



Area Advisory Committee Two Meeting #3 Summary  
Wednesday, July 16, 2014 || 6:30 p.m.  
Universities at Shady Grove  
9630 Gudelsky Drive || Rockville MD 20850

## Attendees:

### Members

Donna Baron	Jefferson Jex
John Brandt	David McDonough
Marilyn Fleetwood	Melanie Weerakoon
Tim Henderson	Sims Zhou

### Apologies

Wayne Berman	Rosalind MacLennan
John Dunlop	Tami Mensh
Kara Guthro	Patrick Butler-M-NCPPC
Toby Lehman	

### Staff

<b>Facilitator</b> - Cathy Smith	<b>Traffic Engineer</b> - Jason Rashid
<b>Station Architect</b> - John Bull	<b>Public Involvement Task Lead</b> - Crystal Saunders
<b>Traffic Engineer</b> - Charles Freeman	<b>Montgomery County DOT</b> - Joana Conklin
<b>Segment Engineer</b> - Karen Kahl	<b>Logistics Staff</b> - Tori Leonard
<b>Station Architect</b> - Seth Garland	<b>Logistics Staff</b> - Jordan Vann
<b>Traffic Task Lead</b> - Kevin Permisohn	

### General Public

Lisa Cline

### Handouts:

Meeting packets included: the Meeting #2 Summary, the Meeting #3 Agenda, an Updated Meeting Schedule, the Traffic 101/ What is Transit Signal Priority? handout, and Intersection Maps

### Introductions and Overview:

**Cathy Smith** welcomed attendees and introduced the staff. Housekeeping items included the updated schedule of meetings, through March 2015. The meeting was tape recorded by the Recording Secretary, Tori Leonard, for transcription purposes.

### Follow up Items from Last Meeting:

#### *Mission Hills Alignment Study*

Segment engineer **Karen Kahl** reported on the Mission Hills alignment study. MTA considered alternatives to move the CCT away from the front of the Mission Hills community main

entrance. MTA selected an alignment option that moved it to the median of Muddy Branch Road, no longer displacing the first home on Mission Drive. Limited widening would still be required at the entrance to Mission Drive. There will be two new signals along Muddy Branch Road – one at Midsummer Drive and Mission Drive, and one at Midsummer Drive and the new road into Belward Farm. It was noted that this second traffic light would be needed due to the development on Belward Farm even if the CCT was not constructed. This alignment represents the best compromise as it will have minimal increase to the CCT travel time, will allow three right turn movements to operate as free rights, will reduce impacts to environmental features, and will not displace the one home.

When asked about the median width of Muddy Branch Road, Karen indicated the northbound lanes on the approach to Great Seneca Highway will be shifted to the east to accommodate the CCT in the median where the left turn lanes occur on northbound Muddy Branch. Karen noted that the county has concerns with this option because it maintains four lanes on Muddy Branch and the county Master Plan shows six lanes. MTA is working with Montgomery County to resolve concerns and issues. An inquiry was made whether this is alignment is final because the county has not concurred on it. Karen responded that the MTA is moving forward with the four-lane roadway with the median transitway alignment.

### **Traffic Process Overview:**

**Charles Freeman** provided an overview of the traffic engineers' role in the development of the CCT. There will be traffic impacts to several parts of the project: CCT, cars, bikes, pedestrians, existing transit. The MTA team is working to design a system that is safe and reduces delays. Analysis of design aspects includes: where to put traffic signals, types of signs, placement of turn restrictions, and median closures. The traffic engineers use VISSIM (traffic-simulation software) to compare no-build and build conditions in Year 2035. Vehicular and pedestrian counts, pedestrian infrastructure (sidewalks, signals, etc.), and existing transit services are all included in the traffic models. Existing traffic volumes are increased based on growth projections and are included in the 2035 models. Results are documented based on impacts to motorists and travel time for the CCT vehicle. In general, impacts of adding the CCT vehicles to the network are minimal compared to the impacts associated with the expected increase of motorists.

**Jason Rashid** provided an overview of the decision-making process that incorporates the traffic analysis into the highway design, right-of-way, drainage design, etc. Key decisions include whether the improvements are grade-separated or at-grade, median closures (where traffic would be diverted, etc.), and intersection controls to minimize negative impacts on traffic.

### **Intersections Overview:**

***Great Seneca Highway at Muddy Branch Road*** (side-running alignment into a median crossing) This intersection will have a flashing red arrow signal for the right turn from eastbound Great Seneca Highway onto southbound Muddy Branch Road - vehicles approach the intersection at a flashing signal, proceed same as yield when making the right turn on the Muddy Branch Road. If traffic begins to back up in the right turn lane on Great Seneca Highway or if a vehicle sits too

long at the flashing red, a green arrow would be displayed to allow for the right turns to move freely. When the CCT vehicle approaches, the signal goes solid red and a fiber optic sign may be added to prohibit right turns when the CCT is present in the intersection. Once the transit vehicle clears the intersection, the signal goes back to a flashing red arrow for the right turn.

Jason indicated that the impact on the northbound movement along Muddy Branch Road across Great Seneca Highway would not see a significant increase in time delays as compared to current conditions. The presence of the CCT would not change the operation of the through movement on Great Seneca Highway because the CCT is running at the same time.

Jason indicated that fiber optic signs work with the overall transit priority system. CCT vehicles equipped with monitoring system can send a signal to change the traffic signal phase, but a protocol must be followed. Jason also indicated that the traffic signal will not be pre-empted by the CCT and that the right turn from eastbound Great Seneca Highway to southbound Muddy Branch Road would be most affected. Charles added the CCT will not pre-empt the traffic signals like emergency vehicles. Karen referred the group to the “What is Transit Signal Priority?” handout for a description of transit signal priorities.

**Kevin Permisohn** asked the group what they thought about the flashing red for a right turn since it is not a common method of treatment. With traditional green/yellow/red, drivers may be limited on the amount of time that is provided for the right turn movement. With a flashing red indication, drivers can maximize the time he/she has to turn right. On flashing red, vehicles will need to come to a complete stop and look to ensure they can make a safe movement. The CCT vehicle will have a red signal indication when conflicting movements are not restricted. Kevin indicated a fiber optic sign will be added for right turning movements as a supplement to the red (solid) arrow signals and will be illuminated with a red no right turn arrow when the CCT vehicle is approaching or in the intersection. Jason also indicated that Maryland does not use flashing yellow. MTA is evaluating options for the rare occasion when the fiber optic signal is not working.

Kevin explained how the pedestrian crossing will work related to the CCT movement and the other vehicular movements in the intersection. He indicated that the protected walk signal will operate with a non-conflicting movement. There will be a red signal indication for the CCT vehicles when pedestrians have a protected walk signal. The transitway will be marked with a stop line for the CCT vehicles and both the transitway and the roadway will have marked crossings for pedestrians.

Karen discussed the potential property impacts along Great Seneca Highway near Muddy Branch Road and indicated that the CCT will be located as close to Great Seneca Highway as possible. The transitway is 28 feet wide with two 14 feet lanes. Consideration must be given to the sidewalk and necessary offset from the curb. Karen also indicated that a roadside clear space is required along Great Seneca Highway because it has a 60\* mph design speed. Therefore, there will be a guardrail next to Great Seneca Highway to separate the CCT vehicles from traffic heading the opposite direction. This guardrail will not be required on Muddy Branch Road

*\*Please note the design speed of 55mph for CCT vehicles along Great Seneca Highway reported during the meeting was incorrect. The correct design speed is 60 mph.*

because the design speed is lower and the CCT vehicles will run in the median, the same direction as the adjacent traffic. A curbed median will separate the CCT vehicles from adjacent traffic on Muddy Branch Road.

Concerns were raised regarding how the CCT would impact the planned improvements at Great Seneca Highway/Muddy Branch Road and Great Seneca Highway/Sam Eig Highway, shown in the County's Master Plan. Karen indicated that these locations as well as at Great Seneca Highway/Quince Orchard Road are not on the county's current priority improvement list which is provided annually to the State Highway Administration (SHA). SHA uses the county priority list to determine which projects will be funded and move ahead. The CCT will not be accommodating the interchanges because a full study would need to be completed to determine the footprint of each interchange.

Cathy returned to the subject of the fiber optic signal and Kevin indicated that there are similar signals on U.S. 29 just east of Silver Spring which controls the reversible lane usage. Jason added that there are red arrow right turn signs near Camden Yards, the Orioles baseball stadium, that provide a no right turn indication when the light rail train operates through the intersection. The team will bring photos to next meeting.

***Muddy Branch Road at Midsummer Drive/Mission Drive***

This intersection will have a regular operating traffic signal with an exclusive left turn signal. The CCT will run freely in the green signal for Muddy Branch Road. If a left turning vehicle is waiting to turn onto Midsummer Drive or Mission Drive during the green signal on Muddy Branch Road and if no through moving vehicles are approaching the intersection for a pre-determined duration, the traffic signal will change to provide a green arrow to allow the left turn to proceed. Once this movement has cleared and if no side street movements are detected, the traffic signal would return to a green signal for through movements on Muddy Branch Road.

Jason indicated that the team has evaluated potential overall signal delays related to the inclusion of the CCT operations and stated that the signals will be coordinated for progression of the overall corridor as a means to minimize this. The signal will create some delay but that will help other intersections. The committee discussed how anticipated traffic from Belward Farm is being considered in the traffic modeling. Kevin indicated that the team has forecasted traffic based on planned development and included this in all analyses. Karen added that the Belward Farm developers will also have to do a traffic impact study when they submit site plans. The county may require the developer to mitigate for traffic impacts on nearby streets.

***Medical Center Drive at Broschart Road (Median to side operation)***

This intersection will have a flashing red left-turn arrow operation. After stopping, left turns will be allowed on a flashing red signal. When the CCT vehicle approaches, all traffic will get a solid red and the fiber optic sign will be utilized to hold traffic where appropriate. The CCT will cross through the intersection and then the signal would revert back to normal operation. Traffic volumes on Medical Center Drive are low and most of the time will run freely on the green signal. Left turns onto Broschart Road will be made on permissive basis when no transit vehicles are present.

***Broschart Road at Johns Hopkins University Entrance*** (Diagonal, side-to-side alignment crossing)

The traffic signal would operate as a true CCT phase only. Safe operations will only work with an exclusive CCT phase when the roadway movements are stopped with an all-red indication. The CCT vehicles will cross Broschart Road diagonally. The main line of Broschart Road would rest in green until the CCT approached or a side-street movement requests a signal change.

Karen explained that previous plans located the diagonal crossing at Key West Avenue, but it was moved back one block because of the heavy traffic volume along Key West Avenue and the potential for major impacts related to the addition of a CCT only phase.

The CCT alignment is designed to cross from the east side of Broschart Road to the west side and along the west side of Diamondback Drive to serve the planned development and station near Decoverly Drive. The team had considered an alignment along the east side of Diamondback Drive but ruled it out because of geometric constraints and impacts to the existing apartment building at Decoverly Drive. The current design provides a better vertical alignment under Key West Avenue and at the DANAC station.

***Key West Avenue at Diamondback Drive*** (underpass under Key West Avenue)

There is an existing signal at this intersection. In the current alignment, the CCT will cross under Key West Avenue with no impact to the intersection.

### **General Discussion:**

The CCT project will construct a new bridge over Muddy Branch immediately adjacent to the eastbound Great Seneca Highway roadway bridge. The transitway will cross Lakelands Drive at an at-grade, side crossing. The CCT will remain at-grade adjacent to the roadway until after it crosses Kentlands Boulevard. It then rises to cross over Main Street where it enters the elevated Kentlands station.

The project is funded by the state for preliminary engineering, final design and some right-of-way acquisition. It is not funded for construction in the six-year program. The project team is moving toward 30 percent design next year with plans to complete final design and begin construction in 2018. To maintain this schedule, funding will need to be identified and moved into the appropriate budget year. At this time, MTA remains eligible for federal funds but MTA will need to decide if it will seek funding from the Federal Transit Administration.

Based on the time provided for various discussions at this meeting, some agenda items will need to be deferred until a future meeting. Cathy pointed out that meeting topics could be shifted as necessary to coincide with the need for input from the committee.

A committee member specifically requested that bicycle master planning and connectivity to the CCT be included in a future meeting agenda and that appropriate representatives from Montgomery County and the cities of Rockville and Gaithersburg be available. Karen indicated

that the team has a map of all the existing and proposed routes in the CCT corridor based on the master plan and that she will bring it to the next meeting. Connectivity of bike paths and sidewalks throughout the community are outside the role and responsibility of the project team. Detailed discussions on this topic may be held outside the AAC process but more general discussions may be appropriate for the committee. **Crystal Saunders** noted that the Maryland-National Capital Park and Planning Commission (M-NCPPC) representative, Patrick Butler, was supposed to be at the meeting but had a conflict. She will follow-up with Patrick and relay the group's concerns and interests.

**Next Steps:**

**Next meeting—September 17, 2014**

**Meeting adjourned at 8:05 p.m.**

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