# mobility

Wheaton's strong transportation network will continue to serve it well through this Plan's horizon. The present urban street system is a modified grid crossed by three major State highways: Georgia Avenue (MD 97), University Boulevard West (MD 193), and Veirs Mill Road (MD 586).

Each of these major highways has a substantial multi-modal function connecting Wheaton to other activity centers in the County and the region. The Metrorail Red Line runs along the Georgia Avenue corridor, providing heavy rail service south to Silver Spring and the District of Columbia. The Veirs Mill Road and University Boulevard West corridors form one of the County's most heavily used east-west transit routes between Rockville and Takoma/Langley Crossroads and the University of Maryland–College Park.

This Plan will make slight modifications to the significant transportation infrastructure investment already existing in Wheaton to improve local connectivity and the pedestrian environment.

Within Wheaton, the three major highways should be treated as urban boulevards that will serve as lively arteries for the Plan area. The balance of Wheaton's street network will comprise Business Streets and Primary Residential Streets as designated in Table 2 (page 60), supported by local streets and alleys. Bicycles will be accommodated on all streets with a network of on-road lanes and routes that connect adjacent neighborhoods to transit and the CBD. Off-road shared use paths will connect to the Rock Creek and Sligo Creek stream valley park trail systems.

The road and pedestrian/bike networks will need to be modified to provide a mobility level that will both support and complement planned development. These improvements will increase connections within and between the Plan area and adjacent neighborhoods.

# **Approach and Network Integrity**

The Plan recommends increasing connectivity for all users of the road and pedestrian/bike network. Carefully layering networks of auto, transit, bike, and pedestrian facilities will improve mobility and access in the CBD, where design, safety, environmental, and community objectives require a multifaceted approach to placemaking.

In Wheaton, land use and transportation infrastructure is forecasted to be in balance as measured by the Subdivision Staging Policy's Policy Area Mobility Review (PAMR) test. PAMR forecasts the Relative Arterial Mobility (RAM) in the Kensington/Wheaton Policy Area to be 0.42, if the development under this Plan reaches the level of development described in Appendix 3, Transportation Analysis. This RAM measure is better than the minimum 0.40 standard for the Kensington/Wheaton Policy Area. Forecasted Local Area Transportation Review (LATR) standards can also be achieved within the Plan's horizon.

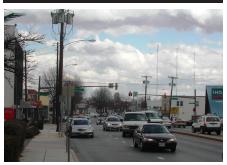






Table 2 Wheaton Roadways

Master Planned Streets	From	То	Master Plan of Highways No.	Notes	Minimum Right-of-Way (Feet) <sup>1</sup>	Number of Through Travel Lanes <sup>2</sup>	Target Speed	Design Standard <sup>3</sup>
Major Highways	rivili	10	NO.	Notes	(reet)	Lancs	Speeu	Design Standard
Georgia Avenue (MD 97)	Windham Ln.	Dawson Ave.	M-8	SW/Inside Lane/Parking	120	6, Divided	30	Mod. 2008.01
Hairmaita Barrianand Wast (MD 402)	Hillsdale/Drumm	Amherst Ave.	M-19	Parking/Ped Realm	120	6, Divided	30	Mod. 2008.01
University Boulevard West (MD 193)	Amherst Ave	E. Sector Plan Boundary	M-19	Bike Path/Buffer	150	6, Divided	30	Mod. 2008.02
Veirs Mill Road (MD 586)	College View Dr	Georgia Avenue	M-13	SW/Inside Lane/Parking	120	6, Divided <sup>4</sup>	30	Mod. 2008.01
Business Streets								
Amherst Avenue	Prichard Rd	Blueridge Ave	B-17	Bike Lanes, SW width	80	2	25	2004.22/2005.02
Blueridge Avenue	Wheaton Hills Dr	Elkin St	B-15		70	2	25	2005.02
Elkin Street	Price Ave	Blueridge Ave	B-16		70	2	25	2005.02
Ennella Avenue	Veirs Mill Rd	Grandview Ave	B-19		70	2	25	2005.02
Ennalls Avenue	Grandview Ave	Georgia Ave	B-19	(Proposed Road)	60	2	25	2005.01
Grandview Avenue	Reedie Dr	Blueridge Ave	B-18		70	2	25	2005.02
Fern Street	Reedie Dr	University Blvd	B-21		70	2	25	2005.02
Price Avenue	Georgia Ave	Amherst Ave	B-20		70	2	25	2005.02
Prichard Road	Georgia Ave	Amherst Ave	B-23		70	2	25	2005.02
Reedie Drive	Veirs Mill Rd	Georgia Ave	B-22		70	2	25	2005.02
Reedle Drive	Georgia Ave	Amherst Ave	B-22		70	3	25	Mod. 2004.23
Residential Primary Streets								
Ambarat Avanua	Windham Ln	Prichard Rd	P-35		84	2	25	2003.09
Amherst Avenue	Blueridge Ave	Elkin St	P-32		84	2	25	2003.09
Blueridge Avenue	Elkin St	Nairn Farmhouse Ct	P-11		70	2	25	2003.12
Bucknell Drive	Windham Ln	Prichard Rd	P-10	None	70	2	25	2003.12
Buckfiell Drive	Prichard Rd	Reedie Dr	P-10		84	2	25	Mod. 2003.09
East Avenue	Kensington Blvd	University Blvd	P-8		50	2	25	Mod. 2003.08
Elkin Street	Blueridge Ave	Amherst Ave	P-31		70	2	25	2003.12
Grandview Avenue	Blueridge Ave	Dawson Ave	P-30		70	2	25	2003.12
Horde Street	Windham Ln	Prichard Rd	P-34	None	60	2	25	2002.02
Kensington Boulevard	East Ave	Grandview Ave	P-8		70	2	25	2003.12
Prichard Road	Amherst Ave	Horde St	P-33	None	70	2	25	2003.12
Reedie Drive	Amherst Ave	Dodson Ln	P-36		70	2	25	2003.12
Upton Drive	Hillsdale Dr	East Ave	P-7		50	2	25	Mod. 2003.08
Windham Lane/Douglas Avenue	St. Margaret's Way	Horde St	P-9	None	70	2	25	2003.12

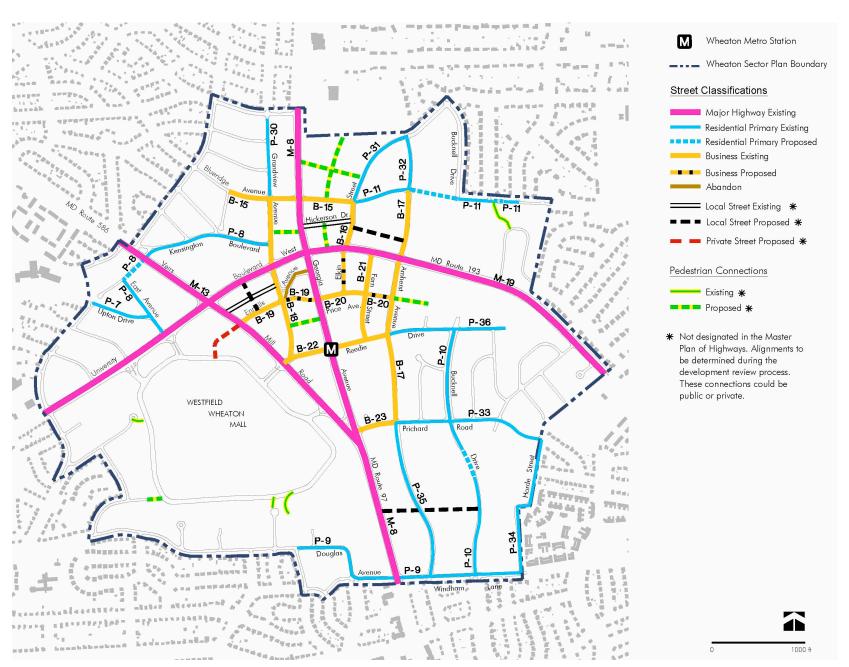
<sup>&</sup>lt;sup>1</sup> Reflects minimum right-of-way, may not include turning, parking, acceleration, deceleration, or other auxillary lanes. Rights-of-way are measured from centerline.

<sup>&</sup>lt;sup>2</sup> The recommended number of lanes refers to the number of planned through travel lanes for each segment.

<sup>&</sup>lt;sup>3</sup> Reflects the most representative roadway cross-section.

<sup>&</sup>lt;sup>4</sup>The outside lanes of Veirs Mill Road are recommended for use as bus only lanes north of Reedie Drive.

**Existing and Proposed Street and Pedestrian Network** Map 17



#### **The Street Network**

- Redesign Georgia Avenue, University Boulevard West, and Veirs Mill Road as urban boulevards with enhanced medians and crosswalks, street trees, and street-oriented retail where appropriate.
- Designate Georgia Avenue, Veirs Mill Road, and University Boulevard West west of Amherst Avenue as 120-foot rights-of-way with six lanes. These rights-of-ways are intended to accommodate the expected development of a network of express bus routes in designated lanes, an important element of the County's transportation planning.
- Designate University Boulevard West east of Amherst Avenue as a 150-foot right-of-way to accommodate express bus routes and the master planned dual bikeway (DB-5).
- Provide on-street parking on as many streets as possible to serve adjacent land uses, separate pedestrians from traffic, and contribute to slower target speeds.
- Reduce target speeds to 30 miles per hour on the major highways and 25 miles per hour for all other Plan area roadways to improve pedestrian safety and enhance walkability in the downtown.
- Consider roundabouts, built to County street standards, to control traffic and serve as entry features on residential streets such as along Amherst Avenue at Prichard Road and Blueridge Avenue.
- Complete missing links in the existing grid of Business and Primary Residential Streets.
  - Retain the right-of-way for the unbuilt portion of Kensington Boulevard between East Avenue and Veirs Mill Road. Use of the right-of-way should be determined during development review for any redevelopment of the adjacent Lindsay Ford property. The right-of-way may be used for a bicycle or pedestrian connection if it is determined that a street is not needed or feasible at this location. Regardless of how the right-of-way is used, the impact on residential properties should be minimized and any additional right-of-way required should be from the east side of East Avenue.
- Implement local street connections consistent with the subdivision regulations and urban design guidelines, with specific alignment and features to be determined during the development review process. These streets could be either public or private and include either service access, local vehicular circulation, or both.

- Realign and extend Ennalls Avenue and extend Price Avenue to create a new east-west street link (Map 17, page 61 and Table 2, page 60). There are four components of this realignment and extension.
  - Extend Ennalls Avenue west from its current terminus at Veirs Mill Road and connect with the Wheaton Mall Ring Road. This extension should be a private street. The construction of this segment of Ennalls Avenue should not interfere with existing structures and their footprints.
  - Realign Ennalls Avenue between Grandview Avenue and Georgia Avenue to meet Price Avenue at its intersection with Georgia Avenue. The Plan recognizes that providing on-street parking on a relocated Ennalls Avenue between Grandview Avenue and Georgia Avenue may not be possible if impacts to adjacent properties are to be minimized. Therefore, the Plan acknowledges that achievement of the ultimate Business Street section that would include on-street parking on at least one side of the street may not be realized until redevelopment occurs on both sides of this segment of Ennalls Avenue.
  - Abandon the existing alignment of Ennalls Avenue between Grandview Avenue and Georgia Avenue. This can be done concurrently with the realignment of Ennalls Avenue.
  - Extend Price Avenue east from its current terminus at Fern Street to Amherst Avenue.

These extensions and realignments will enhance circulation within the CBD, provide better access from the neighborhood into the CBD, and minimize the need to travel on State highways to move within the CBD. The alignment of each component of this new street network should be determined during the development review process. Each segment has unique considerations that should be addressed at the time of development.

- The realignment may impact the redevelopment of properties between Grandview Avenue and Georgia Avenue, but will require a complete public process whereby community and property owner concerns can be addressed.
- The extension of Price Avenue between Fern Street and Amherst Avenue should be done concurrently with redevelopment of County Parking Garage 45. Currently, there are no plans to redevelop this parking structure, so this portion of the Ennalls-Price road connection may be the last to be developed. Depending upon the nature of this redevelopment, the extension of Price Avenue may be built without one or both parking lanes, thereby reducing the necessary right-of-way.



Expand Upton Drive and East Avenue to meet 70-foot street standards when warranted by redevelopment of
parcels between Upton Drive/East Avenue and Veirs Mill Road, or by a significant increase in school-related traffic on Upton Drive. Additional right-of-way necessary to support new development on the northeast side of Upton
Drive and East Avenue should be acquired while minimizing effects on residential properties. Street design
should be flexible enough to support redevelopment of commercial properties along these blocks.

Three proposed street alignments are classified as either master-planned business streets, private streets, or local streets based on their need to carry traffic as part of the determination of master plan transportation system adequacy:

- Ennalls Avenue extended west into Westfield Mall property (Private Street)
- Ennalls Avenue extended between Grandview Avenue and Georgia Avenue (Business Street)
- Hickerson Drive between Georgia Avenue and Elkin Street (Local Street)

These three streets may be implemented as private streets subject to the following conditions:

- Public easements must be granted for the roadway and be reviewed and approved by the Maryland-National Capital Park and Planning Commission (M-NCPPC) and the Department of Transportation (MCDOT) for connectivity and consistency with the Plan's Existing and Proposed Street and Pedestrian Network map (Map 17, page 61) prior to acceptance of the easement.
- The design of the road must follow or improve upon the corresponding Road Code standard for a similar public road, unless approved by MCDOT and the Planning Board at the subdivision review stage or otherwise specified in the Plan.
- Installation of any public utilities must be permitted within such easement.
- The road will not be closed for any reason unless approved by MCDOT.
- Approval from the Department of Fire and Rescue Services must be obtained for purpose of fire access.
- The public easement may be volumetric to accommodate uses above or below the designated easement area.
- The County may require the applicants to install appropriate traffic control devices within the public easement, and the easement must grant the right to the County to construct and install such devices.
- Maintenance and liability agreements will be required for each easement area. These agreements must identify
  the applicants' responsibility to maintain all of the improvements within their easement area in good fashion
  and in accordance with applicable laws and regulations.

#### **Pedestrian Circulation**

The Plan area benefits from a hierarchy of quiet, residential streets, business streets, and larger State highways. Providing improved pedestrian connections within and between the varying land uses aids overall mobility and access while also helping to reinforce the human scale of Wheaton.

Provide through-block pedestrian connections where feasible. Large blocks are particularly suitable for new pedestrian connections. For example, the block bounded by Veirs Mill Road, East Avenue, and University Boulevard

West. At the time of redevelopment, projects on these larger blocks should provide for adequate pedestrian circulation, bike connections, and neighborhood compatibility. The alignment and design of pedestrian connections should be determined during the development review process.

- Local streets in the CBD are identified for improved connectivity and access and for their place-making potential. These streets should include features that communicate slower vehicle speeds such as special paving, plantings, and flush curbs with bollards. Innovative stormwater management features should also be included in their design. The width of adjacent sidewalks should accommodate outdoor dining and retail activity. The streets should also be designed to be closed to vehicular traffic to accommodate open air markets, outdoor dining, and event space without significantly affecting circulation and traffic flow in the immediate area.
- Hickerson Drive should be abandoned if the resulting private street connection provides flexibility in creating a vibrant retail corridor with enhanced pedestrian and vehicular circulation within the Blueridge District. The abandonment of Hickerson Drive should be considered only at the time of development of the blocks to the north and south and between Georgia Avenue and Elkin Street. A through block connection in the east-west Hickerson Drive orientation should be maintained during and after redevelopment of the adjacent properties.
- Enhance and clearly mark the disconnected street segments that currently serve as bicycle and pedestrian links to minimum eight-foot pavement widths. Segments suitable for modification include:
  - Hillsdale Drive between Midvale Road and Valley View Avenue
  - Blueridge Avenue between Taber Street and Nairn Road
  - Horde Street between Prichard Road and Dayton Street at Wheaton Forest Local Park.

Table 3 Countywide and Local Bikeways

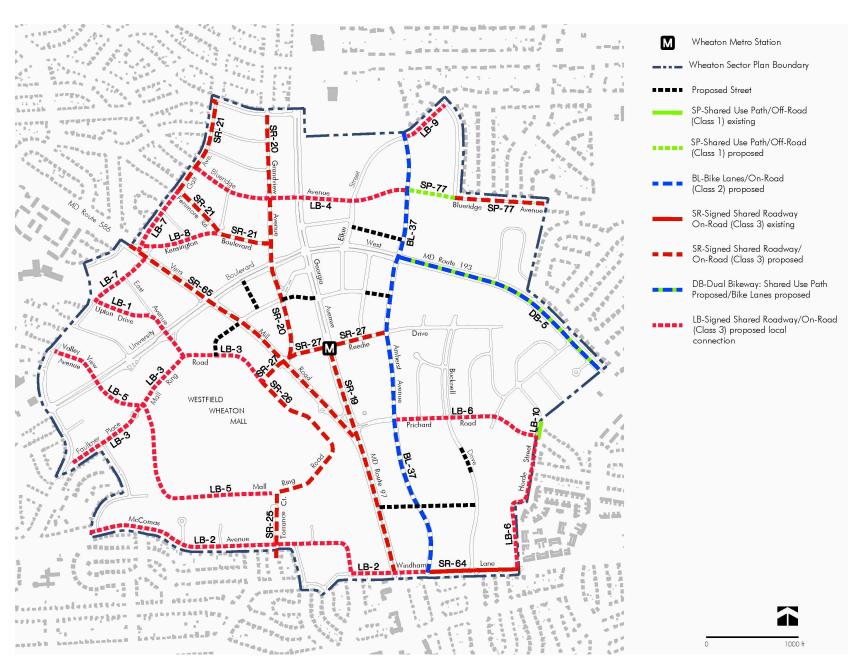
<b>Route Number</b>	Street	From	То	Facility Type		
BL-37	Amherst Ave	Windham Ln	Arcola Ave	Bike Lanes		
DB-5	University Blvd	Amherst Ave Sector Plan Boundary		Dual Bikeway: Shared Use Path-Bike Lanes *		
LB-1	East Ave	Upton Dr	Mall Ring Rd	Signed Shared Roadway		
LB-1	Upton Dr	Hillsdale Dr	East Ave	Signed Shared Roadway		
LB-2	McComas Ave/Douglas Ave	Peregoy Dr	Amherst Ave	Signed Shared Roadway		
LB-3	Mall Ring Road	Faulkner Pl	Reedie Dr entrance	Signed Shared Roadway		
LB-4	Blueridge Ave	Galt Ave	Amherst Ave	Signed Shared Roadway		
LB-5	Valley View Dr/Mall Ring Road	Hillsdale Dr	LB-3	Signed Shared Roadway		
	Mall Ring Road	LB-3	SR-25	Signed Shared Roadway or Shared Use Path		
LB-6	Prichard Rd/Horde St	Amherst Ave	Windham Ln	Signed Shared Roadway		
LB-7 **	Kensington Blvd/Galt Ave	Upton Dr	Fenimore Rd/SR-21	Signed Shared Roadway		
LB-8	Kensington Blvd	Veirs Mill Rd	Fenimore Rd/SR-21	Signed Shared Roadway		
LB-9	Elkin St	Amherst Ave	Sector Plan Boundary	Signed Shared Roadway		
LB-10	Horde St	Horde St Prichard Rd/Carmody Dr Wheaton Forest Park Boundary ***		Shared Use Path		
SP-77	Blueridge Ave	ueridge Ave Amherst Ave Sector Plan Boundary S		Shared Use Path		
SR-19	Georgia Ave	Windham Ln	Reedie Dr	Signed Shared Roadway		
SR-20	Grandview Ave	Reedie Dr	Dawson Ave	Signed Shared Roadway		
SR-21	Fenimore Rd	Galt Ave	Grandview Ave	Signed Shared Roadway		
SR-21	Galt Ave	Fenimore Rd	Dawson Ave	Signed Shared Roadway		
SR-25	Torrance Ct	Douglas Ave	Mall Ring Road	Signed Shared Roadway		
SR-26	Mall Ring Road	Torrance Ct	Reedie Dr entrance	Signed Shared Roadway		
SR-27	Reedie Dr	Mall Ring Rd	Amherst Ave	Signed Shared Roadway		
SR-64	Windham Ln	Amherst Ave	Horde St	Signed Shared Roadway		
SR-65	Veirs Mill Rd	Georgia Ave	Kensington Blvd	Signed Shared Roadway		

<sup>\*</sup>The segment of dual bikeway DB-5 along University Boulevard West from Amherst Avenue to Georgia Avenue (MD 97), as proposed in the 2005 Countywide Bikeways Functional Master Plan, should be deleted.

<sup>\*\*</sup>See related discussion regarding the retention of the right-of-way for Kensington Boulevard under The Street Network (page 62).

<sup>\*\*\*</sup>Continues to University Boulevard as a park trail just outside the Sector Plan Boundary. For reference, see planned Shared Use Path/Trail as recommended in Master Plan for the Communities of Kensington/Wheaton (May 1989; amended April 1990), page 224.

Map 18 Existing and Proposed Bikeways







#### **Bikeway Network**

- Improve connectivity from the Plan area to Wheaton Regional Park, Rock Creek Park, and Sligo Creek Stream Valley Park and Trail including enhanced signage on streets that lead to trail connectors as well as on the trails themselves. Key connections include:
  - Windham Lane from Amherst Avenue to the Sligo Creek Trail
  - Blueridge Avenue from Amherst Avenue to the Sligo Creek Trail and Wheaton Regional Park
  - Upton Drive and East Avenue to facilities in western Wheaton.
- Request the State to designate the Plan area as a Bicycle and Pedestrian Priority Area. This designation will facilitate funding for bicycle and pedestrian improvements on State roads.
- Include bicycle lanes along Amherst Avenue and the portion of University Boulevard West east of Amherst to improve circulation and accommodate long-distance connections.
- Facilitate on-road bicycle travel for short trips using slower target speeds and bicycle-compatible designs per the County's Road Code.
- Develop a bicycle station with secure bicycle parking and related amenities at the Wheaton Metro Station.

#### **Transit**

Transit is an integral component of Wheaton's mobility system, both today and tomorrow. The Plan's vision is built on Metrorail, future bus rapid transit (BRT), and local bus service. Wheaton's crossroads setting requires transit service designed to accommodate trip origins, destinations, and connections among types of service. As a result, the Plan supports development and actions that raise the visibility of transit while also improving the area's already high level of service.

- Develop high quality (frequent, limited stop, low-floor) bus rapid transit on Veirs Mill Road as part of a larger BRT network to better connect Wheaton with Rockville and other parts of the County. Improved transit connections to Takoma/Langley Crossroads via University Boulevard West are also envisioned beyond the Plan's eastern boundary. Other BRT corridors may be recommended following the completion of a Countywide Bus Rapid Transit Study underway at time of Plan adoption. The study's recommendations should be incorporated into the Wheaton transit network as appropriate. These initiatives will improve bus travel times between major activity centers.
- Provide convenient and safe intermodal connections by ensuring that bus bays, enhanced bus stop amenities, crosswalks, and other supporting facilities are well located and sufficient in number, either as stand-alone facilities or as part of redevelopment initiatives. This Plan does not envision new bus transfer facilities outside the existing Metro station, but recognizes that the County and WMATA will need to coordinate as redevelopment proposals are considered.
- Project planning should recognize the Metro station as the focus of Wheaton's transportation infrastructure. Providing easy and safe multi-modal access to and from the station, and incorporating features that reinforce the station area as a transit place, are important parts of the Plan vision.

## **Travel Demand Management**

 Establish a 30 percent Non-Auto Driver Mode Share (NADMS) goal for employees in the Plan area based on the area's transit service and connectivity opportunities.

#### **Mode Share Goals**

Proposed mode share targets for employees working in Wheaton are based on analysis of observed travel behaviors in other County activity centers with a high quality of transit service. The Plan goals for NADMS (Table 4) are based on a gradient of NADMS, which is highest in the urban, down-County planning areas and lower farther from the region's urban core. High NADMS numbers typically correspond to urban areas that tend to be more walkable, with a higher level of transit service and a mix of uses.





Map 19 Existing and Proposed Transit Service

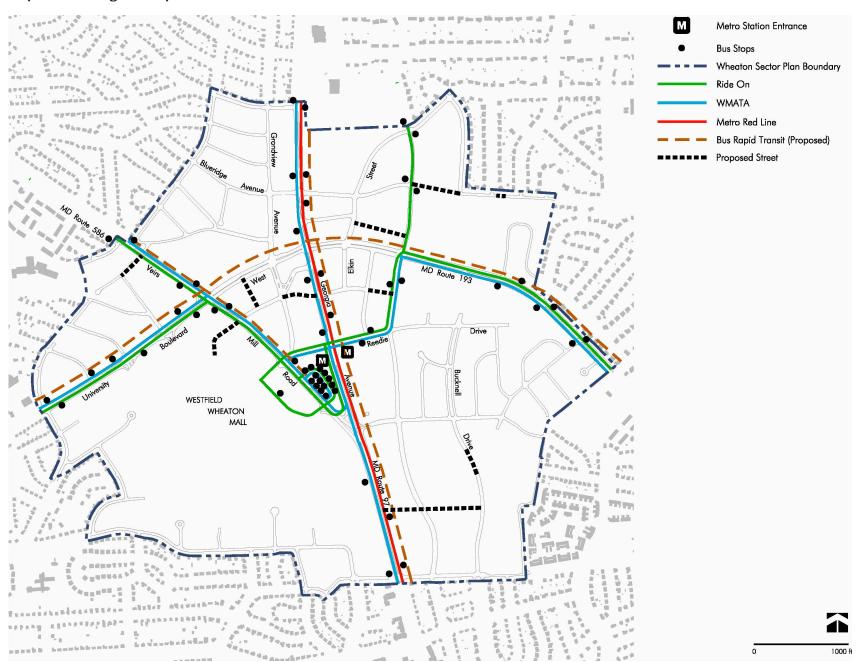


Table 4	Non-Auto Driver Mode Share Goals	
	Area	Master Plan Goal
	Bethesda	37%
	Germantown	25%
	Silver Spring	50%
	Wheaton	30%
	White Flint	50%



Wheaton's location near the edge of the County's urban ring communities is one constraint that results in an NADMS that is below that of Bethesda and Silver Spring—areas with more density. Another constraint for Wheaton is its employment base, characterized by a high percentage of retail jobs and lower office employment. Higher office employment frequently correlates with a high NADMS because office employees typically commute during peak hours, when transit service is operating at maximum frequency and capacity.

Non-Auto Driver Mode Share (NADMS) is the percent of work trips via transit (bus or rail), walking, biking, or carpooling during the peak travel period of a typical weekday.

High NADMS figures indicate numerous transit options and good accommodations for pedestrians and/or cyclists.

Urban areas typically have a high NADMS while rural areas often have a low NADMS. The Plan's goal for Wheaton is 30 percent, based on a range of NADMS figures from urban Silver Spring (50 percent) to more suburban Germantown (25 percent).

Transit use by residents (journey-to-work data), as opposed to transit use by employees working in Wheaton, is estimated at 52 percent, nearly three times the Countywide average. As Wheaton becomes a more vibrant mixed-use center, one objective will be to ensure that transit, bicycling, and walking remain viable options for future residents who also choose to work in Wheaton. In the long term, transit mode share might decrease somewhat, but be replaced by a higher walk and bike mode share.

Two of the Plan area's characteristics contribute to reducing single-occupant auto use.

- · Wheaton is served by a robust transit system including a Metro station and several bus lines. Bus Rapid Transit is under consideration on Veirs Mill Road and University Boulevard West within the Plan's horizon.
- A large portion of the planned growth in Wheaton will likely be residential, which typically has lower trip generation rates than other types of development. Even though Wheaton is expected to expand its current office and commercial base, it is not envisioned to be a major new office hub.

### **Parking Management**

The Plan discourages land dedicated to parking. Development plans should reflect shared parking strategies—preferably using structured parking compatible in size and design with both the associated uses and the adjacent area.

The Plan proposes leveraging the County's ownership of properties currently used for public parking lots to attract mixed-use development that will include public parking structures. The proposed CR Zones facilitate the provision of publicly available parking, and the County is investigating alternative parking management schemes to promote the most effective use of Parking Lot District resources.

- Encourage a balance of short- and long-term on-street parking within the CBD.
- Retain some convenient parking for the Metro station, but devote primary efforts to increasing the percentage of Metrorail passengers walking, using the bus, or riding bicycles to and from the station.