

V. TRANSPORTATION

Four Corners has long been an important crossroads in Eastern Montgomery County. Many years ago the intersection of Old Columbia Pike and Old Bladensburg Road was a convenient stop for those traveling between Washington and Baltimore. Today, Colesville Road (US 29) and University Boulevard (MD 193) continue their role as major north-south and east-west arteries for the eastern County. Development and growth in surrounding communities and adjacent counties have contributed to significant traffic congestion in Four Corners, which turns the convenience of the location into a drawback for local residents. The center of this crossroads community has been nearly overwhelmed by an auto-dependent transportation network and the resulting effects are a central consideration of this Plan.

While Four Corners is just another busy intersection for the many motorists who pass through this community, it is home for 10,600 residents in the Master Plan area. Beyond the highways traversing Four Corners are stable, mature residential neighborhoods within walking distance of shops, schools, transit stops, parks, and community facilities. However, the high volume of traffic through this community of neighborhoods has diminished the quality of life. It can be difficult for residents to walk or drive in and out of their neighborhoods, particularly since motorists often cut through Four Corners' residential streets to avoid the congested intersection of Colesville Road and University Boulevard.

As a means of preserving community character and safety, residents have focused attention on retaining medians on the major highways. Residents believe that while some improvements to transit service and to the Colesville Road/University Boulevard intersection are necessary, they cannot come at the expense of the medians. Residents also feel that preserving medians preserves their neighborhoods and without the medians, safe pedestrian connections between neighborhoods would be severely jeopardized, similar to the impact of the Capital Beltway, which separates neighborhoods to the south from the retail and services at the commercial center of Four Corners.

The relocation of Blair High School to the heart of Four Corners highlights the need for safe pedestrian access as a major public safety issue in this area. All of the issues regarding Blair High School are discussed in the Land Use and Zoning section.

The challenge for the Four Corners Master Plan is to find a balance that accommodates regional traffic yet protects this community of neighborhoods from its intrusive impacts. The Plan must also establish safe and accessible links for pedestrians and bicyclists to schools, shopping areas, parks, transit stops, and other facilities. The transportation goal is stated below, followed by specific objectives and recommendations.

Transportation Goal

Improve the ease and safety of movement in Four Corners, whether by car, foot, bicycle, transit, or a combination of travel modes.

The Roadway System

Just as Four Corners is almost completely built out, its roadway network is also fully developed and there are limited options to improving or expanding the system without major impacts to the community. This roadway plan, therefore, focuses on modifying existing roads and intersections. While the intersection of Colesville Road and University Boulevard is a primary concern, this Plan recommends minor modifications to other roadways that would better reflect their current use or help achieve the transportation goal.

The Maryland State Highway Administration (SHA) has been studying US 29 from Sligo Creek Parkway to the Howard County line. SHA is developing plans to construct grade-separated interchanges at many intersections on Colesville Road north of New Hampshire Avenue. The issues related to those interchanges are addressed in the White Oak and Fairland master plans and in the *Transportation Report for the Eastern Montgomery County Master Plan Areas*. The US 29 policy, including transit improvements, is outlined below, followed by the plans for improvements to the Four Corners intersection of Colesville Road and University Boulevard.

US 29 (Colesville Road) Policy

US 29 is the major north-south transportation facility in the eastern part of the County. In Eastern Montgomery County it is a major conduit to the Capital Beltway (I-495) and Washington, D.C. US 29 parallels I-95 in Prince George's County and connects Fairland south to White Oak, Silver Spring, I-495 (Capital Beltway), and the District of Columbia, and north to Howard County. US 29 is part of the National Highway System (NHS).

Most intersections along US 29 are forecast to continue to experience high levels of congestion. The State Highway Administration (SHA) has proposed a series of intersection improvements on US 29 between University Boulevard (MD 193) and the County line. There will not be sufficient funding to construct all improvements at once. Certain improvements will be more urgently needed or more effective than others. It is important to develop an incremental approach that will maximize the benefit from public investment. One way to ensure this is through monitoring the effects of each improvement on traffic patterns, particularly downstream and upstream of each improvement.

Analysis shows that some of the proposed grade-separation improvements will somewhat relieve congestion on US 29 as well as on parallel and east-west roads and will also aid in providing safe pedestrian crossings. These improvements may, however, have negative impacts downstream and upstream. It is impossible to predict accurately this complex interaction and only experience will tell.

Improvements to US 29 should provide six general purpose lanes plus acceleration/deceleration lanes, with four lanes crossing the Patuxent River to the Howard County line, and should minimize impacts south of New Hampshire Avenue where grade separations may not be feasible. Grade separations north of New Hampshire Avenue are also intended to improve east-west crossings for vehicles and provide the communities, particularly pedestrians and bicyclists, better access to public facilities and commercial centers located on both sides of US 29.

The following recommendations for grade separations make two assumptions: that congestion will continue to exist south of New Hampshire Avenue and that already planned improvements will be constructed.

Recommendations

- Add grade-separated interchanges to the *Master Plan of Highways* with the following construction priority:
 - MD 198/Dustin Road
 - Briggs Chaney Road
 - Randolph Road
 - Tech Road/Industrial Parkway
 - Stewart Lane
 - Musgrove Road/Fairland Road
 - Blackburn Road/Greencastle Road
- Monitor the net effects of completing each grade-separation for adverse impacts on upstream and downstream intersections as well as for east-west circulation as compared to the expected operational improvements. Monitoring may change the priorities, the cost effectiveness of the improvements, or whether other grade-separations should be constructed at all.
- Reserve right-of-way through this master planning process for all improvements to provide the greatest flexibility for future roadway and transit needs.
- Evaluate bus service to see if it alleviates some of the predicted congestion.
- Include bikeways and sidewalks in the design of all bridges over US 29.

Colesville Road/University Boulevard Intersection

The 1986 *Sector Plan for Four Corners and Vicinity* discussed both short- and long-term transportation improvements to the Colesville Road/University Boulevard intersection. The short-term improvement was the at-grade “jughandle.” The long-term improvement was a grade separation that would carry Colesville Road under the east and westbound lanes of University Boulevard. Both options were being studied by SHA. After several years of negotiating and meeting, SHA and the community agreed on the jughandle improvement as both the short-term and long-term solution. (See Figure 15.) SHA also committed to a number of pedestrian and streetscape improvements in conjunction with the jughandle construction. (See Table 2, page 49.) Construction on the improvement project is currently underway. While the jughandle improvements will alleviate intersection congestion, it is estimated that the added capacity will be absorbed by the year 2015 as regional growth continues.

In developing the jughandle design, an important goal of local residents has been the preservation of the medians on Colesville Road and University Boulevard. Residents' strong desire to retain medians is motivated by both psychological and practical concerns. Preserving the medians, in their view, protects access to the community, maintains community character, provides a green planting area, and keeps the road from becoming a freeway. From a practical standpoint, medians provide a safe refuge for pedestrians to stop and wait for traffic to clear while crossing the busy highway. Although not originally intended for such use, medians have become a pedestrian refuge when multi-lane highways pass through neighborhoods where people need to walk. As part of the jughandle project, SHA will maintain and, in some areas, widen medians on Colesville Road and University Boulevard.

Objective

- Implement and incorporate the SHA jughandle, streetscape, and pedestrian improvements at Colesville Road and University Boulevard and maximize this significant opportunity to improve the function, safety, and image of the intersection while minimizing construction impact and disruption to residents and businesses.

Recommendation

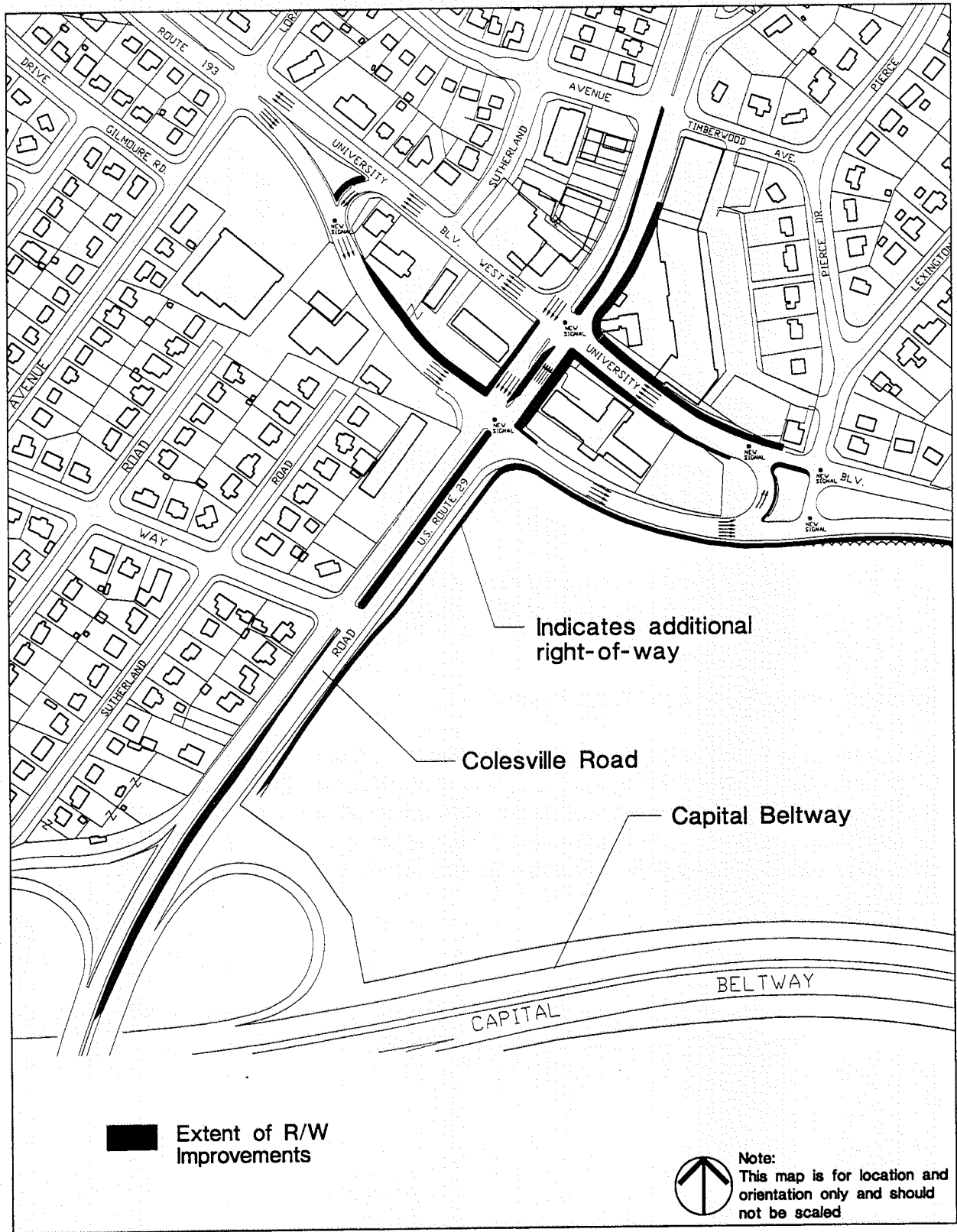
- This Plan encourages continued coordination among SHA, the Four Corners community, and County agencies throughout the final design and implementation of the jughandle and the pedestrian and streetscape improvements at Colesville Road/University Boulevard. Coordination should include review of plans for traffic circulation, control, and business access during construction.

Neighborhood Traffic

Heavy traffic is inappropriate in residential neighborhoods. Large volumes of vehicular traffic can be disruptive to the peace and serenity of residential areas. Commuters often cut through Four Corners neighborhoods to avoid the congested intersection of Colesville Road and University Boulevard. Such intrusion disrupts one of the most appealing characteristics of this community of neighborhoods -- walking to retail and services. Cut-through traffic decreases safety and access, increases noise, and divides neighborhoods. Cut-through traffic also creates a significant pedestrian safety problem, particularly in neighborhoods where there are no sidewalks.

Objective

- Maintain neighborhood character and integrity and improve pedestrian safety by reducing cut-through traffic on residential streets.



Recommendations

- Work with Four Corners neighborhoods to minimize non-local traffic on residential streets through DPWT's Residential Traffic Management Program. These neighborhoods should be reviewed as a network of interconnected streets with traffic control measures that are coordinated accordingly.
- SHA and DPWT should work with the Woodmoor-Pinecrest neighborhood to implement measures that would reduce cut-through traffic on residential streets, particularly as a result of a new traffic signal planned at Lexington Drive and University Boulevard as part of the SHA project and Blair High School. Cut-through traffic is predicted to increase on the Lexington Drive/Pierce Drive/Timberwood Avenue route behind Woodmoor Shopping Center as a result of the new signal as drivers attempt to bypass the Colesville Road/University Boulevard intersection.
- Study Franklin Avenue between Colesville Road and University Boulevard to determine appropriate measures for controlling vehicle speed and improving safety for pedestrians (especially at school crossings), bicyclists, and vehicles. If speed restraint and other safety measures are warranted, DPWT should meet with neighborhood representatives to develop a plan for the location and types of controls to be implemented.
- DPWT should evaluate the need for through movement prohibitions between Williamsburg Drive and the Blair High School access road onto University Boulevard.

Roadway Improvements and Classifications

Table 1 on page 41 shows the classification, rights-of-way requirements, and minimum pavement width or number of lanes for roadways in the Four Corners area. The classification of roadways is a way of indicating the degree to which access to properties is balanced with the ability to handle through traffic. Figure 16 shows the existing street and highway plan and Figure 17 shows the recommended highway plan. Recommendations regarding several roadways in Four Corners are listed below.

Objective

- Establish a road network that considers the needs of residents living in Four Corners as well as the needs of commuters.

Table 1

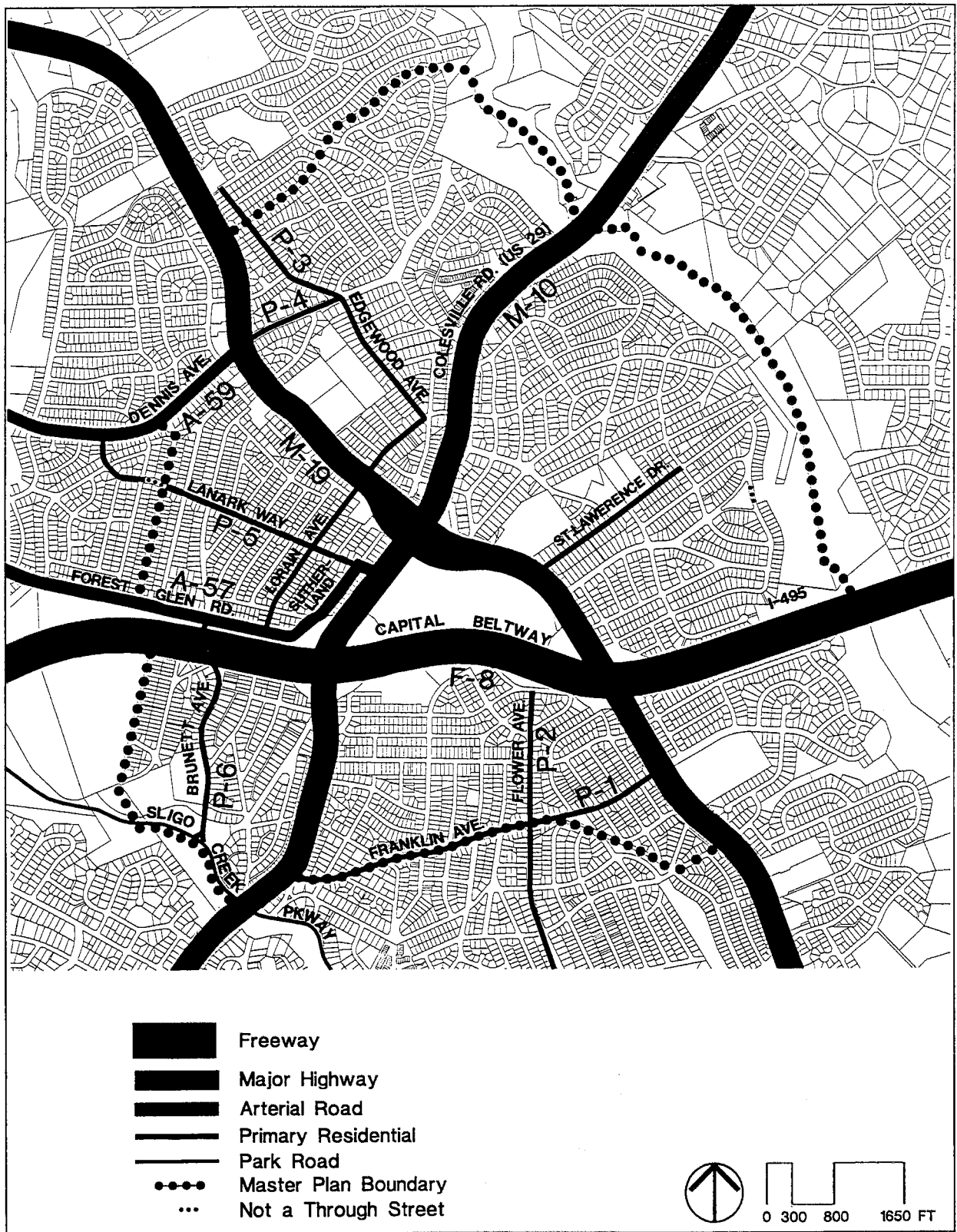
**PROPOSED STREET AND HIGHWAY CLASSIFICATIONS
FOUR CORNERS MASTER PLAN**

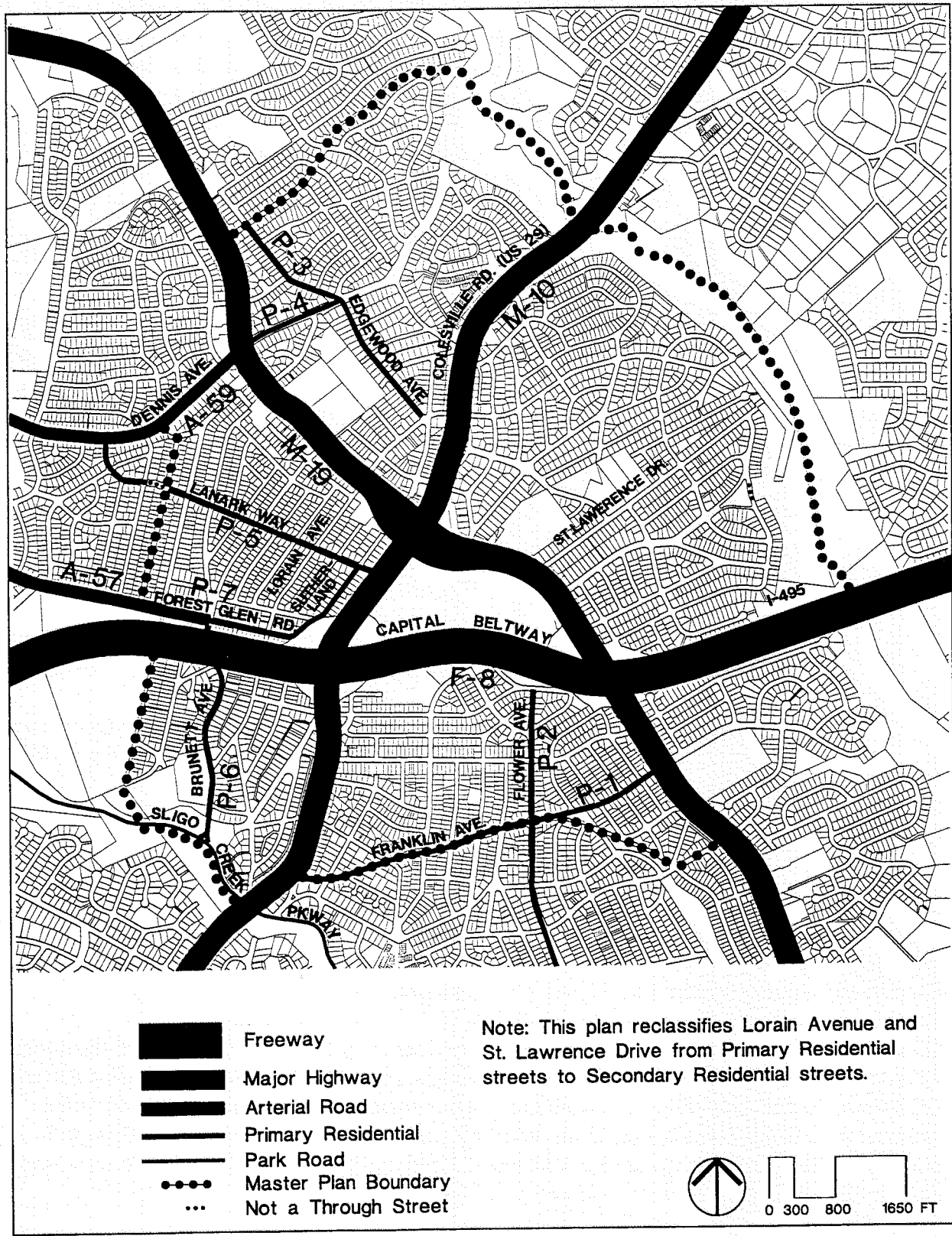
Master Plan Roadway Designation	Name	Limits	Recommended Minimum Right-of-Way Width	Recommended Number of Lanes Or Paving Width
Freeways				
F-8	Capital Beltway (I-495)	Western Boundary Line to Eastern Boundary Line	Varies	8 lanes divided
Major Highways				
M-10	Colesville Road (US 29)	Northwest Branch Park to Sligo Creek Parkway	120 ft.	6 lanes divided
M-19	University Boulevard (MD 193)	Eisner Street to Melbourne Avenue	120 ft.	6 lanes divided
Arterial Roads				
A-57	Forest Glen Road (MD 192)	Sligo Creek Parkway to Brunett Avenue	80'	2 lanes
A-59	Dennis Avenue	University Boulevard to Proctor Street	80 ft.	2 lanes
Primary Residential Streets				
P-1	Franklin Avenue	Colesville Road to University Boulevard	70 ft.	36 ft.
P-2	Flower Avenue	Marshall Avenue to Franklin Avenue	70 ft.	36 ft.
P-3	Edgewood Avenue	Eisner Street to Lorain Avenue	70 ft.	36 ft.
P-4	Dennis Avenue	University Boulevard to Edgewood Avenue	70 ft.	36 ft.
P-5	Lanark Way	Sutherland Road to Renfrew Road	70 ft.	36 ft.
P-6	Brunett Avenue	Sligo Creek Parkway to Forest Glen Road	70 ft.	36 ft.
P-7	Lanark Way/Sutherland Road/ Forest Glen Road	Colesville Road to Brunett Avenue	80 ft.	2 lanes

NOTE: The recommended number of lanes or paving width does not include intersection improvements. Additional lanes may be needed at intersections to improve safety or capacity.

EXISTING STREET AND HIGHWAY NETWORK

FIGURE 16





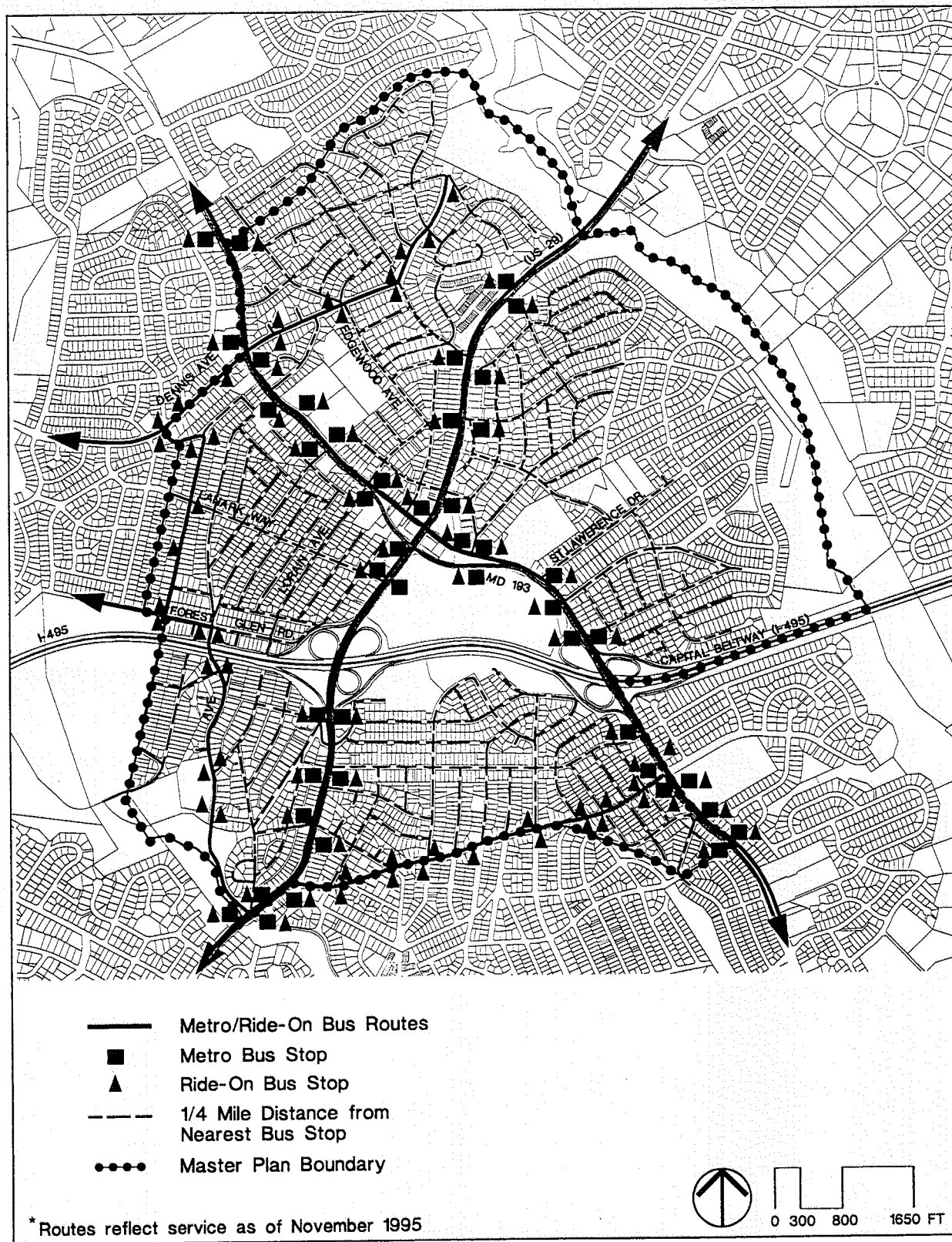
Recommendations

- Defer the three improvements outlined below until the Planning Board reviews the 1993 *Silver Spring Central Business District Sector Plan*. The Silver Spring Sector Plan recommended improvements at these locations that are within the Four Corners Master Plan area. However, the Sector Plan also recommended a five-year Planning Board review before any improvements are made to Colesville Road and its intersecting streets. When the Silver Spring Sector Plan is reviewed, careful consideration should be given to the potential impacts of these proposed intersection improvements on the Four Corners neighborhoods.
 1. Colesville Road and Sligo Creek Parkway: Add a westbound right-turn lane to Sligo Creek Parkway.
 2. Colesville Road and Franklin Avenue: Prohibit left turns from southbound Colesville Road onto Franklin Avenue during the peak periods. Signals should be retained to provide cycles for vehicles turning out of Franklin Avenue and for pedestrians crossing Colesville Road. DPWT should ensure that signal timing will allow adequate time for pedestrians to cross Colesville Road. Improvements should minimize the use of neighborhood streets for through trips.
 3. Franklin Avenue and University Boulevard: Add a left-turn lane to eastbound Franklin Avenue.
- Reclassify Lorain Avenue and St. Lawrence Drive from primary residential streets to secondary residential streets, which reflect their function.
- Reclassify the Forest Glen Road-Sutherland Road-Lanark Way route from arterial to primary residential from Colesville Road to Brunett Avenue. (See Figure 17.) This route should be maintained as a two-lane road.

Transit

Most residents in Four Corners are within a quarter-mile of a Metro bus or Ride-On bus stop. (See Figure 18.) Additional transit services are necessary to help reduce traffic congestion and to provide an alternative to further expansion of roads in Four Corners. Appropriate facilities that support and enhance transit ridership are also important.

While bus service is readily available, residents are discouraged from taking it due to the difficulty of crossing Colesville Road. Improved pedestrian access to bus stops across Colesville Road from Four Corners neighborhoods would enable more residents to use transit. A pedestrian crossing at Lanark Way is critical to ensuring safe pedestrian access to Blair High School. In addition, pedestrian crossings at Granville Drive, Leighton Avenue, Timberwood Avenue, and Lorain Avenue should also be considered.



In the long-term, based on current demand projections, a substantial improvement to transit should be provided along US 29 between Burtonsville at MD 198 and the Silver Spring Metro station (future Silver Spring Transit Center). Future highway improvements along US 29 should be designed in a way that would not preclude provision of transit priority along all or portions of US 29.

Objective

- Encourage use of transit to move people through Four Corners rather than widening roads to move vehicles by providing high-quality, efficient public transportation.

Recommendations

- Work toward a long-term solution for significantly improving transit along US 29. Based on current demand projections, a substantial improvement to transit should be provided between Burtonsville at MD 198 and the Silver Spring Metro station (future Silver Spring Transit Center).
- Examine, as part of the transportation facility planning project for a bus transfer center in Four Corners, the area between the divided westbound and eastbound lanes on University Boulevard, west of Colesville Road, as a possible site. The study should seek ways to minimize the impact on, and possibly include, the existing businesses in any potential redesign. A park-and-ride facility is not recommended.
- This Plan encourages improved bus service to the Forest Glen Metro station from the Four Corners neighborhoods.
- This Plan supports the development of alternatives to single-occupancy vehicles for use during US 29 construction.
- This Plan promotes the use of transit, ridesharing, and other traffic mitigation measures, including compressed workweeks and telecommuting among employees and residents in the US 29 area.

Sidewalks

When the Four Corners subdivisions were constructed, primarily between the 1930s and 1950s, sidewalks were not built on most residential streets. Today, Four Corners requires a comprehensive network of sidewalks to improve pedestrian safety and circulation. One of the positive features of Four Corners is the proximity of residences to community services and convenience retail. This benefit is diminished by the increased traffic on residential streets as motorists cut-through the neighborhoods to avoid congestion at the Colesville Road/University Boulevard intersection. Construction of Blair High School also increases the need for a comprehensive pedestrian circulation system throughout Four Corners.

This Plan recommends several locations where sidewalks should be considered for construction. (See Figure 19 and Table 2.) The locations were chosen because they either: lead to shopping areas, schools, parks, and other community facilities; have higher traffic volumes than other residential streets; serve transit stops; are along major highways; or complete a network for pedestrian circulation. Where it may be infeasible to construct sidewalks because of topographic constraints such as steep slopes, mature trees, or other factors, alternative locations that provide appropriate connections should be considered. This Plan is not intended to preclude consideration of other sidewalk locations that may be identified in the future.

It is important that the existing character of neighborhoods be preserved if sidewalks are constructed along residential streets. DPWT should consider alternatives to the standard concrete sidewalk that could lessen impacts to mature trees and front yards, including using asphalt for sidewalks or trails, narrowing the standard width of the sidewalk, and possibly narrowing the roadway width in some instances.

In addition to the recommendations in this Master Plan, SHA plans to implement a number of pedestrian and streetscape improvements in conjunction with construction of the jughandles in Four Corners. These improvements are designed to enhance pedestrian safety and improve the appearance of the intersection, and include trees, shrubs, plantings, low barrier walls with architectural finish, pavers, and lighting. Pavers are an aesthetic enhancement as well as a method to clearly identify pedestrian priority areas. Recommended pedestrian improvements, including those by SHA, are listed in Table 2.

Objective

- Improve pedestrian circulation and safety by constructing sidewalks that connect neighborhoods to the commercial district, schools, transit stops, parks, and other community facilities.
- Ensure that there are crosswalks where there are bus stops and future transit stops.

Recommendations

- See Table 2 for the recommended pedestrian improvements.

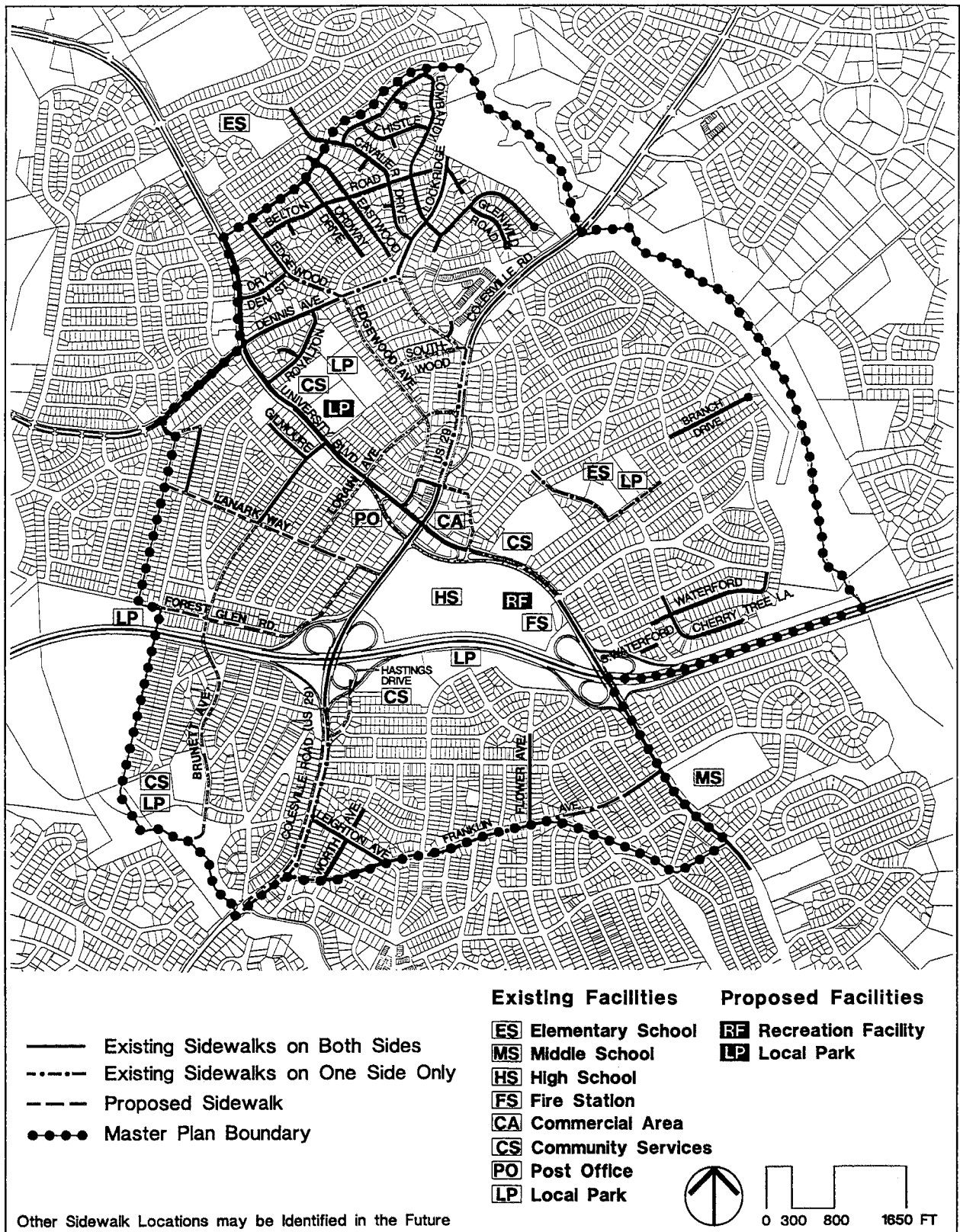


Table 2

**PEDESTRIAN IMPROVEMENTS RECOMMENDED FOR
CONSIDERATION IN FOUR CORNERS**

SIDEWALK IMPROVEMENTS
West side of Colesville Road between the Capital Beltway and Sligo Creek Parkway
East side of Colesville Road between Timberwood Avenue and Southwood Avenue
Both sides of Colesville Road between Southwood Avenue and Northwest Branch Park
Around the perimeter of the Blair High School site
Brunett Avenue between Sligo Creek Parkway and Lanark Way
Lanark Way between Colesville Road and Dallas Avenue
Forest Glen Road/Sutherland Road between Lanark Way and Dallas Avenue
Renfrew Road/Proctor Street between Dennis Avenue and Dallas Avenue
Edgewood Avenue between Lorain Avenue and Dennis Avenue
Sutherland Road between Timberwood Avenue and Lorain Avenue
Southwood Avenue between Colesville Road and Edgewood Avenue
Eastwood Avenue between Colesville Road and Dennis Avenue
Lorain Avenue between Lanark Way and Colesville Road
Timberwood Avenue/Pierce Drive/Lexington Drive between Colesville Road and University Boulevard
Hastings Drive between Colesville Road and Shorey Road
Edgewood Avenue from Dennis Avenue to Lorain Avenue
Southwood Avenue from Edgewood Avenue to Eastwood Avenue
Sutherland Road from Lorain Avenue to Timberwood Avenue
Lanark Way from Brunett Avenue to Colesville Road
Forest Glen Road from Dallas Avenue to Lorain Avenue
Forest Glen Road and Sutherland Road from Lorain Avenue to Lanark Way

Table 2 (Cont'd.)

**PEDESTRIAN IMPROVEMENTS RECOMMENDED FOR
CONSIDERATION IN FOUR CORNERS**

Brunett Avenue from Bruce Drive to Forest Glen Road
Williamsburg Drive from University Boulevard to Cherry Tree Lane
St. Lawrence Drive from University Boulevard to Woodmoor Drive
Woodmoor Drive from Hillmoor Drive to Lexington Drive
Lexington Drive from University Boulevard to Woodmoor Drive
Pierce Drive from Lexington Drive to Colesville Road

SHA ACTIONS TO ACCOMPANY JUGHANDLE IMPROVEMENTS

Construct continuous sidewalk system with minimum five-foot width throughout the intersection with no obstructions.
Examine methods to enhance pedestrian safety, particularly at intersection crossings, including signal timing, lighting, crosswalk width and design, curb cuts, turn-lane movements.
Maintain continuous medians throughout the intersection on both Colesville Road and University Boulevard.
Plant new trees and other plantings along Colesville Road and University Boulevard.
Maintain minimum five-foot planting strip for street trees between the sidewalk and the curb.
Emphasize pedestrian domain using pavers or other material on sidewalks or crosswalks.
Provide low walls with attractive finish to separate pedestrians from vehicle lanes at Woodmoor near CVS and in front of Fred and Harry's restaurant.
Take measures to reduce visual clutter, including consolidation of overhead utility poles.
Provide landscaping and sidewalk improvements and ensure that the businesses on the west side of Colesville Road (at Fred and Harry's restaurant) remain visible and accessible from Colesville Road.

Bikeways

The bikeway network within Four Corners should be expanded to improve the existing system and to encourage its use as an alternative mode of travel. The recommended bikeway network provides a local system within Four Corners and connects to the regional network in and through Eastern Montgomery County, providing connections to public facilities, Metro stations, parks, schools, and commercial areas.

Objective

- Develop a local and regional bikeway network that connects important destinations and provides an option to motorized travel.

Recommendations

- Expand the local bikeway network. Table 3 shows the proposed classification for each bikeway and Figure 20 shows the existing and proposed bikeway network.
- Include bikeways in options that are being considered to provide safe access to the Blair High School site.
- Construct a Class I bikeway around the new Blair High School to serve the school and local neighborhoods.
- Implement a bikeway sign program within State rights-of-way, similar to the County program.

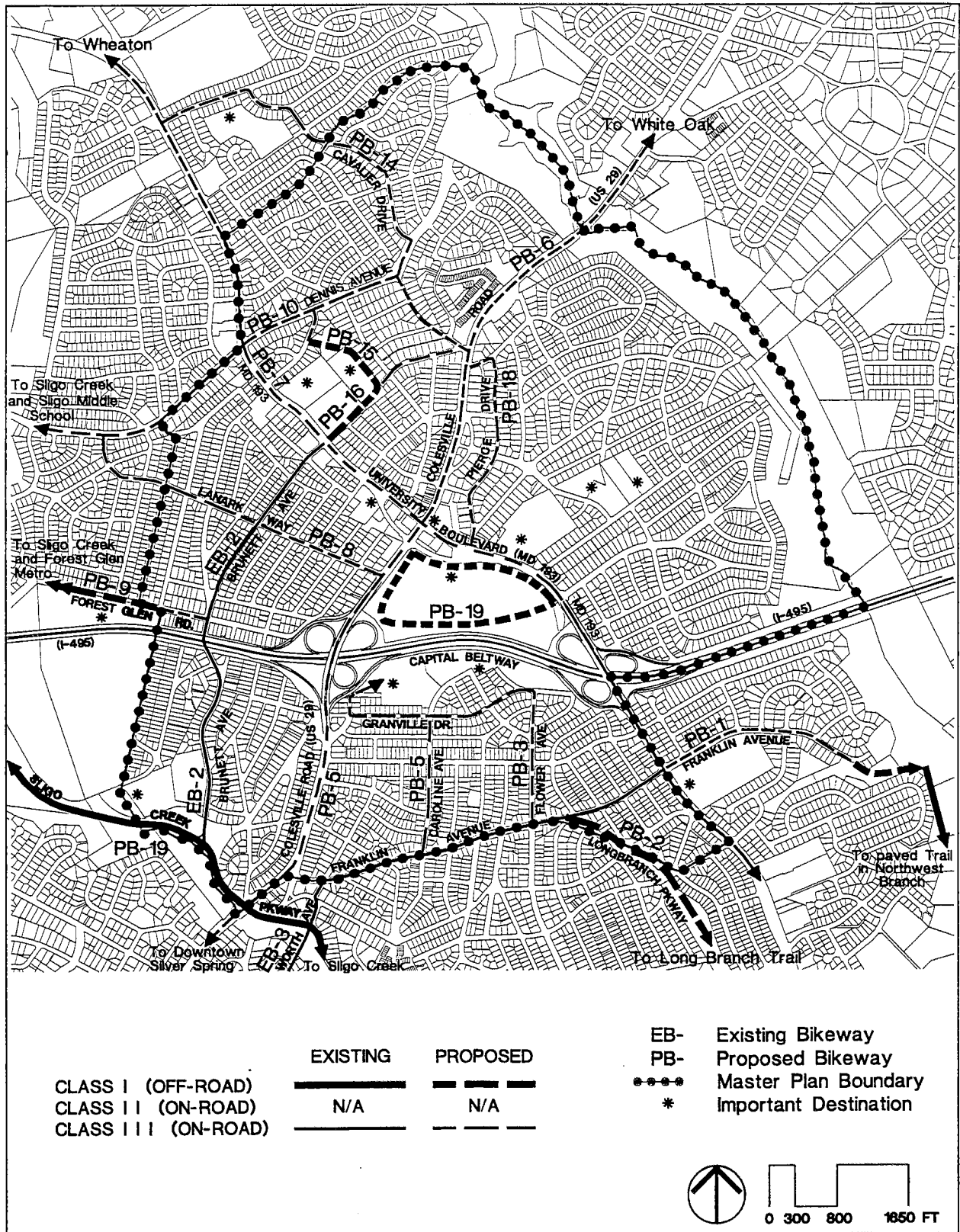


Table 3

BIKEWAY PLAN IN FOUR CORNERS

ROUTE	NAME	LOCATION	CLASS	STATUS
EB-1	Sligo Creek Park Trail	Along Western Boundary Line	I	Existing
EB-2	Brunett Avenue	Sligo Creek Trail to University Boulevard (MD 193)	III	Existing
EB-3	Worth Avenue	Franklin Avenue to Sligo Creek Trail	III	Existing
EB-4	Franklin Avenue	Worth Avenue to University Boulevard	III	Existing
PB-1	Franklin Avenue	University Boulevard to Northwest Branch Trail	I + III	Class III from University Boulevard to end of Franklin Avenue. Class I from Franklin Avenue into Northwest Branch to connect with existing Class I.
PB-2	Long Branch Park Trail	Franklin Avenue to Existing Class I north of Piney Branch Road	I	
PB-3	Flower Avenue	Franklin Avenue to Granville Drive	III	
PB-4	Granville Drive	Hastings Drive to Flower Avenue	III	
PB-4	Hastings Drive	Granville Drive to YMCA	III	
PB-5	Caroline Avenue	Granville Drive to Franklin Avenue	III	
PB-6	Colesville Road (US 29)	Sligo Creek Parkway to Northwest Branch	III	
PB-7	University Boulevard (MD 193)	Melbourne Avenue to Eisner Street	III	
PB-8	Lanark Way	Colesville Road to Dennis Avenue (outside Western Boundary Line)	III	
PB-9	Forest Glen Road (MD 192)	Dallas Avenue to Brunett Avenue	III	
PB-10	Dennis Avenue	Sligo Creek Parkway to Lockridge Drive	III	

EB - Existing Bikeway

PB - Proposed Bikeway

Table 3 (Cont'd.)

BIKEWAY PLAN IN FOUR CORNERS

ROUTE	NAME	LOCATION	CLASS	STATUS
PB-13	Eastwood Avenue	Colesville Road (US 29) to Dennis Avenue	III	
PB-14	Cavalier Drive	Lockridge Drive to Chiswell Lane	III	
PB-14	Chiswell Lane	Cavalier Drive to Caddington Avenue	III	
PB-14	Caddington Avenue	Chiswell Lane to University Boulevard	III	
PB-15	Royalton Road	Dennis Avenue to Northwood-Four Corners Local Park entrance off Royalton Road	III	
PB-15	Northwood-Four Corners Local Park	Royalton Road to Edgewood Avenue	I	
PB-16	Brunett Avenue	University Boulevard to Edgewood Avenue	I	Brunett Avenue is not a through street; achieve through subdivision.
PB-17	Southwood Avenue	Edgewood Avenue to Colesville Road	III	
PB-18	Eastmoor Drive	Colesville Road (US 29) to Pierce Drive	III	Eastmoor Drive is not a through street; easement may be required.
PB-18	Pierce Drive	Eastmoor Drive to Lexington Drive	III	
PB-18	Lexington Drive	Pierce Drive to University Boulevard	III	
PB-19	Blair High School	Internal bike path	I	
EB - Existing Bikeway		PB - Proposed Bikeway		