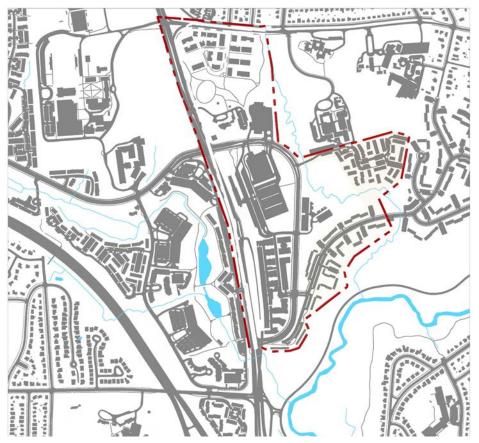


Figure 30: Existing impervious surfaces within and around the Plan area

Impervious Surface

Goal: Reduce and slow untreated stormwater runoff to improve water quality in surrounding streams and creeks.

Recommendations:

- Minimize impervious cover. Use permeable paving for driveways, parking lots and lanes, and sidewalks, where feasible.
- Use native plants that require less watering and fertilization in landscaped areas.
- Encourage trees, plants, and other green features in required open space and public realm.
- Plant street trees for stormwater interception and air quality improvement. Design tree wells to capture and infiltrate runoff, where feasible.
- Encourage use of rainwater for watering planted areas.
- Encourage intensive green roofs with minimum 6 inches of soil depth or greater to maximize water treatment.



Tree planters used for stormwater retention and infiltration



Intensive green roofs can maximize water treatment

Air Quality and Carbon Emissions

The causes of degraded air quality and carbon emissions are closely linked, and recommendations to improve air quality and reduce carbon emissions overlap. Burning fossil fuels to power vehicles, homes, and businesses releases fine airborne particulates that cause and exacerbate respiratory illnesses. Fossil fuel combustion also emits the precursors of ground-level ozone, which is created in sunlight and catalyzed by higher air temperatures. Carbon emissions implicated in climate change are also released when fossil fuels are burned.

There are three main components to greenhouse gas emissions: embodied energy emissions, building energy emissions, and transportation emissions. Embodied emissions are created through the extraction, processing, transportation, construction disposal of building materials and through landscape disturbance (by both soil disturbance and changes in above ground biomass). Building energy emissions are created in the normal operation of a building, including lighting, heating, cooling and ventilation, use of computers and appliances, etc. Transportation emissions are released by the operation of cars, trucks, buses, motorcycles, etc.

Improving urban air quality and reducing carbon emissions involves reducing vehicle miles traveled, reducing building energy consumption, increasing clean energy generation, sequestering carbon, reducing urban heat island effect, and filtering pollutants.

The goals for this Plan focus on minimizing effects of new development. Maximizing density near transit and improving bicycle and pedestrian infrastructure helps reduce vehicle miles traveled, the largest contributor to greenhouse gas emissions. Recommendations for achieving this are located in the Transportation chapter of this Plan.

Carbon Emissions Policy Guidance

Planning for a sustainable future must include strategies for reducing energy demand and carbon output. Montgomery County Code, Chapter 18A-15, requires the Planning Board to model the carbon footprint of planning areas as part of the master plan. The Montgomery County Code Chapter 33A-14 requires the Planning Board to estimate the carbon footprint of the master plan area, and to make recommendations for carbon emissions reductions. Carbon footprint is calculated by estimating the greenhouse gas emissions from construction and operation of the projected development. (See Appendix)

Recommendations to reduce emissions are consistent with recommendations in the Montgomery County Climate Protection Plan (Montgomery County Department of Environmental Protection, January 2009). Transportation recommendations to reduce vehicle miles traveled are found in the Transportation chapter of this Plan.

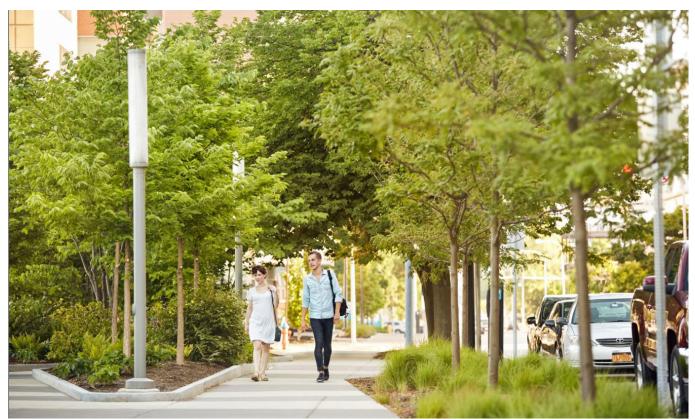
Goal: Sequester carbon, reduce urban heat island.

Recommendations:

- Use native vegetation in landscaping and tree planting.
- Maintain tree cover.

Goal: Promote energy conservation and efficiency.

- Encourage solar panels on buildings, and on parking lots and the top of the parking garages to shade parking spaces and generate clean energy.
- Seek opportunities for on-site renewable energy generation.
- Consider block and building orientation to maximize passive solar heating, cooling, and lighting, and to offer optimal siting for solar energy generation.
- Encourage green roofs to reduce heating and cooling demand.
- Consider building construction design, materials and systems to save energy.
- Design buildings to maximize natural ventilation and air flow.



Increasing street tree planting and native landscapes can help sequester carbon, reduce urban heat island effect and enhance pedestrian comfort

This page intentionally left blank.

Parks &

Open Space

Parks & Open Space

Parks, trails and open spaces enhance the quality of community life by offering visual relief from the built environment, an opportunity to connect with nature, as well as space to gather, play and socialize. In addition, parkland contributes to the natural environment by providing wildlife habitat, improving air quality, and protecting water quality.

Successful community design is anchored by a wellfunctioning open space network, which includes parks, trails and open space, and other components of the public realm. The public realm is broadly defined as those spaces where civic interaction can occur, such as publicly accessible parks, trails, plazas, streets and sidewalks.

Residents in the Plan area benefit from an abundance of private and public green space. Within a quarter-mile of the Plan area, there is significant open space with connections to the nearby Rock Creek and Bethesda Trolley trails. Within the Plan area, a wooded area between Montrose Avenue and Tuckerman Lane consists of trails for surrounding residents to walk and to access the Metro station. The large lawn at Strathmore Hall provides a path, sculpture garden, and summer concert space.

The following local, neighborhood and regional parks are within one mile of the Plan area:

- Druid Drive Neighborhood Park
- Fleming Local Park
- Garrett Park Estates Local Park
- Garrett Park-Waverly Neighborhood Park
- Locust Hill Neighborhood Park
- Maplewood-Alta Vista Local Park
- Rock Creek Stream Valley Park
- Timberlawn Local Park
- Waverly-Schuylkill Local Park
- Wells Neighborhood Park
- White Flint Neighborhood Park

Despite access to these resources, the Plan area lacks recreational amenities and spaces such as ball fields, civic greens, plazas, pocket parks, and connections to trails systems. Adding more density at the Metro will generate the need for additional parks and open spaces of the right size and character to serve residents. Given the various constraints on the site due to WMATA's existing infrastructure and operations, the actual developable area at the Metro site is limited. This further demands that unconventional areas like the rooftops of parking garages, sloped areas and "residual spaces" between buildings be explored to maximize the parks and open spaces that can be created on site.

This Plan envisions a diverse network of parks and open space that preserves and complements existing parks. The 1992 North Bethesda/Garrett Park Master Plan and the 2012 Park, Recreation and Open Space (PROS) Plan, as well as community input during this Plan's outreach efforts, identify the need for flexible, programmable space and active recreation facilities created through private development.



Bethesda Trolley Trail



Rock Creek Trail



Privately owned open space north and northeast of the Metro site

Policy Guidance

The PROS Plan, developed by the Montgomery County Parks Department and approved by the Planning Board, focuses on how the parks and recreation system meets the needs of a growing population. A central component of the PROS Plan is its service delivery strategies to ensure the right parks are put in the right places.

As the County increases the population in existing developed areas, acquiring park sites in growth areas is becoming increasingly difficult because of competition for land. The Urban Park Guidelines, part of the PROS Plan, recommend that a system of parks and open spaces be provided for every urban master plan or sector plan area through a combination of public and private efforts.

Parks and Open Space Hierarchy

(Guidelines from Park, Recreation, and Open Space Plan, 2012)

Each area master plan should include a system of open spaces based on the roles of each type of open space. The amount and size of open spaces may vary from plan to plan and should be directly proportional to the projected density, and adjusted to the pattern of existing open space and other factors such as communityspecific needs.

Open Space Type	Comment on Grosvenor-Strathmore
Active recreation destinations located within or near the plan area, including courts, playgrounds, and lawn areas large enough for pickup soccer, festivals or events.	No such space currently exists in Grosvenor- Strathmore. Garrett Park Elementary has several basketball courts, a playground and an open field (Garrett Park Estates Local Park). These are not open to the public on weekdays. The lawn area adjacent to Symphony Park and the Strathmore partially serves this purpose. This space is owned by Symphony Park, but is programmed by the music center, offering summer concerts, for example.
A central "civic green" urban park (see Chapter 3 of PROS 2012), ranging in size from 1/2 acre to 2 acres, depending on projected densities, located in close proximity to a public transit hub, next to activating uses, with a mixture of hard and soft surfaces including a central lawn area for events.	No central civic open space exists in the Plan area.
An interconnected system of sidewalks and trails to connect parks and open spaces.	Plan area currently lacks safe, comfortable connections to existing trails. While the Rock Creek Trail is within a quarter-mile of the Plan area, access along a substandard sidewalk next to MD 355 is less then desirable. There are no signed or separate bike connections to the Bethesda Trolley Trail.
Wooded areas that will provide a sense of contact with nature.	Rock Creek Stream Valley Park is nearby, which is public. The Plan area also features privately owned wooded areas protected by forest conservation easements.

Table 7: Parks and Open Space Analysis

Goal: Create parks and open spaces that complement area park amenities and provide onsite recreation opportunities for new and existing residents.

- Develop a central Civic Green Urban Park of 1.25 acres at the Metro site. The exact size and configuration of the civic green will be determined during the regulatory review of the project.
 - The Civic Green should be close to the Metro station entrance or be linked to it via another public space such as a plaza.
- Locate a dog park or other active recreation amenity for the community at the open space between the northern edge of the existing Metro garage and Tuckerman Lane.
- Explore public recreation space atop the existing WMATA garage or on the garage expansion with cantilevered deck over the existing garage. Beautify the garage rooftop with landscaping and public art for residents of the proposed residential buildings. Provision of a rooftop amenity is not meant to reduce parking spaces



Civic Green should provide multiple outdoor rooms



Civic Green should be large enough to accommodate community events



Civic Green should have a lawn area with generous tree plantings for shade

needed for Metro users as determined by WMATA.

Goal: Create a network of diverse open spaces that promote social activity.

- Preserve and improve access to mature wooded areas and the Rock Creek Stream Valley Park.
- Promote the use of privately-owned open space throughout the Plan area for events and recreation.
- Create a two-mile "Fitness Loop" with context sensitive activity stations or art installations located along its entire length. Identify loop through wayfinding signs.



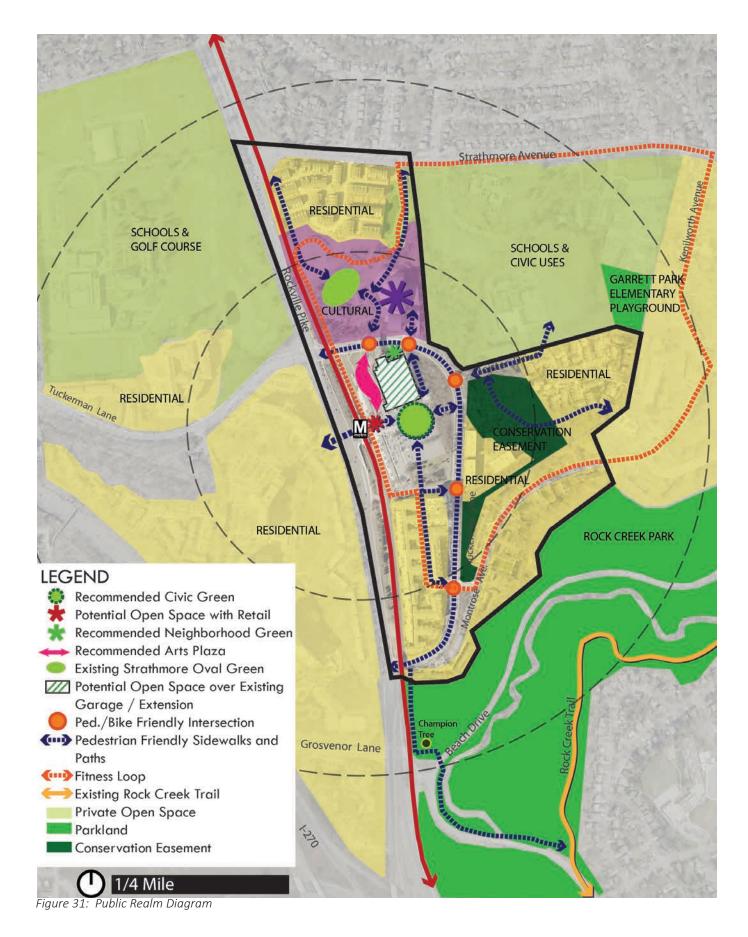
Garage rooftop could be used for community events during off-peak time.



Short term improvements to garage rooftop could provide space for active recreation.



Recreational field over a parking garage.



This page intentionally left blank.

Community Facilities

A. C.

Community Facilities

Community facilities are integral to the safety, wellbeing, education and quality of life of a community. The Plan area is well-served by nearby public safety and recreation facilities, libraries and schools. The Montgomery County Department of Police 2nd District, located on Wisconsin Avenue in Bethesda, provides public safety service to the Plan area. The County's Bethesda-Chevy Chase Regional Service Center provides local services to North Bethesda area residents and will expand to a new satellite office in the new Fire Station 23 located at Randolph Road and Rockville Pike. Bethesda Fire Department - Fire Station 20, and Kensington Volunteer Fire Department – Fire Station 5 serve the Plan area. Fire-rescue resources from other stations respond into the Plan area as needed. These include Rockville Volunteer Fire Department – Fire Station 23, Bethesda Fire Department – Fire Station 26, Bethesda-Chevy Chase Rescue Squad – Fire/Rescue Station 41, and occasionally others depending upon the incident type and availability of resources within the North Bethesda area. The local library is the Kensington Park Library. With the exception of the parks and open spaces mentioned in the Parks and Open Space chapter, this Plan does not recommend any new facilities in the Plan area.

Public Schools

Public schools are an essential component of a vibrant community, both in terms of education and community identity. The Plan area is included in the Walter Johnson School Cluster, and is served by Garrett Park Elementary School, Tilden Middle School and Walter Johnson High School. There are two private schools that border the Plan area: Georgetown Preparatory School, a boarding and day school for boys; and The Academy of the Holy Cross, a Catholic High School for girls.

All three public schools are projected to have enrollment exceeding the 80-100% utilization rate established in Montgomery County Public Schools (MCPS) regulation FAA-RA, Long-range Educational Facilities Planning. Demographic changes in existing residential neighborhoods, anticipated development from other master plans in North Bethesda, as well as future development in this Plan area, will generate additional students at each school level.

The Plan estimates approximately 1,397 new high-rise multifamily housing units for the Metro site. Based on average student generation rates for this area of the county, MCPS estimates that at full build-out, the new housing would result in approximately 76 elementary school students, 30 middle school students, and 43 high school students.

The full impact of the Plan on school enrollment will not occur for many years. In addition, a significant part of projected impact on school enrollment in this cluster will be from development in other areas surrounding the Plan area, and most of them, such as Rock Spring, would likely not achieve full build out in the life of this Plan. School enrollment and capacity in the area also may change over the 20-year time frame of the Plan.

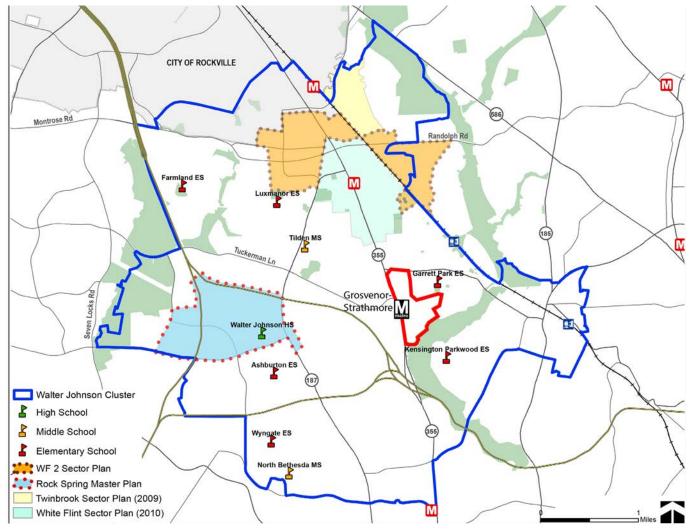


Figure 32: Recent master plans within the Walter Johnson High School cluster

MCPS enrollment forecasts focus on a six-year time frame and are updated regularly. The longer time frame of a master plan makes it more challenging to precisely gauge the impact of the Plan on public schools.

Facility Planning in the Walter Johnson Cluster

MCPS is evaluating a long-term growth management strategy for each school cluster. In 2016, MPCS led a Community Roundtable Discussion Group that explored a wide range of approaches to accommodate near-term and long-term enrollment growth in the Walter Johnson Cluster. As a result of this process, MCPS is leading another work group that will focus on reopening the former Charles W. Woodward High School to provide relief for high schools in the downcounty area. In addition, MCPS has stated that Rocking Horse Center, a former elementary school within the Downcounty Consortium that is currently being used for MCPS administrative offices, could be considered for a large school facility in the future.

MCPS continues to implement its Capital Improvements Program, which provides near-term school capacity through school additions, school re-openings, revitalization/expansion projects, new construction, and school reassignments. Typical approaches that MCPS uses to address enrollment increases at each school level are described below.

Elementary Schools

The following options would be explored for accommodating additional elementary school students from the Plan area:

• Determine if the capacity of existing schools can be increased. At the elementary school level, most Walter Johnson cluster schools already operate above capacity or are projected to do so in the future. Ashburton Elementary School has an addition planned that will increase its capacity to 881 students. Garrett Park and Luxmanor Elementary Schools will be increasingly impacted by build-out of the residential development allowed by the 2010 White Flint Sector Plan that is within their service areas. In addition, other elementary schools in the cluster have been expanded to around 740 capacity recently, or are planned to be expanded over the next few years. Therefore, all cluster schools will be at the high end of the range of student enrollment, with capacities ranging from 729 to 881, and no

further additions will be considered.

- Because additional increases to the capacity of existing elementary schools is not possible, and the magnitude of enrollment growth is considerable, the opening of a new elementary school would be considered. A new elementary school could be provided in one of the following ways:
 - Reopen a former elementary school in the Walter Johnson Cluster. There are several former MCPS elementary schools in the Walter Johnson Cluster that could be reopened, including the former Alta Vista, Arylawn, Kensington and Montrose Elementary Schools. The former Grosvenor Elementary School is also located in the cluster, but is used as a holding facility for schools undergoing revitalization and/or expansion.
 - Adaptively reuse an existing office building for a school facility.
 - Construct a new elementary school on one of the sites identified in surrounding plan areas, including the White Flint Mall property in the 2010 White Flint Sector Plan; a portion of the WMAL property; and/or property in the White Flint 2 Sector Plan.
 - If a site is not provided in the vicinity of the Plan area, and the site at the White Flint Mall is not considered a feasible location, then purchase of an elementary school site could be considered.
- In addition to considering the opening of a new elementary school, options to reassign students to elementary schools adjacent to the Walter Johnson Cluster with available capacity could be considered. Also, if there are schools with small capacities adjacent to the Walter Johnson Cluster, then expansion of these facilities to accommodate additional students through reassignments could be considered. Of the clusters adjacent to the Walter Johnson Cluster, the Winston Churchill and Rockville clusters have elementary schools that have space available and are small and could be expanded. Reassignments to these schools would be considered in the future.

Middle Schools

The following options would be explored for accommodating additional middle school students from the Plan area:

- Determine if the capacity of existing middle schools can be increased. At the middle school level, currently planned expansions of North Bethesda and Tilden Middle Schools will take both schools up to a capacity for around 1,200 students. This increase will address projected enrollment through 2022–2023. However, these expansions are not expected to be large enough to accommodate the full buildout of the 2010 White Flint Sector Plan, let alone additional students from the White Flint 2, Rock Spring areas, as well as this Plan. Options to expand these schools could be explored in the future, perhaps taking them up to 1,500 student capacities.
- If increasing the capacities of existing middle schools in the Walter Johnson cluster, above the planned 1,200 capacities, is infeasible or insufficient to address enrollment increases, then consider whether there is available capacity in middle schools surrounding the Walter Johnson Cluster. The only adjacent cluster with space available at its middle schools is the Winston Churchill Cluster, where both Cabin John and Herbert Hoover Middle Schools are projected to have space available. Reassignments to these schools could be considered in the future.
- If it is not possible to address middle school enrollment increases through expansion of schools in the Walter Johnson Cluster, or through reassignments to middle schools in adjacent clusters, then the opening of a new middle school could be considered. A new middle school could be provided by the following option:
 - Construct a new middle school. There are two future middle school sites near the Walter Johnson Cluster: the Brickyard Middle School site is in the Winston Churchill Cluster; and the King Farm Middle School site is in the Richard Montgomery Cluster. If building a new school at these locations is not considered feasible, then the purchase of a middle

school site could be considered.

High Schools

The following options would be explored for accommodating additional high school students from this Plan area:

- Build an addition at Walter Johnson High School. The high school currently has a capacity of 2,335 students. Long-term enrollment projections for the school show enrollment reaching 3,500 students by the year 2045. This projected enrollment does not include any of the students that would be generated by White Flint 2, Rock Spring, or this Plan. If the high school capacity was increased to 3,500 students or more, it may be possible to accommodate the build-out of these plans.
- A second approach being considered to address high school enrollment growth in the Walter Johnson Cluster is the reopening of the former Woodward High School on Old Georgetown Road, located between the Rock Spring and White Flint 2 plan areas. By reopening this facility, and expanding it over time, it is thought that all the high school enrollment increases from the 2010 *White Flint Sector Plan*, the White Flint 2 Sector Plan, Rock Spring Master Plan and this Plan could be accommodated. An addition at Woodward could take the school up to a 2,400 student capacity.
- Beyond the approaches mentioned above, reassignment of students from the Walter Johnson Cluster to high schools with available capacity, or with the ability to have their capacities increased, could be considered. Currently, most high schools adjacent to the Walter Johnson Cluster are projected to have enrollments above their capacities, and will already be built out to the high end of the desired enrollment size of 2,400 students. The exception to this situation is Rockville High School. Although this school is projected to be fully enrolled in the next six years, with a capacity for 1,570 students it is relatively small by current standards. If an addition could be built at this high school, then reassignment of students to the high school could be considered in the future.

This page intentionally left blank

Implementation

die manau

Implementation

The Plan's recommendations will be implemented through several public and private initiatives, including zoning and other county codes, the county and state's Capital Improvements Plan(CIPs), the Transportation Management Agreement for any new development in the Plan area through the North Bethesda Transportation Management District, and the county's Subdivision Staging Policy. After the adoption of this Plan, the Zoning recommendations will be applied through a Sectional Map Amendment.

Zoning

In 2014, Montgomery County adopted a new Zoning Ordinance, which established new zones and discontinued several zones in the Plan Area. The Commercial Residential (CR) zones permit a mix of residential and commercial uses where appropriate with height, form and placement standards to achieve the vision of the zone.

Public Amenities and Benefits

Public benefit amenities are required for optional method development in CR zones. Optional method development is a zoning procedure that encourages comprehensive planning and mixed-use development where higher densities are allowed in exchange for significant public amenities.

Any optional method development of more than 0.5 FAR in the CR zone must provide public benefits from a minimum of three to four (depending upon the size of the lot or the development) of the following categories:

- Major Public Facilities
- Transit Proximity
- Connectivity and Mobility
- Diversity of Uses and Activities
- Quality Building and Site Design
- Protection and Enhancement of the Natural Environment
- Building Reuse

The following public benefit categories are priorities for this Plan area:

Public Open Space

The provision of a new civic green, recreation area atop WMATA garage, and fitness loop.

Exceptional Design

Quality building and site design, including but not limited to, exceptional design and public open space.

Connectivity

Connectivity and mobility improvements including but not limited to, minimum parking, trip mitigation, bicycle and pedestrian infrastructure.

Sustainable Development

Protection and enhancement of the natural environment, including but not limited to, tree canopy, energy conservation and energy generation.

This list of priorities does not preclude consideration of other public benefits, as listed in the Zoning Ordinance, to achieve the maximum permitted FAR. All public benefits requested by the developer will be analyzed to make sure they are the most suitable for the Plan area, they are consistent with the Plan's vision, and that they satisfy the changing needs of the area over time.

Staging

It is anticipated that full buildout of the Metro site will occur in phases over a long time. And although the Staff's traffic modeling analyses demonstrated that, with some mitigation improvements, the road network

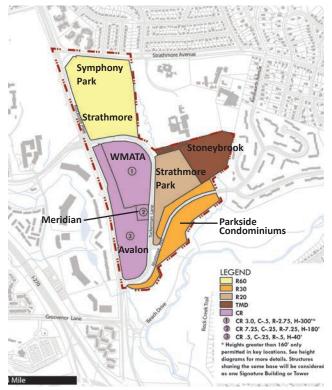


Figure 33: Recommended Zoning Map

Property	Acres	Existing Land Use	Existing Zone	Proposed Zone
Strathmore	11	Civic	R- 60	R- 60
Symphony Park	18.61	Residential –Single Family Attached	R- 60	R- 60
WMATA	14.88	Transit Station, Parking	R- 60	CR- 3.0 C-0.5 R-2.75 H300
Stoneybrook	12.27	Residential – Single Family Attached	RT- 12.5	TMD
Avalon	8.73	Residential – Multi- family	PD- 25	CR5 C-0.25 R5 H- 40
Meridian	1.12	Residential – Multi- family	PD- 25	CR- 7.25 C-0.25 R-7.25 H-180
Strathmore Park	12.86	Residential – Multi- family	PD- 25	R- 20
Parkside Condominiums	14.89*	Residential – Multi- family	R- 30	R- 30

Table 8: Existing and Proposed Zoning

*Acres within Plan area.

would be able to adequately support the estimated traffic increase, especially at the nearby intersection of Tuckerman Lane and Rockville Pike (the intersection most impacted by the projected increase in traffic), this Plan recommends that a traffic study should analyze the adequacy of the area road network before the full buildout of the recommended growth in this Plan. Therefore, the construction of any development in excess of 1.6 million square feet on the Metro site must submit an additional traffic study to assess the capacity and adequacy of the road network to support the full buildout of the Plan.

Subdivision Staging Policy

The Subdivision Staging Policy (SSP) makes sure that new development allowed in a master plan will have the public and private infrastructure needed to support the approved development. It is a set of policy tools that guide the timely delivery of public facilities (schools, transportation, water, sewer, and other infrastructure) to serve existing and future development. These policy tools are the guidelines for the administration of the Adequate Public Facility Ordinance (APFO).

The SSP's main focus is on the timing or staging of development and public facilities and comes into play primarily during the regulatory process. Its purpose is to evaluate individual proposals for development, determining if the transportation network and schools have sufficient capacity to accommodate the additional demand.

The 2016 SSP contains new ideas that essentially rethink how we approach evaluating transportation and school adequacy. It provides a more context-sensitive, multimodal approach to both the regional and local tests for transportation, and aims to forge a better connection between the individual school experience and its measure of adequacy. It also includes information about environmental sustainability and the growing need for urban parks that could be addressed in future policies.

County Capital Improvements Program

The Capital Improvements Program (CIP), which is funded by the County Council and implemented by County agencies, establishes how and when construction projects are completed. The CIP cycle starts every two years when regional advisory committees and the M-NCPPC hold forums to discuss proposed items for the six-year CIP.

Infrastructure included in the Plan could be funded either through the CIP, the Metro site redevelopment, related projects, public-private partnership or developer initiative/contribution.

Elected and Appointed Officials

County Council

Roger Berliner, President Hans Riemer, Vice President Marc Elrich Nancy Floreen Tom Hucker Sidney Katz George Leventhal Nancy Navarro Craig Rice

County Executive

Isiah Leggett

The Maryland-National Capital Park and Planning Commission

Casey Anderson, Chair Elizabeth M. Hewlett, Vice Chair

Commissioners

Montgomery County Planning Board

Casey Anderson, Chair Marye Wells-Harley, Vice Chair* Gerald R. Cichy Norman Dreyfuss Natali Fani-Gonzalez

Prince George's County Planning Board

Elizabeth M. Hewlett, Chair Dorothy F. Bailey, Vice Chair William M. Doerner Manuel R. Geraldo A. Shuanise Washington

*former commissioner

Planning Process

A plan provides comprehensive recommendations for the use of publicly and privately owned land. Each plan reflects a vision of the future that responds to the unique character of the local community within the context of a countywide perspective. Together with relevant policies, plans should be referred to by public officials and private individuals when making land use decisions.

The WORKING DRAFT PLAN is prepared by the Montgomery County Planning Department for presentation to the Montgomery County Planning Board. The Planning Board reviews the Working Draft Plan, makes preliminary changes as appropriate, and approves the Plan for public hearing. After the Planning Board's changes are made, the document becomes the Public Hearing Draft Plan.

The PUBLIC HEARING DRAFT PLAN is the formal proposal to amend an adopted master plan or sector plan. Its recommendations are not necessarily those of the Planning Board; it is prepared for the purpose of receiving public testimony. The Planning Board holds a public hearing and receives testimony, after which it holds public worksessions to review the testimony and revise the Public Hearing Draft Plan as appropriate. When the Planning Board's changes are made, the document becomes the Planning Board Draft Plan.

The PLANNING BOARD DRAFT PLAN is the Planning Board's recommended Plan and reflects their revisions to the Public Hearing Draft Plan. The Regional District Act requires the Planning Board to transmit a master plan or sector plan to the County Council with copies to the County Executive who must, within sixty days, prepare and transmit a fiscal impact analysis of the Planning Board Draft Plan to the County Council. The County Executive may also forward to the County Council other comments and recommendations.

After receiving the Executive's fiscal impact analysis and comments, the County Council holds a public hearing to receive public testimony. After the hearing record is closed, the relevant Council committee holds public worksessions to review the testimony and makes recommendations to the County Council. The Council holds worksessions, then adopts a resolution approving the Planning Board Draft, as revised.

After Council approval, the plan is forwarded to The Maryland-National Capital Park and Planning Commission for adoption. Once adopted by the Commission, the plan officially amends the master plans, functional plans, and sector plans cited in the Commission's adoption resolution.

Acknowledgements

Gwen Wright, Director Rose Krasnow, Deputy Director

Project Team

Area 2 Division

Glenn Kreger, Chief* Khalid Afzal, Acting Chief Nancy Sturgeon, Master Planner/Supervisor Maren Hill, Lead Planner Mike Bello, Lead Planner and Urban Design* Renee Kamen, Lead Planner* Atul Sharma, Urban Design Steve Findley, Environmental Planning Aaron Zimmerman, Transportation Planning* Dan Janousek, Transportation Planning

Functional Planning and Policy Division

Pam Dunn, Chief Eric Graye Jaesup Lee Tom Autrey **Research and Special Projects Division** Caroline McCarthy, Chief Robert Ruiz Rick Liu Lisa Govoni Lisa Tate

Park Planning, Department of Parks

Brooke Farquhar* Charles Kines

Management Services

Deborah Dietsch, Editor Bridget Schwiesow Chris Peifer Kevin Leonard

*former staff member

