

MEMORANDUM

October 21, 2008

TO: Transportation, Infrastructure, Energy and Environment Committee

FROM: Glenn Orlin, ^{GO}Deputy Council Staff Director

SUBJECT: State Transportation Participation project—spending proposal

At its September 15 worksession the Committee directed Executive, Planning Board, and Council staffs to develop a proposal to spend down the balance of the State Transportation Participation project. The joint staffs have proposed a capital spending program based on the following criteria and assumptions:

- *It includes projects that would typically be State funded.*
- *It includes road, transit, and pedestrian/bikeway improvements.* However, while prior investments from this program were allocated mostly for two transit related projects (Bethesda Metro Station South Entrance and Glenmont Metro Parking Expansion), the balance of the funding under this proposal would be used mostly for a series of road and intersection improvements.
- *It includes only those projects consistent with adopted master plans.*
- *It includes \$4.4 million of State funds reallocated from two projects in the Development & Evaluation Program of the Maryland Department of Transportation's FY09-14 Consolidated Transportation Program.* The diverted funds are from low-priority road projects still in the design stage.
- *It generally reflects the priorities in the most recent Executive/Council joint State transportation priorities letter (©1-3).* The exceptions are several intersection and sidewalk projects, types of projects not explicitly listed in the letter.
- *It funds the next phase (or phases) of some large projects and the construction of several small-scale improvements, rather than investing only in two or three large projects.* This is desirable in order to make progress on several fronts, but was also necessitated by the availability of resources in each of the next six years.
- *It assumes that the Development Impact Tax law can be amended to allow impact tax revenue to be used to pay for State projects.* More than \$22 million of the funding in the State Transportation Participation project are from projected impact tax proceeds. Under current law impact tax proceeds may be used for the County portion of a State project (e.g., improving the County road leg of State road/County road intersection), but there is no way to spend the entire \$22 million without amending the law as noted above.

- *It assumes that the State Transportation Participation project can be amended to allow funds to be used for State projects without State matching funds, and to allow funds to be used for projects not on the most recent Executive/Council priorities letter. Most of the proposed improvements assume no match. Also, as noted above, several intersection and sidewalk projects in the proposed program are not explicitly listed in the priorities letter.*

The elements of the proposed program are listed below. A spreadsheet describing the cash flow for each element is on ©4-6:

- *Reallocate \$4,400,000 from two projects in MDOT's D&E Program: the design of several interchanges on US29 (Stewart Lane, Tech Road, Industrial Boulevard, and Blackburn Road) and the design of the widening of MD124 between Muncaster Mill Road and Airpark Drive and between Fieldcrest and Warfield Roads (see ©7-8). The US29 interchanges are not in the priority letter, and the two segments of MD124 rank only #11.*
- *Fund the design of the Watkins Mill Road bridge over I-270 (\$7,600,000). This is the #1-ranked construction project in the priorities letter. The Council already appropriated \$2,400,000 to be used towards the design of the greater Watkins Mill Road interchange; those funds plus this \$7,600,000 would cover the \$10,000,000 needed to design the bridge portion of the interchange.*
- *Fund the design of the Montrose Parkway "missing link" between the MD355/Montrose interchange, which is under construction, and Montrose Parkway East, which is programmed for construction (\$9,000,000). This is the #2-ranked construction project in the priorities letter.*
- *Fund preliminary engineering for the Veirs Mill Road Bus Rapid Transit (BRT) line between Wheaton and Rockville (\$6,000,000). This is the #1-ranked transit study in the priorities letter.*
- *Fund the design of a pedestrian tunnel beneath Georgia Avenue from the Forest Glen Metro Station (\$2,000,000). This is the #2-ranked transit study in the priorities letter.*
- *Fund preliminary engineering for improvements to MD 97 (Georgia Avenue) through Montgomery Hills (\$3,000,000). The State initially had programmed these funds in the FY08-13 CTP but recently eliminated this funding in the draft FY09-14 CTP. This would restore that funding.*
- *Fund preliminary engineering for the Georgia Avenue Busway between Glenmont and Olney (\$5,000,000). This is the #3-ranked transit study in the priorities letter.*
- *Fund the design and land acquisition of the Brookeville Bypass (\$10,000,000). This is the #4-ranked construction project in the priorities letter.*
- *Fund the balance of design and some right-of-way acquisition and utility relocation for MD 124 (Woodfield Road) between Midcounty and Airpark Road (\$5,000,000). The southern portion of this segment (from Midcounty Highway to Snouffer School Road) is the #3-ranked construction project in the priorities letter, while the northern portion (Snouffer School Road to Airpark Road) is the #11 priority. However, the State Highway Administration considers this as one phase.*
- *Fund \$8,000,000 for half the cost to construct intersection improvements or sidewalks at 19 locations on State roads (see detail on ©9-10). The State Highway Administration has indicated it would be willing to match this amount to fund these improvements.*

Here are some projects that were considered but not included in the proposed program:

- *Funds to reaccelerate the Georgia Avenue/Randolph Road interchange.* The State recently deferred the construction funds for the interchange by three years. However, an advantage of this delay is that it allows sufficient time for the County to relocate the Glenmont fire station without incurring the additional cost of an interim fire station.
- *Funds for land acquisition and construction of the Forest Glen Metro pedestrian tunnel.* A reliable cost estimate will not be known until detailed design is completed. The most recent construction cost estimate is in the range of \$8-19 million; there are no land acquisition estimates yet available.
- *Funds to construct the Brookeville Bypass.* Again, a reliable cost estimate will not be known until detailed design is completed. The most recent construction cost estimate is \$20 million, but the final estimate could be significantly higher or lower than this.
- *Funds for a countywide bus rapid transit (BRT) system study.* All of the other elements of this plan are meant to fund the project planning, design, land acquisition, and/or construction of specific projects. A BRT system study would be a worthwhile exercise, but its purpose would be to identify BRT lines that should be included in master plans along with the Veirs Mill Road BRT and the Georgia Avenue Busway. The study should be funded with Current Revenue, a funding source not available in the State Transportation Participation project. Perhaps additional or redirected funds in the Facility Planning-Transportation project could be used for this purpose.



Montgomery County Government

ROCKVILLE, MARYLAND 20850

July 16, 2008

The Honorable Rona E. Kramer, Chair
Montgomery County Senate Delegation
214 James Senate Office Building
Annapolis, Maryland 21401

The Honorable Brian J. Feldman, Chair
Montgomery County House Delegation
223 House Office Building
Annapolis, Maryland 21401

Dear Senator Kramer and Delegate Feldman:

In light of the Approved FY2008-2013 Consolidated Transportation Program we have updated the State transportation priorities we transmitted to you on February 6, 2007. This letter describes our latest sets of priorities for currently unfunded State transportation projects and studies.

With respect to the unfunded projects of regional and statewide significance, Montgomery County is guided by its commitment to sustainable development and smart growth. Accordingly, the two major transitways (listed alphabetically), the Corridor Cities Transitway (CCT) from Shady Grove to Clarksburg, and the Purple Line from Bethesda to Langley Park, extending east in Prince George's County to New Carrollton, receive our highest priority.

Other regionally significant projects with high priority are: the Base Realignment and Closure (BRAC) transportation improvements for the National Naval Medical Center in Bethesda and the rehabilitation of the Metrorail system, as well as the I-270 widening for high-occupancy-toll (HOT) or high-occupancy-vehicle (HOV) lanes north of Shady Grove; and the I-495 widening for HOT or HOV lanes between the I-270 West Spur and Virginia. (Funding of these road projects must not delay these urgently needed mass transit projects, however.) While there are issues to be worked out on important aspects of some of these priorities, decisions must be made and funding must be identified promptly to move them forward to completion.

There are many projects of local importance which require significant changes from what is shown in the FY2008-2013 Consolidated Transportation Program (CTP). These are high priority projects that have been previously identified by the Executive and Council to the State and/or Federal Delegations. We have already taken the unusual step of dedicating millions of dollars in County funds to keep several of these projects on schedule, including:

- \$22,375,000 in FY07 thru FY09 to construct a 1,200-space garage at the Glenmont Metro Station.
- \$8,239,000 in FY07 towards design and right-of-way acquisition for the Georgia Avenue (MD 97)/Randolph Road grade-separated interchange. Furthermore, we expect to act in the next several weeks to approve another \$6,123,000 in FY09 towards the cost of this interchange.
- \$2,400,000 in FY07 towards the design of the I-270/Watkins Mill Road interchange.
- \$60,000,000 in FYs 08-14 towards the design and construction of a new southern entrance to the Bethesda Metro Station at the western terminus of the Purple Line.
- \$14,463,000 in FYs08-09 to forward fund the MD 355/Montrose interchange (to be reimbursed by the State in FY11 and FY12).

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The Honorable Brian J. Feldman
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For some of these projects, the County is ready to provide funding to the State, upon completion of MOU's. We have additional County funds which may be used for cost-sharing with the State to accelerate projects on our priority list.

Our priority rankings for projects that will be ready for construction funding during the next six years and are currently in the design or project-planning stages are listed below. The funding to be programmed to complete each project is indicated as well.

- | | | |
|-----|--|----------|
| 1 | I-270/Watkins Mill Road Extended: build bridge over I-270 | (Note 1) |
| 2. | Rockville Pike/Montrose Parkway (Phase 2): build segment from Chapman Ave. to Parklawn Drive, including a new bridge over CSX Railroad | \$53M |
| 3. | Woodfield Road: widen to 6 lanes, Midcounty Hwy to Snouffer School Road | (Note 2) |
| 4. | Georgia Avenue: build 2-lane bypass around Brookeville | \$21M |
| 5. | Georgia Avenue/Norbeck Road: build grade-separated interchange | \$91M |
| 6. | Clopper Road: improve intersections from I-270 to Seneca Creek State Park | \$41M |
| 7 | I-270/Watkins Mill Road Extended: complete interchange | (Note 1) |
| 8. | Spencerville Road: widen to 4 lanes from Old Columbia Pike to US 29 | \$30M |
| 9. | Norbeck Road: widen to 4 lanes from Georgia Avenue to Layhill Road | \$95M |
| 10. | I-270/Newcut Road: build grade separated interchange | \$88M |
| 11. | Woodfield Road: widen to 6 lanes from Snouffer School Road to Airpark Road and from Fieldcrest Road to Warfield Road | (Note 2) |
| 12. | US 29/Fairland Road/Musgrove Road: build grade-separated interchange | \$68M |
| 13. | MD 28/198: widen to 4 lanes from Layhill Rd to Old Columbia Pike | \$135M |
- Note 1: The total cost of #1 and #7 is \$140M. Segmented cost estimates are not yet available.
Note 2: The total cost of #3 and #11 is \$63M. Segmented cost estimates are not yet available.

The total funding that needs to be programmed to complete these 13 projects is \$825 million. MDOT is already investing over \$42 million to plan, design and buy land for these projects.

Our priority rankings for transit projects to be added to the Development & Evaluation (D&E) Program are:

1. Veirs Mill Road (MD 586) Bus Rapid Transit: Rockville to Wheaton
2. Forest Glen Metro Station pedestrian tunnel under Georgia Avenue
3. Georgia Avenue (MD 97) Busway: Glenmont to Olney
4. University Blvd. (MD 193) Bus Rapid Transit: Wheaton to Langley Park
5. North Bethesda Transitway: Grosvenor to Montgomery Mall
6. Purple Line Connector: Langley Park to White Oak

Studies #1, #3 and #4 in this list would be coordinated between the State Highway Administration and the Maryland Transit Administration. For these studies, we also request that a continuous bikeway be planned throughout their entire lengths.

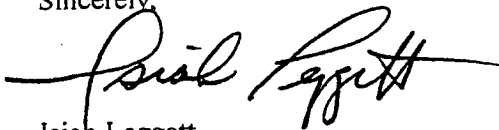
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Our priority rankings for highway and bikeway projects to be added to the D&E Program are:


1. Rockville Pike (MD 355): improvement from Woodmont Avenue to I-495, including a grade separated interchange at Cedar Lane
2. Midcounty Highway Extended: construction from Intercounty Connector to Shady Grove Road
3. Frederick Road (MD 355)/Gude Drive: grade-separated interchange
4. Intercounty Connector Hiker-Biker Trail: Shady Grove to Prince George's County
5. Great Seneca Highway (MD 119): flyover at Sam Eig Highway
6. Rockville Town Center intersection improvements
7. Frederick Road (MD 355): widening from 2000' south of Brink Road to future Frederick Road/Clarksburg Bypass
8. Frederick Road (MD 355): reconstruction in Old Town Gaithersburg
9. Veirs Mill Road (MD 586)/Randolph Road: grade-separated interchange
10. Veirs Mill Road (MD 586): widening from Twinbrook Parkway to Randolph Road
11. I-270/Gude Drive: grade-separated interchange
12. MD 108 Bypass around Laytonsville
13. Rockville Pike (MD 355)/Nicholson Lane: grade separated interchange

If you need any clarifications about our recommendations, please contact us.

Sincerely,



Isiah Leggett
County Executive



Michael J. Knapp, President
County Council

IL:MJK:go

cc: The Honorable Martin O'Malley, Governor, State of Maryland
John Porcari, Secretary, Maryland Department of Transportation
Royce Hanson, Chair, Montgomery County Planning Board

**State Transportation Funds. Draft Proposed Projects and cash flow.
October 21, 2008**

Project Name	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	Total County Funds
Approved FY09-14 PDF	\$1	\$35,805	\$29,225	\$2,000	\$4,759	\$22,149	\$4,555	\$6,000	\$104,494
MD 97 at Randolph Road Interchange	\$0	\$0	\$14,362	\$0	\$0	\$0	\$0	\$0	\$14,362
I-270 at Watkins Mill Road Interchange (1)	\$0		\$2,400						\$2,400
MD 355 at Montrose Pkwy Intchg	\$2,967	\$8,281	\$3,215	\$0	\$0	\$0			\$14,463
Sub Total Projects Approved w/n PDF	\$2,967	\$8,281	\$19,977	\$0	\$0	\$0	\$0	\$0	\$31,225
Proposed New Large Projects									
Watkins Mill Bridge - Design only				\$1,000	\$3,500	\$3,100			\$7,600
Montrose Pkwy Gap Design only				\$3,000	\$4,000	\$2,000			\$9,000
Veirs Mill Road BRT Prel. Engineering				\$500	\$2,000	\$2,000	\$1,500		\$6,000
Forest Glen Metro Stat. Access -Grade separation - Design				\$500	\$750	\$750			\$2,000
Md 97 - 16th St to Forest Glen - D&E				\$500	\$1,500	\$1,000			\$3,000
Georgia Ave. Busway Preliminary Engineering					\$500	\$1,000	\$1,500	\$2,000	\$5,000
Brookville Bypass - Final Design & Land					\$1,500	\$1,500	\$3,500	\$3,500	\$10,000
Md 124 - Mid County to Airpark Road D&RW						\$1,500	\$3,500		\$5,000
Subttl New Projects	\$0	\$0	\$0	\$5,500	\$13,750	\$12,850	\$10,000	\$5,500	\$47,600
(State re-allocation)			\$0	-\$3,580	-\$820				-\$4,400
Net County Funds NP	\$0	\$0	\$0	\$1,920	\$12,930	\$12,850	\$10,000	\$5,500	\$43,200

(4)

**State Transportation Funds. Draft Proposed Projects and cash flow.
October 21, 2008**

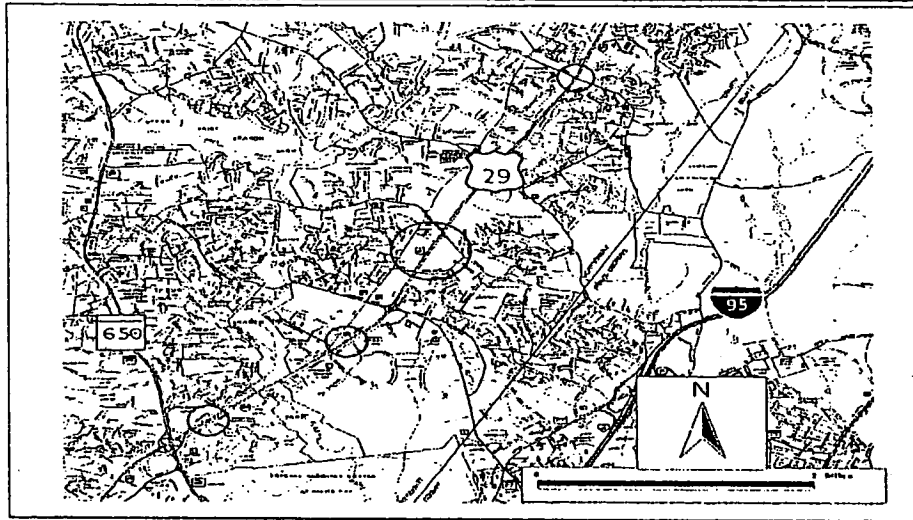
Project Name	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	Total County Funds
Small Intersection Improvements Assumes 50-50 State - County Funding									
Md 108 at Bowie Mill Road				\$150	\$150				\$300
Md 27 at Sweepstakes Road				\$50	\$75				\$125
Md 28 at Muddy Branch Road				\$100	\$200	\$200			\$500
Md 115 at Bowie Mill Road				\$100	\$200	\$300			\$600
Bundle of Projects for left turn lane extensions within existing medians				\$300	\$300	\$400			\$1,000
Md 355 @ West Old Baltimore Road				\$100	\$150	\$250			\$500
Md 28 at Riffle Ford Rd.					\$100	\$150	\$300		\$550
Md 410 at Grubb Road					\$100	\$150			\$250
Md 28 at Md 586						\$100	\$200	\$300	\$600
Md 182 at Norwood Rd.					\$100	\$200	\$400	\$800	\$1,500
Md 355 at Md 109					\$100	\$100	\$100		\$300
Md 108 at Brooke Road Sidewalk on north side						\$200	\$200		\$400
Md 185 - Washington St. to Saul Road						\$150	\$150	\$200	\$500
Contingency for Intersection Imprv.				\$200	\$200	\$200	\$175	\$100	\$875
Sub Total Intersection Improvements	\$0	\$0	\$0	\$1,000	\$1,675	\$2,400	\$1,525	\$1,400	\$8,000

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**State Transportation Funds. Draft Proposed Projects and cash flow.
October 21, 2008**

Project Name	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	Total County Funds
Cumulative Cash Flow in CIP	\$1	\$35,806	\$65,031	\$67,031	\$71,790	\$93,939	\$98,494	\$104,494	
Future Construction Participation (various)					\$5,000	\$5,000	\$5,000	\$7,069	\$22,069
Funds Committed under this proposal	\$2,967	\$8,281	\$19,977	\$2,920	\$19,605	\$20,250	\$16,525	\$13,969	\$104,494
Cumulative Proposed Expenditures	\$2,967	\$11,248	\$31,225	\$34,145	\$53,750	\$74,000	\$90,525	\$104,494	
Remaining funds in the PDF by Fiscal Year	-\$2,966	\$24,558	\$33,806	\$32,886	\$18,040	\$19,939	\$7,969	\$0	
OTHER PROJECTS									
Bethesda Metro Entrance (4)	\$0	\$500	\$4,500	\$0					\$5,000
Bethesda Metro Entrance Construction (5)			\$500	\$500	\$500	15,000	\$31,300	\$7,200	\$55,000
Glenmont Garage		\$8,969	\$1,000						\$9,969
Approved Commitments not in the State Transportation Participation PDF	\$0	\$9,469	\$6,000	\$500	\$500	15,000	\$31,300	\$7,200	\$69,969
Notes:									
	(1) Funds towards design of the Interchange only.								
	(2) Assumes that total advance will be reimbursed and re-used, as approved by Council.								
	(3) These are the available funds for other State Transportation Projects.								
	(4) Expenditure schedule for design as previously approved by Council.								
	(5) Additional funding as budgeted in the Approved FY 09-14 PDF								
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PROJECT: US 29, Columbia Pike

DESCRIPTION: Construct interchanges at Stewart Lane, Tech Road, Greencastle Road and Blackburn Road.

JUSTIFICATION: Rapid development along the US 29 corridor has resulted in rapid traffic growth and congestion.

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:

InterCounty Connector (Line 1)
 US 29, Interchanges (Lines 8)
 MD 28/MD 198, MD 97 to I-95 (Line 10)

STATUS: Partial Engineering underway. An additional \$23.8 million is needed to complete Engineering and \$22.3 million is needed to complete Right-of-way.

SIGNIFICANT CHANGE FROM FY 2008 - 13 CTP: None.

Federal Funding By Year of Obligation

PHASE	FFY 2009	FFY 2010	FFY 2011	FFY 2012	FFY 2013 - 2014	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	---

POTENTIAL FUNDING SOURCE:

- SPECIAL FEDERAL GENERAL OTHER

TOTAL

PROJECT CASH FLOW

PHASE	ESTIMATED COST (\$000)	EXPEND THRU 2008	CURRENT YEAR 2009	BUDGET YEAR 2010	FOR PLANNING PURPOSES ONLY				SIX YEAR TOTAL	BALANCE TO COMPLETE
				2011.....2012.....2013.....2014.....		
Planning	2,488	2,488	0	0	0	0	0	0	0	
Engineering	6,367	4,319	245	1,803	0	0	0	0	2,048	
Right-of-way	545	545	0	0	0	0	0	0	0	
Construction	0	0	0	0	0	0	0	0	0	
Total	9,400	7,352	245	1,803	0	0	0	0	2,048	
Federal-Aid	4,239	2,804	173	1,262	0	0	0	0	1,435	

FUNCTION :

STATE - Other Principal Arterial

FEDERAL - Other Principal Arterial

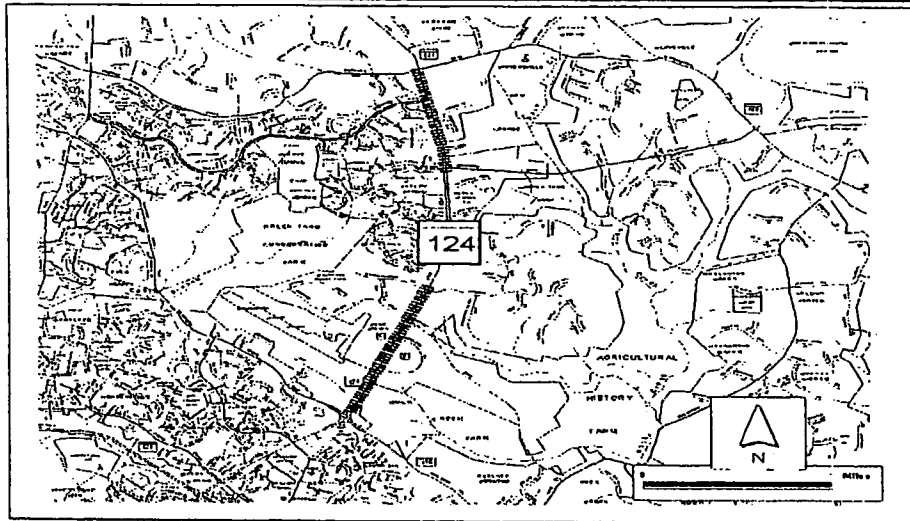
STATE SYSTEM : Primary

DAILY TRAFFIC : (USAGE IMPACTS)

CURRENT (2008) - 51,500 - 58,500

PROJECTED (2030) - 67,000 - 81,500

OPERATING COST IMPACT N/A



PROJECT: MD 124, Woodfield Road

DESCRIPTION: Reconstruct MD 124 from Midcounty Highway to south of Airpark Road and north of Fieldcrest Road to Warfield Road (2.3 miles). Sidewalks will be included where appropriate. Wide curb lanes will accommodate bicycles.

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:

- InterCounty Connector (Line 1)
- MD 124, Airpark Road to Fieldcrest Road (Line 3)

STATUS: Engineering underway.

SIGNIFICANT CHANGE FROM FY 2008 - 13 CTP: Removed Right-of-way for the segment from MidCounty Highway to Airpark Road due to economic downturn.

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Federal Funding By Year of Obligation						
PHASE	FFY 2009	FFY 2010	FFY 2011	FFY 2012	FFY 2013 - 2014	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	---

POTENTIAL FUNDING SOURCE: <input checked="" type="checkbox"/> SPECIAL <input checked="" type="checkbox"/> FEDERAL <input type="checkbox"/> GENERAL <input type="checkbox"/> OTHER											
PHASE	PROJECT CASH FLOW										
	TOTAL ESTIMATED COST (\$000)	EXPEND THRU 2008	CURRENT YEAR 2009	BUDGET YEAR 2010	FOR PLANNING PURPOSES ONLY				SIX YEAR TOTAL	BALANCE TO COMPLETE	
				2011.....2012.....2013.....2014.....			
Planning	2,114	2,114	0	0	0	0	0	0	0	0	
Engineering	1,839	198	901	633	107	0	0	0	1,641	0	
Right-of-way	10	10	0	0	0	0	0	0	0	0	
Construction	0	0	0	0	0	0	0	0	0	0	
Total	3,963	2,322	901	633	107	0	0	0	1,641	0	
Federal-Aid	126	8	118	0	0	0	0	0	118	0	

FUNCTION:

STATE - Major Collector

FEDERAL - Major Collector

STATE SYSTEM: Secondary

DAILY TRAFFIC: (USAGE IMPACTS)

CURRENT (2008) - 21,500

PROJECTED (2030) - 48,000

OPERATING COST IMPACT N/A

Intersection and Sidewalk Improvements along State Highways

<u>Location</u>	<u>Description</u>
MD 27 (Ridge Road) @ Sweepstakes Road	Widen northbound approach to provide separate right turn lane. Cost: \$250,000
MD 28 (Darnestown Road) @ Muddy Branch Road	Widen northbound Muddy Branch Road to provide 300-foot exclusive right turn lane onto eastbound MD 28. Two receiving lanes already exist on Muddy Branch. Increase southbound left turn storage by 200 feet. Cost: \$1,000,000
MD 28 (Darnestown Road) @ Riffle Ford Road	Add right turn lane on westbound MD 28 to northbound Riffle Ford Road and widen southbound Riffle Ford Road. Cost: \$1,100,000
MD 28 (First Street) @ MD586 (Veirs Mill Road)	Extend left turn lane for east, west and southbound approaches. Upgrade ramps, sidewalks, other pedestrian facilities, and signals to APS standards. Cost: \$1,200,000
MD 108 (Olney-Laytonsville Road) @ Bowie Mill Road	Channelize and signalize intersection; add acceleration lane on westbound MD 108, and install median to separate northbound left turns. Cost: \$600,000
MD 108 (Olney-Sandy Spring Road) @ Brooke Road	Install sidewalk and curb and gutter on the north side of MD 108, from Brooke Road to Bentley Road. Cost: \$800,000
MD 115 (Muncaster Mill Road) @ Bowie Mill Road	Extend eastbound MD 115 left turn lane 300 feet. Cost: \$1,200,000
MD 182 (Doctor Bird Road) @ Norwood Road	Provide a left turn bay for both Norwood Road and eastbound MD 182. Cost: \$3,000,000
MD 185 (Connecticut Avenue) Washington Street to Saul Road	Construct retaining wall and sidewalk along west side. Cost: \$1,000,000
MD 355 (Frederick Road) @ MD 109 (Old Hundred Road)	Construct right turn lane from southbound MD 355 to westbound MD 109. Cost: \$600,000

MD 355 (Frederick Road)
@ West Old Baltimore Road

Provide a northbound left-turn bypass lane.
Cost: \$1,000,000

MD 410 (East West Highway)
@ Grubb Road

Add northbound-to-eastbound right-turn lane.
Cost: \$500,000

Bundle of Projects

MD 187 @ Executive Boulevard

MD 650 @ Oakview Drive

MD 355 @ Middle Lane

MD 28 @ Diamondback Drive

MD 119 @ Kentlands Boulevard

MD 118 @ Wisteria Drive

MD 118 @ Middlebrook Road

Spot improvements: mostly extensions of left turn lanes on existing medians.

Cost: \$2,000,000

Construction contingency ($\approx 12\%$)

Cost: \$1,750,000

Total

Cost: \$16,000,000

County: \$8,000,000

State: \$8,000,000