



December 3, 2004

**MEMORANDUM**

**TO:** Montgomery County Planning Board

**VIA:** Jeffrey Zyontz, Chief  
Countywide Planning Division

Richard C. Hawthorne, Chief *REH*  
Transportation Planning

Khalid Afzal, Team Leader *KA*  
Community-Based Planning

**FROM:** Larry Cole: 301-495-4528, for the Park and Planning Department *LC*

**PROJECT:** MD97 (Georgia Avenue) at Randolph Road Interchange  
Contract No. MO854B21

**REVIEW TYPE:** Mandatory Referral No. 04815-SHA-1

**APPLICANT:** Maryland State Highway Administration

**APPLYING FOR:** Plan Approval

**COMMUNITY-BASED PLANNING TEAM AREA:** Georgia Avenue

**RECOMMENDATION:** Approval with comments to the State Highway Administration (SHA) and the Department of Public Works and Transportation (DPWT).

Staff recommends that the Board approve the proposed project (see Attachment 1: Location Map) with the following comments to SHA:

1. Revise the traffic signal warrant analysis for the intersection of Randolph Road and Livingston Street to include traffic volumes from 6-7am and 7-8pm and evaluate traffic signal warrants 5, 6, and 7.

2. Work with the affected property owners to ensure that building the planned private street in the northeast quadrant of the Georgia Avenue/Randolph Road intersection is not made more difficult by the proposed utility relocation.
3. Construct additional sidewalks in the northeast and southeast quadrants of the Georgia Avenue/Randolph Road intersection to improve pedestrian comfort.
4. Ensure that all ramps for the off-road bikeways are the same width of the bikeways leading up to them.
5. Post signs prohibiting pedestrians from crossing the west leg of Randolph Road at Glenmont Circle.
6. Provide an accessible crosswalk on the south leg of Georgia Avenue at Sheraton Street, or prohibit the crossing and provide a crosswalk on the south leg of the Layhill Road intersection.
7. Consider providing raised medians along Georgia Avenue within the project limits.
8. Provide lighting levels that meet the recommendations of the International Illuminating Society of North America.
9. Provide a second row of street trees behind the proposed sidewalk in the northeast and southeast quadrants of the Georgia Avenue/Randolph Road intersection. Work with the property owners south of the intersection to see if they will allow a second row of trees to be planted behind the sidewalk on their property.
10. Provide additional landscaping in all four corners of the intersection to enhance the look of this important intersection.
11. Consider providing an information panel adjacent to the sidewalk at the proposed bio-retention area explaining how the facility works to serve as a public educational tool.

*Staff also recommends that the Board send a letter to DPWT requesting a reconsideration of their previous disapproval of the traffic signal at Randolph Road and Livingston Street.*

**PREVIOUS BOARD ACTION:**

The Planning Board reviewed the Project Planning report on March 2, 2002, and concurred with SHA's recommended design concept, which was the same as that shown in the Glenmont Sector Plan. The current design of this project is consistent with that concept.

## **PROJECT DESCRIPTION**

This project would construct a grade-separated interchange at the intersection of Georgia Avenue (MD97) and Randolph Road. All turning movements would take place at the current level of Georgia Avenue. The Randolph Road through lanes would be depressed under a bridge carrying Georgia Avenue.

The project limits are from Mason Street to Layhill Road (MD182) along Georgia Avenue, and from west of Judson Road to east of Glenmont Circle along Randolph Road. Seven-foot-wide sidewalks with eight-foot-wide landscape panels would be provided throughout the project, with the exception of the north side of Randolph Road, where an eight-foot-wide off-road bikeway with a seven-foot-wide landscape panel would be provided. A ten-foot-wide off-road bikeway would be provided in addition to the sidewalk along the west side of Georgia Avenue as an extension of the Glenmont Greenway.

Five-foot-wide on-road bike lanes would be provided along Georgia Avenue. On-road bike accommodation would be provided along Randolph Road via fourteen-foot-wide shared use lanes.

## **STAFF ANALYSIS**

The proposed improvements are critically needed at what is one of the county's most congested intersections. With the recent funding of the proposed interchange at MD 355 and Montrose Parkway/Randolph Road, the subject project moves to the top of the County's priority list for State funding for roadway construction, and the second construction priority overall, after the second Glenmont Metro Station parking garage.

Staff has worked closely with SHA during the development of this project, from the project planning to the current semi-final plan stage. SHA began the project using the concept that was outlined in the Glenmont Sector Plan and has continued to refine the design to ensure that the Master Plan-recommended pedestrian and bicycle accommodation is provided to the greatest extent possible in a very constrained right-of-way. In addition, SHA proposes to construct a 1,000-foot extension to the Glenmont Greenway. This extension would provide a great enhancement to the area.

Staff believes that SHA has done a very good job balancing the competing issues in a very tight urban area.

## **Comparison of Impacts, Planning Phase vs. Design Phase**

The chart below shows the impacts that were originally anticipated during the planning phase and those currently anticipated. The greater area of impact shown for the current design reflects SHA's agreement to follow the Master Plan streetscape recommendations for greater sidewalk and landscape panel widths rather than the standard widths reflected in the planning concept summary.

The area of impact is greater in regard to future parkland on the Old Glenmont School site (the Glenmont Greenway extension), but staff believes that this is desirable to achieve a greater landscaped offset that would result in better sidewalk and Greenway facilities. The other impacts listed on the chart, the residential and commercial displacements, are actually less than were anticipated during the planning phase.

	Anticipated During Planning Phase	Anticipated with Current Design
Right-of-Way Impacts (Acres)	2.9	4.2
Displacements		
Residential (No.)	(2)	(0)
-2403 Randolph Road	Total Take	Temporary Impact
-12306 Grandview Ave.	Total Take	Partial Take
Business (No.)	(4)	(2)
- Glenmont Auto Service	Total Take	Total Take
- Amoco	Total Take	Total Take
-Exxon/Mobil	Total Take	Partial Take
-Chevy Chase Bank	Total Take	Partial Take
Other (No.)	(1)	(1)
Kensington Volunteer Fire Dept.	Total Take	Total Take
Historic/Archeological Resources	None	None
Parkland (Acres)		
Old Glenmont School Site		
-Temporary	0.25	0.61
-Permanent	0.55	0.63
Glenmont Greenway		
-Temporary	0	0
-Permanent	0.006	0.002

Three properties would be taken in their entirety to construct the proposed interchange. The Amoco/BP gas station at the northeast corner of the Georgia/Randolph intersection, and Glenmont Auto Service further east, would be taken because the space needed to construct the permanent improvements would adversely affect their operations to a point that they would not be able to stay in business. The fire station at the southeast corner of the intersection would be taken because it is in the space needed to construct a temporary detour roadway and because of accessibility problems that would exist during and after construction since the entrance to the station right now points to the middle of the existing intersection. SHA is working with the Kensington Volunteer Fire Department on the relocation/replacement of this facility.

### **Bicyclist and Pedestrian Accommodation**

The sidewalks and trails would be provided at the width recommended in the Glenmont Transit Impact Area and Vicinity Sector Plan (September 1997), seven feet and eight feet, respectively.

The recommended landscape panels with street trees would also be provided with five localized exceptions: one to avoid taking a home on Randolph Road west of Georgia Avenue, two east of the intersection at the police station and at Chevy Chase bank to avoid conflicts with the existing buildings, one on Georgia Avenue south of the intersection where it is constrained by a Metro airshaft, and one on Georgia Avenue north of the intersection to avoid taking a gas station.

The recommended sidewalk/bikeway widths are intended to ensure that pedestrians and bicyclists can comfortably move about the Metro station and commercial area, which is expected to see redevelopment. The landscape panels are important to ensure that pedestrians and bicyclists feel comfortable being adjacent to major highways and as an aesthetic enhancement that will assist in the area's redevelopment.

*Staff recommends that SHA ensure that all ramps for the off-road bikeway are the same width of the bikeways leading up to them, so that we do not create pinch points at intersections.*

The following is a description of the pedestrian accommodation at each intersection within the project limits.

### **Georgia Avenue/Randolph Road**

Striped crosswalks and pedestrian signals would be provided in all quadrants of the intersection. The crosswalks are well oriented, balancing the desire to provide the shortest crossings possible with the need to keep pedestrians in the driver's view. A design change that is planned but is not yet shown would shift the crosswalks at the two free-right turn lanes farther back so that pedestrians would cross behind the first vehicle waiting to turn. This would eliminate the need for drivers to keep their eyes on both on-coming traffic and pedestrians, and staff believes that this would improve safety for pedestrians.

Since the Glenmont Greenway and extension would be on the west side of the intersection, and the fire station and gas station properties on the east side of the intersection would be purchased, a rare opportunity would be created for the public to create a coordinated, attractive, pedestrian-friendly environment at all four corners of the intersection of two high-volume roads.

*Staff recommends that additional sidewalks be constructed in the northeast and southeast corners* to allow pedestrians to “cut-the-corner” and stay farther away from the busy intersection (see Attachment 2). These sidewalks would partially duplicate the “dual path” condition of the Glenmont Greenway on the other side of Georgia Avenue and better enable the project to create a consistent level of landscaping on all four corners of this important gateway.

### **Randolph Road at Judson Road and Grandview Avenue**

The proposed grade of the Randolph Road lanes leading to the Georgia Avenue underpass would prevent left turns to and from both Grandview Avenue and Judson Road, which would be restricted to right-in/right-out only. All access across Randolph Road at these intersections would be prohibited. (See Attachment 3).

SHA’s staff has stated that they are open to installing a new traffic signal at Randolph Road and Livingston Street, which is west of Judson) to mitigate the loss of access caused by the significant restrictions at these two streets and the permanent detours that will be required for some residents. The signal would improve vehicular accessibility for residents of the neighborhood and would give pedestrians a signal-controlled crossing of Randolph Road on a street that leads directly to the Glenmont Metro Station. This signal was recommended in our Glenmont Concept Plan Pedestrian Circulation Study, published in October 1999.

DPWT Traffic staff has objected to the installation of a traffic signal at Livingston Street because the only warrant that SHA showed being met is specifically limited to unusual conditions such as office complexes, manufacturing plants, and industrial complexes that attract or discharge large numbers of vehicles over a short period of time. Staff believes that the end-of-the-line Glenmont Metro Station and its 1,800-space parking garage may be considered as a similarly unusual condition. The addition of a second 1,200-space parking garage at the Metro Station, noted as the County’s highest priority above, could further increase the peak traffic flows in this area. Pages five and six from SHA’s signal warrant analysis are included as Attachment 4.

The Four-Hour Vehicular Volume warrant was only four cars short in the fourth highest hour (6-7pm) of the 60 vehicles per hour minimum needed to justify the signal, whereas the peak hour (7-8am) is far in excess of the minimum at 150 vehicles per hour. Staff believes that since this peak hour was the earliest in the day the traffic counts were taken and that the last hour of the day almost met the minimum, SHA should expand the traffic counting period by at least an hour on either end to see if this warrant can be met.

Warrant 5, for school crossings, is noted in the report as being not applicable but staff believes that this should be evaluated. Wheaton High School's student area straddles both sides of Randolph Road west of Georgia Avenue. While there is a traffic signal at the intersection of Dalewood Drive on the west end of the school site, there is no other traffic signal in the one-mile distance along Randolph Road between the school and Georgia Avenue. High school students are expected to walk up to two miles to get to school, per Montgomery County Public Schools policy, and a crossing at Livingston Street would be the safest viable option.

Warrants 6 and 7, for a coordinated signal system and for crash experience, were not evaluated but staff recommends that they be evaluated to see whether these warrants would be met and further justify the installation of a traffic signal.

While they are within the limits of the project, both Randolph Road and Livingston Street are County streets and any changes require DPWT's consent. Because of DPWT's objection, SHA's current design does not include the signal but they have said that they can include it if DPWT drops its objection. SHA staff reports that they have received quite a bit of public comment in support of the signal.

One of the citizens' concerns is that the interchange would eliminate the gaps in the traffic flow that now exist when Randolph Road traffic stops at the red light. These gaps are used by pedestrians to cross Randolph Road at Livingston Street. Once traffic is free flowing and the gaps are reduced, the pedestrian crossing may become both more difficult and more hazardous.

The Livingston Street intersection is only three blocks from the Glenmont Metro Station and has bus stops whose patrons need to be safely accommodated. Staff believes that all reasonable measures must be undertaken to improve pedestrian safety and accessibility to transit and a traffic signal at Livingston Street would significantly advance those objectives. While the subject of this Mandatory Referral is a SHA project, the decision on whether to provide this signal is in DPWT's hands.

***Staff recommends that the Board request that DPWT reconsider its disapproval of the traffic signal at Randolph Road and Livingston Street.*** If DPWT does not permit SHA to install the traffic signal following SHA's revision of the traffic signal warrant analysis, staff believes that DPWT should determine what other traffic control devices are needed to ensure that pedestrians will have sufficient, safe opportunities to cross Randolph Road during rush hour.

### **Randolph Road at Glenmont Circle and the Shopping Center Entrance**

Striped crosswalks would be provided on the north, south, and east legs of the intersection. A striped crosswalk will not be provided on the west leg because the configuration of the entrance to the underpass would make it difficult for pedestrians to understand which way to look for oncoming traffic. To ensure that pedestrians understand that it is unsafe to cross this leg, ***staff recommends that signs be posted prohibiting the crossing.***

## **Georgia Avenue at Mason Street**

This unsignalized intersection would be made handicapped-accessible, but not to Americans for Disabilities Act Best Practices guide recommendations. Single ramps that point to the center of the intersection are used rather than the recommended dual ramps that provide better guidance for blind persons. This intersection is the main crossing point between the apartments on the east side of Georgia Avenue and the recreational facilities on the west side of Georgia Avenue. A striped crosswalk would be provided across Georgia Avenue, most likely on the north side of the intersection.

## **Georgia Avenue at Sheraton Street and at Layhill Road**

The intersection at Sheraton Street is not proposed to be made handicapped accessible nor are crosswalks proposed. Sheraton Street lies roughly 350 feet from the Layhill Road intersection and 450 feet from the Randolph Road intersection. SHA does not want pedestrians to cross here because the intersection is unsignalized and because of the large volumes of traffic. The plans provide for drivers to make left turns into and out of the shopping center driveway, however Sheraton Street is restricted to right-in/right-out.

Even if we accept that pedestrians would have to cross at the nearest signalized intersection, they cannot do so easily. The south leg of Layhill Road does not have a striped crosswalk because of the large amount of southbound left-turning traffic from Layhill Road. Therefore, crossing at this intersection would require that three legs of the intersection be crossed rather than the leg that is closest, a trip that would be 450 feet longer than crossing at Sheraton Street. The rule-of-thumb is that pedestrians are generally unwilling to walk more than 300 feet out of their way to get to a crosswalk. Even with the conditions as they are now, pedestrians do cross at Sheraton Street, including to the bus stop on the east side of Georgia Avenue. Staff believes that they must be given reasonable accommodation.

***Staff recommends that an accessible crosswalk be provided at least on the south leg of Georgia Avenue at Sheraton Street, or that the crossing be prohibited and a crosswalk be provided on the south leg of the Layhill Road intersection.*** If an accessible crosswalk is not provided at Sheraton Street, the bus stop at this intersection should be moved to the nearest accessible crossing.

## **Georgia Avenue Medians**

The medians on Randolph Road are narrow and the grade change at the approaches to the underpass makes mid-block pedestrian crossings of Randolph impossible. Mid-block crossings would still be possible on Georgia Avenue however, since it would have wider, flat, landscaped medians.



*Staff recommends that SHA consider providing raised medians on Georgia Avenue to deter mid-block crossings.* Such mid-block crossings are not known to be a problem in this area currently, but staff believes that raised medians should be considered on all divided major highways in urban areas to prevent such problems from occurring. Examples of slightly raised medians exist along Wisconsin Avenue in Bethesda and along Georgia Avenue in Silver Spring, between Wayne Avenue and Colesville Road, which was recently constructed in connection with the signalized pedestrian crossing between the Discovery Building and Ellsworth Drive. These medians have proved successful in deterring mid-block crossings without negatively impacting the aesthetics of the areas involved.

### **Glenmont Greenway**

SHA is proposing to construct a 1,000-foot extension to the 1,200-foot Glenmont Greenway that exists along the west side of Georgia Avenue from Randolph Road to Urbana Drive (one block north of Layhill Road) over the Metro tunnel. The Greenway exists as a Park facility that is separate from the sidewalk that runs along the west side of Georgia Avenue, varying in width, but generally about 100-foot-wide. The facility consists of a ten-foot-wide bikeway with pedestrian-scale lighting and still-immature shade trees.

The extension south of Randolph Road would be constructed on land that is now titled to Montgomery County, but the Greenway would be operated by Parks after construction. The land has two major facilities, the Glenmont School, now used by the Conservation Corps, and a baseball field that is used by the Wheaton Boys and Girls Club. While the Greenway would come quite close to the baseball field, and the construction would require the temporary closure of the field, the permanent operation of the field would be unaffected.

The Glenmont School has been proposed to be rehabilitated as new facilities for the Conservation Corps, as well as housing Victory Youth and possibly a day care center. Should this change in use go through, the Greenway would be constructed completely offset from the road and the sidewalk through the entire length of the extension. If the current use stays in place, the Greenway would have to share the proposed seven-foot-wide sidewalk for a distance of about one hundred feet.

While SHA would be constructing both the bikeway pavement and landscaping for the Greenway extension free of charge to M-NCPPC, some contribution would be needed for lighting the path. SHA is limited to spending \$2,500 per pole for pedestrian lighting. Staff estimates that our share of the cost for the eleven proposed light poles along the Greenway extension will be \$33,000, to be paid for under our Cost-Sharing Non-Local PDF No. 761682. Our actual cost will depend on the bid prices of SHA's contractor for the project, as selected under the state's competitive procurement process. SHA will prepare a Memorandum of Understanding for our review and approval, which will include the cost sharing provision as well as the maintenance of the Greenway.

## **Bicyclist Accommodation**

### Off-Road Bike Accommodation

Off-road bike accommodation would be provided via the proposed bikeway along the north side of Randolph Road and the Glenmont Greenway, including the extension, along the west side of Georgia Avenue.

### On-Road Bike Accommodation

On-road bike accommodation is not called for in either the Glenmont Sector Plan or the Planning Board Draft of the Countywide Bikeways Functional Master Plan, but SHA proposes to include such facilities along both these roads in accordance with their general policy for on-road bike accommodation. Five-foot-wide bike lanes would be provided along Georgia Avenue within the limits of the project.

Bike lanes would not be provided along Randolph Road because of insufficient room, but on-road bike accommodation would be provided via 14-foot wide shared-use lanes. Staff believes that the shared-use lanes would provide a safer environment for bicyclists than bike lanes because the numerous right-turn lanes in a fairly short distance along Randolph Road would require lane shifts that might be confusing to both drivers and bicyclists. It is also unlikely that the County would continue the bike lanes along Randolph Road beyond the project limits in the future because of the limited amount of space and because the Sector/Master Plans only recommend an off-road bikeway.

## **Lighting**

SHA has not completed the lighting plans for this project yet, but *staff recommends that SHA provide lighting to the recommendations of the International Illuminating Society of North America* to ensure that all sidewalks, bikeways and crosswalks are as sufficiently and safely lighted as the roadways.

## **Landscaping/Streetscaping**

Street trees would be planted throughout the project where there is sufficient room between the curb and sidewalk. Trees would also be planted in the median where there is sufficient width to support them, and shrubs would be planted in narrower medians. Other plant materials such as perennials and grasses would be planted in the medians and along the Glenmont Greenway.

The Glenmont Sector Plan states that a second row of street trees is desired along the east side of Georgia Avenue. While there is little additional right-of-way to accomplish this goal for most of the project length, the fire station and gas station sites will provide such an opportunity when they are acquired. *Staff recommends that a second row of street trees be provided behind the proposed sidewalk in the northeast and southeast quadrants of the Georgia*

*Avenue/Randolph Road intersection, and that SHA work with the property owners south of the intersection to see if they will allow a second row of trees to be planted on their property, either in an easement or by means of an Entry Agreement. A similar planting was done previously by SHA when they improved the Four Corners intersection of Colesville Road (US 29) and University Boulevard (MD 193). Staff also recommends that additional landscaping be provided in all four corners of the intersection to enhance the look of this important intersection.*

The retaining walls and abutments for the bridge structure would have a simulated stone finish. Ornamental light fixtures are likely to be installed at the four corners of the bridge as well as an ornamental fence on top of the bridge parapet, however the details of these items have not been finalized.

### **Utilities and Future Redevelopment**

Utility relocation will be a major expense on this project. Because of the density of development and the proximity of buildings to the roadway, SHA has determined that there is not enough room between the buildings and the proposed curb on the north side of Randolph Road east of Georgia Avenue to accommodate overhead lines. For a while during the design of this project, it was anticipated that the overhead lines in this section would be placed underground. SHA has recently decided however, to route them behind the buildings fronting on Randolph Road.

The Glenmont Sector Plan recommends that a private street be built through this same area to run from Randolph Road at Glenmont Circle Drive to Georgia Avenue at Sheraton Street (see Attachment 5). In order to maximize the potential for orderly redevelopment in this area, *staff recommends that SHA work with the property owners to ensure that building this planned street is not made more difficult by the proposed utility relocation.*

### **Environmental**

This project is not within a Special Protection Area or a Primary Management Area. The limits of disturbance do not encroach on wetlands, a floodplain, or a stream valley buffer. There are no steep slopes or erodible soils of concern. There are no forest resources or significant or specimen trees present. Any potential soil contamination from relocated uses should be remediated in accordance with appropriate regulations prior to construction.

### **Stormwater Management**

The project would treat stormwater runoff associated with the increase in impervious surface by means of a bio-retention facility located in an easement on the Glenmont Shopping Center property. This facility would be about 50 feet wide and 170 feet long and would be attractively landscaped. Since this is such a visible location with high pedestrian traffic, *staff recommends that SHA consider providing a panel adjacent to the sidewalk explaining how the facility works to serve as a public educational tool.*

## **Forest Conservation**

This project is exempt from Forest Conservation because it is a State Government Project reviewed for forest conservation by the State Department of Natural Resources under the Code of Maryland Regulations.

## **PUBLIC OUTREACH**

SHA had several meetings with a focus group during the planning phase of this project. During the design phase, SHA had one additional meeting with the focus group on November 18, 2003, and a full public meeting on June 1, 2004.

LC:gw

mmo to MCPB re 04815-SHA-1