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# *Purple Line*

Montgomery County Council  
Transportation, Infrastructure, Energy & Environment Committee  
September 30, 2014



# Agenda

- Project Update, Cost and Schedule
- Corridorwide Program & Design Concerns
- Capital Crescent Trail
- Memorandum of Agreement

# Purple Line Project Milestones

- FEIS Record of Decision March 2014
- Recommended for Full Funding Grant Agreement March 2014
- Begin ROW Acquisition April 2014
- Purple Line Implementation Advisory Group May 2014
- Final Request for Proposals July 2014
- Private Activity Bonds/TIFIA August 2014
- Proposals due January 2015
- Selection of P3 Concessionaire/BPW Award March 2015
- Receipt of Full Funding Grant Agreement March 2015
- Construction start Late 2015
- Open for service Late 2020

# Project Cost Estimate

<b>March 2014 Baseline</b>	<b>\$2,371.5m</b>	<b>% Change</b>
Construction (aerial stations, maintenance of traffic to reduce impacts, architectural, etc.)	\$47.9m	+3.8%
Right of Way	\$23.9m	+11.0%
Light Rail Vehicles	(\$3.4m)	(1.3%)
Project Development/Management	\$11.6m	+3.3%
Financing Costs	(\$3.3m)	(2.3%)
<b>September 2014 Re-Baseline</b>	<b>\$2,448.2m</b>	<b>+3.3%</b>

Does not include Capital Crescent Trail, Silver Spring Green Trail, Bethesda Metro Entrance, UMD Bicycle Path, Fiber Optic Expansion and other smaller 3<sup>rd</sup> Party projects.

# Sources of Funds

- Total Project Cost – \$2.448 Billion
  - \$900 Million in Federal Funds
  - \$360 - \$760 Million in State Funds
  - \$500 - \$900 Million from Private Financing
  - \$120 Million from Montgomery County
  - \$120 Million from Prince George's County

# Who/What is a Concessionaire?

- Multiple companies combine into a joint venture or similar legal entity generally referred to as the “Concessionaire”
  - Investor(s)
  - Design/Builder(s)
  - Operator/Maintainer
  - Vehicle Supplier
- Concessionaire typically led by investors who are focused on its long-term performance not on individual components of the project

# MTA Retains Primary Responsibility for Certain Project Elements

## **Design/Construction**

- Public Information, communications and involvement
- Design requirements and construction quality oversight
- Right-of-way acquisition
- Approval of Project Management Plans
- Certain environmental mitigation projects
- Federal compliance (DBE, Buy America, Financial Management, etc.)

## **Operations & Maintenance**

- Fare Policy
- Policing
- Local government coordination
- Customer service
- Service levels
- Service quality oversight

# Right of Way Acquisitions – Corridor Wide

- Prioritized based on construction critical path
- 165 appraisals ongoing
- 116 properties appraised
- 55 offer packages with property owners
- 18 offers accepted
- 7 properties awaiting settlements
- 4 properties purchased

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# **CORRIDOR-WIDE PROGRAM & DESIGN ISSUES**

# Public Involvement

## Purple Line Community Advisory Teams

- New community meeting format developed in consultation with Counties
- Structure based on geographic location and a similar set of concerns
- Composed of representatives of the community/ civic associations, businesses and other stakeholder groups
- “Work around the table” format, so need to keep the groups small

# Small Business Outreach & Sustainment

- Maintaining access
- Outreach team to perform “trouble-shooting” function
- Door-to-door canvassing starting in October
- Small business training program
- Information about existing county and state resources (loans, training, etc.)
- Marketing assistance during construction
- Opportunities to become contract vendors



# Construction Noise Reduction Measures

- Sound deadening and noise suppression devices, materials and shielding
- Low audible equipment back-up alarms
- Noise-attenuated earthmoving and stationary equipment
- Use local power grid when possible to reduce the use of temporary generators
- Consideration of alternate design methods to minimize noise generation

# Noise Monitoring – Testing & Operations

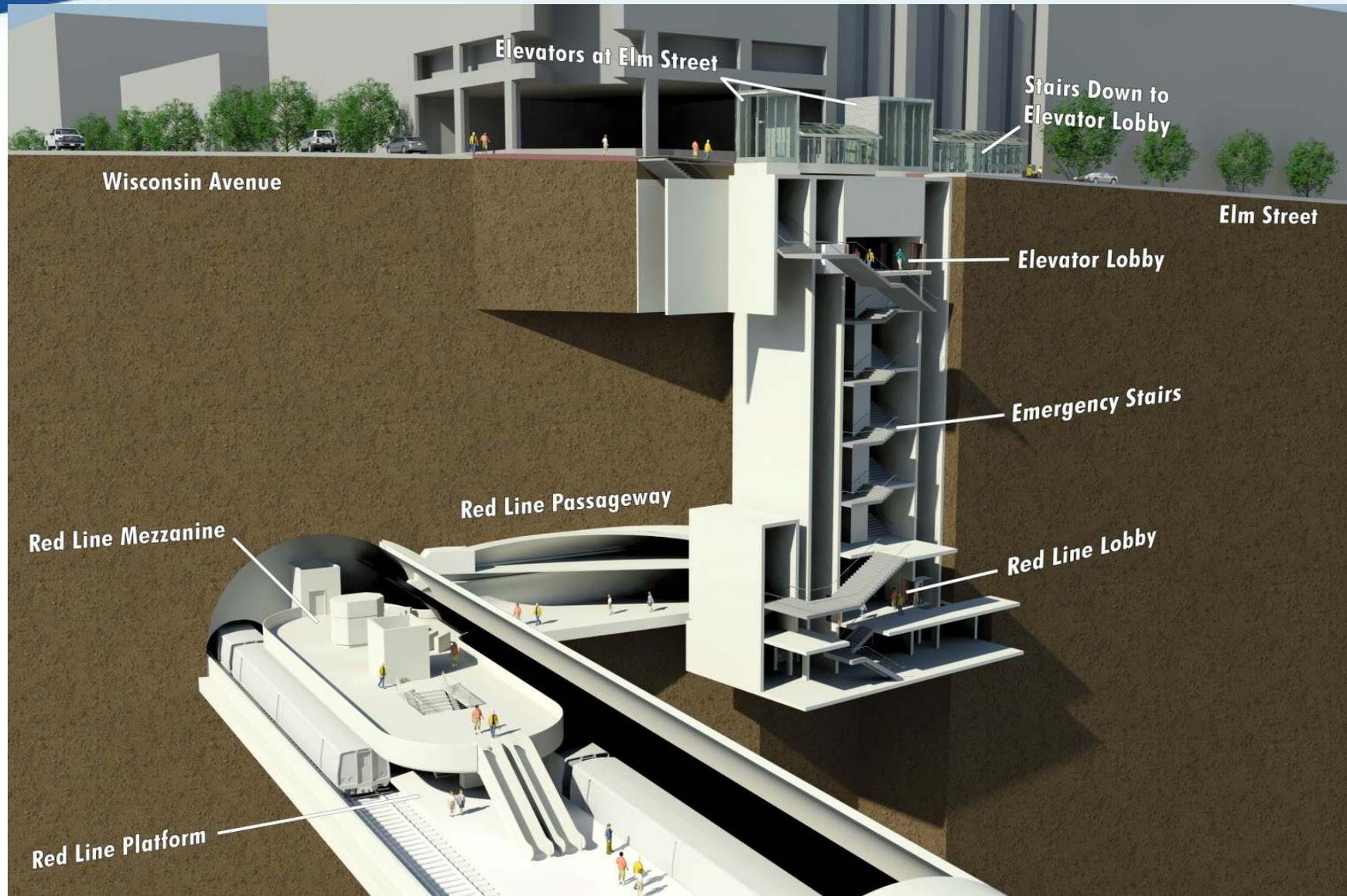
- During trial running, test for compliance with noise requirements
- Repeat noise monitoring tests every 6 months
- Correct non-compliances
- Investigate complaints
- Financial penalties for failure to correct



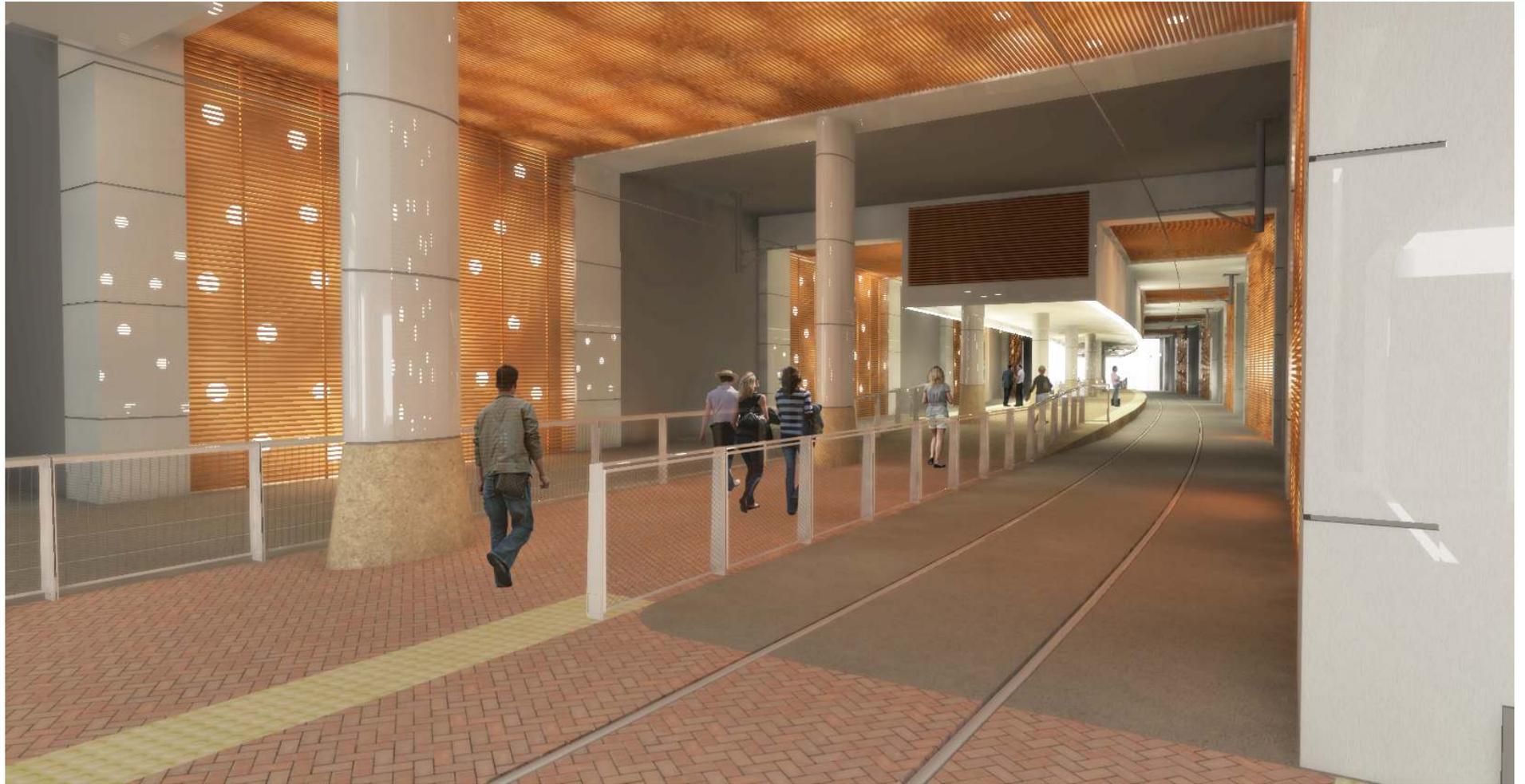
# Noise Reduction During Operations

- Trackwork acoustic attenuation materials
- Special wheel profiles, wheel dampers and body skirts will be provided to limit noise emissions
- During design, Concessionaire will prepare a Noise Calculations Report, including noise estimates
- Rail lubrication
- Minimum 4ft. walls between Bethesda and Jones Mill Road adjacent to residential areas

# Bethesda Metro South Entrance



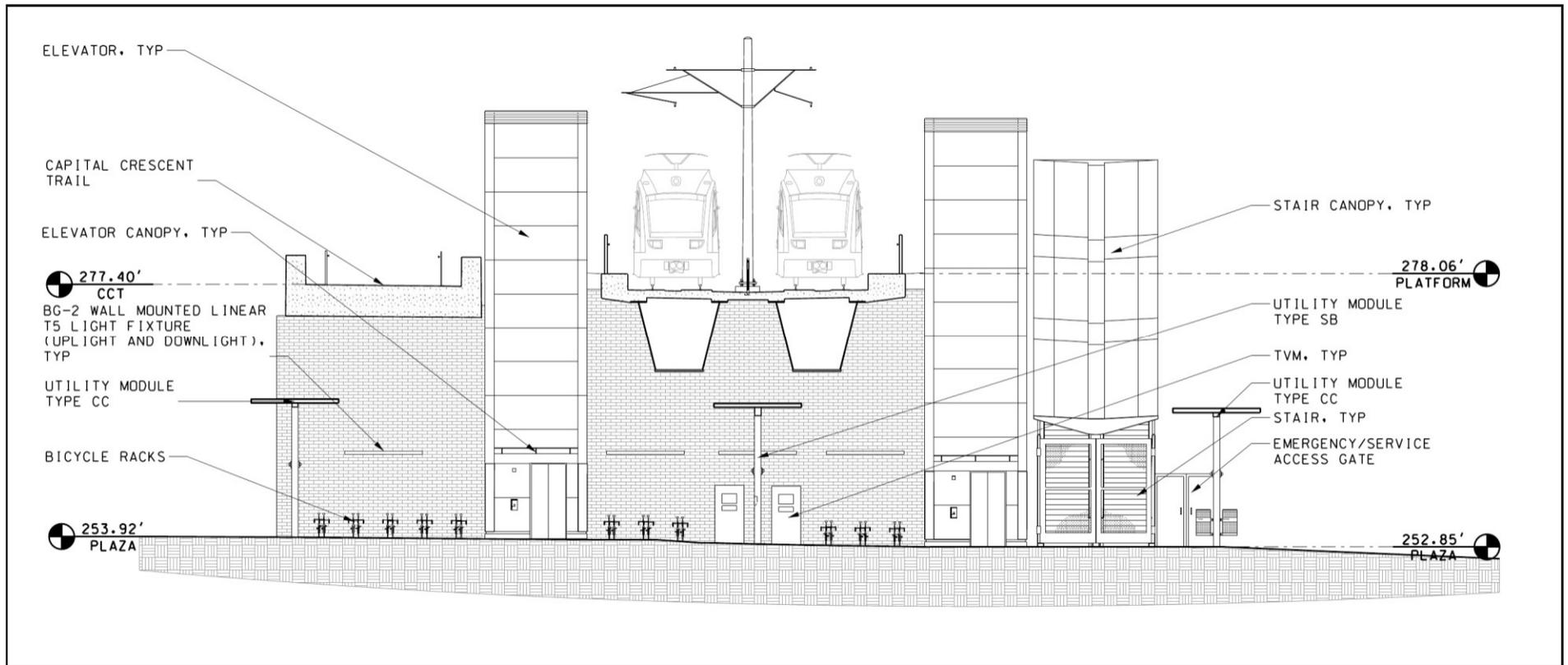
# Bethesda Station



# Connecticut Avenue



# Connecticut Avenue Station



# Rock Creek Bridge

- Separate light rail and trail bridges
- Switchback connection from CCT to Rock Creek Trail north of the transit way and east of Rock Creek
- Bridge design will be compatible with park setting



# Lyttonsville Yard



- Primarily for Train Storage
- Office building fronting on Lyttonsville Place
- Parking deck for MTA and County staff

# Lyttonsville Yard / Operations Building

Looking from Brookville Road



Looking from Lyttonsville Place



# Lyttonsville Station

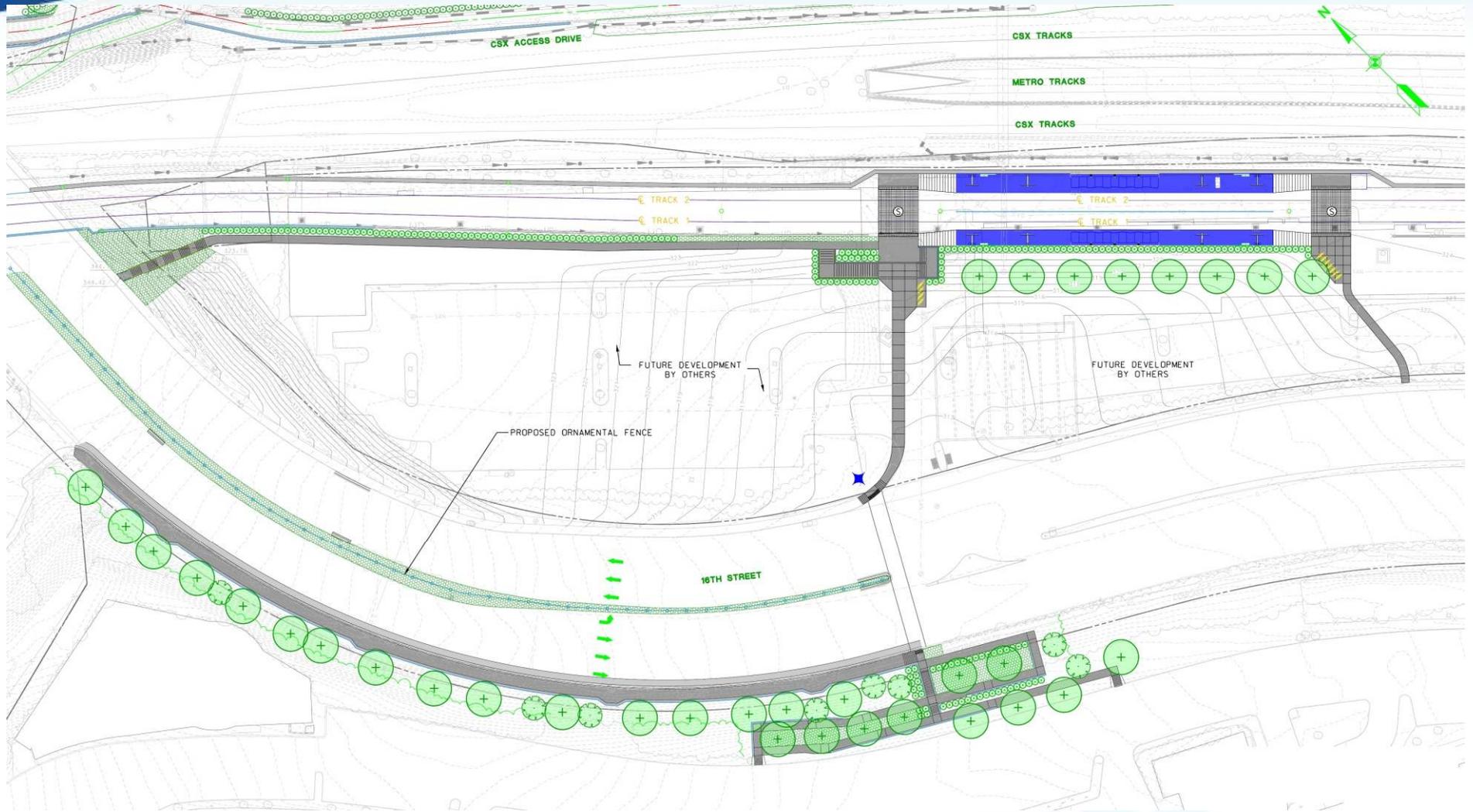
- Access from bridge to station platform by ramp and elevator
- Trail also provides direct access to station platform
- Replacement of Lyttonsville Place Bridge
  - Phased construction to maintain traffic
  - Coordinated with near term County efforts



# TPSS Q04 – Lyttonsville

- **Site Location**
  - Shifted TPSS to other side of PL tracks at the end of Talbot Avenue
- **Setting**
  - Industrial/Railroad
- **Coordination**
  - Working with Montgomery County DOT to create a three leg intersection with access road
  - County and community supports revised location
  - County-owned property

# Woodside Station

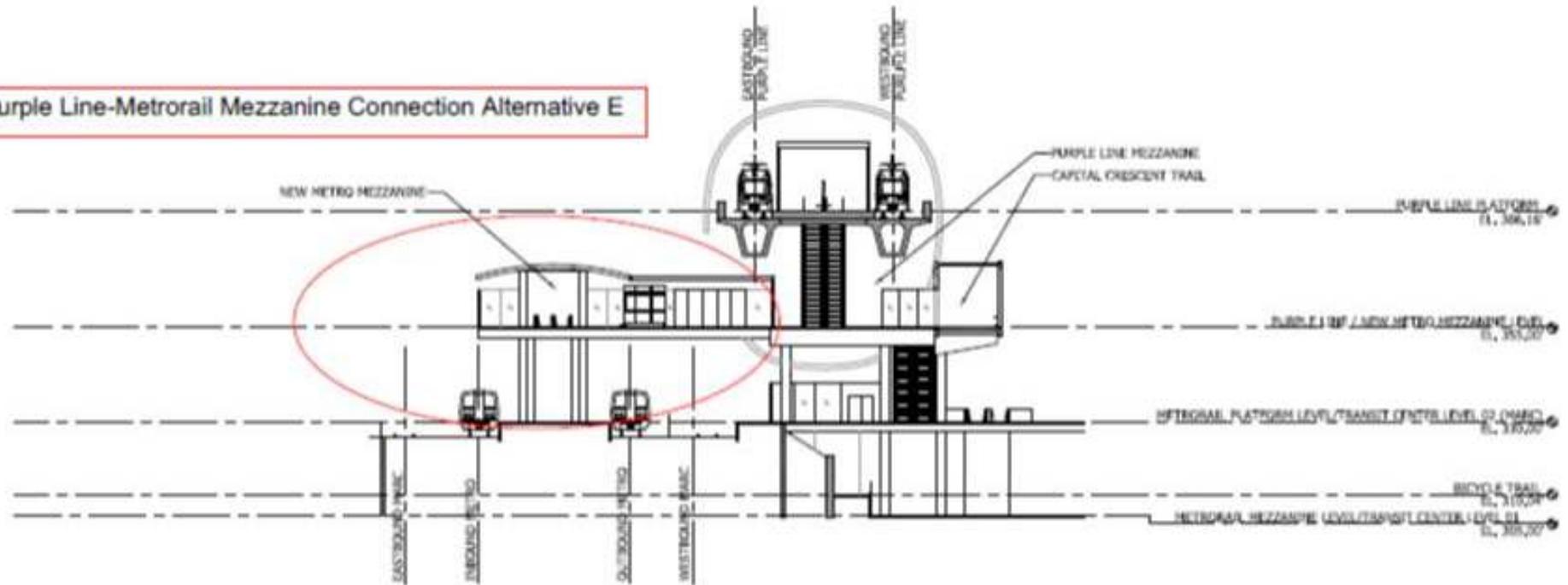


# Silver Spring Transit Center Station



# Silver Spring Station Mezzanine

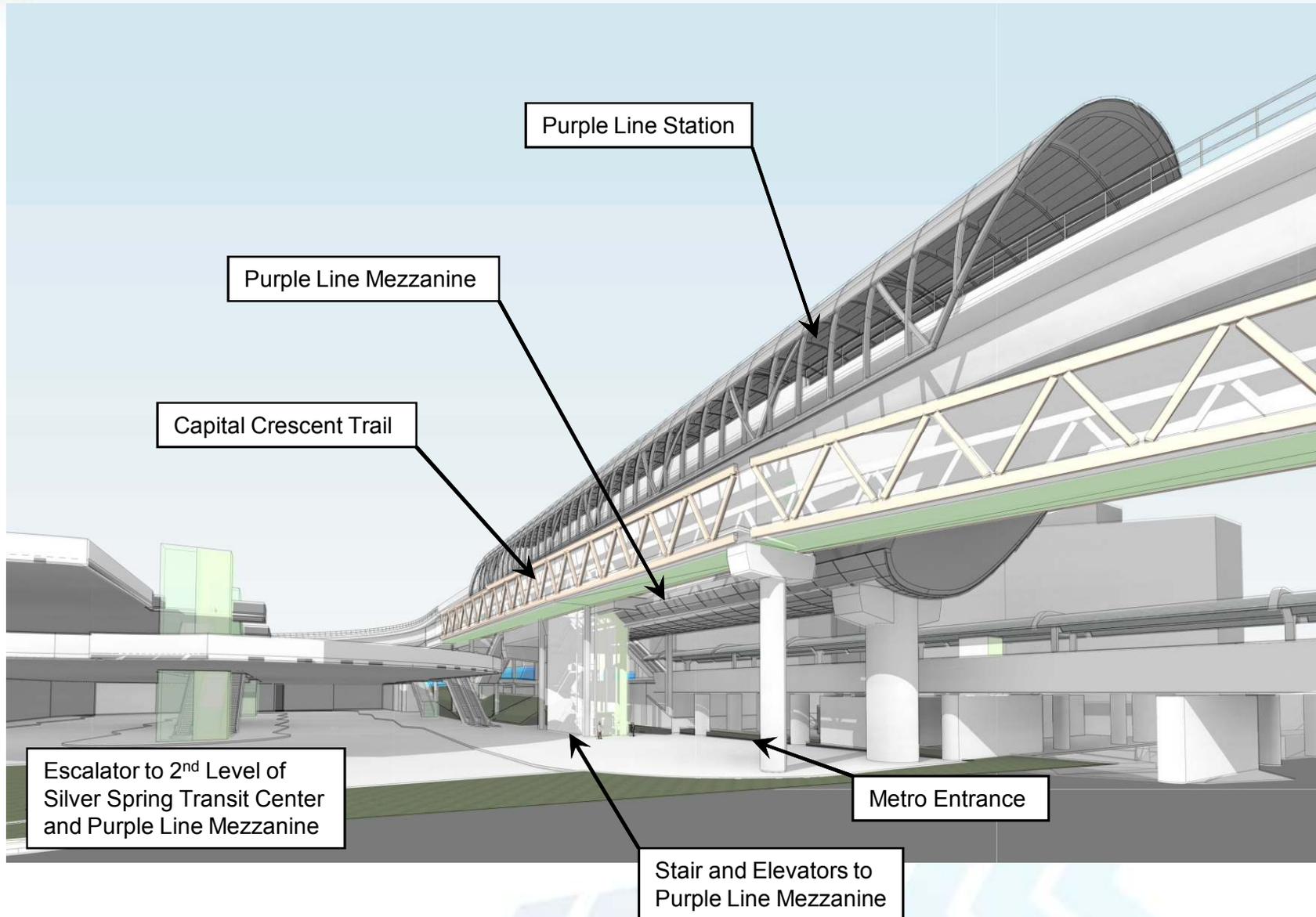
## Purple Line-Metrorail Mezzanine Connection Alternative E



2 SECTION - AT PURPLE LINE MEZZANINE  
SCALE: 1/8" = 1'-0"

Cost Estimate: \$27 - \$33m

# Silver Spring Transit Center Station



# Silver Spring Library Station

- Coordinated with DGS and residential developer
- Minimize library disruption
- Side Platform Station integrated into plaza within library



# Dale Drive Station



# TPSS Q06 – Wayne Avenue

- **Site Location**

- Originally located on a County-owned parcel between Cloverfield Road and Greenbrier Road
- In coordination with County, TPSS can be relocated to Silver Spring International Middle School
- Awaiting final decision from County/MCPS

# Plymouth Tunnel Portal



West Plaza from Wayne Avenue

# Manchester Place Station



East Plaza from Plymouth Street

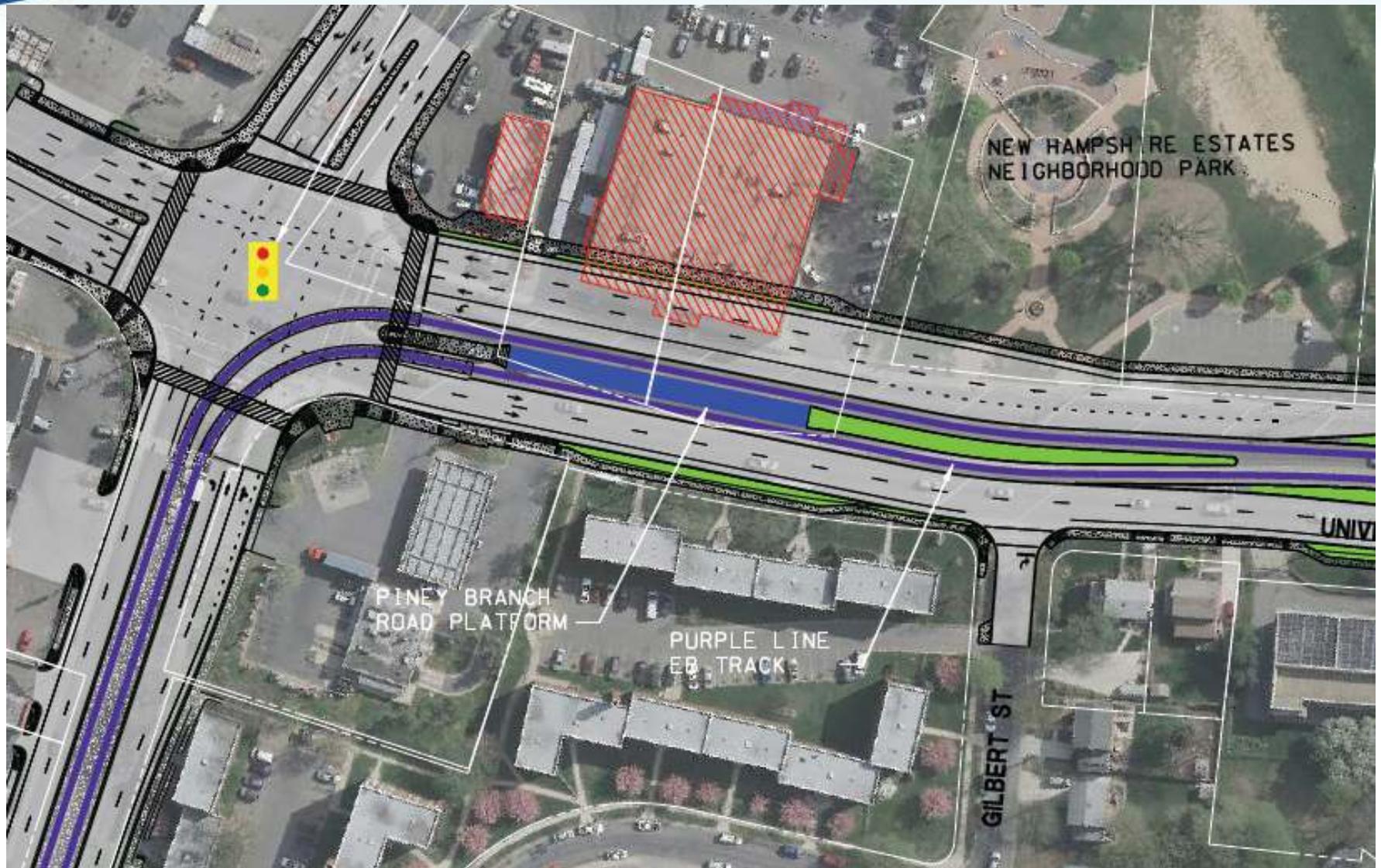
# Long Branch / Arliss Street Station



# Arliss Street Portal



# Piney Branch Road



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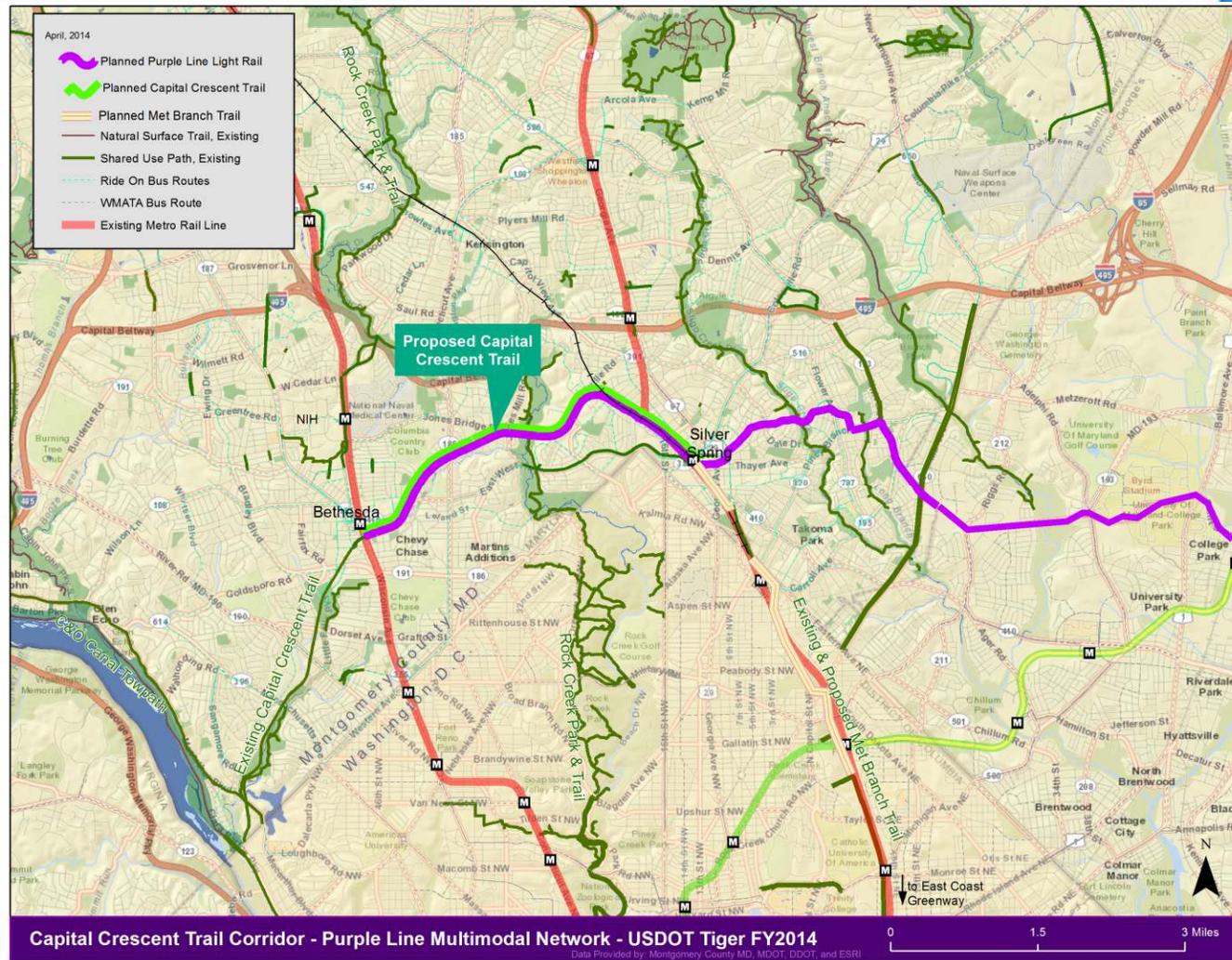
# **CAPITAL CRESCENT TRAIL**

# Cost & Schedule

- County CIP - \$95M (Adopted FY15-FY20 shows \$77.3M plus \$18.5M beyond 6 years)
- Costs subject to change based on final design and bids received
- Trail Construction scheduled to be determined based on Purple Line Design/Build Schedule (2015-2020) and bids received

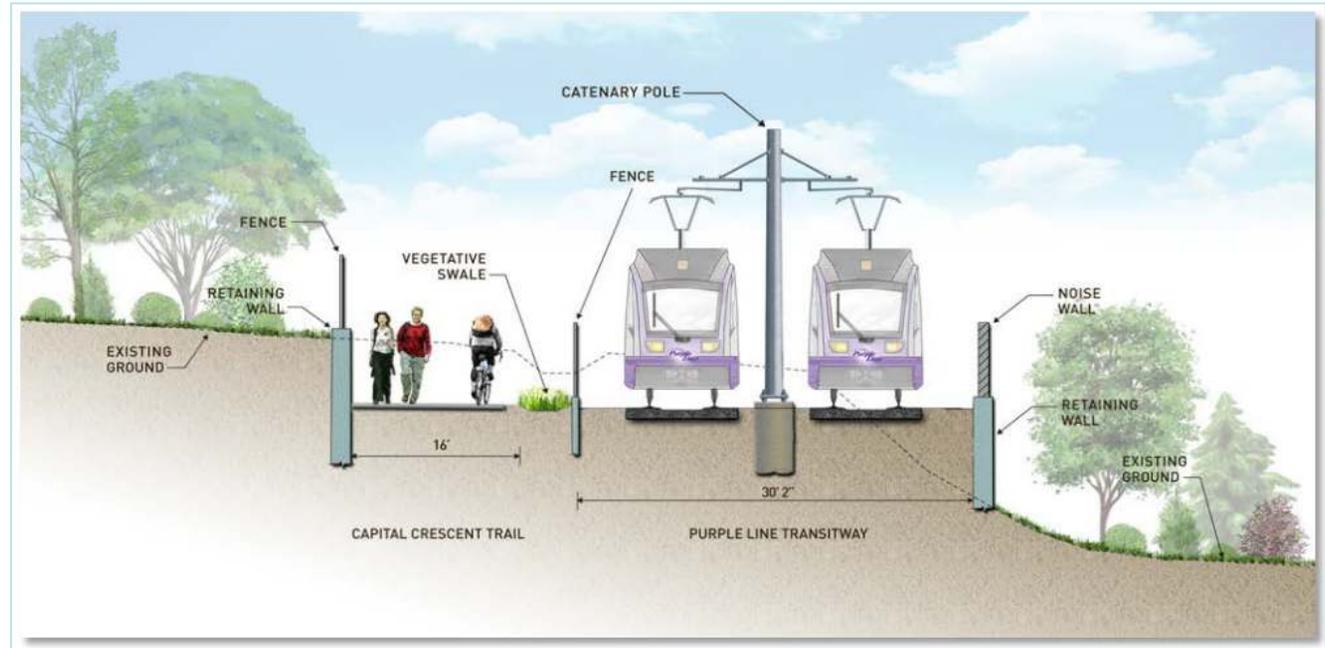
# Local & Regional Connections

- Neighborhood Connections
  - Over 20 new (east of Talbot) and improved (west of Talbot)
- Regional Connections
  - Rock Creek Trail
  - Existing Capital Crescent Trail
  - C&O Canal; Mt. Vernon Trail, Custis, W&OD Trails in VA
  - DC Trails & East Coast Greenway
  - Silver Spring Green Trail to Sligo Creek
- Existing Transit
- Nearby Land Uses



# Trail Design

- Standards & Guidelines
- Typical Sections
- Roadway Crossings
- Barriers



# Trail Design (continued)

- Noise
- Landscaping
- Signage, Way-finding and Safety
- Bicycle Parking at Stations & Bike-sharing
- Lighting



# Lighting (5.9.1.0)

- RFP 5.9.1.0 Provide lighting at roadway, pedestrian, and LRT grade crossings (Tunnels, Underpasses, Highway / Trail Crossings) plus at Stations
- Conduit for lighting along remaining trail
- RFP 5.9.1.4
  - “Concessionaire shall ensure all photometric analysis for light trespass shall utilize a light loss factor of 1.0. All other light loss factors shall be as required by the AHJ.
  - For all proposed lighting, whether temporary or permanent, the maximum allowable vertical and horizontal illuminance at residential property lines shall not exceed 0.01 foot-candles (fc). Concessionaire shall provide house-side shields on lighting fixtures within 75 feet of a residential structure, where necessary to achieve the 0.01 fc horizontal or vertical illuminance requirements.”

# Capital Crescent Trail Right-of-Way

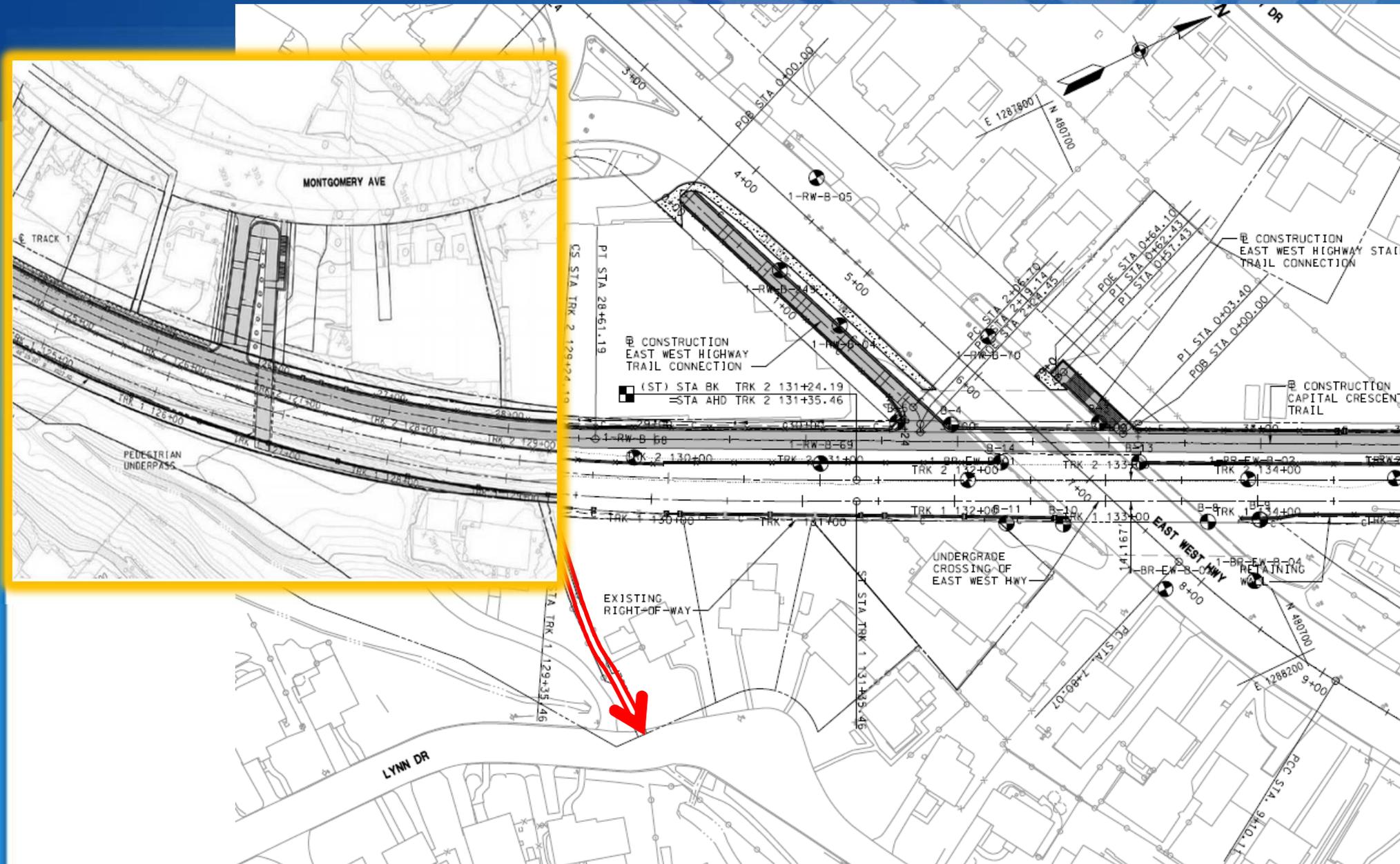
- PL Acquisition vs. Trail only Properties
- CSX Owned Properties - County
- County Owned Properties - County
- Privately Owned Properties - County
- WMATA Owned Properties - MTA



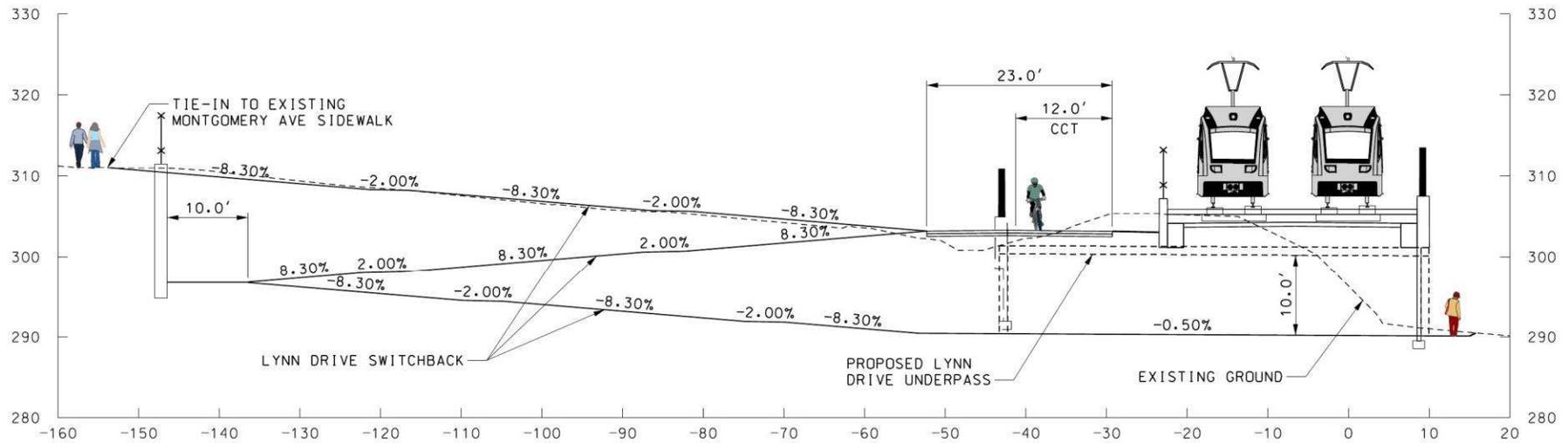
# Ongoing Issues & Details

- Trail Design & Engineering review - ongoing
- Specific Focus Areas & Connections
- Construction Maintenance of Traffic & Detours
- Trail Detour
  - Guidance to RFP respondents – **Concept Route Subject to change**
  - Design Issues – signing, marking
  - Timing of detour (TBD)
  - Accessibility & scale of “improvements”
  - Coordination & Outreach

# Lynn Drive Pedestrian Underpass



# Lynn Drive Pedestrian Underpass



**ELEVATION VIEW AT LYNN DRIVE UNDERPASS**

SCALE: 1" = 10'

# Lynn Drive Pedestrian Underpass

- **Features**

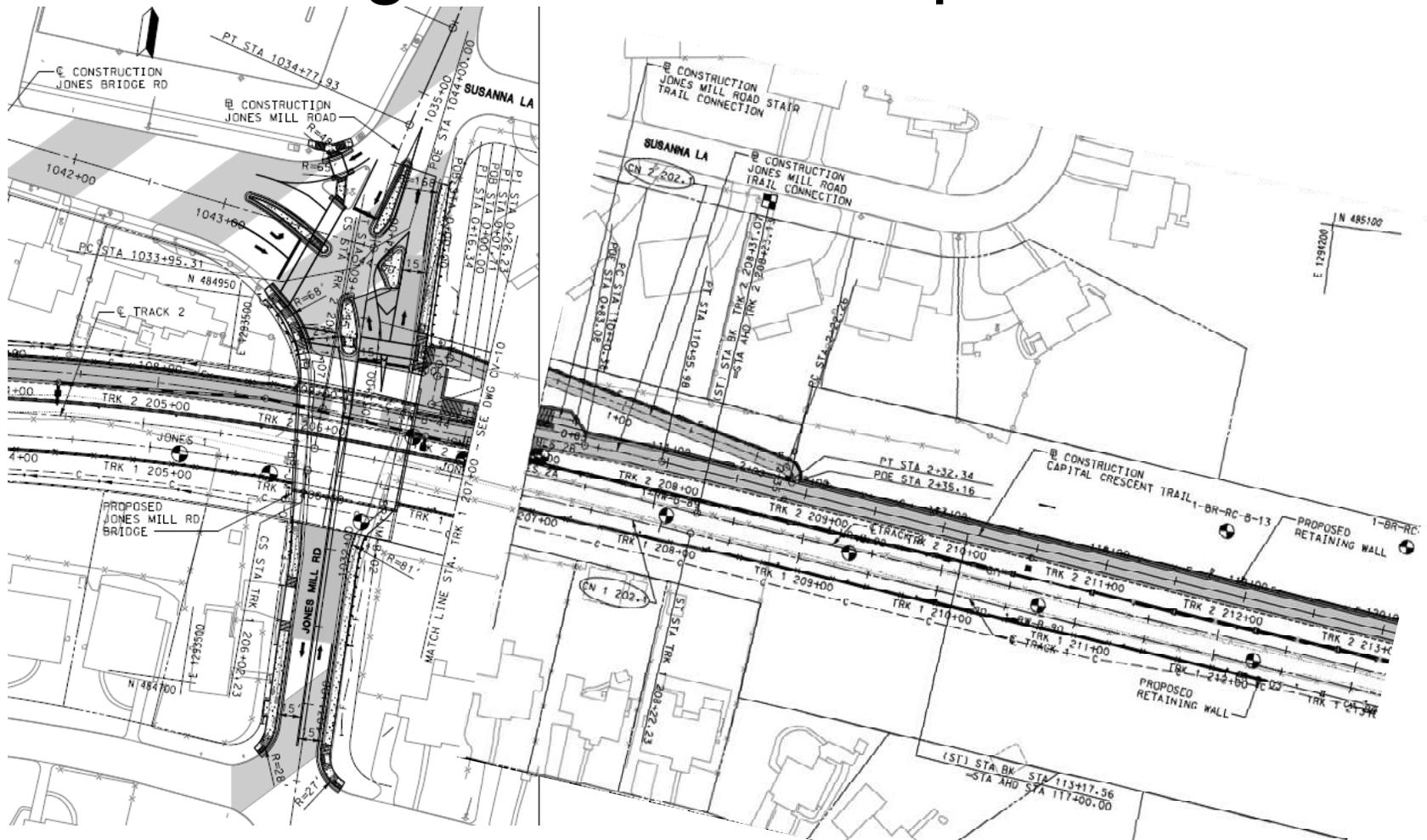
- Grade separated crossing of Purple Line
- Utilizes existing Town connection to interim trail
- Provides access to Capital Crescent Trail
- Provides shortcut to BCCHS
- Does not place CCT between high walls
- Could replace the proposed East-West Highway ramp connection
- Requires higher retaining walls along transitway and trail

- **Issues**

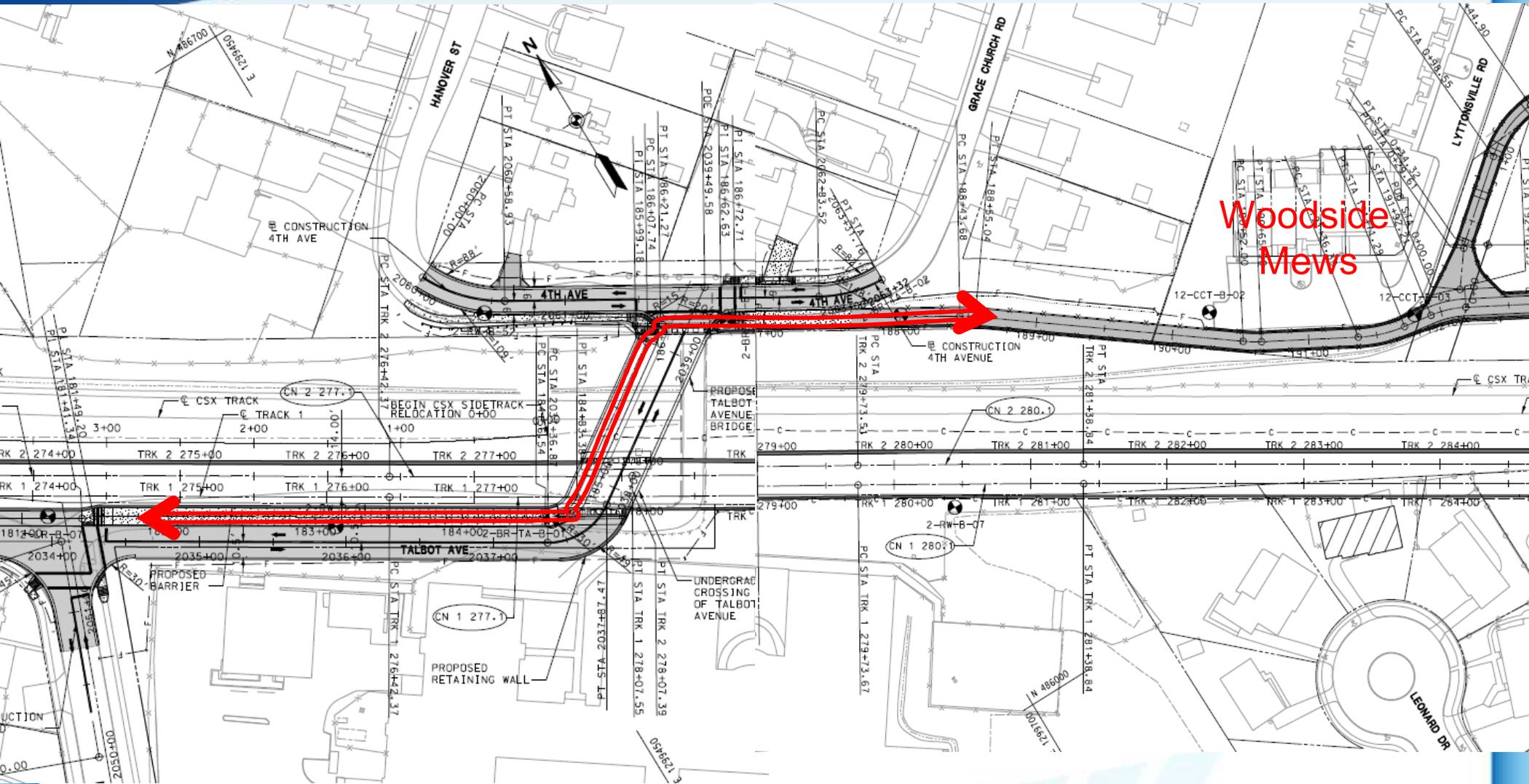
- Requires full property acquisition and displacement of 4306 Montgomery Avenue
- Town connection is not ADA-compliant
- Narrow 5 foot walkway leading to underpass
- Temporary right-of-way impact to 7508 Lynn Drive
- Town Council requested underpass option

# Jones Mill Road Underpass

- Proceeding with Grade Separation

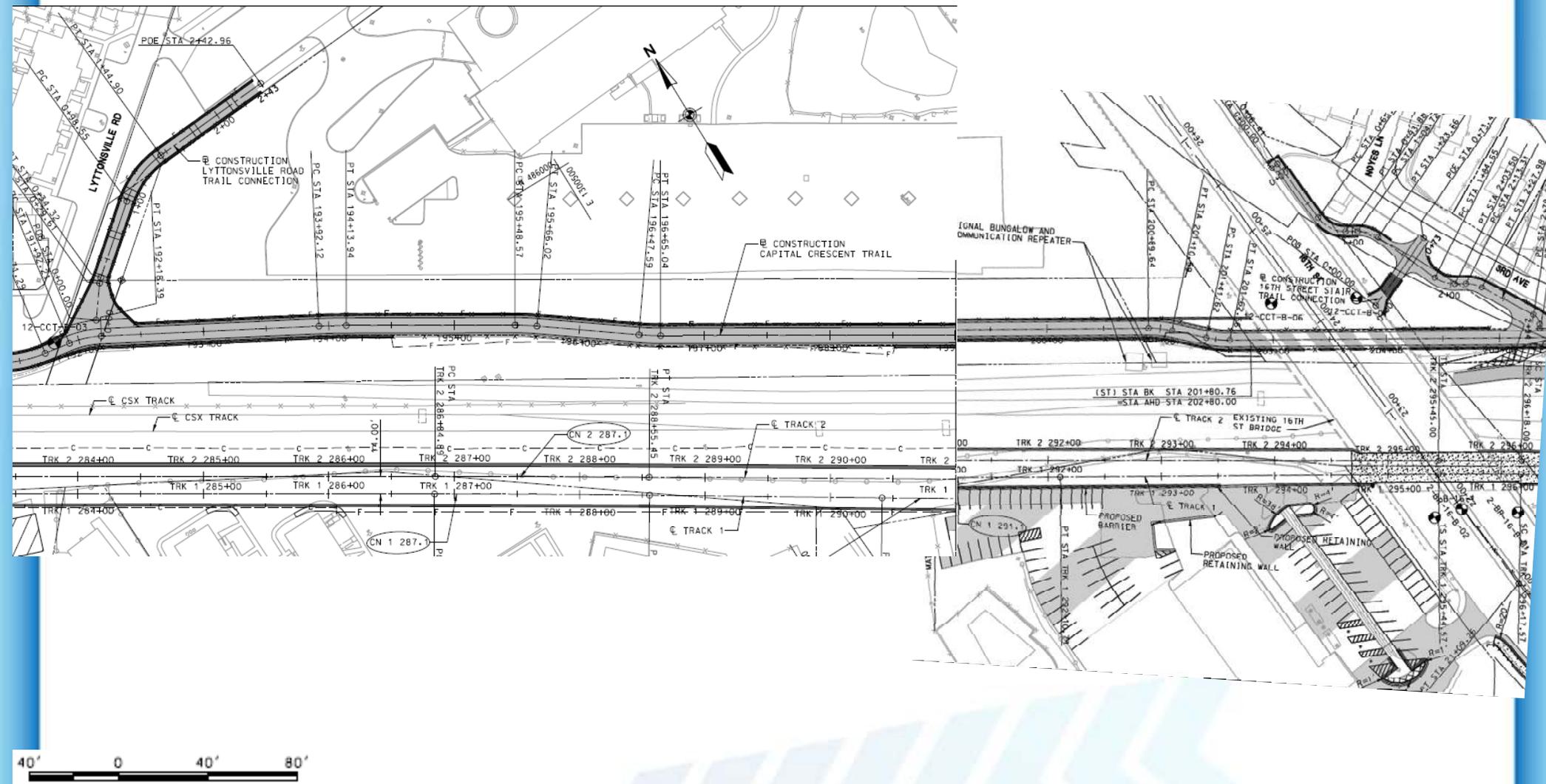


# Talbot Bridge/Connections Near Woodside Mews



# Park Sutton & Lyttonsville Road

- CSX and County Coordination



# Next Steps

- Ongoing Discussions with CSX
- Right-of-way assessment
- Review of Concessionaire RFP Proposals
- Design & Construction Review including MOT/MOTT Reviews
- Maintenance Plans



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# **MEMORANDUM OF AGREEMENT**

# Agreement Goals

- Demonstrate County commitment and partnership
- Deliver County projects
- Protect County and community interests
- Establish predictable processes
- Set requirements for managing impacts
- Create long-term framework/flexibility

# County Responsibilities

- Participation in Concessionaire Selection
- Local Government Contribution
- Franchise & Permitting Ordinances
- Design Review & Approval
- Project Execution Plan Review & Approval
- Certain Property Acquisition
- Certain Operations & Maintenance Activities

# Transferred/Shared Responsibilities

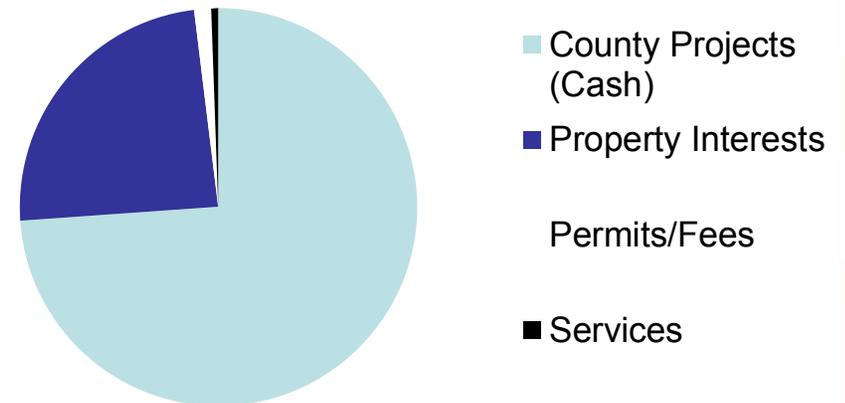
- MTA accepts maintenance of certain roads and bridges
- County accepts off-site stormwater maintenance responsibilities
- Cooperation and consultation on traffic signals management
- County to support MTA public involvement and small business mitigation activities
- Adjacent development requirements and utility access management



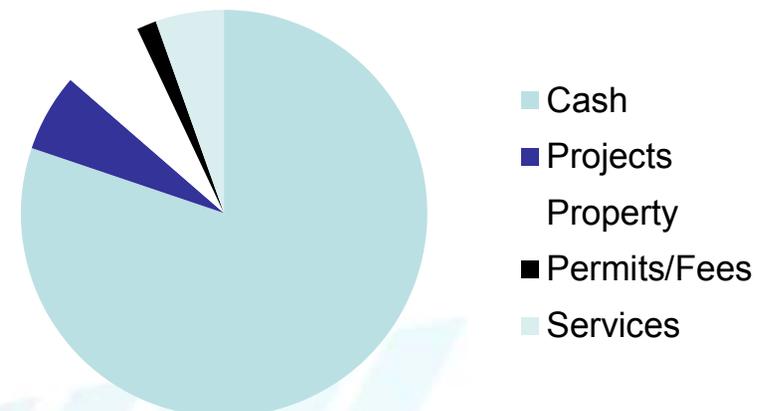
# Local Contribution

- Bethesda Metro Entrance
- Capital Crescent Trail Shared Costs
- Silver Spring Green Trail
- Property Interests
  - Georgetown Branch
  - Lyttonsville Maintenance Facility
  - MCPS/WSSC Properties
- Miscellaneous
  - Traffic Signal Cable Splicing
  - Permits & Fees

## Montgomery County



## Prince George's County



# Franchise & Permitting Ordinances

- Grants MTA access to County right-of-way under certain conditions
- Eliminates confusion about State vs. local authority
- Replaces many code requirements with contractual requirements in MOA



# Code vs. Contract Examples

- Performance Bonds – County covered by MTA performance bonds rather than Concessionaire posting additional bonds.
- Blasting & Demolition – requires County review and concurrence
- Hauling routes and permits – agreed to in project technical requirements
- Noise standards – project-wide approach

# Project Execution Plan (Design & Construction)

- Must be approved by MTA, Concessionaire and County prior to construction. Includes the following minimum elements:
  - Baseline Schedule
  - Design review and approval processes
  - Inspection and acceptance processes
  - Traffic Management Plan
  - Noise Control, Monitoring & Mitigation Plan
  - Construction Management Plan
  - Comprehensive Environmental Protection Plan
  - Stormwater Management & Utilities Mgmt.
  - Quality Assurance/Quality Control Plan
- May not expand responsibilities or diminish rights of Concessionaire under the MOA.

# Operations & Maintenance Plan

- Must be approved by MTA, Concessionaire and County at least 18 months prior to beginning of service.
- Primary Elements
  - Road and Bridge Maintenance Procedures
  - Traffic Operations and Management
- May not expand responsibilities or diminish rights of Concessionaire under the MOA.

# Real Estate & Right-of-Way

- County to clear Georgetown Branch encroachments.
- County to acquire CSX and other Capital Crescent Trail parcels
- MTA to purchase land for Silver Spring Green Trail
- MTA to acquire all other parcels and dedicate back to County or SHA as right-of-way



# Stormwater Management

- Project governed by MDE not County Code
- MTA agrees to higher standards
- Goal is to treat all runoff within 1500' of Purple Line
- County agrees to take on additional maintenance responsibilities
- Jointly prioritize off-site opportunities



# Noise Requirements

- Conflicts among State and County Codes
- Construction Noise Control, Monitoring and Mitigation Plan
- Project-wide noise standards
- Waiver approval process through DEP
- County can set conditions on waivers



# Management of County-funded Projects

- Purple Line Concessionaire to design/build according to County scope and standards
- MTA contract provisions prevail
- Most risks assigned to Concessionaire; County accepts scope and delay risk.
- MTA to inspect and provide QA/QC
- County has right & responsibility to do same



# Scope Changes

- Agencies have agreed to contract design and technical requirements.
- MTA allocates up to \$200,000 for each County.
- Any requested change (physical, policy, etc.) paid by County.
- MTA considers long-term and operational impacts.



# Financial Approach

- Based on “Aggregate County Appropriation”
- Opportunities to adjust scope w/o affecting Purple Line.
- Adjust project allocations and cash flow based on expenditure schedule at next CIP.
- Quarterly payments
- County pays State’s financing costs if expenditure schedule not met.
- Post-construction true-up



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# **REFERENCE SECTION**

# P3 Capital Funding Approach

## Private Funding Provided by the Concessionaire

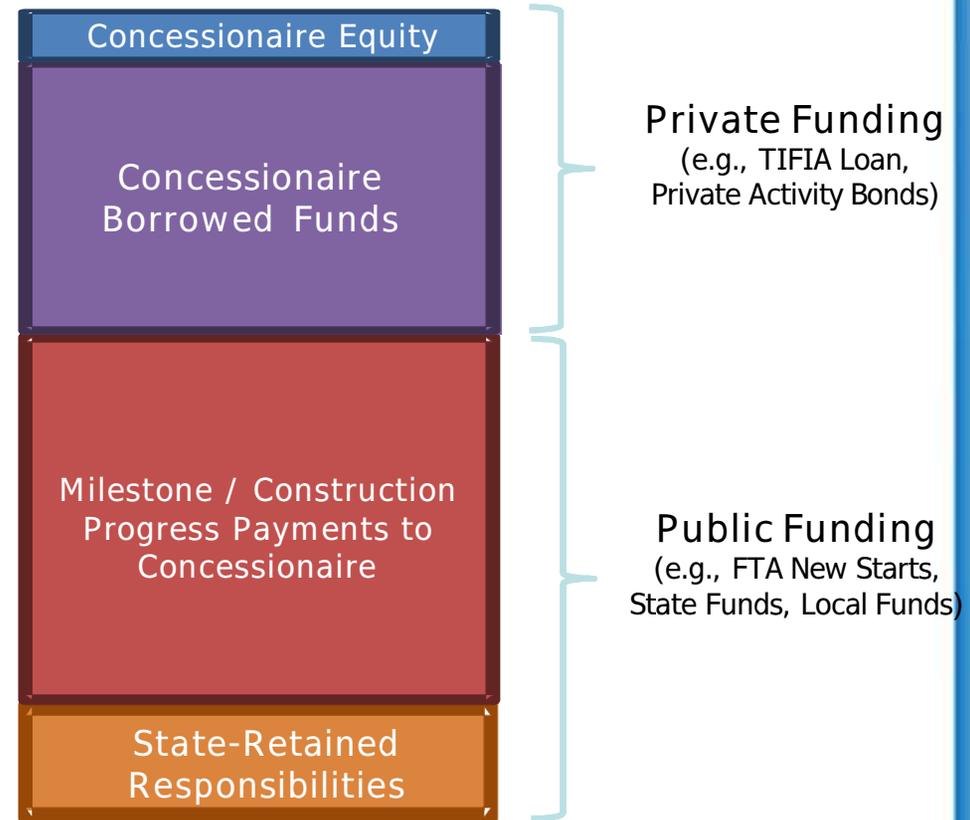
- Typical for the concessionaire to borrow 80-90 percent of its funding while providing its own equity for the remainder of the private funding

## Milestone/Construction Progress Payments

- Predetermined amounts tied to adequate construction progress and incentives.
- FTA Full Funding Grant Agreement
- State transportation trust funds
- Local government projects/contributions

## State-retained Costs Responsibilities

- Preliminary engineering, environmental analysis and other costs already incurred
- P3 solicitation process, program management, ROW acquisition, and quality assurance and oversight during construction

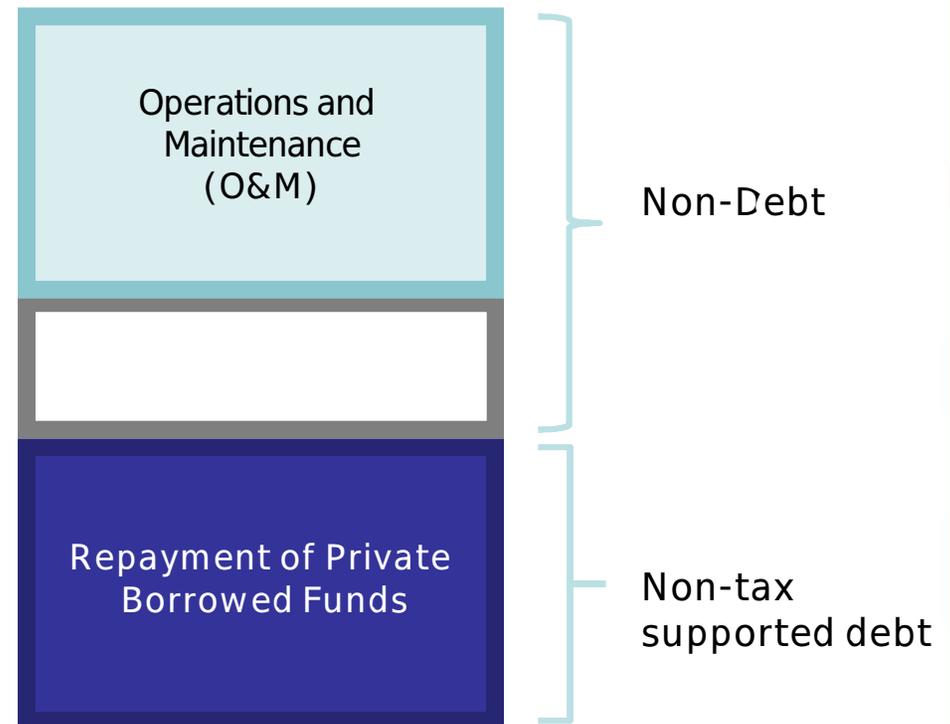


Not to Scale

# P3 Availability Payments (APs)

- Once service begins
- Performance payments based on the concessionaire meeting established performance requirements
- Cover O&M (major component); rehabilitation & replacement; and private borrowed funds

AP Components



Not to Scale

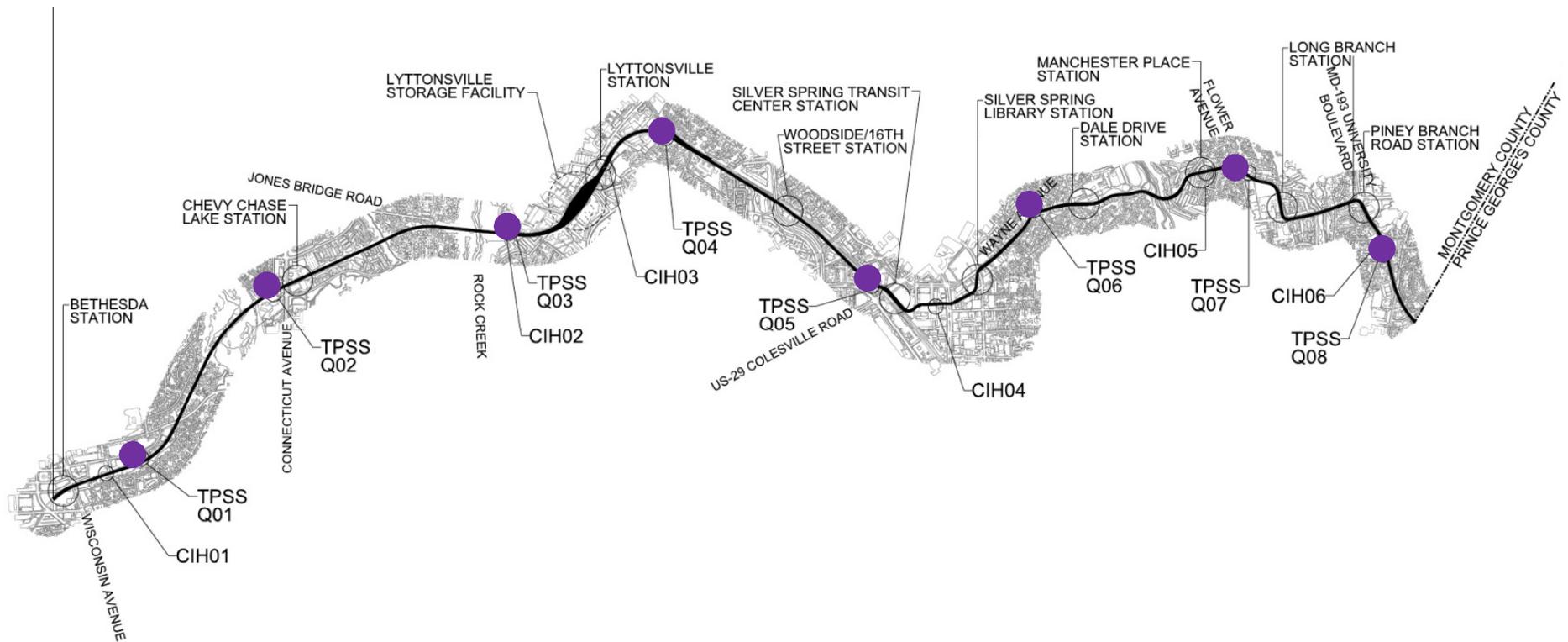
# Light Rail Traction Power Substation

- Residential and commercial areas required
- Often hidden in plain sight
- No impacts on health or safety
- All equipment enclosed within a locked building providing security and sound absorption
- Regular site visits by operations staff



# TPSS Locations

- There are eight (8) TPSS sites in Montgomery County



# Right of Way Process

- Notification letter from MTA
  - Easements, partial or full acquisitions
  - A qualified, independent appraiser will contact the property owner
- Appraisal
  - Inspection of property
  - Property owner will be asked to participate in the appraisal by pointing out features that may be important to consider.
- Negotiation
  - Appraisal results are reviewed and determined to be fair and reasonable, based on fair market value
  - MTA will assign a negotiator to explain the acquisition process and the payment being offered.
  - The negotiator will provide a written offer for the property

# Economic Empowerment Program

- Construction labor & workforce development
  - Hiring of economically & socially disadvantaged persons
  - Preferred Training Partners
- Small/minority/disadvantaged businesses
- Business sustainment during construction
- Buy America
- Operations & maintenance labor

# Public Outreach

- During construction the MTA will maintain responsibility for communication and coordination with property owners, residents, business owners/operators and other stakeholders
- Liaisons will:
  - be located in project offices in the corridor
  - alert the community to upcoming construction activities
  - serve as direct points of contact for the community
  - bring the Concessionaire to the table to address concerns

# Public Outreach

## Purple Line Community Outreach Coverage Areas

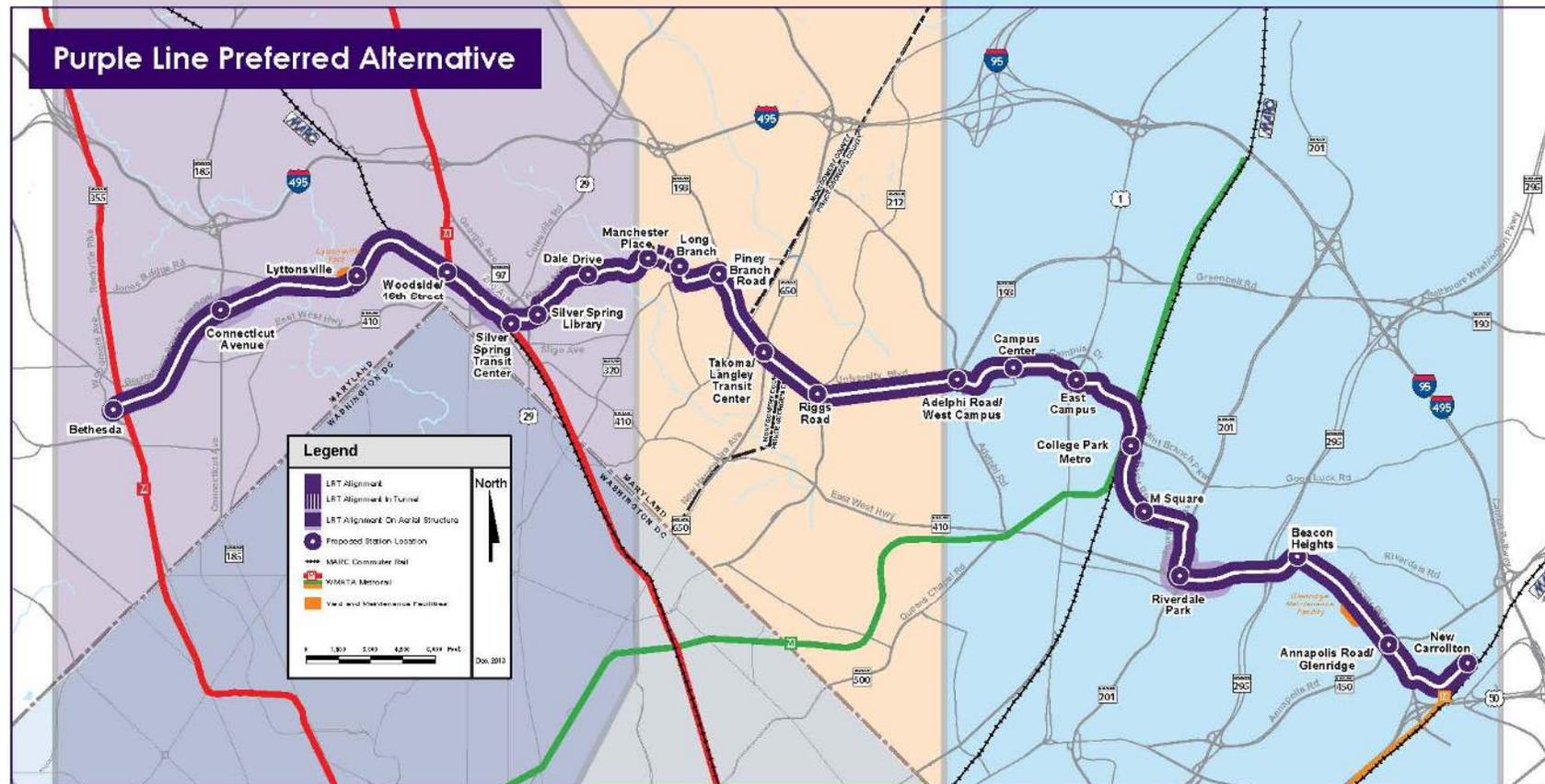
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& Community Liaison  
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**Kay Underwood**  
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### Montgomery County

Bethesda, Connecticut Avenue, Lyttonville, Woodside/16th St., Silver Spring Transit Center, Silver Spring Library, Dale Drive

### International Corridor

Manchester Place, Long Branch, Piney Branch Road, Takoma Langley Transit Center, Riggs Road

### Prince George's County

Adelphi Road/West Campus, Campus UM Center, East Campus, College Park Metro, M Square, Riverdale Park, Beacon Heights, Annapolis Road/Glenridge, New Carrollton

# TPSS Q01 - Bethesda

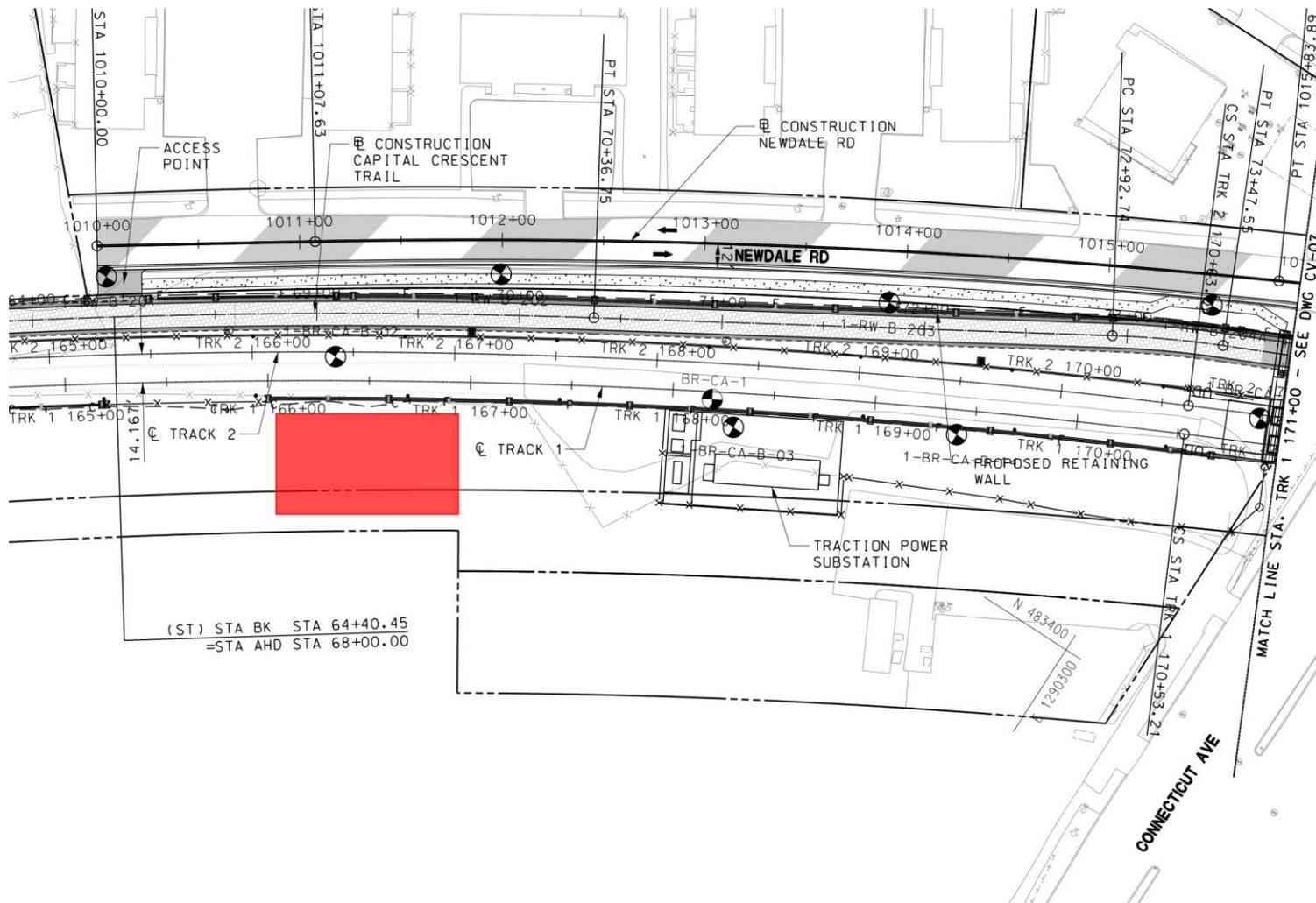
- **Site Location**
  - North of the Purple Line and CCT alignments
  - TPSS building, ground grid, and access driveway are positioned on single property along Montgomery Ave.
- **Setting**
  - Commercial
- **Coordination**
  - Worked with property owner to select site location, driveway alignment, and TPSS building orientation
  - Refinement minimizes visual from Chevy Chase
    - Short side of building

# TPSS Q02 – Connecticut Avenue

- **Site Location**
  - South of the Purple Line alignment, about 450' west of Connecticut Avenue
  - The majority of the TPSS site is located on County property
- **Setting**
  - Commercial
- **Coordination**
  - Worked with property owner to shift TPSS site
    - Moved about 200' to the west
    - Minimizes view from Connecticut Avenue
    - Maximizes redevelopment potential
    - Location maintains a line of trees shielding the view from the Columbia Country Club

# TPSS Q02 – Connecticut Avenue

- Shifted location



# TPSS Q03 – Brookville Depot

- **Site Location**
  - North of the Purple Line
  - The TPSS site is located on County property. Access to the site is through Brookville Depot.
- **Setting**
  - Industrial
- **Coordination**
  - Coordinated location with DGS and Lyttonsville community

# TPSS Q05 – Metro Center

- **Site Location**
  - North of East-West Highway on the Metro Center site
- **Setting**
  - Commercial
- **Coordination**
  - The MTA is coordinating the location of the TPSS site with the owner of the Metro Center to maximize the future development potential of the property

# TPSS Q07 – Flower Avenue

- **Site Location**
  - The TPSS is located on one property on the northeast corner of Flower Avenue and Arliss Street
  - Located in a parcel that is being displaced due to excavation for the Purple Line tunnel
- **Setting**
  - Residential/Commercial
- **Coordination**
  - Extensive landscape screening was requested by adjacent residents during public meetings

# TPSS Q08 – University Boulevard

- **Site Location**
  - The TPSS is located on parcel at the southwest corner of University Blvd. and Seek Lane
  - Located on a parcel being displaced due to widening
  - Adjacent to Pepco substation
- **Setting**
  - Residential/Utility
- **Coordination**
  - MTA has not received any comments from the community regarding this site to date

# Looking East From Woodmont Plaza



# Looking East From Woodmont Plaza Approaching Purple Line Station

