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Meeting Description: Complete Streets Implementation Team Meeting #13

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Introduction

The purpose of the meeting was to provide members of the Complete Streets Implementation Team (CSIT) an introduction to cross section elements, an update on Design Manual revisions with a focus on additional comments received on Chapter 1, and an introduction to two street typology "case studies."

Jeff Riegner welcomed all attendees and reviewed the agenda.

Members of the CSIT were provided a copy of the draft minutes from the December 2 meeting in advance. Christiana Rigby made a motion to approve the minutes and Chris Eatough seconded the motion. The CSIT members unanimously approved the minutes.

Jeff and Leah Kacanda led the group through the presentation attached to these minutes.

Introduction to Cross Section Elements

Jeff noted that a previous iteration of the CSIT participated in discussions about street cross section elements, but newer members of the CSIT may not be as familiar. Cross section elements form the building blocks of a proposed street typology and provide needed context for evaluating proposed street typologies and case studies. Although intersections are also critical, cross section elements are the foundation of how streets are designed for all modes of travel. All proposed cross sections will be based on national best practice, and recommendations will be subject to discussion before they are finalized.

Jeff explained that the goal is to reach consensus on the widths of cross section elements or determine the areas where disagreements exist. He noted ample time will be allocated for discussion and showed a typical street section highlighting the types of elements to be discussed including the travel lane, median or turn lane, bike lane, parking lane, tree/utility zone, and sidewalk.

Travel lanes

Jeff began with the travel lane, which makes up the majority of the width of the street and carries more travelers than any other element of the street. He noted the American Association of State Highway and Transportation Officials (AASHTO) *Green Book* highlights the benefits of narrower travel lanes on lower-speed urban streets. Benefits include a reduction in pedestrian crossing distance, the ability to provide more lanes in constrained rights of way, lower construction cost, and reduced requirements for stormwater. Jeff noted that the recommended travel lane widths are consistent with AASHTO guidance provided by the *Green Book*, the *Guide for Development of Bicycle Facilities*, and *A Guide for Achieving Flexibility in Highway Design.*

Jeff explained that there are two elements that govern lane width with respect to motor vehicle travel: the capacity of the roadway, or how many vehicles can travel through, and safety. The primary guiding document regarding roadway capacity is the *Highway Capacity Manual* published by the Transportation Research Board (TRB), which shows no capacity difference among 10-, 11-, and 12-foot lanes. The AASHTO *Highway Safety Manual* and other research shows no safety difference among 10-, 11-, and 12-foot lanes at speeds of less than 45 mph. Based on this guidance, the Institute of Transportation Engineers (ITE) *Traffic Engineering Handbook* states that "on urban streets, 10 feet should be the default width for general-purpose lanes at speeds of 45 mph or less." While 10 feet is suggested as the default, it is not mandatory, which suggests that wider lanes should be considered in certain circumstances. Some potential reasons to consider 11-foot lanes rather than 10-foot lanes on streets with speeds of 45 mph or less include high truck volumes, frequent bus service, tight curves, and snow plowing concerns.

Jeff then shared some proposed travel lane widths as follows:

- Mixed-use areas: 10 feet for all street types. In mixed-use areas there is likely to be high pedestrian demand and lower speeds.
- Higher-density residential areas: 11 feet for arterials, 10 feet for major and minor collectors and local streets.
- Commercial, lower-density residential, and rural areas: 11 feet for arterials, 10 feet for major and minor collectors, and 24 feet of total pavement width for local streets (two-way traffic plus parking)
- Industrial areas: 11 feet for all street types to accommodate higher volumes of trucks

Jeff clarified that lane widths include gutter pans where applicable.

Larry Schoen asked for some examples of typical roads in Howard County that are residential arterials. Jeff provided Broken Land Parkway as it leaves downtown Columbia and Cedar Lane as examples. Carl Gutschick noted that Maple Lawn Boulevard changes from commercial to residential along its length.

Jeff asked for feedback on the proposed travel lane widths. Larry responded that he supports 10-foot lanes but has concerns about 11-foot lanes anywhere there are bicycle facilities on the road. He noted that since 11-foot lanes support truck traffic, higher speeds, and higher volumes, that those types of streets may not be appropriate for an on-road bike lane unless it is protected. He noted that bike lanes are also challenging to use in commercial areas where there are a lot of driveways and turning traffic. Jeff responded that current guidance indicates the combination of both high speeds and high volumes does support separated bike lanes. Chris noted that the discussion around the level of protection needed for an on-road facility will occur at a later date when that part of the Design Manual has been drafted.

Larry responded that the triggers for an 11-foot lane may also be triggers for a protected bicycle facility. Jeff responded with one example: a low-speed, low-volume industrial street may support wider lanes with on-road bike lanes. Larry agreed, but noted he still has concerns in commercial locations.

David Ramsay noted that the Maple Lawn community provides an interesting opportunity to discuss lane width, and asked whether Maple Lawn Boulevard is a major collector. (Adjacent to MD 216, it is a minor arterial.) Carl asked whether shared lanes impact road width. Jeff responded that shared lanes are only appropriate for truly low-speed, low-volume residential streets. Previous guidance recommended wider lanes (13 to 14 feet) with sharrows with the thought that the extra width would give cars space to pass. In practice, this created an unsafe condition for bicyclists because cars drove too fast, and that treatment is no longer recommended.

Kris Jagarapu asked if Jeff could share some information about the width of vehicles. Jeff shared that a typical 40-foot bus or articulated bus is 10.5 feet wide including its mirrors, and that 10-foot lanes may present an issue where there is on-street parking directly adjacent to two 10-foot lanes, especially if two buses are passing each other. In cases where there is an on-street bike lane that becomes less of an issue because there is more room to maneuver.

Kris asked about a fire truck. Jeff replied that he was unsure of fire truck width, but observed that cities including Baltimore use a 10-foot lane and that their law requires a standard width of 9 feet. Kris observed that it is important to think about vehicle sizes, and if there is 24 feet of pavement width it is important to consider the widths of parked cars as well as vehicular lanes. Jeff noted that typical cars are about six and a half feet wide. Kris shared that the Department of Public Works (DPW) is currently having problems with 24-foot residential streets when cars are parked on both sides, since it leaves limited space for trash trucks or fire trucks to pass. In practice, this means that the County has to restrict parking to one side of the street. The County is looking at moving to a 26-foot width if parking is allowed on both sides. Currently, the County asks new developments to put signs on the street restricting parking so people know about the restriction before they purchase a home. Some communities restrict parking on both sides of the street.

Larry asked for an example. Kris responded that residents approached the County about restricting parking on one side of Fair Oaks, an established street next to Atholton High School. The County asked residents to select which side of the street would retain parking. Kris shared that another community in Elkridge has been having a similar problem. Kris noted that 11-foot travel lanes may work but 10-foot travel lanes may present problems on major collector roadways. He added the appropriateness of a lane width depends on what other cross section elements are present on the roadway. Kris noted that Cedar Lane has four 10-foot travel lanes directly adjacent to the curb, which makes it challenging to drive. David Ramsay echoed Kris's concerns.

Jeff asked for the feedback on the proposed lane widths, noting that 11-feet is proposed for arterials. Kris responded that it depends on what else is included adjacent to the travel lane. Tom Auyeung agreed with Kris. Tom noted that under a previous County Executive, he required DPW to use Australian standards to support traffic calming which created a lot of issues. The Fire Department brought DPW out to look at how tight the road was for a fire truck. He noted that if you look at streets from that era, damage is evident at the road edge which has become a maintenance issue. Tom suggested that 10 feet is a little extreme, and 11 feet might be ok. He noted that when the road is straight it may not need to be as wide, but that if there is curvature along a road it is important to look at a turning template.

Jeff noted that ample national guidance says that 10 feet is not too tight on roads with slower speeds. He added that the idea of comfort or factor of safety might work well for designing roads for drivers, but it will not result in ideal outcomes for other street users. Although it is not wrong to make a lane a little wider, for every benefit of wider lanes there is a cost. Kris disagreed, noting he is a proponent of reducing speeds, and as a driver chooses to maintain the speed limit. There are other things that can be done to reduce the speed other than travel lane width. Jeff agreed that there are other tools to use to reduce speeds.

Jeff asked what other tools are available to the County to reduce speeds. Kris noted that adjacent land use plays a big role, and that having trees and buildings closer to the roadway provide visual cues to slow down. He noted that travel lane widths can be 12 feet on a freeway or local road, but there are other features that tell a driver to slow down. Larry observed that Howard County is not unique in the nation and that Jeff is citing national peer reviewed research that supports 10-foot lanes as appropriate.

John Seefried asked for the national guidance referenced, and whether adjacent context is considered. Jeff responded that the *Highway Capacity Manual* and *Highway Safety Manual* do not consider adjacent land use, and that there is no difference between open and closed sections. John replied that the County does not want people to drive in the gutter pan and observed that a 10-foot lane width means that drivers will be on the edge of the gutter pan. He observed that a pickup truck may have issues staying out of the gutter pan.

Chris Eatough noted that in most cases 10-foot lanes will not be adjacent to the curb face, because there will be a bike lane. Jeff agreed, noting that there is a minimum width of 24 feet of pavement across all sections, and no proposed sections feature a 20-foot width curb to curb. Jeff affirmed that DPW had expressed interest in moving to a 26-foot local street pavement width based on the concerns previously discussed.

Tom asked about what the AASHTO *Green Book* recommends. Jeff responded that the *Green Book* is much less prescriptive and considers lane widths from 9 to 12 feet. Tom agreed that in urban areas narrower lanes are appropriate, but Howard County is not Baltimore City.

Chad Edmondson requested an example of a street with 10-foot-wide lanes. Chris responded that some of Howard County's suburban peers including Prince George's County and Montgomery County have 10 feet in their guidance. Jeff noted that the City of Gaithersburg uses 10 feet for most of its lane requirements. Kris asked if the Montgomery County standards are for a business district or in a rural area. Chris highlighted that no one suggests that 10 feet is appropriate everywhere, but for lower speed roadways 10 feet is the standard.

Jeff showed an example of a minor arterial in Wilmington, Delaware that is a high capacity bus route and U.S. Highway that has successfully used four 9-1/2-foot lanes from curb to curb for decades.

Sam asked for clarification about whether a 10-foot lane width is a default or something that is adjusted based on contextual factors. Jeff referred back to the proposed travel lane widths, clarifying that arterials would be wider than 10 feet except in dense mixed-use areas, and collectors and local streets would also be 10 feet wide.

John asked to see the example on the screen at the intersection. Jeff observed that the travel lanes remain the same through the intersection. Kris asked whether the narrow widths were chosen or adapted to based on an old street grid, posing the question, “Would they build it that narrow if they could build it now?” Kris noted that during rain or snow events DPW receives complaints about Cedar Lane being unsafe, and those lanes are 10 feet wide.

Chris reiterated that there is not a proposal to default to a 10-foot travel lane in all circumstances. Jeff returned to the screen with the proposed lane widths. Larry asked what the speed limits will be on arterials. Jeff responded it depends on number of lanes, traffic volume, and lane width. Larry asked for information on the functional classifications on streets. David Cookson responded that the online map viewer includes functional classifications.

Kris noted that the DelDOT Design Manual suggests their policy is to provide 12-foot lanes on all arterials and collectors. Jeff responded that the typical practice for DelDOT is to design narrower lanes on lower-speed streets, even though it is not in their Design Manual.

Chad noted he likes Larry’s idea of looking at it at proposed sections a little more comprehensively and in context. Larry responded that it would also be helpful to look at examples of well-functioning complete streets look like in other local jurisdictions.

David asked Carl about the width of Maple Lawn Boulevard side streets. Carl responded that some side streets are 24 feet curb to curb and the consensus is that those have been too tight when there is parking on both sides. He agreed with Kris that 26 feet would be a good compromise width. He noted in certain places parallel parking is striped off on either side. He also noted that Maple Lawn was designed in partnership with DPW. He explained that 11- to 12-foot turn lanes are embedded in the full width of the median so there is no interference with traffic flow. David R. added that feedback is consistent with feedback from school bus drivers who have had to navigate Maple Lawn side streets.

Larry observed that lane widths are important to discuss since the larger public will have the same questions and comments.

Carl asked whether 10-foot lanes work well when next to a parallel parking lane. Jeff noted that two-way streets allow room for maneuverability and are ok for parallel parking. Kris noted that Iager Boulevard is a good example of a two-way street with parallel parking on each side that has 12-foot lanes. He recommended CSIT members drive the street to see how it feels. Kris noted that in some areas of the County that are older there are much wider roadways around 30 feet wide, which is too wide. He noted that bike lanes also should vary in width based on the surrounding context and should be five or six feet wide. Jeff pulled up Google Street view of Iager Boulevard.

Jennifer White suggested that it would be “helpful to put ourselves in other street user’s shoes,” whether people who walk, bike, or are disabled and trying to access a bus stop. She noted that she understands that travel lane width is one of the tools used to meet the goals of Complete Streets, but is curious how the combinations of these elements ensure that all users can benefit from these spaces.

Kris agreed with Jennifer’s comments, adding that the notion that Complete Streets is only about lane width is incomplete. He observed that if you are retrofitting an existing street section that the designer may have to make compromises and reduce lane widths to accommodate other users, but if building a brand new roadway those constraints are not an issue. Larry noted that national guidance addresses the compromises that have to be made to accommodate all users.

Chris asked whether a 10-foot travel lane is ok in a retrofit situation but not ok with a new road build. Kris agreed with that statement adding that starting a design with a 10-foot travel lane is more problematic. Chris noted that 10-feet would not be the default width for all street types.

Bruce asked whether using the phrase “proposed travel lane width” is appropriate, and whether we could consider potential and likely lane widths instead. He noted that the goal is capturing best practice. Jeff responded that the majority of transportation infrastructure in Howard County is new streets built as part of developments. He noted the proposed lane widths are being suggested as guidance for all streets but will have the greatest impact on those new streets. Chris added that the County is also doing a fair amount of street retrofits. Jeff agreed, but noted that the goal is setting a standard for a street type within a particular context, and that there is less flexibility in new construction than there is in a retrofit situation.

Jeff noted that one action item following this conversation is providing examples of how Complete Streets are being implemented locally in both new construction and retrofit projects. Jeff thanked CSIT members for their thoughts and clarified that there will not be an agreement on lane width today.

Medians

Jeff went on to provide an overview of medians, which are primarily found on arterial roadways. The space allocated to a median in a street section can also be used to provide a turn lane at intersections. Currently, the typical median width in the County is 20 feet with a 12-foot left turn lane. A narrower 16-foot median is being proposed to minimize the width of streets. 16 feet provides ample room for street trees and allows for a 10-foot turn lane and a six-foot pedestrian refuge island that can be used when crossing from one side of the street to the other. If a large vehicle is making a left turn there is still room for them to maneuver. Paul asked whether 16 feet is wide enough to accommodate a U-turn. Jeff responded that the ability to do a U-turn depends more on the width of the receiving lanes than the width of the departing lane.

Jeff asked if the County had concerns with the proposed median width. Kris agreed that Paul’s question is important and noted DPW would not be comfortable with a 10-foot two-way left turn lane since it would also be used to merge. Jeff responded that a two-way left turn lane is not as big a concern for crossing pedestrians since it is not a true travel lane, so he is comfortable with it being a little wider than 10 feet.

Bike lanes

Jeff moved on to describe bike lanes. He noted that for streets without a bicycle overlay there would be conventional on-street bike lanes. On higher volume streets six-foot bike lanes are suggested, in areas without curbs eight-foot shoulders/bike lanes are suggested, and five-foot bike lanes are suggested on major and minor collectors. Narrow local streets would use shared lanes. Shared use paths or separated bike facilities would be an option in all scenarios, but especially where there are high speeds and volumes and on streets that are designated in *BikeHoward*.

Kris noted that local shared streets should accommodate parking on both sides of the street and a vehicle driving in the oncoming direction.

Jennifer asked for clarification on the Bicycle Level of Traffic Stress (LTS) methodology. Leah answered, sharing that LTS uses vehicular speeds, number of lanes, and traffic volume to estimate the amount of stress a person on a bike would experience on a given roadway, ranging from one (low-stress) to four (high-stress). LTS 1 streets are comfortable for anyone to ride, including children. Shared use paths and on street bicycle infrastructure separated from vehicular traffic is also considered LTS 1. LTS 2 streets are comfortable for the average adult rider. LTS 3 streets are uncomfortable for most people, and LTS 4 streets are only used by “fearless” riders. Leah noted that the *Hickory Ridge Bicycle Corridor Study*, which was recently completed for Howard County, includes an overview of the methodology and its application to Howard County Streets. She noted that the LTS portion of that study will be distributed to CSIT members for their consideration before the next meeting, and that the LTS methodology will be incorporated into Design Manual updates.

Larry noted that if LTS higher than 1 is accepted that facility will not be useful for many users. Chris responded that LTS 1 will be the goal of certain locations, but 2 or 3 may at times be appropriate. LTS 1 to all locations in the County would require a complete countywide network of separated bicycle facilities, which is impractical. Larry responded

that every location that is an important destination should default to LTS 1. Chad asked what Iager Boulevard would be classed. Chris guessed LTS 2 or 3 but given the amount of traffic on that road was leaning towards a 3. Jeff noted that a big factor on a street like Iager Boulevard is the speed vehicles travel.

Chad asked what the difference is between low-density residential streets and local streets, where the preferred treatment is a shared lane for bicycles. Chris responded that the low-density streets referenced are low-density arterials. Shared lanes are for truly local streets, like residential cul-de-sacs. Chris mentioned that a low-density residential arterial is found where low-density residential is the land use but the street does not provide direct access to houses. Jeff highlighted that the top two bullets for the bike lane width slide reference arterial streets.

Chris expressed concern with the eight-foot shoulder proposed for commercial, lower-density residential, and industrial areas because it can look like a full travel lane. He noted that if eight feet provides space for a buffered bike lane where the painted buffer is three feet, that would clarify the situation, but observed that a three-foot buffer may not be feasible for long sections of shoulder. He noted that he considers five- or six-foot bike lanes feasible in all situations.

Larry asked whether a six-foot bike lane provides sufficient space for a four-foot bike lane and a two-foot buffer. Chris observed that might force people to ride too close to the curb. Jeff noted that a five-foot lane with a one-foot buffer might be more appropriate. Chris noted the County has been installing a three- to four-foot buffer where possible.

On-Street Parking

Jeff moved on to provide an overview of on-street parking width. The generally accepted width is eight feet, with an increasing number of jurisdictions moving to seven feet, however there is not the body of evidence to suggest that seven feet is appropriate that exists around travel lane widths. For that reason, the suggestion is to continue using the eight-foot width currently in use. The idea of 24-foot residential streets was discussed earlier in the meeting and there was significant discussion about that being too narrow in areas with a lot of on-street parking. Jeff asked whether 24-feet could be appropriate in areas with low-residential volumes where it is unlikely that two cars will be parked directly across from each other, i.e. two different classifications based on residential density.

Kris responded that when two cars are parked across from each other it is an issue for moving vehicles and the Fire Department. Jeff asked about areas with half or quarter acre lots, and whether it would still be an issue, observing that in those neighborhoods parked cars are generally staggered so that they are not parked directly across from one another. Larry asked if there is evidence that people uniformly behave that way. Jeff responded he has never seen formal documentation.

Larry introduced the concept of bike lane reach, which is the combination of the width of on-street parking and the bike lane. He noted that this figure helps account for “dooring” or when a parked car opens a door into the path of a cyclist in the bike lane. He suggested that 14.5 feet is the desired bike lane reach, and 14 feet is the minimum. Jeff confirmed that 14 feet is an accepted figure. Larry noted that there are streets with a lot of conflict where there are many turns and people parking in the bike lane where dooring is a concern.

Tree/utility zones

Jeff moved on to provide an overview of tree/utility zone width. He noted this area accommodates many uses including street trees, utilities, lighting, signs, street furniture, parking meters, and a grass buffer. The typical minimum width for new construction is six feet, but in some conditions the County looks at wider widths. Generally, the higher the speed of the street, the wider the buffer should be. The only real tradeoff in terms of buffer width is the amount of right of way required. From a Complete Streets perspective, having wider buffers is very beneficial. Kris noted that street trees, signs, and utilities require buffer widths of at least six feet. He observed sidewalks adjacent to narrower buffers have significant damage as a result of street tree roots. Jeff asked whether there is specific information that would assist in developing a more refined estimate for the types of buffers that would be required.

John noted that power and communications take up a lot of space, and the County has aimed to make sure there is sufficient room in the buffer to ensure that maintenance staff can stay out of the roadway and minimize impact to traffic flow. Although water mains are located under the street, their maintenance requires about ten feet of width. Kris added that for signage a minimum of six feet is necessary, and that the County has a lot of issues with tree roots lifting the adjacent sidewalks, which is one of the largest concerns from a maintenance perspective since the County is responsible for that damage. He noted eight feet is preferred to six feet, and that some streets may benefit from a 10-foot buffer. He noted that six feet is the absolute minimum buffer width.

Carl noted that changing the measurement from six feet measured from the curb face to six feet measured from the back of curb, along with a root barrier, has improved the root uplift situation considerably.

Christiana asked Jeff what the minimum width should be if not six feet. Jeff responded that from a transportation perspective six feet is fine, but once utilities are considered it becomes a more complex question. Jeff asked John if the ideal situation is to have water, electric, and communications separated laterally in addition to street trees in the buffer. John responded that wet utilities (water) belong in the roadway with drainage, and dry utilities (electric and communications) belong in the buffer. He clarified it slows maintenance crews down if the power and communication lines are in the green space close to where water is in the roadway. He also noted that it would be good to better understand the implications of wider buffers, noting that eight feet may be a good direction for new construction, but six feet for retrofits may be necessary. Jeff noted that in truly difficult retrofit situations the sidewalk can be installed immediately adjacent to the street with signs behind it, but only as a last resort.

Sidewalks and Shared Use Paths

Jeff moved on to provide an overview of sidewalk widths, noting that there are Americans with Disabilities Act (ADA) requirements governing sidewalks. The minimum ADA requirement is a four-foot sidewalk width, but a five-foot wide passing area needs to be provided at least every 200 feet. Because of this requirement, most jurisdictions use a five foot minimum. In higher-density residential areas and in retrofit situations where the sidewalk is immediately behind the curb, six feet is recommended. In mixed-use areas much larger sidewalks – between 14 and 18 feet in width – are beneficial and common. Jeff noted the Downtown Columbia Streetscape Guidelines are consistent with the wider sidewalks recommended in mixed-use areas. Carl noted that in the commercial areas of Maple Lawn the entire area from the back of curb to the buildings is hardscaped, which includes tree wells behind the curb, areas for dry utilities, and an effective sidewalk width of around 14 feet.

Larry asked Bruce whether the sidewalk width proposals should be vetted with the Transit and Pedestrian Advisory Group (TPAG). Bruce replied that the CSIT is the best group to review this information.

Kris asked whether driveways can be used as a passing area if grades are appropriate. Jeff said that it depends on the cross slope of the driveway. Jeff said the proposed width is five feet, which is more comfortable for people walking abreast than a four-foot sidewalk.

Chris noted that there are some additional things to address, including obstacles in the sidewalk like mail boxes, above ground utilities, and poles that impact the usable space of the sidewalk. There may need to be something in the Design Manual about how to handle those obstructions.

Jeff shared information about shared use paths, noting that the minimum width is ten feet in almost all cases. The County typically uses ten feet as the default width in most projects. Ten feet is not adequate in instances when there are extremely high path volumes, however that is not a circumstance that exists in Howard County at this time. AASHTO provides circumstances where a reduced width of eight feet can be used, including:

- Bicycle traffic is expected to be low, even on peak days or during peak hours
- Pedestrian use of the facility is not expected to be more than occasional
- Horizontal and vertical alignments provide frequent, well-designed passing and resting opportunities
- The path will not be regularly subjected to maintenance vehicle loading conditions that would cause pavement edge damage

Chad commented that for pathways in front of people's homes, it would be important to also evaluate how large lots are because in some instances minimal building setbacks would mean a ten foot wide path would be at someone's front porch. Larry noted that the size of pathways should consider anticipated future use.

Design Manual Updates

Jeff noted that additional comments on Chapter 1 were received and included in the comment log. Although there is not sufficient time to review them in detail during today's meeting, all comments will be discussed with the group before decisions are made. All four comments were from the Horizon Foundation, but one comment in particular may have broad implications to the CSIT's path forward. The suggestion is that we revisit the street types and the functional classification matrix and consider a more descriptive street typology. The concept of functional classification was originally developed with cars in mind, and a number of resources were suggested for consideration in developing a different type of street typology for Howard County. To collect information about whether this approach is worth pursuing, a survey will be distributed to all CSIT meeting attendees.

Jeff summarized the two approaches to street type. The first is a modified functional classification based on land use context as outlined in the National Cooperative Highway Research Program (NCHRP) *Research Report 855: An Expanded Functional Classification System for Highways and Streets*. This is very similar to the approach that the CSIT has been following, and is also the approach currently used in the AASHTO *Green Book*. The second approach is to use descriptive street types, similar to what is used in the draft *Montgomery County Complete Streets Design Guide*, the *Gaithersburg Street Design Standards*, and *Prince George's County Urban Street Design Guidelines*. Of those three examples, Montgomery County's development patterns are the most similar to Howard County's and their guide may be the most relevant.

Jeff then described the homework assignment. A survey will be distributed to CSIT members and meeting attendees. Participants will review descriptions and photos of each of the 12 street types in the draft Montgomery County guidance and then list Howard County streets that are similar. The results will be used to better understand what street types are the most prevalent in Howard County.

Christiana asked when the homework assignment would be due. Jeff responded that it would be distributed by Friday, January 8 and a week will be provided for completion.

Larry asked about the pros and cons of following each approach to developing street type. Jeff responded that is a question that will be discussed at the next CSIT meeting since it will take more time to answer than is available today.

Case Studies

The presentation of case study information was deferred to the next meeting.

Next Steps

Jeff noted that the case study information may be provided in advance of the next meeting since the group has limited time together and a lot to cover.

Jeff noted the action items from this meeting:

- WRA will distribute the link to the highway classification system map and the Hickory Ridge Bicycle Corridor Study which includes information on the Bicycle Level of Traffic Stress methodology
- WRA will provide links to the Complete Streets guidance for Maryland jurisdictions
- WRA will furnish examples of Complete Streets that work well
- WRA will explore lane widths in consideration of the conversation about U-turns
- WRA will distribute additional content for discussion at the next meeting in advance
- WRA will distribute a survey about street types as homework by Friday, 1/8 for completion by Friday, 1/15

Larry asked whether the frequency of meetings need to increase given the density of meeting materials. Jeff responded that may not be an option for January, but it is something that bears consideration. Another constraint is the amount of time that it takes to prepare materials in preparation for each meeting.

The next CSIT meeting is scheduled for Wednesday, February 3 at 3:00 pm. Jeff noted that all future meetings will be held using Microsoft Teams instead of GoToMeeting.

Leah Kacanda, AICP