



Area Advisory Committee One Meeting #4 Summary  
Thursday, September 11, 2014, 7pm  
Lakelands Clubhouse, Green Room  
960 Main Street, Gaithersburg, MD 20878

**Attendees:**

**Members**

Joseph Allen	Michael Harris
Marilyn Balcombe	Steve Scharf
Stuart Barr	Ronald Welke
Cherian Eapen	Kam Yee
Neil Harris	

**Apologies**

Girum Awoke	Anita Schweinfurth
Brian Downie	Lynne Tucker
Erik Morrison	Francine Waters
Peter Henry	Michael Watkins
Rob Robinson	James Woods
David Rosenbaum	

**Staff**

<b>Facilitator</b> – Holly Storck	<b>Public Involvement Task Lead</b> – Crystal Saunders
<b>Station Architect</b> – Todd Connelly	<b>Montgomery County DOT</b> – Joana Conklin
<b>Traffic Engineer</b> – Elizabeth Andrew	<b>Stormwater Management Lead</b> – Nimish Desai
<b>Segment Engineer</b> – Denny Finnerin	<b>Stormwater Management</b> – Seyed Saadat and
<b>Urban Design Lead</b> – Seth Garland	Kelley Moxley-Stanka
<b>Urban Design</b> – Lindsey DeHenzel	<b>Logistics Staff</b> – Jordan Vann

**General Public**

Vincent Burke - Saul Centers	Brian O'Looney
Richard Arkin	

**Handouts:**

Meeting packets included the following handouts - Meeting Agenda, Meeting #3 Summary, Natural vs. Urban Water Cycle, What is Storm Water Management, Filter Facilities, Water Quality, Stormwater Management Techniques, Stormwater Management concept graphic, What is Urban Design?, Design Considerations, Urban Design-Transit Corridor between Stations, Urban Design-Station Areas, Urban Design-Transitway Conditions, and Urban Design- Station Area Plans.

**Introductions and Overview:**

**Holly Storck** welcomed attendees and said that the primary topic of discussion of the meeting would be Stormwater Management and Urban Design. AAC members and AAC staff introduced

themselves. Holly said that the meeting was being recorded to aid with note taking and no objections were raised.

### **Update from Last Meeting:**

**Denny Finnerin** began the meeting by telling the group that the 15% design plans had been submitted to MTA Engineering for review. A series of meetings has been scheduled with Montgomery County, the cities of Gaithersburg and Rockville, and Maryland-National Capital Park and Planning Commission to review the plans. Denny explained that review process will go on for the next one to two months and the 30% design plans submittal will be in spring/summer 2015.

### **Stormwater Management:**

#### ***What is Stormwater Management?***

**Nimish Desai** began the discussion by explaining the natural water cycle and then comparing it to the urban water cycle. He explained that the portion of water that is not absorbed into the ground becomes runoff and flows into streams that will eventually flow into the Chesapeake Bay. The CCT transitway and other associated impervious design elements will increase the quantity of runoff and negatively impact the quality of runoff because the runoff will collect pollutants such as debris, dirt, phosphorus, nitrogen and metals off from the transitway. Stormwater management includes methods of reducing the quantity and improving the quality of water that flows off the project.

Nimish explained that stormwater management is a landscaping feature that attempts to restore/mimic the natural water cycle in an urban environment. Stormwater management helps to clean the pollutants from water in an urban setting.

#### ***Why is Stormwater Management Needed?***

A high volume of runoff will eventually cause erosion downstream. To control the amount of runoff and prevent erosion, this water is stored in a facility such as a pond that will slowly release the water into a stream channel or drainage system. This method is called quantity management. Runoff also collects pollutants that would eventually end up into Chesapeake Bay if not treated. Runoff passes through several filtering layers thus filtering the water from the pollutants before it gets discharged. Cleaning the runoff is called quality management.

The CCT will include several types of stormwater management facilities, including bio-swales (a ditch), micro-bioretenion planter (planter box), micro-bioretenion (planted green space), traditional stormwater ponds, and underground storage facilities. A question was asked about perforated piping and the possibility of overflow, flooding and/or clogging. Nimish explained that the piping can handle a small portion of runoff (about one inch), and that ponding could occur during a higher rain event. **Sayed Saadat** explained that the storm drain systems, as approved by MDE, are not typically designed for the type of high-intensity storms that have occurred recently and would bypass the facility. Also, to prevent flooding, the stormwater management facilities need to be maintained as required by Maryland Department of Environment's (MDE) criteria. The team is cognizant of these issues and will include features that handle overflow. However, it is still possible to have an occasional overflow if the downstream system is full due to larger storm events.

To combat clogging, all stormwater management facilities require maintenance. If a homeowner's association owns the facility, they are responsible for maintenance on an annual basis or after a major storm. Regulation requires the owner of the stormwater management facilities to check all of its facilities and maintain them every three years. Part of that maintenance includes checking for clogging. Seyed explained that for this project there will be a maintenance agreement signed that will explain the frequency at which maintenance must be completed.

Nimish further explained the techniques used for stormwater quality management including bio-swales, micro-bioretenion planter, and micro-bioretenion, and in extremely tight areas there is a possibility for a water quality inlet (storm drain opening in curb) or a high flow media planter box. Stormwater management quantity in this area will be extremely difficult because of the number of homes and already developed areas. The majority of quantity management will be done underground, under the transitway.

### ***Requirements***

Because the CCT is a state and federal project, the project must conform to the guidelines of MDE. The latest guidelines state that runoff must be treated at the source and not into ponds located far from the project.

A concern was raised about the stormwater management pond at Lakelands, its proximity to the transitway, and the CCT's effect on the existing stormwater management facilities. It was noted that the pond is not well maintained and has an algae problem that has been treated without success. Nimish explained that the pond at the Lakelands is not planned to be impacted by the CCT project and the team plans to keep the project's runoff separate. In addition, the proposed ponds along the CCT are proposed to be dry ponds.

There was discussion about whether the transitway could use a grass strip between the tire paths and whether that would help with stormwater management. Nimish explained that the team is studying that option. The cost of maintaining the grass, dealing with snow removal, and whether water could be removed quickly enough to prevent ponding in the transitway are all issues that need to be considered. Denny explained that a cost benefit analysis would also be needed (cost to build, cost of operations, maintenance cost, etc.).

The option of using permeable pavement was raised. Nimish explained that the team has looked at the option, but after speaking to manufacturers, have determined that it does not handle bus loading very well. However, permeable pavement is being considered for the trails and possibly for parking areas. There was a discussion about the option to put the permeable pavement in the center of the transitway where the grass could be, since it would function in a similar fashion. Acknowledging that as a great idea, Nimish noted that the pavement requires maintenance and would have to be vacuumed periodically, which would require closing the transitway. Seyed further explained that the intention is to use permeable pavement where possible and when it is cost effective.

Nimish explained the proposed stormwater management concept, using an aerial map of the AAC One Area. The team looked at the terrain, right-of-way constraints, costs, and visual aesthetics prior to proposing different treatment methods for stormwater management. On the

map, blue push pins noted where surface ponds would be located. Yellow push pins represented an expansion of existing ponds. The transitway will generate approximately 700,000 square feet of runoff. Seyed noted that throughout the corridor there will be approximately 50 acres of impervious area that would be required to be treated for stormwater management of which 40 acres are new impervious surfaces. The design currently includes more than 200 stormwater management facilities.

Along the transitway in AAC One there are four proposed bioretention areas. The transitway will impact the SHA Maintenance Shop parking lot and the team is proposing bio-swales using high flow media planters. A pond is proposed between the transitway and Quince Orchard Road. Bio-swales will also be located adjacent to the transitway along Quince Orchard Road until the alignment reaches Twin Lakes Drive, at which point the alignment becomes constrained due to topography. As a result, no stormwater management facilities are located in that area. The transitway crosses Great Seneca Highway on a structure and remains elevated through the Kentlands station. The project team is still determining how to address stormwater at this location. The transitway returns to grade prior to Main Street, and bio-swales will be included between the alignment and Great Seneca Highway. A surface pond is proposed adjacent to the pond at Lakelands. High flow media devices, water quality inlets, and several underground stormwater management vaults are proposed along Quince Orchard Road and Great Seneca Highway. Nimish explained how an underground facility would work by using one proposed near NIST as an example. The underground vault is represented on the Stormwater Management graphic by a red dashed line; it will provide quantity management and will slowly release water into the storm drain system.

There was a discussion about planting, specifically trees, and its help with managing runoff. Nimish and Seyed explained that most of the proposed facilities will include some level of plantings. Ponds, by regulation, should not have trees within 25 feet. It was noted that all of the proposed ponds are intended to be dry ponds, which will help to alleviate the concerns about algae.

## **Urban Design:**

### ***Overall Role in Project***

**Seth Garland** began the discussion by defining urban design and its role in the project. He explained that it is the intersection of several different disciplines and works directly with architecture, landscape architecture, stormwater management, planning, and civil engineering. Urban design helps determine how people will move through a space or how they will get into a place. Designers can then create those spaces using different urban design elements.

On the CCT project, urban design is primarily concerned with how people will get to and from the station whether it be on foot, by bicycle, or vehicle and if they feel safe and comfortable upon arrival. These elements are developed by architects, transitway engineers, civil engineers, stormwater management experts, and landscape architects to create an environment that is easy for people to use.

### *Urban Design Elements*

Using the Urban Design Considerations handout as a guide, Seth described how urban design would work in conjunction with a side running transitway. Between the street and the transitway is a buffer zone where there can be many different elements including but not limited to: bus stops, pedestrian connections to/from the station or intersection, turn lanes, pedestrian crossing/area of refuge, and a crosswalk. Outside of the transitway is the major pedestrian zone (which most times would include a sidewalk) and is the preferred area for pedestrians.

Seth discussed using a minimum of a five-foot sidewalk and it was pointed out that the City of Gaithersburg has a six-foot minimum. Seth explained that five feet is the basic ADA standard for a sidewalk, but it can be enlarged when space is available or smaller, for limited distances, when necessary. When the project is evaluating a five-foot sidewalk, it is because the team is considering the size of the buffer zone, the desire to avoid the sidewalk being against the edge of the street, and to allow space for landscaping elements, signs, fire hydrants, other infrastructure, etc.

Seth emphasized that the project is at 15% design and much of what the handouts show are ideas and proposals.

### Transit Corridor between Stations

Seth used the Transit Corridor presentation packet to discuss crosswalks, stormwater management/landscape, pedestrian/bike access, transitway treatment, retaining walls, signage and wayfinding, and art in transit.

### *Crosswalks*

The team is working with the State Highway Administration (SHA) to determine what can and cannot be in the road.

### *Stormwater management/landscaping*

Seth explained that the team works with the stormwater management team and landscape architects to find opportunities to use required stormwater facilities to enhance environment.

### *Pedestrian and Bicycle Access*

While there are areas along the alignment where the project is taking on the responsibility of building portions of the shared use path and pedestrian/bike access, in general, it is not part of the project. However, the urban design team does consider how pedestrian and bicycle access can be integrated into the alignment and works with the County and the cities to ensure connections are accommodated.

### *Transitway Treatment*

Seth explained the different ways to treat the transitway, whether it is with pavement type, grass median, or color. Currently, the idea is to have a concrete transitway because it lasts longer than asphalt.

### *Retaining Walls*

Retaining walls, MSE (mechanically stabilized earth) retaining walls, and portals each impact the character and feel of a place. Seth explained that there are ways to treat these elements to make

them more conducive to the neighborhood or area. Retaining walls could be adapted to fit into the existing environment.

The group discussed the impact and appearance of having a large concrete structure in front of a community, specifically the elevated transitway and station at Kentlands. Seth explained that addressing the issues and concerns will be a mixture of working with the architects, looking at the station area, looking at what will be under the station area and possible opportunities for landscaping, and the treatment of the structures. Design and materials of the structures are still being determined.

Denny noted that the project team is currently investigating various structure types. The intent is to create a signature look for the transitway to differentiate it from a typical highway bridge.

**Todd Connelly** assured members that the station architects are working with Seth and Lindsey on addressing the spaces under and adjacent to the elevated portions of the transitway as well as other structures associated with the project. He explained that the main focus was at the station, but the big picture is also being considered. For example, he noted that at this point in the design, the size of a retaining wall is known and the project team is currently studying how that element should be addressed architecturally and from an urban design standpoint.

There was also a discussion about line of sight and who is responsible for looking into it. Seth explained that any retaining walls, columns, or other elements would be located to accommodate appropriate sight distance for buses on the transitway, traveling public, and pedestrians.

Members expressed their desire to see MedImmune, MTA, and the City of Gaithersburg work together on the proposed pedestrian bridge over Great Seneca Highway. Members would like to see the crossing occur so that it ends at the Kentlands Station. Holly noted that the MTA is aware of the pedestrian bridge and the AAC's request to have the bridge connect to the station, but the bridge is based on an agreement between the City of Gaithersburg and MedImmune.

#### *Signage and Wayfinding*

There will be signage both at and between the stations. There is a possibility of having signs at intersections to tell people how close the next station is. Opportunities could exist for the community to add information at these signs as well, such as local points of interest. As the project advances, feedback from communities about what they would like to see will be solicited.

#### *Art in Transit*

Seth explained that large transit projects that get federal funding generally have art in transit elements. For this project, the thought is that the art will be functional and integrated into the transit elements.

#### Station Areas

Seth used the Station Area presentation packet to discuss paving areas, bike parking, pedestrian lighting, street furniture/landscaping, local transit coordination, and sustainability/stormwater management.

### *Paving Areas*

Which areas are paved and what materials are used can give the station areas an identity and be an element that is consistent throughout the corridor.

There was a discussion about the availability of and provision for kiss and ride parking at the stations. Seth explained that the team is looking at that now and does not have any definitive answers. At Metropolitan Grove MARC and Shady Grove Metro Stations there are already established kiss and ride parking and procedures. However, at other stations, kiss and ride may be handled in a more informal manner with loading areas or five-minute parking areas. Kiss and ride provisions are possible at the Kentlands Station.

### *Bike Parking*

Although the amount of spaces has yet to be determined, AAC members and the urban design team can suggest where the bike parking should be. The team has discussed both open and covered bike parking in order to create a high level of service. Including bicycle facilities and Bikeshare kiosks near the stations was discussed.

### *Pedestrian Lighting*

Pedestrian lighting is different from the lighting needed when driving a car. Lighting for pedestrians needs to be lower, making it easier to see details such as other people in the area and create a sense of safety.

### *Street Furniture*

Street furniture could include benches, trash cans, and recycling cans.

### *Local Transit Coordination*

The team has and continues to work with the County to coordinate with existing bus routes and locations of bus stops. The shared goal is to locate adjacent stops as close to the CCT stations as possible and to address the location of stations that are impacted by the transitway.

### *Sustainability/Stormwater Management*

At stations, there are stormwater management design elements that can provide some mitigation and serve as a barrier to unwanted mid-station pedestrian crossings. The landscaping of these areas should be attractive and enhance the atmosphere of the station area.

### *Project Specific Urban Design*

#### Representative Transitway Conditions

**Lindsey DeHenzel** went over the representative cross sections, which included before and after illustrations of Quince Orchard Road near Twin Lakes Drive, Great Seneca Highway near Kentlands Boulevard, and Great Seneca Highway near the Muddy Branch bridge.

At the Great Seneca Highway retaining wall before Kentlands Boulevard, Lindsey noted that the new elements could be made to complement the existing stone finish. Lindsey also noted that due to constraints, the proposed sidewalk has been located between the transitway and the highway. The team is still working to determine the size of the buffer between pedestrians and traffic.

There was discussion about moving the sidewalk closer to the transitway rather than the highway, because of the frequency and predictability of the BRT vs. traffic. Seth explained that because of the speed of roadway traffic, a traffic barrier needs to be placed between the sidewalk and roadway, which limits the extent of landscaping. Thus, a little more room was provided between the sidewalk and transitway to allow for an adequate landscape planting buffer. Denny noted that this buffer varies in size along Great Seneca Highway. The goal is to allow enough buffer area for landscaping.

### Station Area Plans

Seth presented the station and platform prototypes and stated that they represent idealized examples of what could happen at the stations. Lindsey further explained possible urban design elements at the stations. She noted that at a few stations where there is a bus stop, there would be a secondary sidewalk that would allow for bus access and provide better circulation around the station area.

There was discussion about taking into account the space needed for Bikeshare stations. Seth explained that coordination will occur as needed, since Bikeshare stations are larger than an average bike rack. The prototypes shown are a baseline for what can be done; in some places where there is more space to accommodate Bikeshare it will be as close as it can be to the CCT stations. Denny stated that that Bikeshare coordination has already begun on King Farm Boulevard. Lindsey explained the graphics of the prototype station pointing out the possible urban design elements available.

There was a concern that the graphics did not show a platform covering. Seth and Lindsey explained that there is a notation at the bottom of the graphic stating, “Station/Platform amenities omitted for discussion at AAC Meeting #5.”

Seth began to walk through the station site plans, but members noted that it was almost 8:30pm. Because this was the topic and portion of the presentation members were most interested in hearing about and having an opportunity to provide feedback on, it did not seem appropriate to rush through it. The group decided to have Seth provide a very brief overview of the four stations and attend the November meeting where the urban design team’s station area plans could be discussed prior to station architecture.

### **Next Meeting:**

The next meeting will be November 13, 2014 at the Lakelands Clubhouse. The primary topic will be stations. All future meetings will be held at the Lakelands Clubhouse.

There was a discussion about having a five-minute update on project funding status at the beginning of each meeting including information about changes in projected costs, progress on obtaining funding, and timing. Members explained that they hear lots of things about funding and whether or not the project will happen, and they would like to have up-to-date information.

Members also expressed concern about Montgomery County advocating for BRT in other parts of the County and not the CCT. They wondered if the CCT was no longer a priority. **Joana Conklin**, Montgomery County DOT, explained the CCT is still the highest priority transit

project in the County, but because it is addressed differently in the County's Functional Master Plan, it is following a different path than the other BRT projects the County is studying.

The meeting adjourned at 8:50pm

###