Introduction

The purpose of the meeting was to provide an overview of the key changes to Chapter 2, Street Design. A copy was provided to members of the CSIT in advance of the meeting, and comments are expected after members have a chance to review the document.
Jeff Riegner welcomed all attendees and reviewed the agenda. Jeff led the group through the materials attached to these minutes.

**Chapter 2 (street design)**

Jeff noted that the Chapter 2 outline that was provided to the CSIT has not changed. Changes are specified in the attached meeting materials. Questions and comments from members of the CSIT on proposed changes are included in these minutes.

Section 2.1 provides a new introduction that sets the tone for the rest of the chapter, including a new multimodal approach to street design. It reflects established best practice, relying heavily on the AASHTO Green Book as well as supplemental guidance from other established publications. There are two significant changes. One is the use of target speed instead of design speed. Target speed is the desired speed people should travel on a roadway, which is a fundamental tenet of Complete Streets. The second is the use of both a design vehicle and a control vehicle. A design vehicle is the largest vehicle that makes a particular turn or movement on a regular basis, as opposed to a control vehicle which only makes the turn occasionally. For example, it is important that a moving truck can navigate a neighborhood occasionally, but the street should be designed to accommodate smaller vehicles that travel the street on a day-to-day basis. Section 2.1 also includes a revised statement on Maintenance of Traffic (MOT), although specific provisions are provided in Chapter 5 (multimodal traffic studies).

Section 2.2 includes an overview of typical section elements, including references to the new street types as well as the range of typical section elements including sidewalks, shared use paths, bicycle facilities, roadways, and traffic calming elements. The sidewalk section in the current manual is brief. The revised text includes information on the placement of sidewalks, cross slope, surface, and width. It also cross-references the recently updated sidewalk expansion policy. The shared use path section is new. The County relies extensively on paths to accommodate walking and bicycling. This section includes information on accessibility requirements as well as details on the cross section requirements. The section on bicycle facilities includes a page for each type of facility, as well as details about the appropriate type of facility depending on the street characteristics and guidance on transitions along bicycle facilities.

Section 2.3 provides details on geometric design and is focused more on roadways. There are various edits for compliance with the Complete Streets policy but also to reflect the newest version of the AASHTO Green Book.

Section 2.4 provides content on intersection design. Intersections are the most dangerous part of the transportation network. In the current manual there is a chart that shows standard minimum curb radii for turning movements, however current best practice requires the designer to look at the specific need for a design or control vehicle and use turning templates to determine what those radii should be. It is no longer best practice to provide a given radius across the board. The section on auxiliary lanes and left/right turn lanes has been revised to reflect current best practice. Auxiliary acceleration lanes are not recommended.

Larry asked if an auxiliary acceleration lane is the same as a slip lane. Jeff replied that an acceleration lane is provided after a right turn is made in order to provide space in the shoulder to accelerate before merging into traffic; it is located at the end of a slip lane. Acceleration lanes encourage higher speeds through the turn. Removing acceleration lanes requires people to make the turn more slowly.

Section 2.4 also provides guidance on channelized right turn lanes, also known as slip lanes, especially how to make them safer for pedestrians. If right turning movements are below a certain volume a slip lane should not be provided at all. There is no established guidance, and the provision of slip lanes should be determined based on the volume of through vehicles and the volume of people crossing the street. Edits are intended to provide the Designer guidance so they can make an educated decision. Information about daylighting intersections, or spacing parked vehicles and other objects further back from an adjacent crosswalk is also provided.
A new section about roundabouts and alternative intersection types is provided. Information on pedestrian design elements at intersections includes details on crosswalks, curb ramps, unmarked crosswalks, and signalized intersections. This manual does not establish a mandate to proactively make changes to bring everything into compliance at one time. For example, the County does not need to retrofit every single signalized intersection in the county. However, when a signalized intersection is modified new guidance would be in effect. Chris Eatough noted this guidance would also apply if an existing intersection is being signalized for the first time.

David Nitkin asked whether the Design Manual will specify the type of signal or the length of time needed to cross the intersection. He noted he is interested in advocating for strong signal requirements. Jeff noted that a signalized intersection typically includes a red/yellow/green traffic signal. The signalized intersection guidance requires that intersections with traffic signals installed or modified would require crosswalks with pedestrian signals at all legs of the intersection. Larry noted that additional things can be done to improve safety at an intersection, such as a leading pedestrian interval which gives a green walk sign for pedestrians before cars are allowed to proceed. Jeff clarified that the section does provide specific information about signal timing and phasing, including guidance about leading pedestrian intervals, during which pedestrians get a walk signal three to seven seconds before parallel motor vehicles that may be turning across the crosswalk get the green. This allows pedestrians to be much more visible to turning drivers providing significant safety benefits. The section also includes guidance about an exclusive pedestrian phase, although appropriate locations for that treatment are likely to be uncommon in Howard County. During an exclusive pedestrian phase, all traffic is stopped, and people can cross the street in any direction they choose. There are a few examples of this intersection type in Washington D.C.

Christiana observed that these features are presented as option but there is not as much guidance provided as to when they are used. She asked whether a leading pedestrian interval is being required at all intersections, and noted that some Downtown Columbia intersections may work well with an exclusive pedestrian phase. Jeff replied that specific criteria is not provided in national guidance, and provision of these elements depends on site specific circumstances such as the volumes of people walking and the volume of cars.

Christiana asked if there is harm in having the leading pedestrian interval in most places. Jenn Biddle replied that there are only so many seconds in the signal phase at a given intersection. An extra three to five seconds can impact that timing significantly, and also makes drivers impatient. The County prefers to evaluate intersections on a case by case basis. Chris observed that drivers who are not able to turn during the three to five seconds during a leading pedestrian interval should not advance through the intersection regardless because there is a pedestrian present. Aggressive drivers force pedestrians to wait and not take advantage of their phase.

Jeff noted the section also provides guidance for pedestrian recall, which is when the pedestrian signal comes up on every cycle and pushbuttons are not needed. If an intersection is already timed with sufficient time in the phase for a pedestrian to cross there is no negative effect to having pedestrian recall. In some situations, such as when a small side street crosses a large main street, the timing for the side street traffic signal could be shorter than the time it would take a pedestrian to cross the street during the pedestrian phase, making pedestrian recall in that location waste full. In those circumstances, having a pedestrian push button for lower volumes of pedestrians may be a good idea. The same is true of right turn on red restrictions. Sometimes allowing right turn on red conflicts with people crossing the street, providing greater convenience to people driving than people walking. It is preferred to prohibit right turns on red, especially where there are significant pedestrian volumes.

Chris commented the County has pedestrian recall at some intersections now, and asked the Department of Public Works (DPW) whether there is a policy used to determine when pedestrian recall is used. Kris Jagarapu replied that establishing pedestrian recall is about the expectation of the users. If there is a high demand from pedestrians it makes sense. If there is not a pedestrian present at every cycle it can hold up the flow of traffic unnecessarily. Pedestrian recall is currently deployed in areas where there is significant pedestrian demand. There are not many intersections in the County that currently meet those thresholds. If a pedestrian crosses the street without looking for conflicts that would also present a problem. It is not appropriate to have a right turn on red restriction everywhere. He noted additional guidance would be helpful to County staff.
Christiana shared she used to be a more impatient driver, especially in locations where right on red is prohibited. Now that she understands why a right on red prohibition is better for people walking, she is more patient. It may be necessary to update driver’s education requirements to better explain why some of these changes are being included. It is important to change the culture of driver entitlement and change the norms to reflect what makes the road safer for everyone. Larry observed that the new shared use path on Twin Rivers Road is causing drivers to change their behavior since they are anticipating cyclists will be there, reflecting an upside to getting more facilities implemented.

Jeff continued, sharing information on geometric design treatments at signalized intersections such as curb extensions and centerline hardening, which prevents drivers from cutting the inside of the intersection at a high rate of speed. Design guidance on each type of bicycle facility at intersections is provided directly from the FHWA Bikeway Selection Guide, with a focus on bicyclist comfort and safety. The section also references the MDOT MTA Bus Stop Design Guide.

Jessica Bellah asked whether references are phrased to note the latest version, or whether the Design Manual will have to be revised after Howard County approves newer documents. Jeff replied that generally the reference is to the latest version. Kris asked if there are any conflicts between the Bus Stop Design Guide and revisions to the Design Manual. Jeff replied that he would confirm there were no conflicts. Larry noted that at an earlier meeting there was a level of comfort expressed with AASHTO, but not the latest edition for other documents. Leah noted that at a previous meeting John Seefried expressed comfort with the AASHTO Bikeway Design Guide, but asked that other guidance be considered on a case by case basis.

John Seefried agreed with what was said about different versions of references. He noted that many manuals will be updated with guidance about electrical vehicles, and it is important that the County reviews the changes before adopting new editions cart blanche. Chris commented that it would be helpful if the County implemented a process for reviewing new manual editions and recommended a regular update of Design Manual references after that review. John agreed.

Section 2.5 provides information on driveways and includes various edits for compliance with the Complete Streets policy, including a new section for sidewalks and shared use paths that cross driveways and pavement markings.

Larry asked whether the bicycle signal head is included in the current draft. Jeff replied it was not, and asked Larry to provide feedback on where guidance on bicycle signal heads should be provided, both in the Design Manual and on the road. Larry replied he would do the same for bike dots. Jeff replied that bike dots are not compliant with the MUTCD. Larry noted that other municipalities use them without risking their federal funding.

Section 2.6 deals with parking requirements, which now includes a reference to bicycle parking guidelines.

Section 2.7 street lighting does not have any substantive changes.

Section 2.8 concerns detailed design elements and consolidates a number of sections, including guidance on mailbox placement as previously discussed.

Section 2.9 and the appendix are still being compiled.

Jeff noted that there is currently a voting process on the addition of speed humps and asked if there is a written policy to include as an appendix. Larry asked whether that is a process for determining the type of traffic calming or whether or not it is installed. Kris replied the policy deals with whether or not speed humps are installed, clarifying that the only type of traffic calming the County currently installs is speed humps. He noted that the County is a neutral party regarding speed humps. The community goes through a process and if two thirds are in favor the speed humps are installed at the County’s cost.

Larry asked how DPW defines community with regards to speed humps. Kris replied owners of properties who are forced to travel over the speed hump are allowed to vote. If a resident can exit the community and avoid the speed
hump they are not allowed to vote. It is a community driven process, not County driven. Larry asked whether it is possible for a through user to weigh in on the process. Kris replied that a through user could provide comments, but they are not given a vote. Larry replied that policy may need to be updated in a similar fashion to the sidewalk policy, since traffic calming devices benefit all users not just adjacent properties. Kris shared the process was formalized in 1999 and considers speed humps an enhancement. If there is a safety concern that needs to be addressed the process would not be used.

Christiana agreed that the policy could be updated. She noted that she receives a lot of feedback from the community about not feeling safe crossing a road or walking to school. When the County assesses the area and the thresholds are not met to establish a safety concern, that assessment does not reflect people’s perception of safety. She noted the County Executive recently commented it is not just about people being safe, it is about making sure they feel safe on a personal level. All road users should feel safe, which is reiterated in the Complete Streets policy. Jeff added that the new acting administrator of the FHWA says that complete streets are safe and feel safe.

Kris replied that DPW also receives public requests frequently. Sometimes they are because someone’s neighbor speeds all the time. Another frequent issue is that through traffic is using a neighborhood as a shortcut. There are communities where speed humps cannot get approved through the voting process. When the policy was adopted it was consistent with other jurisdictions in the state. If it is necessary to tweak the numbers DPW can explore that. Chris noted that it is also important to review the types of traffic calming that the County is open to. Although this discussion has been about speed humps there are other methods in modern Complete Streets design. It would be useful to have other options available. Kris replied that there are examples of all of the traffic calming treatments in Howard County, including mini-roundabouts, one lane narrowing, and chicanes. There are also instances of chicanes being pulled out after they were built because they were causing other problems. Every geometric improvement does not require a voting process, but speed humps do because they have the most significant impact on driving.

Chris asked how DPW decides whether speeding in a given area is a safety concern. Kris replied that if concerns are related to an intersection sight distance issue or operations along a roadway where there is a noted safety concern the County would consider multiple traffic calming options. Even when considering roundabouts or mini-roundabouts the County tries to get input and approval from the community although there is not a formal voting process.

Jessica noted that all of the traffic calming devices listed are high cost features with a long term commitment. There is not any information on temporary or community driven installations that are pilot projects, such as flower pots to decrease road width, or allowing the community to paint the street. She noted that it is important to reclaim space to decrease driver entitlement.

Jeff replied that from a design perspective there is a lot of value to testing a traffic calming measure with temporary movable materials so the Designer can assess whether it is installed in the right location or it needs to be adjusted. Christiana noted that there were cones on Snowden River Parkway the other day that calmed traffic. Temporary installations can change behavior and driver awareness. Chris replied that draft language could be included to include temporary measures as an option. The County has already done pilots on a number of projects. Kris added the County gets a lot of requests for community driven changes. The County’s concern is that things are maintained. For example, if a community wants to beautify the central island of a traffic circle and the County gives them installation to install plantings, the County does not have the resources to maintain them.

Jeff asked if that was a budget issue. Kris replied it is an issue with budget and staff. He asked if there is some kind of art on a roadway what does that convey to someone? If there is a large flowerpot that someone hits, that it is a liability concern for the County. Trying things out on a smaller low speed roadway could work. For example, flower pots could be used to close dead end roadways instead of jersey barriers. Jessica expressed concern that by not explicitly addressing temporary pilot projects or installations in the Design Manual, people may think they are prohibited.

Christiana asked whether traffic calming installations would be funded by bonds or PAYGO. Kris replied that most things would be a PAYGO effort because they would not require a large capital investment. If the improvement lasts
more than 20 years it could be done with bond funding. Christiana asked whether small projects could be bundled into a larger one. Kris replied that is possible, and that some maintenance projects also seek capital funds.

Jessica asked whether pavement markings are included in Chapter 2. Jeff replied that markings are covered in both Chapter 2 and Chapter 5 (multimodal transportation studies).

Kris asked if there was any discussion of design speed and target speed at the start of the meeting. Jeff replied that there was no discussion, although it was presented. Kris asked whether target speed is posted as the speed limit along a roadway. Jeff replied that that is not specified by the Design Manual in the current draft. Some jurisdictions sign target speed as a matter of course. Christiana commented that in theory, the road should be designed such that people travel the posted speed limit. Kris replied that typically the design speed would be slightly higher than the posted speed limit to give some tolerance. Some design manuals use both target speed and design speed. He noted it is important that the Designer is provided with guidance and an expectation of how the speed will be posted.

**Next Steps**

Jeff acknowledged that the project team is anticipating a lot of comments on Chapter 2, which is an important and long chapter. It is critical that the CSIT has ample time to review information and provide comments, but an updated draft needs to be completed by September 1. The original schedule called for comments by Monday, August 16. The project team is working to shift staff review from Wednesday, August 18 to Friday, August 20 or Monday, August 23, which will allow CSIT members a few more days to submit comments on Chapter 2. If the deadline for comments changes, CSIT members will be notified by email. [Note: After the meeting, the Chapter 2 comment deadline was extended to August 18 and the staff review was shifted to August 20.]

Action items from this meeting include:

- Send any comments on chapters 1, 3, 4, and 5 by Monday, August 9
- Review Chapter 2 of the Design Manual by Monday, August 16 [subsequently extended to August 18]

The next CSIT meeting is scheduled for Wednesday, September 1 at 3:00 pm.

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Leah Kacanda, AICP