



Purple Line Final Environmental Impact Statement (FEIS) & Draft Section 4(f) Evaluation

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Completed: 10/14/13

Description

Staff will provide the Planning Board with an overview of the Purple Line FEIS and Draft 4(f) Evaluation and the basis for the recommended comments for forwarding. The Purple Line FEIS and Draft 4(f) document can be found on the Maryland Transit Administration (MTA) Purple Line web site at www.purplelinemd.com. The next scheduled formal review of the Purple Line will be as a Mandatory Referral and that is expected to occur after the Federal Transit Administration (FTA) issues a Record of Decision (ROD). The current schedule calls for the ROD to be issued in December 2013. It will be important for the Mandatory Referral to be reviewed immediately thereafter - in the January to March 2014 timeframe - in order to provide input in advance of the eventual final Request for Proposals (RFP) for final design, construction, and the operation and maintenance of the Purple Line under the MTA’s public private partnership (P3) process. The current schedule calls for the RFP to be finalized sometime during spring 2014.

Recommendation

Planning Department and the Department of Parks staff recommend the Planning Board forward the attached comments (see Attachment A) on the Purple Line FEIS and Draft Section 4(f) evaluation to the County Council and MTA prior to the close of the comment period on October 21, 2013. This memo and the accompanying (see Attachment B) Department of Parks memo provide the background and analysis in support of the comments and/or recommendations. The primary comments and/or recommendations from the Department of Parks will be incorporated into Attachment A after the Planning Board conducts its review of Attachment B.

Summary

This memo addresses the extent to which the Preferred Alternative – including the Purple Line and the Capital Crescent Trail¹ – as described and analyzed in the FEIS is in compliance with adopted master plans. **Staff finds that the Preferred Alternative is in substantial compliance and where there is difference; the MTA either has, or continues, to refine design and seek stakeholder input.** Additionally, MTA has made substantial progress on the segment of the Capital Crescent Trail that requires CSX right-of-way since the FEIS was issued in September. MTA advises that stakeholders will continue to provide input and comment post-ROD as the project; however, significant scope changes will be subject to a greater level of scrutiny once MTA enters into a public-private partnership agreement (“Concession Agreement.” MTA also advises that it intends to enter into a Memorandum of Agreement (MOA) with the Planning Board prior to the release of the final Request for Proposals in the late Spring 2014. This

¹ It should be noted that the Capital Crescent Trail, while included in the FEIS, is being designed and constructed by MTA on behalf of the Montgomery County Department of Transportation. Decisions regarding design of the trail, such as whether or not to acquire additional right-of-way, add certain enhancements, etc. fall under the Executive Branch.

Agreement will address key design/scope requirements which should be adhered to through final design and construction, environmental mitigation measures which meet or exceed the requirements of the ROD, property transactions and other terms necessary to advance the relevant master plans. It is expected that a term sheet for the Agreement will be presented to the Board in early December of this year.

It is important to note that the ROD narrative and drawings will reflect refinements that have occurred since the publication of the FEIS. For example, the MTA has recently informed staff that CSX is amenable to discussion of the purchase of their parcels that are required in order to complete the trail within an exclusive right of way between Lyttonsville Road and 16th Street. Another change or modification is that it is unlikely that the updated drawings will include a pedestrian crossing in a tunnel near Lynn Drive as the Town of Chevy Chase has weighed in against that option. The current drawings reflect the Capital Crescent Trail crossing the CSX corridor on a dedicated bridge instead of using the Talbot Avenue bridge. The current drawings also do not reflect the latest thinking on Bonifant Street in Silver Spring where efforts have been made to mitigate the loss of space for loading and unloading near the businesses on that street. Finally, the FEIS drawings do not reflect a re-aligned entry to the Long Branch Local Park and Recreation Center that will permit left turns out of the Park/Center onto eastbound Piney Branch Road. These and any other potential changes to the engineering drawings are expected to be included as part of the Mandatory Referral review.

The Planning Department contracted with the Toole Design Group – a firm nationally recognized for their expertise in bicycle and pedestrian planning and located in Silver Spring – to evaluate the Preliminary Engineering plans for the Purple Line, the Capital Crescent Trail, and the Silver Spring Green Trail. Their memo titled “Peer Review of Trail Projects” is included as Attachment D, and identifies a number of issues with the two trail projects and access to Purple Line stations. Planning staff has used the Toole Design memo to inform selected comments in this staff report and will be using this memo to:

- comment on the Purple Line Preliminary Engineering plans later this fall
- prepare the mandatory referral in early 2014
- prepare for a meeting of County in early November

This last point is particularly important. **Many of the issues identified in the Toole Design memo are related to County-owned bridges, roads, and intersections that MTA is designing under MCDOT’s direction.** Planning staff has organizing a meeting in early November to attempt to resolve the issues. As

previously noted, our role is more of a facilitator, the ultimate decisions on the trail decision rest with the Executive Branch.

Table 1 presents the Purple Line project schedule as we understand it at this time.

Table 1 – Purple Line Project Schedule

Action	Target Date
FEIS & Draft 4(f) Signed	Sept 2013
FEIS Comment Period Ends	Oct 21,2013
Request for Qualifications (RFQ) <ul style="list-style-type: none"> • Public Private Partnership • Design, Build, Operate, Maintain 	Oct 2013
FEIS Record of Decision (ROD) Issued <ul style="list-style-type: none"> • Project Scope • Project Impacts • Project Mitigation 	Dec 2013
Mandatory Referral Review <ul style="list-style-type: none"> • Purple Line • Bethesda South • CCT & Silver Spring Green Trail 	Spring 2014
MTA Finalizes Request for Proposals (RFP) <ul style="list-style-type: none"> • Agency Memo of Agreement (MOA) Included 	Spring 2014
MTA Announces Preferred Developer	Fall 2014
Commercial Close of Solicitation	Fall 2014
Construction Begins	2015
Purple Line Opens	2020

Finally, staff would note at the risk of stating the obvious that the Purple Line is critical to the County’s future growth and development. It is a complex project that as noted above is about to enter a phase in its development that is characterized by a series of important milestones that are scheduled to occur in relatively short order. The staff believes it important to communicate our understanding of how and when on-going design and other issues will be resolved going forward. We have discussed this with the MTA and believe the following approach is a reasonable representation of where we are at this time for considering the many issues being addressed on multiple fronts going forward.

Table 2 – General Context for Advancing Comments on Purple Line and CCT Design Considerations

Category 1 - Comments on FEIS and Issues More Related to Policy and Process
<ul style="list-style-type: none"> • Master Plan and Functional Plan Consistency
<ul style="list-style-type: none"> • Review and Input Opportunities under Public Private Partnership
<ul style="list-style-type: none"> • Impact Evaluation
<ul style="list-style-type: none"> • Minimization & Mitigation Identification and Commitments
Category 2 - Comments on Issues More Related to Memorandum of Agreements (MOA) (Agency Specific)
<ul style="list-style-type: none"> • Specific detailed commitments for Minimization and Mitigation that are largely recognized in a regulatory and/or funding context
<ul style="list-style-type: none"> • Included in Draft and Final RFP for Project Developer
<ul style="list-style-type: none"> • Agencies include M-NCPPC & Department of Parks, MCDOT (CCT and Streets), Maryland Department of Environment, UMD College Park, WMATA, etc.
Category 3 - Comments on Issues More Related to Mandatory Referral and/or Issues Where the Planning Board Role is Advisory in Nature
<ul style="list-style-type: none"> • More detailed design comments on Capital Crescent Trail and Silver Spring Green Trail

Staff recommends that the Planning Board work off of the Draft Comment Letter (see attachment A) to finalize the comments that are due to MTA by Monday, October 21, 2013. The comments in that letter focus on those comments related to policy and process (Category 1 above) but also include general statements on the need to continue to move forward in the development of specific MOAs with the applicable agencies and formalized consideration of relatively detailed recommendations for the CCT and other design items where the Planning Board role is more advisory in nature.

Contents

Description1

Recommendation1

Summary2

FEIS Review and Analysis.....7

 Master Plan Conformity, Impact Assessment, and Overall Approach to Minimization and Mitigation .. 7

 Other FEIS Issues..... 21

Draft 4(f) and Section 106 Evaluation.....29

 Historic Preservation..... 29

 Natural Environment 30

 Parkland Impacts..... 31

Issues More Related to Memorandum of Agreements (MOA) with Applicable Agencies.....31

 Dale Drive Station 31

 Bonifant Street On-Street Parking and Loading Areas..... 33

 Ridership Forecasts 36

 Traffic 37

 Bicycle Parking at Stations 40

**Issues More Related to Mandatory Referral and/or Issues Where the Planning Board Role is Advisory
in Nature41**

 Capital Crescent Trail Access at Kansas Avenue 41

 Capital Crescent Trail along Talbot Avenue 42

 University Blvd 45

Attachments.....45

 Attachment A – Draft Letter to MTA and County Council with Comments and Recommendations

 Attachment B – Department of Parks Memo

 Attachment C – Area 1 Staff Memo

 Attachment D - Toole Design Memo on Capital Crescent Trail and Silver Spring Green Trail

FEIS Review and Analysis

Master Plan Conformity, Impact Assessment, and Overall Approach to Minimization and Mitigation

The Purple Line Preferred Alignment as evaluated in the FEIS is a central element in four approved and adopted County Master Plans. These include:

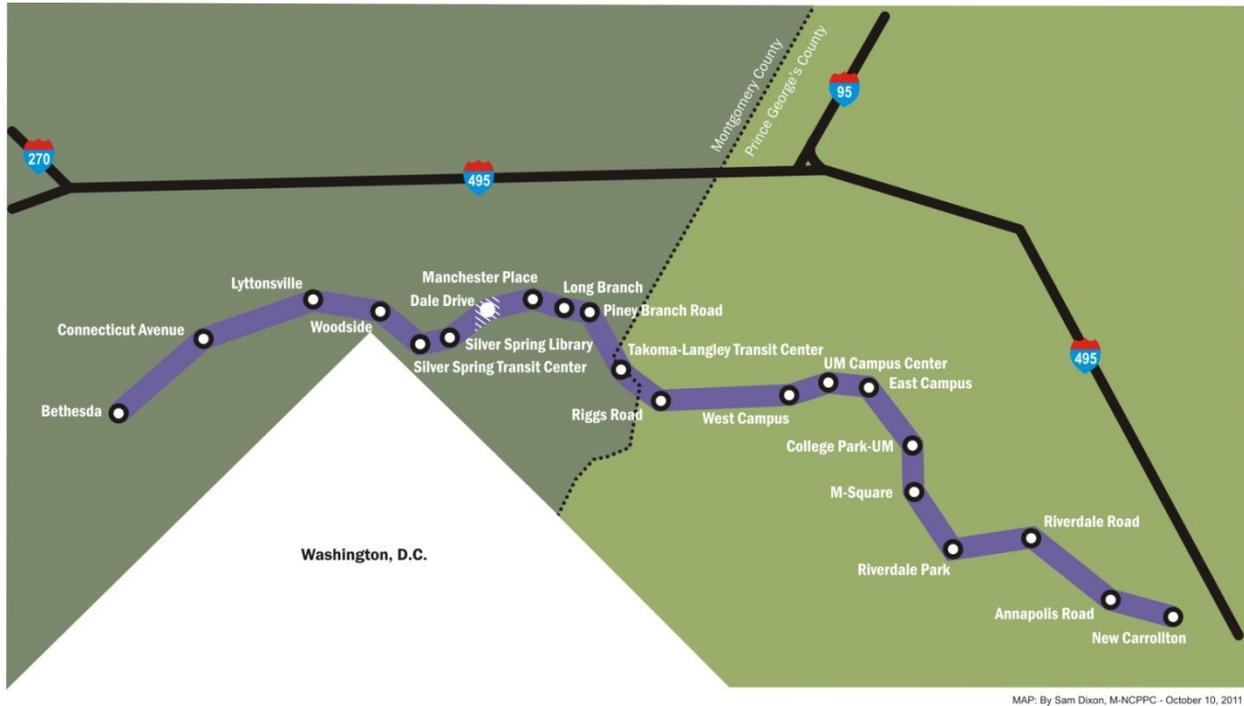
- Bethesda CBD Master Plan (July 1994)
- Chevy Chase Lake Sector Plan (July 2013)
- Takoma Langley Crossroads Sector Plan (June 2012)
- Purple Line Functional Plan (September 2010)

There are four other plans in various stages of development that also feature the Purple Line as a central element:

- Long Branch Sector Plan – Council approval is anticipated on October 22nd
- Bethesda Purple Line Minor Master Plan Amendment – underway as part of Planning Department FY 14 work program and scheduled for transmittal to Council by the end of 2013.
- Bethesda CBD Master Plan – recently initiated and scheduled for review by the Planning Board during winter 2014 – 2015.
- Greater Lyttonsville Master Plan – scheduled for resumption during spring of 2014 after a delay to accommodate a necessary adjustment in the Department’s master plan schedule.

The Preferred Alignment of the Purple Line (Figure 1) as evaluated in the FEIS is in substantial compliance with the County’s approved and adopted master plans in its form as a light rail transitway extending from Bethesda to the County’s eastern boundary on University Boulevard. The Purple Line in Prince George’s County ends at the New Carrollton Metrorail Station.

Figure 1: Preferred Alignment of the Purple Line



The FEIS (pages ES-8 and ES-9) narrative notes the following with respect to the challenge of balancing benefits and effects (**emphasis added**):

“On the benefits side, the Preferred Alternative **strongly achieves** the (project) purpose and need. It would provide faster, more direct, and reliable east-west transit service in the corridor; it would connect major activity centers, better connect Metrorail services, and improve connectivity to the communities between the Metrorail lines. Is also **strongly supports county land use and economic development plans and goals**.

The Preferred Alternative also **would affect numerous environmental resources** in the corridor. Many of the project effects are a result of the need for right of way. Unfortunately, while the developed character of the corridor makes it an ideal candidate for LRT transit service, it also poses challenges to introducing a new transportation facility.

On the one hand, MTA desires to make the system as convenient for the community as possible; on the other hand, it has an obligation to preserve existing and planned roadway, transit, freight rail, bicycle, and pedestrian operations. **To strike this balance** between benefits and effects, MTA has worked with affected parties and the communities to minimize right of way needs. **It will continue this iterative process beyond the NEPA process**, focusing in equal measure on **improving the fit of the Preferred**

Alternative in relation to neighborhoods, historic properties, parks, other community facilities, businesses, and private property owners.”

Staff agrees with this overall assessment of the project as described in the FEIS and believes it particularly important to recognize the iterative nature of the review process of any project of this magnitude. That process has led to modifications to some design elements that are different than noted in the Purple Line Functional Plan – something that was anticipated at the time of the approval and adoption of the Plan. The Functional Plan for instance on page seven notes in part:

“This Plan is based on the best project plan information available at the time of the Plan’s adoption. The estimated dimensions, features, and descriptions are subject to on-going modifications as project planning continues into preliminary engineering, final design, and construction.”

A summary of the design modifications reflected in the FEIS Preferred Alternative that differ from the Functional Plan and/or other recently adopted plans is provided below. Additional detail on selected modifications and/or design issues requiring additional on-going assessment is provided in subsequent sections of this staff memo. **One final note with respect to master plans is that the FEIS (page 4-21) lists the Chevy Chase Lake and Takoma Langley Crossroads Sector Plans as “pending approval.” These plans were approved and adopted in July 2013 and June 2012, respectively.**

Capital Crescent Trail (CCT) at Bethesda Purple Line Station

The Preferred Alternative depicted in the FEIS no longer includes the CCT suspended above the LRT in the tunnel under Wisconsin Avenue as shown in the Purple Line Functional Master Plan. The continuation of the CCT westward from Elm Street Park is now only via the master planned “surface route” that crosses Wisconsin Avenue at Bethesda Avenue. The Preferred Alternative does include a 5 to 7 foot wide sidewalk in the tunnel adjacent to, and separated from, the LRT. The modification was the result of engineering assessments that found the risks associated with constructing the trail over the train to be reason for concern – as well as expensive. The Planning Board and County Council agreed with the modification.

The Planning Department has underway the Bethesda Purple Line Station Minor Master Plan Amendment that is examining the feasibility of a second tunnel to accommodate the CCT and provide for a grade separated crossing of Wisconsin Avenue. One potential concept of how this might be accomplished is provided below in Figure 2.

Figure 2: Potential Concept for the Bethesda Purple Line Station



The plan shown above in Figure 2 would also provide for enhancements to the station area in the form of a wider and straighter platform and elevators to access the Red Line internal to the site instead of within the Elm Street right of way. Both of these modifications would significantly improve pedestrian flow at this busy end of line station.

Constructing the station area enhancements will require a commitment on the part of a developer to redevelop the Apex Building by early 2014 if the existing MTA Purple Line project timetable is to be met. If a developer does not come forward to construct the new station concept by the deadline, the Preferred Alternative design in the FEIS will be the operative (or “default”) design. Both designs would represent a change to the Purple Line Functional Master Plan and consideration of both plans as an eventual (if not preferred) outcome is consistent with current policy direction from the Planning Board and County Council.

Given the above, staff recommends that the Planning Board note in comments that the **FEIS Preferred Alternative reflects a Bethesda Station area plan that no longer includes the Capital Crescent Trail above the Light Rail Train in the tunnel under Wisconsin Avenue. The trail instead would cross Wisconsin Avenue at grade – a feature also included in prior adopted master plans. The Planning Department is currently considering another design concept for the station as part of the Bethesda Purple Line Station Minor Master Plan Amendment process. Both designs would represent a change**

to the Purple Line Functional Master Plan and consideration of both plans as an eventual (if not preferred) outcome is consistent with current policy direction from the Planning Board and County Council.

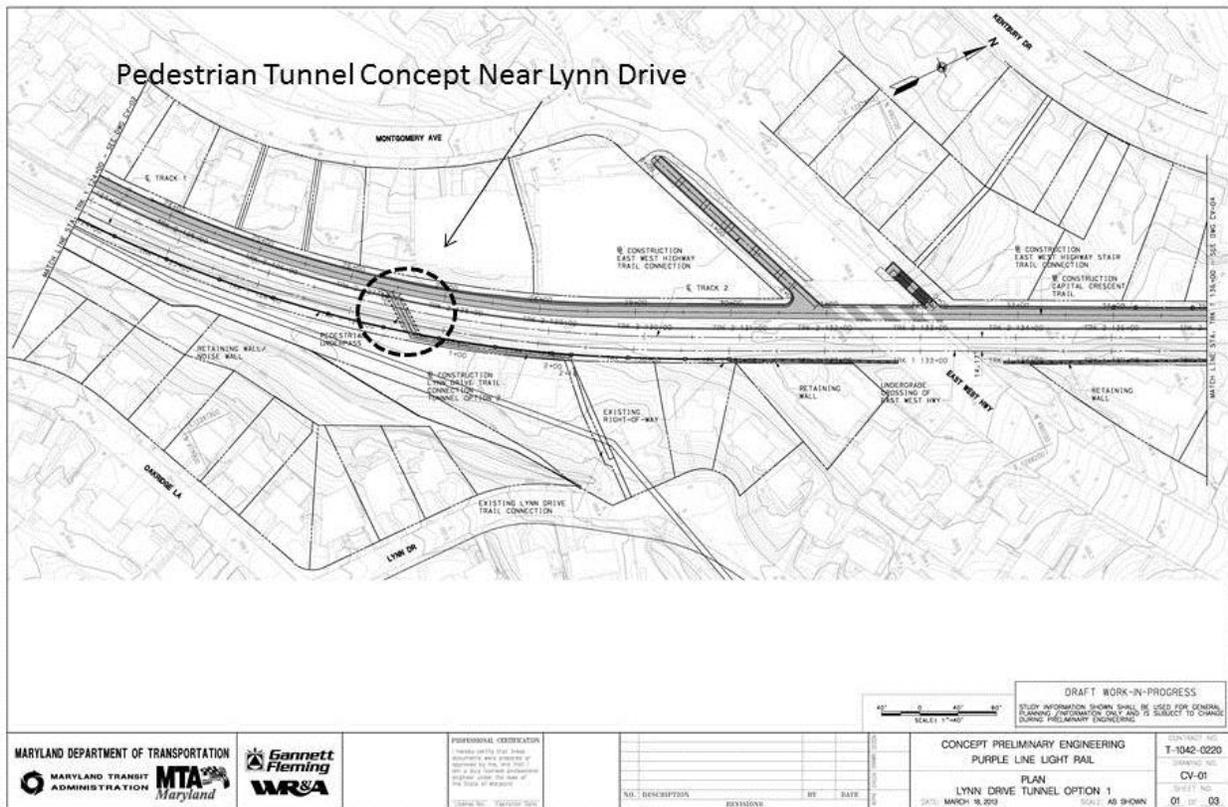
Lynn Drive Crossing

The Purple Line Functional Plan (page 11) notes the following with respect to a pedestrian crossing of the CCT near Lynn Drive:

“trail access via a pedestrian ramp on the north side of the right of way near the Riviera Apartments with an at-grade crossing to an existing trail connection to Lynn Drive” ...and “in the design phase alternatives to the Lynn Drive at grade crossing should be explored and if the crossing is retained, special attention given to safety.”

Over the past three years, MTA has worked with the Town of Chevy Chase’s Purple Line Mitigation Advisory Group to come up with solutions to replace the existing connection between Lynn Drive and the interim Georgetown Branch Trail while still providing for some pedestrian crossing of the right of way at or near this location. This connection is used by many residents to access the trail, and for students and others headed in the direction of Bethesda – Chevy Chase High School. Earlier concepts included connections to East-West Highway and an at-grade crossing of the tracks, both of which were dropped primarily for safety reasons. The East-West Highway concept was also dropped due to right-of-way acquisition and privacy concerns. In January 2013 MTA presented the Town with two concepts that would directly connect Lynn Drive to the Capital Crescent Trail with an underpass (one of the options is shown in Figure 3 below), but these were rejected due to private property impacts and visual impacts of the resulting (more) elevated tracks.

Figure 3: Lynn Drive Crossing Tunnel Option



The Town has requested that the MTA instead consider limiting the speed of the train along this segment in order to accommodate a controlled at-grade crossing of the CCT. The current design speed is 45 mph. The MTA has indicated that reducing the speed along this segment of highest ridership within an exclusive right of way is undesirable. Staff concurs that reducing the speed in this segment is counter-productive to the project overall objective of providing convenient and reliable connections between the Bethesda and Silver Spring over the exclusive right of way acquired specifically for this purpose.

Given the above, **staff recommends that the Planning Board note in comments the master plan recommendation for the at-grade pedestrian crossing of the Purple Line right of way near Lynn Drive was dependent on further analysis of overall feasibility – especially the ability to provide a safe crossing. MTA analysis has indicated the at-grade crossing cannot be provided at the current design speed and the Planning Board concurs that reducing the speed in this section is undesirable.**

Purple Line / CCT Bridges over Connecticut Avenue

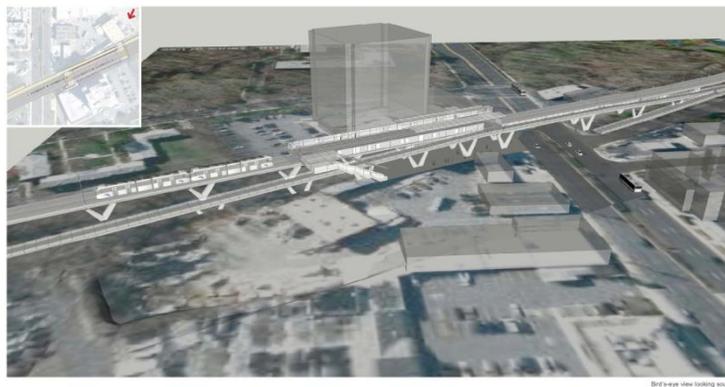
The County Council resolution of approval of the Chevy Chase Lake Sector Plan notes (page 16) the following with respect to the bridges over Connecticut Avenue:

“The Purple Line and Capital Crescent Trail bridges over Connecticut Avenue will be highly visible, acting as visual gateways to the Town Center. Their design should reflect the history and character of Chevy Chase Lake.”

In June 2012, the MTA presented changes to the concept design for the bridges that will carry the Purple Line and CCT over Connecticut Avenue to the (staff level) Montgomery County Coordination Committee. The MTA – as part of a value engineering exercise along the entire alignment – examined the potential for either an at-grade crossing or bridges on box structures or fill instead of on piers and determined that the most cost –effective approach would be to go forward with a design that called for a bridge on box structures or fill.

One example of an earlier concept for the bridges included piers as depicted below in Figure 4.

Figure 4: Connecticut Ave Bridge Concept on Piers



Connecticut Avenue Station

Presentation for MNCPPC 09.21.10

KGP Design Studio



A conceptual representation of the modified design resulting from value engineering is shown below in Figure 5.

Figure 5: Connecticut Ave Bridge Concept on Fill



The FEIS provides the following assessment (page 4-85) related to the bridges:

“The bridges carrying the transitway and trail over Connecticut Avenue would generally be compatible with the existing visual character and quality of suburban land use and transportation infrastructure already present or planned in this location. These bridges would be larger in scale and mass than much of the surrounding development.”

Staff finds this assessment to be confusing. The bridges are either compatible or not compatible with the setting. We do not believe the bridges on fill (as presented in the FEIS) are compatible with any aspect of the Connecticut Avenue corridor south of Jones Bridge Road.

The FEIS also notes (page 4-92) the following:

“Visual impacts to the Connecticut Avenue area from the proposed bridges are a community concern. MTA will continue to coordinate and consult with Montgomery County and the local community regarding the aesthetic treatment of the bridge structures over Connecticut Avenue.”

Staff believes that in addition to visual aspects of the bridges, there is an access issue in the form of the opportunity to provide for pedestrian flow internal to the redeveloped sites on either side of the elevated train and trail. The January 2003 Purple Line Transit Oriented Development Assessment prepared for the Maryland Department of Transportation (MDOT) by Parsons Brinckerhoff includes the following relevant design guidance on both access and aesthetic treatment:

- “Does design allow for direct pedestrian connections from the transit facility to adjacent communities?”
- Has the transit investment been designed from the community into the platform rather than vice versa?
- The station will be elevated over Connecticut Avenue with a platform to the east of Connecticut Avenue. Bridge design for elevated crossing is an important urban design feature that will characterize this “place” in the future.”

Finally, the Purple Line Functional Master Plan (page 5) notes the design focus for the segment in question *“should reflect and reinforce ... the area’s gateway character ... and station access and compatibility.”*

Staff does not believe the current design for the bridges over Connecticut Avenue is consistent with long established specific policy guidance. The design is instead the product of a value engineering exercise. As a result, **staff recommends that the Planning Board note in comments that the design calling for the bridges over Connecticut Avenue to be placed on fill or box structures is not consistent with prior policy guidance and previous representations and is therefore not desirable. The design for this gateway location should be refined to better respond to adopted design guidance in local master plans and prior MDOT supporting technical advice for TOD along this specific segment.**

Connecticut Avenue Bridges and Recommended New Master Plan Street B-1 in Chevy Chase Lake Sector Plan

The County Council resolution of approval of the Chevy Chase Lake Sector Plan notes (pages 13 and 14) the following with respect to the new master plan street connecting Manor Road and Chevy Chase Lake Drive under the elevated rail line:

“The new street must be wide enough for one travel lane in each direction, with on-street parking on both sides. This configuration will further promote walkability and help slow traffic. Priority access to the station will be for pedestrians, bicyclists, and transit, with seating areas, bike racks and bike share, and a bus stop. Vehicular access to the station is a lower priority, with only on-street parallel parking, some of which may be reserved for pick-up and drop-off during rush hours.”

The FEIS drawings do not appear to staff to include accommodation of the new street under the bridges that carry the Purple Line and CCT over Connecticut Avenue. The recommended minimum right of way

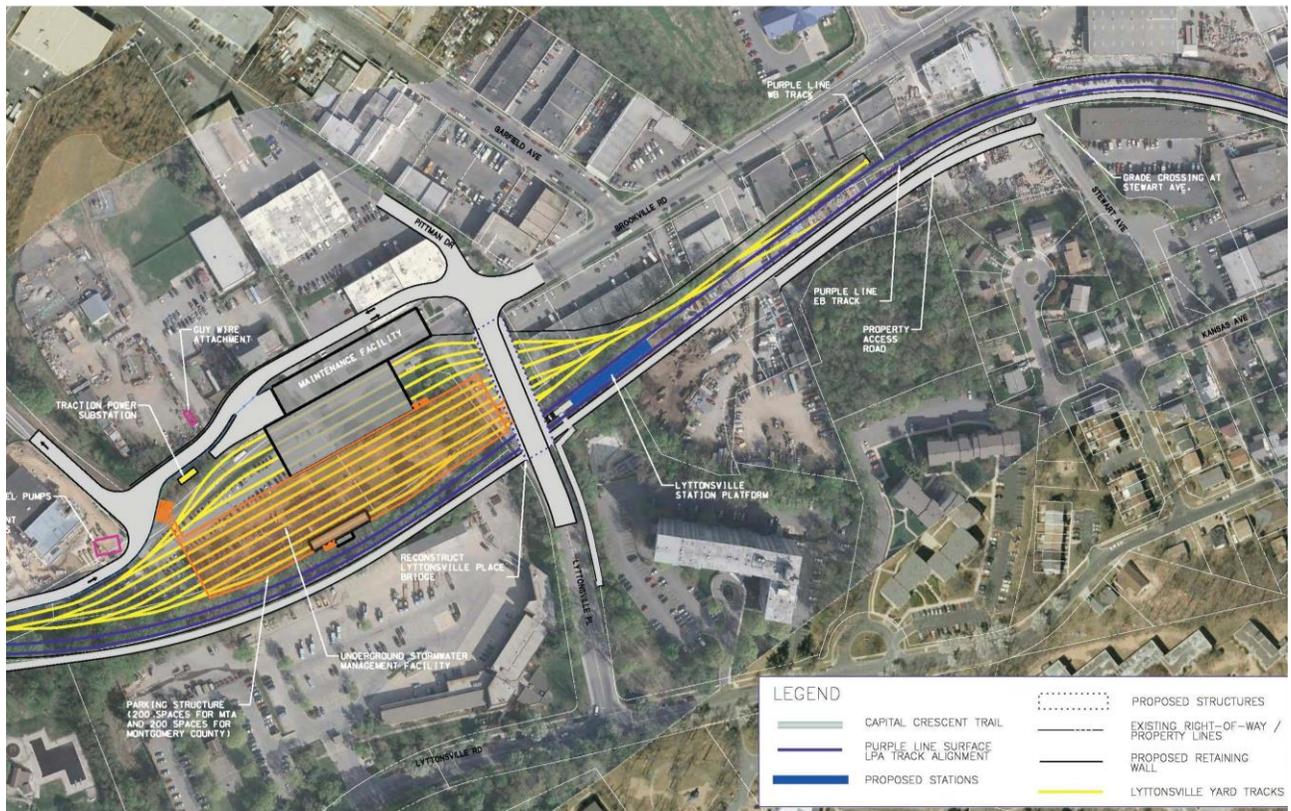
for this master planned street is 60 feet. Given the above considerations, staff recommends **that the Planning Board note in comments that the design for the bridges that carry the Purple Line and Capital Crescent Trail over Connecticut Avenue should accommodate the master planned street B-1 that connects Manor Road and Chevy Chase Lake Drive.**

Lyttonsville Yard and Shop

The Purple Line Functional Plan (pages 20 and 21) shows the Purple Line Lyttonsville Maintenance and Storage Facility extending east of Lyttonsville Place to Stewart Avenue. The FEIS narrative notes that the community expressed concern about the extension east to Stewart Avenue and the MTA worked with the community and other property owners in the area to develop an alternative lay-out for the facility. The alternative concept plan was presented in February 2012 and received generally positive reviews from the community and public officials. The Planning Board initiated work on the Greater Lyttonsville Sector Plan in July 2012 with the understanding that the Plan would acknowledge the revised concept for the maintenance facility. Work on the Greater Lyttonsville Plan was suspended pending the completion of other Department work program elements and is now scheduled to resume during the spring of 2014. **Staff therefore recommends that the Planning Board note in its comments that the revised concept plan for the Lyttonsville Maintenance and Storage Facility (see below in Figure 6) is generally consistent with the latest vision for the area and will be one of the underlying assumptions when work on the Greater Lyttonsville Sector Plan resumes.**

Related to this issue is a statement in the FEIS on page 4-22. The narrative (in discussing the Lyttonsville Yard) speaks to the existing light industrial zoning and notes the Yard generally would be consistent with the existing land uses and zoning. One of the underlying concerns of the community with the original yard layout was that it precluded any eventual development of the frontage on Brookville Road east of Lyttonsville Place. The potential for redevelopment in this area will be a focus of the Lyttonsville Sector Plan. Emphasis is expected to be placed on addressing any compatibility issues through site design that is complimented by the elevation change in this area.

Figure 6: Lyttonsville Maintenance and Storage Facility



Capital Crescent Trail from Lyttonsville Road to 16th Street

Portions of the Capital Crescent Trail between Stewart Lane and 16th Street require acquisitions of land owned by CSX Transportation (CSXT). In the past CSX had stated that they would not sell their land for a trail. The FEIS proposes to defer reconstruction of the Capital Crescent Trail east of Talbot Avenue, until an agreement for use of the CSXT property can be reached. Page ES-4 of the Purple Line FEIS states:

“The completion of the trail along the CSXT corridor is contingent on agreement with CSXT on the use of their property on the north side of the CSXT tracks for the trail. If agreement is not reached by the time the Purple Line construction occurs, MTA would construct the trail from Bethesda to Talbot Avenue. From Talbot Avenue to Silver Spring an interim signed bike route on local streets would be used until such time as agreement is obtained.”

Recently, MTA received communication from CSX that clarifies their position. CSX’s new policy permits them to sell land for a trail as long as it is at least 50 feet from the centerline of their tracks. **Based on the new CSX policy, MTA will be able to construct the Capital Crescent Trail between Lyttonsville Road and 16th Street consistent with the Purple Line Functional Plan.**

Arliss Street

As part of the Long Branch Sector Plan, the Planning Board asked MTA to find ways to reduce impacts to the superblock. The result was to shift the Purple Line alignment from the median, as recommended in the Purple Line Functional Plan, to the west and south side of Arliss Street. The right-of-way requirements were increased from 80-90 feet to between 110-127 feet. **Therefore, the FEIS is consistent with the current vision for the Purple Line on Arliss Street, as recommended in the Long Branch Sector Plan.**

Piney Branch Road

The Planning Board Draft of the Long Branch Sector Plan recommends bike lanes on Piney Branch Road and University Blvd and it is staff's understanding that it is MTA's intention to implement them. Provided that the drawings are updated per MTA's recently described intent, Piney Branch Road would **be consistent with the draft Long Branch Sector Plan.**

The Long Branch Sector Plan also recommends that MTA "resolve vehicular access issues to the Long Branch Pool and Recreation Center in light of proposed traffic restrictions along Piney Branch Road associated with the Purple Line".

University Boulevard

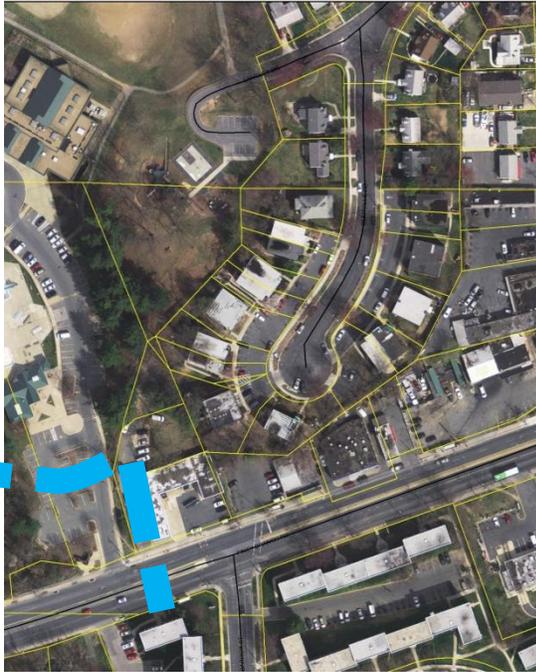
The Takoma/Langley Sector Plan (page 40) recommends University Blvd as a six-lane road with a median transitway for the Purple Line. The FEIS proposes to reduce University Blvd to a four-lane road between Carroll Avenue and the Prince George's County Line to reduce impacts to private property and to reduce the crossing distance for pedestrians and bicycles. This revised section is included in the Planning Board Draft of the Long Branch Sector Plan under consideration by County Council. To address the issue of traffic congestion, MTA proposes to make a number of improvements to intersections and the roadway network. **Therefore, while the Takoma / Langley Sector Plan recommends University Blvd as a six-lane road, the Purple Line FEIS is consistent with the current vision for University Blvd because it is able to accommodate traffic forecasts with improvements to the roadway network. Furthermore, reducing University Blvd from six lanes to four lanes may help implement other aspects of the sector plan outside of the traffic lanes, including the bike lanes, landscaped panel, sidewalks, and cycle tracks.**

Community Facilities Access

There are two community facilities in particular where access has been a concern – one is the Long Branch Local Park and Long Branch Community Center and the other is the Silver Spring International Middle School.

The Purple Line will travel in dedicated lanes in the median of Piney Branch Road – taking up the space now occupied by a two way left turn lane. You will not be able to cross the Purple Line tracks except at signalized intersections (i.e., at Garland Avenue and Barron Street). The ability to turn left from Piney Branch Road directly onto any property fronting Piney Branch Road will therefore only occur at signalized intersections where there is direct access to the property at that signal. Otherwise a u-turn (where permitted) and backtracking will be required. The FEIS notes (Table 4-19) that access to the Long Branch Local Park will therefore be “right in – right out”. The MTA in coordination meetings has noted that the resulting impact from the Purple Line construction is not a denial of access but rather the creation of a situation where the access will not be as convenient as it was prior to construction. There is therefore no mitigation proposed in the FEIS for this specific impact to the Long Branch Local Park and Community Center. The Planning Board and County Council as part of their deliberations on the Long Branch Sector Plan authorized negotiations that led to the acquisition of a parcel adjacent to the Park and Community Center a few weeks ago. The additional space made available as a result of this acquisition will allow the access point to the Local Park and Community Center to be aligned with the signalized intersection of Piney Branch Road and Barron Street and thereby enable users to exit the site and turn left onto east bound Piney Branch Road (see Figure 7 below). Users will still be unable to turn left into the Local Park and Community Center from Piney Branch Road as that would require a dedicated left turn lane (and signal phase because of the train) and there is no room to accommodate that additional lane. The same situation exists at the other signal (Garland Avenue) along Piney Branch Road between Arliss Street and University Boulevard.

Figure 7: Access to Long Branch Local Park and Long Branch Community Center



The parking lot at Silver Spring International Middle School at Wayne Avenue and Dale Drive will have to be reconfigured in order to provide a vehicular entrance to the lot from Dale Drive as well as Wayne Avenue. The combination of the additional area needed for the station platform and the dedicated left turn lanes - as well as the site topography - present design challenges if the same number of parking spaces and adequate and safe pedestrian access is to be provided. The resulting plan is not optimal as it involves a retaining wall around the perimeter of the parking lot. The MTA has been working with Montgomery County Public Schools (MCPS) on the design of the lot and the latest concept plan is included in the FEIS drawings. A similar coordination effort is underway regarding the impacts along the perimeter of Rosemary Hills Elementary School.

Staff recommends that the Planning Board note in its comments **that recent actions taken independently by Montgomery County to mitigate the impact on access to the Long Branch Local Park and Community Center. Consideration should be given to highlighting in the P3 solicitation process those locations along the alignment like the Long Branch Local Park and Community Center, Bonifant Street on-street parking, Silver Spring International Middle School, and Rosemary Hills Elementary School where alternative design or access concepts would be considered – given the unique challenges associated with those sites.**

Other FEIS Issues

Planned Development

The FEIS (Table 4-2) includes a list of planned developments that does not reflect the most current status of some of the projects. The projects have not materially changed in scope and therefore in the context of the FEIS analysis, the fact that the status needs to be updated is not a major concern. The primary example is the Silver Spring Transit Center where the opening date is undetermined. The Planning Department evaluated concepts for a mixed use development in Chevy Chase Lake as part of the Chevy Chase Lake Sector Plan process. That plan was adopted in July 2013.

Given the above, staff has no specific recommendation for Planning Board comments related to the Planned Development section in the FEIS.

Traction Power Substations

The FEIS notes (page 2-32) the following with respect to traction power substations:

“Traction power substations convert electric power to appropriate voltage and type to power the light rail vehicles. The Preferred Alternative would require substations approximately every mile. Twenty substations are proposed, including 18 along the transitway and one each at the Lyttonsville and Glenridge (in Prince George’s County) facilities. The substation structures would range in size from approximately 15 by 52 feet to 22 feet by 60 feet. The substations would be sited at easily accessible locations with approximately 10 feet of space around the substation building for access and for underground electrical facilities.”

Figures 8 and 9 depict the general locations (from west to east, respectively) of the traction power substations along the Purple Line alignment within Montgomery County.

Figure 8: General Locations of Traction Power Substations (Silver Spring to TLC)



Figure 9: General Locations of Traction Power Substations (Silver Spring to TLC)



The FEIS narrative on minimization of the impact of the traction power substations and other aspects of the preferred alternative (Section 4.23) is somewhat general – noting “MTA will continue to meet with M-NCPPC, planning departments, and developers to facilitate effective incorporation of the Preferred Alternative into corridor communities and to avoid or minimize negative land use effects.”

The proposed locations of the traction power substations are relatively recent and the proposed location along Wayne Avenue, in particular, is not supported by some members of that near-by community. MTA has met with the community and is examining potential mitigation measures. One often used approach is to enclose the station within a design more compatible with the setting. Figure 10 below depicts one treatment by WMATA for a traction power substation (larger than the stations proposed for the Purple Line) on the Red Line within the County.

Figure 10: Example of WMATA Traction Power Substations on Red Line



In the case of the location on Wayne Avenue, some members of the community would like to see the proposed location moved to the Silver Spring International Middle School site and placed underground or set into an embankment by taking advantage of the changing elevation on the site. The community does not appear to be in favor of any treatment that would alter the appearance by enclosing the station to make it more compatible with its residential surrounding.

Staff is not in a position to make a recommendation on the feasibility of moving traction power substations to locations other than those proposed. Staff does think the FEIS language is general and that mitigation is warranted. Given those considerations, staff recommends **that the Planning Board note in its comments that MTA should continue to work with the community to identify specific approaches for addressing traction power substation compatibility with the surrounding setting. The following proposed locations (as shown in Table 4-4 of the FEIS) for these stations are in residential settings and are of particular concern:**

- **Montgomery Avenue – approximately 1,600 feet beyond (east of) Wisconsin Avenue**

- **Georgetown Branch right of way – approximately 300 feet prior to (west of) Connecticut Avenue**
- **Approaching CSX tracks (from west) near Kansas Avenue**
- **Wayne Avenue just past (east of) Cloverfield Road**
- **Arliss Street just past (east of) Flower Avenue**
- **University Boulevard just past (south of) Seek Lane**

Noise and Vibration

Project related sound levels were estimated for each of the 83 representative sites along the alignment (see page 4-107). The analysis found that none of the studies receptor sites would experience project related sound levels that would exceed the FTA Severe Impact threshold. Moderate impacts would occur at 11 residential properties comprising seven single family residences and four apartment complexes. The single family residences in the County are on Wayne Avenue between Dale Drive and Sligo Creek. The apartment complexes are on Bonifant Street, along Wayne Avenue, and on Arliss Street. Moderate impact for residential uses is defined in a range that varies from 50-55 dBA to 70-80 dBA, depending upon the existing noise exposure. The residential sites in the County that fall within the moderate impact range are within 200 feet of station locations and the impact is largely attributable to the horn soundings which are required at the train approaches stations and grade crossings. The results noted take into account the mitigation measures.

The FEIS notes that noise mitigation will be accomplished by using “skirt panels” on the LRT vehicles and a combination of noise walls and retaining walls between Bethesda and Rock Creek Stream Valley Park. Short term noise from the Public Address system is to be minimized through volume controls and operating procedures to insure proper use of the system. No other major noise mitigation measures (e.g., noise walls) are to be employed. Noise walls are not an option over much of the alignment east of Rock Creek because they would block driveway and pedestrian access.

Avoidance and minimization of noise associated with construction would include construction during the daytime whenever possible, routing of vehicles and equipment in a manner that causes the least disturbance, location of stationary equipment in staging areas as far from residential areas as reasonably feasible, and maintenance of public information process for notification and complaint response.

Table 4-31 of the FEIS includes locations consisting of four residences in Bethesda in the vicinity of where the Purple Line passes under East West Highway and one apartment complex (The Barrington Apartments) in Silver Spring on Rosemary Hills Drive where vibration levels will exceed FTA Criteria Levels. The findings for the Barrington Apartments are attributable to the combination of operation of CSX freight trains and the Purple Line. The FEIS states that the MTA will perform site specific assessments of the identified areas and develop appropriate mitigations measures.

Construction of the Plymouth Street tunnel is expected to potentially include blasting. Construction of the tunnel is expected to take approximately 30 months with the duration of the period when the blasting would take place being substantially less. Other locations where heavy construction would occur for extended periods of time include the Silver Spring Transit Center and associated structures, and the Rock Creek and Lyttonsville bridges. Pile driving activity near the Falkland Chase Apartments, Rosemary Hills Elementary School, and the Barrington Apartments is required for new structures and retaining walls. Avoidance and minimization efforts will include advance notifications, scheduling activities for the least impact on residents at sensitive receptor locations, and a monitoring program, among other things. Direct mitigation is not anticipated to be required.

Staff recommends that the Planning Board note in its comments **that the FEIS identifies potential noise and vibration impacts and includes a commitment to develop appropriate mitigation measures. Technology related to noise and vibration suppression is evolving and efforts should therefore be made in the P3 solicitation to place a premium on responses and unique approaches that advance mitigation measures where feasible. The effort going forward should reflect the fact that this light rail alignment is adjacent to a number of sensitive sites in an evolving inner suburban setting.**

Commercial and Institutional Displacements

The FEIS identifies a total of 49 businesses within the County that would be displaced by the Purple Line. It is estimated that these businesses employ 202 people. Two locations – the Spring Center Shopping Center on 16th Street and the 1110 Bonifant Building adjacent to the Silver Spring Transit Center – account for 37 of the 49 businesses and 132 of the 202 employees. The displacement of the Mega Super Market on University Boulevard accounts for additional (estimated) 36 employees. The Silver Spring Post Office is located in the Spring Shopping Center and is noted as one of two institutional displacements caused by the Purple Line. The other is the Montgomery County Division of Building, Design, and Construction that is located in the 1110 Bonifant Street building.

Figures 11 and 12 depict the general locations of the commercial and institutional displacements for the west and east segments of the alignment respectively.

Figure 11: General Locations of Commercial and Institutional Displacements (Bethesda to Silver Spring)



Figure 12: General Locations of Commercial and Institutional Displacements (Silver Spring to TLC)



The displacements are the result of the need for space for various components or design features. The location on Montgomery Avenue in Bethesda is needed for a traction power substation. The location in Lyttonsville is required as part of the Lyttonsville Station and Yard design. The Spring Shopping Center is located in the constrained space between the CSX right of way and 16th Street and will become a Purple

Line station. The displacement of 1110 Bonifant Building, the service station on Arliss, and the Mega Super Market are largely the result of design elements at locations where the alignment is turning that require space that otherwise is not available. It should be noted that there are potential joint development opportunities associated with some of these locations. A number of the locations are expected to serve as staging locations during the construction of the Purple Line. Some may also offer the benefit of providing locations for the permanent citing of bicycle stations, public art, or other amenities depending upon the eventual use of the site in question.

Staff believes the MTA has worked to minimize the commercial and institutional displacements. The displacements that will occur are in locations along the alignment where there are no other readily apparent alternatives for avoiding the impact. The FEIS notes that property acquisition activities, including relocations, will be performed in accordance with all applicable federal and state laws and regulations.

Given the above, staff has no specific recommendation for Planning Board comments related to residential displacements.

Residential Displacements

The FEIS (Table 4-8) indicated that there will be a total of 30 residential dwelling units displaced by the Purple Line – the total comprised of 2 single family houses and 28 apartment units. A depiction of the general locations of the residential displacements is presented below in Figure 13.

Figure 13: General Locations of Residential Displacements



Staff believes the MTA has worked to minimize the residential displacements. The displacements that will occur are in locations adjacent to the CSX right of way, tunnel portals, or transitional areas along the alignment where there are no other readily apparent alternatives for avoiding the impact. The FEIS notes that property acquisition activities, including relocations, will be performed in accordance with all applicable federal and state laws and regulations.

Given the above, staff has no specific recommendation for Planning Board comments related to residential displacements.

Public Private Partnership (P3) for Design, Build, Operation and Maintenance

The FEIS notes the following with respect to final design, construction, and operation of the Purple Line:

“Once the ROD is signed, MTA would then complete further design, purchase needed right of way, and begin construction. MTA is considering a variety of methods for constructing and operating the Purple Line, including the possibility of a Public Private Partnership (P3), in which one entity would be contracted by MTA to design, build, operate and maintain the facilities, equipment, and services, as well as provide project financing. Under any method of constructing and operating the Purple Line, MTA will remain responsible for the Purple Line and will be responsible for honoring all commitments made as part of this NEPA process.”

As previously noted, MTA expects the Record of Decision (ROD) to be issued in December 2013. The MTA is proceeding with steps necessary in order to issue a Request for Qualifications (RFQ) this month and eventually a Request for Proposals (RFP) sometime during the spring of 2014 for P3 procurement for the design, construction, finance, operation and maintenance of the Purple Line. The preferred developer is scheduled to be selected during the fall of 2014. MTA project managers indicated in a recent project team meeting that the “window” for input for design refinements that could potentially be included in the RFP extends through the first quarter of calendar 2014 but likely not much later. The Mandatory Referral review is therefore likely to be conducted in the January or February 2014 as a means of providing formal input. The duration of the eventual initial agreement(s) with the preferred developer could include the initial construction period and 25-35 years after construction for operation and maintenance. More information on the P3 process is available on the MTA Purple Line web site at: <http://www.purplelinemd.com/en/p3>.

Staff is supportive of the P3 process in general and believes MDOT has made a strong case for using P3 for the Purple Line. There is to our knowledge however no written guidance or commitment on how on-going design refinements (e.g., for the CCT) will be addressed in a P3 procurement. One advantage of this type of procurement is that it offers more flexibility than the more conventional approach and the expectation is that the resulting RFP that is issued will provide an avenue for the type of on-going design refinements that are noted in the FEIS. Given the importance of providing a process that can be responsive to further refinements, **staff recommends that the Planning Board note in its comments that the P3 procurement process should provide a mechanism for consideration of design refinements after the completion of the NEPA process for both the Purple Line and the CCT as noted in the FEIS. In addition and more specifically, the MTA should issue written guidance within the next 30 days on how on-going design refinements will be considered and included (where there is concurrence) in the P3 procurement process.**

Draft 4(f) and Section 106 Evaluation

Historic Preservation

Staff concurs with the 4(f) and Section 106 findings of effect on the thirteen historic resources identified as eligible for listing in the National Register. Two of the resources identified as having an adverse effect (Metropolitan Branch, B&O Railroad, #37/16, and Talbot Avenue Bridge, #36/30) are not identified in the Locational Atlas or designated in the Master Plan for Historic Preservation, and are not protected under the County's historic preservation ordinance; a third, the Falkland Apartments, #36/12, is designated in the Master Plan. However, the portions of the Falkland Apartments that are designated in the Master Plan would not be affected.

Staff recommends continued consultation to identify appropriate mitigation measures for the three effected National Register-eligible properties.

The Section 106 Assessment includes a list of additional resources that were recorded during the Purple Line study but were determined not eligible for the National Register. This list includes eight resources that are designated in the Master Plan for Historic Preservation:

- Chevy Chase Lake Trolley Station, #35/11
- Madonna of the Trails statue, #35-14-2
- Bethesda Post Office, #35/14-5

- Brooks Photographers, #35/14-6
- Community Paint and Hardware, #35/14-7
- Tastee Diner, #36/13
- Armory Place, #36/14
- Little Tavern, #36/16

Although not a requirement under Section 106, staff recommends that eight County-designated resources be studied jointly with Planning staff during final design to determine whether the project will have an effect on them, and if so, that appropriate mitigation measures be identified.

One correction to the description of the Old Silver Spring Post Office, #31/11, is warranted: the post office was not converted for use as the Silver Spring library. The post office interior was altered following the sale of the building in 1981; the mural that had graced the post office lobby was installed in the Silver Spring library on Colesville Road in 1997.

Natural Environment

Planning staff has reviewed the sections of the FEIS regarding the natural environment. While we find that MTA has made significant effort to avoid and minimize adverse impacts along the ROW, additional minimization and mitigation details must be developed in collaboration with MNCPPC Parks and Planning for further refinement. Staff requests MTA work closely with MNCPPC staff to resolve these outstanding concerns regarding design, engineering, and mitigation not found within the August 2013 FEIS. We expect that MTA will continue to work with Parks and Planning staff to address these matters during final design, as well as in the Memorandum of Agreement to be developed between our agencies.

Among the specific design details to be jointly worked through and concurred upon are:

- **the details and types of stormwater management facilities**
- **additional habitat impact reduction**
- **suitable habitat mitigation compensation**
- **details on culverts and bridge design**
- **Neighborhood impacts mitigation**
- **a ‘signature bridge’ through Rock Creek Stream Valley Park that does not create a ‘high degree of visual impact’ as mentioned in section 4.9.2, page 4-80 of the FEIS.**

- **additional analysis and mitigation measures to the secondary or minor activity areas such as Chevy Chase Lake and Lyttonsville neighborhoods**

Planning staff would also like to see MTA go beyond regulatory minimums regarding but limited to:

- **Noise mitigation measures for residents affected by “Moderate Impacts” (M-23, M26, M-27A & M-28).**
- **Mitigation for specimen tree loss throughout the ROW and on parkland.**
- **Additional use of “green tracks” beyond the Georgetown Branch where feasible with preference for use in sensitive areas such as Rock Creek, Sligo Creek, Long Branch, and Northwest Branch to reduce heavy metals, salt, organic molecules, and nutrients from entering the receiving waterways.**
- **Protection of the colony of herons within the forested floodplain of Coquelin Run in close proximity to the ROW. Implement protection measures to ensure roosting grounds during brooding are undisturbed during the months of May through mid-June.**

See Attachment C for the Area 1 Division memo.

Parkland Impacts

See Attachment B.

Issues More Related to Memorandum of Agreements (MOA) with Applicable Agencies

This section includes narrative on issues that may be more related to the completion of specific MOA’s with applicable agencies. In some cases (like the Department of Parks), the MOA will address mitigation measures (see Attachment B – Department of Parks memo).

Dale Drive Station

The FEIS notes (page 2-14):

“The LPA included a commitment to further study of a Dale Drive station at the request of Montgomery County. Based on further study and community input, MTA has decided to include the Dale Drive station in the Preferred Alternative primarily to provide improved transit access for the East Silver Spring

communities. Without the station, the communities would lack convenient access to the Purple Line. Therefore, the FEIS includes analysis of the benefits and impacts of the Dale Drive station.

MTA continues to assess community input regarding the timing of building the Dale Drive station. The design provides the space for the station platform. If construction of this station is deferred, the initial construction would include right of way acquisition, track layout and subsurface infrastructure to accommodate the station: the elements that would be deferred are the station platform, canopy, and fare equipment.”

Staff considers this approach consistent with the Purple Line Functional Master Plan that states (page 31):

“...there is no intent or desire to change the zoning in the single family residential neighborhoods in and around the Dale Drive / Wayne Avenue intersection, if a station is established in this location in the future ..” and

“the station is not included in initial construction phase; the timing of implementation to be determined ...”

Staff notes that the construction of the base infrastructure for the station and tracks would not be the only construction taking place at this location. The parking lot at the Silver Spring International Middle School will be reconfigured as part of the Purple Line construction. The MTA project team has worked closely with Montgomery County Public Schools on the parking lot reconfiguration. A plan view of the Dale Drive station area is depicted in Figure 14.



Vehicular traffic along Bonifant Street (now two-way as shown above) will become one-way west bound along the segment west of Georgia Avenue and one-way east bound for the segment between Georgia Avenue and Fenton Street. The FEIS (drawing CV-22) shows one east bound travel lane for vehicles on the south side of the street – along with the Purple Line tracks in each direction on the north side of the one east bound vehicular travel lane.

The revised plan (see Figure 15 below) calls for two east bound travel lanes – one of which is shared with the Purple Line's east bound track. This configuration effectively allows for commercial loading and unloading without blocking eastbound vehicular travel, something that was not possible with the prior concept design.

Figure 15: Bonifant Street



Staff believes this to be an improved design developed specifically in response to the concerns of the business owners and community. While it helps address the loading and unloading issue, it does not replace the loss of on-street parking spaces. The FEIS notes (page 3-23) that:

“Mitigation of permanent impacts to on-street parking on Bonifant Street will be addressed through coordination with Montgomery County.”

The MTA and MCDOT continue to meet with the business owners and community to address the issue. Examples of potential mitigation during construction of the Purple Line that have been discussed include discounted parking and/or advertising space in near-by public garages, coordination with and among near-by property owners with existing off-street parking, development of marketing material, expansion of the Van-GO service, enhanced crossing treatments for Georgia Avenue, etc. Recent design refinements for Bonifant Street have identified a preferred means of mitigating the loss of loading zones. Given the on-going review of potential approaches to mitigation, staff recommends that the Planning Board note its support for MTA and the County to continue their efforts to examine and eventually develop concrete steps (during construction and some potentially post construction) that could be taken to help mitigate the loss of on-street parking. These steps could take the form of enhanced marketing and way-finding material, more convenient access to off-site parking, shared

parking arrangements with near-by property owners, incentive pricing in nearby public garages, enhanced shuttle service between parking facilities and the businesses, and enhanced pedestrian facilities – especially those that make crossing Georgia Avenue easier and more readily identifiable as a route to the businesses on Bonifant Street.

Ridership Forecasts

The FEIS includes an update of the 2008 Draft Environmental Impact Statement (AA/DEIS) forecasts for Purple Line ridership by using the Round 8.0 regional land use forecast (instead of Round 7.0) and a “horizon” year of 2040 (instead of 2030). The forecast (see page 3-5) estimates a total of 69,300 Purple Line boardings on a typical weekday in 2040 with about 19,000 of that total using Metrorail in combination with the Purple Line to complete their one-way trip. The five busiest stations within the County are expected to be the following:

- Bethesda – 15,000 weekday boardings
- Silver Spring Transit Center – 12,900 weekday boardings
- Silver Spring Library – 3,000 weekday boardings
- Chevy Chase Lake / Connecticut Avenue – 2,300 weekday boardings
- Manchester Place – 1,900 weekday boardings

The stations within the County with the estimated fewest boardings are Long Branch (Arless Street) with 900 and Dale Drive with around 1,000 weekday boardings. Staff had questioned the ridership estimates for the Dale Drive station in the AA/DEIS. **It now appears that the allocation of the estimated ridership among the Silver Spring Library, Dale Drive, and Manchester Place stations more fairly reflect the planned adjacent land uses.**

The Takoma Langley Transit Center station – just over the County line and in Prince George’s County - is forecast for 2,200 boardings in 2040.

For comparison purposes, the Bethesda Red Line station averaged about 10, 200 weekday boardings over the last 12 months. The Silver Spring Red Line station averaged about 13,000 weekday boardings over that same period. The Purple Line estimates for the major stations for 2040 are similar (on an order of magnitude basis) to the current Red Line boardings for those same stations. A final comparison to note is that the total Purple Line weekday boardings for 2040 in the FEIS are consistent with the

forecast results (69,700) for the same horizon year (2040) in the recently completed Planning Board Draft of the Countywide Transit Corridors Functional Master Plan.

The FEIS also notes (Table 3-2) that the number of weekday new transit trips in 2040 within the Purple Line corridor would increase by about 19,500 compared to the no-build and that the travel benefits to new and existing transit riders is significant (see Table 3-5). Based upon all of the above factors, staff believes the ridership forecast in the FEIS is generally consistent with past findings and represents a reasonable estimate for the Purple Line corridor for 2040. **Staff therefore does not have any recommendation for comments regarding the ridership forecast in the FEIS.**

Traffic

The Purple Line will operate within an exclusive right of way from its western terminus in Bethesda to the Silver Spring Transit Center station where it connects with the Metrorail Red Line, MARC, and numerous bus routes. East of the Silver Spring Transit Center, however, the Purple Line operates in either shared lanes (along Bonifant Street and Wayne Avenue) or in dedicated lanes where it is separated from vehicular traffic but is still (like in shared lanes) subject to traffic control of one type or another. The FEIS contains an updated traffic analysis that examines intersection level of service east of the Silver Spring Transit Center.

The traffic analysis provides a comparison of the intersection level of service in 2040 – with and without the Purple Line. In some cases, the intersection performance is worse with the Purple Line and in some cases it is better. Where it is better, it is usually because the Purple Line project will provide for an additional turn lane or some other improvement. Where it is worse, it is usually the result of a lack of space – or a desire to keep a reduced project footprint – that prohibits the introduction of new lanes.

Congested intersections in 2040 (level of service E or F) **where the level of service improves** with the Purple Line when compared to not having the Purple Line (i.e. the no-build alternative) include the following:

- Wayne Avenue and Dale Drive (improves in the pm to LOS E)
- Wayne Avenue and Sligo Creek Parkway (improves in the am to LOS D)
- Wayne Avenue and Manchester Road (improves in the am to LOS C)
- University Avenue and Carroll Avenue (improves in the am to LOS D)
- University Boulevard and Merrimac Drive (improves in both the am and pm to LOS A)

- University Boulevard and New Hampshire Avenue (improves in the pm to LOS E)

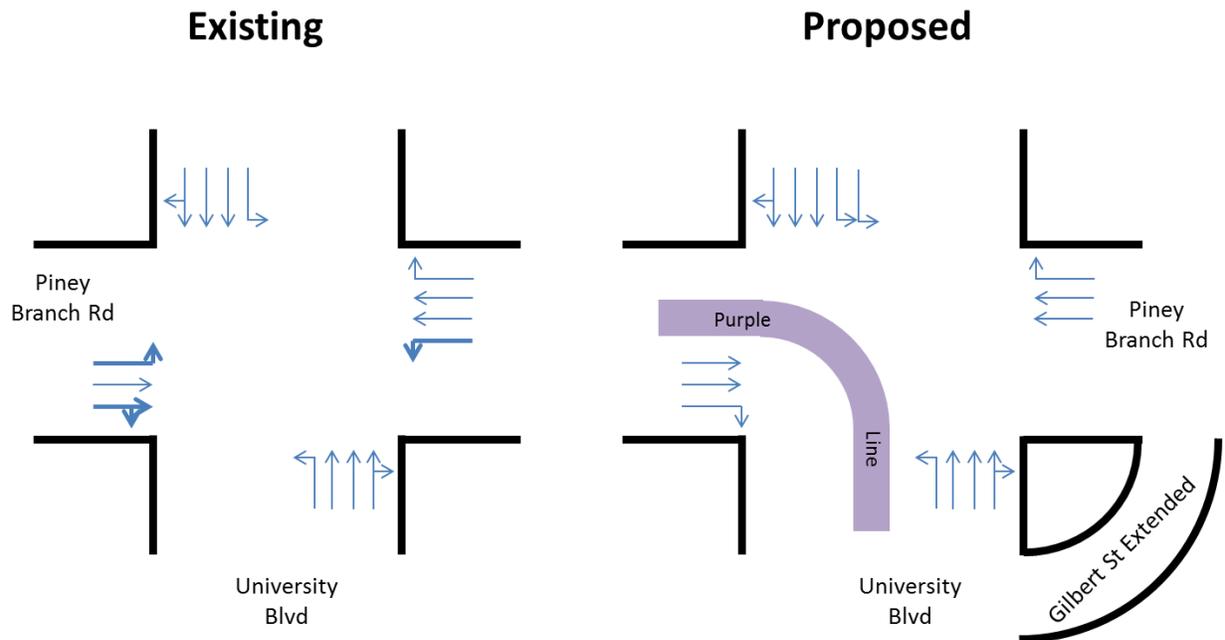
Congested intersections in 2040 (level of service E or F) **where the level of service is expected to worsen** with the Purple Line when compared to not having the Purple Line include the following:

- Wayne Avenue and Fenton Street (worsens in the pm to LOS F)
- Wayne Avenue and Dale Drive (worsens in the am to LOS E)
- Piney Branch Road and University Boulevard (worsens in the am and pm to LOS F)

The Wayne Avenue and Dale Drive results are due to the heavy west bound morning traffic volumes in combination with the need to provide for a short but separate signal phase for a train departing the Dale Drive station platform to transition (back) into the westbound shared lanes, should the station be ultimately constructed and opened for patrons

The Piney Branch Road and University Boulevard results are similar in that an extra signal phase is required to accommodate a westbound (to Bethesda) train departing the station and preceding from University Boulevard onto Piney Branch Road. The Long Branch Sector Plan (now at County Council) recommends eliminating left turns from Piney Branch and that the left turn from Piney Branch Road onto University Boulevard be accommodated instead by an extension of Gilbert Street – requiring traffic turning from east bound Piney Branch Road to north (or west) bound University Boulevard pass through the intersection first and then make two right turns – one onto Gilbert Street east of University Boulevard and then one off of Gilbert Street onto north (or west) bound University Boulevard. Eliminating the left turns from Piney Branch Road would improve intersection level of service. A diagram of this concept (prohibiting left turns from Piney Branch Road) is presented below in Figure 16.

Figure 16: Concept for the Intersection of University Blvd and Piney Branch Road



Related to the proposed extension of Gilbert Street is the recommendation to consider a traffic signal at Gilbert Street and University Boulevard instead of at Seek Lane and University Boulevard as proposed in the FEIS. A signal at this location would enhance pedestrian access to the immediate station area.

It should be noted that the FEIS traffic analysis and accompanying drawings for University Boulevard reflect the re-purposing of one lane in each direction to accommodate the Purple Line. **As previously noted, staff supports this change and notes that the recommended section for University Boulevard of a total of four travel lanes for vehicles and two lanes for the Purple Line is also included in the Planning Board Draft Plan for Long Branch now under review by County Council.** This modification in the plans for University Boulevard is consistent with the overall objective of recent planning efforts in this area to recognize the importance of accommodating pedestrian and bike access to available (and abundant) transit service.

A related issue is that one segment of the Purple Line along University Boulevard (the segment between Piney Branch Road and the Takoma Langley Transit Center) duplicates part of the proposed University Boulevard corridor in the Planning Board Draft of the Countywide Transit Corridors Functional Master Plan. The Functional Master Plan includes an assumption that buses would operate in mixed traffic along this segment. The FEIS drawings include ballast tracks on University Boulevard. Ballast tracks would

preclude any sharing of the Purple Line exclusive right of way along this 4,200 foot long segment and other similar configured segments east along University Boulevard into Prince George's County. Embedded tracks on the other hand would allow consideration of buses potentially sharing the right of way although a number of operational issues would still need to be examined. The MTA in the past has opposed any further consideration of buses operating within any segment of the Purple Line where the Purple Line is operating in dedicated (not shared) lanes. Staff is not in a position at this time to recommend that the Purple Line and BRT buses share the travel way along this segment without more detailed study of the operational issues.

Based upon the above considerations, staff recommends that the Planning Board note in its comments that the FEIS methodology and findings related to the impact of the Purple Line on intersection performance is generally consistent with the approach and findings from the Planning Department's recent work on the Long Branch and Takoma Langley Crossroads Sector Plans as well as the Planning Board Draft of the Countywide Transit Corridors Functional Master Plan. The Planning Board would support more detailed evaluation by SHA of the recommendation in the Long Branch Sector Plan to prohibit left turns from Piney Branch Road and to examine the feasibility of allowing BRT bus access to the light rail travel way where the corridors overlap. The Planning Board also supports the modification to the University Boulevard typical section from six travel lanes and the Purple Line tracks to four travel lanes and the Purple Line tracks as a means of limiting impacts to adjacent property owners and providing for a more pedestrian and bike friendly environment.

Bicycle Parking at Stations

MTA provides bicycle parking at station locations on the Purple Line alignment. However, the amount of parking that is provided is not based on a detailed analysis of bicycle demand. Additional study and design is needed to ensure that the station area layouts include a reasonable amount of space for initial bicycle parking equipment installations as well as future growth.

The Association of Pedestrian and Bicycle Professionals (APBP) recommends the following for rail transit station bicycle parking.

- At a minimum, each station should have covered inverted-U racks. The APBP Bicycle Parking Guide recommends providing long term bicycle parking for 5.0% of AM peak period boardings and short term bicycle parking for 1.5% of AM peak period boardings

- For a rail transit station in an urbanized or high mode share area, the APBP Bicycle Parking Guide recommends providing long term bicycle parking for 7.0% of AM peak period boardings and short term bicycle parking for 2.0% of AM peak period boardings

MTA should conduct a demand analysis for bicycle parking at Purple Line stations. Where there are insufficient planned bicycle parking spaces to meet demand, MTA should first attempt to provide additional bicycle parking spaces in the public right-of-way and second identify opportunities for additional parking spaces on private property.

Issues More Related to Mandatory Referral and/or Issues Where the Planning Board Role is Advisory in Nature

The following narrative includes a review of issues where the Planning Board role is more advisory in nature. Of particular note is the discussion on the Capital Crescent Trail which is a County – not Park – trail. The narrative includes recommendations on enhancements to trail access and design that are ultimately dependent upon decisions between the County and MTA. Staff does note where certain design elements are not consistent with the Purple Line Functional Master Plan while noting that the conflict is at times the result of the need to address conflicting project objectives (e.g., locating traction power substations, cost and/or right of way constraints, etc.)

Capital Crescent Trail Access at Kansas Avenue

While the Purple Line Functional Plan recommends an access point to the Capital Crescent Trail at Kansas Avenue (see Figure 17), the Purple Line Concept Plan does not include it. MTA has stated that due to the proximity of trail access points at Stewart Avenue and Michigan Avenue, the existing industrial uses, and the curvature of the trail, the Kansas Avenue access point will provide little if any additional trail access. While this is true, another benefit of the access point is that it will help to enhance security by reducing the distance between access points. In the Concept Plan the distance between the nearest access points at Stewart Lane and Michigan Avenue is 1,300 feet, or roughly a 5.5 minute walk. Providing the access point at Kansas Avenue would reduce the distance between the two access points to 950 feet, or roughly a 3 ¾ minute walk. Furthermore, page 2 of the functional plan states that more access points to the Capital Crescent Trail should be considered during preliminary engineering. **Therefore, staff recommends adding an access point to the Capital Crescent Trail at Kansas Avenue to be consistent with the Purple Line Functional Plan.**

Figure 17: Purple Line Functional Plan between Stewart Ave and Talbot Ave Bridge



Capital Crescent Trail along Talbot Avenue

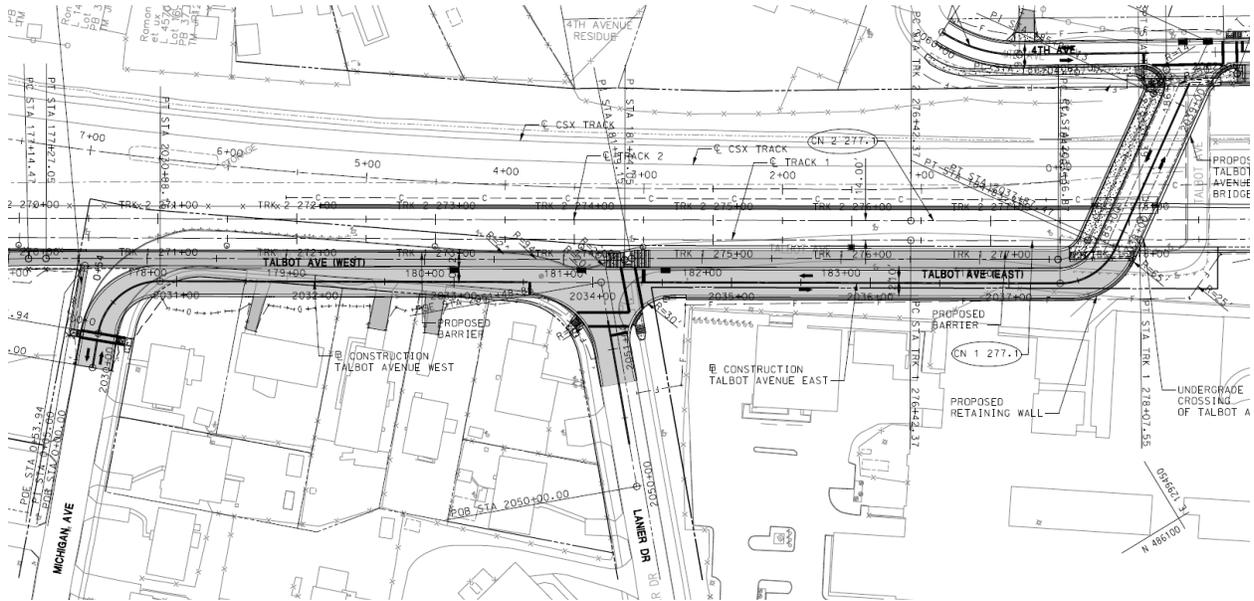
The Purple Line Functional Plan recommends that the CCT cross over the CSX tracks on a separate bridge somewhere between Hanover Street and Grace Church Road (see Figure 17). **While the Purple Line concept plan includes a new separate bridge over the CSX tracks that is shifted about 450 feet to the west of the location proposed in the Purple Line Functional Plan, the revised plan is consistent with the plan’s vision of an off road trail.**

However, recent changes to the Concept Plan that are not reflected in the FEIS include a trail that is located on the north side of Talbot Ave, crossing the CSX tracks on a combined bridge for Talbot Avenue and the trail (Figure 18). This segment of the trail does not meet minimum AASHTO bike guidelines to be considered a shared use path:

- There is no lateral buffer between the trail and the road, only a curb. AASHTO requires either 1) a 5-foot buffer, or 2) a vertical physical barrier (such as a railing) between the trail and the road in a 3-foot buffer.

- The trail is only 10 feet wide between the curb and a wall. Given the 2 feet adjacent to the wall is considered the required shoulder adjacent to vertical elements next to a shared use path, and that trail users naturally shy 2 feet away from the curb, the effective trail width in this section is only 6 feet.

Figure 18: Capital Crescent Trail along Michigan Avenue



According to Toole Design (Attachment C), “This width is not acceptable, and would represent a serious liability to the trail owners, as well as a disservice and safety hazard to future trail users. This pinch point is likely to result in reduced trail use for access to nearby Purple Line stations and reduced overall use in this area.”

To address these deficiencies in the trail design, Toole Design recommends considering four concepts:

1. Master Plan Alignment: Return to a previously developed alignment that kept the CCT on the east side of the tracks to a point where a bridge could be built diagonally to span the CSX and LRT tracks and “land” near the corner of Talbot Avenue and Michigan Avenue. This is consistent with the master plan.
2. Cyclists and Skaters On-Road: Between the Talbot Street Bridge and Michigan Avenue, route all cyclists (excluding children) and skaters onto Talbot Street for two blocks. Route all pedestrians, runners, and children onto a 10-foot pedestrian treadway with a railing that provides protection

for child cyclists. Traffic calming would be needed to ensure appropriate motor vehicle speeds (15-20 mph) for sharing the road with peak volumes of trail users.

3. Woonerf / Shared Street: A shared street between Michigan Avenue and 4th Avenue, including the new Talbot Avenue vehicular bridge. According to the AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities (page 55), “These are usually specially designed spaces, such as pedestrian streets or “woonerfs,” which are used on local urban streets with extremely low vehicle speeds.” According to the Toole Design memo (page 26-27), this two-block street would be designed for 5 mph speeds, and “This approach would provide a child safe environment near the adjacent school and calmed traffic for residences on Talbot Street.”
4. Elevated CCT: Maintain the planned CCT elevation at the Talbot Street Bridge to Michigan Avenue, elevating the trail on piers or walls and fill.

Toole Design believes the first and third options are the best.

A fifth option – previously rejected by MCDOT – would be to make Talbot Avenue a one-way road between Michigan Avenue and Lanier Drive and then dedicate the additional space for the trail. The proposed width of the two-way road is about 18 feet wide in the current plan. If Talbot Avenue is converted to a one-way road with a width of 16 feet, the trail could be widened from 10 feet to 12 feet. This would result in an effective trail width of 8 feet (the 2 feet adjacent to a curb and a wall are not useable space for cyclists), which is still substandard but could at least be considered a shared use path. Montgomery County Fire & Rescue typically requires a 20-foot clear area for emergency access. However, on Arliss Street Fire & Rescue agreed to a 16 feet clear area if the sidewalk was constructed to support the weight of the outriggers on emergency vehicles. To accommodate Fire & Rescue requirements, the Capital Crescent Trail could be constructed to support the outriggers for emergency vehicles along Talbot Avenue.

The Capital Crescent Trail along Michigan Avenue is inconsistent with the Purple Line Functional Plan because it does not meet the minimum requirements to be considered a shared use path. MTA should continue to evaluate options for widening the trail in this location. Options include the master planned alignment, a Woonerf/shared street, and designing Talbot Avenue as a one-way road between Michigan Avenue and Lanier Drive.

University Blvd

The Takoma/Langley Crossroads Sector Plan (page 44) and the Long Branch Sector Plan recommend constructing bike lanes and shared use paths on both sides of University Blvd as an interim condition as part of the Purple Line. The ultimate condition would occur upon redevelopment when the shared use paths would be converted to directional cycle tracks, and a tree panel and sidewalk would be added via a Public Improvement Easement. These interim and ultimate typical sections were agreed to by SHA in 2010. While the Purple Line Concept Plans include bike lanes along University Blvd, the shared use paths are not included even where there is sufficient space. MTA advises that a shared use path is outside the scope of the Purple Line and that construction could be coordinated with the Purple Line, if an agreement were entered into with Montgomery County DOT similar to the Silver Spring Green Trail.

Staff continues to recommend that a shared use path along University Blvd be constructed where right-of-way is available to be consistent with the Long Branch Sector Plan and the Takoma / Langley Sector Plan.

The Long Branch Sector Plan recommends a traffic signal at the intersection of University Blvd and Gilbert Street to provide access to the Piney Branch Purple Line station, among other things. The FEIS recommends a new traffic signal one block to the south at the intersection of University Blvd and Seek Ln. **Therefore, the traffic signal should be shifted to the intersection of University Blvd and Gilbert St to be consistent with the Long Branch Sector Plan.**

Attachments

Attachment A – Draft Letter to MTA and County Council with Comments and Recommendations

Attachment B – Department of Parks Memo

Attachment C – Area 1 Staff Memo

Attachment D – Toole Design Memo on Capital Crescent Trail and Silver Spring Green Trail