



Area Advisory Committee One Meeting #3 Summary  
Wednesday, July 23, 2014, 7pm  
Lakelands Clubhouse, Green Room  
960 Main Street Gaithersburg, MD 20878

**Attendees:**

**Members**

Joseph Allen	Anita Schweinfurth
Marilyn Balcombe	Lynne Tucker
Stuart Barr	Francine Waters
Cherian Eapen	Michael Watkins
Erik Morrison	Ronald Welke
Michael Janus	Kam Yee
David Rosenbaum	

**Apologies**

Girum Awoke	Peter Henry
Neil Harris	Steve Scharf

**Staff**

<b>Facilitator</b> – Holly Storck	<b>Urban Design</b> – Seth Garland
<b>Station Architect</b> – Todd Connelly	<b>City of Gaithersburg</b> - Rob Robinson
<b>Traffic Engineer</b> – Elizabeth Andrew	<b>Montgomery County DOT</b> – Joana Conklin
<b>Segment Engineer</b> – Denny Finnerin	<b>Logistics Staff</b> – Tori Leonard
<b>Public Involvement Lead</b> – Crystal Saunders	<b>Logistics Staff</b> – Jordan Vann
<b>Traffic Engineer Lead</b> – Kevin Permisohn	

**Public**

Karen O’Keefe

**Handouts:**

Meeting packets included the Meeting Agenda; the Meeting #2 Summary; a schedule for future meetings (September 11, November 13, January 28, and March 26); and a Vissim handout, a Traffic 101 handout, and four intersection signal design concepts.

**Introductions and Overview:**

**Holly Storck** welcomed attendees and said that the primary topic of the meeting would be traffic. Members and staff introduced themselves. Holly said that the meeting was being recorded to aid with note taking and no objections were raised.

**Follow Up Items from Last Meeting:**

**Denny Finnerin** began the meeting with a discussion of alignment issues, noting that the project’s 15 percent design plans would be completed by mid-August. She described changes to the trail location along Quince Orchard Road based on the committee’s suggestions at the last meeting. The trail would now be located along the outside of the CCT transitway along Quince Orchard Road, go under the CCT bridge crossing over Great Seneca Highway, and connect to

the existing trail along Great Seneca Highway. Other changes include a 10-foot trail between Great Seneca Highway and Quince Orchard Road that would connect to the existing trail along Quince Orchard Road to the south to better accommodate bicycle access to the station.

MTA management and CCT project team have evaluated the impacts of removing the grade-separated CCT crossing at Quince Orchard Road and Great Seneca Highway and recommend that the crossing remain grade separated. The project team is awaiting comments from Montgomery County before a final decision is made.

The project team is also evaluating options for the trail section between the Kentlands and Lakelands developments and is working with the State Highway Administration (SHA) on these issues. During the discussion regarding the path/sidewalk along Great Seneca Highway between Quince Orchard Road and Lakelands Drive, a question was raised about its placement between the highway and the BRT and whether that was the most path/walk-friendly solution. Denny responded that further coordination with SHA will occur regarding the ultimate typical section and placement of the sidewalk. Additionally, because of the 60 mph design speed along Great Seneca Highway, the roadway and the transitway would be separated by a minimum of eight feet and a guardrail.

In the discussion that followed, an AAC member raised a concern about how bicyclists would access the Kentlands station. Denny noted that there is an existing 5-foot sidewalk on the south side of Great Seneca Highway that the CCT project would replace in kind between Main Street and Lakelands Drive and replace with a 10-foot shared use path between Quince Orchard Road and Main Street. She also pointed out that the north side of Great Seneca Highway has an existing 10-foot shared use path, which the CCT project would not impact.

There was also discussion about the proposed pedestrian bridge over Great Seneca Highway at Orchard Ridge Drive/Kentlands Boulevard. AAC members would like to see a pedestrian bridge at the Kentlands CCT station. They fear that people would not walk from the station to the pedestrian bridge at Orchard Ridge Drive/Kentlands Boulevard because the route is not direct or pedestrian friendly. However, it was noted that the pedestrian bridge is not part of the CCT project and is based on an agreement between MedImmune and the City of Gaithersburg as part of an annexation agreement. AAC members urged for continued coordination between all parties to ensure that a safe and efficient pedestrian crossing is provided.

### **Traffic Process Overview:**

**Elizabeth Andrew** started the discussion by explaining the different areas of project planning and design that traffic analysis informs and impacts. Areas include location of new traffic signals; operational design of new and existing traffic signals; pedestrian crossings; geometric roadway design such as turn lanes and median closures; BRT ridership estimates; BRT operations plans (e.g., travel times, headways, etc.); and inputs to noise and air quality studies.

The project team uses Vissim, a traffic modeling tool, to better understand existing traffic conditions and estimate the impacts of future growth and the CCT on future traffic conditions. To calculate future traffic volumes, the team uses existing traffic counts and “grows” them based on projected growth rates and planned developments. The team then adds the CCT operations to

the model in order to see the impact of the CCT on traffic conditions. The projected growth comes from the Metropolitan Washington Council of Government (MWCOG) forecast, which is regularly updated. MWCOG calculates the growth in consultation with all the counties and localities within the region, and the forecast is based on the adopted master plans and planned and approved development projects.

The team looks at the future year no build condition (which includes the forecast growth, without the CCT) and the future year build condition (which includes the forecast growth and the CCT). It evaluates the impact of the CCT and develops strategies to mitigate negative impacts. The team looks at the effects on motorists and CCT vehicles. The project team also coordinates with local jurisdictions to develop options to help failing intersections with the goal of avoiding service degradations from rapid transit to travel times similar to regular bus service.

Performance measures include travel times for the CCT vehicles along the whole corridor and for distinct segments, as well as travel times along select segments for motorists. Performance measures also include level of service and intersection delay, which indicate how well traffic flows. All legs of an intersection, not just those along the main road, as well as overall intersection operations, are evaluated for performance.

Another issue that the traffic team looks at is whether driveways or medians need to be closed. In AAC One, only the NIST entrance is impacted; it is being shifted south to the intersection of Quince Orchard Road and Quince Orchard Boulevard. The closing of intersections and medians is more of an issue in AACs Two and Three.

Elizabeth told the group that there would be two stations with parking within the AAC One area: Metropolitan Grove and Kentlands. While parking is not needed at all stations along the project corridor, some offer the space and good connectivity to major roads while others do not. Metropolitan Grove was identified for parking because of its designation as the Phase I terminal station and its access to I-270. Kentlands was identified because of its proximity to Great Seneca Highway and Quince Orchard Road, key roadways from the north and west. Through negotiations with Saul Centers, the parking at Kentlands could potentially be accommodated by using a portion of the existing parking lot. The project team has begun to develop concepts at Kentlands related to integration with the existing development as well as the conceptual redevelopment and will be coordinating with the necessary stakeholders.

With regard to whether there would be a charge for parking, the MTA's current policy is to not charge for parking and that MTA's parking policy would likely apply to the CCT as well.

Denny said that parking demands are not predicted to be large (approximately 100-200 spaces) and would be in line with the proposed number of spaces by the station. This led to a discussion about why parking was necessary at the Kentlands station as it is a walkable neighborhood. Denny explained that the proposed parking at Kentlands supports the neighborhoods to the south and west of the station, further than the standard ¼ mile catchment area for a walk-up station. When the ¼ mile catchment area was mentioned, there were many that noted that a ½ mile is the norm for transit. Throughout the planning of the project, numerous studies were conducted using both the ¼ and ½ mile catchment areas. Specifically, the ¼ mile is typically used and represents the distance people are willing to walk to access transit, but ½ mile may be more appropriate for

a premium service like the CCT as people are willing to walk farther in order to access a more attractive, fast and convenient service. Denny told the group that the project is currently evaluating parking in much more detail and this subject would be a stand-alone topic for a future meeting, possibly in conjunction with a discussion on operations.

AAC members wondered whether there were travel time goals for the CCT vehicles and what sorts of guidelines were used to determine how different intersections operate. **Kevin Permisohn** said that the goal is to have an end-to-end travel time of 38 minutes and in the design year (2035) headways of 3.5 minutes during peak periods. The intent is to operate the system using a headway-based approach rather than a schedule-based one. That is, CCT vehicles would aim to achieve a certain spacing between vehicles rather than reaching specific points at certain times of day.

To help the CCT vehicles maintain the appropriate headways, the CCT would use transit signal prioritization, which would extend the current green phase and allow a CCT vehicle to pass through an intersection sooner. The CCT would not use signal pre-emption, which immediately ends a conflicting cross street green signal so that a green signal can be provided for the transit vehicle. The system would be dynamic and respond to travel conditions in real time. The vehicles and traffic signals would be equipped with technology that allows them to communicate and coordinate signal requirements. Kevin said that the project is continuing to define how and where signal priority would work along the corridor, explaining that it may be implemented in targeted areas and not every intersection.

Concerns were raised about signal priority as it relates to ADA compliance and concern over cutting short the amount of time needed for pedestrians to cross. Kevin said that no pedestrian signals would be cut short. The pedestrian movements at all intersections have certain timing criteria and would not be pre-empted.

Elizabeth also explained that the project would keep existing pedestrian crossings, as well as adding new crossings where necessary. The timing of them would be updated to accommodate the additional crossing time to traverse the transitway. **Joana Conklin** from Montgomery County DOT pointed out that all of the County's signals are in the process of being re-timed using the revised standard pedestrian crossing time of 3.5 feet per second (rather than the previously used 4.5 feet per second). The CCT project is also using 3.5 feet per second for pedestrian crossing timing and is working with Montgomery County to obtain the most up-to-date signal timings to use in the Vissim analysis.

There was a discussion about bicycle timing, particularly when the bicyclist is on a minor street and needs to cross the major street (for example, one that the CCT is travelling on). There is typically not enough time for the cyclist to cross the major street using the vehicular signal. This is because motorists are able to travel through the intersection faster than the cyclist. To give the cyclist more time to cross, cyclists typically press the button to activate the pedestrian crossing timing. This provides enough time, but it is cumbersome for cyclists to leave the roadway to access the pedestrian button. The team understood the concern, but thought that at some intersections it may still be necessary to push the signal button, which is consistent with the way the County currently operates their signals. Kevin said that installing bicycle-sensitive detection

to detect bikes and trigger the pedestrian phase without pushing the button is an option that the team could research and explore.

### **Intersections Overview:**

To help explain the range of signal phasing options and considerations, Elizabeth showed the group four intersection designs and asked for their reactions. The intersections were Great Seneca Highway at Kentlands Boulevard/Orchard Ridge Drive, Great Seneca Highway at Lakelands Drive, Quince Orchard Road at Orchard Ridge Drive, and Quince Orchard Road at Twin Lakes Drive. She emphasized that these are concepts and that committee input is important.

The transitway would be concrete and look different from the roadway. There would also be new signage (similar to the BRT system in Los Angeles) and pavement markings for vehicular and pedestrian safety. The intersection would include 'Stop Here On Red' signs. In addition, before any of the designs are finalized, the intersections' sight triangles would be evaluated.

#### ***Great Seneca Highway at Kentlands Boulevard***

The design concept showed how the southbound right turn from Great Seneca Highway to Kentlands Boulevard and the right turn from Kentlands Boulevard onto Great Seneca Highway could operate. Today, these movements allow right turns on red. In the future, that movement would require crossing the transitway in order to make the turn. When a CCT vehicle is in the transitway, right turns would be prohibited. When the CCT vehicle approaches the intersection and a green signal operation is triggered for the vehicle, the right turn signal would switch to a yellow arrow and then a solid red arrow. The red arrow would be supplemented with a fiber optic sign prohibiting right turns by vehicles. When there is not a CCT vehicle approaching the intersection, a flashing red arrow would operate.

Concerns were raised about the safety of motorists easing into the intersection trying to make a right turn. Elizabeth said the project did consider eliminating right turns on red altogether, but decided to keep certain right turn movements in order to minimize traffic delay at intersections where there is a heavy traffic flow of right turns. If the flashing red is implemented and it is found to be unsafe, the signalization can be modified.

The existing double left turn lanes coming from Great Seneca onto Kentlands Boulevard would operate the same as they do now. On the left turn green arrow, the CCT vehicle would stop and wait. The CCT vehicle would only get a green signal when the Great Seneca Highway mainline through movement has a green signal. Kevin pointed out that the CCT vehicle signals would have a distinct appearance and be difficult to confuse with a traffic signal.

#### ***Great Seneca Highway at Lakelands Drive***

This intersection has many of the same issues as the Great Seneca Highway at Kentlands Boulevard intersection in terms of existing right turns on red. Making a right turn on red from Great Seneca Highway to Lakelands Drive would operate with the same approach described for the right turns at Kentlands Boulevard. However, the proposed design for the intersection of Great Seneca Highway at Lakelands Drive would prohibit right turns on red from Lakelands Drive onto Great Seneca Highway. This is because there is no merge or acceleration lane along Great Seneca at Lakelands Drive, and the operation would not be safe once the stop line is

moved farther back to accommodate the CCT. Allowing right turns on red at this intersection would encourage motorists to pull into and block the transitway while waiting for a gap in Great Seneca Highway traffic. The CCT project has no plans to install an acceleration lane at the intersection of Great Seneca Highway at Lakelands Drive and it would appear that installing one would be difficult to do because it would require widening the bridge over the Muddy Branch. In addition, SHA's complete streets policy requires adding a 6-foot bike lane to any state roadway that is disturbed or modified. If the CCT project were to build an acceleration lane at Lakelands Drive, it would need to also construct 200 feet of bike lane. A question was raised about the feasibility of an acceleration lane along the south side of the transitway, requiring motorists to pass over the transitway before merging into Great Seneca Highway traffic. Denny explained that is an unsafe operation since a driver would have to look more than 90 degrees behind to see if a CCT vehicle was approaching.

CCT members raised concerns about traffic backing up along Lakelands Drive if right turns on red were prohibited, especially during peak periods. The team agreed that right turn backups could be a concern. However, they noticed during field observations that not many cars were actually able to make right turns on red during the peak period due to volume and speed of vehicles along Great Seneca Highway. Further, it was observed in the field that the queue of vehicles along Lakelands Drive were able to clear in one signal cycle.

There was a brief discussion about the relocation of the sidewalk on the south side of Great Seneca Highway between Kentlands Boulevard and Lakelands Drive. The existing 5-foot sidewalk would be impacted by the transitway, but would be replaced. The project is working with SHA to determine what works best with the available space. Wetlands and stormwater management impacts in that area would have to be mitigated as required by the Maryland Department of the Environment (MDE). Also, the CCT alignment geometrics pose a challenge because the distance between Great Seneca Highway and a retaining wall for the CCT has to be maintained. The sidewalk could be built behind the retaining wall or between the transitway and roadway. The project team agreed that neither option is ideal.

***Quince Orchard Road at Orchard Ridge Drive and Quince Orchard Road at Twin Lakes Drive***  
Elizabeth explained that the intersection of Quince Orchard Road at Orchard Ridge Drive would operate similar to the intersection of Great Seneca Highway at Kentlands Boulevard with a flashing red signal for right turns. The intersection of Quince Orchard Road at Twin Lakes Drive would function similar to Lakelands Drive with a restricted right turn on red for the northbound movement from Twin Lakes Drive. This is because Orchard Ridge Drive would have a merge lane and Twin Lakes Drive would not. Kevin explained that the intersection of Quince Orchard Road at Twin Lakes Drive would be analyzed in Vissim both with an acceleration lane (allowing right turns on red) and without the acceleration lane (prohibiting right turns on red) in order to determine whether an acceleration lane should be provided.

Denny said that SHA was considering a double left from southbound Quince Orchard Road to Orchard Ridge Drive. The CCT team will coordinate this potential change to see if it would impact the design and operation of the CCT at this intersection. She also pointed out that the intersections of Quince Orchard Road at Orchard Ridge Drive and Twin Lakes Drive currently have islands to channelize right turns and said that they would be eliminated in both concepts,

creating more traditional urban intersections rather than free-flowing, high-speed right turns. Kevin said that the team is still evaluating the impacts of eliminating the islands.

Rob Robinson emphasized that planned development at the Vistas and MedImmune may increase traffic volumes in the future. Elizabeth noted that there are higher right turn volumes at Twin Lakes Drive than at Orchard Ridge Drive.

**Next Meeting Information:**

Holly noted that the September 11 meeting would feature a discussion of stations and urban design. The remaining meetings will be November 13, January 28, and March 26.

The meeting adjourned at 8:33 p.m.

###