MEMORANDUM
August 30, 2013

To: Bruce Johnston, Chief
   Division of Transportation Engineering

From: Emil J. Wolanin, Chief
       Division of Traffic Engineering & Operations

Subject: Purple Line – Reconstruction of Wayne Avenue
         MTA’s request for design exceptions

Thank you for the opportunity to review the request from Maryland Transit Administration dated July 15, 2013 for design exception. We offer the following comments:

1: *Two-way center left turn lane*: Through careful consideration of all the right-of-way constraints placed on a project of this type and a review of the existing traffic operating conditions, it is concluded that Wayne Avenue will operate fine without a center turn lane installation. Almost all the existing dedicated left turn lanes along Wayne Avenue will be reinstated except at Whole Foods store access. Hence, impacts to the overall traffic operations will be minimal. Therefore, the design exception should be granted.

2: *14 ft. bicycle compatible outside lane*: Silver Spring Green Trail will be constructed on the north side of Wayne Avenue between Fenton Street and Sligo Creek Parkway. As a result, most of the bicyclists and all pedestrians are anticipated to use the Green Trail. A review of the County standards for arterial roadways, and context sensitive road design standards, reveal that 11 ft lanes as proposed by MTA are reasonable for Wayne Avenue.

3: *Buffer dimension*: MTA has proposed 5 ft. buffer space between the combined path (Green Trail) and the roadway on the north side, and absolutely no buffer
space between the roadway and the sidewalk on the south side. We do understand that it is feasible to implement the MTA’s proposal. However, as per MC STD 700.01, no tree plantings will be permitted if green space is less than 6 ft. In fact, we may even want to consider directing MTA to further reduce the buffer and widen the path from the proposed 8’ given the expected demand on the path.

Option: As per AASHTO, at locations where the distance between the edge of the travel lane and the shared use path is less than 5 feet, a suitable physical barrier can be constructed. The barriers should be minimum 42 inches high and should be designed in such a way not impairing sight lines at the intersections and at driveways. With a physical barrier in place, an addition foot or two can possibly be gained by further reducing the width of the buffer space between the Green Tail and the roadway.

If you wish to discuss these comments further, please feel free to contact me.
To: Bruce Johnston, Chief  
Division of Transportation Engineering

Via: Holger Serrano, Engineering Services Coordinator  
Division of Transportation Engineering

Sogand Seirafi, Chief  
Transportation Planning and Design Section

From: Ken Kendall, Capital Projects Manager  
Transportation Planning and Design Section

Subject: Purple Line – Reconstruction of Wayne Avenue  
Request for Design Exception Comments

My comments for the attached MTA Request for a Design Exception for the Wayne Avenue reconstruction for the Purple Line and Silver Spring Green Trail extension are provided below.

Outside travel lane width - The proposed 11 foot outside Wayne Avenue travel lane width is within AASHTO’s recommended range of 10 (low speed facility) to 12 feet for urban streets. Per the AASHTO Policy on Geometric Design of Highways and Streets 2011 6th edition, “In urban areas where pedestrian crossings, right-of-way, or existing development become stringent controls on lane widths, the use of 3.3m (11-ft) lanes may be appropriate”. The outside lanes will be used for parking in the non-peak traffic hours. This exception request is justifiable considering the right-of-way and adjacent property impact constraints and the option for bicyclists to use the adjacent shared-use path rather than ride in the roadway within this residential area. I anticipate that the Division of Traffic Engineering and Operations will provide separate comments regarding operational issues. Projected traffic and bicycle volume, planned posted speed, target speed, and ADT percentage for truck and bus traffic were not provided to support the design exception request.

Continuous turn lane - The provision of auxiliary left-turn lanes at intersections will have reduced impacts on adjacent properties versus a continuous center turn lane and therefore is justifiable on this basis.

Buffer width - The proposed buffer width reduction on the northern side between the 8-foot shared-use path and curb to 5 feet and elimination of the grass strip between the sidewalk and curb on the southern side will reduce the adjacent property impacts. The 5 foot strip will be too narrow to plant street trees.

Recommendation - Considering the right-of-way and adjacent residential property impacts, the design exception requests are an acceptable compromise.