



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
December 6, 2002

MEMORANDUM

TO: Malcolm Shaneman, Supervisor
Development Review Division

VIA: Ronald C. Welke, Supervisor
Transportation Planning

FROM: Ed Axler, Planner/Coordinator EA
Transportation Planning

SUBJECT: Preliminary Plan No. 1-02041
Islamic Center of Maryland
Rock Creek (Rural) Policy Area

This memorandum is Transportation Planning staff's adequate public facilities (APF) review of the subject preliminary plan for the house of worship with Imam's residence, a weekday educational institution, and a weekday child daycare center.

RECOMMENDATIONS

Transportation Planning staff recommends the following conditions as part of the APF test for transportation requirements related to approval of this preliminary plan:

1. Limit the preliminary plan to a house of worship with the following:
 - a. A 650-seat sanctuary.
 - b. An on-site Imam's residence.
 - c. As specified in the attached traffic statement by Steve Petersen dated November 25, 2002, a weekday educational institution for a maximum of 53 students in kindergarten through 12th grade with a weekday child daycare center for those attending the educational institution. A weekday child daycare center with a maximum of 58 children would have the equivalent traffic impact.

- d. Any future increase in the maximum number of children for either the educational institution or child daycare center (as a Phase 2) will require further APF review.
2. Coordinate with the Maryland State Highway Administration (SHA) regarding the following:
 - a. The two site accesses from Woodfield Road (MD 124):
 - 1) A new access limited to right-turn-in and right-turn-out only south of Brenish Drive.
 - 2) Joint use of the existing access for the Church of the Redeemer opposite Brenish Drive.
 - b. SHA's Consolidated Transportation Program (CTP) Project to widen Woodfield Road along the western property line of the site which includes five-foot sidewalks on both sides and a Class I bikeway.
 3. Provide five-foot sidewalks leading-in from Woodfield Road to the site which are not shown on the current plans and should be included on the future landscape and parking plan.

DISCUSSION

Site Location, Accesses, Circulation

The site, Parcel 90, is located in the southeastern quadrant of Woodfield Road (MD 24) and Brenish Drive. The proposed site accesses are from Woodfield Road:

1. A shared access opposite Brenish Drive with the Church of the Redeemer adjoining the northern property line.
2. A right-turn-in/right-turn-out only access south of Brenish Drive.

Vehicular circulation includes connecting drive aisles on the west, south, and east sides of the proposed building and separate drop-off areas for the sanctuary and educational institution/daycare center. Pedestrian movements will be accommodated with planned five-foot sidewalks along the western property line associated with SHA's CTP project for Woodfield Road, recommended lead-in sidewalks into the site, and proposed sidewalks connecting between the proposed parking areas and building.

Master Plan Roadway

According to the *Upper Rock Creek Master Plan* and adjacent *Gaithersburg Vicinity Master Plan*, Woodfield Road is designated as a major highway, M-21, with a

120-foot right-of-way. Along the site's western property line, Woodfield Road has 150 feet of right-of-way. Brenish Drive is a secondary residential street with a 60-foot right-of-way.

Transportation Projects along Woodfield Road

SHA's CTP Project No.153414 (also No. MO632A11), MD 124, Woodfield Road is an on-going transportation project to widen the road between Midcounty Highway and Warfield Road (CTP page attached). At this time, location and design plans are being finalized and include a Class I bikeway. Current plans are to widen Woodfield Road to a six-lane divided highway along the western property line of the site. The Planning Board reviewed the project planning study at its December 17, 2000 public hearing (staff memorandum attached).

The subject applicant would not have to participate in the MD 124 Road Club because it was closed to new preliminary plan applicants in November 2000 (with the 21st or last developer being CSAAC). The MD 124 Road Club was formed by Pettit & Griffin before SHA initiated their design project. The Road Club participants contributed funds to widen Woodfield Road from two to four lanes between Rickenbacker Drive and Fieldcrest Road/Hadley Farms Drive as one of their APF conditions of approval. In the beginning, the widening of Woodfield Road was needed to increase the roadway link capacity, which was exceeding the capacity standard. Later, other developers participated to satisfy Policy Area Review in the Montgomery Village/Airpark Policy Area.

Adequate Public Facilities Review

Places of worship are subject to APF review according to the provisions in the Montgomery County Code, Section 50-35(k)(7) "Exemptions" if they are located on an unrecorded parcel, which changed its size or shape since June 1, 1958. Likewise, APF review would be required for places of worship if related land uses generate traffic during the weekday morning peak period (6:30 a.m. to 9:30 a.m.) and the evening peak period (4:00 p.m. to 7:00 p.m.). Such land uses include a weekday child day-care center and a weekday private educational institution. Other educational and social programs that may be associated with places of worship are not subject to APF review since they typically start after 7:00 p.m. on weekdays or occur on weekends. APF review consists of the following:

1. Local Area Transportation Review:

- a. A stand-alone weekday educational institution with up to 53 students would generate 49 total peak-hour trips during the weekday morning peak period. With classes typically ending before 3:30 p.m., the site-generated trips should be off the road by 4:00 p.m. when the weekday evening peak period begins.
- b. Alternatively, a stand-alone weekday child daycare center with up to 58 children would generate 49 total peak-hour trips during the weekday morning peak period and 17 total peak-hour trips during the weekday evening peak

period. Where parents must be at their work place at a certain time in the morning peak period, their departure times tend to be more flexible and spread out during the evening peak period.

- c. Total trips include pass-by, diverted, and new trips. With either land use alone or all the daycare children attending the educational institution, the total of 49 peak-hour trips would be generated during the weekday morning peak period with fewer trips during the weekday evening peak period.
- d. A traffic study (to analyze the traffic impact at nearby intersections) is not required to satisfy Local Area Transportation Review because the proposed land use generates fewer than 50 total peak-hour trips during the weekday morning and evening peak periods.

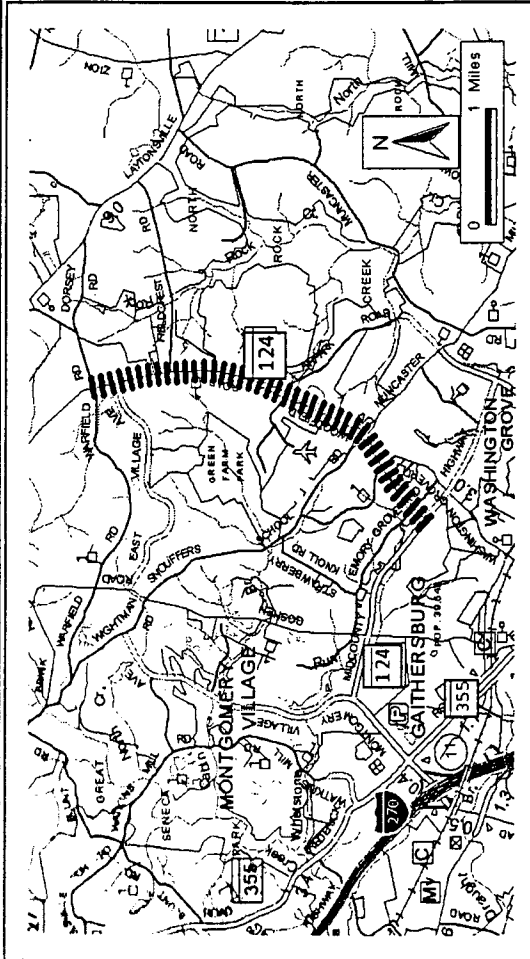
2. Policy Area Review:

- a. The site being located in a rural policy area (i.e., Rock Creek Policy Area) does not consider the traffic impact for Policy Area Review or the staging ceiling condition. The Rock Creek Policy Area has no established transportation-staging ceiling under the *FY 2003 Annual Growth Policy* for non-residential and residential development.
- b. For Policy Area Review purposes, a house of worship is considered to be equivalent to five jobs and a weekday private educational institution up to 12th grade is considered to be equivalent to 110 jobs.

EA:cmd

Attachments

cc: Larry Cole
Mary Goodman
Ki Kim
Melinda Peters
John Sekerak
Steve Petersen
Dick Pettit



PROJECT: MD 124, Woodfield Road

DESCRIPTION: Study to reconstruct MD 124 from Midcounty Highway to Warfield Road (3.46 miles). Wide curb lanes will accommodate bicycles. Sidewalks to be included where appropriate.

JUSTIFICATION MD 124 is a heavily traveled commuter route from northern Montgomery County to the Rockville-Gaithersburg area which experiences capacity and sight distance problems.

SMART GROWTH STATUS:

- Project Not Location Specific or Location Not Determined
- Project Within PFA
- Grandfathered
- Project Outside PFA; Subject to Exception
- Exception Approved by BPW/MDOT

ASSOCIATED IMPROVEMENTS:

East/West Intersection Improvement Program (Construction Program)
East/West Link Improvement (D&E Program)

Federal Funding By Year of Obligation						
PHASE	FFY 2002	FFY 2003	FFY 2004	FFY 2005	FFY 2006 - 2007	FEDERAL CATEGORY
PP	0	0	0	0	0	----
PE	0	0	0	0	0	----
RW	0	0	0	0	0	----
CO	0	0	0	0	0	----

STATUS: Project Planning underway. Final engineering to begin during current fiscal year.

SIGNIFICANT CHANGE FROM FY 2001 - 06 CTP: None.

POTENTIAL FUNDING SOURCE:		<input checked="" type="checkbox"/> SPECIAL		<input checked="" type="checkbox"/> FEDERAL		<input type="checkbox"/> GENERAL		<input type="checkbox"/> OTHER	
TOTAL		PROJECT CASH FLOW							
PHASE	ESTIMATED COST (\$000)	EXPEND THRU		CURRENT YEAR		BUDGET YEAR		FOR PLANNING PURPOSES ONLY	
		2001	2002	2002	2003	2004	2005	2006	2007
Planning	1,374	1,074	300	0	0	0	0	0	0
Engineering	6,097	1	250	1,500	2,000	2,000	2,000	346	0
Right-of-way	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0
Total	7,471	1,075	550	1,500	2,000	2,000	2,000	346	0
Federal-Aid	0	0	0	0	0	0	0	0	0

FUNCTION:

STATE - Major Collector
 FEDERAL - Major Collector
 STATE SYSTEM : Secondary
 DAILY TRAFFIC : (USAGE IMPACTS)
 CURRENT (2000) - 29,000
 PROJECTED (2025) - 50,950
 OPERATING COST IMPACT N/A



MONTGOMERY COUNTY DEPARTMENT OF PARK AND PLANNING

THE MARYLAND-NATIONAL CAPITAL
PARK AND PLANNING COMMISSION

8787 Georgia Avenue
Silver Spring, Maryland 20910-3760

MCPB
Item No. 1
12-7-00

December 1, 2000

MEMORANDUM

TO: Montgomery County Planning Board

VIA: Jeffrey Zyontz *JZ*, Chief, County-wide Planning Division
Richard C. Hawthorne, Chief, Transportation Planning *RCH*
Khalid Afzal, Georgia Avenue Team Leader *KA*
Sue Edwards, I-270 Corridor Team Leader *SE*
Community-Based Planning Division

FROM: Daniel K. Hardy, Transportation Supervisor (301-495-4530) *DKH*
Transportation Planning

PROJECT: MD 124 (Woodfield Road) Project Planning Study (M0632A11) from
Midcounty Highway to Warfield Road

REVIEW TYPE: Project Planning Study Briefing

APPLICANT: Maryland State Highway Administration

APPLYING FOR: Planning Board Recommendation

COMMUNITY-BASED PLANNING TEAM AREAS: I-270 Corridor
Georgia Avenue Corridor

RECOMMENDATION: Approval to transmit the following to the Maryland State Highway Administration (SHA).

1. Each of the two build alternatives described in this memorandum, "Alternative 3" and "Alternative 4" is consistent with the 1985 Gaithersburg Vicinity Master Plan and the 1985 Upper Rock Creek Master Plan.
2. A four-lane cross section with a Class I bicycle facility within the Master Plan 120 foot right-of-way is the preferred typical cross section. The typical section elements should be designed so that eventual widening to six lanes can be easily accommodated. **The recommended cross section is shown in Exhibit 1.**

3. The subsequent design process should consider more site-specific design alternatives, such as alternative intersection configurations and sidewalk and bike path locations, so that the project can best meet traveler needs while minimizing adverse community impacts.
4. The subsequent design process should evaluate traffic progression in the corridor to ensure that sufficient gaps will be provided for all modes of travelers crossing MD 124 at unsignalized intersections.

ORGANIZATION OF MEMO

This memorandum contains the following sections:

- SHA study process
- Staff recommendation for typical cross section
- Considerations leading to development of staff recommendation, including effects on staging ceiling, environmental impacts and capital costs, level of service, traffic operations, and consideration of public comment
- SHA alternatives description
- Master Plan guidance

SHA STUDY PROCESS

The Maryland State Highway Administration (SHA) is studying improvements along MD 124 to address congestion, safety, and traffic operations for motor vehicles, bicycles, and pedestrians using MD 124 and its intersections from Midcounty Highway to Warfield Road. The study area is shown in Exhibit 2. The study is being conducted with input from the Montgomery County Department of Public Works and Transportation (DPWT) and the Maryland-National Capital Park and Planning Commission (M-NCPPC). The Location/Design Public Hearing was held on October 23, 2000 for the three alternatives, including the no-build alternative, currently under consideration. The remaining steps in the project planning process are that the Project Planning Team will evaluate and assess public and agency comments from the hearing, recommend a preferred alternative to the State Highway Administrator, and seek location and design approvals. The project will then enter the final design process, during which SHA will return to the Planning Board for a mandatory referral (MR 00815-SHA-1).

STAFF RECOMMENDATION FOR TYPICAL CROSS SECTION

Staff recommendation on the number of lanes in the typical cross section reflects a compromise between the travel demand forecasts which some would consider to justify a six-lane cross section and current policy guidance and community response which tends to favor the four-lane alternative. Staff judgment is that the six lane alternative does not provide substantial congestion relief relative to the four lane alternative for the year 2020, but recognizes that over a longer timeframe, six lanes may be desirable. Staff therefore recommends a typical four-lane cross section designed so that future widening to six lanes could be accomplished in the distant future without requiring further physical impacts to the

adjacent community. The Master Plan of Highways should retain the four- to six-lane designation.

Exhibit 1 demonstrates how the typical four-lane interim and six-lane ultimate cross section could be established by modifying the County's design standard for a six-lane major highway to narrow the median to provide landscape panels between the curb and the sidewalk (or bike path). The staff recommendation for the current project would be to construct the outside two lanes in each direction, resulting in two 27-foot-wide travelways and a 39-foot-wide median.

The detailed design process should evaluate opportunities to customize the typical cross section to better meet design opportunities and constraints. Examples of this customization include transitions to two lanes in the vicinity of Warfield Road, transitions to accommodate multiple turning lanes at Airpark Road, and opportunities to increase the distance between the roadway and the bike path in the vicinity of Resnik Elementary School.

CONSIDERATIONS LEADING TO STAFF RECOMMENDATIONS

At this stage in the planning process, the State Highway Administration is primarily seeking recommendations regarding two basic questions:

- Should the typical cross section be four lanes or six lanes, and
- Should a Class I bicycle path be included

Staff recommends that the typical cross section contain four lanes and a Class I bicycle path. The elements considered in the development of these recommendations are described below.

Number of Lanes

The items considered in developing the staff recommendation are described below, generally listed in order of increasing support for the four-lane alternative.

Staging ceiling capacity. The Montgomery Village/Airpark Policy Area is currently in a moratorium for jobs, with a remaining capacity of negative 2,035 jobs as of August 31, 2000. Staff has estimated that the four-lane alternative might increase the staging ceiling by between 1,000 and 2,000 jobs and that the six-lane alternative might increase the staging ceiling by between 2,500 and 3,500 jobs. In summary, the six-lane alternative might provide enough capacity to bring the Montgomery Village/Airpark Policy Area out of moratorium whereas the four-lane alternative would likely reduce, but not eliminate, the capacity deficit. The staging ceiling capacity analysis provides the strongest argument in favor of the six-lane alternative.

Environmental impacts and capital costs. A four-lane alternative would typically require less right-of-way than a six-lane alternative. Exhibit 3 demonstrates the environmental and cost impacts associated with the four-lane (Alternative 3) and six-lane

Table 3: Summary of Impacts for Retained Alternatives			
- MD 124 (Woodfield Road) From MidCounty Highway to Warfield Road -			
Alternative	1	3	4
Typical Section	No Build	4-Lane, Divided	6-Lane, Divided
Properties Affected			
Residential	0	6	32
Businesses	0	15	46
Public Golf Courses	0	1	1
Public Utility	0	4	4
Public Schools	0	0	1
Religious Institutions	0	3	4
TOTAL	0	29	88
Displacements			
TOTAL	0	0	0
Right-of-Way Required (acres)			
Residential	0	1.02	2.47
Businesses	0	1.93	2.75
Public Golf Courses	0	0.05	0.07
Public Utility	0	1.41	1.62
Public Schools	0	0	0.01
Religious Institutions	0	0.53	0.63
TOTAL	0	4.94	7.55
Environmental Impacts			
Historic Properties	0	0	0
Wetlands (Acres)	0	0.08	0.08
Woodlands (Acres)	0	0.85	0.94
Stream Crossings	0	1	1
Estimated Cost (\$ Million)			
Engineering	0	5.60	5.90
Right-of-Way	0	1.94	3.10
Construction	0	37.20	39.40
TOTAL COST (\$ MILLION)	0	44.74	48.40

(Alternative 4) alternatives as described in the SHA public hearing brochure. The impacts shown in Exhibit 3 reflect the 108-foot and 126-foot typical cross sections shown in Exhibits 4 and 5, respectively. The impacts to the natural environment and capital costs are nearly identical for the four-lane and the six-lane alternative. The 120-foot typical section recommended by staff would likely have property impacts and a capital cost close to the six-lane alternative described in Exhibit 3.

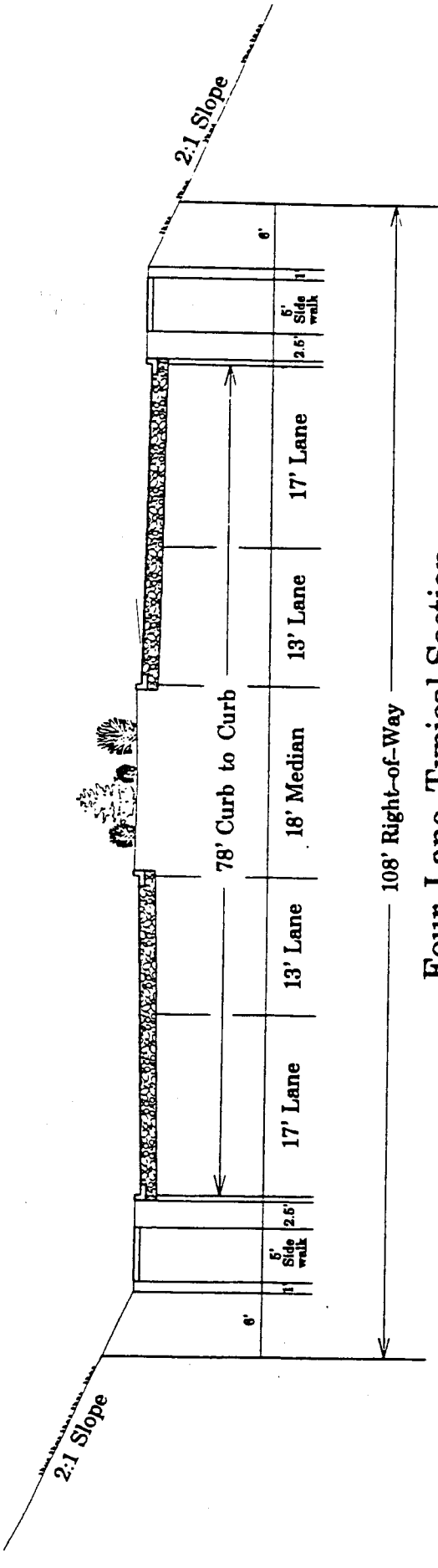
One advantage to selecting the six-lane alternative at the present time would be to save the reconstruction costs and disruption of future widening, should such widening become desirable. Staff feels, however, that because the additional benefits of widening to six lanes are not substantial within the 20-year study horizon, the ultimate widening to six-lanes should be deferred. This approach is similar to the implementation plan for Great Seneca Highway (MD 119), with four lanes constructed within an ultimate six-lane design.

Level of traffic service. The six-lane alternative appears to provide better levels of traffic service than the four-lane alternative. Exhibit 6 identifies the Critical Lane Volume (CLV), volume-to-capacity (V/C) ratio and level of service (LOS) at the study area intersections for current conditions, 2020 No-Build conditions, and conditions for the four-lane (Alternative 3) and six-lane (Alternative 4) alternatives.

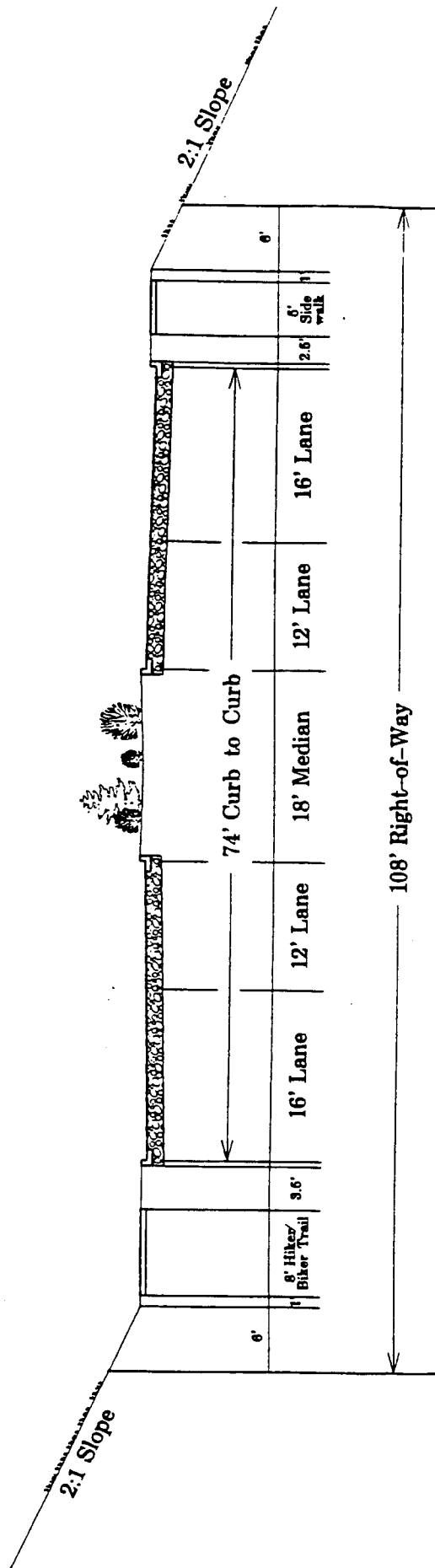
Currently, average daily traffic (ADT) volumes on MD 124 in the study area range from 10,000 ADT in the vicinity of Warfield Road to 29,000 ADT in the vicinity of Airpark Road. Throughout the corridor, traffic volumes are projected to increase by roughly 50% to 100% by the year 2020, ranging from 16,800 ADT in the vicinity of Warfield Road to 50,900 in the vicinity of Airpark Road. The forecasts were developed assuming that the road would be four lanes wide throughout the study area.

Both the four-lane and six-lane alternatives provide an improvement over the No-Build conditions, but neither eliminate forecasted congestion. Under the four-lane alternative, LOS F conditions are predicted during either the morning or evening at nine of the sixteen study intersections in the year 2020. Under the six-lane alternative, LOS F conditions are predicted during either the morning or evening at four of the sixteen study locations in the year 2020.

Staff feels that the summation of failing intersections, however, overstates the relative benefits of the six-lane alternative. At four locations (Midcounty Highway, Muncaster Mill Road, Airpark Road, and Warfield Road), the transition to adjacent roadway sections results in intersection geometry for the six-lane alternative that is identical to the geometry for the four-lane option. At these locations, therefore, the forecast levels of congestion are identical for the four-lane and six-lane options. About two-thirds of the cross-street traffic occurs at these four intersections. The calculated benefit to the six-lane alternative is therefore generally realized at the lower-volume intersections with primary and secondary residential roads. The level of service information therefore suggests that the six-lane alternative may provide slightly improved levels of service at those lower-volume intersections which can be signalized, but that overall corridor progression will not necessarily be greatly improved over the four-lane option.



Four Lane Typical Section



Four Lane Typical Section with Hiker/Biker Option

October, 2000

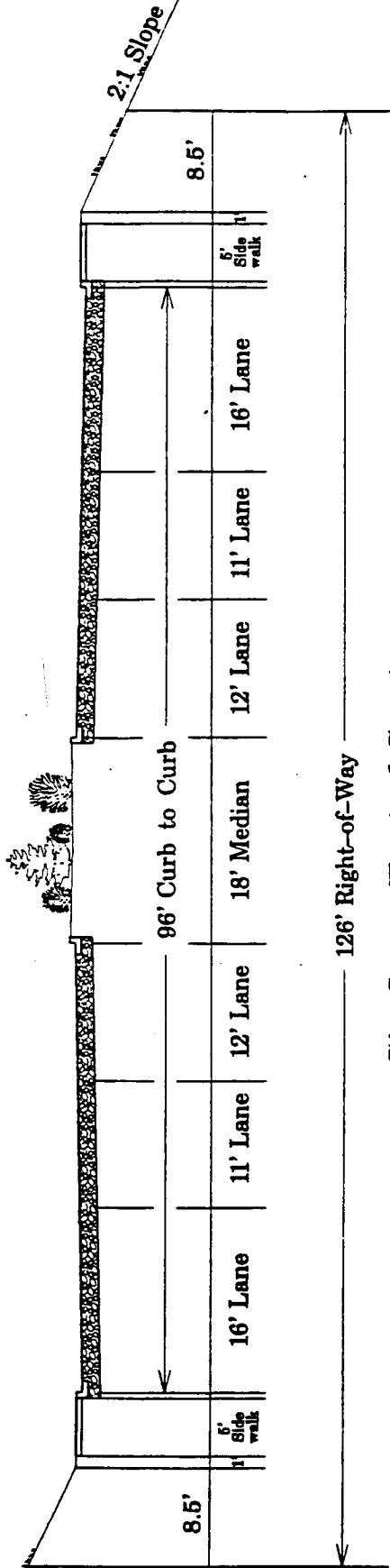


Figure 5
Alternative 3

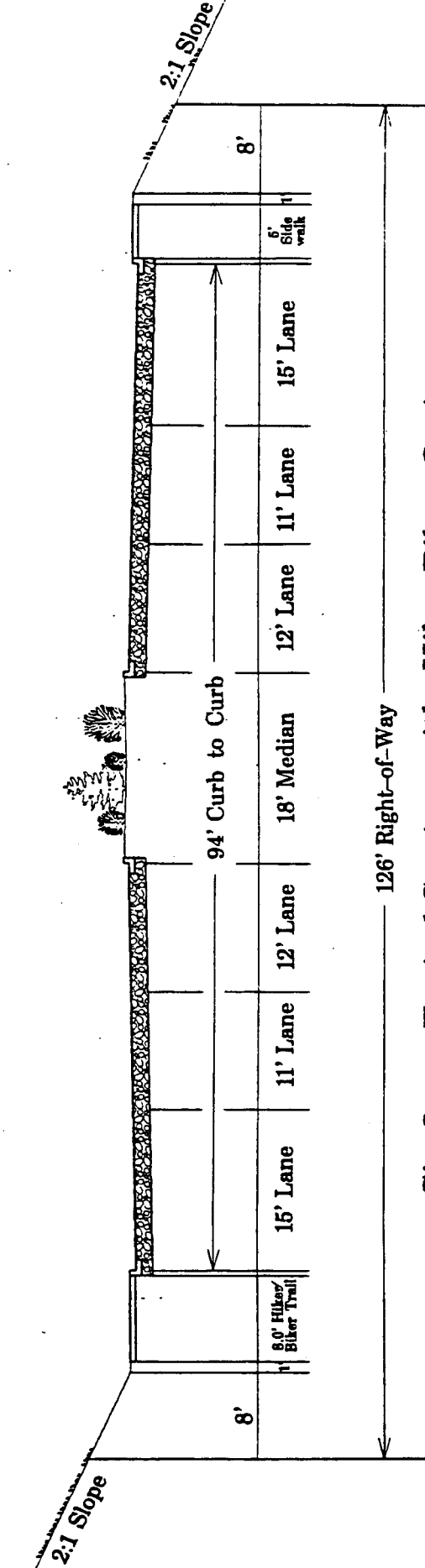


State Highway Administration

MD 124 Planning Study



Six Lane Typical Section



Six Lane Typical Section with Hiker/Biker Option

October, 2000



Figure 6

Alternative 4



State Highway Administration

MD 124 Planning Study

In the six-lane alternative, the highest V/C ratio forecast is 1.16 at Muncaster Mill Road. In the four-lane alternative, only one location exceeds that V/C ratio, a 1.27 V/C ratio forecast at Fieldcrest Road. Staff suggests that further review should be conducted for the four lane option to determine if alternative configurations, such as a westbound dual left-turn lane, could improve the V/C ratio at Fieldcrest Road without widening to six lanes on MD 124.

Traffic operations. The primary concern expressed by community members at the October 23 public hearing was accessibility to, from, and across MD 124 at unsignalized intersections. In general, these unsignalized intersections are those which Exhibit 6 indicates would see the greatest reduction in V/C ratio from a six-lane alternative. If, however, these intersections remain unsignalized, the V/C ratio benefits may be somewhat misleading. The effect of six lanes versus four lanes should be to disperse the traffic somewhat, resulting in larger gaps between vehicles. However, the benefit of larger gaps could be offset by the need to traverse three, rather than two, travel lanes (which requires a larger gap). Staff recommends that SHA perform a traffic flow and gap-acceptance analysis as part of the detailed design for this project and recommend traffic signal location and timing plans which would best provide adequate gaps for left turns and cross traffic at unsignalized intersections. Without such an analysis, it is unclear which alternative would provide superior accessibility and safety for the community.

Compatibility with adjacent land use and roadway network. The northern half of the project, between Airpark Road and Warfield Road, forms the boundary of the Gaithersburg Vicinity Master Plan area to the west and the Upper Rock Creek Master Plan area to the east. This line also forms the eastern boundary of the I-270 Corridor Priority Funding Area. To the north of the project limits (within 1,000 feet of Warfield Road) MD 124 enters the agricultural and low density wedge. The Damascus Master Plan indicates that MD 124 is an arterial roadway (A-11) of two to five lanes between Warfield Road and MD 27. All of the intersecting roadways in the study area are recommended for two or four lanes, with the exception of Midcounty Highway, the study's southern terminus, which is currently a four-lane roadway and identified as a four-to-six lane roadway in the Gaithersburg Vicinity Master Plan. Staff considers that, if all other factors were equal, a four-lane road is more appropriate for this transitional location.

Maryland Department of Planning Perspective. The Maryland Department of Planning recommends a four-lane alternative, as described in Exhibit 7. The primary concern regarding the six-lane alternative is that the additional capacity will encourage additional growth outside of the Smart Growth Priority Funding Areas and therefore lead to additional pressure for widening MD 124 through the agricultural and low density wedge.

Citizen comment. The transcript of public comment from the October 23 public hearing has not been finalized at the time of this memo. Staff notes from the public hearing indicate that of approximately 19 speakers, seven indicated that the four-lane alternative should be selected. No speakers supported the six-lane alternative.

LOS KEY:	A	B	C	D	E	F
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Maryland 124 Project Planning Study
Level of Service Summary

	No Build (1998)						No Build (2020)					
	AM			PM			AM			PM		
	critical volume	v/c ratio	LOS	critical volume	v/c ratio	LOS	critical volume	v/c ratio	LOS	critical volume	v/c ratio	LOS
MidCounty Highway	1235	0.77	C	1495	0.93	E	1556	0.97	E	1694	1.06	F
Emory Grove Road	837	0.52	A	782	0.49	A	1454	0.91	E	1389	0.87	D
Flower Hill Way	1125	0.70	B	1289	0.81	C	1995	1.25	F	2240	1.40	F
Muncaster Mill Road (MD 115)	1137	0.71	B	1354	0.85	D	1948	1.22	F	1867	1.17	F
Lindbergh Drive (south)	550	0.34	A	648	0.41	A	1021	0.64	B	1196	0.75	C
Lindbergh Drive (north)	667	0.42	A	709	0.44	A	1217	0.76	C	1188	0.74	C
Airpark Road	1152	0.72	C	1575	0.98	E	2366	1.48	F	2524	1.58	F
Rickenbacher Road/Cypress Hill Drive	1053	0.66	B	1159	0.72	C	1681	1.05	F	1791	1.12	F
Brenish Drive	1880	1.18	F	1836	1.15	F	2955	1.85	F	2955	1.85	F
Brenish Drive/Cliffpine Drive	1867	1.17	F	1847	1.15	F	2873	1.80	F	2982	1.86	F
Hadley Farms/Barcellona Drives	1765	1.10	F	1681	1.05	F	2715	1.70	F	2731	1.71	F
Pompano Terrace	1615	1.01	F	1705	1.07	F	2420	1.51	F	2705	1.69	F
Hadley Farms Drive/Fieldcrest Road	1565	0.98	E	1431	0.89	D	2310	1.44	F	2565	1.60	F
Rosewood Manor Lane	1136	0.71	B	1276	0.80	C	1811	1.13	F	2652	1.66	F
East Village Avenue	1165	0.73	C	1345	0.84	D	1730	1.08	F	2405	1.50	F
Warfield Road	1074	0.67	B	1426	0.89	D	1712	1.07	F	2765	1.73	F

	Alternative 3 (2020)						Alternative 4 (2020)					
	AM			PM			AM			PM		
	critical volume	v/c ratio	LOS	critical volume	v/c ratio	LOS	critical volume	v/c ratio	LOS	critical volume	v/c ratio	LOS
MidCounty Highway	1556	0.97	E	1694	1.06	F	1556	0.97	E	1694	1.06	F
Emory Grove Road	1454	0.91	E	1389	0.87	D	1307	0.82	D	1220	0.76	C
Flower Hill Way	1543	0.96	E	1703	1.06	F	1392	0.87	D	1523	0.95	E
Muncaster Mill Road (MD 115)	1771	1.11	F	1698	1.06	F	1771	1.11	F	1856	1.16	F
Lindbergh Drive (south)	1312	0.82	D	1201	0.75	C	1066	0.67	B	1019	0.64	B
Lindbergh Drive (north)	950	0.59	A	1027	0.64	B	734	0.46	A	907	0.57	A
Airpark Road	1419	0.89	D	1370	0.86	D	1419	0.89	D	1370	0.86	D
Rickenbacher Road/Cypress Hill Drive	1780	1.11	F	1791	1.12	F	1339	0.84	D	1394	0.87	D
Brenish Drive	1700	1.06	F	1646	1.03	F	1281	0.80	C	1209	0.76	C
Brenish Drive/Cliffpine Drive	1623	1.01	F	1664	1.04	F	1217	0.76	C	1232	0.77	C
Hadley Farms/Barcellona Drives	1675	1.05	F	1523	0.95	E	1323	0.83	D	1118	0.70	B
Pompano Terrace	1323	0.83	D	1525	0.95	E	978	0.61	A	1120	0.70	B
Hadley Farms Drive/Fieldcrest Road	1569	0.98	E	2027	1.27	F	1318	0.82	D	1647	1.03	F
Rosewood Manor Lane	1032	0.65	B	1226	0.77	C	774	0.48	A	914	0.57	A
East Village Avenue	1100	0.69	B	1239	0.77	C	1100	0.69	B	1239	0.77	C
Warfield Road	1458	0.91	E	1806	1.13	F	1458	0.91	E	1806	1.13	F

Class I Bikeway Inclusion

Staff recommends including a Class I bikeway on the west side of the roadway even though it is not explicitly recommended in either the Gaithersburg Vicinity or Upper Rock Creek Master Plan. A Class I bicycle facility along MD 124, however, would effectively replace the recommended Class I facility in the northern portion of Rock Creek Park which is likely to be removed from the Upper Rock Creek Plan due to environmental concerns.

The adverse impact associated with including a Class I bikeway is nominally the three-foot difference between a five-foot sidewalk and an eight-foot hiker-biker trail. The SHA typical sections accommodate this difference by retaining a constant right-of-way but reducing the width of the landscape panel. Staff recommends that a Class I bikeway and landscape panels wide enough to support the planting of street trees be accommodated within the Master Plan 120-foot right-of-way as indicated in Exhibit 1.

SHA ALTERNATIVES DESCRIPTION

The SHA project team has developed four initial alternatives:

1. No-build TSM (Transportation Systems Management) alternative
2. Four-lane highway with a combination of a center left-lane and a center median alternative
3. Four-lane divided highway alternative
4. Six-lane divided highway alternative

SHA held an Alternates Public Workshop on February 24, 2000. Following the workshop, the alignments of Alternatives 2, 3 and 4 were modified to better utilize the existing right-of-way and increase the distance between the proposed roadway and the Resnik Elementary School. Alternatives 1, 3, and 4 were selected as the ARDS (Alternatives Retained for Detailed Study) and presented at the Location/Design Public Hearing. The brochure for the public hearing is provided to the Planning Board members as an attachment to this memorandum. The ARDS alternatives are described below.

Alternative 1 – No-Build/TSM

The No-Build Alternative would not provide any significant improvements to MD 124 or its associated side streets except minor improvements as part of normal maintenance and safety operations.

Alternative 3 – Four-Lane Divided

This alternative proposes the widening of MD 124 to a four-lane divided highway with an 18-foot-wide-curbed median throughout the study limits. Two typical section options have been developed as shown in Exhibit 5. The first option includes five-foot-wide sidewalks along both sides of the MD 124 corridor and the second option includes an eight-

foot-wide hiker/biker trail along the west side of MD 124 and a five-foot-wide sidewalk on the east side.

Alternative 4 – Six-Lane Divided

This alternative proposes the widening of MD 124 to a six-lane divided highway with an 18-foot-wide curbed median throughout the study limits. Like Alternative 3, two typical section options have been developed, one with five-foot-wide sidewalks along both sides of the MD 124 corridor and the other with an eight-foot-wide hiker/biker trail along the west side of MD 124 and a five-foot-wide sidewalk on the east side. These typical cross sections are shown in Exhibit 6.

For each of these alternatives, this memo summarizes the general impacts and benefits associated with a design applying the typical cross sections. The study team has identified areas where more customized designs can be explored during subsequent design process.

MASTER PLAN GUIDANCE

The subject MD 124 corridor is covered by two master plans. The 1985 Gaithersburg Vicinity Master Plan designates MD 124 as a major highway from Midcounty Highway to Warfield Road within a 120-foot right-of-way and four to six lanes recommended for paving width. The 1985 Upper Rock Creek Master Plan designates MD 124 as a major highway from Muncater Mill Road to Warfield Road within a 120-foot right-of-way and does not contain a recommendation for the number of lanes. Thus, each of the two build alternatives, four-lane divided and six-lane divided, described in this memorandum are consistent with recommendations of area master plans. Neither of the two master plans recommends a bikeway along MD 124.

DKH:KK:kcw
Attachments

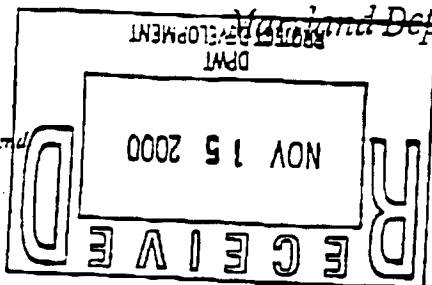
mno to mcpb MD 124 study.doc



Exhibit 7

Parris N. Glendening
Governor

Kathleen Kennedy Townsend
Lt. Governor



Harriet Trenggeling
Assistant Secretary

Ronald A. Young
Deputy Secretary

November 8, 2000

Ms. Cynthia D. Simpson, Deputy Director
Office of Planning & Preliminary Engineering
Maryland State Highway Administration
P.O. Box 717
Baltimore, MD 21203-0717

Attention: Ms. Gay L. Olsen

Re: Planning Act Consistency Review
MD 124 Project (from MidCounty Highway to Warfield Road)

Post-it* Fax Note	7671	Date	11/15/00	# of pages	3
To	Glenn Orlin	From	Bob Simpson		
Co./Dept.	County Council Staff	Co.	DPWT		
Phone #		Phone #			
Fax #	77888	Fax #	77178		

Dear Ms. Simpson:

Thank you for providing the Department of Planning with the Planning Act consistency Project Review Checklist regarding the alternates retained for detailed study for the MD 124 project. We also received additional maps and traffic data from your staff and the consultant. The information provided has been very helpful for our review. Our assessments of the alternates for consistency with the Maryland Economic Growth, Resource Protection, and Planning Act of 1992 are provided as follows.

No Build Alternate

The No Build Alternate includes only routine maintenance and developer-based improvements. It would not provide additional needed transportation facility improvements to meet the purposes of the project. We consider that the No Build Alternate is not consistent with the Maryland Economic Growth, Resource Protection, and Planning Act of 1992.

Alternate 1 (TSM)

This alternate would provide minimum improvement to traffic flow through provision of additional traffic signals and timing adjustments to existing signals; however, these improvements would not adequately improve safety and traffic/pedestrian/bicycle operations to support existing communities and planned development within the County's Priority Funding Areas (PFA's), particularly the development associated with the Montgomery County Airpark. Alternate 1 will not fully meet the project purposes and is less consistent with the policies of the 1992 Planning Act.

Alternate 3 (4-lane Widening)

We recognize that the proposed improvements under Alternate 3 meet the purposes of the project by significantly improving traffic operations and safety on MD 124 and particularly at the intersection of MD 124 and Airpark Road, by accommodating bicycles and pedestrians, and by improving accessibility to the PFA's particularly located west of MD 124. Our preliminary 2020 traffic analysis for the project area indicates that over 50% of the morning peak hour southbound trips using improved MD 124 are from and to the residential areas and the Airpark employment/commercial center, which are the PFA's west of MD124. Improving transportation facility to serve existing and future growth in PFA's is consistent with the County growth policies and the policies of the Planning Act. The Project study indicates that both socio-economic and natural environmental resource impacts from construction of Alternate 3 would be minimum. **Overall, we conclude that Alternate 3 is consistent with the Maryland Economic Growth, Resource Protection, and Planning Act of 1992.**

In addition to knowing that the PFA's west of MD 124 are major MD 124 traffic origins and destinations, we found that significant amount of traffic (about 20%) traveling on MD 124 in the morning peak hour would come from the Damascus and Mount Airy areas. The SHA's O&D data also indicated that about 42% of the traffic on MD 124 would travel to Rockville and Gaithersburg and that total 75% of the traffic would remain in Montgomery County. Presumably, concentrated traffic from one place to another indicates a good potential for providing transit service. We strongly recommend that transit services to and from these PFA's be implemented or enhanced. Transit should be an important means of alternative transportation to help relief of roadway congestion in the project area.

Considering the fact that the area east of MD 124 is non-PFAs where low density or rural residential developments will continue to occur, we suggest that SHA, in coordination with the County, manage access points from eastside of the road.

It is not clear to us how pedestrian and bicycles would be adequately accommodated in the MD 124 and Airpark Road intersection area since there would be a number of turn lanes on each of the approaching roads. Information on pedestrian and bicycle access for this intersection area would be helpful.

Alternate 4 (6-lane Widening)

Alternate 4 would provide two more general use lanes compared to Alternate 3 so that traffic operations along MD 124 would be further improved. However, Alternate 4 would reduce the wide curb lanes by 3 feet from 17 feet under Alternate 3 to 14 feet, which would be less desirable for bicycles. Furthermore, such six-lane highway expansion on this section of MD 124 could have considerable secondary development impacts on rural areas in Montgomery, Howard, Carroll, and Frederick Counties.

Located in the fringe of the Montgomery County growth area, the project section of MD 124 forms the boundary of PFA's. To its east and north, majority of the areas are in rural settings.

Our preliminary secondary land use impact analysis indicates under Alternate 4, significant increases in job and housing accessibilities not only to rural areas in the north and northeast of Montgomery County but to rural areas in western Howard County, eastern Frederick County, and southwest of Carroll County as well. In recent years, low density residential developments in those rural areas are pervasive. Increase in job accessibility would put further development pressure on these areas outside of certified PFA's and would make rural conservation more difficult. Building a 6-lane MD 124 from Warfield Road to MidCounty Highway while the rest of MD 124 north of Warfield Road remains two-lane highway could spur expansion of MD 124 northward in the future. The SHA's 2020 No-Build traffic projection for MD 124 shows LOS E or F in the PM peak hours for the intersections north of Warfield Road but south of Brink Road. That implicates such potential.

Overall, Alternate 4 would have greater negative secondary development effects in rural areas across several counties and could trigger further roadway expansion into rural areas in Montgomery County. Although Alternate 4 would further improve traffic flow on MD 124, such traffic improvement can't last long if it would help to facilitate further developments in outer areas. From long-term perspective, comprehensive growth management approaches, including rural conservation would be a key strategy to reduce travel demand from these rural areas. As we discussed previously under the Alternate 3 section, we strongly encourage improvement of transit services for PFAs. Continuing expanding highway would not be the ultimate solution to traffic congestion. **Therefore, we conclude that Alternate 4 is not consistent with the Maryland Economic Growth, Resource Protection, and Planning Act of 1992.**

We apologize for the delay in response to your review request. Thank you again for providing MDP the opportunity to review the Planning Act Checklist. Should you have any questions with regard to our comments, please do not hesitate to contact me at 410-767-4564.

Sincerely



David Whitaker, AICP
Principal Planner

cc: Ron Young, OP Deputy Secretary
Bihui Xu, OP Transportation Planning
Feng Liu, OP Transportation Planning
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Denise Rigney, EPA
Attention: Jamie Stark
Keith Harris, COE
Attention: CENB-OP-R, Paul Wettlaufer

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