8 • Transportation

A transportation network can be thought of as a system of interrelated parts that function together to provide access and mobility to a variety of users. The automobile-oriented mindset of the mid- to late twentieth century has yielded to a new concept of multimodal transportation that will effectively serve all users, from vehicle drivers to cyclists and pedestrians, and provides a variety of transportation options, such as transit, trails, and bicycle paths. The relationship between land use and transportation requires that a community's land use decisions should drive transportation planning. Therefore, local and regional transportation system planning involves developing a comprehensive understanding of how land use decisions affect the choices of travelers and the functioning of the transportation network.

An excellent transportation system will provide multimodal opportunities and take the needs of cars, trucks, buses, bicycles, and pedestrians into account in the planning process for all projects. Trade-offs between mobility and access are necessary, as choices must be made between enhancing regional travel and ensuring access to community destinations. The planning process also will recognize the key relationship between transportation and land use. Transportation policies and investments should be integrated with strategic land use choices to ensure efficient use of existing pedestrian facilities, roadways and transit systems; reduced commuting times; fewer vehicle miles traveled; lower capital costs; and improved public health.

Key Findings

- Speeding occurs on neighborhood streets and main roadways throughout the plan area.
- The area defined by the confluence of the Capital Beltway (I-95/I-495), Lanham-Severn Road (MD 564), and Annapolis Road (MD 450) has a high degree of traffic congestion and poses operational challenges.
- Limited pedestrian crossings exist within the plan area.
- Much of the plan area has discontinuous and/or poorly-maintained sidewalks.

- Roadways throughout the plan area lack bicycle lanes.
- The plan area contains the beginnings of an extensive trail network.

Major Challenges

- Area priority projects, especially on roadways maintained by the State Highway Administration, must compete with other federal and state projects for funding.
- Transit service improvements are limited by the plan area's low residential densities.
- Development occurring in nearby communities may continue to increase traffic passing through the plan area.

Existing Conditions

The Glenn Dale–Seabrook–Lanham plan area contains a multilayered transportation network composed of regional highways, local streets, public transportation routes, sidewalks, and local and regional trails. Bordered on the west by the Capital Beltway, on the south by US 50 (John Hanson Highway), and bisected by the MARC rail line, this network serves local traffic, along with commuters to Washington, D.C., and Baltimore who pass through the plan area (See Map #).

The plan area's road network is heavily taxed during peak periods, with many major arterials at or near capacity, especially in the Lanham area. Congestion arises from commuters trying to access employment areas and the Capital Beltway, along with the area's MARC rail station and the New Carrollton Metro Station. Other transportation issues include continued traffic growth within neighboring plan areas and the region as a whole, cut-through and speeding traffic on local streets, poor pedestrian connections to area destinations, limited bicycle facilities, and infrequent transit service.

Existing Plans

1993 Approved Master Plan and Sectional Map Amendment for Glenn Dale–Seabrook–Lanham and Vicinity

The 1993 plan for the Glenn Dale–Seabrook–Lanham area focused mainly on recommendations for new roads in the plan area to accommodate projected future development, with some consideration given to expanded bus service and sidewalk improvements for pedestrians. Major transportation objectives from this plan include:

- Reducing existing traffic congestion
- Providing efficient access to residential, commercial, and employment areas
- Developing sufficient capacity to accommodate traffic generated by new development
- Supporting a mass transit system of bus and rail service
- Linking residential areas to commercial facilities, employment centers, and recreational amenities through pedestrian trails and bicycle paths

The 1993 master plan recommendations were made in a time of rapid growth in the area, when the population had grown by over nine percent during the 1980s and was about to increase by 27 percent during the next decade. New roadway improvements were of paramount importance to accommodate the growing population's need for access to new homes, employment, and commercial centers.

Many of the 1993 plan recommendations involving roadways were identified as "intermediate initiatives" or "later initiatives," meaning that no funds were programmed for them by the county or state in 1993 as an immediate need did not exist for these improvements. Most of the "intermediate" and "later initiatives" have not been implemented. Table 27 identifies proposed 1993 improvements and their implementation status in 2009.

Transit concerns received cursory treatment in the 1993 master plan. The plan did state that "increased use of public transportation is encouraged to facilitate traffic movement, improve the quality of commuting trips, and recoup public investment in the commuter rail and Metrobus systems"; however, few recommendations were made.[1] The plan acknowledged MARC's intentions to add additional parking spaces to the Seabrook MARC station and increase the number of train cars operating on the Penn Line. Additionally, it called for direct bus service linking employment and residential areas to rail stations, expanding bus service to the Washington Business Park, and encouraging private developers of employment areas to provide shuttle bus service to rail stations.

All trails recommendations were located in the parks and recreation section, and many recommendations related to recreational uses. Major trails recommendations included:

- Development of a multiuse trail within the abandoned Washington, Baltimore, and Annapolis railroad right-of-way (the WB&A Trail)

1 1993 Approved *Master Plan and Sectional Map Amendment for Glenn Dale–Seabrook–Lanham and Vicinity* (p. 49).

Table 27.
1993 Proposed Roadway Improvements

Roadway	*Proposed Improvement*	*Completed?*
Freeways		
US 50 (John Hanson Highway)	Widening from 4 to 6 lanes plus 2 HOV lanes; upgraded interchanges at the Capital Beltway and MD 704	Yes
I-95/I-495 (Capital Beltway)	Widening from 8 to 10 lanes	No
Arterials		
MD 193 (Greenbelt Road and Glenn Dale Boulevard)	Widening from 4 to 6 lanes; boulevard/ parkway landscaping	No
MD 450 (Annapolis Road)	Widening from 4 to 6 lanes from Capital Beltway to MD 564; MD 564 interchange improvements	Yes
MD 564 (Lanham-Severn Road)	Develop 4 lanes from MD 450 to Forbes Boulevard; widen from 4 to 6 lanes from Forbes Boulevard to Springfield Road	No
MD 704 (Martin Luther King, Jr. Highway)	Dualize as 6 lanes from Lottsford Vista Road to MD 450	Yes
MD 193 (Enterprise Road)	Limit to 4-lane arterial parkway with stringent access management control	No
Collectors		
Portions of Springfield Road, Princess Garden Parkway, Cipriano Road, Whitfield Chapel Road, MD 953, Good Luck Road, Prospect Hill Road, Hillmeade Road, Lottsford-Vista Road, Carter Avenue, Daisy Lane,	Upgrade to collectors with a maximum of 4 lanes	No
Forbes Boulevard, Bell Station Road	Upgrade to collector with a maximum of 4 lanes	Yes
New Interchange		
MD 450 at MD 193	Construct a new interchange	No
Historic/Scenic Road		
Bell Station Road	Designate as a historic and scenic road from MD 193 to Prospect Hill Road	Yes

Source: 1993 Approved Master Plan and Sectional Map Amendment for Glenn Dale–Seabrook–Lanham and Vicinity

- Creation of a hiker/biker trail along Annapolis Road (MD 450) from Bowie to New Carrollton
- Development of a multiuse trail along Glenn Dale Boulevard (MD 193) to connect the new MD 450 trail to the new WB&A Trail
- New multiuse trails along Lanham-Severn Road, Forbes Boulevard, and Good Luck Road
- New multiuse stream valley park trails in Bald Hill Branch Stream Valley Park, Folly Branch Stream Valley Park, and Lottsford Branch Stream Valley Park

Many of the above trails recommendations have been implemented since 1993, including the WB&A Trail, the MD 450 sidepath, and multiple segments of the Folly Branch Stream Valley Trail.

2002 *Prince George's County Approved General Plan*

Although the 2002 General Plan focuses on transportation issues in the county as a whole, it does make some broad transportation policy recommendations that apply to the plan area. The 2002 General Plan acknowledges the vital link between land use and transportation and the increasingly important role of nonmotorized transportation modes, such as public transportation and trails. Many of its policy recommendations and strategies focus on developing an "integrated multimodal transportation system," which is "essential to attracting the quality development that the county envisions…."[2] The 2002 General Plan also emphasizes the need to coordinate transportation planning with short- and long-term county development goals.

2009 Update to the *Countywide Master Plan of Transportation*

The 2009 update to the *Countywide Master Plan of Transportation* (MPOT) provides specific recommendations by which to implement the general transportation policies of the 2002 General Plan. The MPOT incorporates the transportation recommendations of all county master and sector plans approved since the 1982 *Countywide Master Plan of Transportation* and also provides additional, detailed recommendations that reflect the county's new desired growth patterns and emphasis on trails, bikeways, and transit. The MPOT covers each plan area within the county, identifying its relevant sector/master plan and providing graphics and tables of strategies that should be carried forward. Many of these recommendations have been included in this sector plan update.

2 *Prince George's County Approved General Plan* (2002), p. 63.

In April 2009, the Planning Board adopted the MPOT update, and it presently awaits County Council approval.

Prince George's County Transit Service and Operations Plan

The Prince George's County Department of Public Works and Transportation is currently updating the county's *Transit Service and Operations Plan*. A five-year plan to guide transit service improvements in the county, the *Transit Service and Operations Plan* update will make recommendations on the county's TheBus service and Metrobus service operated by the Washington Metropolitan Area Transportation Authority (WMATA).

The 2009 update is in draft form, with preliminary recommendations available to the public. This draft plan contains several items that apply to the Glenn Dale–Seabrook–Lanham plan area, including:

- A new bus line running from the Largo Town Center Metro Station to the New Carrollton Metro Station; this line will serve the Washington Business Park.
- Service frequency improvements along a bus line running from the Greenbelt Metro Station via NASA to the New Carrollton Metro Station.
- Expanded Saturday service along a line running from the Greenbelt Metro Station to the New Carrollton Metro Station.

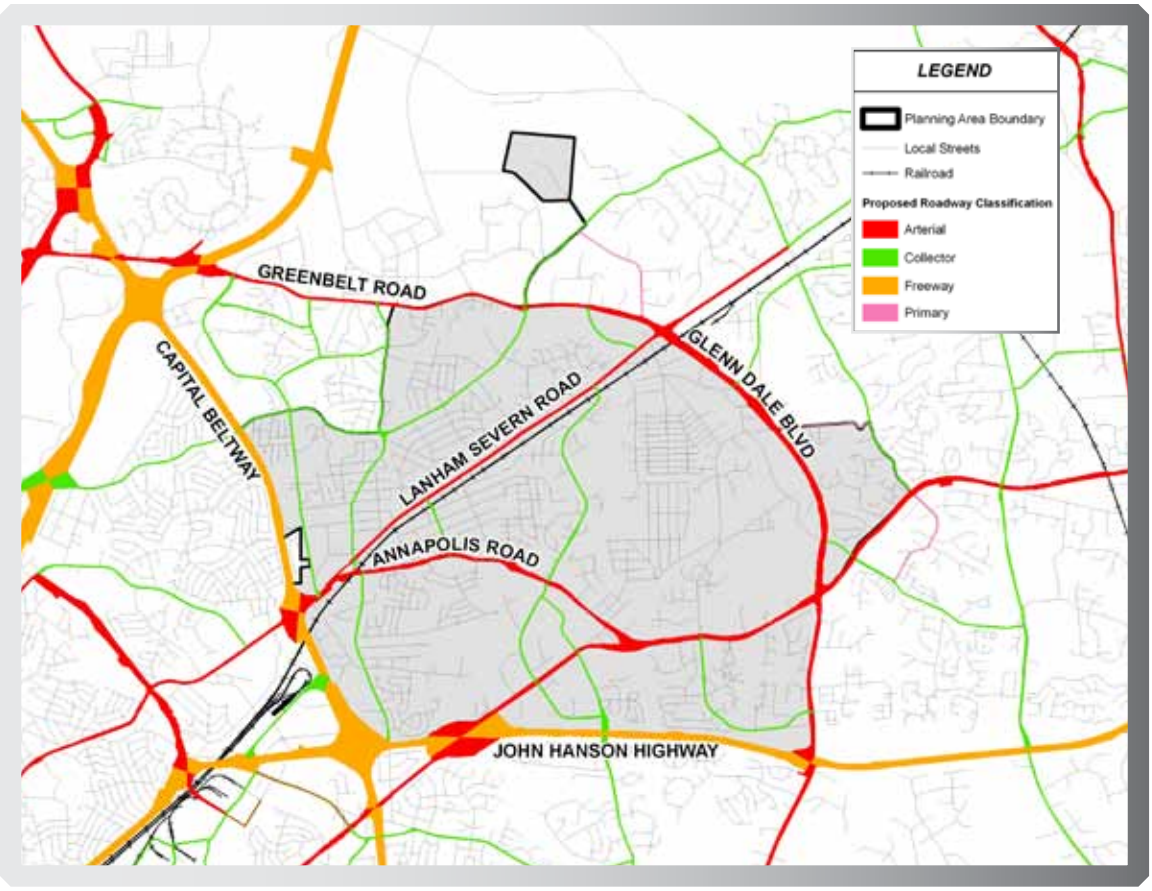
Road Network and Functional Classifications

The Glenn Dale–Seabrook–Lanham area is primarily defined by two major regional freeways, a set of east/west highways and gridded or curvilinear neighborhood streets. This street network forms a hierarchy distinguished by different levels of mobility and access. The plan area's highway network includes:

- **Freeways:** Limited-access divided highways with grade-separated interchanges. These highways are designed to carry high volumes of high-speed traffic. The Capital Beltway (I-95/I-495) is an eight-lane freeway running along the western boundary of the plan area.
- **Arterials:** Highways with controlled access and at-grade intersections that carry through or local traffic. These streets usually connect heavily-developed areas or traffic-generating uses. Arterials in the plan area include Annapolis Road (MD 450), Greenbelt Road (MD 193), Glenn Dale Boulevard (MD 193), Martin Luther King, Jr. Highway (MD 704), and Lanham-Severn Road (MD 564).
- **Collectors:** Two, four, or five-lane roadways with minimal access control that provide connections between developed areas and arterial roadways. Plan area collectors include Good Luck Road, Cipriano Road, Glenn Dale Road, Whitfield

Chapel Road, Prospect Hill Road, Princess Garden Parkway, Lottsford-Vista Road, Carter Avenue, and Bell Station Road.

- **Other (Local Streets):** Residential (subdivision), industrial, and commercial roads providing access to, through, and between developed areas. Most local roads are two lanes only and provide access to the greater road network.

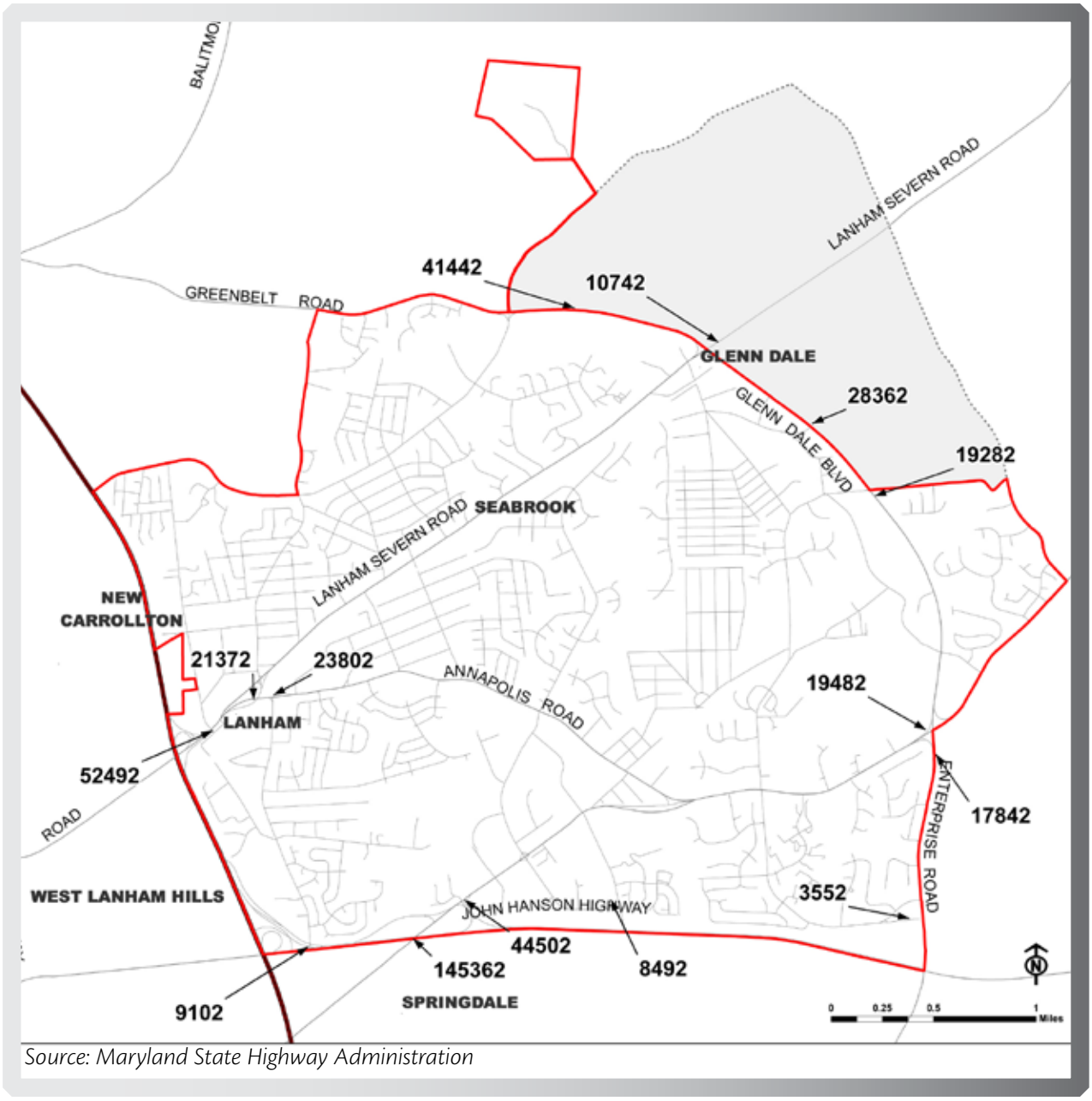


Map 20: Road Network

Traffic Volumes

The Maryland State Highway Administration (SHA) records traffic counts for major roadways throughout the state. Several roadways and intersections in the plan area have been measured over time, which allows for an examination of the rate of traffic growth along area roadways. The most recent traffic count data available from SHA is from 2008. Map 21 shows 2008 traffic counts for plan area roadways.

The volume of vehicles in the plan area each day must be taken into account when planning for future transportation and public facilities infrastructure.



Source: Maryland State Highway Administration

Map 21: Average Daily Traffic Volumes

Comparison of data from 2000 to 2007 shows an increase in average daily traffic (ADT) within the plan area. Table 28 shows that average daily traffic counts along major plan area roadways have increased annually since 2000.

With the exception of the MD 450/MD 564/Princess Garden Parkway intersection just east of the Capital Beltway, traffic has increased the most in the southern and eastern parts of the plan area. This change can be attributed to the number of residential subdivisions that have been developed in these areas over the past decade. Overall traffic growth may arise from increases in "cut-through" traffic originating outside the plan area. New residential development in other communities east and southeast of the plan area as well as employment growth areas to the west and northwest may account for additional commuters using plan area roadways to access the Capital Beltway and US 50.

Table 28.
Plan Area Roadway Traffic Counts, 2000–2007

Roadway/Intersection	***2000 ADT****	***2007 ADT****	***% Change, 2000 - 2007***	***Average Annual Change, 2000–2007***
MD 450/MD 564/Princess Garden Parkway	32,999	54,111	64.0	8.0%
MD 450 & MD 564	24,175	24,531	1.5	0.2%
MD 704 near US 50 interchange	32,675	45,871	40.4	5.1%
MD 450 west of intersection with Glenn Dale Boulevard/ MD 193	N/A	20,081	_	--
Enterprise Road/MD 193 south of intersection with MD 450	12,875	18,391	42.8	5.4%
Greenbelt Road/MD 193 near Good Luck Road intersection	N/A	42,271	--	--
Glenn Dale Boulevard/MD 193 and Prospect Hill Road intersection	23,275	29,241	25.6	3.2%

ADT=Average Daily Traffic
Source: Maryland State Highway Administration

Table 29.
Levels of Service

Service Level	*Description*	*Volume/ Capacity Ratio**
A	Free flow, turns easily made, excess green time on all phases, very low delay. Occurs when progression is extremely favorable and most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to low delay.	0.275 or lower
B	Stable flow, some platooning of vehicles, less than ten percent of cycles loaded. Occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.	0.276–0.450
C	Stable flow with less than 30 percent of cycles loaded. Occurs under fair progression, longer cycle lengths, or both. Individual cycle failures (i.e., approaches not fully clearing during a green cycle) may begin to appear at this level. The number of vehicles stopping is significant with this level, though many still pass through the intersection without stopping.	0.451–0.650
D	Approaching unstable flow with less than 70 percent of cycles loaded. The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume/capacity (V/C) ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	0.651–0.844
E	Theoretical capacity with less than 100 percent of cycles loaded. Long delays indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	0.845–1.000
F	This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may be contributing causes to such high levels of delay. Individual cycle failures are frequent.	Higher than 1.000

*Volume/Capacity Ratio is a standard transportation performance measure that compares the amount of roadway demand (traffic volume) with the service capacity of a road.

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, National Research Council (2000)

Levels of Service

A roadway's level of service (LOS) measures the ability of a road network to handle traffic. This classification is based on a roadway's number of lanes and traffic volumes. Levels of service typically are broken into six categories, with "A" representing the highest LOS and "F" representing the lowest—and generally unacceptable—LOS. The 2002 General Plan identifies LOS D as the minimum acceptable level of service for all roadways within the Developing Tier.

Most of the area's major roadways currently have a "passing" level of service. Only the Capital Beltway rates an "F" in 2009. Existing levels of service are shown in Table 29.

When the Transportation Section of the Countywide Planning Division of the Prince George's County Planning Department ran a model analyzing roadway LOS under buildout conditions for the plan area, findings indicated that most area roadways will continue to have adequate levels of service. Projections of future LOS are shown in Table 30.

Table 30.
Roadway Levels of Service, 2008

Roadway	*Level of Service*
Greenbelt Road/MD 193	D
Glenn Dale Boulevard/MD 193	C
MD 450	A
MD 704	C
MD 564	D
Good Luck Road	C
Cipriano Road	C–D

Source: Transportation Section, M-NCPPC, 2008

Roadway levels of service play an important role in evaluations of the impact of new development. The Prince George's County Subdivision Ordinance, for example, requires the Planning Board to find that the traffic generated by a proposed subdivision (in addition to existing subdivisions) will not reduce peak-hour roadway levels of service below "D" for areas within the Developing Tier. If it is determined that an inadequate level of service will result from subdivision approval, the development may proceed only after modifications have been made to the proposed design to improve the level of service to an acceptable standard.

Traffic Safety

Data provided by the Maryland State Highway Administration's Office of Traffic and Safety show that, on average, the plan area sees over 100 accidents annually at its major intersections. Not surprisingly, most of the higher accident totals occur in areas with higher traffic volumes and multiple points of conflict, such as the

Table 31.
Projected Levels of Service

Roadway	*Projected Level of Service at Buildout*
Greenbelt Road/MD 193 from Cipriano Road to MD 564	D
Glenn Dale Boulevard/MD 193 from MD 564 to Daisy Lane	C
Glenn Dale Boulevard/MD 193 from Daisy Lane to MD 450	B
Glenn Dale Boulevard/MD 193 from MD 450 to US 50	C
MD 450	B
MD 704	C
MD 564	C
Princess Garden Parkway/MD 564	B
Good Luck Road	D
Cipriano Road	C
Forbes Boulevard	B
Capital Beltway (I-95/I-495)	F

Source: Transportation Planning Section, Countywide Division of the Prince George's County Planning Department

MD 450/MD 564 corridor near the Capital Beltway and the Glenn Dale Boulevard/Annapolis Road intersection. Table 32 shows accident data for 2004 and 2007, periods during which all of the accidents within the plan area involved property damage and personal injury only (including injuries to pedestrians). Accidents during these two years most commonly resulted from unsafe left-turn movements and rear-end collisions.

Scenic and Historic Roads

The preservation of existing roads as historic or scenic assets is important in retaining the heritage and community character of the county. Segments of existing roads are designated as scenic roads and/or historic roads by the County Council for their scenic beauty or their historic alignment or both. Development applications along designated scenic and historic roads are subject to the Department of Public Works publication "Guidelines for the Design of Scenic and Historic Roadways in Prince George's County, Maryland."

During the review of development applications, the preservation or supplementation of existing vegetation and viewsheds are considered while also addressing safety concerns. Historic landscapes and features are considered and

Table 32.
Plan Area Intersection Accidents, 2004 and 2007

Intersection	*Number of Accidents*		*Injury to Person(s)?*		*Property Damage? Fatality?*		*Fatality?*	
	2004	***2007***	***2004***	***2007***	***2004***	***2007***	***2004***	***2007***
Good Luck Road at Cipriano Road	4	3	2	2	2	1	0	0
Greenbelt Road (MD 193) at Cipriano Road	15	11	4	6	11	5	0	0
Greenbelt Road (MD 193) at Good Luck Road	8	4	5	2	3	2	0	0
Glenn Dale Boulevard (MD 193) at Annapolis Road (MD 450)	28	11	17	4	11	7	0	0
Glenn Dale Boulevard (MD 193) at Lanham-Severn Road (MD 564)	4	12	2	8	2	4	0	0
Annapolis Road (MD 450) at Martin Luther King, Jr. Highway (MD 704)	7	11	4	2	3	9	0	0
Annapolis Road (MD 450) at Glenn Dale Road (MD 953)	4	7	2	5	2	2	0	0
Annapolis Road (MD 450) from I-95 to MD 564/Bridge Structure	47	41	21	15	26	26	0	0
Lanham-Severn Road (MD 564) at Cipriano Road	5	6	1	2	4	4	0	0

Source: Maryland State Highway Administration

preserved wherever possible. Road improvements are generally limited to those necessary to address public safety issues.

Bell Station Road is a designated scenic and historic road along its entire length from MD 450 to its terminus at Old Prospect Hill Road. The zoning along this road is predominantly residential, with the exception of the property south of Bell Station Road and east of MD 193 zoned for commercial uses. There are several properties along this roadway that have the potential to be subdivided under the existing zoning. As development proposals are submitted for properties along this roadway, consideration will be given to the existing resources and their protection.

Public Transportation

The Glenn Dale–Seabrook–Lanham area's suburban character encourages the use of cars to reach important commercial and employment destinations. In Census 2000, almost three-quarters of area workers reported that they drove alone to work, and an additional 13.3 percent reported carpooling (See Table 33). At the same time, however, 3.4 percent of plan area households lacked access to a vehicle. This was particularly pronounced among the area's renter population: 8.1 percent of renter households did not have a vehicle.

Public transportation is viewed in many suburbs as inconvenient and the transportation of last resort, used primarily by seniors, lower-income individuals who cannot afford a car, and persons with disabilities. In auto-dominated environments such as the plan area, public transportation serves a critical need for the above populations but can also provide other populations with alternatives to the car. In 2000, almost ten percent of the plan area population reported using public transportation to get to work. Many of these trips involved using buses or the

Table 33.
Mode of Commuting to Work, 2000

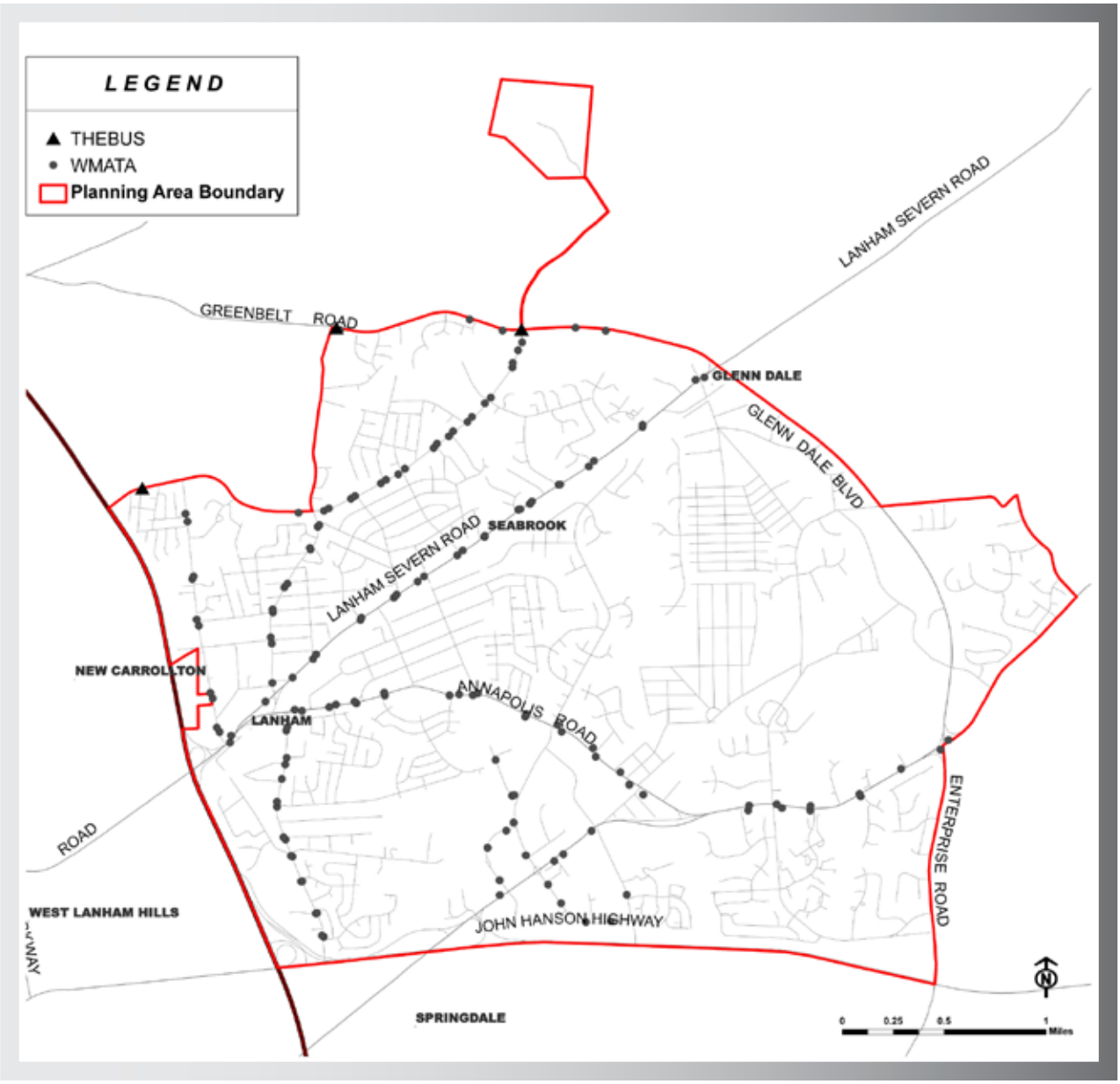
Mode	***Percentage of Workers Using Mode***
Drove alone	73.2
Carpooled	13.3
Used public transportation	9.7
Other	0.38
Worked at home	2.0

Source: US Census (2000)
Numbers are rounded and may not equal 100.

MARC commuter rail service to access Metro stations or employment in the District of Columbia or Baltimore.

Transit Service

Transit service in the plan area is operated by two entities: the Washington Metropolitan Area Transit Authority (WMATA) and Prince George's County.



Map 22: Transit Service

WMATA's Metrobus serves the Glenn Dale–Seabrook–Lanham area with seven bus lines, and the county's TheBus operates a local and express bus line in the area. Most of these bus routes originate outside the plan area, and all terminate at a Metro station. Bus routes run along major roadways and provide service to most of the plan area's employment and commercial centers, as well as the New Carrollton, Greenbelt, Deanwood, College Park, and Cheverly Metro Stations (see Map 22). Fares in 2009 are $1.00 for trips on TheBus and $1.25 - $1.35 for Metrobus.

Bus service within the plan area, however, is limited. Most routes operate only on weekdays between the hours of 5:00 a.m. and 10:30 p.m., with 30-minute headways (about two buses per hour) during rush hours and 60-minute headways during midday and in the evening . Saturday service is available only on two lines that serve the western part of the plan area; no service is provided on Sundays. Two of the most important destinations within the plan area, the Seabrook MARC station and the Washington Business Park, are each served only by a single east-west bus route, which significantly restricts many area residents' access to these centers.

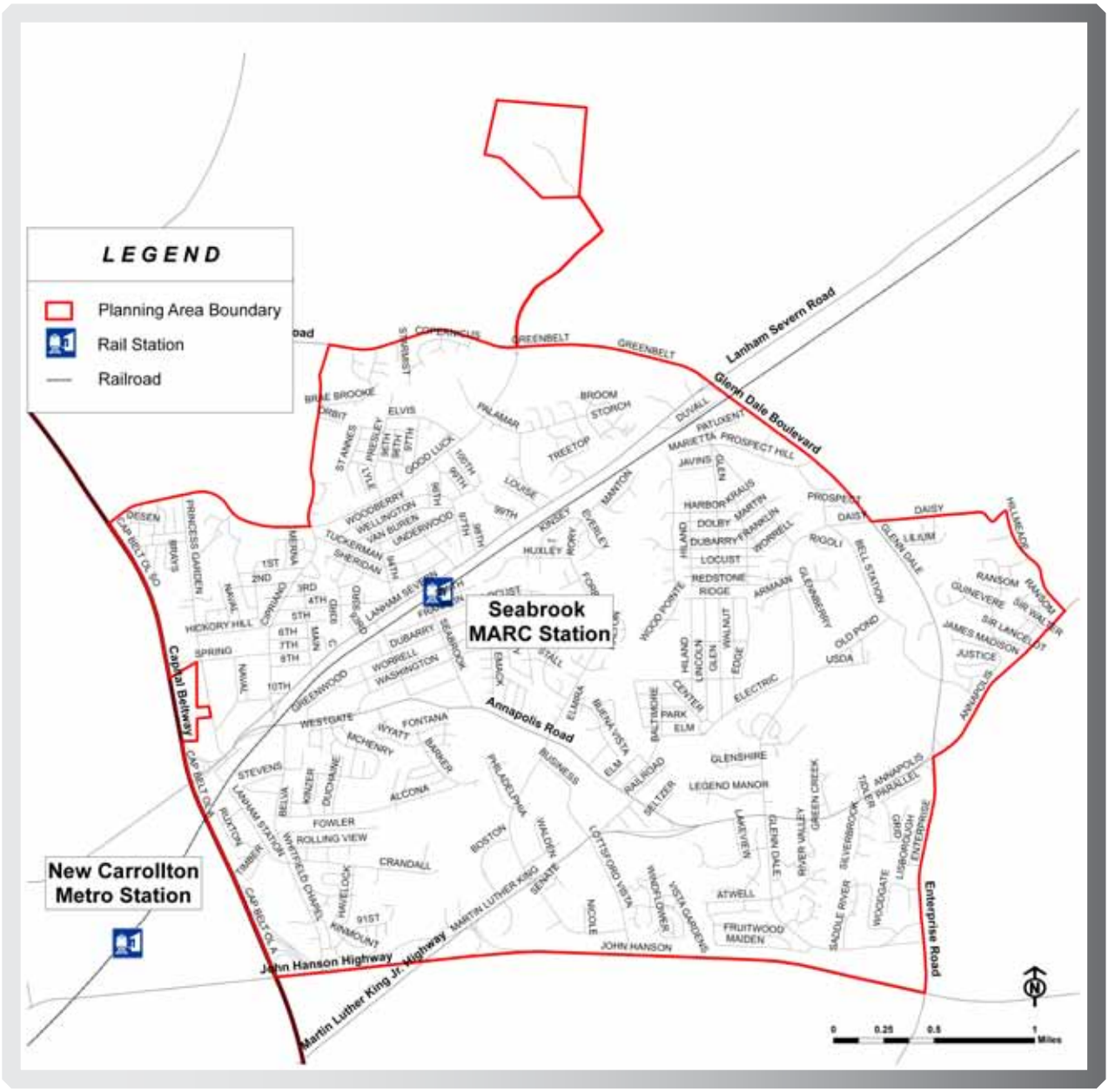
Paratransit

Prince George's County supplements the fixed-route bus service with two paratransit services that give plan area residents additional transportation to local destinations.

- **Call-A-Bus:** This shuttle is available to all Prince George's County residents not served by bus or rail; however, priority is given to seniors and disabled individuals. The service operates on weekdays between 8:30 a.m. and 3:30 p.m., and trip reservations must be made in advance. One-way fares are $1.00 and $0.50 for seniors and disabled persons.
- **Senior Transportation Services:** Limited to senior citizens and disabled individuals, these shuttles transport seniors to medical facilities, designated sites for meals out, senior activity centers, and shopping areas. Transport to medical appointments/services is free; one-way fares for other services are $0.50 each.

Commuter Rail

The plan area is home to a MARC rail station, which provides commuter service to the New Carrollton Metro Station (the terminus of the Orange Line), Union Station in Washington, D.C., and Penn Station in Baltimore. Located along Lanham-Severn Road, the Seabrook MARC station serves the immediate area and attracts some riders from nearby communities (see Map 23). Amtrak trains also operate along this line but do not stop at the Seabrook station.



Map 23: Commuter Rail

The Seabrook MARC station is on the Penn Line, the MARC system's most traveled line. MARC operates weekday rail service between the hours of 5:00 a.m. and 11:00 p.m., with 17 daily southbound trains and 19 daily northbound trains stopping at Seabrook. Fares for a one-way trip from Seabrook are $4.00 to Washington, D.C., and $6.00 to Baltimore. MARC officials estimate that there are approximately 315 daily

boardings at the Seabrook station.[3] Most users access the station by car; the station has 264 free parking spaces.[4] Pedestrian access to the station along and across Lanham-Severn Road is difficult.

As with bus service, MARC service at the Seabrook station is limited. Although service is steady during weekdays, headways are 30–40 minutes during rush hours and 60 minutes at midday and evening hours. Service is particularly limited in the evenings, with only one southbound train and three northbound trains operating after 6:00 p.m. MARC does not provide weekend service on any of its three rail lines. Plans exist, however, to expand Penn Line service because of a six percent increase in ridership during 2008.

The existing MARC station at Seabrook is one of the system's smaller stations, with limited parking and platform areas. Access between the station platforms is difficult and must be negotiated through a pedestrian tunnel that area residents and MARC users regard as unsafe. Expanded service along the Penn Line will require additional parking and station upgrades at Seabrook to accommodate the additional users that increased service will attract, both from the plan area and neighboring communities.

Nonmotorized Travel: Pedestrian, Bicycle, and Equestrian Facilities

In public meetings during the planning process, residents and workers repeatedly expressed the desire for more safe and convenient alternatives to car travel within the plan area. Many spoke of the need for pedestrian-friendly streets and bicycle facilities. Until recently, roadway planning for auto travel was emphasized over planning for other modes of travel, but the 2002 General Plan recommendations included developing a comprehensive transportation network of streets, sidewalks, trails, transit, and bicycle facilities. The Master Plan of Transportation (MPOT) emphasized the development of a pedestrian and bicycle transportation system to support access to the transit system.

Many communities, both older, established neighborhoods and newer subdivisions, lack sidewalks.[5] Consequently, residents often walk within the traffic lanes. Sidewalks that exist in some neighborhoods and along some major roadways

3 This is comparable to 2008 boardings at other smaller Penn Line suburban stations, such as Perryville, Aberdeen, Edgewood, and Martin.

4 Field observations by the planning team suggest that this parking lot is fully utilized each weekday.

5 Under Subtitle 24, Section 24-121, sidewalks only are required in subdivision blocks over 750 feet long if deemed necessary by the Planning Board.

are discontinuous patterns, often terminating abruptly and with inadequate pedestrian connections to area commercial and employment centers and schools. One of the major issues in the plan area is determining how to retrofit existing streets to accommodate the needs of pedestrians and cyclists.

Most area roadways do not have adequate facilities for cyclists. Cyclists are forced to share vehicle travel lanes with automobiles, which makes traveling unsafe. Some multiuse trails have been constructed recently that enable bicycle travel off major roadways, such as the Annapolis Road (MD 450) sidepath, but designated travel

Table 34.
Existing Plan Area Trails

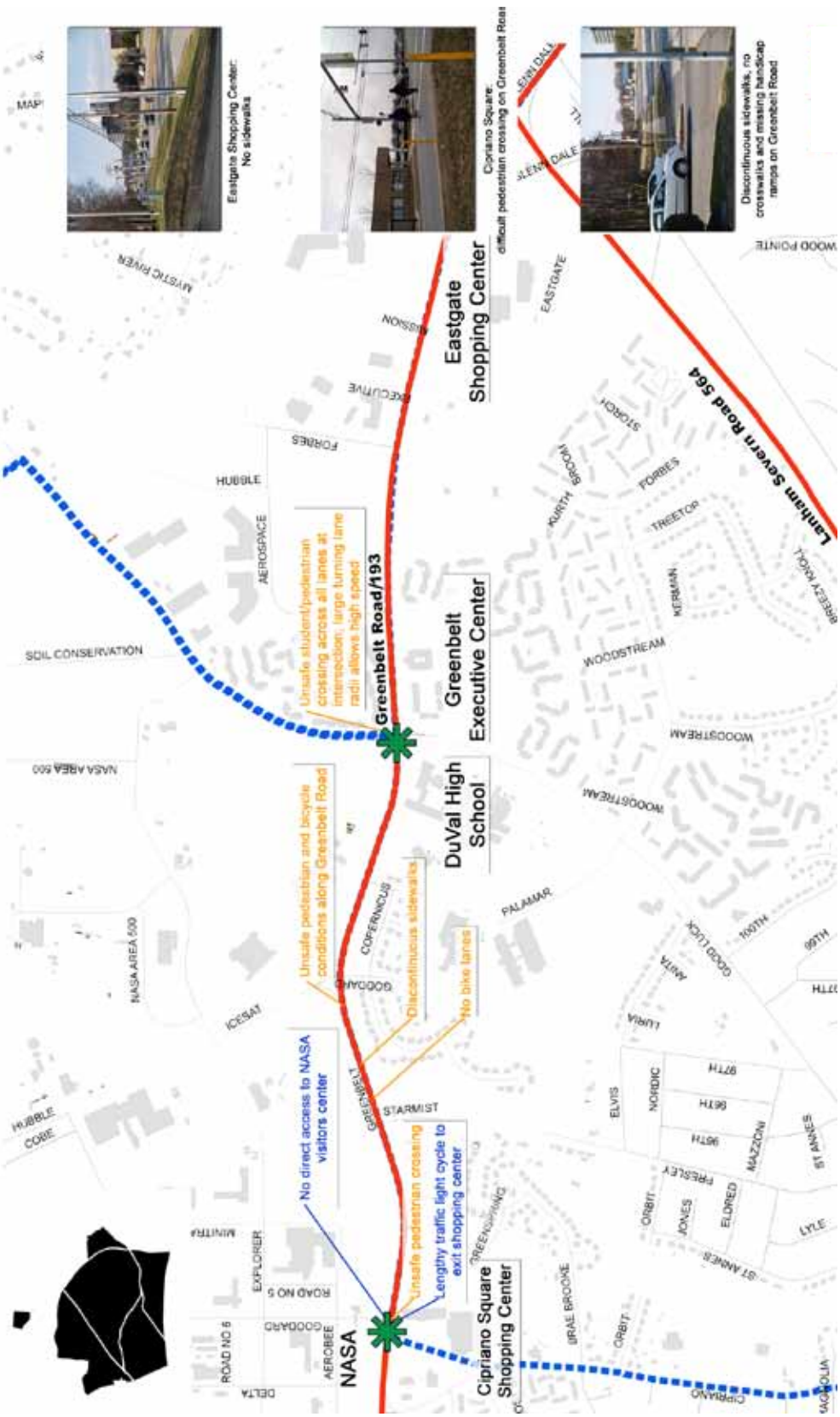
Facility	***Location***	***Total Length***
Washington, Baltimore, & Annapolis (WB&A) Trail	Western terminus: Annapolis Road (MD 450) near intersection with Martin Luther King Jr. Highway (MD 704) Eastern terminus: Patuxent River Park	5.6 miles
Annapolis Road (MD 450) Sidepath	Western terminus: Seabrook Road Eastern terminus: Race Track Road (Bowie)	6.8 miles
Folly Branch Stream Valley Trail	Northern terminus: Lanham-Severn Road (MD 564) Southern terminus: Lottsford Branch	4.1 miles
Bald Hill Branch Stream Valley Trail	Northern terminus: Greenbelt Road (MD 193) Southern terminus: Western Branch	6.1 miles
Equestrian Stream Valley Trails	M-NCPPC stream valley parks have long been identified as priority equestrian corridors. Stream valley trails and other long-distance trails should be developed to accommodate and facilitate equestrians in conformance with current DPR standards and guidelines. Where developers are required to construct stream valley trails, the needs of equestrians must be incorporated into the design.	All M-NCPPC stream valley park trails

Map 24: Existing and Planned Bikeways and Trails

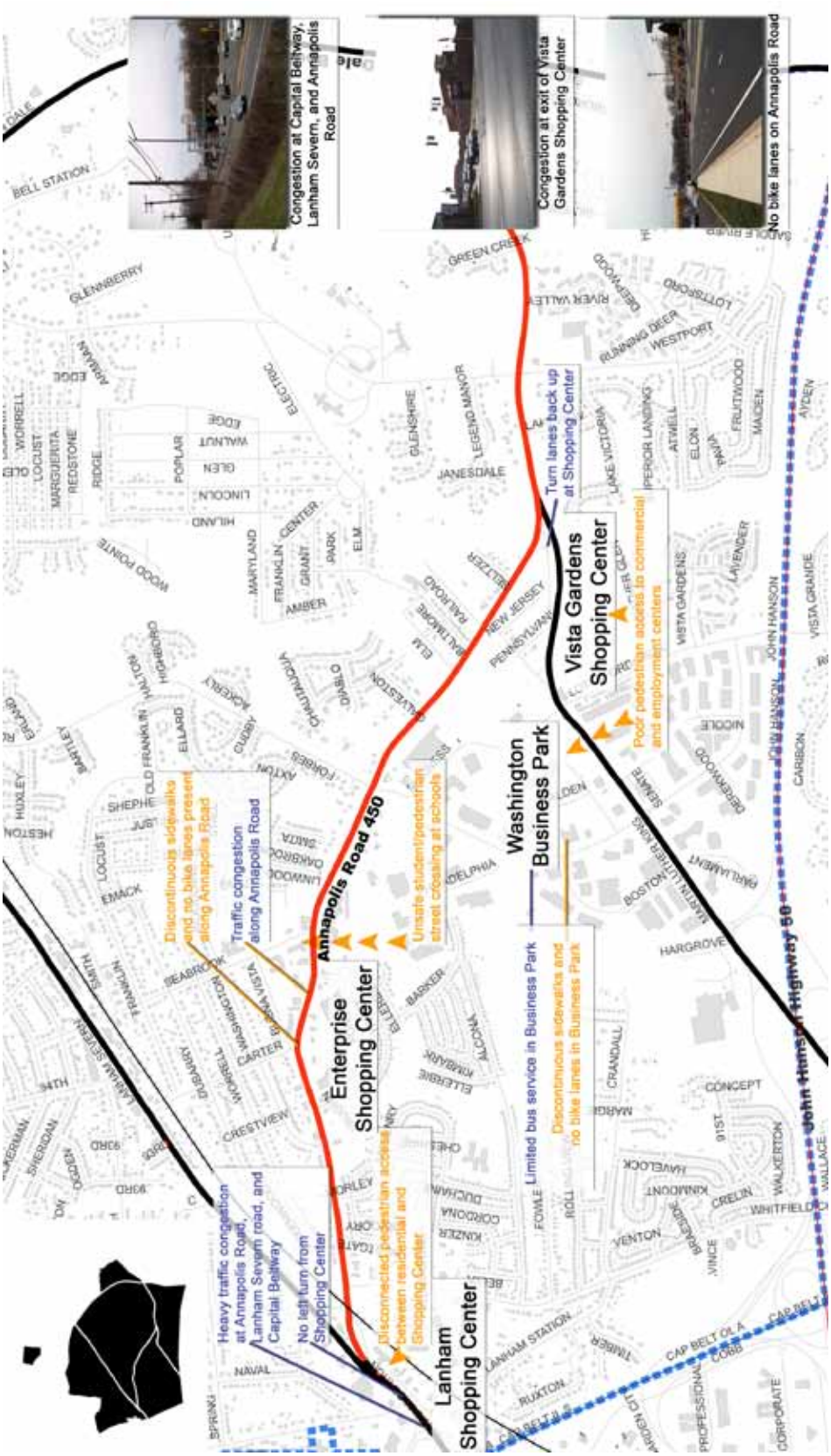
lanes for bicycles generally do not exist on roadways within the plan area. However, wide outside curb lanes have been provided along segments of several roads in the planning area including MD 193 between Lanham-Severn Road and US 50. This is in the form of a small striped travel lane on the right side of the road. No separation exists between the bicycle lane and automobile traffic lanes.

The plan area contains several existing and planned multiuse (pedestrian/bicycle) trails and equestrian trails (see Table 34). Although thought of primarily as recreational amenities, trails can provide multimodal access to important area destinations. Trails are discussed in more detail in Chapter 7.

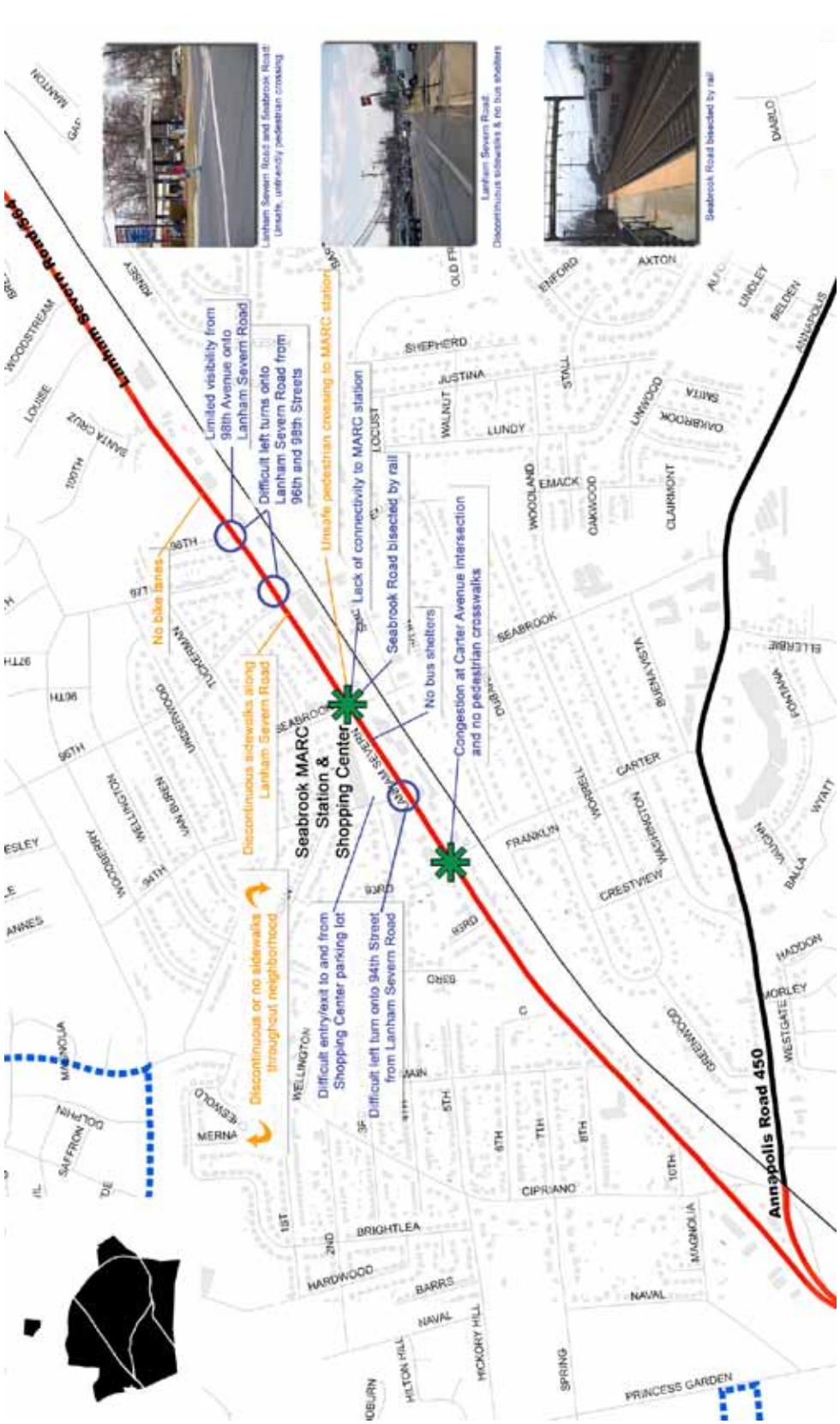
Area Transportation Issues



Greenbelt Road/MD 193 Corridor

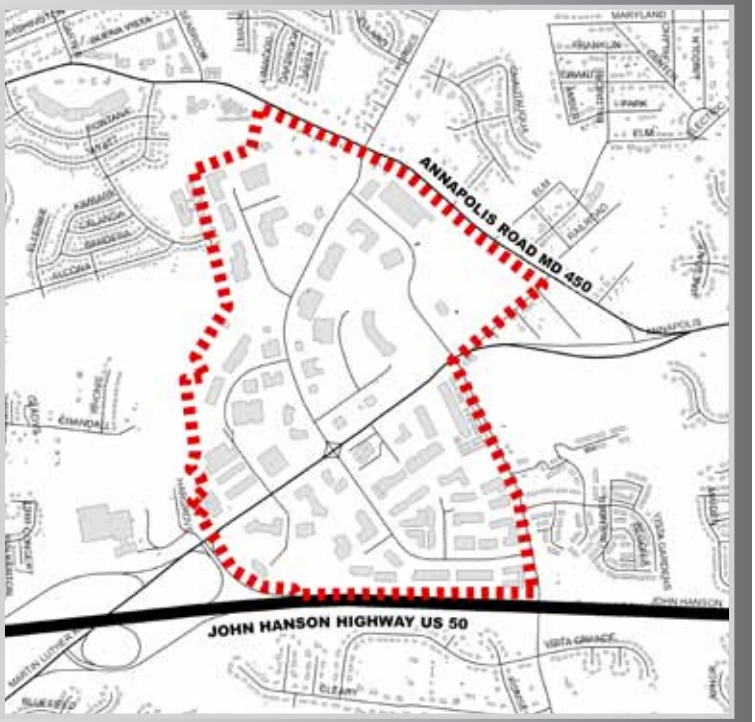


Annapolis Road/MD 450 Corridor


Lanham Severn Road/MD 564
Limited visibility from 98th Avenue onto Lanham Severn Road
Difficult left turns onto Lanham Severn Road from 96th and 98th Streets
Unsafe pedestrian crossing to MARC station
Lack of connectivity to MARC station
Seabrook Road bisected by rail
No bus shelters
Congestion at Carter Avenue intersection and no pedestrian crosswalks
No bike lanes
Discontinuous sidewalks along Lanham Severn Road
Discontinuous or no sidewalks throughout neighborhood
Seabrook MARC Station & Shopping Center
Difficult entry/exit to and from Shopping Center parking lot
Difficult left turn onto 94th Street from Lanham Severn Road
Annapolis Road 450
Lanham Severn Road and Seabrook Road: Unsafe, unlevel/icy pedestrian crossing
Lanham Severn Road: Discontinuous sidewalks & no bus shelters
Seabrook Road bisected by rail
SEABROOK
SHEPHERD
JUSTINA
LUNDY
WOODLAND
EMACK
OAKWOOD
CLAIRMONT
CARTER
FRANKLIN
CRESTVIEW
WASHINGTON
WORRELL
BRENTWOOD
GREENWOOD
WESTGATE
MORLEY
HADDON
WYATT
BALLA
FOUNTAIN
BLUEBIRD
CIPRIANO
BRIGHTLEA
HARDWOOD
BARRS
NAVAL
HICKORY HILL
HILTON HILL
SPRING
PRINCESS GARDEN
MAGNOLIA
WELLINGTON
MERNA
DOLPHIN
SAFFRON
LANHAM SEVERN
98TH
96TH
94TH
93RD
92ND
1ST
2ND
3RD
5TH
6TH
7TH
8TH
10TH

Washington Business Park

- ***Limited public transportation service***
- ***Discontinuous sidewalks***
- ***No bicycle lanes***



Clean Air Act Amendments of 1990

The Washington, D.C. metropolitan area has been classified as a nonattainment area under the Clean Air Act, which means that it does not meet federal standards for ozone and carbon monoxide levels in the air. Much of this pollution is caused by automobile emissions. Prince George's County lies within this nonattainment area and is subject to state and federal regulations which require the creation of a state implementation plan (SIP) that details steps all D.C. metropolitan jurisdictions must take to reduce area ozone and carbon monoxide levels. The State of Maryland's failure to implement an SIP can result in sanctions that include withholding federal highway funds from the entire state or portions of the state.

Transportation Demand Management (TDM)

Prince George's County has adopted transportation demand management (TDM) requirements as a strategy by which to reduce vehicle emissions and work toward compliance with the Clean Air Act Amendments of 1990. TDM refers generally to a series of strategies that private sector employers can use to reduce the number of vehicle trips made by their workers. Many jurisdictions have TDM ordinances

or have required the use of TDM strategies for large building projects under their zoning ordinances.

One of the most important goals of TDM strategies is the reduction of single-occupant vehicle trips, particularly during peak hours of roadway use. Private employers using TDM strategies may offer incentives for transit use, carpooling, ridesharing, cycling, or other alternatives to vehicle travel. TDM programs often include:

- Implementing flex-time policies or compressed work weeks
- Reducing parking supply in areas served by transit
- Offering priority parking for employees who carpool
- Subsidizing carpool and vanpool operations
- Providing transit fare subsidies
- Establishing a shuttle bus system to the nearest transit stop
- Creating joint ridesharing programs with nearby businesses
- Encouraging bicycle commuting by providing secure, on-site bicycle storage racks
- Providing on-site services, such as food and ATMs, so employees will not have to leave the site to obtain these services elsewhere during the workday
- Establishing an area-wide TDM coordinator to help member groups develop TDM strategies

The Prince George's County TDM ordinance applies to all employers within a designated transportation demand management district (TDMD) who are either located in an employment center of five acres or more or employ 25 or more workers on a single lot.[6] Subtitle 20A, Section 20A-206 of the Prince George's County Code requires all property owners in a TDMD to develop a transportation demand management plan that identifies strategies for trip reduction (such as those identified above).

Transportation Planning and Land Use

As the cost of transportation improvements grows and funding constraints at the local and state levels increase, efficient use of area transportation facilities becomes of great importance. Transportation efficiency can be supported by appropriate land uses and multimodal opportunities that transform the twentieth-century suburban model of low-density separated land uses that mandate automobile travel.

6 Subtitle 20A, Section 20A-201 through Section 20A-211

Because the plan area has experienced increased development and accompanying traffic congestion during the past 15 years, many area residents are beginning to reconsider their travel habits. Public transportation is becoming a more attractive option, as evidenced by the increase in MARC train ridership during 2008 and the desire for expanded bus service in the plan area. Presently, however, the plan area's suburban land use patterns and densities do not support major transit expansions. The lowest densities that can support transit service are:

Bus: 7–8 households per acre or 50 employees per gross acre near bus stops

Rail: 15–20 households per acre[7]

As the Glenn Dale–Seabrook–Lanham area looks at its long-term future, consideration must be given to shaping land uses to support more efficient transportation. Mixed-use centers in strategic locations—a policy of the 2002 General Plan—can create neighborhoods where residents can walk or bike to convenient retail, services, and recreational amenities. Good connectivity must accompany these mixed-use centers, allowing users multiple routes through various modes of transportation to area destinations. Connectivity between neighborhoods and commercial areas through local streets can decrease traffic delays and the amount of local traffic on arterials.

Rethinking standard suburban access and parking strategies also can improve transportation efficiency. Traffic congestion typically is intensified by linear corridors of commercial uses with driveways for each property and no internal access to abutting properties. This lack of internal connectivity forces vehicles out onto roadways to access nearby businesses. Access management strategies limit the number of curb cuts and promote internal connections between properties, boosting the flow of traffic and often eliminating the need to widen roads in commercial corridors. Access management also can improve safety for pedestrians and cyclists: by eliminating the number of vehicle turn movements, conflicts between pedestrians and vehicles or bicycles and vehicles are reduced.

Auto-oriented communities often devote a large percentage of land in commercial and employment centers to surface parking. Many large commercial developments contain parking lots designed to serve peak parking demand on the year's busiest shopping days before Christmas and after Thanksgiving; at other times of the year, these spaces lie vacant. "Overpaving" for parking can be reduced by strategies such as sharing parking between uses with different hours of operation and instituting maximum parking limits. Effectiveness, however, will depend upon additional changes in land use patterns and support for alternative modes of transportation.

7 Transportation Research Boad, 2004

"Complete Streets"

The 2009 *Adopted Countywide Master Plan of Transportation* advocates using the concept of "complete streets" in current and future transportation planning. This concept requires considering the needs of a variety of users and modes when planning roadway improvements. According to the *Adopted Countywide Master Plan of Transportation*, "the needs of pedestrians and bicyclists should be considered throughout the entire planning process, not only at the final phases of design or implementation after many of the major decisions have been made."[8]

Much of what will occur in the plan area and similar suburban communities in the next decades will involve retrofitting existing transportation facilities to accommodate multimodal forms of transportation. Complete streets concepts meld transportation planning with urban design to create optimal environments for all transportation users. Utilizing complete streets principles will help reduce automobile usage, promote connectivity between transportation modes, and improve pedestrian and cyclist safety and comfort.

Context-Sensitive Design

Just as complete streets principles call for consideration to be given to all transportation system users when designing roadway improvements, consideration also should be given to a transportation facility's context. New road designs and retrofits of existing facilities should recognize that roads function differently along their routes according to the environments through which they pass. For example, planned road widenings should consider the surrounding area and community goals for that area: Will adding lanes diminish walkability, safety, or neighborhood character? Designs also should fit with other planning recommendations and incentives to ensure that transportation improvements do not work against broader goals, such as achieving a mixed-use environment.

Well-designed streets that function as parts of a larger multimodal, interconnected transportation system add value to a community. Facilities that are sensitive to land uses and ways in which people use their surroundings (i.e., to live, shop, work, or play) while maintaining functionality embody the critical link between transportation and land use that enhances the quality of life for area citizens.

8 *Adopted Countywide Master Plan of Transportation* (2009), p. 7.

"Complete Streets" Principles

Encourage medians as pedestrian refuge islands.

Along large roadways that are difficult to cross, provide safe places for pedestrians to stand while waiting to cross additional lanes.

Design turning radii to slow-turning vehicles.

Reduce pedestrian/vehicle conflicts in right-turn lanes by designing turning radii to force drivers to decrease turning speeds.

Find wasted space and better utilize it.

Use "extra" space in the roadway right-of-way not needed for through traffic or turning movements to create pedestrian improvements such as sidewalks, pedestrian refuges, bicycles lanes, or traffic-calming measures.

Time traffic signals to function for all modes.

Traffic signals should give pedestrians adequate time to cross lanes of traffic.

Reduce crossing distances.

Reduce the distance pedestrians must be exposed to traffic while crossing a roadway by providing medians, pedestrian refuges, curb extensions, and reduced turning radii.

Increase crossing opportunities.

Create smaller block sizes to reduce the number of mid-block crossings attempted by pedestrians. Additional intersections will provide more opportunities for crossing at controlled intersections within designated crosswalks.

Encourage pedestrian-scaled land use and urban design.

Provide attractive and comfortable streetscapes with pedestrian amenities.

Acknowledge that pedestrians will take the most direct route.

Accommodate pedestrian movements with safe, direct routes to destinations.

Ensure universal accessibility.

Design sidewalks, intersections, pedestrian signals, curb cuts, ramps, trails, and other transportation facilities to be accessible to persons with disabilities and meet Americans with Disabilities Act (ADA) standards.

Pursue targeted education and enforcement efforts to reduce bicycle and motor vehicle crashes

Offer courses designed to promote safer streets for cyclists and pedestrians.

Source: Adopted Countywide Master Plan of Transportation (2009)

Recommendations

GOAL: Reduce traffic congestion on local streets, collectors, and arterials, especially during peak hours.

POLICY 1:

- Continue to support and implement key recommendations of the 1993 Glenn Dale–Seabrook–Lanham and vicinity master plan.

STRATEGIES:

Continue to implement most of the recommendations found in the 1993 Glenn Dale–Seabrook–Lanham and Vicinity master plan for local roadway improvements.

As discussed earlier, many of the transportation recommendations of the 1993 master plan have not been implemented, and the issues they were designed to address remain as problems today. With the exception of a few completed recommendations and the recommendation relating to widening Lanham-Severn Road (MD 564), the 1993 recommendations should be carried forward with this 2009 sector plan update. Recommendations should be prioritized according to need and potential funding sources.

A detailed list of 1993 transportation recommendations can be found in Appendix 5. Approved sector plan recommendations will amend the 2009 update to the *Countywide Master Plan of Transportation* upon resolution of adoption of the sector plan.

Work with the Maryland State Highway Administration to study the feasibility of reconfiguring the Capital Beltway/MD 450/MD 564 interchange.

The confluence of Annapolis Road (MD 450), Princess Garden Parkway, Lanham-Severn Road (MD 564), and the Capital Beltway presents one of the greatest traffic challenges in the plan area. Although improvements to this interchange were made in 1992, residents throughout the planning process emphatically identified continuing congestion and safety issues in this area, many of which are caused by conflicts between local and through traffic. The Transportation Section of the Prince George's County Planning Department should work with the Prince George's County Department of Public Works and Transportation (DPW&T), and the Maryland State Highway Administration (SHA) to study the feasibility of additional improvements that would increase traffic safety and reduce congestion.

The ability to implement improvements to this interchange, however, may be limited. All proposed transportation projects on state-maintained roadways must

be prioritized by the county before requests are made to the state. Thus, the Capital Beltway/MD 450/MD 564 interchange must compete with other Prince George's County plan area transportation needs in order to be considered for an SHA project. If the county does not include a project in a formal priority letter to SHA, the project will not be considered for funding by the state in the Consolidated Transportation Program. In 2009, many other county transportation projects take precedence over the Capital Beltway/MD 450/MD 564 interchange issue. Interchange improvements probably will not occur in the short term.

POLICY 2:

- Coordinate proposed redevelopment and future transportation plans.

STRATEGY:

Ensure that new short- and long-term roadway improvements in the Seabrook MARC station area will complement future redevelopment.

The Seabrook MARC station area along MD 564 is one of the plan area's most important "areas of interest" due to its designation as a future "community center" in the 2002 General Plan and its link to commuter rail service. This area should redevelop over time to a higher-density mixed-use center focused on the train station (see Chapter 11).

The Seabrook MARC station area already has a series of traffic problems due to the heavy volume of users traveling MD 564 to access the MARC station, commercial services, community facilities, and residential areas. Many short-term improvements are needed in the area, including solutions to problems with left-turning movements at 94th and 96th Avenues, traffic "stacking" at the Carter Avenue intersection, speeding, poor pedestrian connections to the MARC station, limited parking at the MARC station, and infrequent bus service to the MARC station.

Specific short-term recommendations for Seabrook MARC station area transportation issues include:

- *Studying the feasibility of a signalized intersection at Seabrook Road and MD 564.*
- *Providing continuous sidewalks, bicycle lanes, and crosswalks to access the MARC station.*
- *Improving lighting and security in the MARC station tunnel.*
- *Working with WMATA to expand bus service to the MARC station.*
- *Exploring the possibility of creating a pedestrian trail connection to the southern side of the MARC station.*

- *Reducing the speed limit along MD 564 between 98th Avenue and Carter Avenue.*

The 1993 master plan recommends widening MD 564 to six lanes with a 120-foot right-of-way; however, this has been reevaluated and deemed inappropriate, given the neighborhood context and the future vision for the MARC station area as a walkable "community center." Instead, MD 564 should be downgraded to a collector road with four lanes and an 80-foot right-of-way. The addition of two travel lanes should ease congestion in the area while respecting the roadway's context of residential neighborhoods, community facilities, and a neighborhood (retail) convenience center.

POLICY 3:

- Support improved access management and local street connectivity.

STRATEGIES:

Promote connectivity of local streets through subdivision review.

When local streets are connected rather than isolated in culs-de-sac, they can carry automobile and pedestrian/bicycle traffic on local trips that otherwise would be forced onto collectors and arterials. The subdivision review process should ensure that neighborhood streets and streets in employment areas have multiple access points that allow users—including pedestrians—to reach destinations without having to get onto major roadways.

Adopt access management standards for plan area arterials.

Access management standards can help reduce the number of curb cuts and conflicts between turning vehicles and pedestrians/cyclists along arterial corridors, including MD 564, MD 450, and Greenbelt Road (MD 193). Although access management standards would not apply to existing property configurations along commercial corridors, as properties redevelop in the long term, owners would be required to meet these new standards at the time of major changes, such as new uses or buildings that would generate increased traffic.

Access management criteria may include:

- *Requirements for joint-use driveways with joint maintenance agreements between adjacent property owners.*
- *Creation of local access or internal cross-access drives, with cross-access easements and joint maintenance agreements.*
- *Building layouts and parking sited to allow users to access multiple buildings within the same commercial center on foot.*

- ☐ *Drive-through facilities designed as integral parts of buildings, with access that minimizes conflicts between pedestrian and vehicular traffic.*

GOAL: Improve transportation flow on regional routes.

POLICY:

- Work with the state and neighboring communities on regional solutions to traffic congestion.

STRATEGY:

Continue to work with the Maryland State Highway Administration and federal transportation agencies to develop regional solutions to congestion on freeways and major arterials.

Prince George's County is not responsible for improvements to state highways in the plan area (the Capital Beltway and US 50); however, the county works with SHA and federal agencies to ensure that local concerns are known and considered during the planning, design, and construction processes. County comments on any state highway project should continue to ask that local transportation policies and plan recommendations be taken into consideration. Furthermore, given the plan area's handling of "pass-through" traffic, participation in state highway planning processes should ensure that regional solutions benefit the Glenn Dale–Seabrook–Lanham area as well as neighboring communities.

GOAL: Encourage alternative means of transportation within the plan area.

POLICY 1:

- Follow "complete streets" principles, which include pedestrian and bicycle considerations, in all new road construction and improvement projects.

STRATEGY:

Adopt "complete streets" principles when designing roadway improvements in the plan area.

All future roadway projects for the plan area should include studies of pedestrian and cyclist needs and potential facilities to accommodate these needs. The fact that pedestrians and cyclists are not currently observed using particular area transportation facilities does not mean that a demand does not exist; instead, existing conditions may be so uncomfortable that they will not use a roadway. During the planning process, area residents repeatedly requested sidewalk improvements, streetscape improvements, and on- and off-road bicycle paths. Facility design should ensure that safe and comfortable multimodal opportunities

are present. Including pedestrian and bicycle facilities in new roadway design is more cost-effective than having to perform later retrofits.

POLICY 2:

- Support transportation-efficient land use policies and pursue mixed-use development in strategic locations.

STRATEGIES:

Promote land use policies that increase density in strategic areas to support public transportation.

Although portions of the plan area are served by public transportation, the area's lower-density, suburban nature precludes cost-effective service that extends throughout the Glenn Dale, Seabrook, and Lanham communities. Despite the fact that the majority of residential land uses will continue to be lower-density, single-family residential neighborhoods, strategic changes in land uses to encourage higher-density development in a limited number of mixed-use centers can help support increased transit service to these areas. New townhome and multifamily units in two mixed-use centers can provide the critical mass needed to prompt WMATA and Prince George's County to provide additional bus routes or add buses to existing routes (thus decreasing headways) or to encourage the Maryland Transit Administration to consider adding more MARC trains to its Penn Line.

Areas envisioned for long-term, higher-density redevelopment include the Seabrook MARC station area and the Vista Gardens Marketplace area. Future visions for these focus areas are discussed in detail in Chapter 11.

Promote land use policies that create walkable "centers" of neighborhood-serving commercial and employment uses.

Land use policies that discourage traditional suburban strip commercial development and encourage the creation of higher-density, mixed-use nodes containing neighborhood-serving retail and services can help reduce automobile trips. Studies have shown that individuals typically are willing to walk approximately one-quarter mile (a five-minute walk) to reach important destinations. When amenities and employment are concentrated in centers close to neighborhoods rather than stretched along arterials, many nearby residents will choose to walk, rather than drive, to these centers (as long as streets feel safe and comfortable). Increased numbers of residents walking to neighborhood centers decrease the number of car trips needed to obtain goods and services or go to work and can reduce area traffic congestion in the long term.

Additional information about future land uses in the plan area can be found in Chapter 11.

POLICY 3:

■ Work with state agencies to encourage ridership on MARC.

STRATEGY:

Work with state agencies to implement improvements to the Seabrook MARC station.

Although the State of Maryland owns the MARC station property and its associated parking, Prince George's County can work with the Maryland Transit Administration (MTA) to improve the station area. The county already has had conversations with the state about future plans for the Seabrook MARC station property and has identified area residents' concerns that should be addressed in future planning. The 2002 General Plan's designation of the station area as a future community center also makes it critical that this planning dialogue continue.

M-NCPPC and the county should work with MTA to develop and implement a series of short- and long-term station improvements. These should include:

- *Expanding station parking through property acquisition or future private redevelopment.*
- *Improving station platforms.*
- *Ensuring safe access between the northbound and southbound platforms by redesigning the pedestrian tunnel.*
- *Providing safe pedestrian connections to both sides of the station through upgraded sidewalks and crosswalks.*
- *Exploring the possibility of expanded bus service to the MARC station.*

POLICY 4:

■ Work with metropolitan and state agencies to improve public transit within the plan area.

STRATEGIES:

Work with metropolitan and state agencies to improve bus service within the plan area.

As discussed above, the plan area's lower-density development does not support a network of extensive bus service. Existing bus routes serve only some of the area's major commercial and employment centers and have limited hours and long headways. Although many residents will continue to prefer using private automobiles, M-NCPPC and the county should work with WMATA and MTA to increase service along existing routes or develop new routes to destinations within and outside the plan area. Preliminary recommendations contained in the draft

2009 Prince George's County *Transit Service and Operations Plan* are a step toward this goal. Additional service recommendations in the medium and long term may include improved service to the Seabrook MARC station, the Washington Business Park (i.e., multiple routes), the Greenbelt Executive Center, plan area shopping centers, and nearby Metro stations, along with new service to Vista Gardens Marketplace and along Greenbelt Road (MD 193). (Bus service route extensions, however, will be limited by residential densities and commercial/employment intensities and the availability of funding.) Improved bus service also should include considerations of convenient bus stops and the provision of bus shelters where feasible and appropriate.

Investigate the feasibility of developing park-and-ride lots near transit lines.

Safe and convenient park-and-ride facilities encourage commuters to park their cars and utilize transit. Many individuals who will not walk to a transit station will readily drive their cars and park in one of these lots. Park-and-ride lots can help reduce vehicle trips—particularly single-occupant vehicle trips—into Washington, D.C., and Baltimore. The plan area currently has no park-and-ride facilities, but M-NCPPC and DPW&T should work with transit agencies and private property owners to negotiate agreements for park-and-ride use of fringe parking at plan area shopping centers that lie along a transit route. Additionally, publicly owned surplus land along major arterials could be utilized as park-and-ride sites.

POLICY 5:

- Create environments that are more conducive to nonmotorized travel.

STRATEGIES:

Continue to develop a network of pedestrian and bicycle trails that connect destinations within the plan area.

Since the 1993 master plan, M-NCPPC, DPW&T, and SHA have worked together to develop fundamental pieces of a trails network that eventually will interconnect all portions of the plan area. These include the WB&A Trail, the Folly Branch Stream Valley Trail, the MD 450 sidepath, and equestrian trails.

These entities should continue to implement planned trails that link residential communities with commercial areas and open space, including the improvements detailed in Table 35 and Map 24. Constructing additional pedestrian and bicycle trails provides not only recreational benefits, but transportation alternatives that reduce traffic congestion and pollution and improve community health.

Table 35.
Recommended Trails Improvements

Name	*Description*	*Justification*
Trails		
Folly Branch Stream Valley Trail	Continue construction	Will provide a major north/ south trail connection through central Prince George's County
Bald Hill Branch Stream Valley Trail	Planned major trail	Will improve nonmotorized access to the Washington Business Park and several community facilities
Lottsford Branch Stream Valley Trail	Planned major trail. Connect to existing neighborhood trail connections along Folly Branch.	Will connect the Marietta Mansion site with the Folly Branch Stream Valley Trail and also provide access to the former Glenn Dale Hospital site
Neighborhood trail connection between Forbes Boulevard and Greenbelt Road (MD 193)	Neighborhood trail connection	Will provide connection across planned M-NCPPC parkland and to adjacent elementary school site
Neighborhood trail connection between former Glenn Dale Hospital site and WB&A Trail to the Folly Branch Stream Valley Trail	May utilize unbuilt road right-of-way to create connection	Will connect Glenn Dale Hospital site and WB&A Trail with other major trails in area
Holmehurst Neighborhood Park Connector Trail	Neighborhood trail connection	Will connect Holmehurst Neighborhood Park with the Lottsford Branch Stream Valley Trail
Trail connection from Old Glenn Dale Road to Glenn Dale Boulevard (MD 193)	Neighborhood trail connection	Will provide access from Glenn Dale Hospital site to Glenn Dale Boulevard (MD 193)
Bicycle Facilities		
MD 704	Sidepath and designated bike lanes	Will improve nonmotorized access to the Washington Business Park and connect with the eastern terminus of the existing WB&A Trail

Name	*Description*	*Justification*
MD 450	Continue the sidepath and wide outside curb lanes from Seabrook Road to the Capital Beltway	Will provide a major east/west trail connection
MD 564	Dual bikeway	Will improve non-motorized access to the Seabrook MARC station and area bus stops
Greenbelt Road (MD 193)	Designated bike lanes	Will connect Goddard Road to Lanham-Severn Road (MD 564)
Good Luck Road	Dual bikeway with a sidepath and designated bike lanes	Will provide safe nonmotorized access to DuVal High School and other area schools, along with nearby park and recreation facilities
Princess Garden Parkway	Designated bike lanes	Will connect to the planned dual bikeway along Good Luck Road
Whitfield Chapel Road	Designated bike lanes	Will connect to MD 450 and MD 704 bikeways
Lottsford Vista Road	On-road bicycle facilities	Will improve nonmotorized access to Washington Business Park
Glenn Dale Road (MD 953)	On-road bicycle facilities	Will improve nonmotorized access to the WB&A Trail, the MD 450 sidepath, and the former Glenn Dale Hospital site
Forbes Boulevard	Designated bike lanes; bikeway signage and pavement markings north of Palamar Drive. Shared use road or designated bike lanes along Forbes Boulevard	Will provide connection to the Folly Branch Stream Valley Trail and connect Lottsford Vista Road and Lanham-Severn Road
Prospect Hill Road	Designated bike lanes	Will connect residential communities along corridor
Northern Avenue	Bicycle-compatible roadway striping	Will connect Good Luck Road to Greenbelt Road (MD 193)
Hillmeade Road	Designated bike lanes	Will connect Lanham-Severn Road to Fairwood Parkway
Daisy Lane	Designated bike lanes	Will connect Glenn Dale Road (MD 953) to Hillmeade Road
Crandall Road	On-road bicycle facilities	Will connect Whitfield Chapel Road to Lanham Forest Park

Name	*Description*	*Justification*
Franklin Avenue	On-road bicycle facilities	Will connect Carter Avenue to Folly Branch Stream Valley Trail
Glenn Dale Boulevard (MD 193)	Improve existing on-road bicycle facilities and consider a future sidepath and designated bike lanes	Will provide access from Marietta Manor Historic Site to WB&A Trail
Palamar Drive	Bikeway signage and pavement markings	Will connect Bald Hill Branch Stream Valley Trail to Forbes Boulevard
Woodstream Drive	Bikeway signage and pavement markings	Will connect Palamar Drive to Lanham-Severn Road
Bell Station Road	Bikeway signage and pavement markings; potential designated bike lanes	Will connect Daisy Lane to Annapolis Road (MD 450) sidepath

Evaluate unneeded space in roadway rights-of-way for potential use for bicycle lanes or transit.

Some area roadways that have more lanes or right-of-way space than needed for existing traffic could have this unused area converted to bicycle lanes or transit lanes or stops. The M-NCPPC and DPW&T should study the feasibility of retrofitting these roadways for bicycle or transit facilities. All bicycle facilities should be developed to American Association of State Highway and Transportation Officials (AASHTO) standards.[9]

POLICY 6:

■ Support transportation demand management (TDM) strategies.

STRATEGY:

Encourage designation of the Washington Business Park as a Transportation Demand Management District (TDMD).

M-NCPPC and the county should encourage all private-sector employers—particularly large businesses—to implement TDM strategies to limit single-occupant vehicle trips to business destinations both within and outside of the plan area. The Washington Business Park area, however, is large enough to qualify as a transportation demand management district (TDMD) under the Prince George's County Transportation Demand Management Ordinance (Subtitle 20A, Section 20A-201 through Section 20A-210). This ordinance would require business

9 Preferred standards are found in the AASHTO *Guide for the Development of Bicycle Facilities* (1999).

park employers to adopt strategies to incentivize vehicle trip reductions such as compressed workweeks, preferential parking for carpoolers, transit subsidies, and shuttle buses to area Metro stations.

GOAL: Improve pedestrian safety throughout the area.

POLICY 1:

- Develop a continuous network of safe routes (sidewalks and trails) for pedestrians, especially between neighborhoods and plan area destinations.

STRATEGIES:

Conduct pedestrian safety studies at key intersections and other areas with known pedestrian safety issues.

Studies of sidewalk conditions, pedestrian-vehicular conflicts, and crosswalks should be conducted at major study area intersections to determine needed pedestrian safety improvements. These may include upgraded or new sidewalks, reduction in turning radii to slow vehicular speed on right turns, pedestrian-activated signals, or crosswalk striping. The intersection of Good Luck Road and Greenbelt Road (MD 193) should be the first study area, given its proximity to local schools and the high number of pedestrians attempting to negotiate this intersection.

The 1993 master plan specifically identified problematic pedestrian circulation between the Whitfield Chapel Road residential area and the MD 450 business area. According to the plan, pedestrian fatalities have occurred while individuals crossed the railroad tracks behind the Whitfield Chapel Apartments to get to the commercial area. Crossing the railroad tracks is the most direct route from the residential complex to the Lanham Shopping Center; however, it also is the most dangerous route. The 1993 master plan recommended studying three pedestrian safety options: (1) a pedestrian overpass; (2) a pedestrian underpass; or (3) building an insurmountable wall along the tracks.[10] During the planning process for the 2009 sector plan, residents reiterated that this is a problem area. A pedestrian safety study should be undertaken to determine the feasibility of the 1993 plan recommendations or to identify more relevant pedestrian safety improvements for this area.

10 *1993 Glenn Dale–Seabrook–Lanham and Vicinity Master Plan and Sectional Map Amendment*, p. 50.

Retrofit existing roadways with improvements designed to create a safer environment for pedestrians.

Many area roadways, from neighborhood streets to arterials, lack continuous and/or well-maintained sidewalks and crosswalks at intersections. Pedestrian safety can be enhanced through roadway improvements throughout the plan area, with priority assigned to connections to schools, recreational facilities, transportation facilities, and neighborhood commercial centers. Table 36 identifies specific recommendations for pedestrian safety improvements.

Table 36.
Recommended Pedestrian Safety Improvements

Area	Facility
MD 704	Wide sidewalk
Greenbelt Road (MD 193)	Continuous sidewalks, with wide sidewalks in places of heavy pedestrian activity (such as NASA); striped pedestrian crosswalks
Princess Garden Parkway	Standard or wide sidewalks
Whitfield Chapel Road	Standard or wide sidewalks
Lottsford Vista Road	Standard or wide sidewalks
Glenn Dale Road	Standard or wide sidewalks
Forbes Boulevard	Continuous sidewalks from MD 450 to Lottsford Road
Prospect Hill Road	Sidewalk or sidepath
Northern Avenue	Continuous sidewalks
4th Street	Sidewalk along south side of road
Cipriano Road	Continuous sidewalks
94th Avenue	Sidewalk along west side of road
Hillmeade Road	Continuous sidewalks
Daisy Lane	Continuous sidewalks
Crandall Road	Continuous sidewalks
Franklin Avenue	Continuous sidewalks
C-339R planned collector (from MD 193 to MD 564)	Wide sidewalk
Whitfield Chapel Park/Capital Beltway	Study feasibility of a pedestrian bridge across the Capital Beltway to Garden City Drive; would provide direct pedestrian access to the New Carrollton Metro Station

Ensure that the design of new roadways incorporates features intended to provide safety and comfort to pedestrians.

Designing new roadways to incorporate pedestrian safety features is less expensive in the long run than having to retrofit existing roadways. All proposed roadways and roadway improvements in the plan area should follow complete streets principles and consider pedestrian safety features in roadway design. This may involve including such features as wide sidewalks, pedestrian refuge islands, medians, crosswalks, curb extensions, pedestrian-activity crossing signals, and traffic calming measures.

Implement traffic calming measures within neighborhoods as appropriate.

Traffic congestion on collectors and arterials encourages automobile drivers to search for alternate routes to their destinations. This often generates cut-through traffic on neighborhood/local streets that exceeds posted speeds. During the planning process, many residents complained of traffic speeding through their neighborhoods and often ignoring stop signs. These complaints suggest that traffic calming measures may be needed in several neighborhoods throughout the plan area.

Traffic calming techniques typically do not stop traffic; instead, they slow traffic through roadway design techniques that shift roadway alignments vertically or horizontally to reduce speed. Traffic calming strategies include speed humps, raised crosswalks or speed tables, chicanes, curb extensions, narrowing of wide intersections, raised intersections, roundabouts, and others. Traffic calming measures are relatively inexpensive transportation improvements; however, they cannot be implemented on a broad basis. Each area that is a candidate for traffic calming must be studied carefully to determine which traffic calming measure(s) is appropriate for that location.

Continue to implement the county's Neighborhood Traffic Management Program.

In 1995, the DPW&T created a Neighborhood Traffic Management Program (NTMP). The purpose of this program is to promote and maintain the safety and livability of the county's residential neighborhoods. The NTMP provides a process for identifying, evaluating, and addressing undesirable traffic conditions related to speed and excessive volumes. Citizens, elected officials, or neighborhood associations may request a traffic study for a particular area under this program. Study outcomes may include recommendations for traffic-calming devices.

Ensure safe, comfortable connections between schools and neighborhoods.

One major source of traffic congestion in many residential suburbs is vehicular traffic going to and from schools. In the plan area, many children may not walk or

bike to nearby schools due to poor pedestrian/bicycle conditions: discontinuous or no sidewalks, lack of pedestrian crosswalks, and traffic speeding through neighborhoods. In addition to retrofitting existing neighborhood streets and roadways, many communities have implemented programs designed to improve safety for children traveling on foot or by bicycle to and from school.

Some jurisdictions participate in the Safe Routes to School Program, which encourages community groups to evaluate roadway/sidewalk hazards in their immediate area and adopt localized strategies to help make their streets safer for children traveling to school. Strategies may range from advocacy for safer streets to organizing volunteer safety patrols, creating "walking school buses" that allow children to walk together with adults to school, or applying for funding to implement needed improvements such as sidewalk construction, crosswalk striping, better lighting, or pedestrian bridges.

GOAL: Identify and evaluate roads that have scenic characteristics within the plan area.

POLICY:

- Continue to protect, preserve, and enhance scenic roads.

STRATEGIES:

Require submission of a visual assessment survey when development applications are submitted for properties along or adjacent to Bell Station Road.

Ensure that viewsheds along Bell Station Road are preserved through the use of appropriate building setbacks, lot layouts, and screening and buffering.

Continue coordination efforts between M-NCPPC and the Department of Public Works and Transportation to ensure that roadway improvements are limited to those absolutely necessary to address safety concerns.