


July 15, 2005

MEMORANDUM

TO: John Carter, Chief
Community-Based Planning

VIA: Richard C. Hawthorne, Chief
Transportation Planning



FROM: Larry Cole, 301-495-4528 
Transportation Planning

SUBJECT: Recommended Transportation Priorities Additions to the FY07 - FY12
Montgomery County Capital Improvements Program

RECOMMENDATION: Transmit comments to the County Executive

The purpose of this memorandum is to provide the Planning Board an opportunity to provide early input concerning the transportation program to the County Executive on the FY07 - FY12 Capital Improvements Program (CIP), informed by the Highway Mobility Report prepared by staff as part of the update to the Annual Growth Policy. This report is scheduled to be presented immediately prior to the Board's discussion on the CIP. The FY07 - FY12 CIP will be a "full" CIP with new projects, rather than an off-year amendment.

During each CIP cycle, the Planning Board identifies priority projects prior to the preparation of the CIP by the County Executive. The Department of Public Works and Transportation's (DPWT's) current schedule anticipates that the staff will complete their draft program and deliver it to their Director on August 18, 2005.

We would like to thank DPWT staff for their solicitation of staff input from the Department of Park and Planning on the development of candidate projects for the Facility Planning program and for the inclusion of several of these candidates in their Department's current draft program.

Staff recommends the following comments for consideration in the creation of the County Executive's Recommended CIP. The details for each item are shown later in this memo.

1. The facility planning candidate selection criteria that reference the Transportation Policy Report and Policy Area/Ceiling Capacity should be replaced by the priorities set forth in the Highway Mobility Report. Consider using two additional criteria in selecting candidates for facility planning: Potential Master Plan Improvements and Potential Enhancement Funding Projects.
2. Create an annual program to fund bicycle and pedestrian improvements at intersections.
3. The Bus Stop Safety Improvements identified in DPWT's study should be fully implemented within the next two years.
4. The improvements recommended by DPWT's School Safety Engineering Study should be fully implemented within the next three years, and the remainder of the County's public schools should be evaluated.
5. New Traffic Signal Controllers should be able to provide variable signal timing and all-red traffic signal phases for pedestrian crossings.
6. We recommend that the following candidates be added to the Facility Planning Program.
 - Locbury Drive Connection
 - Ennals Avenue/Price Avenue Relocation
 - Shady Grove Sector Plan Staging
 - Shady Grove Road/Midcounty Highway
 - MD355/Gude Drive
 - Metro Access Roadway/Crabbs Branch Way partial interchange
 - Equipment Maintenance Operations Center (EMOC) Facility Relocation Access Improvements
 - Gude Drive
 - National Institute of Health (NIH) Circulation
 - Newcut Road, from Ridge Road (MD 27) to Comsat Drive
 - Queue Jumpers
 - Streetlighting
 - North Bethesda Trail Extension
 - Muncaster Mill Road (from Meadowside Lane to Emory Lane) and Emory Lane (from Muncaster Mill Road to Holly Lane) Bikeways
 - Columbia Pike (US 29) (from Lockwood Drive to Southwood Drive) and Lockwood Drive [from New Hampshire Avenue (MD 650) to Columbia Pike] Bikeways
 - East West Highway Sidewalk from Chevy Chase Crest Condominium to Washington Avenue
 - East West Highway Bridge over Rock Creek
 - Travilah Road Bike Path from Dufief Mill Road to River Road

- Forest Glen Road Bike Path from Georgia Avenue to Sligo Creek Trail
- Jones Mill Road bike safety improvements/shoulders
- Colesville Road (MD 384) Bike Path
- Needwood Road Bike Path from Muncaster Mill Road to Rock Creek Park entrance
- Layhill Road Bike Path from Norbeck Road to Ednor Road
- Connecticut Avenue Bike Path from Bel Pre Road to Georgia Avenue

7. Consider improvements to the following congested intersections:

- Colesville Road (US 29) at Dale Drive
- Connecticut Avenue (MD 185) at Jones Bridge Road
- Montgomery Village Avenue (MD 124) at Russell Avenue
- Norbeck Road (MD 28) at Bauer Drive
- Piney Branch Road (MD 320) at Barron Street
- Norbeck Road (MD 28) at Baltimore Road
- Norbeck Road (MD 28) at Bel Pre Road
- Falls Road (MD 189) at Dunster Road/Falls Chapel Road

STAFF ANALYSIS

Design and Construction Projects

Bicycle and Pedestrian Safety Improvements at Intersections: While DPWT has done a very good job of implementing sidewalks and bikeways in the county, less has been done to improve intersections for bicyclists and pedestrians, where they most often come into conflict with vehicular traffic. Intersection improvements have mostly been aimed at increasing vehicular capacity, very often diminishing the accommodation for pedestrians and off-road bicyclists by pushing sidewalks/trails closer to the road, by increasing the distance they have to cross the road, and by minimizing the time they have available to do so. Staff believes that a permanent program similar to the Annual Sidewalk Program needs to be created to construct bicycle and pedestrian safety improvements at intersections.

One of the few projects to implement such improvements was the Silver Spring CBD Traffic Improvements project. While most of the planned pedestrian improvements were implemented and the project has been closed out, there are a couple of items that still need to be pursued. Constructing intersection neckdowns would be beneficial in improving pedestrian safety by reducing pedestrians' exposure to traffic. The Bethesda CBD Bikeway and Pedestrian improvements project was reviewed by the Board on July 14, 2005, and will implement similar neckdowns along Norfolk Avenue in Bethesda. One example would be on the side streets along Georgia Avenue such as Fenwick Lane and Fidler Lane, where there is full-time on-street parking that could be sheltered by bumping out the curb at the intersection. Also, raised planting beds or other barriers in medians and along selected segments of sidewalk would be effective in deterring unsafe mid-block crossings of major roads. The raised median on Georgia Avenue at the Discovery headquarters has been very effective in this regard.

Additional locations that would benefit from such a program, as identified by both Transportation Planning and Community-Based Planning staffs include:

- Arlington Road intersections between Old Georgetown Road and Bradley Boulevard in Bethesda
- Bradley Boulevard intersections between Barrett Lane and Goldsboro Road crosswalks and sidewalks
- Democracy Boulevard at Walter Johnson High School driveway/Bells Mill Road
- Rockville Pike intersections in North Bethesda near the White Flint, Grosvenor and Twinbrook Metro stations
- Wisconsin Avenue at Western Avenue in Friendship Heights
- Woodmont Triangle intersections in the Bethesda CBD including Del Ray Avenue, Auburn Avenue, Cordell Avenue, Fairmont Avenue and St. Elmo Avenue

Implement Bus Stop Study Improvements: DPWT has completed their study of the county's more than 5,200 bus stops, locating the stops, assessing their safety, and making recommendations for improvements. Because there is a high correlation between pedestrian fatalities and bus stops in the county, staff believes that making these improvements is a top priority, one that should be completed in the next two years.

Implement School Safety Study Improvements: DPWT has completed their School Safety Engineering Study of 100 of Montgomery County's 192 public schools to determine what pedestrian safety improvements were needed in the surrounding area. While DPWT staff's estimate is that the needed improvements will cost about \$10,000 per school, only \$30,000 has been requested. Some funds will be available from existing programs; however, it would take a very long time to complete this work at this rate. Now that the problems have been identified, staff believes that these improvements should be completed in the next three years and that the study should be extended to the rest of the county's schools.

New Signal Controllers: DPWT will be requesting funds to upgrade the county's traffic signal controllers. A new system is needed in part to provide more flexibility in the timing of traffic signals so that better pedestrian accommodation can be provided. One example of the problems with the present system is that pedestrian phase lengths must stay the same, whether the total cycle length is long or is short. (DPWT uses longer cycle lengths during peak hours to maximize vehicular capacity and shorter lengths during off-peak hours to minimize vehicular delay. The result is that the short pedestrian phase created for the off-peak phase is used during the peak hour also, reducing pedestrian mobility.) *Staff recommends that the Board support DPWT's request with the stipulation that better pedestrian accommodation be provided.*

Facility Planning Candidates

Project Selection Criteria: DPWT rates potential transportation facility planning projects according to seven criteria:

- The project is in the Constrained Long Range Plan.
- The project was recommended in the Transportation Policy Report. *
- The project was recommended by a Citizens Advisory Board, the Planning Board or Planning staff.
- The project is needed to meet Policy Area/Ceiling Capacity. *
- There is a need to improve connectivity.
- There is an operational need.
- There is a safety problem that needs to be corrected.

This is the first time a new round of Facility Planning Candidates is being considered for addition to the CIP since the changes to the Annual Growth Policy that eliminated Policy Area Transportation Review. *Staff recommends that two criteria noted above with asterisks be replaced by the priorities noted in the Highway Mobility Report*, a discussion of which is scheduled to precede this item on the Board's agenda.

During our discussions this year with DPWT staff, we suggested that they consider two additional criteria:

- Potential Master Plan Improvements
- Potential Enhancement Funding Projects

Potential Master Plan Improvements would be comprised of improvements that are being discussed for inclusion in the Master Plan but that need greater detailed study than is usually done for Master Plans to determine their feasibility. This would include the Ennals Avenue project discussed below. DPWT's response to this suggestion was that including such projects in facility planning could disrupt their staffing schedules since the product would not result in a capital project, possibly resulting in a shortfall of design work for their engineers. Staff recognizes this concern but believes that DPWT would be the best agency to carry out this work on a limited basis. This type of analysis would ensure that projects in the Master Plan do not have "fatal flaw" design or cost aspects that would make them infeasible.

The second additional criterion would be Potential Enhancement Funding Projects. The Transportation Enhancement program includes aesthetic improvements and the restoration of historic transportation facilities as candidates for funding, but to staff's knowledge the County has never selected such projects. **Candidate projects need to have some design work done before they can be nominated, and for projects such as the East West Highway Bridge over Rock Creek discussed below, DPWT is the best qualified County agency to do the facility planning.**

The staff recommendations for new facility planning candidates below are each noted with the applicable criteria in italics in parentheses at the end of project description: capacity, connectivity, staging amendment, pedestrian accommodation, bikeways, transit, Master Plan improvement, and/or aesthetics/potential enhancement funding candidate.

Locbury Drive Connection: An approximately 900-foot long road segment, which includes a bridge over a stream, is needed to complete Locbury Drive between Town Commons Drive and Falling Water Circle. The County needs to build this segment since there is no apparent nexus to require developers to build it. This segment will provide a direct connection from the north for residents to access the Germantown Town Center, which includes such facilities as the Library (currently under construction) and the Black Rock Center for the Arts. It will also provide a connection to Century Boulevard, which is currently under construction in front of the Library. (*Connectivity*)

Ennals Avenue/Price Avenue Relocation: This one-block-long relocation of Ennals Avenue to intersect Georgia Avenue (MD 97) opposite Price Avenue was recommended in the *Wheaton Metro Station Area Pedestrian Safety Evaluation*, dated November 2004. (The Planning Board received a briefing of the study on May 20, 2004, and expressed its support for expediting the update of the Wheaton Sector Plan to help effect the changes recommended in the report, of which the Ennals Avenue relocation was one of the most significant.) This project would also provide facility planning to study the extension of Ennals Avenue west of MD 586 (Veirs Mill Rd.) into the parking area of Westfield Shoppingtown Wheaton. This project would improve safety and connectivity for both vehicular traffic and pedestrians. The facility planning study would inform the Wheaton Sector Plan update, work on which is scheduled to begin in January 2006. (*Connectivity/Potential Master Plan Improvement*)

Shady Grove Sector Plan Staging: Determine and design needed improvements to support Shady Grove Sector Plan moving to Stage 2. (*Staging/Capacity*)

- Shady Grove Road/Midcounty Highway
- Rockville Pike (MD355)/Gude Drive
- Metro Access Roadway/Crabbs Branch Way partial interchange

Equipment Maintenance Operations Center (EMOC) Facility Relocation Access Improvements: Develop necessary offsite improvements to inform developer proposals and staff evaluation of the recommended relocation of this County facility next to the Shady Grove Metro Station. (*Staging*)

Gude Drive: Widening from Rockville Pike (MD 355) to Norbeck Road (MD 28). Intersection improvements at Southlawn. Redesign pavement section to accommodate truck traffic better. This project will also address safety issues along Gude Drive. (*Capacity*)

National Institute of Health Circulation: Security requirements at Federal facilities have caused NIH to restrict access to its Bethesda campus, creating circulation and congestion problems on the surrounding major highways and arterials. Staff supports DPWT staff's recommendation for a traffic study of this area so that a coordinated set of improvements can be made. (*Capacity*)

Newcut Road, from Ridge Road (MD 27) to Comsat Drive: Similar to Stringtown Road, developers are responsible for building parts of the road. (*Capacity/Bikeway/Pedestrian Improvement*)

Queue Jumpers: Identify and design second round of transit priority treatments in high-priority bus corridors. Veirs Mill Road is the first road to be studied in this regard. (*Transit*)

CBD Streetlighting Analysis: An analysis should be done of the lighting levels in the CBD's to identify where additional lighting is needed to meet the recommendations of the Illuminating Engineering Society of North America. Adequate lighting is an important element in ensuring that pedestrians can safely cross the street, as well as being a personal safety element for pedestrians on sidewalks in commercial areas late at night. (*Safety/Pedestrian Improvement*)

North Bethesda Trail Extension: This project provides for facility planning of a 1.3-mile trail segment adjacent to and within the NIH campus. Although planning for the trail had previously been completed, the access restrictions at NIH require a redesign. The project will complete the missing segment of the trail from Cedar Lane (along the east side of Old Georgetown Road, MD 187), and turning into the NIH campus at Lincoln Street following the southern boundary of the NIH campus to the existing trail leading into the Bethesda CBD. The southern end of the trail ties into DPWT's proposed project that includes bike lanes along Norfolk Street. (*Bikeway/Pedestrian Improvement*)

Muncaster Mill Road (Meadowside Lane to Emory Lane) and Emory Lane Muncaster Mill Road to Holly Lane) Bikeways: More than a mile of off-road bikeway exists along the east side of Emory Lane from its start at Georgia Avenue to Holly Lane. As part of their work on Muncaster Mill Road (MD 115), State Highway Administration (SHA) will be constructing an off-road bikeway along Muncaster Mill Road from 1,250 feet west of Grist Mill Road to 225 feet south of Meadowside Lane. About 1,500 feet of off-road bikeway is needed along Muncaster Mill Road and 1,600 feet of off-road bikeway is needed along Emory Lane to join these two segments and provide a connection between Olney Manor Recreational Park and North Branch Stream Valley Park at Meadowside Nature Center.

Between Meadowside Lane and Emory Lane, the terrain is very steep as Muncaster Mill Road passes through the North Branch Stream Valley. Near the existing roadway bridge over the stream are the ruins of the Muncaster Mill. Along Emory Lane between Muncaster Mill Road and Holly Lane, north of which an off-road bikeway already exists, there is a large steep hill that comes down to the eastern side of the road. Because of the topographical, environmental, and historical concerns, facility planning for the bikeway is needed. A trail along North Branch in this area was recently deleted from the Countywide Trails Plan because of environmental

concerns, so the staff-recommended bikeway segment is needed to facilitate north-south travel and recreation. (*Bikeway/Pedestrian Improvement*)

Columbia Pike (US 29) (from Lockwood Drive to Southwood Drive) and Lockwood Drive (from New Hampshire Avenue (MD 650) to Columbia Pike) Bikeways: *Staff recommends that facility planning begin for the segment of shared-use path along the west side of Lockwood Drive between New Hampshire Avenue and Columbia Pike (US 29) and along the west side of US 29 between Lockwood Drive and the Rachel Carson Trail on the southern side of Northwest Branch.* These paths are called for in the recently Approved and Adopted Countywide Bikeways Master Plan. The segments of path recommended by staff to begin facility planning will create a continuous pedestrian and bicycle connection between the Federal Drug Administration (FDA) campus, the Burnt Mills community, and Northwest Branch Park and the Rachel Carson Trail. In conjunction with the sidewalk on the east side of US 29 to be built by DPWT, the pedestrian connection would be extended to the Four Corners commercial area.

A path was built along the east side of New Hampshire Avenue west of Lockwood Drive as part of the SHA/FDA intersection improvement project. A segment of trail along Lockwood Drive is now being constructed by the developer of the Seaton Square townhouse project. The recent redevelopment of the Burnt Mills shopping center with Trader Joe's as the lead tenant has included a traffic signal close that is usable for Rachel Carson Trail users to cross US 29 but there is a segment of sidewalk on the west side that is missing between the crosswalk and the parking lot for the trailhead.

DPWT is scheduled to begin constructing a sidewalk along the east side of Colesville Road between Lorain Avenue and the bridge over Northwest Branch in February 2006. While preliminary design was done for a sidewalk on the west side of US 29 also, DPWT has not yet scheduled the construction because the cost was outside their original budget limit for the work along US 29. When the project was reviewed as a Mandatory Referral in May 2001, the Planning Board recommended that the sidewalk be built at a width that would accommodate bicycles. Although the recommendation to add this trail was only recently made part of the Master Plan, the need for this accommodation was identified a few years ago. (*Bikeway/Pedestrian Improvement*)

East West Highway Sidewalk: The existing sidewalk along the south side of East West Highway proceeding west from the Sixteenth Street/East West Highway intersection currently ends at the Chevy Chase Crest condominium. *Staff recommends that planning be done for an extension of the sidewalk west to Washington Avenue* to provide a pedestrian connection between the large number of residents of the multi-family apartments and condominiums in this area, the Blair Shopping Center, Silver Spring Metro, and Silver Spring CBD. The length of sidewalk required would be approximately 1,500 feet. A modification to the existing East West Highway bridge/culvert over a tributary to Rock Creek would be required. (*Pedestrian*)

East West Highway Bridge over Rock Creek: This location is the crossing of the highway serving the two major downcounty urban centers, Silver Spring, and Bethesda, and our major downcounty park, Rock Creek Park. The bridge is very shabby in comparison to the

District of Columbia bridges over Rock Creek. Staff believes that the bridge should be improved to reflect its important location in Rock Creek Park and its function as the gateway between the greater Silver Spring and Bethesda communities. The current standard concrete highway bridge parapets should be modified to be more attractive with ornamental lighting installed, sidewalks widened, and monumental endposts/pillars constructed. The design resulting from this proposed planning study could potentially be funded as a transportation Enhancement project, with half the cost paid by the State. (*Aesthetic/Pedestrian Improvement*)

Travilah Road Bike Path from Dufief Mill Road to River Road – would connect Gaithersburg and the C&O Canal, replacing the formerly planned hard-surface Muddy Branch Trail, which was deleted by the Planning Board in the last update of the Countywide Park Trails Plan. (*Bikeway/Pedestrian Improvement*)

Forest Glen Road Bike Path from Georgia Avenue to Sligo Creek Trail – would provide a connection between the heavily used Sligo Creek Trail and the Forest Glen Metro Station and the new Forest Glen Pedestrian/Bike Bridge. It would help meet already identified needs since community members are currently working with SHA on improving access to Metro and pedestrian safety in this area. (*Bikeway/Pedestrian Improvement*)

Jones Mill Road bike safety improvements/shoulders: Jones Mill Road is the connection between two segments of Beach Drive in Rock Creek Park that is heavily used by on-road bicyclists. The road needs to be widened to provide bikeable shoulders and needs route and warning signage. (*Bikeway/Safety*)

Colesville Road (MD 384) Bike Path from the Silver Spring Metro Station to Sixteenth Street – would provide an off-road connection between North Portal Drive/Sixteenth Street at the DC line, the gateway to Rock Creek Park, to the Silver Spring Metro Station, the Metropolitan Branch Trail, and the Silver Spring Green Trail. (*Bikeway/Pedestrian Improvement*)

Needwood Road Bike Path along the south side of Needwood Road from Muncaster Mill Road to the entrance to Rock Creek Park.

Layhill Road Bike Path along the east side of Layhill Road from Norbeck Road to Ednor Road.

Connecticut Avenue Bike Path along the east side of Connecticut Avenue from Bel Pre Road to Georgia Avenue.

Burtonsville Streetscape Improvements: Streetscape improvements are needed along Old Us 29. The construction of the US 29/198 Interchange is anticipated to be completed in September 2005.

Vital Way Streetscape Improvements: Facility planning and construction funds are needed to provide curb, sidewalk and streetscape on this commercial street carrying increased traffic between Randolph Road and New Hampshire Avenue.

Streetscape in the Damascus Town Center – Facility planning and construction funds are needed for additional streetscape in the Damascus Town Center.

Congested Intersections

Staff's report on highway mobility in Montgomery County shows that of the top fifty congested intersections, all but one are intersections with State highways. The exception is the intersection of Shady Grove Road and Midcounty Highway, where our latest counts do not yet reflect the County's recent improvements.

Of the remaining top fifty, some of the intersections' Critical Lane Volumes also do not reflect recent improvements, some are currently in planning or design or are under construction, and some will be improved by developers. Some have already been evaluated for improvements but been deleted from further consideration because the capacity improvement was determined to be not worth the cost. Some are also intersections where both roads are state highways where the County is unlikely to undertake improvements and some would be included in studies that the County has already recommended to SHA that they undertake.

Of the remaining, *staff recommends that DPWT consider improvements to the following intersections*, all of which have one County road involved:

- Colesville Road (US 29) at Dale Drive – DPWT did some design work to add a turn lane at this intersection a few years back, but while there have been some signal changes, no additional pavement has been added to implement the planned westbound right-turn lane on Dale Drive.
- Connecticut Avenue (MD 185) at Jones Bridge Road
- Montgomery Village Avenue (MD 124) at Russell Avenue – This intersection is within the City of Gaithersburg
- Norbeck Road (MD 28) at Bauer Drive
- Norbeck Road (MD 28) at Baltimore Road
- Norbeck Road (MD 28) at Bel Pre Road
- Falls Road (MD 189) at Dunster Road/Falls Chapel Road

LC:gw

mno to MCPB re Comments on CIP for FY07-12