GEORGIA AVENUE STUDY
An Urban Design Framework

ABSTRACT
This study of Georgia Avenue and the communities along it contains a design vision for the corridor that will guide future master and sector plans, and infrastructure improvements.

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

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GEORGIA AVENUE STUDY
An Urban Design Framework

Design Strategy

Framework

Issues
  - Public Realm
  - Pedestrian Environment
  - Houses

Alternatives
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  - Townhouse or Multiple Unit Infill
  - Retain Existing Zoning, Encourage Accessory Units

Vision
  - A Green Boulevard
  - A Transit Corridor
  - Mixed-Use Centers

Communities
  - Silver Spring
  - Montgomery Hills
  - Forest Glen
  - Wheaton
  - Glenmont
  - Aspen Hill
  - Norbeck/Leisure World
  - Olney
  - North of Olney

Implementation
GEORGIA AVENUE STUDY AREA

HOWARD COUNTY

AGRICULTURAL RESERVE

SUNSHINE

BROOKEVILLE

OLNEY

NORBECK/LEISURE WORLD

ASPEN HILL

GLENMONT

WHEATON

MONTGOMERY HILLS

SILVER SPRING
DESIGN STRATEGY

This study is an urban design analysis of the Georgia Avenue Corridor. Currently, the corridor is covered by eight master and sector plans, which were created at different times and make different recommendations for Georgia Avenue. Without an overall guiding document, new development may not produce the desired pattern and uses.

This comprehensive vision for the entire corridor will guide future master and sector plans. The recommendations cover three themes:

- Creating a development pattern of concentrated centers and residential communities
- Enhancing Georgia Avenue to be an attractive and walkable place
- Determining the future of existing single-family houses along the corridor.

The proposed planning framework for Georgia Avenue has four overall goals.

- Focus major growth at Metro station areas.
- Reinforce the Georgia Avenue corridor as a housing resource.
- Focus on transit and non-motorized mobility.
- Create an attractive green boulevard through design excellence and sustainability.

Although traffic congestion is a major concern, it is not a focus of this study. Traffic congestion is a regional issue best addressed by other tools such as the County’s Growth Policy, the State’s Constrained Long Range Plan, and other infrastructure initiatives. State and County projects will address the most congested parts of Georgia Avenue, including a grade-separated interchange at Georgia Avenue and Randolph Road. SHA will study the Montgomery Hills section of Georgia Avenue between the Beltway and 16th Street. The proposed Georgia Avenue Busway will provide a transit option between Glenmont and Olney. And the County has completed an initial study for bus rapid transit service on Veirs Mill Road between Wheaton and Rockville.

From turnpike to transit corridor

1819:
Seventh Street extended as a turnpike into Montgomery County

1849:
Becomes the Maryland Westminster Road, the route from the District to Westminster, Maryland

1860s:
Through the Civil War, becomes Union Turnpike

1878:
Known as the Washington and Brookeville Turnpike through small towns, estates, and farming communities, eventually to Howard County

1907:
Mitchell’s Crossroads becomes known as Wheaton

1920:
District widens its portion of Georgia Avenue

1927:
County widens Georgia Avenue through Silver Spring

1948:
County adopts the first zoning plan for a one half-mile wide corridor along Georgia Avenue from Silver Spring to Brookeville

1956:
Georgia Avenue improved as a major transportation corridor to keep up with post WWII suburban growth in the Kensington-Wheaton area

1970-1990:
Metro’s Red Line strengthens Georgia Avenue as a major north-south transportation corridor
The corridor today

- 231,000 residents, more than 26 percent of the County’s total population
- more than 83,400 housing units
- The Silver Spring CBD is the corridor’s largest employment center followed by Wheaton

Holy Cross and Montgomery General hospitals are two of the largest employers outside of these centers

Other employment is scattered among the retail centers of Glenmont, Leisure World, and the Olney town center

- 62,400 employees, about 11.4 percent of the County’s total
Future Growth

Georgia Avenue is a housing resource. According to the Planning Department’s 2007 Growth Policy Report, the County is approaching buildout; approximately 72 percent of the future housing growth in the County will be multifamily units, mainly through infill development in down-County areas. The Georgia Avenue corridor’s portion of this growth will be concentrated in the transit centers of Silver Spring, Wheaton, and Glenmont, with some growth in suburban town centers like Olney as outlined in the current corridor master plans, which also emphasize preserving and protecting the residential communities between these centers.

Except for the transit station areas and commercial nodes, south of Bel Pre Road, the corridor is predominantly zoned R-60 (five to six units per acre), and R-90 (about 3.5 units per acre). North of Bel-Pre Road it transitions into R-200 (two units per acre) and lower densities in Olney, ending in agricultural zoning in the Agricultural Reserve north of Brookeville.

Transit and Roads

The Georgia Avenue corridor is served by the eastern segment of the Metro Red Line from Silver Spring to Glenmont, the last station of the Red Line. At station north of Silver Spring, Metro currently operates with five-minute frequencies during peak periods. Including the Silver Spring station, about 14,900 passengers board the Metro Red Line during a typical weekday peak period (from 5:00 a.m. to 9:30 a.m.). Access to these stations by walking, biking, and transit is significantly higher in Silver Spring than in Glenmont and Wheaton.

The commuter parking lots at Forest Glen and Glenmont are filled beyond capacity on typical weekday mornings. The Norbeck Road park-and-ride lot is underused although this may change once the Intercounty Connector is completed with direct access to Georgia Avenue.

Seven bus routes (three Metrobus and four Ride On routes) serve the Georgia Avenue corridor. Passengers can use Metrorail or Metrobus on Georgia Avenue, with Ride On bus routes feeding the Metro bus stops and stations. Accordingly, Metrobus ridership is significantly higher than the ridership on the Ride On routes.

A summary of the bus routes, Metro Red Line ridership, park-and-ride use, average weekday ridership, maps of all the bus routes, and other details is included in the Appendix.

Georgia Avenue Busway

This proposed busway will enhance the corridor’s transit network by serving communities north of Glenmont. The Planning Department’s 1999 Georgia Avenue Busway Study confirmed the busway’s feasibility between Olney and the Glenmont Metrorail Station as an alternative way to reach the station and thereby reducing the need for additional parking all along the corridor. North of Norbeck Road, the nine mile busway would need a 140-foot right-of-way; south of Norbeck Road it would require a 165-foot right-of-way.
According to the 1999 study, the busway should include:

- two lane, bi-directional busway in the median accommodating both express and local service
- six new express bus routes with 15-minute frequencies on each route
- express routes beginning in neighborhoods and operating along busway with stops in route to Glenmont only at the Longwood Recreation Center and the Norbeck Road park-and-ride lot
- improved landscaping, shelters, and park-and-ride lots
- shared local and express service curbside stops.

WMATA conducted a follow-up study in November 2002 that proposed a rapid bus line within the proposed busway featuring:

- express service with five stops—the Longwood Recreation Center, Montgomery General Hospital/Olney Town Center, Norbeck park-and-ride lot, Connecticut Avenue (near Home Depot), and the Glenmont Metrorail Station
- signal prioritization and smart card technology to reduce travel times.

The Georgia Avenue Busway is ranked second in the County Council’s Ten Year Transportation Plan for inclusion in the Development and Evaluation Program of the Maryland Consolidated Transportation Program. The project planning, however, has not advanced beyond the two studies noted above.

Roads

Georgia Avenue is classified in master and sector plans as a major highway. The Kensington/Wheaton and Aspen Hill master plans designate Georgia Avenue as a green corridor and recommend a well-landscaped roadway with adequate sidewalks, conveniently located transit stops, bicycle lanes, and screening.

Right-of-way widths change along the corridor:

- In Silver Spring, Wheaton, and Glenmont the width is 120 feet
- in Aspen Hill, it is 150 feet
- south of Olney, it is 120 feet decreasing to 80 feet to the north.

As a major north-south corridor, Georgia Avenue carries large traffic volumes. The intersections at Columbia Boulevard/ Seminary Road, Forest Glen Road, Plyers Mill Road, Arcola Avenue, Connecticut Avenue, Norbeck Road, Emory Lane, Old Baltimore Road, and Olney-Sandy Spring Road exceed their congestion standards. Some of this volume will be addressed by SHA’s intersection improvements along the corridor including grade-separated interchanges at the Randolph Road and Norbeck Road intersections, currently in project planning stages. The Forest Glen Road intersection with a CLV of 2106 ranked first and second on the list of the most congested intersections for 2005 and 2006, and had its signal phasing plan updated. Conditions have improved but it is still one of the corridor’s most congested intersections.
Jobs-Housing Balance

In Montgomery County, a jobs-housing ratio of 1.6:1 is considered balanced since there are about 1.6 workers per household. The ratio is best measured at a scale larger than each community because jobs occur at higher densities, on average, than housing. The County’s planning framework is based on locating job centers closer to transportation infrastructure and higher-density residential areas. This leads to jobs-housing ratios in the I-270 Corridor and down-County areas (within the Beltway and at Metro stations) that are higher than 1.6:1 while predominantly residential areas in the rest of the County, including the Georgia Avenue corridor, are lower. A greater emphasis on jobs in future master plans for Silver Spring and Wheaton should help improve jobs-housing ratio in the Georgia Avenue corridor.

<table>
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<tr>
<th>Planning Area</th>
<th>2010</th>
<th>2030</th>
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<tr>
<td>Silver Spring</td>
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<tr>
<td>Kensington-Wheaton</td>
<td>0.77</td>
<td>0.69</td>
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<tr>
<td>Aspen Hill</td>
<td>0.26</td>
<td>0.27</td>
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<tr>
<td>Olney</td>
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<td>Total (Georgia Avenue)</td>
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<tr>
<td>Montgomery County</td>
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<td>1.52</td>
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ISSUES

Public Realm
The physical appearance of Georgia Avenue and the properties along it affects the corridor’s quality of place. The public realm—all that is visible from the street—needs attention. The sole emphasis on moving traffic efficiently has resulted in a six-lane highway with additional left and right turn lanes at major intersections and a reversible lane in Montgomery Hills. The result is a degraded visual quality and character.

This impact is more acutely felt in the residential sections along the roadway between the Beltway and Bel Pre Road where houses are closer to the road, have substandard sidewalks, and little visual buffer from the road. The traffic speeds are far higher than posted speeds, resulting in excessive noise, pollution, and unsafe conditions for pedestrians and bicyclists.

Georgia Avenue suffers from lack of greenery both in the public right-of-way and private properties along the road. The master plan vision of a “green corridor” for the southern half of Georgia Avenue has mostly gone unrealized. Today’s green concept is broader than that recommended 20 years ago, encompassing sustainability principles ranging from eco-friendly stormwater management to energy efficient green buildings and reduced carbon emissions. While future master plans will incorporate many of these principles, the greatest visual benefit will be gained through more trees and landscaping along the road.

Pedestrian Environment
The pedestrian and bicycle environment along much of the roadway is both hostile and unsafe. The main causes of this deterioration are:

- lack of green buffers between the pedestrians and roadway
- inadequate pedestrian spaces such as medians for people who can’t clear the intersection due to short walk signals
- narrow sidewalks
- lack of trees and landscaping
- high speed traffic and driver negligence
- broad curb radii at street corners that encourage higher turning speeds.

Establish ‘green corridor’ guidelines as an implementation mechanism to ameliorate the impact to residential areas abutting major highways and to strengthen community stability by creating attractive highway corridors.

Kensington-Wheaton Master Plan
The lack of a green buffer between the road and the sidewalk is the most critical improvement for pedestrian safety and comfort. Inadequate, and sometimes unsafe, crossings are turning the road into a barrier between communities, especially in places where residents on one side of the road need to access parks and recreation facilities on the other side.

Houses

The single-family detached houses between Forest Glen and Bel Pre Roads are the most severely impacted by high traffic and by the general degradation of the public realm. The houses’ lower values create redevelopment pressure for non-residential uses through special exceptions or for higher residential densities through rezoning. In many cases, these conversions are done through inferior design changes such as paved front yards and out-of-scale additions that further contribute to the corridor’s visual degradation. Once converted, increased value as commercial property makes the properties unlikely to revert to residential use.

But the lower residential property values make houses along the road more affordable compared with properties in the neighborhood’s interior. They can be starter homes for low- or middle-income families who build equity and eventually move to a more expensive house elsewhere. Allowing these houses to convert to non-residential use decreases the stock of affordable housing, particularly the single-family detached type. It also changes the corridor’s visual character from predominantly residential to a haphazard mix of residential and other uses.

<table>
<thead>
<tr>
<th>2006 HOUSING SALES</th>
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<tr>
<td>Average Sale Price - 2006</td>
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<tr>
<td>Single Family Detached - Used</td>
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<tr>
<td>Townhouse - Used</td>
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<td>Condos - Used</td>
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Values on Georgia Avenue are generally lower than in the interior neighborhoods.
ALTERNATIVES

This study explored three possible redevelopment scenarios for single-family houses along Georgia Avenue:

- no change to current zoning; let it redevelop over time as the market dictates
- allow townhouses or multiple units on a single-family lot
- retain existing single-family zoning but allow accessory units by-right (with design controls) to encourage reinvestment.

While none of these scenarios offers a fail-safe method to address the issues of single-family houses on Georgia Avenue, accessory units and multiple units on single lots offer the possibility of positive incremental change. Allowing them on lots facing Georgia Avenue would increase the value of these properties without pursuing commercial uses. It would also create affordable housing and increase density where it can be served by transit. The landscaping and design improvements that would come with redevelopment will contribute to the goal of a green boulevard.

No Change

Maintaining the existing zoning will direct the market to the most easily redevelopable properties. Over time, some properties would be converted to townhouses or commercial uses while others would remain as single-family detached houses. There might be some improvements in the road frontage on sites large enough to afford redevelopment with appropriate sidewalk/landscape improvements.

Townhouses or Multiple Unit Infill

Analysis showed that although townhouse densities of 10 to 15 units per acre are possible at some locations, the cost of land assemblage is generally a barrier to redevelopment. Where land costs are lower—north of Glenmont—redevelopment is relatively more feasible. When the cost of land assemblage was included in the soft costs (non-construction costs such as consultant and application fees), a majority of the blocks proved infeasible for redevelopment at any townhouse density.
Although the analysis showed otherwise, at least six townhouse developments have been built south of Glenmont in the past 15 years, which indicates that under certain circumstances redevelopment is feasible. Such townhouse developments could also occur on large sites with nonresidential uses such as churches and older special exceptions. The key to successful infill townhouse development along the corridor is good design and site planning.

The analysis also looked at multifamily densities of 20 units per acre and higher, and although it showed that a significant number of locations could redevelop at these densities, this study did not pursue those options since development at those densities would result in building types and heights that would create compatibility issues with adjacent communities. Such high densities would conflict with the policy to protect adjoining neighborhoods, would generate excessive new traffic, and would undermine the policy of directing growth to Metro station areas.

Other products, such as three-flats (three vertically stacked units), English basements, and duplexes are also possibilities. Such products could eliminate some of the high financing costs and risks associated with site assemblage.

Retain Existing Zoning, Encourage Accessory Units
Allowing accessory units by-right could encourage reinvestment. Accessory units would add some affordable housing to the corridor without disrupting its basic planning framework. New design controls would address the issue of visual character by limiting front yard paving, requiring landscaping minimums, and reducing parking requirements. The extra cost of design improvements would be somewhat offset by allowing accessory apartments by-right.

Implementing the townhouse infill scenario doesn’t require any regulatory changes since properties can be rezoned on a case-by-case basis. Implementing the accessory units by-right, multiple units on single-family lots, or the alternative building types such as English basements, will require modifying the Zoning Ordinance to change the accessory unit special exception rules and to allow multiple units on 6,000 to 10,000 square foot lots typical of the R-60 and R-90 zones. These changes can be done as part of the Zoning Ordinance Rewrite currently underway. The feasibility of alternative products and their use in appropriate locations should be explored as part of a future comprehensive amendment of the Kensington-Wheaton Master Plan.

Just north of Silver Spring and currently under construction, this 26-unit infill townhouse development (23 townhouses, three single-family detached units) was assembled from six properties into a 2.68-acre parcel. The project’s economics were further complicated by the need to preserve an existing historic home by relocating it on the site. The project shows that good planning can make redevelopment at reasonable densities possible at some locations along Georgia Avenue.
VISION

A Green Boulevard

This study confirms the existing master plans' vision of Georgia Avenue as a boulevard and broadens that concept to incorporate sustainability as a guiding principal for all planning and development efforts in the corridor. This vision should be realized through greater emphasis on the sustainable design for both public and private spaces, existing and future.

The vision for a green corridor includes improving existing development as well as creating new sustainable development. Overall, the road should serve as a transportation corridor for cars, bikes, and pedestrians. It can be a recreational facility for walking and biking, a stormwater management device, and a connection to community facilities and cultural resources. New development should be designed to reduce vehicle miles traveled and carbon emissions by connecting to transit facilities, reducing parking requirements, and focusing growth at Metro stations.

Improved stream quality can be achieved through better stormwater management. Many older communities south of Bel Pre Road were built before comprehensive stormwater management controls. Their runoff contributes to severely degraded stream conditions. A major contributor to runoff is impervious surface in the public right-of-way and on private property. While future redevelopment in high-density areas around Metro stations will incorporate better stormwater management controls, the older single-family neighborhoods will not improve unless the County addresses this issue.

Green improvements to Georgia Avenue itself should include ample medians, wide tree-lined sidewalks, and vegetation so the predominant view along the roadway is greenery not the pavement and buildings as it currently exists. Any reconstruction should consider the following improvements:

- replacing hardscape with pervious surfaces
- encouraging energy efficiency
- bioswales where feasible and appropriate
- using less curbing to help stormwater absorption
- integrating energy production into the right-of-way
- considerable tree planting on both the right-of-way and private property.

Goal of the green corridor policy in the current master plans is “to preserve the identity of residential areas along major highway corridors, to soften the impact of major highways on adjacent homes and to strengthen the distinction between commercial and residential areas.”

Kensington-Wheaton Master Plan
A Transit Corridor

The corridor’s transit network of Metrorail and buses will connect its communities to County and regional employment centers. Within the corridor, communities would be linked to parks, libraries, shopping, entertainment, and other amenities with walking, biking, and transit options. Any future planning along the corridor should provide for continuous bike-friendly routes that allow cyclists to travel along the Georgia Avenue corridor efficiently and safely.

Mixed-Use Centers

Georgia Avenue is envisioned as a series of mixed-use, walkable centers where most of the corridor’s future growth will be concentrated. These mixed-use centers will be the focus of the corridor’s business, housing, community services, and entertainment. Silver Spring and Wheaton will be the major employment centers with community services such as libraries, regional retail, entertainment, and recreation. Smaller centers such as Montgomery Hills, Glenmont, Aspen Hill, and Olney will provide convenience retail and services for surrounding communities. The segments between these centers will be low-density residential areas that define a clear edge and separation between the centers.
COMMUNITIES

The approximately eighteen-mile stretch of Georgia Avenue in Montgomery County is a transportation artery and home to numerous communities and businesses. It varies from an urban boulevard lined with stores and highrise buildings in Silver Spring, to a suburban highway in Glenmont and Aspen Hill, and a rural road through the County’s Agricultural Reserve north of Olney.
Silver Spring is the corridor’s largest business district and employment center with highrise office and residential buildings, retail stores, and entertainment venues. The recent redevelopment of downtown Silver Spring into an attractive mixed-use center draws people of all ethnic and socioeconomic groups for shopping and recreation. New office and residential development continues and infill opportunities are being realized.

Allow adequate pedestrian crossing time at marked crosswalks. Currently the north crosswalk at Wayne Avenue intersection is timed at 4.06 feet per second (ideally, it should be 3 feet per second)
Medians should provide adequate pedestrian waiting areas with curb ramps, enough space for pedestrians and wheelchairs, and landscaping. A small green area at the curb facing the intersection provides appropriate separation from turning traffic.

From the Silver Spring CBD Sector Plan:

Design standards should distinguish Georgia Avenue and Colesville Road as urban boulevards and create a pedestrian-friendly environment, including comprehensive streetscape and landscape treatment that includes:
- A new focus along Georgia Avenue at the Ripley District using open space and improved road access
- Street furniture and landscaping that emphasize public transportation with distinctive bus shelters and other transit support
- Specially paved crosswalks, and a tree-lined median on Georgia Avenue
- Improved visual quality in the public and private realms by encouraging compatible heights, setbacks, and street activating uses
- Focal points created by redevelopment projects at the intersection of Georgia Avenue and Colesville Road emphasizing bike, pedestrian and bus movement, linking across Georgia Avenue to connect the Transit Center and the Downtown Silver Spring project.
Montgomery Hills just south of the Beltway is a convenience shopping location for the adjoining communities of Montgomery Hills and Woodside.

A North and West Silver Spring Master Plan amendment should explore the feasibility of a small, mixed-use center in Montgomery Hills.
Allow adequate pedestrian crossing time at marked crosswalks. Currently the south crosswalk at Seminary Road intersection is timed at 3.84 feet per second.

SHA’s Montgomery Hills study should explore reducing intersections by using the existing parallel road on the east side of Georgia Avenue. It should also consider the North and West Silver Spring Master Plan recommendations, including removing the reversible lanes and installing medians and sidewalks with trees to help create a green boulevard and improve the quality of the public realm.

From the North and West Silver Spring Master Plan

- Remove reversible lane and install center median on Georgia Avenue in Montgomery Hills between 16th Street and Forest Glen Road.
- Provide for evening peak period left turns from northbound Georgia Avenue at one or more locations within Montgomery Hills.
- Study the access to local streets such as Hanover Street and Grace Church Road at the time the State studies the Georgia Avenue/16th Street intersection.
- Provide pedestrian edges of at least 12 feet with street trees in groundcover panels, brick sidewalks, ornamental pedestrian lighting, and street furnishings.
- Provide a landscaped center median (varying in width between 6 and 16 feet) between Forest Glen Road and 16th Street.
Forest Glen is the only Metro station in the County that has no commercial land use around it. Holy Cross Hospital, one of the major health providers in the County, is located in Forest Glen.

Allow adequate pedestrian crossing time at marked crosswalks. Currently the north crosswalk at Dennis Avenue is timed at 4.58 feet per second.

- Allow no new non-residential special exceptions along Georgia Avenue unless specifically recommended in the master plan.

- A future Kensington-Wheaton Master Plan amendment should explore allowing multiple units by-right in existing single-family houses facing Georgia Avenue.

- Study the feasibility of a pedestrian tunnel under Forest Glen Road connecting the east side of Georgia Avenue to the Metro station.

- Require all sidewalks to have a green panel separating the roadway from the sidewalk.

- Forest Glen Metro
Expand the County’s tree planting program to all available space in the right-of-way.

SHA and the County should investigate the feasibility of installing signalized crosswalks at intersections where parks and other facilities are on one side of the road, such as at Evans Parkway.

Improve stream quality by retrofitting sub-watershed areas to rectify situations created prior to current stormwater management regulations and require new development to meet goals for creating a green boulevard.

Fill bikeway gaps in roads parallel to Georgia Avenue. Routes should avoid forcing cyclists to cross Georgia Avenue and focus on providing both an on-road route (ideally on both sides of Georgia) and routes physically separated from auto traffic. Routes on less heavily traveled parallel streets should avoid diverting cyclists and pedestrians too far from destinations along Georgia or following confusing or circuitous routes that make cycling or walking inconvenient and difficult.
Consider combining the Wheaton Community Center with a renovated Rafferty Center and adding an urban park.

Wheaton, at the intersection of Georgia Avenue, Veirs Mill Road, and University Boulevard is famous for its ethnic restaurants and stores. It is also the location of the County’s first shopping mall, Wheaton Mall, and Chuck Levin’s Washington Music Center, which caters to professional musicians all over the country.

The Wheaton CBD Sector Plan, now underway, should explore options for making the CBD a pedestrian-friendly, walkable place with shops and community facilities that are easily accessible from Metro and adjoining communities.

Sidewalks in mixed-use centers should have benches, canopies, appropriate widths, quality surface materials, buffering trees and planters, and pedestrian scale lighting.
Design major intersections in the Wheaton CBD to reinforce the unique identity of the Wheaton CBD through distinctive urban design.

Where building to street width ratio exceeds a ratio of 1:2, a setback at mid-point (five to six stories) creates appropriate transition and scale.

Allow adequate pedestrian crossing time at marked crosswalks. Currently the south at Reede Drive intersection is timed at 4.08 feet per second.

Explore options for creating a better pedestrian crossing of Georgia Avenue at Veirs Mill Road in the Wheaton CBD Sector Plan amendment. The intersection geometry of Georgia Avenue and Veirs Mill Road and the high traffic volume make it difficult and unsafe to cross at this intersection.

Operate the proposed Veirs Mill bus rapid transit between Wheaton and Rockville on existing Veirs Mill roadway to assess ridership before funding for the entire project is in place.
Glenmont is the last station on the eastern leg of the Metrolit's Red Line. Here, Georgia Avenue transitions from pre-WWII residential to newer developments with larger lots on cul-de-sacs and more open space along the roadway. High traffic speeds contribute to an unpleasant environment for pedestrian and other non-motorized users of the road.

The County should revise the plans for a proposed six-level, 1200-space garage on the west side of Georgia Avenue to minimize the visibility of the proposed structure from Georgia Avenue.

Require all sidewalks along Georgia Avenue to have a green panel separating the roadway from the sidewalk, especially in neighborhoods within walking distance of Metro stations. Sidewalk buffer panels provide the greatest benefits for pedestrian safety. Citizens in the Glenmont area specifically complained that snow plowing on Georgia Avenue covers the sidewalk forcing people to walk in the roadway, especially during a heavy snowstorm when many neighborhood streets are not drivable. A green panel along the curb prevents this problem.
Consider peak-period, limited stop service between Glenmont and Olney to assess demand for a busway. Also consider recommendations from any future study of a Countywide bus rapid transit network.

Allow adequate pedestrian crossing time at marked crosswalks. Currently the north crosswalk at Layhill Road intersection is timed at 4.22 feet per second.

State’s Consolidated Transportation Program (CTP) includes a grade-separated interchange at Georgia Avenue and Randolph Road.

WMATA has currently initiated a station access study at the Glenmont Station with the following components:

- Review existing site and station conditions including transit ridership trends, parking operations, and traffic conditions of station area intersections
- Develop alternatives for pedestrian and vehicular access improvements and multi-modal connections including transit facilities for future Georgia Avenue Busway (BRT) service, reconfiguring the bus and kiss-and-ride facility, and improving pedestrian and bicycle connections to station
- Develop alternatives for future joint development opportunities
- Develop alternatives for a new station entrance connecting to the Glenmont Shopping Center, a potential redevelopment site.

Sidewalks in mixed use centers should have appropriate widths, quality surface materials, trees and planters to provide buffer from the road, benches, canopies, and pedestrian scale lighting.
Consider expanding Strathmore Local Park to provide a playground and possibly a skate spot in this dense apartment area.

Develop a more comprehensive way to measure accessibility to parks and recreation facilities instead of just the distance of a facility from the surrounding neighborhood. The multifamily enclave (in red) on Hewitt Avenue has three playfields (green dot) nearby but they are not accessible on foot or bike from these apartments.

Allow adequate pedestrian crossing time at marked crosswalks. Currently the north crosswalk at Connecticut Avenue intersection is timed at 4.59 feet per second.

The crosswalk at Hewitt Avenue, the location of two fatal pedestrian accidents, is currently timed at 4.42 feet per second.

Construct Harmony Hills Neighborhood Park to provide needed playgrounds with direct access to Georgia Avenue.

Aspen Hill is a local retail destination as well as a large and diverse residential community.

Modify the LATR/PAMR mitigation requirements for development projects to give sidewalk improvements equal or greater credits than curb ramps.
A future amendment to the Aspen Hill Master Plan should explore the feasibility of creating a compact, mixed-use center on the existing commercially zoned areas at the intersection of Georgia and Connecticut Avenues to create a more walkable center with local retail, community facilities, and additional affordable housing.

Expand the County’s tree planting program to all available space, especially in public rights-of-way, where significant tree planting can help the environment as well as neighborhood ambiance. The County should also consider providing incentives for residents to plant more trees on their property.

Require all sidewalks along Georgia Avenue to have a green panel separating the roadway from the sidewalk, especially in neighborhoods within walking distance of Metro stations.
Norbeck Road marks the boundary between the down-County urban areas and the up-County suburban and rural areas. Whites Hardware store at the northwest corner of Georgia Avenue and Norbeck Road is a designated historic landmark. North of Norbeck Road, Georgia Avenue transitions to a large-lot residential and rural development pattern. The Intercounty Connector will cross Georgia Avenue just north of Norbeck Road.

Proposed Norbeck Road Underpass

Allow adequate pedestrian crossing time at marked crosswalks. Currently the south crosswalk at Bel Pre Road intersection is timed at 5.04 feet per second.
From the Aspen Hill Master Plan:
The green corridor criteria recommended for Aspen Hill are an extension of the principles outlined in the Kensington-Wheaton Master Plan…with sidewalks where they are lacking, bikeways, and street and median trees where possible. The amount of vegetation along these corridors should be maintained and increased to improve visual and environmental quality and buffer adjacent uses and pedestrians from the high speed and noise of the vehicles. As a minimum, sidewalks must be provided where needed to access transit stops from residences, work and shopping, surrounding schools, and around shopping centers.

From the Aspen Hill Master Plan:
The design of Georgia Avenue Transitway should adhere to the green corridor policies.
Olney is one of the County’s oldest rural communities with an emerging town center at the intersection of Georgia Avenue and Olney-Sandy Spring Road. It is home to the Olney Theater and Montgomery General Hospital.

From the Olney Master Plan:

- Front building facades should be located along sidewalks and public open spaces. Ground floor of all buildings along major streets, and specifically along streets with recommended street facades, should have uses that generate pedestrian traffic, such as retail, restaurants, professional offices, and services.
- Wider sidewalks with sidewalk cafes and landscape amenities should be provided as part of public use spaces in appropriate locations.
- Public open spaces on adjoining lots should be located and designed to function as one space to avoid fragmentation of these amenities.
The Olney Master Plan calls for a mixed-use, walkable town center at the intersection of Georgia Avenue and Olney-Sandy Spring Road with street-oriented buildings and pedestrian amenities.

From the Olney Master Plan:
- Protect the residential character of Georgia Avenue between Norbeck Road and the Town Center as a green corridor and a gateway to Olney. Design all road improvements north of Norbeck Road to minimize impacts on open, semi-rural feel of the area.
- Georgia Avenue between Norbeck Road and the Olney Town Center should have an open, semi-rural appearance to mark the transition from more densely populated areas south of Norbeck Road to the low-density suburban character of Olney. A minimum of 100-foot setback for any dwelling or other structure along this stretch should be provided from the road right-of-way. Additional landscaping and vegetation should also be used to make sure that main views along the road are trees and vegetation and not the houses and other buildings. Any future special exceptions along this area should be landscaped such that they are not visible from the road. In particular, their lighting design should be carefully considered to make sure no halo effect or nightglow is produced by excessive lighting. The proposed Georgia Avenue busway should incorporate design measures including landscaping to mitigate the additional pavement of the busway.

The Olney Town Center Advisory Committee, working with the Planning Department staff, has created an illustrative concept plan for the town center based on the 2005 Olney Master Plan recommendations.
Beyond Olney, Georgia Avenue becomes a rural road as it passes through the County's Agricultural Reserve and the historic town of Brookeville.

Construct the Brookeville Bypass to help save the historic town of Brookeville from the negative impacts of heavy traffic, especially large trucks that have to maneuver through a sharp turn in the town.
Between Brookeville and the County line, Georgia Avenue is dominated by rural vistas of farms and forest preserves. The small outpost of the historic crossroads community of Sunshine lies at its intersection with New Hampshire Avenue.

Explore the feasibility of providing an underpass for equestrians at Rachel Carson Conservation Park.
IMPLEMENTATION

Master and Sector Plans
Future master and sector plan amendments will provide additional guidance and tools for implementing this study’s recommendations.

An amendment to the Aspen Hill Master Plan should explore the feasibility of creating a compact, mixed-use center on the existing commercially zoned areas at the intersection of Georgia and Connecticut Avenues to create a more walkable center with local retail, community facilities, and additional affordable housing. Similarly, a North and West Silver Spring Master Plan amendment should explore the feasibility of a small, mixed-use center in Montgomery Hills.

An amendment to the 1989 Kensington-Wheaton Master Plan should further study the feasibility of multiple units on single-family lots and, if feasible, apply such zoning in appropriate locations along Georgia Avenue.

Zoning Tools
The Zoning Ordinance Rewrite will focus on zones and design standards that create mixed-use centers and transit-oriented development in future master and sector plans at appropriate locations in the corridor.

Growth Policy Tools
The County’s Growth Policy has new redevelopment standards that can help achieve some of the pedestrian facility improvements such as better sidewalks, medians, and bus shelters. The current review of the policy is looking at new methods to create “quality of place” in the pedestrian environment.

Road Code
In 2007, the County Council enacted a requirement for development projects to submit a Pedestrian and Bicycle Safety Statement. The new Road Code supports roads that are more sensitive to their surroundings, promote environmental stewardship, and accommodate the varied users of County rights-of-way.

Capital Improvement Program (CIP)
Major infrastructure projects such as the Georgia Avenue/Randolph Road interchange have already been through the facility planning stage, are in the State’s six-year CIP, and have been funded for initial implementation (right-of-way acquisition, utility relocation). Others, such as the Georgia Avenue Busway and Veirs Mill bus rapid transit, are in the County’s priority list of infrastructure improvements. These and other infrastructure projects will improve the corridor’s transit function.

Development Review
Some of this study’s recommendations will be implemented through private sector projects as part of the development review process. In most cases, pedestrian and bike path improvements will be implemented through LATR or PAMR mitigation requirements.

Many of the study’s green boulevard recommendations will be achieved through the regulatory process. M-NCPPC has strict rules for new development intended to improve water quality as well as existing tree cover. The current review of the growth policy is exploring techniques to enhance development sustainability that could also benefit the corridor.
Acknowledgements

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