



**MONTGOMERY COUNTY PLANNING DEPARTMENT**  
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

December 28, 2006

**MEMORANDUM**

**TO:** Montgomery County Planning Board

**VIA:** Gwen Wright, Acting Chief  
County-wide Planning Division

Richard C. Hawthorne, Chief  
Transportation Planning

*RCH*

**FROM:** Larry Cole: 301-495-4528 for the  
Montgomery County Planning Department

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**DISCUSSION:** County Council Bills: Streets and Roads – Comprehensive Revision Bill No. 48-06 (Chapter 49, Road Code) and Subdivision Regulation Amendment No. 06-04 (Chapter 50, Subdivision Ordinance)

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Staff must highlight that these Council bills were officially submitted on December 12, 2006 and that we have had only a very short time to review them. We have therefore not done our normal level of coordination with others outside our Department. The Department of Public Works and Transportation, the Department of Permitting Services, the State Highway Administration and concerned citizens and developers may have very different views of the positions we are recommending, and we are not unanimous among our own staff on the desirability of some of the details in the proposed Code changes. This memorandum presents our thinking and best judgment at this time. We hope that the Board's work session, and the upcoming Council hearings and work sessions will provide the opportunity for open dialogue and a discussion of the trade-offs involved. We request the Board allow us to join the Chairman and any Board members in the Council work sessions, to continue to refine these important Codes and Ordinances.

**RECOMMENDATIONS**

Staff recommends that the Planning Board forward the following comments to the County Council:

General Comments

We strongly support the Council's efforts make the county's roads more pedestrian-, bicyclist-, and environmentally friendly and believe that the proposed changes to Chapters 49 and 50 are a significant step in that direction. The public right-of-way needs to accommodate various modes of transportation – cars, trucks, pedestrians, bicyclists,



buses – and the different requirements of these modes need to be recognized. In addition to the need to provide for mobility, these facilities need to do so in a safe and environmentally responsible way, preserving and enhancing the attractiveness of Montgomery County as a place to live and work. A complex balance is needed to satisfy all of these competing objectives.

We believe that the bills that have been submitted are an excellent vehicle to get all of the necessary issues on the table for discussion, and we request that our staff be invited to take part in the Council's work sessions on the proposed Road Code changes. We believe though that it would be advisable to take this process a bit slower, breaking it into three phases rather than two.

The table proposed to be made part of the Road Code would set standards rather than minimums for various roadway elements. These elements would then be reflected in a revision of the County's Roadway Standards. The bill proposes that DPWT submit revised standards four months following the adoption of the text. *Once the Roadway Standards are revised to conform to the Code text, the resulting typical sections can be more carefully considered, the necessary public rights-of-way determined, and any changes to existing Master Plan rights-of-way identified.* We believe it will become apparent at this point that additional changes to the text of the Road Code will be needed once the trade-offs involved in this complex balance are more clearly defined.

The text of the Road Code and the County Roadway Standards are correctly identified as the two main documents for setting the County's road policy, but there are two additional documents that the Board believes need to be reviewed as well during the process of overhauling the Road Code: DPWT's road design policies and its traffic operations policies. Certain elements of the DPWT's current design policies would need to be revised to comply with the proposed Road Code changes. The traffic operations policies may not be in conflict with the text of the Road Code, but a public review could help ensure that they are in line with the Council's efforts.

Both of these policies need to take a comprehensive approach to design and operation, ensuring that the needs of all users of the public right-of-way are considered and accommodated when transportation projects are implemented. We recommend therefore that these DPWT policies be submitted to the Council for review so that they can be considered in concert with the proposed bills during the Councils' work sessions.

#### Detailed Comments

1. **Applicability of the proposed road standards:** Section 49-32 references the applicability of the proposed roadway design standard table to "Urban" and "Other" areas. We recommend that an intermediate category of "Suburban" be added and that the boundaries be concurrent with the county's Priority Funding Area (PFA), excepting those areas in the PFA with residential zoning denser than R-40 and areas with commercial, industrial, or mixed-use zoning which should be designated as Urban. Areas outside the PFA should be designated as Other.

2. **Roadway design standard table:** Section 49-32 should include a column specifying a minimum pedestrian zone – the distance between the curb and the right-of-way line – since specifying only the sidewalk width could inadvertently reduce the overall usable pedestrian area. This pedestrian zone should be a minimum of 20 feet for Major Business District Streets and 15 feet for Business District Streets, major Highways and Arterials.

Consider setting a standard ten-foot lane width for Business District Streets and Major Business District Streets. The table should include a note stating that auxiliary turn lanes may be narrower than the standard.

Consider including transitway right-of-way widths in the table – 50 feet wide where integrated with the roadway right-of-way, 70 feet wide where on an independent alignment.

A standard width for shared use paths should be included in the table.

3. **Roadway Classifications:** In addition to the new classifications in the proposed bill, we recommend an additional classification – Major Business District Street – to replace those segments of Major Highways that pass through the areas designated as Urban; such a classification would reflect the need to accommodate both significant volumes of through-traffic and serve adjacent land uses. We also believe that the reclassification of Arterials to Business District Streets should be considered in these areas. The adoption of the proposed new classifications will require an Amendment to the Master Plan of Highways.
4. **Design speed:** We recommend that the State statutory speed limits be adopted as the County's design speeds as follows:
  - 30 mph on highways in Urban areas
  - 35 mph on divided highways in Suburban areas
  - 50 mph (maximum) on undivided highways in Other locations
  - 55 mph (maximum) on divided highways in Other locations

We do not recommend that a statutory design speed be set for Freeways in the County Code.

5. **Traffic calming:** We agree that it is desirable to permit the use of traffic calming design features on some roads that are bordered by residential uses but also carry through traffic. We caution though that additional guidelines may be needed to implement such a policy for Minor Arterials and that safety and traffic capacity will have to be balanced in determining which roads should be classified as such. Also, some of the specific dimensions in the proposed Code may need to be modified as a result of the Council's work sessions.



6. **Street trees:** The Code should require street trees to be planted on all roadways, either in their normal location between the curb and sidewalk for roads with a posted speed of 40 mph or less, or behind the sidewalk for other roads. The location of street trees should be shown on all applicable road standards, both on the roadside and the median.

An urban street tree standard is needed showing the special details and spacing that are required.

We believe that more discussion is needed on the details of what trees will be allowed in the roadway medians to ensure a proper balance between aesthetics and safety.

7. **ADA Best Practices:** Whether in the Road Code or as part of a published set of DPWT design policies, we believe that it should be County policy to adhere to ADA Best Practices as part of all roadway design and construction.
8. **Roadway resurfacing:** Roadway resurfacing projects should be classified as construction for the purposes of this section. Such projects should include all necessary retrofits to make the facility meet the intent of ADA Best Practices and well as restriping the roadway to create bikeable shoulders where possible.
9. **Bicycle-Pedestrian Priority Zones:** Consideration should be given to the establishment of Bicycle-Pedestrian Priority Zones, as allowed by the State's Access 2000 legislation, in Urban areas defined by the Council, to ensure that bicycle- and pedestrian-friendly environments are maintained on State highways as well as on the County's roads.
10. **Temporary sidewalk closures in Urban areas:** We recommend that sidewalk closures in conjunction with building construction and reconstruction in Urban area be limited to 15 days and that they only be allowed after the permittee has filed a Temporary Traffic Control Plan (TTCP), sealed by a professional engineer, stating that the conditions of Sec. 49-11(c) have been met. The TTCP must include a safe and reasonable pedestrian detour in accordance with the professional standard of care. We recommend that any closings permitted in excess of these limits be required to follow the requirements of Section 49-62. For sidewalk closures in Urban areas, the dates of closure should be included in the permit posted on site and a contact number for DPS should be provided to enable the public to report any public safety problems.

The Executive should publish annually a record of all sidewalk closure permits granted in Urban areas and record of fines levied for permit violations in the past year.



11. **Right-of-way closings and abandonments:** Section 49-62 should be amended to require the Executive to notify the Planning Department directly and to accept comments within 60 days after the receipt of the notice.

Include equestrian use as a public use covered by this section.

Consider requiring a public hearing for right-of-way closings of greater than 15 days in Urban areas.

Section 49-65(b) should be amended to clarify that a temporary right-of-way closing does not require the filing of a plat of subdivision.

Section 49-68(b) should be amended to require notification of the citizens associations in a ¼ mile radius as well as their abutting and confronting property owners of the subject property. In addition, we recommend that the petitioner be required to certify that there has been no public use of the right-of-way in question in the prior ten years.

12. **Right-of-way truncation:** The Planning Board should be allowed to require a lesser truncation than the 25 feet required in the Code as part of development approval to permit the best fit for the subject site.
13. **Street furnishings:** The Code needs to provide more description of the street furnishings that will be allowed in the public right-of-way in Urban areas and Suburban.
14. **Private uses of the public right-of-way:** Private uses of the right-of-way, such as for sidewalk cafes, should be addressed in Chapter 49, and a requirement for these uses to maintain a minimum ten-foot-wide clear area for public use should be included.
15. **Waivers:** All waiver criteria should be included in the Road Code. Waivers for design exceptions be formalized as part of any Project Prospectus. We also recommend that the Council consider requiring that the design exceptions be included in the Project Description Form (PDF).

Waiver criteria should include the details of what needs to be shown by the engineering and traffic investigation required by State Law to justify a variance from the statutory speed limits.

A provision should be made for a waiver of full width grading to include protection of wetlands, specimen trees, and other sensitive areas.

16. **Sidewalks:** As a condition of building permit for new buildings or a major additions, consider requiring sidewalk construction to current ADA standards, County roadway standards, and applicable streetscape standards, as applicable.

The requirement for sidewalk construction for lots with zoning requiring a minimum net area of 25,000 s.f. and less should be retained.

17. **Private roads in certain agricultural areas:** We recommend that the Road Code update include greater flexibility in the design of private roads in certain agricultural areas to minimize adverse environmental effects.

18. **Streetlights:** Since streetlights are a critical public safety item, the County should adopt the current AASHTO standards for street lighting as part of the Road Code update. The priority for implementation of this new policy would be the Urban areas designated by the Council, and the major roadways in the Suburban areas.

19. **Environmentally-friendly roadways:** The County's environmental goals should be reflected in the creation of alternative roadway standards, DPWT's design policies, and the use of alternative materials such as porous pavements where appropriate. Cross sections should allow for stormwater management to be incorporated into medians and linear roadside features for better infiltration and to reduce the area needed for ponds and underground storage facilities.

## INTRODUCTION AND CONTEXT

On December 12, 2006, the County Council introduced a bill to update Chapters 49 and 50 of the County Code. The update of the Road Code would be the first in many years. The changes proposed in the bill are the result of work by Council staff over the last three to four years, with input from Executive staff, Planning staff, and members of the Montgomery County Road Code Committee. Passage of the bill would make dramatic changes in the way County roads are designed and constructed. The aim of the bill's provisions is to make our roads more friendly to pedestrians, to bicyclists, and to the environment, and encouraging lower vehicular speeds.

While work on the proposed changes was begun a few years ago at the direction of Councilmember Nancy Floreen, the bill's submission comes with the arrival of a new County Executive and Council and with a concurrent direction to the Planning Board to rework other significant growth policy documents and a moratorium on the approval of large developments. Thus, there is the opportunity for these Council actions to be considered more holistically.

At the State level, there has been a change over the last few years in how the State Highway Administration (SHA) interacts with the public and designs its projects. In 1998, the Maryland Department of Transportation hosted its "Thinking Beyond the Pavement" conference, one of the country's seminal conferences on Context-Sensitive Design. The goal was to greatly increase the involvement of the public in the design



process and resulted in the creation of SHA's Neighborhood Conservation program, which produced projects such as the streetscape improvements on Metropolitan Avenue in Kensington and Strathmore Avenue in Garrett Park. While the program was very popular, it was cancelled by the Governor early in the Ehrlich Administration because the projects were so different from conventional SHA projects and were not seen as "real" transportation projects. Recently there have been more signs of life in the program and staff believes that it is likely to be resuscitated in the new Administration. Despite the cancellation of this program, SHA staff have continued to work diligently on making State highways more pedestrian- and bicycle-friendly.

Nationally the picture is becoming much brighter for a more neighborhood-friendly transportation system also. This year, a proposed recommended practice was released entitled, "Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities". This document was jointly sponsored by the Institute of Transportation Engineers (ITE) and the Congress for New Urbanism (CNU), two groups whose goals were until recently sometimes seen as being at odds with each other. ITE members will vote next year on the proposed practice once it is revised after considering the comments received. This document recommends a sweeping change in the way roads are designed, placing a far higher value on community goals than on traffic projections and level-of-service, and recommending lower operating speeds and narrower roads, very much in line with what the Council is considering. While this document has not yet received final approval, all of its recommendations are in accordance with AASHTO recommendations and with the Federal Highway Administration's policy on promoting flexibility in highway design. Staff notes however that close coordination will be required with the County's Fire and Rescue Service on the issue of narrower roadways.

The overview of the proposed Council bills is shown as Attachment 1. The full text of the bills is attached for Board members only. A public hearing on the bill will be scheduled for January 23, 2007. The Planning Board's comments will be transmitted to the Council for their consideration with other public testimony received at that hearing.

## **STAFF SUMMARY OF THE PROPOSED CHANGES**

### Streets and Roads – Comprehensive Revision Bill No. 48-06 (Chapter 49)

The Road Code changes would:

- Delete the current minimum requirements for each roadway classification and replace them with roadway widths and lane widths that are narrower than current practice, applying the tightest criteria in Metro Station Policy Areas, Town Center Policy Areas, and other areas as designated by the County Council.
- Set standard widths for bike lanes and sidewalks.
- Establish a fee in lieu of sidewalk construction under certain circumstances where sidewalks do not connect to other sidewalks, shared use paths, bus stops, schools, or other public facilities.

- Would require on-road bike accommodation to be provided only as recommended by a Master Plan.
- Add a requirement for curb radii that are smaller than current practice.
- Add two new roadway classifications – Minor Arterial and Parkway – as well as correct the current omission of Major Highway from the Road Code.
- Set roadway widths for the Country Arterial and Country Road classifications, for which there are no County Roadway Standards.
- Require the undergrounding of utilities in Metro Station Policy Areas, Town Center Policy Areas, and other areas as designated by the County Council.
- Require the consideration of traffic-calming and pedestrian-friendly design features on any Minor Arterial, Business District Street, Industrial Road, and any residential road over 1,000 feet long.
- Add a clause specifically permitting the closure of the sidewalk in conjunction with the construction or reconstruction of an adjacent building.
- Delete the responsibility of the County Executive to classify roads.
- Add a requirement for notification for public utilities that may have an interest in a right-of-way proposed to be abandoned, and add a statement that the Planning Board must presume that any recipient of notice of such a proposed abandonment who does not respond in 60 days does not oppose the proposal.
- Eliminate the subsection allowing the creation of interim Rustic Roads.
- Require the Executive to submit a revised set of roadway standards and specifications that are consistent with the Code four months after the changes are adopted.

#### Subdivision Regulations Amendment No. 06-04 (Chapter 50)

The Subdivision Ordinance changes would:

- Allow the Planning Board to require traffic-calming as a condition of subdivision approval.
- Delete the table on roadway design standards and defer to the Road Code on these standards.
- Allow the construction of roadway hammerheads as an alternative to cul-de-sacs.
- Delete the requirement for Urban areas that intersections on Major Highways and Arterials be spaced no closer than 600 feet.
- Prohibit the approval of new street names that are similar to existing street names.
- Allow the approval of a less-than-standard Tertiary street width if the resulting street would be more environmentally friendly and would enable the provision of MPDU's.
- Delete the requirement to provide sidewalks on both sides of tertiary streets.



## STAFF ANALYSIS

Staff strongly supports the proposed Road Code and Subdivision Ordinance revisions and believes that they will significantly change in the way the County builds roads and improve how they operate. A considerable amount of staff work has gone into the preparation of the proposed Code revisions, but staff believes that more work is still necessary to fine-tune it. The Council will be holding work session on the bill following the January 23, 2007 public hearing. *Staff believes that we need to be involved in the Council's work sessions to ensure that the Planning Board's guidance is incorporated as much as possible into the final bills.*

The proposed Code revisions would support the mixed-use communities recommended in recent Master Plans, creating more pedestrian-friendly roadway designs than current standards permit or encourage. Most of the proposed changes are directed at Chapter 49, the Road Code. Many fewer changes are directed at Chapter 50, the Subdivision Ordinance, with the goal only of providing a better coordination between the two chapters.

Note: The section numbers would be changed by the proposed bill. The section numbers noted below reference the **proposed** numbers.

### Applicability of the new road standards: Urban vs. Other

The proposed bill recommends that the elements of the roadway be selected according to the classification of each road but also according to where the road is located, whether it is in an "urban" area or "other". The bullet summary of the bill includes the definition of urban as "*all Metro Station Policy Areas, the Germantown Town Center Policy Area, and other similar urban areas identified in a later Council resolution (called 'urban' roads in the bill). Examples of other urban areas could include: Montgomery Hills, Olney Town Center, and Clarksburg Town Center.*" The bill's definition of Urban is focused on commercial areas, which staff believes does not capture many densely developed residential areas and transit routes that need to be made more pedestrian-friendly. There are several other definitions of urban that staff believes should be considered also.

- The ITE/CNU document includes a transect that shows various types of urban conditions and includes suburban as one type of an urban area. The density of suburban development is not defined in the document. The term "suburban" characterizes much of Montgomery County, and indeed just over half the country at this point, but how to treat the design of suburban major thoroughfares that has not been well-reflected in engineering guidelines to date. For the purposes of the ITE/CNU document, the suburban area was considered to have residential zoning roughly equivalent to R-40 or less.
- From a roadway design standpoint, AASHTO divides the world up into urban and rural. The AASHTO Green Book states, "Urban areas are those within boundaries



set by the responsible State and local officials having a population of 5,000 or more. Urban areas are further subdivided into urbanized areas (population of 50,000 and over) and small urban areas (population between 5,000 and 50,000).” These definitions conform to the US Code and the Census. The census information is used by SHA to delineate which segments of roadway are either urban or rural for their Federal Highway Functional Classification map.

- The County already has defined Urban Districts in Bethesda, Silver Spring, and Wheaton that extend beyond the boundaries of the CBD’s and Metro Station Policy Areas, as well as other special taxing districts. The Suburban District now defined in the Road Code encompasses these three urban districts but the description is proposed to be deleted as part of the update.
- Another source to consider in defining what the Urban area should be is the Priority Funding Area (PFA) for Montgomery County, which was created in response to Maryland’s Smart Growth legislation. That area is smaller than the urban area as defined by the census, but is far larger than the area proposed by the Council as Urban in the context of the proposed Road Code changes.
- The Maryland Vehicle Law has the following definition: *“Urban district” means an area that: (1) Adjoins and includes any street; and (2) Is built up with structures that are: (i) devoted to business, industry, or dwelling houses; and (ii) Situated at intervals of less than 100 feet, for a distance of at least a quarter of a mile.*” The County’s Zoning Code requires that lots in the R-200 zone have a minimum frontage at the building line of 100 feet, and most homes in the R-200 zone would meet the State’s spacing definition. In addition, County Code requires that sidewalks be built in connection with developments with R-200 or higher zoning. Staff notes that there is a very high correlation between the area zoned R-200 or higher and the Priority Funding Area.

Summary: Staff believes that the Urban areas noted in the Council bill may be adequate to define those areas where the highest level of pedestrian accommodation and priority is needed. We recommend though that the additional category of Suburban be retained in the Code to reflect the more frequent presence of pedestrians in the public right-of-way in these areas, and that this category be defined as areas in the PFA that are not otherwise identified as urban. Major thoroughfares that pass through such areas have different needs from similar roads in the Agricultural Reserve, particularly a much greater need to accommodate pedestrians. A Suburban category would serve as a transitional zone for roadways, as it does for land use. Land with residential zoning of a higher density than R-40 and all commercial, industrial, and mixed-use zoning within the PFA would be characterized as Urban. All land outside the PFA would be considered “Other”.



## Roadway Classifications

The Major Highway classification exists in the Subdivision Ordinance but has not been included in the Road Code. The proposed update would correct that omission.

Two new roadway classifications would be added, Parkway and Minor Arterial. As noted in the Council summary, only one road now being constructed would qualify as a Parkway – Montrose Parkway. And one additional road could be designed as such – the extension of Midcounty Highway north of Montgomery Village Avenue.

The Minor Arterial classification could apply to a number of existing roadways that generally pass through residential neighborhoods but carry significant volumes of through traffic. Examples would be Bel Pre Road (now classified as a Primary) and Dale Drive (now classified as an Arterial). To date, the struggle has been to choose between the Primary classification, which would respond to the adjacent land use, and the Arterial classification, which would respond to the road's traffic use. The proposed Minor Arterial classification would accommodate the traffic but would be eligible for traffic calming to ensure a slower, more neighborhood-friendly operating speed.

The way roads are classified would be changed from a system of exclusion that sorts roads by one classification at a time according to which criteria have been met, to one that describes the various classifications and leaves the actual classifications to the Master Plans. The ability of the Executive to classify roads, which has not been done in recent times, would be eliminated. But changing the system would result in one significant classification change, that of the Business District Street. The current system takes all the Business District Streets off the pile first by stating that any roads that adjoin commercially-zoned property are Business District Streets. The classification shown in many Master Plans therefore are at odds with the Road Code since most of the State highways in particular are classified as Major Highways even in CBD's, emphasizing the through-traffic function over the need to serve the adjacent land use. The need to provide for both uses are the reason behind the creation of the ITE/CNU document. *Staff believes therefore that another roadway classification is needed – a Major Business District Street – that combines both function but differentiates it from other Major Highways.* Examples of the roads that staff believes should be reclassified from Major Highways to Major Business District Streets are: Georgia Avenue and Colesville Road in Silver Spring; Wisconsin Avenue and East-West Highway in Bethesda; and Georgia Avenue, Veirs Mill Road, and University Boulevard in Wheaton.

While the Major Business District Street classification is needed to reflect high traffic volumes and the need for circulation and parking in the commercial area, the roads currently identified as Arterials in the CBD's do not have a similar conflict because the traffic volumes are much lower. Staff believes that the much more significant function of these roads is to serve the commercial area. *Where arterials are shown in the Master Plan of Highways in the areas to be designated as Urban, staff recommends that these roads should generally be reclassified as Business District Streets.* Examples of the roads that staff believes should be reclassified from Arterials to Business District Streets



are: Spring Street, Fenton Street, and Wayne Avenue Road in Silver Spring; Woodmont Avenue and Arlington Road in Bethesda; and Willard Avenue and Friendship Boulevard in Friendship Heights.

With these recommended changes, the deletion of the requirement that intersections on Major Highways and Arterials be spaced no closer than 600 feet for Urban areas would be unnecessary.

The Rustic Road Master Plan included conceptual typical sections for Country Arterial and Country Road classifications, to be used for existing roads that had been nominated for Rustic status but were found not to meet the necessary requirements. The intent was to preserve most of the characteristics of these roads, while not requiring the same review processes as for Rustic roads. Staff worked with DPWT for some time on creating roadway standards and policies for rehabilitating such roads, but we were unable to come to an agreement since DPWT's proposed guidelines would have required widening roads more than the classifications they were replacing, Arterial and Primary, respectively. The proposed roadway widths in the bill are at the midpoint of the pavement widths recommended in the Rustic Roads Master Plan, with the exception that bike lanes would be provided where they are recommended in a Master Plan. Staff is in agreement with these proposed roadway widths

The Rustic Road Master Plan also included a Country Lane classification that was intended to be used in the Agricultural Reserve in place of a standard Tertiary road. This classification has not been used since the 1997 adoption of the Master Plan and is not included in the Council bill. Staff believes that it may no longer be needed since the standard roadway typical sections would otherwise be narrowed. In addition, a greater use of private roads in the Ag Reserve would be enabled by the changes recommended below.

The Principal Secondary Road classification is used by only two roads currently – Burdette Road and a portion of Seven Locks Road in Bethesda-Chevy Chase. Staff believes that this classification should be eliminated as unnecessary and the roads reclassified as either Primary or Secondary in any update of the Master Plan of Highways that would be undertaken subsequent to the adoption of the proposed Code revisions.



## Roadway Design Standards

The proposed Road Code revisions specify in greater detail the size of the individual elements in the typical section for the right-of-way including the roadway, compared to the current Code which specifies only the minimum total width of the roadway alone. This approach allows roadways to be custom designed through the Master Plan using the kit of parts with minimum standards. In general, staff believes that better communities will result from this approach.

### Lane Widths

The proposed table in Section 49-32 would retain the now-standard twelve-foot-wide lane widths for the highest classification roads, but would reduce the lane widths for most roads to eleven feet, and would reduce them to 10.5 feet in Urban areas. These standards are in line with the ITE/CNU document guidelines. The table would need to be revised to accommodate staff's recommendation to add a Suburban category as outlined above, and the appropriate lane widths for this category would need to be determined in the Council's work sessions.

For the Urban category, with the change in classification of roads in commercial areas to Business District Street and Major Business District Street, staff recommends that the Council consider setting the standard lane width at feet. (The ITE/CNU guidelines recommend a range of 10-11 feet.) Such a change would reflect the existing lane widths on Major Highways in many of the areas that are proposed to be designated as Urban. A narrower lane width would promote lower operating speeds in these areas, and would provide more flexibility to provide better accommodation for other users, such as wider bike lanes or wider medians to accommodate pedestrian refuges.

Narrower lane widths have sometimes been associated with a greater frequency of sideswipe accidents, especially when truck volumes are higher, because maneuvering space is limited, but lower operating speeds reduce the severity of accidents. Balancing these safety objectives will have to be considered in determining what the appropriate lane width standard is.

### Sidewalks

While sidewalk widths are addressed, the width of landscape panels are not addressed, even though they are essential to the pedestrian-friendliness of an area. The difference in pedestrian comfort between a sidewalk that is separated from the roadway by an eight-foot-wide landscape panel and one that is adjacent to the curb is enormous. Staff believes that the table in Section 49-32 needs to contain a column specifying a minimum pedestrian zone – the distance between the curb and the right-of-way line. This pedestrian zone should be a minimum of 20 feet for Major Business District Streets and 15 feet for Business District Streets, Major Highways and Arterials. The minimum pedestrian zone would accommodate both the sidewalk and the landscape panel. Wider pedestrian zones are needed in Urban areas to accommodate greater numbers of pedestrians; they are also

needed along Major Highways and Arterials outside Urban areas to provide a greater separation from vehicles traveling at higher speeds.

The table in Section 49-32 includes a note that states that sidewalks are required on both sides of roads except on Secondary and Tertiary Roads, where the Planning Board may require sidewalks on only one side. The note is shown for both Urban and Other areas but staff believes that Urban areas should almost always have sidewalks on both sides.

Sidewalks are required to be built as a condition of subdivision. If a building or a major addition is constructed on an already existing lot however, no sidewalk construction is required. In many of these cases, either no sidewalk exists or it is not up to current ADA standards, County roadway standards, or an applicable streetscape standard. Staff recommends that the Council consider requiring such sidewalk construction as a condition of building permit.

Many changes in wording have been made throughout the document without an intent to greatly change the meaning. In Section 49-33(e), the meaning was unintentionally reversed. Staff recommends therefore that the requirement for sidewalk construction for lots with zoning requiring a minimum net area of 25,000 s.f. and less be retained.

#### Shared Use Paths

Standard sidewalk widths would be included in Section 49-32, but no width for shared use paths is included. The width currently shown in the County's Roadway Standards is eight feet. The AASHTO-preferred width for such paths is ten feet, with a minimum width of eight feet. Staff recommends that the width of shared use paths be included in the tables, but the ultimate decision on the width may vary by classification.

#### Bike Lanes

Bike lanes would be constructed only where they are specifically recommended in a Master Plan. Current DPWT practice is to provide bike lanes per the Master Plan, but also to provide wider shared curb lanes on-road if the Master Plan recommends only a shared use path. The Countywide Bikeways Functional Master Plan recommend dual bikeways in many locations, but DPWT's policy provides this accommodation regardless of what the Master Plan calls for. The proposed Code change would eliminate the non-recommended facility in favor of a narrower roadway, which is more beneficial environmentally. The legal right of bicyclists to use the roadways would be unaffected.



## Roadway Speed

### Design Speed

The ITE/CNU document recommends that target speeds be adopted for each type of roadway. The target speed is defined as the speed at which vehicles should operate on a thoroughfare in a specific context and is usually the posted speed limit. The tables also include a recommendation that the design speed be set at a maximum of 5 mph over the target speed. The higher design speed was the greatest source of disagreement between the ITE and CNU members working on the proposed recommended practice and has continued to be so after publication of the draft document. The latter believe that any increment over the target speed leads to speeding, a position that staff agrees with. While studies have shown that drivers often offset safety devices such as seat belts and airbags by driving more recklessly, there is still a net benefit to the driver but no easily measurable detriment to anyone else. But in the case of speed, higher operating speeds on roads lead to much higher fatality rates in pedestrian crashes. Higher design speeds enable higher operating speeds. Staff is not aware of any studies that have proven that design speeds higher than the posted speed result in better safety on any roads other than Interstates.

The selected speed needs to be appropriate for the area in question. Existing Maryland Vehicle Law correlates land use and posted speed. The Law has the following definitions:

*“Business district” means an area that adjoins and includes a highway where at least 50% of the frontage along the highway, for a distance of 300 feet, is occupied by buildings used for business.*

*“Residential district” means an area that: (1) Is not a business district; and (2) adjoins and includes a highway where the property along the highway, for a distance of 300 feet, is improved mainly with residences or residences and buildings used for business.*

Section 21-801.1(b) of the Law sets the following speed limits:

- 30 mph on highways in business districts and on undivided highways in residential districts
- 35 mph on divided highways in residential districts
- 50 mph on undivided highways in other locations
- 55 mph on divided highways in other locations
- 65 mph on Interstate highways

The business and residential districts described in the ITE/CNU guidelines conform fairly well to the MD Vehicle Law’s descriptions and the speed limits for these districts do as well. Variances from these speed limits are allowed by the Law however.

Section 21-803 of the Law allows local authorities to alter the above speed limits on the basis of an engineering and traffic investigation to a different limit that is reasonable and safe, upon approval of SHA. These limits are as follows:

- the limit at an intersection may be decreased
- the limit in an urban district may be decreased
- the limit in an urban district may be increased to not more than 50 mph
- the limit outside an urban district may be decreased to no less than 25 mph
- the limit in a school zone may be decreased during school hours to no less than 15 mph

Staff's observation is that the setting of speed limits across the county is not consistent, i.e. similar roads with comparable design speeds are posted differently. Many of these speed limits have been changed over a long period of time and the original reason for setting a speed limit different from what is specified in the law may have been forgotten. In addition, a posted speed may have been in existence for decades and while the road has not been upgraded, the roadside development may have changed. Thus, the posted speed may not be appropriate for the current conditions.

The proposed bill does not include a recommendation on design speeds but *staff recommends that the following State statutory speed limits be adopted as the County's design speeds for new roads and roads being reconstructed:*

- 30 mph on highways in urban areas
- 35 mph on divided highways in suburban areas
- 50 mph (maximum) on undivided highways in other locations
- 55 mph (maximum) on divided highways in other locations, except for Interstate highways

Some new roads do not conform to the statutory limits and do not appear to reflect appropriately the roadside development. For example, the block of Germantown Road (MD118) between Middlebrook Road and Wisteria Drive is posted at 40 mph, but the blocks on either side are posted at 50 mph. But the predominant land use in this area is commercial and as such the statutory limit for Germantown Road through the Town Center area would be 30 mph, unless altered under Sec. 21-803. Because most of the development in this case is oriented away from the road, a higher posted speed may be warranted, but the justification of the higher speed should be part of a documented design waiver to ensure that the needs of all users have been considered.

*Staff recommends that DPWT include in its waiver criteria the details of what needs to be shown by the engineering and traffic investigation to justify a variance from the statutory speed limits.*



As a follow-up to the final adoption of this bill, staff also recommends that DPWT should perform an analysis of the roads in Montgomery County whose existing posted speed limits exceed the statutory State limit for the appropriate classification and where closed-section roads are posted at 45 mph or above (see discussion about curbs and high speeds below).

### Traffic-Calming

Section 49-30 would require the consideration of a range of traffic-calming and pedestrian-friendly design features on any Minor Arterial, Business District Street, Industrial Road, and any residential road over 1,000 feet long. Staff agrees with the objective of this section but believes that particular care needs to be taken in its application to the new Minor Arterial classification. Also, the dimensions of traffic calming design features are described with such specificity in the proposed Code that the latter may need to be revised in the future as the designs are fine-tuned with experience.

The existing roads that would be candidates for this new classification would either be Arterials or Primaries at present. Staff believes that it is desirable to permit the installation of traffic calming devices on some roads that are bordered by residential uses but also carry though traffic. We believe though that additional guidelines will be needed to implement such a policy for Minor Arterials and that safety and traffic capacity of these candidates will have to be balanced in determining which roads should be classified as such. Sample possible candidates in the Silver Spring area would be Dale Drive (now classified as an Arterial), Franklin Avenue (now classified as a Primary), and Linden Lane (now classified partly as a Primary and partly as an Arterial). The most likely candidate in Bethesda is Leland Avenue, which is classified as an Arterial, but already has traffic-calming devices, the only Arterial to have such devices.

### ADA Best Practices

The requirements for implementation of the Americans with Disabilities Act have been very clear in regard to achieving accessible buildings, but less so in regard to achieving accessible rights-of way. Two U.S. court cases have clarified to some extent what should be provided. In *Kinney v. Yerusalim* (1993), the U.S. Circuit Court of Appeals for the Third District determined that handicap ramps were required to be constructed when an intersection was being resurfaced. In *Barden v. City of Sacramento* (2004), the U.S. Circuit Court of Appeals for the Ninth District determined that sidewalks were required to meet ADA standards when the adjacent street was being resurfaced. The settlement for the latter case provides that for up to 30 years, the City of Sacramento will allocate 20% of its annual Transportation Fund to make the City's pedestrian rights-of-way accessible to individuals with vision and/or mobility disabilities.



Draft Guidelines for Accessible Public Rights-of-Way have been in circulation for the last four years for comments and are expected to become law soon. These guidelines have already been accepted by the Federal Highway Administration as a best practice. Staff recommends that the Road Code be modified to state that the County's roads should meet ADA Best Practices, rather than the minimum that is required by law.

#### ADA Accommodation on Roadway Resurfacing Projects

The Road Code states that the Director of DPWT has the responsibility to classify a project as maintenance or construction. Staff recommends that the Code be amended to specify that resurfacing is considered to be construction and that ADA-compatible sidewalks and bike lanes or bikeable shoulders should be provided in conjunction with any resurfacing project. Staff does not recommend that curbs be moved as part of resurfacing projects in order to accommodate the standard bike lane, but we do recommend that handicap ramps and sidewalks be altered or constructed as part of these projects to ensure that all users of the right-of-way are accommodated in a timely manner. Staff notes also that utility poles may need to be moved on some roadways in order to meet ADA's Best Practices. The additional cost in retrofitting our existing roadways to meet the needs of all users would therefore require additional funding for the transportation program, or new projects would have to be started at a later date.

#### Bicycle/Pedestrian Priority Zones

The State Legislature enacted the Access 2000 law in 1995, with the intent of improving access to rail stations. SHA subsequently responded by undertaking a study of the pedestrian and bicycle improvements that were needed. (This aspect is further discussed elsewhere in this memorandum.) The law also allowed the creation of Bicycle/Pedestrian Priority Zones where the needs of bicyclists and pedestrians would be given strong priority over the needs of drivers. Staff created an internal draft of where such zone could be created in the county but was dissuaded from pursuing this because of SHA concerns about the ability to make any roadway improvements in these areas.

Given that the Planning Board is now permitted not to require roadway improvements in CBD's and Metro station areas where pedestrians would be adversely affected by such improvements, and given the proposed Road Code update that would specify Urban areas where more stringent road standards would apply in an effort to make them more pedestrian-friendly, it may be time to return to this discussion and codify such zones in the law. The establishment of Bicycle/Pedestrian Priority Zones should be coordinated with existing policy decisions such as the bike-friendly areas designated in the Bethesda CBD Sector Plan and the need for better links to activity centers identified in the Countywide Bikeways Functional Master Plan. Such a move would ensure that a more pedestrian- and bicyclist-friendly environment is maintained both on County and on State highway projects.



## Streetlights

Streetlights are not addressed in Chapter 49, but they are a critical public safety item however and a provision for streetlights needs to be included in the Road Code for Urban and Suburban areas. Staff believes that the priority for implementation of this new policy would be the Urban areas designated by the Council, and the major roadways in the Suburban areas, as these areas have the greatest number of pedestrians, bicyclists, and transit patrons.

Streetlights are required in new subdivisions per Section 50-24(j) of the Subdivision Ordinance. If the AASHTO standards are adopted as part of Chapter 49, all new subdivisions would be required to install streetlights per these standards. Upgrades of the lighting on existing roads to the new standards in connection with proposed developments or redevelopments should also be covered by this change.

## Street Trees

One of the long-running disagreements between our staff and DPWT staff has been the issue of street trees in the right-of-way. DPWT's position about eight years ago when we had a series of meetings on the topic was that street trees would be allowed only on residential streets and in CBD's; trees and street lights on other streets would have to be behind the sidewalk. Their concern was based on the County's history of severe crashes with fixed objects, including large trees. Many of these crashes involved vehicles traveling over the posted speed limit. Designing a more forgiving roadside for such vehicles requires using a higher design speed, placing street trees, street lights, etc. farther from the roadway. The concern on the part of some Planning staff was not only that the streetscape of most of the county's roads would be diminished, but also that the wider clear zone might encourage even higher speeds, although this is difficult to prove empirically.

With no resolution, DPWT decided to adopt a policy that would permit street trees between the sidewalk and curb only on streets that are posted at 35 mph or less. Subsequent to the adoption of that policy, the anticipated posted speed of Stringtown Road Extended, then in design, DPWT changed from 40 mph to 35 mph to incorporate street trees into the project, adjacent to the proposed transit station.

Staff believed that using a 35 mph speed limit as the cutoff point for street trees would eliminate the possibility of street trees on many county roads. By comparison, SHA does not object to planting street trees on closed-section roads with higher posted speeds. To provide more technical backup for our position, the Planning Department hired a consultant to do a study of similar roads in the Montgomery County, the District of Columbia, Fairfax County and Alexandria, Virginia. Their analysis showed that speed only began to become associated with a higher crash rate when the posted speeds were 45 mph and above.

Coincidentally, 45 mph is also the maximum operating speed at which vertical-face curbs are supposed to be used (per AASHTO) since they tend to become a hazard to drivers above that speed. Drivers hitting a curb at a high rate of speed may go airborne as they leave the roadway. Closed-section roads must operate at lower speeds in order to be safe and there is not a significant safety hazard associated with street trees when vehicles operate at these speeds.

***Staff recommends that the Road Code require street trees to be planted between the sidewalk and curb on roads with posted speeds of 40 mph or less when the roads are being constructed or reconstructed.*** As with any standard, there may be cases where street trees would be undesirable on such a road, but these rare cases can be addressed by the waiver process.

It is often desirable to have a closer spacing of street trees in urban areas, although such trees require greater preparation in planting and care afterwards. A new urban street tree standard is needed to show how these trees should be planted, ensuring that they have adequate soil volume to support their growth and long-term viability, and what the desired spacing is.

In median areas, staff has some concern about the proposed street tree caliper restrictions. Safety and sight distances are critical considerations in placing trees within medians. Smaller ornamental trees are proposed because they have narrower trunks that would be less of a hazard if vehicles leave the roadway, which is a legitimate concern. However, these trees usually restrict sight distance more than taller growing, shade trees with larger calipers. Staff believes that these concerns can be resolved in the Council's work sessions.

#### Street Furnishings

Staff believes that the Code needs to provide more description of the elements that would be required or allowed in Urban areas, such as curbside parking, crosswalks, pedestrian lighting, street trees with tighter spacing, bus shelters, special pavement, etc.

#### Private Uses of the Public Right-of-Way

Staff believes that language should be added to Chapter 49 that addresses permitted private uses of the right-of-way, such as for sidewalk cafes, including a requirement that a minimum of 10 feet pedestrian space be maintained.

#### Pedestrian Accommodation During Construction

Section 49-11 addresses permits to obstruct the right-of-way. To date, the intent of the County Code provisions requiring that pedestrians be safely accommodated has been poorly met. Sidewalks have been closed for the construction of adjacent buildings on a regular basis and pedestrians directed to use the opposite side of the street for months or years at a time. Part of the problem is that the Code does not *directly* address building



construction. It allows sidewalk closures of up to 15 days for utility work and six months for sidewalk construction, but requires that a safe alternate walkway be provided on the same side of the street for these operations for longer closures.

The proposed bill would add a clause specifically permitting the closure of the sidewalk in conjunction with the construction or reconstruction of an adjacent building, clearly bringing such sidewalk closures within the scope of the section. It would also widen the scope of the stricter requirements beyond Central Business Districts to include Metro Station Policy Areas, Town Center Policy Areas, and other areas expressly identified by a Council resolution – essentially the area to be determined by the Council to be Urban. While a 15-day time limit on such closures is stated in the summary shown as Attachment 1, this wording does not appear in the proposed bill. Staff agrees that such closures should be limited to 15 days. We recommend that they only be allowed after the permittee has filed a Temporary Traffic Control Plan (TTCP), sealed by a professional engineer, stating that the conditions of Sec. 49-11(c) have been met. The TTCP must include a safe and reasonable pedestrian detour in accordance with the professional standard of care.

Because of the problems that have occurred in the Silver Spring CBD and the apparent lack of any enforcement activity on DPS's part staff believes that the Executive should publish annually a record of all sidewalk closure permits granted in Urban areas and record of fines levied for permit violations in the past year. This would provide some measure of oversight for how the requirements of the Code are being adhered to.

#### Right-of-Way Truncation

The Subdivision Ordinance currently requires 25 feet at intersection corners as part of development approval to accommodate the greater needs at intersections – providing sufficient sight distance, accommodating utility poles and traffic signal poles, and other roadway elements. The Planning Board is permitted to require a greater truncation but is not currently allowed to permit a lesser truncation. Lesser truncations have been accepted in the past however to fit particular site constraints, and have often not been required in CBD's and other high-density areas so that the development potential can be realized.

Staff is not aware that there have been any problems with these lesser truncations. The sight distance needs are often less in CBD's because speeds are low and intersections are often controlled by stop signs or traffic signals. Roadside elements such as poles can be more carefully placed and if necessary the ground-level space can be provided in a public improvement easement while development occurs on higher levels. Staff recommends that the Code be amended to permit the Planning Board to require a right-of-way truncation that is less than the standard.



## Roadway Abandonments

Section 49-62(a) would be amended to include use by pedestrians and bicyclists as a public use. While this may seem like common sense, it is actually intended to reverse previous case law that determined that pedestrian and bicyclist use was not public use. Staff recommends that this section also be amended to include use by equestrians as a public use as obstruction of equestrian paths have been a problem in at least two cases in the last few years.

Section 49-62(a) requires that a public hearing be held for sidewalk closures that result from a Council resolution. The proposed change would eliminate this requirement for a public hearing for any public right-of-way closure of less than six months. Even with this relaxation, the Council would be required to hold a public hearing for a sidewalk closure of six months while DPS has permitted closures for a year or two with no public hearing. Staff believes that the processes for sidewalk closures under Sections 49-11 and 49-62 should be the same, but that the closures of rights-of-way in Urban areas, as defined by the Council, should be limited to 15 days without a public hearing.

Section 49-62(g) currently requires that the Planning Department, as one of several interested agencies, respond to a request for abandonment within 60 days of the application being filed, no matter when we are actually informed of the application. The proposed rewording would change this requirement to 60 days "after notice is first published under subsection (e)". ***Staff recommends that Section 49-62 be amended to require the Executive to notify the Department directly and to accept comments within 60 days after the receipt of the notice.*** Such a requirement would be put this section in line with Article 28's requirement for Mandatory Referrals that the Commission must act within 60 days of an official submission.

Section 49-65(b) covers all right-of-way closings and abandonments but should be amended to clarify that a temporary right-of-way closing does not require the filing of a plat of subdivision.

Section 49-68 permits the Planning Board to approve the abandonment of rights-of-way that have not been used by the public. Section 49-68(b) would be modified to add a requirement for notification for public utilities that may have an interest in the right-of-way. It would also add a statement that the Planning Board must presume that any recipient of notice under 49-68(b) who does not respond in 60 days does not oppose the proposal.

In a couple of cases in the past few years, applicants have misrepresented the use of the right-of-way by pedestrians and the opinions of their surrounding neighbors. Staff recommends that Section 49-68(b) be amended to require notification of the citizens associations in a ¼ mile radius as well as their abutting and confronting property owners. In addition, staff recommends that the petitioner be required to certify that there has been no public use of the right-of-way in question in the prior ten years.



## Waivers

Waivers from design standards and the Code will often be needed since these documents cannot address the particulars of every location. But where waivers are required, they should be done knowingly and should be open to public scrutiny. Whereas SHA has a well-documented process for tracking waivers, staff is not aware of a similar process at DPWT. On a recent facility planning study, the recommended typical section did not match any County roadway standard and the Roadway Standards were not part of the list of reference documents for the project.

Staff recommends that all waivers for design exceptions be formalized as part of any Project Prospectus. Staff also recommends that the Council consider requiring that the design exceptions be included in the Project Description Form (PDF).

This section should include a waiver of full width grading to include protection of wetlands, specimen trees, and other sensitive areas.

## Achieving Roadway Designs that are More Environmentally-Friendly

Roadways are used as conveyance systems for stormwater management with curb and gutters or swale systems within the right-of-way. Staff recommends that the County promote roadway designs that are environmentally friendly. While this goal could be addressed in a general way in the text of Chapter 49, the details would most likely be included in the update of the Roadway Standards and/or an update of DPWT's design policies. Changes might include actions such as:

- The elimination of sidewalks on one side of low-volume Tertiary residential streets combined with a road design that sheds the water to a ditch on the opposite side.
- Tailored design of drainage ditches in some areas in place of using a standard that may be oversized.
- The use of porous pavements where appropriate.

## Private Roads in the Ag Reserve

In 1999, the Planning Board approved a set of standards drafted by staff for private roads in certain agricultural zones. While there has been some misinterpretation in the past, the Code currently requires most private roads to meet the standards of public roads, with the exception of the actual pavement structure itself, which needs only to meet the standards of a Tertiary Residential Road. The proposed standards for private roads would have provided greater flexibility, allowing longer dead-end roads, steeper grades, narrower roadway curves, and a gravel surface to minimize the effect on the environment in certain agricultural zones. No action was taken by the Council on these standards because of a concurrent dispute concerning septic treatment in these areas. Staff recommends that these standards be adopted in some form as part of the Road Code update.

## **SUMMARY**

This effort by the Council to revamp the County's Road Code and Standards is part of the vanguard of a nationwide shift away from more than a half-century of our transportation system's, and the engineering profession's, predominant focus on moving cars, with little acknowledgement of the areas they were moving through or of other users of the public right-of-way. Guidelines and standards that were developed and refined for State highways, and particularly for Interstates, were misapplied to local business and, to some extent, residential streets. While these standards allowed lower design speeds and other criteria to be used, the clear objective and higher good was thought to be faster and wider roads.

The pendulum is now swinging back the other way. There is a recognition on the part of the Federal Government and many engineers that roads serve multiple uses and users and that all have to be accommodated. Staff believes that the proposed bills move us a long way toward where we need to be.

LC:ba