areas and enclaves

The areas and enclaves are the portions of this Plan outside of the Life Sciences Center.

The areas include the western communities of Quince Orchard and the McGown property that are contiguous to County land. Over time, due to municipal annexations, enclaves have been created—geographic areas that are within the County's jurisdiction, but are completely or nearly completely surrounded by a municipality.

Five of the enclaves areas are within the City of Gaithersburg and one (Hi Wood) is within the City of Rockville:

- The National Institute of Standards and Technology (NIST) and Londonderry and Hoyle's Addition
- Rosemont
- Oakmont and Walnut Hill
- Washingtonian Residential
- Washingtonian Light Industrial
- Hi Wood

For the most part, these areas are built-out with stable, mature residential neighborhoods, long-term institutional uses, or light industrial uses. While significant change is not anticipated or recommended for most of these areas, this section highlights several issues. Existing land use and zoning maps for the Plan area are included in this section.

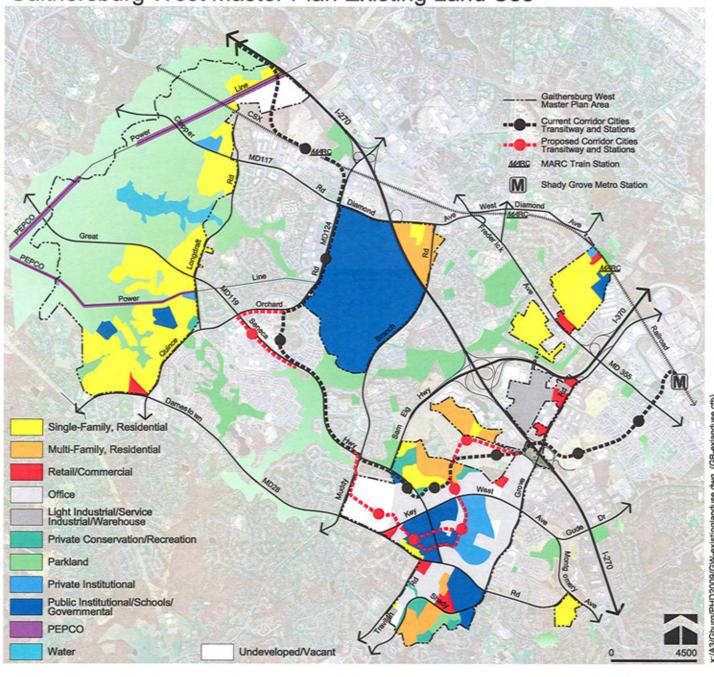
Areas

Quince Orchard

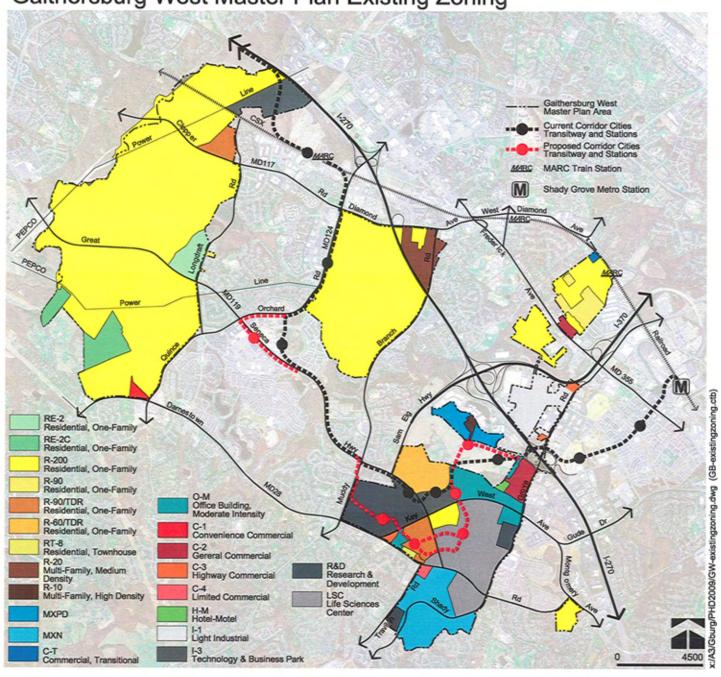
The communities in the westernmost part of the Plan area are Quince Orchard, Orchard Hills, Willow Ridge, and Parkridge. The Plan recommends that these residential neighborhoods be maintained and preserved.

Quince Orchard and Longdraft Roads divide the County from the City of Gaithersburg. The City's 2009 Maximum Expansion Limits (MEL) include extensive areas in the vicinity of Quince Orchard. This Plan does not support annexation, which would alter the logical boundaries that currently divide the County and the City and could result in the loss of potential sites for County parks, as occurred when the Crown Farm was annexed into the City of Gaithersburg.

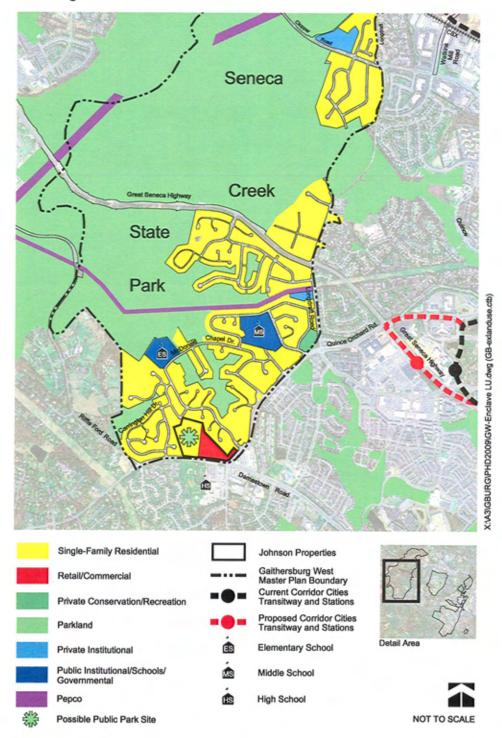
Gaithersburg West Master Plan Existing Land Use



Gaithersburg West Master Plan Existing Zoning



Existing Land Use: Quince Orchard



Parks are essential components of community life that protect the environment, establish neighborhood identity, and provide valuable recreational opportunities. They should be designed as part of a comprehensive open space system that supports recreation, a sense of place, and a sustainable community.

The Quince Orchard Area includes:

- Seneca Creek State Park (1,842 acres)
- Orchard Neighborhood Park (12.3 acres) Carrington Hill Drive
- Quince Orchard Valley Neighborhood Park (89.2 acres) Suffolk Terrace

The Countywide Park Trails Plan proposes a 250-mile interconnected system of hard surface and natural surface trails in eight greenway corridors. The Seneca Greenway Corridor forms the Plan area's western boundary and provides a continuous 25-mile natural surface trail along Seneca Creek between the Potomac and Patuxent Rivers. Connections to Seneca Greenway Corridor from Quince Orchard Valley Neighborhood Park should be provided.

The Land Preservation, Parks, and Recreation Plan (LPPRP) provides recommendations and policy guidelines for future park development. The LPPRP noted the need for additional recreation facilities in the I-270 Corridor including four rectangular fields.

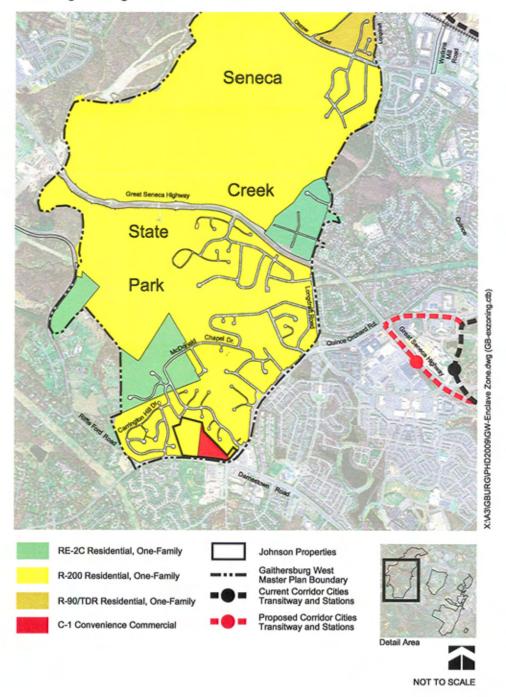
The 1985 Gaithersburg Vicinity Master Plan and the 1990 Shady Grove Study Area Master Plan both recommended a 10-acre local park on the Crown Farm, which has since been annexed into the City of Gaithersburg and is no longer available for a County park site. Consideration should be given, but not limited to the Johnson property at 12311 Darnestown Road. The Johnson family owns the largely vacant R-200 14-acre parcel on Darnestown Road along with the adjacent C-1 commercial property. If the Johnson's R-200 parcel is not acquired as an active recreation park site, the parcel may be appropriate for residential use including single family detached and townhouse units. Townhouse development could be requested through a Local Map Amendment. Ideally, a new park would provide two rectangular fields for active recreation.

Longdraft Road

In 2008, the Montgomery County Department of Transportation (MCDOT) completed a Facility Planning Study of Longdraft Road between Clopper and Quince Orchard Roads and made recommendations for upgrades. The County Council chose not to proceed with Phase II of the Longdraft Road facility plan.

Longdraft Road is currently two lanes, and for most of its length it has no curbs, gutters, shoulders, or sidewalks. Along the 1.5-mile stretch that was studied, 30 residential driveways and 13 intersections result in a large number of turning movements. Due to travel demand forecasts and the extension of other area roads, improvements to Longdraft Road may be needed to reduce existing and future congestion and improve vehicular and pedestrian safety. This Plan recommends that Longdraft Road be retained in the *Master Plan of Highways* as a four-lane arterial road.

Existing Zoning: Quince Orchard



Recommendations

- Retain the existing residential and commercial zones and maintain the established character of these neighborhoods.
- Address the demands for active recreation in this area by acquiring land for a local public park.
- Provide a natural surface trail connecting Quince Orchard Valley Neighborhood Park to the Seneca Greenway Corridor.
- Retain Longdraft Road as a potential four-lane arterial road.
- Promote planting street trees and neighborhood trees.

McGown Property

The McGown property is a largely undeveloped tract south of I-270 and adjacent to the City of Gaithersburg. It includes a 65-acre parcel zoned I-3 Zone and a 10-acre parcel zoned R-200. Access is currently via Game Preserve Road, a narrow, two-lane road adjacent to Seneca Creek State Park that includes a one-lane tunnel under the CSX tracks.

The property contains mature forest, some of high quality. Tributary streams flow to Seneca Creek across the property and are priorities for restoration or retrofit. The 10-acre parcel features steep slopes, a mature oak-hickory forest with birds common to an interior woodland, as well as mature mountain laurel in the understory with a minimal presence of invasive species. The Plan recommends that this high quality forest be preserved through a forest conservation easement or other method to be determined through the development review process.

The proposed CCT is planned to run diagonally across the McGown property, with a stop co-located with the MARC Metropolitan Grove Station. A CCT maintenance facility is also being considered adjacent to the CSX rail line.

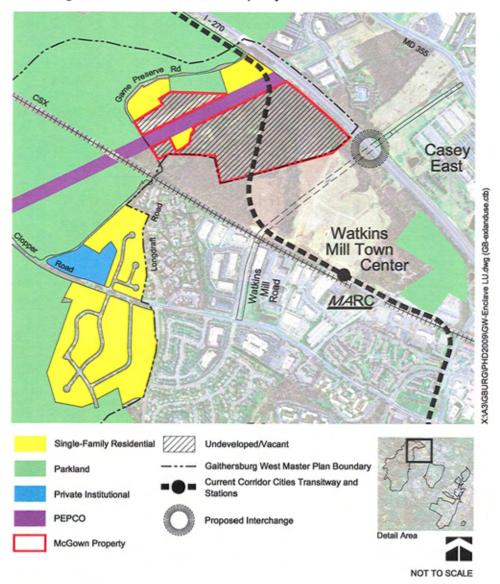
The City of Gaithersburg has approved two mixed-use developments adjacent to the McGown property: Watkins Mill Town Center to the south and Casey East between I-270 and MD 355. The Town Center project includes a 27-acre city park and the Casey East project includes a site for the 6th District Police Station. To provide access to the City's mixed-use developments, several new roadway improvements would be required, including access ramps to I-270 that extend onto the McGown property.

The McGown property is within the City of Gaithersburg's Maximum Expansion Limits (MEL). Since this property is somewhat isolated and disconnected from any centers of growth planned in the County, annexation into the City of Gaithersburg may be appropriate. Annexation would allow for a comprehensive and coordinated development that would be compatible with the adjacent mixed-use projects approved by the City of Gaithersburg. This Plan supports a moderate density, mixed-use development on the McGown property.

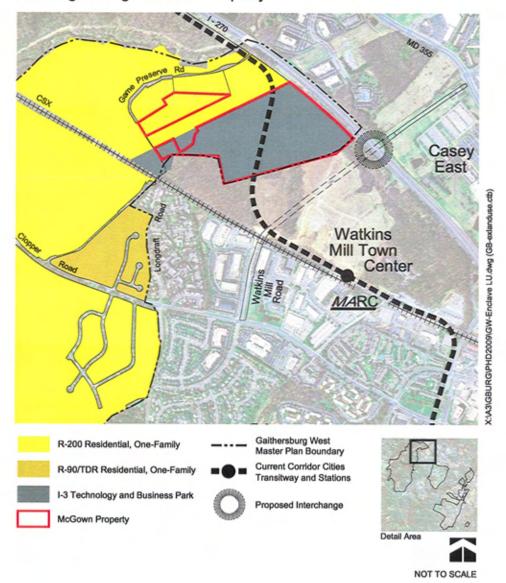
Recommendations

- Coordinate planning with the City of Gaithersburg.
- Consider the Planned Development Zone at a moderate density (10-15 units per acre).
- Preserve the property's natural resources, particularly the high quality, mature forest on the 10-acre parcel.
- Preserve and create connections to Seneca Creek State Park.
- Provide right-of-way for Watkins Mill Road extended.

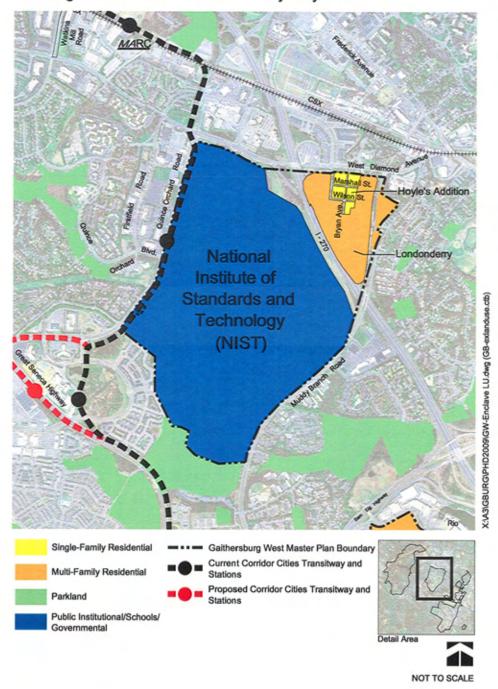
Existing Land Use: McGown Property



Existing Zoning: McGown Property



Existing Land Use: NIST/Londonderry-Hoyle's Addition



- Establish access points to the McGown property from Watkins Mill Road extended.
- Provide off-ramp right-of-way for the proposed new interchange at I-270 and Watkins Mill Road.
- Establish and provide CCT right-of-way and provide for a transit station co-located with the MARC station in the City of Gaithersburg.

Enclaves

The five enclaves that are completely or nearly completely surrounded by the City of Gaithersburg are all within the City's Maximum Expansion Limits (MEL) and could be considered for annexation. This Plan does not recommend significant changes for these areas.

National Institute of Standards and Technology (NIST)

NIST is a federal agency that promotes innovation and industrial competitiveness by advancing measurement sciences, standards, and technology. NIST researchers work with industry, academic institutions, and other government agencies. The 580-acre Gaithersburg facility has 3.4 million square feet in a campus style research, development, and office complex. There are no plans to significantly expand the facility, which is zoned R-200.

A CCT station is planned on the western side of the NIST facility. With 5,000 employees (2,700 permanent and 2,300 contract), this station offers an opportunity to change commuting patterns and is an important link in the future public transit network.

Recommendations

- Coordinate with NIST to plan for the proposed CCT station along Quince Orchard Road.
- Refer all plans for development at NIST, including campus master plans, to the Montgomery County Planning Board as part of the mandatory referral process.
- Preserve mature trees and forest.
- Target stream buffer areas for forest planting and removal of invasive plants.

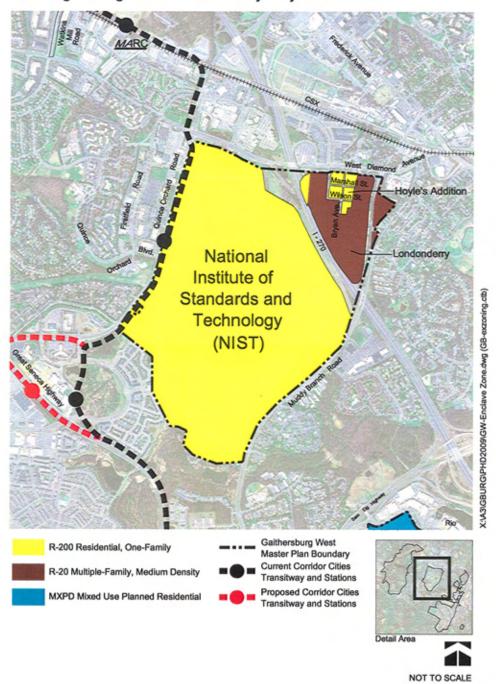
Londonderry and Hoyle's Addition

Both the Londonderry and Hoyle's Addition areas are appropriate for annexation into the City of Gaithersburg. Hoyle's Addition may be appropriate for townhouse zoning in the future. Any future development should provide appropriate transitions to the surrounding residential areas and protect the natural features.

Recommendations

- Annexation of these areas into the City of Gaithersburg is logical and consistent with the City's MEL.
- Maintain the existing zoning.
- Target stream buffer areas for forest planting and removal of invasive plants.
- Use low-impact development techniques to minimize runoff to stream systems.

Existing Zoning: NIST/Londonderry-Hoyle's Addition



Rosemont, Oakmont, and Walnut Hill

These primarily residential communities have little development potential and the stable residential areas should be preserved. Several recommendations for this area reflect consistency with the 2006 *Shady Grove Sector Plan*, particularly removing the CSX Transitway easement along Oakmont Avenue and maintaining Oakmont Avenue as a two-lane arterial.

The 1982 Oakmont Special Study Plan recommended the C-T Zone for several single-family houses along Oakmont Street at its intersection with Oakmont Avenue near the CSX tracks. The C-T option was intended to buffer the single-family houses from the proposed transit easement north of the CSX tracks and from the possible widening of Oakmont Avenue to four lanes. Given the recommendations to remove the transit easement and maintain Oakmont as two lanes, this Plan recommends removing the proposed C-T option.

Deer Park Bridge

Deer Park Bridge, known as the Humpback Bridge, was built in 1945 and added to the *Locational Atlas and Index of Historic Sites* in 2005. The bridge spans the CSX railroad tracks, providing a connection between Gaithersburg and the historic Town of Washington Grove. The bridge is near the Washington Grove MARC station and reflects the origin and development of Washington Grove, Oakmont, and Gaithersburg. As a local landmark, the Humpback Bridge is a familiar visual feature. A timber bridge has been at this location since the 1880s. The bridge was rehabilitated in 1988 and 2000.

The bridge is maintained by the Montgomery County Department of Transportation (MCDOT), which evaluated its structural condition in 2008. Replacement of beams is scheduled for 2009. MCDOT initiated a facility planning study several years ago, which has been delayed due to concerns raised by the City of Gaithersburg and the Town of Washington Grove. This Plan supports the ongoing efforts of MCDOT to assess the bridge's condition and explore appropriate alternatives, including rehabilitation or replacement that address safety, mobility, preservation, and fiscal considerations.

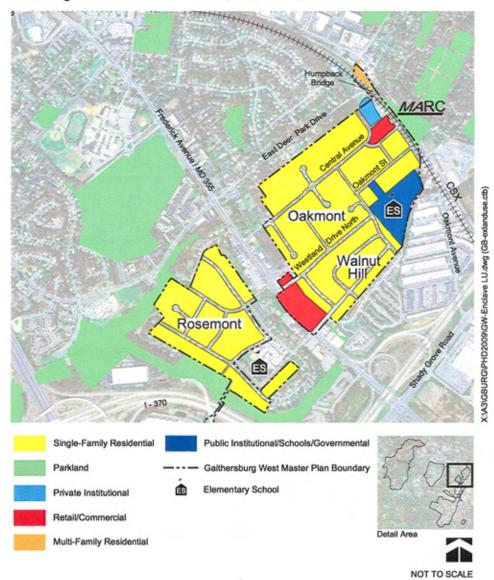
A life cycle cost analysis is also being conducted by MCDOT to compare bridge rehabilitation with bridge replacement. MCDOT will share the result of the life cycle cost analysis with the City of Gaithersburg and Town of Washington Grove, and then conclude the Deer Park Drive Bridge Facility Planning Study.

Future restoration or rehabilitation work should preserve the bridge's form, scale, and location. The traditional use of wood is important, but materials should be considered with some leniency. If deemed unsuitable for further rehabilitation for vehicular traffic, new uses may be identified that would be compatible with its preservation, including exclusive use by bicyclists and pedestrians. Heritage tourism goals include a railroad theme that could connect with this resource.

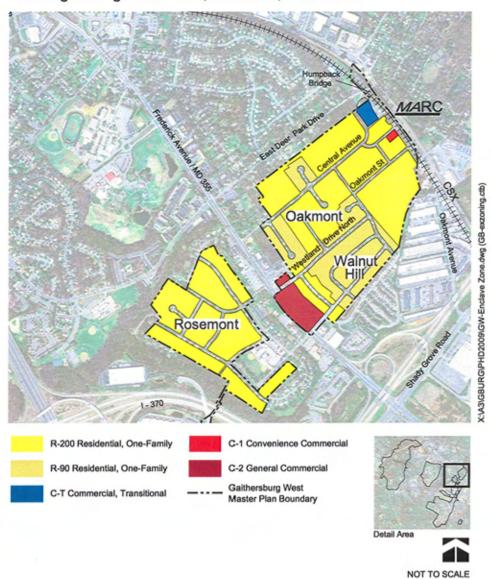
Recommendations

- Remove the proposed C-T zoning option on the R-200 properties in the vicinity of Oakmont Street.
- Designate Oakmont Avenue from the southern Plan boundary to Central Avenue with an 80-foot minimum right-of-way and two travel lanes, consistent with the 2006 Shady Grove Sector Plan.
- Remove the CSX Transitway easement along Oakmont Avenue, consistent with the 2006 Shady Grove Sector Plan.

Existing Land Use: Rosemont, Oakmont, Walnut Hill



Existing Zoning: Rosemont, Oakmont, Walnut Hill



- Improve stormwater management, reduce impervious surface, increase street tree planting, and incorporate other low impact development and green building techniques if the Walnut Hill Shopping Center redevelops.
- Preserve and create connections following Muddy Branch parallel to Central Avenue.

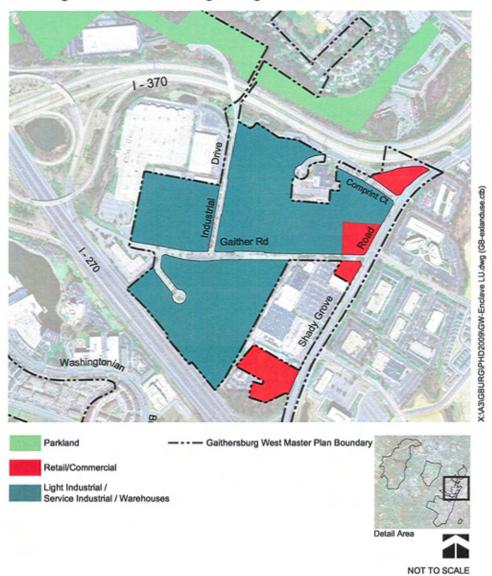
Washingtonian Light Industrial Park

This 103-acre enclave is a light industrial area primarily zoned I-1 with a few C-3 parcels. The Shady Grove Center north of Gaither Road was built in 1971 and has 108,000 square feet of retail space on a six-acre site.

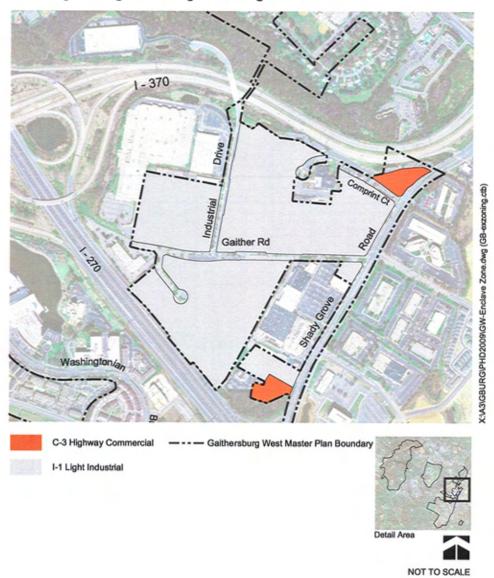
Recommendations

- Consider future commercial mixed-use redevelopment of the Shady Grove Center.
- Retain the I-1 Zone and the C-3 Zone for all other properties in the Washingtonian Light Industrial Park.
- Reduce imperviousness, improve stormwater management, and implement other green building techniques if there is redevelopment.

Existing Land Use: Washington Light Industrial Park



Existing Zoning: Washingtonian Light Industrial



implementation

This Plan recommends implementation strategies for zoning and staging public facilities and infrastructure, and provides guidance for regulatory review.

Zoning

The Life Sciences Center (LSC) Zone

For the LSC to achieve its potential, this Plan recommends retaining the LSC Zone but modifying it to reflect contemporary standards, contribute to preserving the Agricultural Reserve through Building Lot Termination (BLT) easements, and allow more density and uses without diminishing the area's primary mission as a medical and biotechnology hub. The original LSC Zone and the R&D Zone are similar and both zones were applied to properties in the LSC through the 1996 Sectional Map Amendment. This Plan recommends using a single zone for properties where life science uses are encouraged. The revised LSC Zone preserves the zone's primary purpose while introducing additional uses to help transform the LSC from a single-use research park into a more vibrant center. After the Plan is approved and adopted, along with a text amendment revising the LSC Zone, the zoning changes will be implemented through a Sectional Map Amendment.

Commercial Residential (CR) Zones

The proposed CR Zones allow a wide range of uses and require the designation of four elements: total allowed floor area ratio (FAR), maximum commercial/non-residential (C) floor area ratio, maximum residential (R) floor area ratio, and maximum building height (H). The CR Zone is applied through a Sectional Map Amendment consistent with the recommendations of a sector or master plan.

The CR Zone has two methods, standard and optional. The standard method allows up to 0.5 FAR and requires compliance with a specific set of development standards. The optional method allows for greater density and height when supported by additional public benefits, facilities, and amenities. The additional density may be achieved through a series of incentive increases that can be combined to achieve the maximum allowable density.

The CR Zone allows contributions to a fund for off-site amenities that benefit the public, subject to Planning Board approval. These projects must be identified in a master or sector plan and appear in the CIP for contributions to be made. The following list of projects would be eligible for private sector contributions.

- Design and construct the public local park (the park/school site) on LSC West (PSTA).
- Design and construct the public civic green space on LSC West (PSTA).
- Design and construct two rectangular fields recommended in the buffer area on the Belward site.
- Fund a study of adaptive reuse options for the historic Belward Farm buildings.
- Provide and construct a publicly accessible research library focused on science and biotechnology.
- Construct portions of the LSC Loop, including trails in stream valleys that connect to the main path as well as to other destinations, open spaces, and activities in the LSC area.

Concept Plans

This Plan recommends that the largest property owners (20 acres or more) surrounding the proposed CCT stations submit Concept Plans that demonstrate how their sites will achieve the Plan's vision, including placing the highest densities and building heights at the stations, providing a mix of uses,

creating a local street network, providing appropriate neighborhood buffers, creating the LSC Loop, preserving historic properties, and providing open spaces. Concept Plans should be submitted by JHU for Belward and the JHU-MCC site, by Shady Grove Adventist HealthCare, by DANAC, and by the future developers of LSC West (the PSTA site) with the Preliminary Plan application (for unapproved projects) or with Site Plan amendments (for approved projects).

Staging

Master Plan staging addresses the timing of development and the provision of key public facilities. Staging assures sufficient capacity for the next phase of growth, provides essential place-making facilities as well as necessary connections for efficient mobility within and around an area. Experience shows that all density allowed by zoning is rarely built and certainly not all at once. Market absorption rates are one limiting factor. Realizing the vision in this Plan will take time and its implementation should be reviewed six years after adoption to evaluate how development is achieving the vision and to make any necessary adjustments.

The Annual Growth Policy (AGP) is used to establish the policies and procedures for implementation of the Adequate Public Facilities Ordinance (APFO). The LSC is in the R&D Village policy area, where the AGP indicates that, by suburban standards, area roads are congested and certain school clusters are overcrowded. Any new development will need to mitigate a percentage of its impact before it can move forward.

The goal of the APFO is to ensure that transportation and school facilities have sufficient capacity for the Planning Board to approve new development. Although the AGP and APFO serve vital functions, they are insufficient to accomplish the purposes of master plan staging, which has a different and complementary set of functions, including:

- Provide early notice of what must be done to realize the long term growth envisioned in a master plan, including programming large capital projects like the CCT. Such projects are often needed to serve the aggregate level of development in an area but are too large to have a regulatory nexus to a specific development project. This type of staging is particularly important where a major infusion of capital is needed in order for substantial growth to occur.
- Achieve a desired form of development community building or accomplish other policy goals, such as a desired level of "environmental adequacy."
- Provide long-term continuity for growth management. Master plans are updated less often than the growth policy, which is revised every two years, so there is less unpredictability. This Plan recommends that the build-out of Gaithersburg West be reevaluated six years after adoption of the Plan to verify that the vision of the Plan is being achieved and to address the need for "midcourse corrections."
- Provide assurance that development will be timed with the provision of necessary public facilities to support it. A growth policy that is revised every two years provides less certainty.

In addition to the APFO standards, this Plan recommends staging to ensure that infrastructure is in place before development is allowed to proceed. Staging is applied to the LSC North, Central, and Belward Districts where the greatest changes are proposed. Each development stage will be initiated when all of the triggers for that stage are met. After a stage has been triggered, individual properties can proceed with Preliminary Plan approval. Residential development is not subject to the staging amount or sequence since increasing housing in the LSC is encouraged to improve the jobs/housing balance and provide mixed uses.

The CCT is the centerpiece of the Plan's vision for the LSC. The Plan promotes transit-oriented development by concentrating higher density uses near future CCT stations. Staging principles seek to prevent the construction of low intensity uses at transit stations that could preclude or delay the recommended higher intensity uses. To achieve the vision, a mix of uses, particularly at transit stations, should be part of new development and redevelopment to enliven these areas, increase and encourage transit use, and help create a more dynamic life sciences center.

The Plan provides stages and amounts of development that are tied to the CCT's funding, construction, and operation to ensure that transit is available as development proceeds. Relocation of the PSTA from the LSC West District is a part of staging to ensure that the proposed alignment through the LSC can be achieved and to provide new housing with increases in jobs. Staging also requires that the non-driver mode share be documented and that increases be achieved over time, a goal that results in reduced traffic congestion and increased transit use.

Staging Principles

Staging will help implement the Plan's vision as follows:

- Life science uses should be given priority.
- Density and height should be concentrated at transit stations amid transit-oriented mixed-use development at LSC Central, Belward, and DANAC.
- Historic and environmental resources should be protected.
- Buildings within one-eighth mile of the future CCT stations should be at least 60 feet high. In all other areas, the desired minimum building height is 36 feet (three stories of occupied space) in order to retain land for future higher densities.
- Mixed-use development is emphasized; single purpose or free standing retail buildings are inconsistent with the Plan's vision in any phase of development.
- Public institutions are not subject to staging because these projects are reviewed as mandatory referrals.
- Structured parking should be hidden from the street; although surface parking is inconsistent with the Plan's vision, it is anticipated and acceptable on an interim basis.

Staging Requirements

In 2009, the LSC contained nearly 7 million square feet of commercial development. Approximately 3.7 million square feet of commercial (non-residential) development had been approved but was unbuilt in the five LSC Districts. The total existing and approved development in all five LSC Districts is 10.7 million square feet.

This Plan recommends that the staging plan and its requirements be applied to the LSC North, LSC Central, and LSC Belward districts. In these three districts in 2009, existing commercial development totaled nearly 5.5 million square feet, with 2.7 million square feet in the pipeline, for a total of 8.2 million square feet. The 2.7 million square feet of development in the pipeline is not subject to the Plan's staging requirements unless a project's Preliminary Plan expires. If a Preliminary Plan expires, the development capacity associated with it becomes available to all eligible applicants. This released capacity would essentially shift from the category of approved, pipeline development to the category of additional new development, while the total in the Stage would remain unchanged.

In the three districts that are subject to staging, the Plan provides for the current 8.2 million commercial square feet (existing development and the approved pipeline), plus an additional increment of 400,000

square feet in Stage 1. Health care services are exempt from the requirements of Stage 1. Development above 8.6 million commercial square feet cannot proceed until all the prerequisites for Stage 2 have been met, including funding of the CCT from the Shady Grove Metro Station to Metropolitan Grove.

Stage 1

Stage 1 allows an additional 400,000 square feet of commercial (non-residential) development in LSC North, Central, and Belward. Existing and approved development totals 8.2 million square feet and Stage 1 allows 400,000 additional square feet for a total of up to 8.6 million square feet. Health care services are exempt from the requirements of Stage 1.

5,500,000 existing development 2,700,000 approved development 400,000 additional new development 8,600,000 Total Stage 1 development

Stage 2

Stage 2 allows a total of 11.4 million square feet of commercial development, of which 8.6 million will have been built in Stage 1. After all the prerequisites required before Stage 2 have been met, development above 8.6 million can proceed, including an additional 2.8 million square feet of new commercial development, up to a total of 11.4 million square feet.

8,600,000 Stage 1 development

2,800,000 Stage 2 additional new development

11,400,000 Total Stage 2 development at full build-out

Stage 3

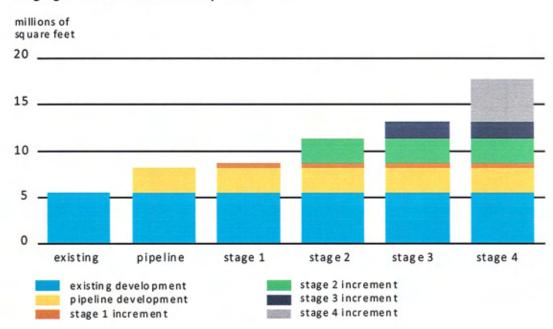
Stage 3 allows a total of 13.2 million square feet of commercial development, of which 11.4 million square feet will have been built in Stages 1 and 2. After all the prerequisites required before Stage 3 have been met, development above 11.4 million square feet can proceed, including an additional 1.8 million square feet of new development, up to a total of 13.2 million square feet.

Stage 4

Stage 4 allows a total of 17.7 million square feet of commercial development, of which 13.2 million square feet will have been built in the previous stages. After all the prerequisites required before Stage 4 have been met, development above 13.2 million can proceed, including an additional 4.5 million square feet of new development, up to a total of 17.7 million square feet.

13,200,000 Stage 3 development
4,500,000 Stage 4 additional new development
17,700,000 Total Stage 4 development at full build-out

Staging of Commercial Development



STAGES OF DEVELOPMENT AND REQUIREMENTS AT EACH STAGE

Before Stage 1 begins, all of the following must occur:

- Approve and adopt the Sectional Map Amendment.
- Fund and begin operating the Greater Shady Grove Transportation Management District (TMD).
- Create a new LSC Policy Area with urban standards and characteristics.
- Include the entirety of the Rickman property on Travilah Road in the new LSC Policy Area.
- Document the baseline of non-driver mode share through monitoring and traffic counts.

Stage 1 New Commercial Development Allowed: 400,000 square feet Total Commercial Development Allowed: 8.6 million square feet

Before Stage 2 begins, all of the following must occur:

- Fully fund construction of the CCT from the Shady Grove Metro Station to Metropolitan Grove in the County's six-year CIP or the State CTP.
- Fully fund relocation of the Public Safety Training Academy from LSC West to a new site.
- Fund the LSC Loop trail in the County's six-year CIP and/or through developer contributions as part of plan approvals.
- Document a five percent increase over the baseline for the non-driver mode share.

Stage 2 New Commercial Development Allowed: 2.8 million square feet Total Commercial Development Allowed: 11.4 million square feet

Before Stage 3 begins, all of the following must occur:

- CCT is under construction from Shady Grove Metro Station to Metropolitan Grove.
- Construct and open at least one public street (such as Medical Center Drive extended) across LSC West and Belward to provide a direct connection across major highways and between the Districts, contributing to place-making and connectivity.
- Fully fund construction of the following two interchanges, or other transportation project(s) providing equivalent mobility and capacity, in the County's six-year CIP or the State CTP:
 - Sam Eig Highway at Great Seneca Highway
 - Great Seneca Highway at Key West Avenue
- Document a 10 percent increase over the baseline for the non-driver mode share.

Stage 3 New Commercial Development Allowed: 1.8 million square feet Total Commercial Development Allowed: 13.2 million square feet

Before Stage 4 begins, all of the following must occur:

- Begin operating the CCT from the Shady Grove Metro Station to Clarksburg.
- Fully-fund the widening of Key West Avenue, or other transportation projects providing equivalent mobility and capacity, in the County's six-year CIP or the State CTP.
- Complete construction of the two highest priority interchanges identified as prerequisites to Stage 3.
- Fully-fund construction of the following three interchanges, or other transportation project(s) providing equivalent mobility and capacity, in the County's six-year CIP or the State CTP:
 - o Shady Grove Road at Key West Avenue
 - o Sam Eig Highway at Diamondback Drive
 - o Great Seneca Highway at Muddy Branch Road
- Document a 15 percent increase over the baseline for the non-driver mode share.

Stage 4 New Commercial Development Allowed: 4.5 million square feet Total Commercial Development Allowed: 17.7 million square feet

Plan Evaluation Six Years after Adoption

This Plan should be reviewed approximately six years after adoption. Revisiting this Plan, with a focus on the LSC, is particularly important to assess how the area is developing, the need for infrastructure delivery, and if the vision is being achieved.

The review of the Plan should examine:

- the CCT's delivery schedule
- traffic generation and roadway performance
- the jobs to housing balance—are local workers occupying the housing
- the built form's evolution
- absorption rates to determine the rate of needed infrastructure delivery
- costs to the County
- the area institutions' investment in the Plan's vision.

Growth Policy

Current master plan efforts are focused on strategic growth. Creating nodes of activity at transit locations with mixed uses can promote a better balance between jobs and housing, reducing the number of vehicle miles traveled. The County's growth policy, which traditionally addresses traffic and school capacity, may also include "quality of place" measures in the future.

Growing strategically means higher densities where transit is or will be, creating greener buildings, providing more services locally, using existing infrastructure, and providing mobility choices. This Plan helps achieve these goals, promoting the opportunity for transit service in the mid-County area.

- Establish a new LSC policy area for the LSC Central, LSC West, and LSC Belward transit station areas, modeled on the Germantown Town Center policy area.
- Revise the R&D Village policy area to include the entirety of the Rickman property, located on Travilah Road, within its boundary. Presently, the subject property is physically located in two policy areas—R&D Village and North Potomac. This revision would rectify this situation and is consistent with the Plan's land use and transportation objectives.

Transportation Network

This Plan provides a comprehensive transportation network for all modes of travel, including transit, roads, bicycles, and pedestrians, to guide implementation of the Plan's street and highway system and bikeway and trails networks.

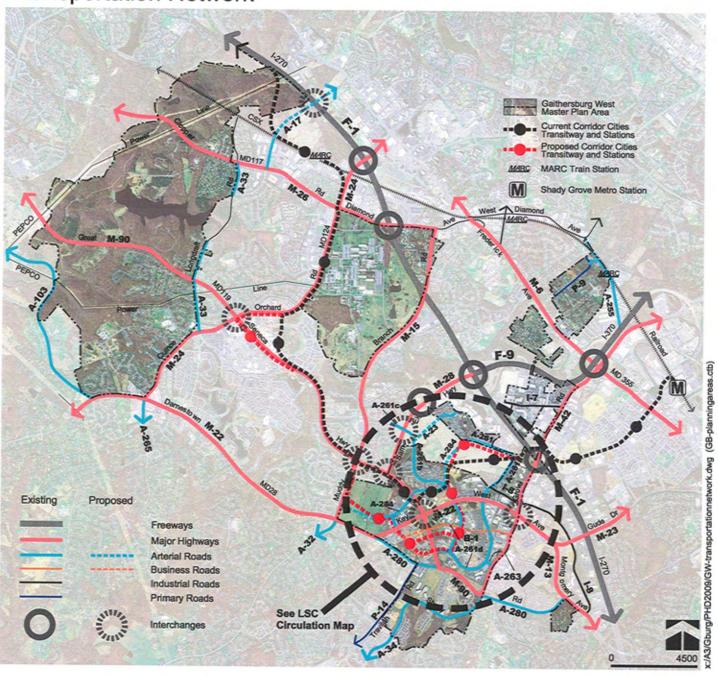
Street and Highway Classifications

This Plan proposes the following changes to the Master Plan of Highways.

- Remove roadways that have been annexed by the City of Gaithersburg:
 - Louis Sullivan Drive
 - portions of Fields Road
 - portions of Diamondback Drive (although connection to Sam Eig Highway within City of Gaithersburg is needed for network connectivity).
- Remove the Shady Grove Road/Darnestown Road and Shady Grove Road/Wootton Parkway interchanges recommended in the 1990 Shady Grove Study Area Master Plan.

- Retain the 1990 Shady Grove Study Area Master Plan recommendations for grade-separated interchanges at:
 - Sam Eig Highway at Diamondback Drive
 - Sam Eig Highway and Great Seneca Highway (MD 119)
 - Great Seneca Highway and Key West Avenue (MD 28)
 - I-270 at Watkins Mill Road extended (in the City of Gaithersburg).
- Add new grade-separated interchanges at:
 - Key West Avenue (MD 28) at Shady Grove Road
 - Great Seneca Highway at Muddy Branch Road (in coordination with City of Gaithersburg)
 - Quince Orchard Road at Great Seneca Highway (in coordination with City of Gaithersburg).
- Change the number of lanes for Oakmont Avenue from four to two, as recommended in the 2006 Shady Grove Sector Plan.
- Remove the CSX Transitway easement along Oakmont Avenue, as recommended in the 2006 Shady Grove Sector Plan.

Transportation Network



street and highway classifications

Road	Road Name/Route	Limits	Minimum (r.o.w.)	Lanes ¹	Speed (m.p.h)	Design Standard
Number						
Freeway						
F-1	I-270	Great Seneca Creek to Shady Grove Road	300'	12	-	-
Controll	ed Major Highways					
CM-22	Key West Avenue (MD 28)	Darnestown Road (MD 28) to Shady Grove Road	200'	8	40	Custom
CM-28	Sam Eig Highway	Great Seneca Highway (MD 119) to I-270	250′	6+BRT	50	Custom
CM-90	Great Seneca Highway (MD 119)	Great Seneca Creek to Gaithersburg City Limit	150′	6	45	2008.10
		Sam Eig Highway to Key West Avenue (MD 28)	150'-200' ²	6	45	2008.10
		Key West Avenue to Darnestown Rd	. 150′	6	45	2008.10
Major H						
M-6	Frederick Avenue (MD 355)	Gaithersburg City Limit to Gaithersburg City Limit	120'	6	-	-
M-13	West Montgomery Avenue (MD 28)	Darnestown Road to 800' east of Darnestown Road	150'	6	-	2008.04 or .10
M-15	Muddy Branch Road	Darnestown Road (MD 28) to Gaithersburg City Limit	150′	6	45	2008.04 or .08
	Muddy Branch Road	Gaithersburg City Limit to West Diamond Avenue (MD 117)	150′	6	45	2008.04 or .08
	Muddy Branch Road	Decoverly Drive (extended) to Gaithersburg City Limit	170′ ²	6	45	2008.04
M-22	Darnestown Road (MD 28)	Riffle Ford Road to Muddy Branch Road	120'	4	40	2008.04
	Darnestown Road (MD 28)	Muddy Branch Road to Key West Avenue (MD 28)	150'	6	40	2008.04
	Key West Avenue (MD 28)	Darnestown Road (MD 28) to Shady Grove Road	200′	8	40	Custom
M-24	Quince Orchard Road (MD 124)	Darnestown Road (MD 28) to Longdraft Road	150'	6	40	-
	•	Gaithersburg City Limit to Gaithersburg City Limit	170' ²	6	-	-
M-26	Clopper Road (MD 117)	Great Seneca Creek to Muddy Branch Road	150′	4 to 6	45	2008.04
	Diamond Avenue (MD 117)	Quince Orchard Road (MD 124) to Muddy Branch Road	120'	4 to 6	45	-
M-28	Sam Eig Highway	Great Seneca Highway (MD 119) to I-270	250′	6+BRT	50	Custom

¹ These are the number of planned through travel lanes for each segment, not including lanes for turning, parking, acceleration, deceleration, or other purposes auxiliary to through travel.

² Fifty feet of right-of-way is intended for provision of an exclusive transitway; where dual width is specified, the lower figure refers to non-transitway sections.

M-42	Shady Grove Road	Darnestown Road to 1,200' west of Frederick Road (MD 355)	150'	6	40	2008.04
M-90	Darnestown Road	Great Seneca Highway to Shady Grove Road	150'	6	45	2008.10

Arterial R	oads	Limits	-		Speed (m.p.h.)	Design Standard
A-17	Watkins Mill Road	Clopper Road (MD 117) to MD 355 (City of Gaithersburg)	NA ³	4	-	-
A-23	Rio Boulevard	Washingtonian Boulevard (City of Gaithersburg) to Fields Road	80'	4	30	As built
A-33	Longdraft Road	Quince Orchard Road (MD 124) to 180' north of Longdraft Court (City of Gaithersburg)	80'	4	30	2004.01
	Longdraft Road	Golden Post Lane (City of Gaithersburg) to Clopper Road (MD 117)	80'	4	30	2004.01
A-34	Shady Grove Road	Darnestown Road to Cavanaugh Drive	100′	4	35	2004.09
A-103	Riffle Ford Road	Great Seneca Creek to 700' north of Woodsboro Drive	80'	4		-
	Riffle Ford Road	220' east of Hallman Court to Darnestown Road (MD 28)	80'	4	40	2004.08
A-255	Oakmont Avenue	From Plan boundary to Plan boundary	80'	2	30	
A-261	Fields Road	From 1500' east of Rio Boulevard (City of Gaithersburg) to 675' west of Washingtonian Boulevard (City of Gaithersburg)	150′ ⁴	4	-	-
	Fields Road	From 150' west of Omega Drive (City of Gaithersburg) to Omega Drive	150′ ⁴	4	-	-
A-261a	Omega Drive	Fields Road to Key West Avenue (MD 28)	100'	4	30	2004.10
A-261b	Diamondback Drive	Sam Eig Highway to Key West Avenue	100'- 150' ⁴	4	30	2004.09
	Broschart Road	Key West Avenue to Medical Center Drive	100'	4	30	2004.09
A-261d	Medical Center Drive	Key West Avenue (MD 28) to Key West Avenue (MD 28)	100'- 150′ ⁴	4	30	2004.10 (needs

³ Watkins Mill Road is an arterial within City Limits. As a significant connection to I-270, it is included in this table; ROW requirements are deferred to the City of Gaithersburg.

						SUP)
A-263	Medical Center Way	Shady Grove Road to Medical Center Drive	100'	4	30	As built
A-280	Darnestown Road	Key West Avenue (MD 28) to Great Seneca Highway	100'	4	40	2004.10
A-280	Darnestown Road	Shady Grove Road to West	100'	4	40	2004.10
A-284	Decoverly Drive	Montgomery Avenue (MD 28) Muddy Branch Road to Fields Road	100'- 150' ⁴	4	30	2004.09
Business Di	strict Streets				Speed (m.p.h.)	Design Standard
B-1	Blackwell Road	Great Seneca Highway to Broschart Road	100′	4	30	2005.03
	Blackwell Road	Broschart Road to Shady Grove Road	100′	4	30	2005.03
	Blackwell Road	Key West to Great Seneca Highway	70′	2	30	2005.02
B-2	Road A	proposed new road	60′	2	30	2005.01
B-3	Road B	proposed new road	70′	2	30	2005.02
B-4	Road C	proposed new road	70′	2	30	2005.02
B-5	Road D	proposed new road	70′	2	30	2005.02
B-6	Road E	proposed new road	70′	2	30	2005.02
B-7	Road F	proposed new road	60′	2	30	2005.01
B-8	Road G	proposed new road	70′	2	30	2005.02
B-9	Road H	proposed new road	60′	2	30	2005.01
B-10	Road I	proposed new road	70′	2	30	2005.02
B-11	Road J	proposed new road	60′	2	30	2005.01
B-12	Road K	proposed new road	70′	2	30	2005.02
B-13	Road L	proposed new road	60′	2	30	2005.01
B-14	Road M	proposed new road	60′	2	30	2005.01
B-15	Road N	proposed new road	70'	2	30	2005.02

⁴ Fifty feet of right-of-way is intended for provision of an exclusive transitway; where dual width is specified, the lower figure refers to non-transitway sections.

B-16	Traville Gateway Drive	Shady Grove Road to Medical Center Drive	70′	2	30	2005.02
B-17	Travilah Road	Darnestown to Medical Center Drive Extended	70′	2	30	2005.02
B-18	Road Q	proposed new road	70'	2	30	2005.02
B-19	Road R	proposed new road	60′	2	30	2005.01
1-8	Research Boulevard	Omega Drive to Shady Grove Road	80'	4	30	2006.03

Primary Residential Streets									
P-9	Central Avenue	500' east of Frederick Avenue (MD 355, City of Gaithersburg) to 350' north of Oakmont Avenue (City of Gaithersburg)	70'	2	25	2003.12			
P-14	Travilah Road	Darnestown Road to Unicorn Way	70′	2	30	2003.10			

Pedestrian Network

Every trip starts or ends with a pedestrian trip. The pedestrian element of the transportation network should emphasize the need for safe, contiguous, and accessible walking routes to local destinations, especially transit. Providing a safe and pleasant pedestrian experience is a challenge in areas designed for cars. Signal timing at intersections impacts pedestrian safety and comfort. The County should continue to improve operations and infrastructure to meet national guidelines, including the *Manual for Uniform Traffic Control Devices* and Americans with Disabilities Act best practices.

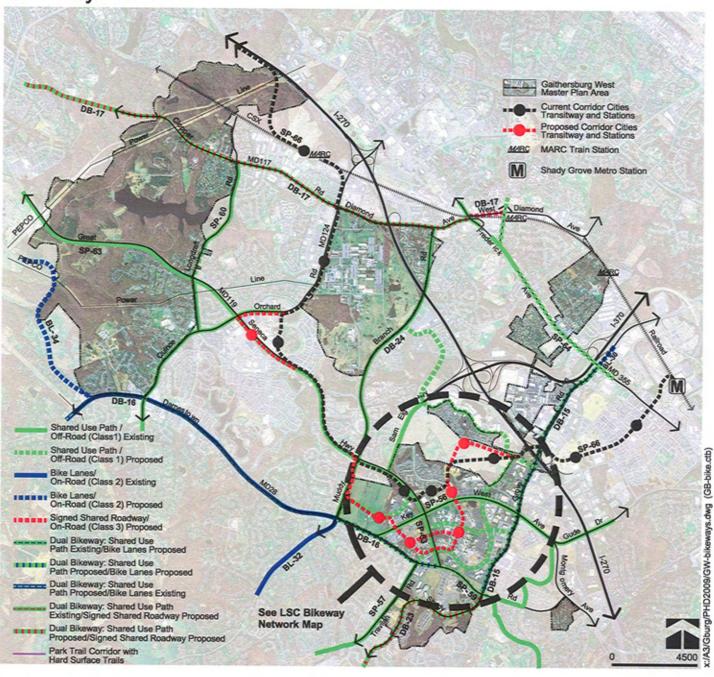
Recommendations

- Design local streets and intersections with pedestrian-friendly characteristics such as minimal corner radii, special crosswalk pavement, wide sidewalks, and street trees.
- Place sidewalks sufficiently away from curbs and travel lanes to separate pedestrians from moving traffic.
- Provide four-way crosswalks at intersections.
- Provide sidewalks on both sides of public streets.
- Create a grid of intersecting streets and short blocks in new developments or redevelopment areas to support and encourage walking.
- Design streets that are defined with buildings, animated with active uses, and include streetscape and landscape features to encourage pedestrian activity.

Bikeway and Trail Systems

This Plan encourages walking and biking as an alternative to automobiles as well as for recreation. This Plan supports efforts to implement safe and convenient pedestrian and bicycle facilities through an inter-connected system of bikeways, trails, and sidewalks. The Plan area is served by a network of existing bikeways and trails.

Bikeway Network



The recommended Countywide and local LSC bikeway networks must be coordinated with the cities of Gaithersburg and Rockville to ensure a linked system. Together, the Countywide and local bikeways and the trails network will provide a framework for an interconnected system.

Gaithersburg West Bikeways Recommended by the *Countywide Bikeways Functional Master Plan*

Route Number	Bikeway Name	Bikeway Type	GWMP Limits	Status/ Condition	Description
BL-30	Shady Grove Road—east	Bike lanes	Frederick Road (MD 355) to Muncaster Mill Road (MD 115)	Implemented between MD 115 and Crabbs Branch Way. Proposed between MD 355 and Crabbs Branch Way.	Part of a direct route to Shady Grove Metrorail station.
BL-32	Dufief Mill Road	Bike lanes	Darnestown Road (MD 28) to Travilah Road	Existing	Roadway shoulder functions as bike lanes.
BL-34	Riffle Ford Road	Bike lanes	Darnestown Road to Germantown Road (MD 118)	New proposal in 2005 CBFMP	Important connection to South Germantown Park.
DB-15	Shady Grove Road—west	Dual Bikeway: shared use path and bike lanes	Darnestown Road to Frederick Road	Proposed	Forms part of connection to Shady Grove Metrorail station; shared use path to be implemented by Rockville, bike lanes to be implemented by County.
DB-16	Darnestown Road—north	Dual Bikeway: shared use path and bike lanes	Seneca Road to Great Seneca Highway (MD 119)	Shared use path and bike lanes exist in segments. Bike lanes installed by SHA from Seneca Road to Muddy Branch Road.	Provides direct connection to Rockville and forms part of connection to Gaithersburg from Poolesville; SHA-provided 16' wide curb lanes should be striped as bike lanes.
DB-17	Clopper Road/Diamond Avenue	Dual Bikeway: shared use path and signed shared roadway	Summit Avenue to Clarksburg Road (MD 121)	Mostly proposed. Shared use path exists in segments.	Provides direct connection to City of Gaithersburg as well as several MARC stations; Improvements by SHA underway within Gaithersburg city limits.
DB-23	Shady Grove Road extended	Dual Bikeway: shared use path and signed shared roadway	Darnestown Road to River Road (MD190)	Modified proposal in 2005 CBFMP	Suitable for both on-road and off-road facilities. An important east-west connector between Potomac communities and cities of Rockville and Gaithersburg.

Route Number	Bikeway Name	Bikeway Type	GWMP Limits	Status/ Condition	Description
DB-24	Muddy Branch Road	Dual Bikeway: shared use path and bike lanes	Darnestown Road to Diamond Avenue	Mostly proposed. Existing 8' concrete path in segments, but narrows in places.	Direct connection to City of Gaithersburg; indirect connection to Gaithersburg MARC station. Need consistent- width path for entire roadway; adequate ROW exists for bike lanes if road is improved in the future.
SP-56	Key West Avenue	Shared use path	Darnestown Road to Gude Drive	Existing	Connection between countywide bikeway network and City of Rockville bikeway system.
SP-57	Travilah Road	Shared use path	Darnestown Road to River Road	Proposed, exists in segments	Connects to two major bikeways and several local destinations; forms part of alternate route to C&O canal.
SP-58	Quince Orchard Road	Shared use path	Dufief Mill Road to Darnestown Road	Exists in segments; mostly proposed.	Provides direct connection to Gaithersburg.
SP-59	Darnestown Road – south	Shared use path	Key West Avenue to Wootton Parkway	e Proposed	Forms part of important connection to City of Rockville and Rockville Metrorail station.
SP-60	Longdraft Road	Shared use path	Quince Orchard Road to Clopper Road (MD 117)	Proposed	Connects to two major bikeways and to City of Gaithersburg.
SP-63	Great Seneca Highway (MD 119)	Shared use path	Darnestown Road to Middlebrook Road	Existing	Provides excellent off-road connections between Germantown and Gaithersburg.
SP-64	Frederick Road (MD 355)	Shared use path	Gude Drive to Watkins Mill Road	Exists in segments; mostly proposed	Provides excellent connection to downtown Rockville and Gaithersburg.
SP-66	Corridor Cities Transitway	Shared use path	Shady Grove Metro Station to Frederick Road (MD 355)	Mostly proposed; segments exist as part of other bikeways. DB=Dual Bikeway	Connects major employment centers in the I-270 Corridor north of Rockville; intended to parallel the CCT and be implemented as part of CCT project, regardless of mode or alignment.
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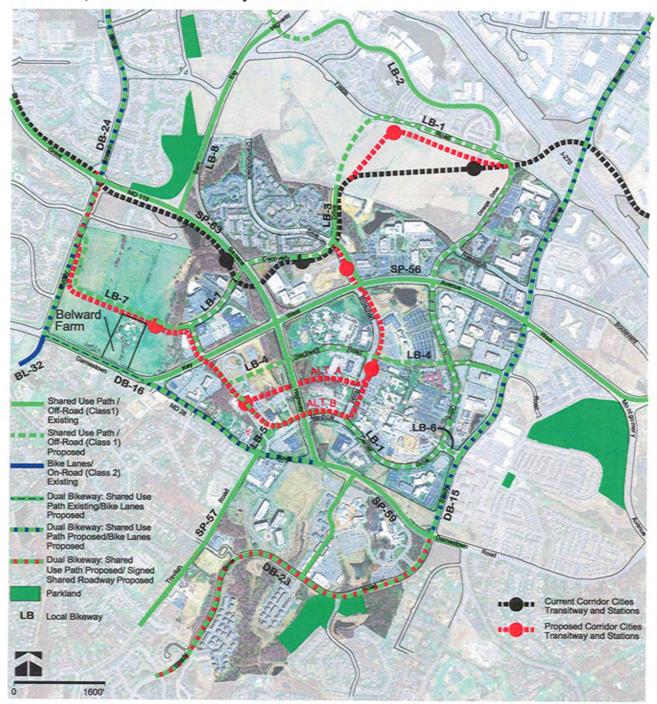
LSC Bikeways

This Plan's recommended local bikeway network supplements the regional framework provided by the *Countywide Bikeways Functional Master Plan* and the *Countywide Park Trails Plan*. The local LSC bikeway network will connect to area schools, parks, open spaces, and commercial centers as well as to the Countywide system.

Bikeway Name	Bikeway Type	Limits	Status/ Condition	Discussion
LB-1 LSC Loop	Shared use path	Circular loop through the LSC	Proposed	3.5- mile recreational path connecting major destinations in the LSC Districts.
LB-2 Washingtonian Boulevard	Shared use path		Existing and proposed, short segments exist	Connects mixed-use area to the local and City of Gaithersburg bikeway networks.
LB-3 Decoverly- Diamondback	Shared use path	Key West Ave. to Crown Farm property line	Existing segment; Proposed through Crown Farm.	Connects mixed-use areas to the countywide bikeway network on Key West; should extend through Crown Farm to Fields Road.
LB-4 Blackwell Road	Shared use path	Shady Grove Road to Darnestown Road	Proposed	Connect countywide bikeway on Shady Grove Road to LSC and City of Rockville.
LB-5 PSTA	Shared use Path	Medical Center Drive extended through PSTA to Darnestown Road	Proposed	Connect LSC Loop on Medical Center Drive to the PSTA site and across Darnestown Road to countywide SP-57 and DB-16.
LB-6 Medical Center Way	Signed, shared roadway	Medical Center Drive to Shady Grove Road	Proposed	Connect LSC Central to the countywide network and City of Rockville paths and destinations.
LB-7 Belward Property	Shared use path along the CCT alignment	Key West Avenue to Muddy Branch Road	Proposed	Connect to LSC Loop, CCT station, historic farm, and countywide DB-24 on Muddy Branch Road.
LB-8 Sam Eig Highway	Shared use path	Washingtonian Blvd. to Great Seneca Highway	Existing	Connects Rio and future Crown Farm development to the Countywide bikeways.

LB=Local Bikeway

LSC: Proposed Local Bikeway Network

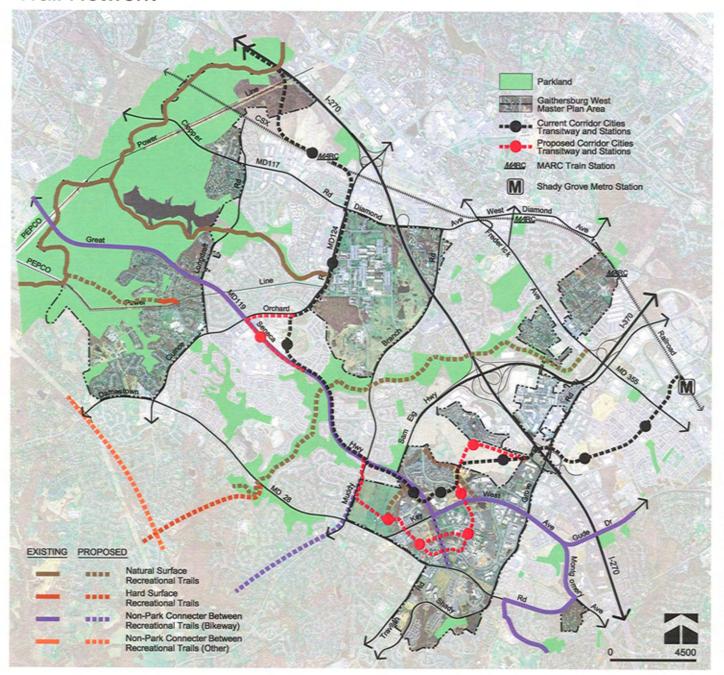


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Recommendations

- Provide Countywide and local bikeways as recommended on the bikeway tables and maps.
- Provide a continuous bikeway as part of the CCT.
- Include bikeway and pedestrian paths as part of all grade-separated interchanges.
- Complete the trails network, including:
 - The Muddy Branch Trail Corridor from Dufief Mill Road and Darnestown Road to Great Seneca Highway on the east side of Muddy Branch Road adjacent to the Belward property.
 - A natural surface trail connection between Quince Orchard Valley Park and the Seneca Greenway Corridor.

Trail Network



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Proposed Capital Improvement Projects

The Capital Improvements Program (CIP) 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. The land use and staging recommendations contained in this Master Plan will require the following capital improvement projects. Some projects may include private sector participation.

Stage	Project Name	Location/Limits	Road Number	Category	Coordinating Agency
1	Greater Shady Grove TMD			Transp.	MC-DOT
1	Travilah Fire Station	Shady Grove Road and Darnestown Road		Safety	MC-DGS
2	PSTA Relocation				MC-DGS
2	CCT Funded	Shady Grove Metro- Metropolitan Grove		Transit	MSHA/MTA Private Sector
2	LSC Recreation Loop			Recreation	Private Sector
3	CCT under construction	Shady Grove Metro- Metropolitan Grove		Transit	MSHA/MTA
3	Elementary School	LSC West/PSTA		Schools	MCPS
3/4	Park (with school)	LSC West/PSTA		Recreation	M-NCPPC
3/4	Civic Green (PSTA)	LSC West/PSTA		Open Space	M-NCPPC/ Private Sector
3	Medical Center Drive Extended	Great Seneca Hwy. to Key West	A-261d	Transp.	MC-DOT/ Private Sector
3/4	LSC Central	Central Green		Open Space	Private Sector
3	Decoverly Drive extended	Johns Hopkins Drive to Muddy Branch Rd.	A-284	Transp.	MC-DOT/ Private Sector
3	Sam Eig/Great Seneca Hwy	Intersection: Interchange		Transp.	MC-DOT/ MSHA
3	Key West/Great Seneca Hwy	Intersection: Interchange		Transp.	MC-DOT/ MSHA
3/4	JHU Belward	Active Recreation/ Fields and Trails		Recreation	Private Sector
3/4	JHU Belward	Muddy Branch Trail Connector		Recreation	M-NCPPC Private Sector
4	Key West Avenue Widening	Darnestown Road to Shady Grove Road	M-22	Transp.	MC-DOT/ MSHA
4	Shady Grove Road/ Key West Avenue	Intersection: Interchange		Transp.	MC-DOT/ MSHA
4	Sam Eig Highway/ Diamondback Drive	Intersection: Interchange		Transp.	MC-DOT/ MSHA
4	Great Seneca Hwy./ Muddy Branch Road	Intersection: Interchange		Transp.	MC-DOT/ MSHA

Agencies MC-DOT: Montgomery County Department of Transportation MCPS: Montgomery County Public Schools

M-NCPPC: Maryland-National Capital Park and Planning Commission

MC-DGS: Montgomery County Department of General Services

MSHA/MTA: Maryland State Highway Administration/Maryland Transit Administration

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