

# Montgomery County Transit Projects

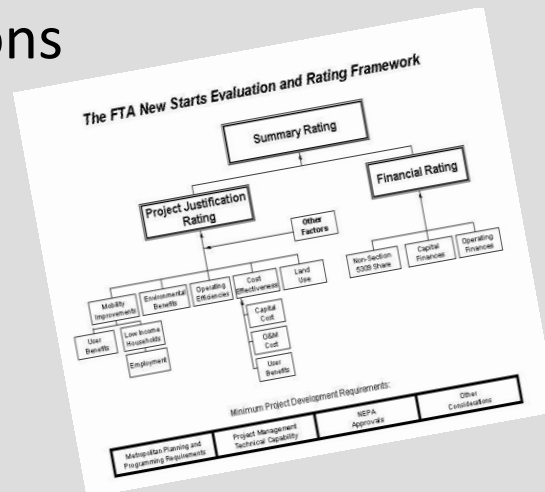
## Discussion with Maryland Transit Administration

- Mode, alignment, and design options
- Project implementation
- Master planning coordination
- Funding opportunities



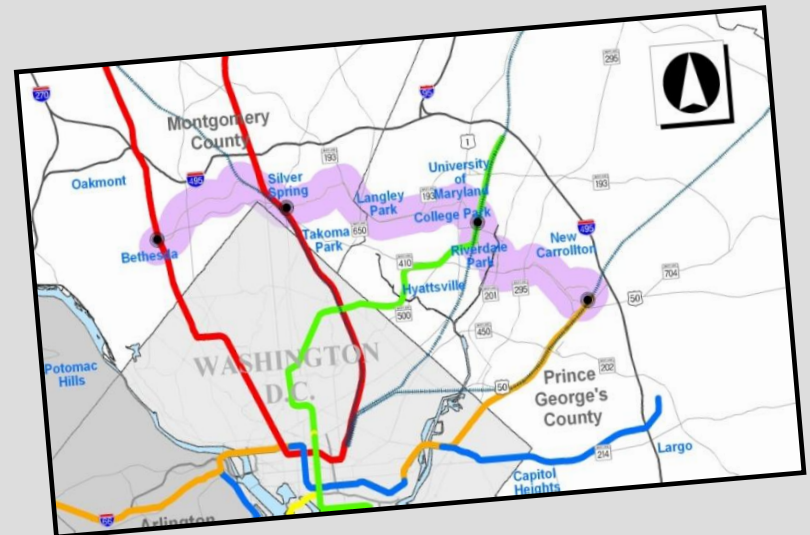
# Mode, Alignment, and Design Options

- Local to national competition
- Phasing of BRT vs. LRT
- Dulles Rail lessons learned
- Value of local consensus



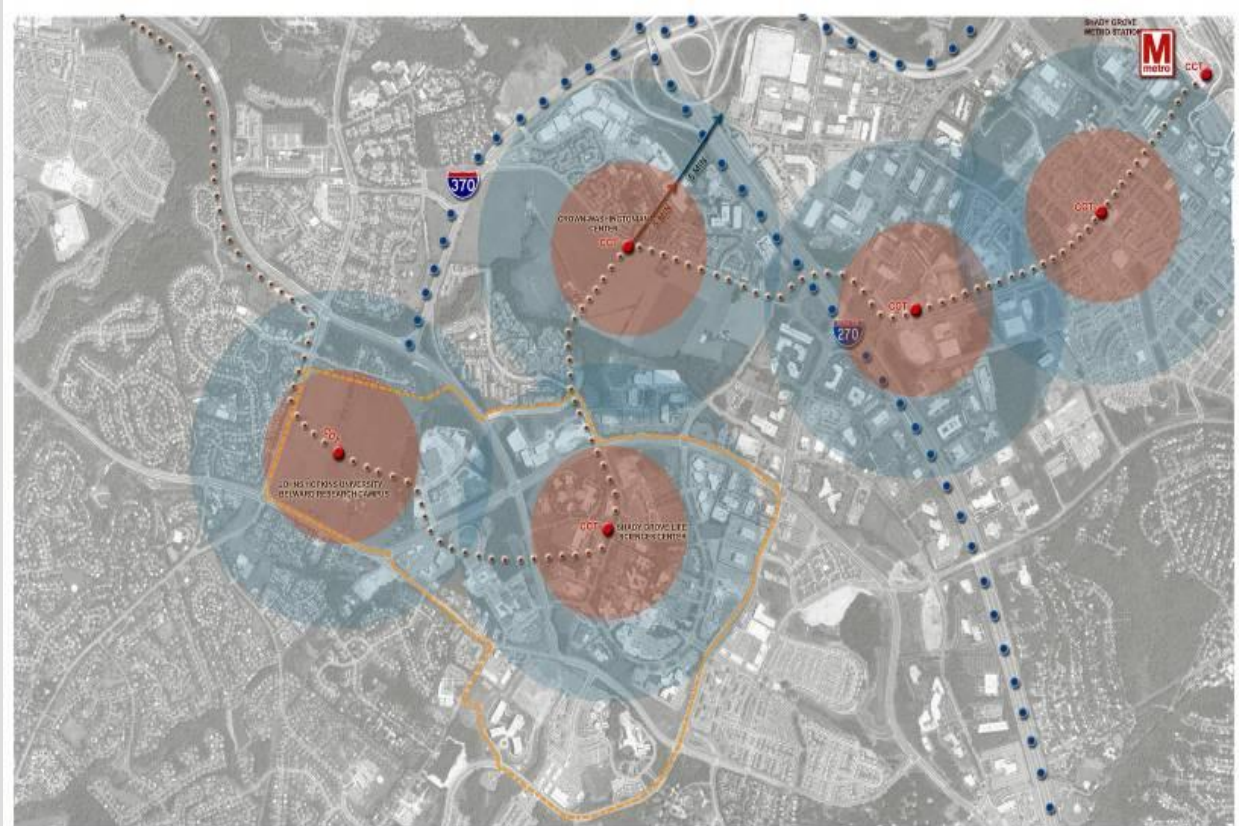
# Project Implementation

- Phasing factors
- Multiple projects & jurisdictions
- Flexibility during implementation



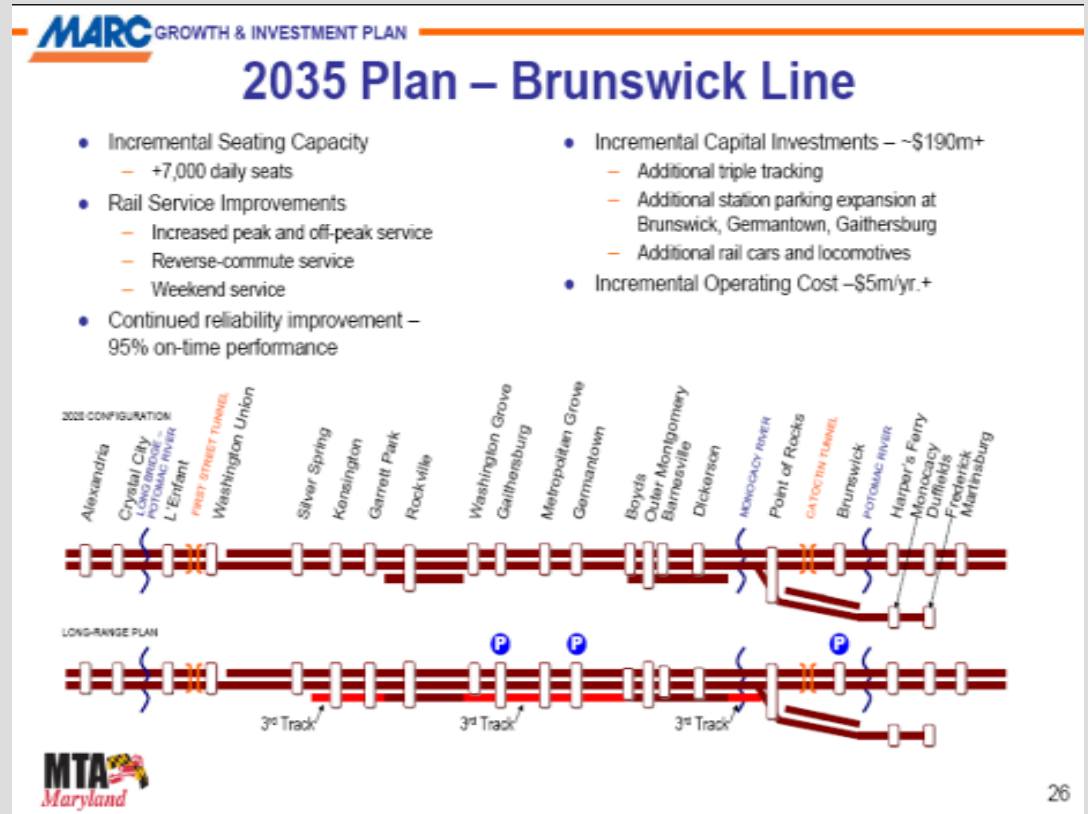
# Master Planning Coordination

- Local government actions
- Demographic changes
- Planned MARC stations
- MARC Investment Plan



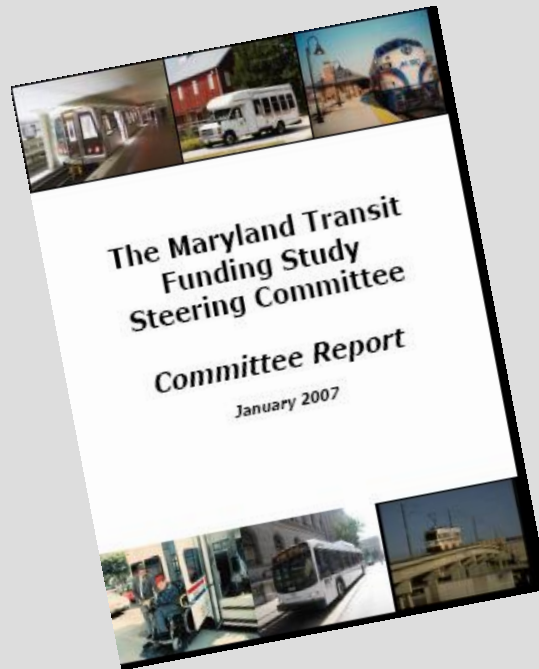
# Master Planning Coordination

- Local government actions
- Demographic changes
- Planned MARC stations
- MARC Investment Plan



# Funding Opportunities

- New Starts methods
- Public-private partnerships
- Maryland Transit Funding Study Steering Committee
- Most promising funding streams





**MARYLAND  
TRANSIT  
ADMINISTRATION**

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**MONTGOMERY COUNTY  
PROJECTS UPDATE**

**M-NCPPC PLANNING BOARD  
MARCH 27, 2008**

# Agenda

- Project Overviews
  - MARC Growth and Investment Plan - Brunswick Line
  - Corridor Cities Transitway
  - Purple Line
- New Starts Process
- Next Steps



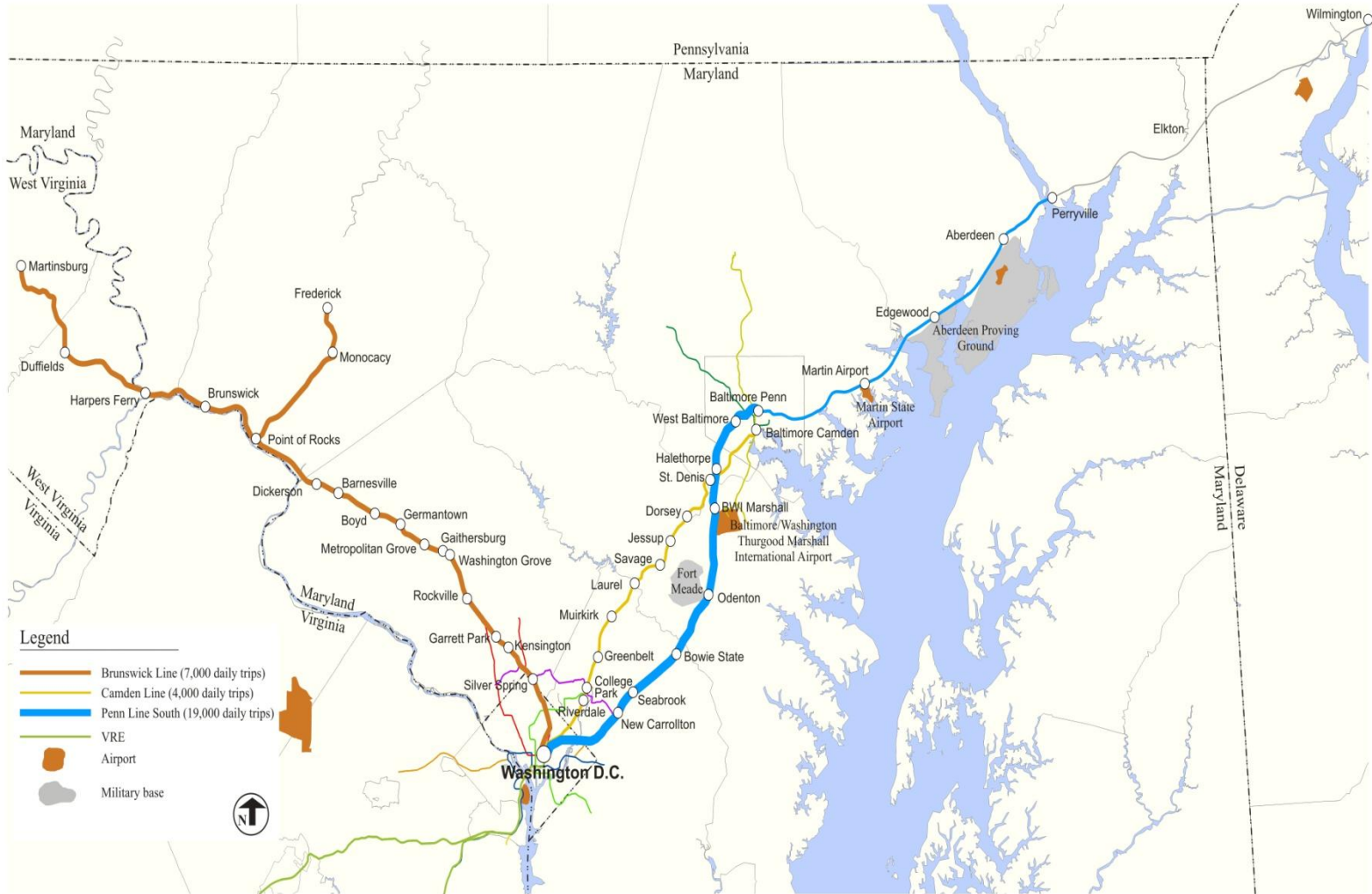
# MARC Growth and Investment Plan



# Benefits of Investment in MARC

- Ridership
  - Increase passenger-carrying capacity threefold
  - Increase share of trips by MARC during peak travel periods
- Service
  - Increase peak service:
    - 15-minute headways on Penn Line
    - 20-minute headways on Camden and Brunswick lines
  - Increase off-peak service:
    - 30-minute headways on Penn Line
    - Increased mid-day service on Camden and Brunswick lines
  - Provide express and limited stop service
  - Provide late evening service
  - Provide weekend service
  - Improve reliability to 95% on-time or better

# Existing Service



# Existing System Description

	Penn Line	Camden Line	Brunswick Line
Owner/operator	Amtrak	CSX	CSX
Stations	12	11	18
Route-miles	75	40	75
Weekday trains	47	18	19
Train sets	6	5	9
Frequency			
• Weekday peak	25 mins (Wash-Balt) 45 mins (Perryville)	30 mins	30 mins (Brunswick) 60 mins (Frederick)
• Weekday off-peak	Hourly (Wash-Balt) None (Perryville)	None	One mid-day train
• Weekend	None	None	None
Daily passenger trips	19,000	4,500	7,000
On-time performance (FY 07)	89%	91%	89%

# MARC is Running Near Capacity

- Capacity constraints threaten the ability of the MARC system to meet this demand with acceptable level and quality of service
- Brunswick parking lots at or near capacity – Brunswick, Point of Rocks and Germantown
- Existing trains are crowded; standees on 60% of Penn Line trains in peak 2 hrs.
- Insufficient spare equipment
- Insufficient train storage
- Equipment maintenance shops are at capacity
- MARC scheduling flexibility and expansion ability constrained by infrastructure and other operations (Amtrak service & freight)

# Major Assumptions for Growth

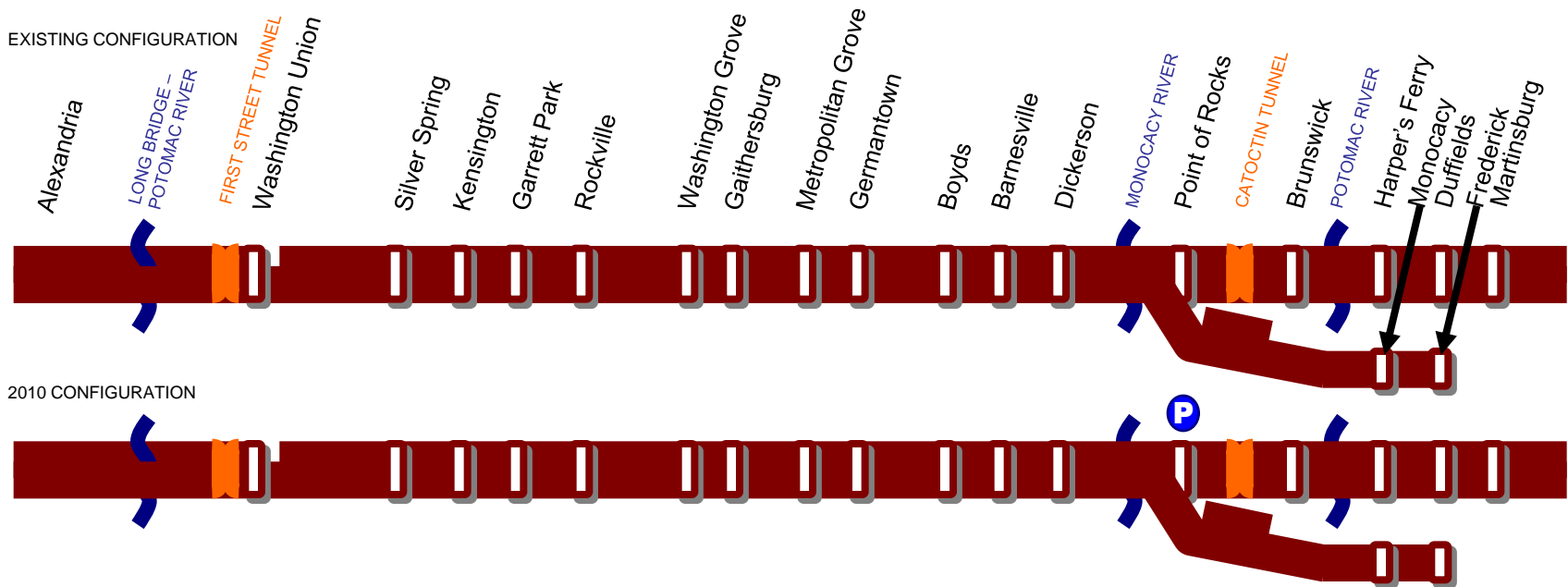
- CSX or Amtrak cooperation required, since MTA doesn't own or control:
  - Right-of-way
  - Washington Union Station, Baltimore Penn Station, and other major stations
  - Train dispatching and operations
  - Equipment maintenance priorities
- Investment will need to comprehensively address system capacity needs in multiple areas
  - Rail infrastructure upgrades and expansion
    - Additional main line tracks
    - Improved crossovers and track connections
    - Upgraded signaling and Penn Line electrification systems
  - Train storage and maintenance facilities
  - Rail cars
  - Station parking

# Phased Growth and Investment Plan

- Timeframes
  - Immediate (within 9 months)
  - 2010
  - 2015
  - 2020
  - Long-range (2035)

# 2010 Plan – Brunswick Line

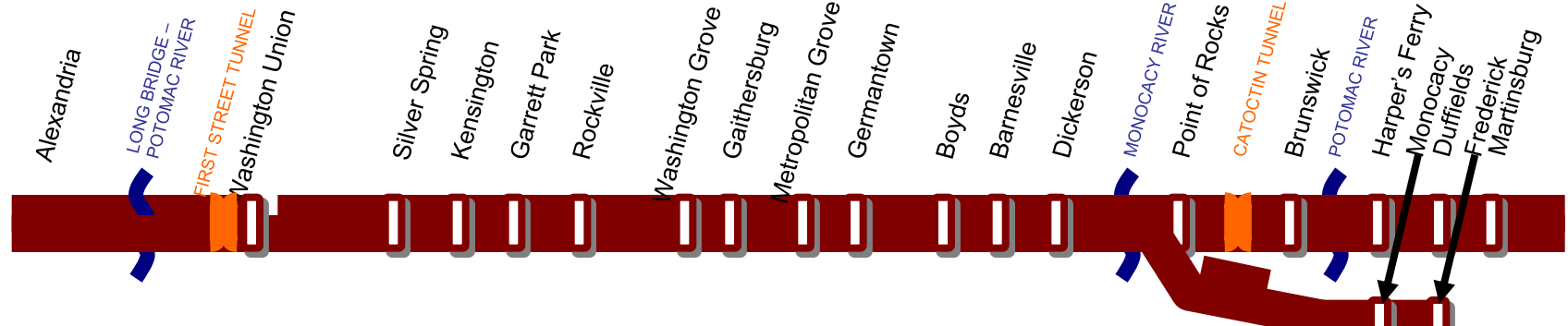
- Incremental Seating Capacity
    - +200 daily seats
  - Rail Service Improvements
    - Lengthen existing trains to accommodate growing ridership demand
  - Improved reliability – 93% on-time performance
- Incremental Capital Investments – ~\$63m
    - Procure new rail cars
    - Aesthetic improvements and upgrades to stations
    - Complete station parking expansion at Point of Rocks
  - Incremental Operating Cost – <\$1m



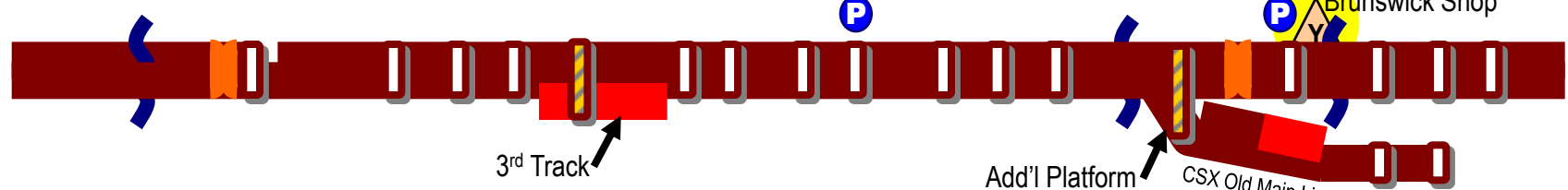
# 2015 Plan – Brunswick Line

- Incremental Seating Capacity
  - +3,800 daily seats
- Rail Service Improvements
  - Improve Frederick Branch service – 30 min. peak headways (increase number of trains from 3 to 6)
  - Increased limited stop and express service
- Continued reliability improvement
  - Major failure avoidance, improved incident response
- Improved car cleaning capability
- Incremental Capital Investments – ~\$140m
  - 3 main tracks, Rockville area
  - 2 main tracks, Old Main Line / Frederick Branch
  - Point of Rocks: new platform on Frederick Branch
  - Germantown Station parking garage
  - Brunswick Station parking expansion
  - Brunswick maintenance facility expansion
  - Additional rail cars
- Incremental Operating Cost – ~\$8m/yr.

2010 CONFIGURATION

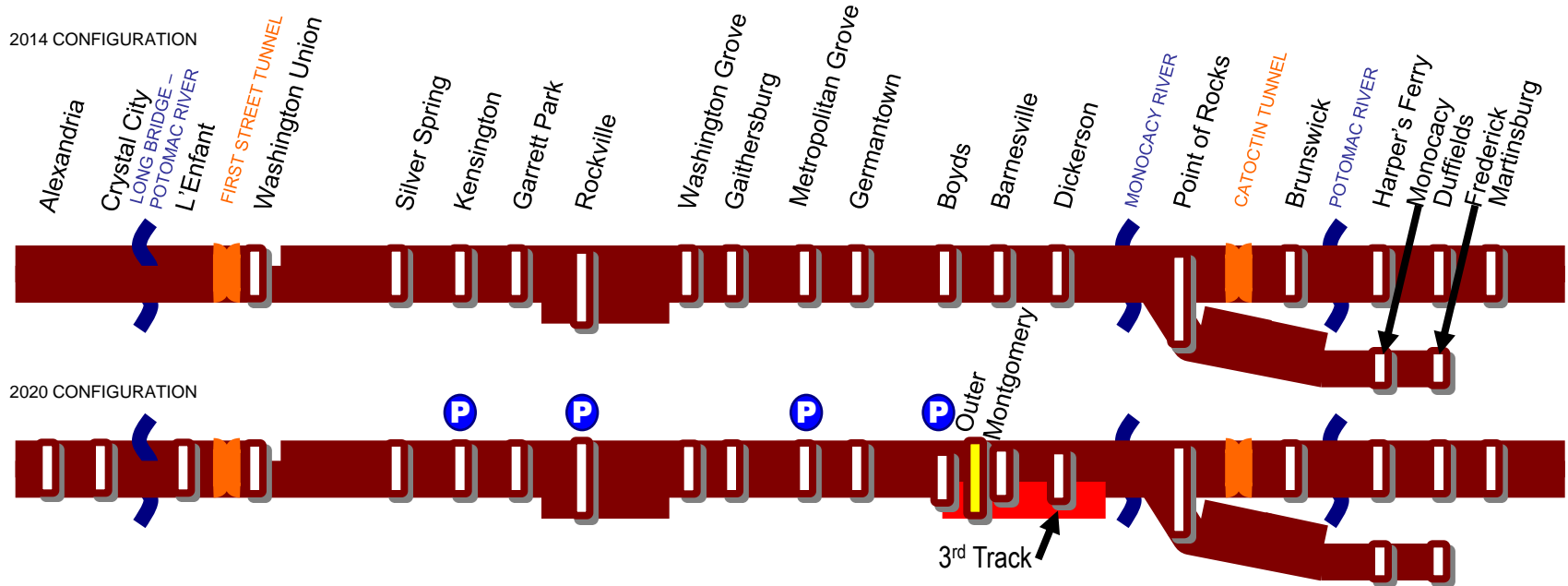


2014 CONFIGURATION



# 2020 Plan – Brunswick Line

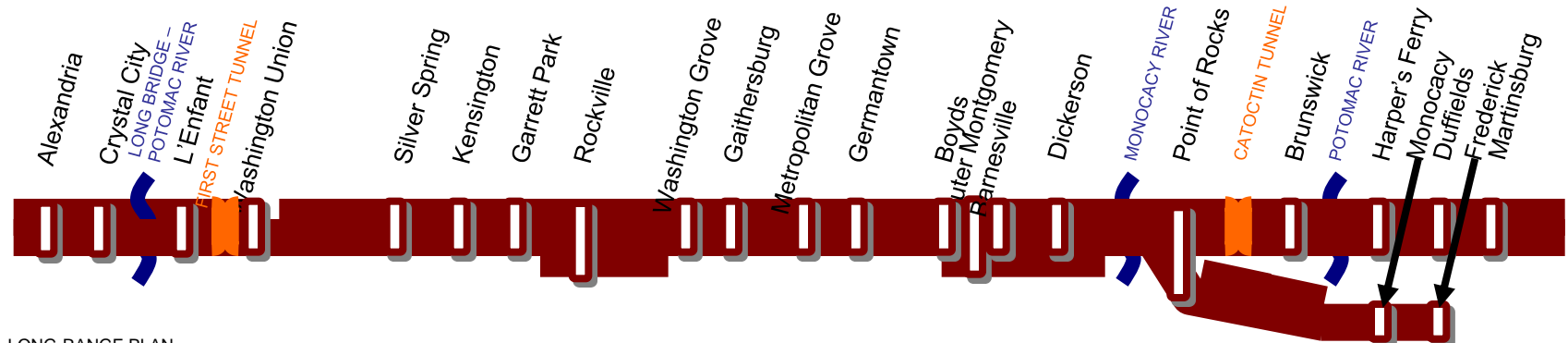
- Incremental Seating Capacity
    - +8,400 daily seats
  - Rail Service Improvements
    - Reduce peak headways to 15-20 minute range
    - Limited reverse-peak service
    - Limited expansion of off-peak service
    - Extension of service to L'Enfant Plaza and Northern VA
  - Continued reliability improvement
    - Major failure avoidance, improved incident response
  - Improve running times by consolidating stations
- Incremental Capital Investments – ~\$140m
    - 3 main tracks, Barnesville Hill
    - Outer Montgomery station
    - Additional station parking expansion at Metropolitan Grove, Rockville, Kensington
    - Additional rail cars and locomotives
  - Incremental Operating Cost – ~\$5m/yr.



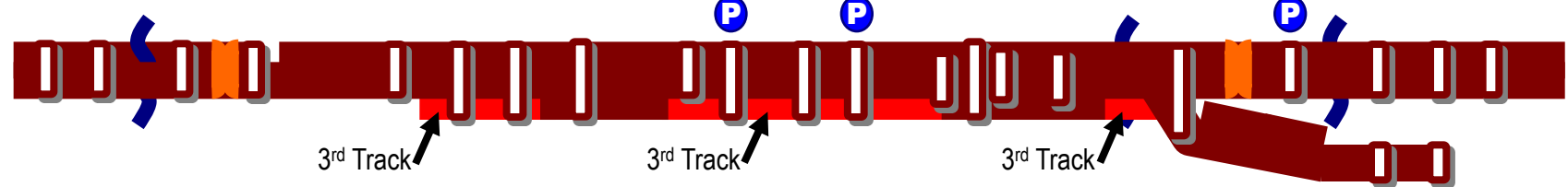
# 2035 Plan – Brunswick Line

- Incremental Seating Capacity
  - +7,000 daily seats
- Rail Service Improvements
  - Increased peak and off-peak service
  - Reverse-commute service
  - Weekend service
- Continued reliability improvement – 95% on-time performance
- Incremental Capital Investments – ~\$190m+
  - Additional triple tracking
  - Additional station parking expansion at Brunswick, Germantown, Gaithersburg
  - Additional rail cars and locomotives
- Incremental Operating Cost –\$5m/yr.+

2020 CONFIGURATION



LONG-RANGE PLAN



# Brunswick Line Plan Summary

	2010	2015	2020	2035
Additional Daily Seats	200	3,800	8,400	7,000
Rail Service Improvements	<ul style="list-style-type: none"> <li>Lengthen trains</li> </ul>	<ul style="list-style-type: none"> <li>Increase Frederick trains from 3 to 6</li> <li>Increase limited stop and express trains</li> </ul>	<ul style="list-style-type: none"> <li>Reduce peak headways to 15-20 minutes</li> <li>Introduce limited reverse-peak</li> <li>Expansion of off-peak</li> <li>Northern VA extension</li> </ul>	<ul style="list-style-type: none"> <li>Increased peak and off-peak</li> <li>Expanded reverse-peak</li> <li>Weekend service</li> </ul>
Incremental Capital Investments	\$63 million	\$140 million	\$140 million	\$190 million
Incremental Operating Cost	<\$1 million/yr	\$8 million/yr	\$5 million/yr	\$5 million/yr

# Implementation Action Plan

- Immediate
  - Present MARC Growth and Investment Plan to Amtrak and CSX and solicit their support and cooperation
  - Present to Delegation and key staff, key State and local officials
  - Negotiate near term service improvements with Amtrak (additional peak trains, weekend service)
  - Negotiate additional mid-day Camden Line train with CSX
  - Identify funding for additional operating costs associated with near term improvements
  - Seek temporary source for immediate expansion of rail car fleet
  - Expedite delivery of projects and initiatives in progress (e.g., passenger info systems, parking expansion)
- Within 9 months
  - Initiate seat replacement on MARC bi-level coaches
  - Develop spec for new rail car procurement
  - Acquire rail cars from temporary source
  - Identify low-cost aesthetic improvements at existing stations
  - Identify near-term improvements at Washington Union Station
  - Review parking expansion plans with Counties
  - Design near-term Baltimore train storage improvements
  - Develop plan to improve car cleaning capability
  - Establish magnitude and source of required funding (2008 legislative session)
- Within 15 months
  - Place order for new rail car procurement
  - Initiate design of 2010 rail infrastructure improvements
  - Initiate planning & design of 2015 improvements with long lead times (e.g., track capacity improvements, station parking expansion entailing property acquisition)
  - Implement low-cost aesthetic improvements at existing stations, car cleaning improvements
  - Augment MTA resource capacity as necessary to implement program

# Corridor Cities Transitway



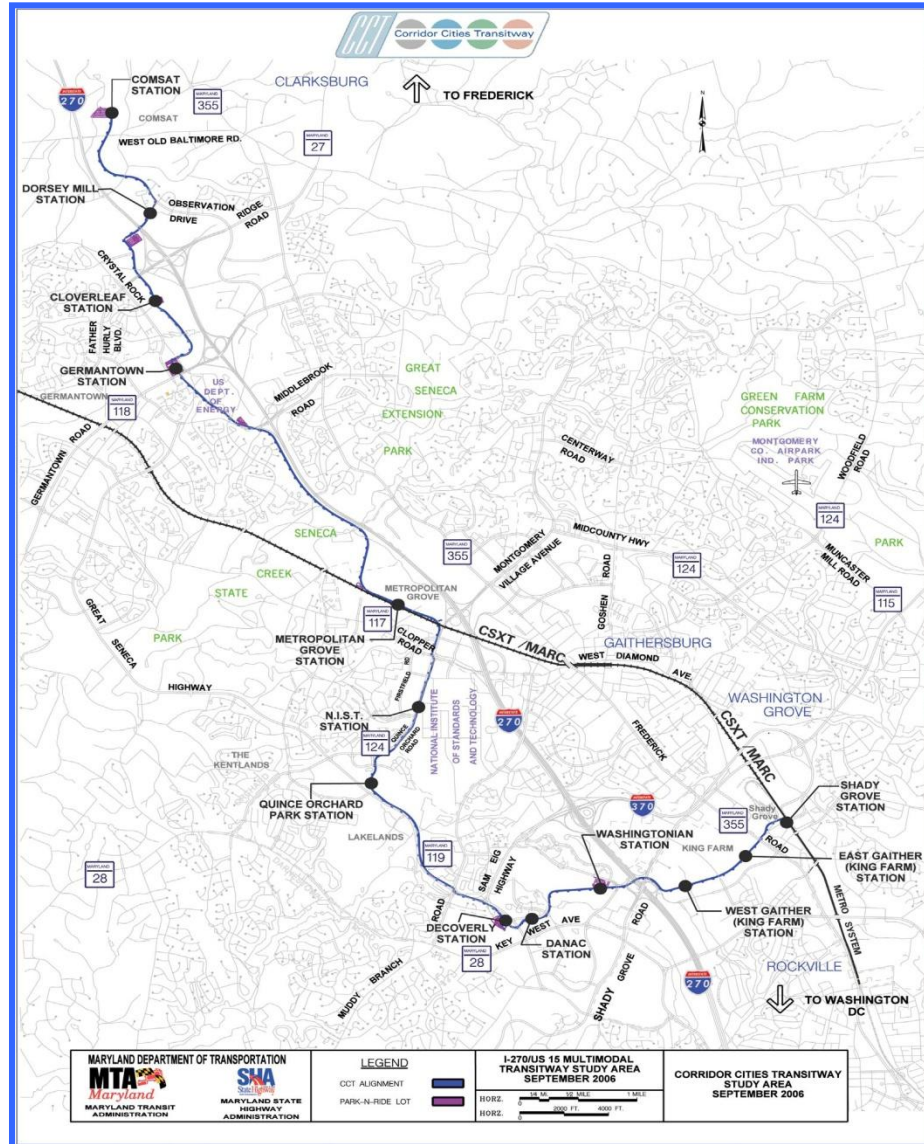
# CCT Project Overview

- Joint effort between MTA and SHA
- Currently developing an Alternatives Analysis/Environmental Assessment
  - Supplement to the 2002 DEIS
  - Adds ETL lanes
  - Meets FTA criteria for Alternatives Analysis
- Highway Improvements - 30 miles in length
- Transit project approximately 14 miles in length
- Project team with SHA, MTA, Counties, and Cities

# CCT Goals

- Connect key growth and development areas within Montgomery County
- Relieve traffic congestion on area roads
- Provide additional options to transit-dependent population
- Provide transit alternative connection to WMATA's Red Line at Shady Grove

# CCT Study Area



# CCT Project Information

- 17 stations (includes 4 beyond 2025)
- Transit transfers at Metropolitan Grove (MARC), Shady Grove (WMATA Red Line), and local bus
- Access from local streets, I-270 interchanges, and direct access ramps
- Build Alternatives include Light Rail Transit (LRT), Bus Rapid Transit (BRT)
- Transit TSM Alternative features premium bus on I-270 managed lanes (HOV or ETL) with service to CCT stations.

# King Farm



# Metropolitan Grove



# Public Outreach

- Ongoing meetings with area community associations, business groups, and local officials
- New website to be operational in April 2008  
[www.I270multimodalstudy.com](http://www.I270multimodalstudy.com)
- Newsletter being prepared for May delivery
- Public hearings on the AA/EA in Montgomery and Frederick Counties will be held in the fall.

# Alternatives Evaluation

## Description – 2002 DEIS

- **Alternative 1: No-Build**

Existing conditions including highway and transit improvements programmed through 2030

- **Alternative 2: TSM**

Enhanced bus and road network – low cost investments focused on bus transit, signalization and intersection improvements

- **Alternative 3A/B: LRT/BRT with Master Plan HOV**

BRT or LRT with HOV lanes using the Master Plan highway configuration

- **Alternative 4A/B: LRT/BRT with Master Plan General Purpose Lanes**

BRT or LRT with additional general purpose lanes using the counties' Master Plan highway configurations.

- **Alternative 5A/B/C: LRT/BRT/Premium Bus with HOV Lanes on an Enhanced Master Plan Roadway Configuration**

BRT or LRT assessed on either HOV or General Purpose Lanes on an Enhanced Master Plan roadway configuration which includes one extra lane in each direction from MD 121 to I-70

# Alternatives Evaluation

## Description – AA/EA

- **Alternative 1: No-Build**

Existing conditions including highway and transit improvements programmed through 2030

- **Transit TSM Alternative: Baseline for transit alternatives analysis**

Existing and premium bus service using existing roads and ETLs

- **Alternative 6A/B: LRT/BRT with ETLs**

LRT or BRT with ETLs using the Master Plan highway configuration

- **Alternative 7A/B: LRT/BRT with Enhanced ETLs -**

BRT or LRT with ETLs using an Enhanced Master Plan configuration which supplies 2 additional lanes from MD 121 to I-70 (Frederick County)

# Ridership, Costs, and Travel Times

## **Ridership**

- Based on Future Year 2030 Population & Employment Forecasts
- “Boardings” are the number of riders who would use the CCT on a typical weekday;

## **Capital Costs**

- Estimates in 2007 Dollars; subject to inflation to the time when the project is implemented
- Includes costs to design, manage and construct facilities, acquire right-of-way, and purchase equipment including transit vehicles

## **Operating and Maintenance (O&M) Costs**

- Estimates in 2007 Dollars; subject to inflation to the time when a project starts operating
- Includes costs to operate transit services and maintain the vehicles, facilities, and equipment
- Accounts for adjustments to local bus services

# CCT Ridership and Cost Results

<b>CCT Alternatives Preliminary Travel Demand Forecasts &amp; Cost Estimates</b>				
<b>Transit Alternative</b>	<b>Travel Time Shady Grove to COMSAT (minutes)</b>	<b>Ridership (Daily Boardings)</b>	<b>Capital Cost (millions-2007\$)</b>	<b>Annual Operations and Maintenance Costs (millions-2007\$)</b>
Hwy 1 and Trans. TSM	60	6,000 - 7,000	\$86.9	\$14.8
Hwy 1 and Light Rail	36	24,000 - 30,000	\$777.5	\$28.1
Hwy 1 and Bus Rapid	38	21,000 - 27,000	\$449.9	\$26.8
Hwy 2 and Light Rail	36	24,000 - 30,000	\$777.5	\$28.1
Hwy 2 and Bus Rapid	38	21,000 - 27,000	\$449.9	\$26.8

Both Hwy 1 and Hwy 2 have four general purpose and two express toll lanes on I-270 in each direction in Montgomery County north of I-370 to the future interchange with New cut Road (between MD 121 and West Old Baltimore Road). Both have two general purpose lanes on I-270 in each direction from the future New cut Road interchange to I-70. Hwy 1 has two express toll lanes in this segment while Hwy 2 has one express toll lane.

# Project Activities/Challenges

- Alternatives Analysis/Environmental Assessment preparation underway
- Department of Energy National Register Eligibility (realignment investigations)
- Other alignment options to be considered after the AA/EA:
  - Crown Farm, Belward/Shady Grove Life Sciences Center, and Kentlands
- Project phasing or other cost saving strategies to take into New Starts.

# Project Schedule

**Both the CCT and Purple Line projects are generally on the same schedule.**

- Public Outreach Ongoing
- AA/EA August 2008
- AA/EA Circulation August – November 2008
- Public Hearing October 2008
- Selection of Preferred Alternative December 2008
- Request permission to enter PE/  
New Starts submission March 2009
- PE/FEIS Completion February 2010
- Initiate Final Design July 2011
- Start Construction Summer 2012

# Locally Preferred Alternative

- Multimodal – highway and transit alternative selection
- Transit Mode Selection – TSM, BRT, LRT
- Consider project phasing – tool for managing costs
- Alternative alignments must be considered
  - Crown Farm, Shady Grove Life Sciences Center/Belward Farm, and Kentlands
  - All involve impacts which may require additional NEPA documentation
- Environmental Impacts
- Public Hearing / Document Review process
  - Citizen/community groups
  - Montgomery County Government
  - FTA/FHWA
  - Environmental agencies
- Cost Effectiveness
- Funding/Affordability

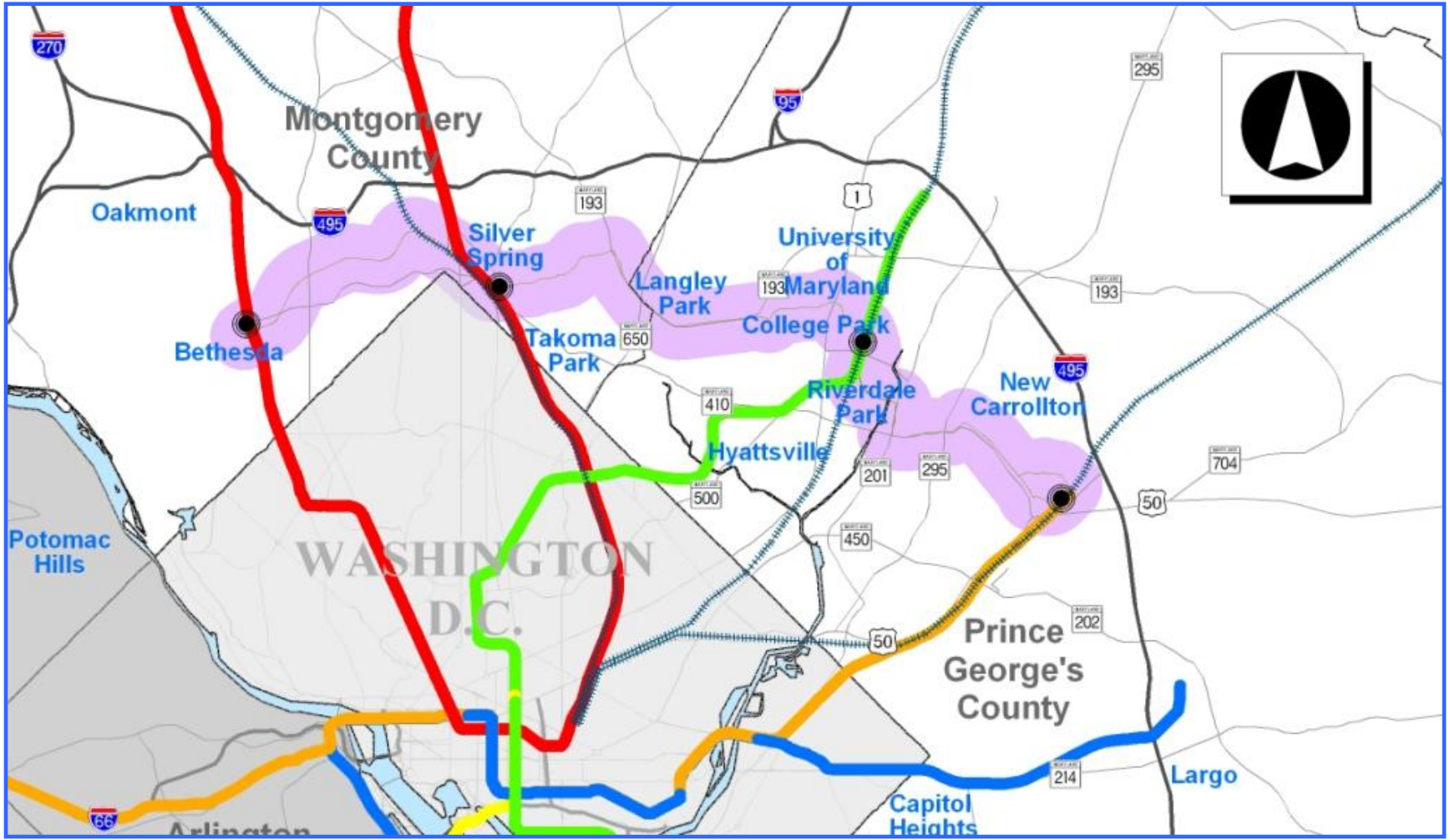
## Purple Line Transitway



# Project Overview

- A 16-mile east-west rapid transit line extending from Bethesda in Montgomery County to New Carrollton in Prince George's County.
- The Purple Line will be either light rail or bus rapid transit and will operate largely at street level.
- A hiker biker trail is included along the Georgetown Branch and CSX/WMATA corridor as part of the Capital Crescent Trail.
- Provides direct connections to Metrorail at Bethesda, Silver Spring, College Park, and New Carrollton; linking the two branches of the Red Line, the Green Line and the Orange Line.
- 22 potential stations

# Purple Line Study Area



# Project Goals

- Provide faster and more reliable transit service in the corridor to serve growing east-west travel markets
- Improve access to and connectivity to Metrorail, MARC, AMTRAK, and bus services
- Serve transit-dependent populations
- Support local, regional and state policies and adopted Master Plans
- Strengthen and revitalize communities in the corridor Increase potential for Transit Oriented Development at existing and proposed stations in the corridor
- Improve access to existing activity centers including and planned commercial, office, and residential development in Bethesda, Silver Spring, Takoma/Langley, University of Maryland/College Park, and New Carrollton

# Public Outreach

- Community Focus Groups
- Meetings with community organizations and civic groups, especially in Bethesda, East Silver Spring, and the University of Maryland
- Public Open Houses
- Functional Master Plan Advisory Group
- Purple Line Bi-County Task Force
- Additional outreach to under-represented communities
- Website recently overhauled, [www.purplelinemd.com](http://www.purplelinemd.com)
- Newsletters

# Alternatives Evaluation

## Description

- **Alternative 1: No-Build**

Existing transportation system and programmed transit and roadway improvements

- **Alternative 2: TSM / Baseline**

Enhanced bus service and other lower cost improvements such as more frequent and additional service, and signal and intersection improvements

# Alternatives Evaluation

## Description

### **BRT ALTERNATIVES**

- **Alternative 3: Low Investment BRT**

Mostly at-grade and shared use on existing roadways

- **Alternative 4: Medium Investment BRT**

Generally at-grade, though often in dedicated lanes, with some grade separated intersections and segments

- **Alternative 5: High Investment BRT**

Largely dedicated, exclusive where possible, with grade-separation in key areas

# Alternatives Evaluation

## Description

### LRT ALTERNATIVES

- **Alternative 6: Low Investment LRT**

Mostly at-grade with minimal tunneling or aerial structures, where steep grades require it

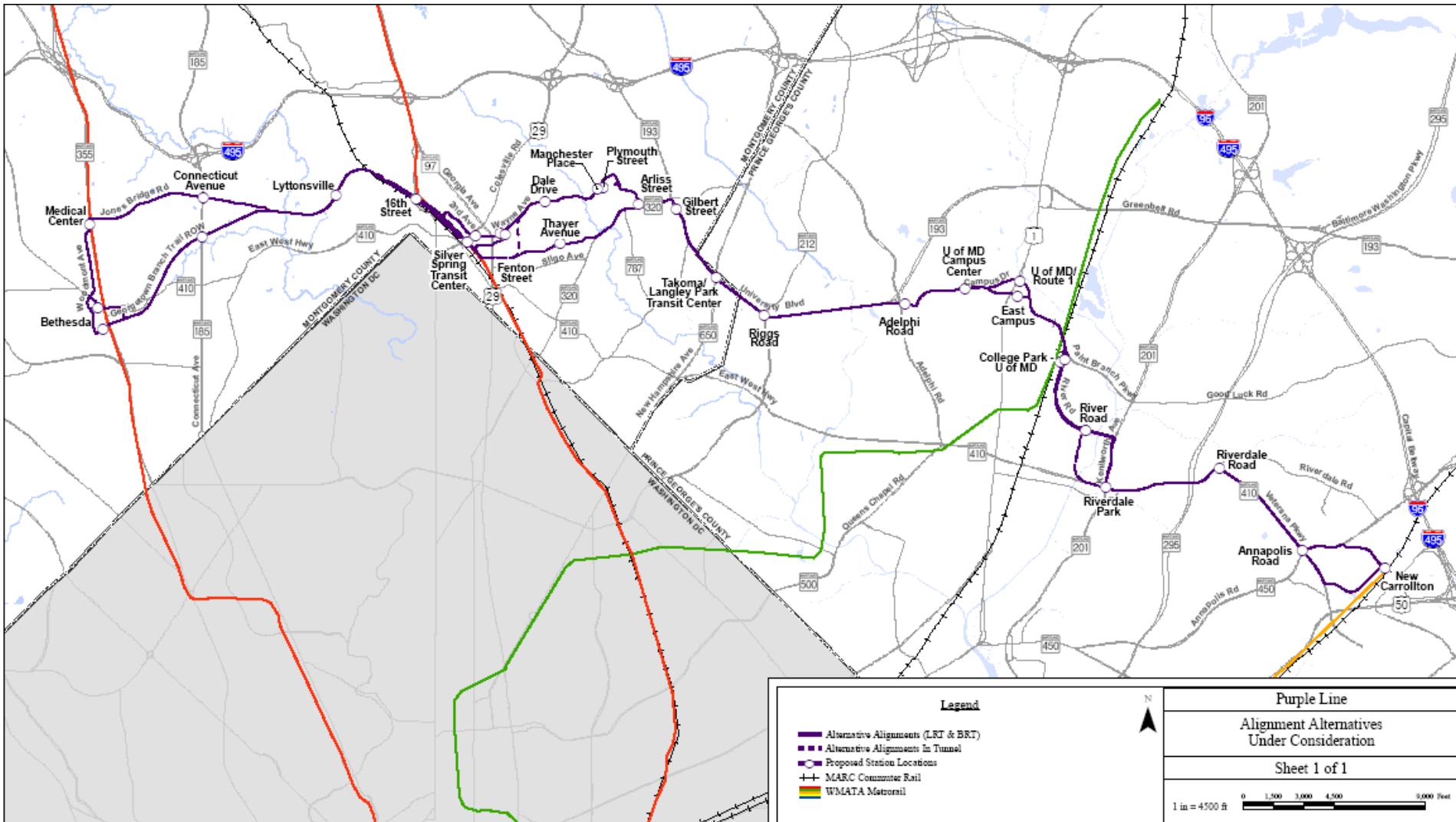
- **Alternative 7: Medium Investment LRT**

Mostly dedicated, with some intersections and key areas grade-separated

- **Alternative 8: High Investment LRT**

Largely exclusive or dedicated, and grade-separated in key areas

# Alignment Alternatives Map



# Ridership, Costs, and Travel Times

## Ridership

- Based on Future Year 2030 Population & Employment Forecasts
- “Boardings” are the number of riders who would use the Purple Line on a typical weekday; includes trips primarily on Purple Line, and trips primarily on Metrorail and MARC, which use the Purple Line for a portion of the overall trip
- Estimates include expected trips by University of Maryland students and special event visitors

## Capital Costs

- Estimates in 2007 Dollars; subject to inflation to the time when the project is implemented
- Includes costs to design, manage and construct facilities, acquire right-of-way, and purchase equipment including transit vehicles

## Operating and Maintenance (O&M) Costs

- Estimates in 2007 Dollars; subject to inflation to the time when a project starts operating
- Includes costs to operate transit services and maintain the vehicles, facilities, and equipment
- Cost of High Investment alternative are lower due to faster operating speeds.
- Accounts for adjustments to local bus services

# Purple Line Ridership and Cost Results

**Purple Line Alternatives Preliminary Travel Demand Forecasts & Cost Estimates**

<b>Alternative</b>	<b>Ridership (Daily Boardings)</b>	<b>New Transit Trips Over TSM</b>	<b>Capital Costs (Millions -2007\$)</b>	<b>Operating &amp; Maintenance Costs (Millions -2007\$)</b>
Alternative 2: TSM	-	N/A	\$45-50	\$14.6
<b>BRT</b>				
Alternative 3: Low Investment BRT	37,000 -- 40,000	3,000 – 3,200	\$420 – 460	\$17.3
Alternative 4: Medium Investment BRT	49,000 -- 52,000	6,900 – 7,200	\$620 – 700	\$15.6
Alternative 5: High Investment BRT	56,000 -- 59,000	9,100 - 9,400	\$1,120 - 1,240	\$14.4
<b>LRT</b>				
Alternative 6: Low Investment LRT	57,000 – 59,500	9,700 -10,000	\$1,160 - 1,270	\$26.4
Alternative 7: Medium Investment LRT	60,000 – 63,000	10,600 – 11,000	\$1,175 - 1,350	\$25.0
Alternative 8: High Investment LRT	65,000 – 68,000	12,400 – 12,900	\$1,580 - 1,750	\$22.8

- Preliminary estimates; subject to change based on possible refinements to the alternatives.
- The Ridership (Daily Boardings) estimates include trips primarily on the Purple Line and trips primarily on Metrorail and MARC that also use Purple Line for some portion of the trip. Include students and special event visitors.

# Purple Line Travel Times

*Estimated 2030 Travel Times (in minutes) between Stations by Alternative*

<i>Station-to-Station</i>	<i>TSM</i>	<i>Low BRT</i>	<i>Med BRT</i>	<i>High BRT</i>	<i>Low LRT</i>	<i>Med LRT</i>	<i>High LRT</i>
Bethesda - New Carrollton	108	73	64	57	59	52	46
Bethesda - College Park	85	54	47	41	42	36	32
Bethesda - Riverdale Park	94	59	53	46	47	42	37
Bethesda - Silver Spring	32	22	17	16	11	9	9
Bethesda - Takoma/Langley	61	37	31	28	25	21	20
Manchester - College Park	42	27	25	20	24	23	19
Manchester - Riverdale Park	52	32	31	26	30	29	24
Manchester - Silver Spring	10	5	5	4	6	4	4
Manchester - Takoma/Langley	18	10	10	7	8	8	8
New Carrollton - College Park	23	19	17	16	17	16	14
New Carrollton - Riverdale Park	13	14	11	11	12	10	9
New Carrollton - Silver Spring	75	51	47	41	48	43	37
New Carrollton - Takoma/Langley	47	36	33	29	34	31	26
Silver Spring - College Park	52	32	30	25	31	27	23
Silver Spring - Riverdale Park	57	38	36	30	36	33	28
Silver Spring - Takoma/Langley	28	16	14	12	14	12	12
Takoma/Langley - College Park	24	16	16	13	17	15	12
Takoma/Langley - Riverdale Park	34	22	22	18	23	21	17
Takoma/Langley - Silver Spring	28	16	14	12	14	12	12

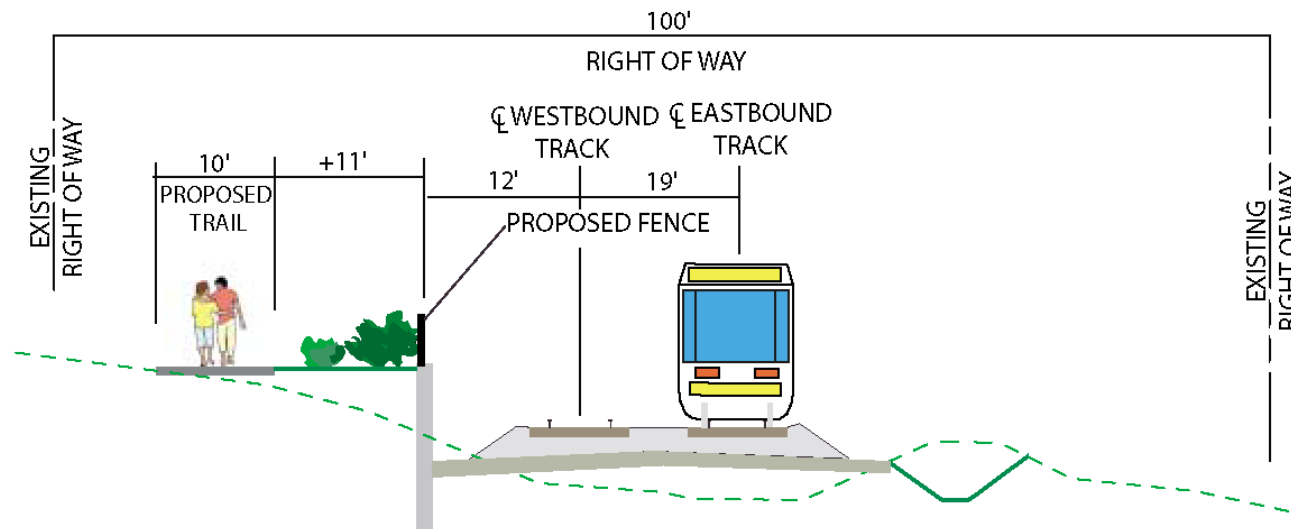
# Project Activities/Challenges

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- Chevy Chase
- CSX Corridor
- Silver Spring

# Chevy Chase

- Some Chevy Chase residents only support underground (tunneled) alignment due to concerns about loss of trees and integration of trail with transitway on the Master Plan alignment
- Between Pearl Street and just west of Jones Mill Road, the trail has been moved to the north side of the transitway to reduce visual impacts, improve trail experience by lowering transitway 3-4 feet below trail, provide a 10-foot landscaped buffer where possible, and reduce retaining walls



# Chevy Chase

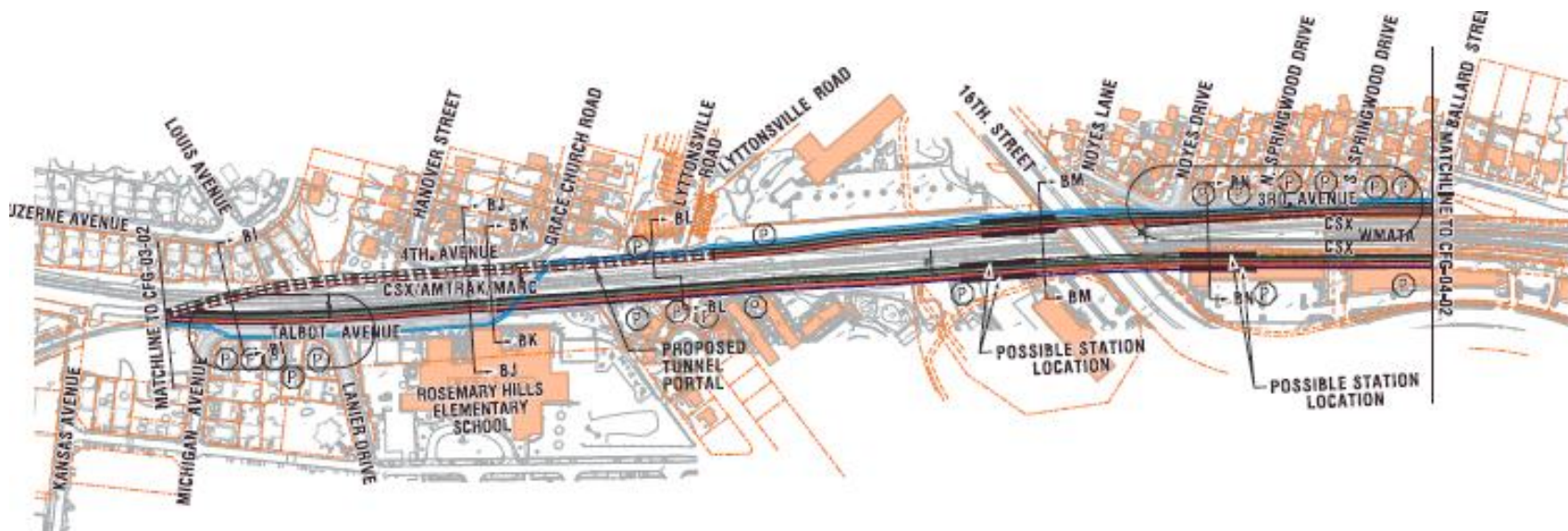
“Grass Tracks” proposed to improve visual quality



# South Side of CSX

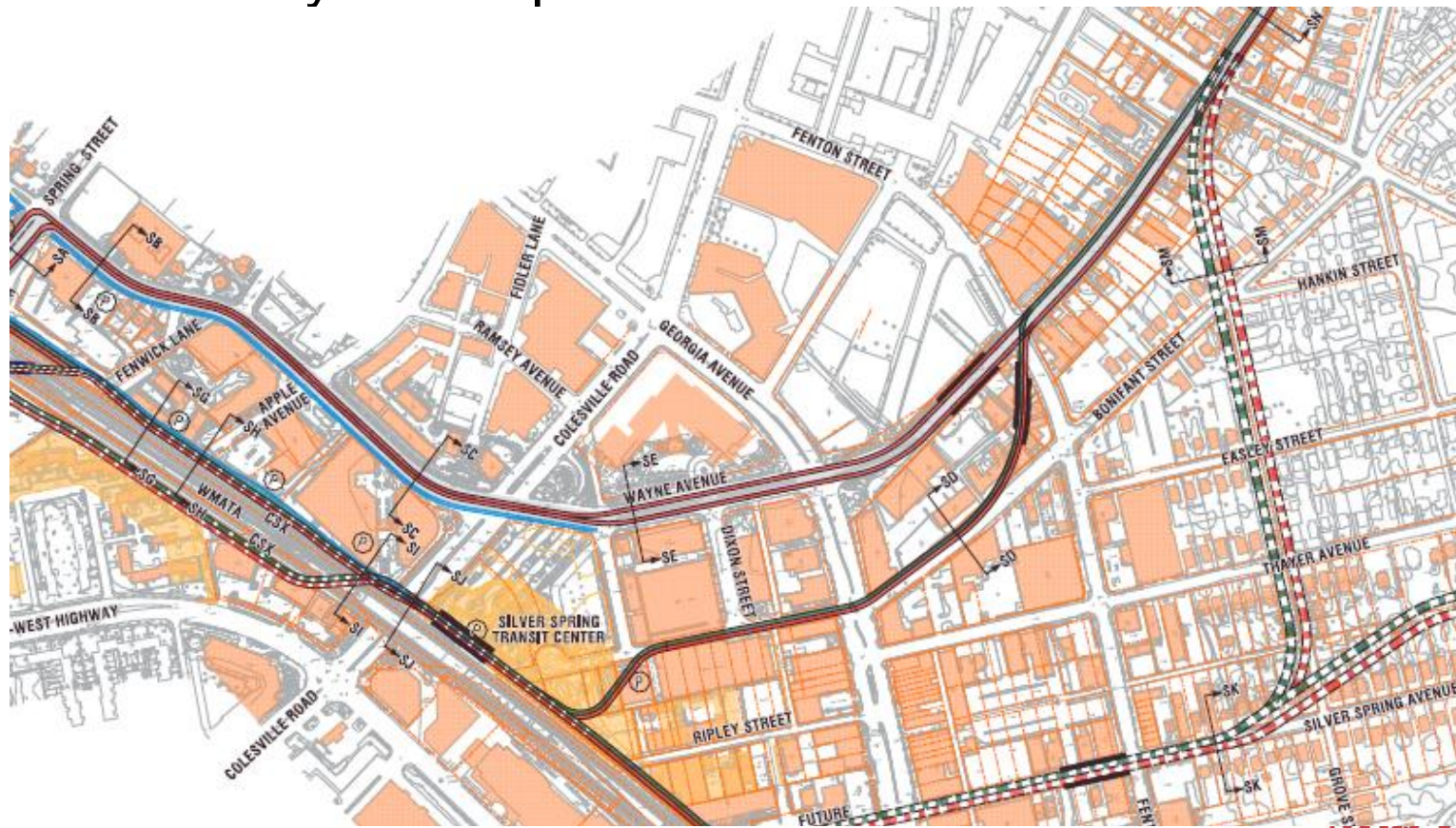
Relocation of Purple Line from north to south side

- Avoids cost of tunnel (approx. \$70 M) under CSX tracks
- Reduces length of aerial structure over CSX tracks
- Impacts to community are similar on both sides
- Requires less coordination with CSX
- Allows for trail to remain on north side without transitway

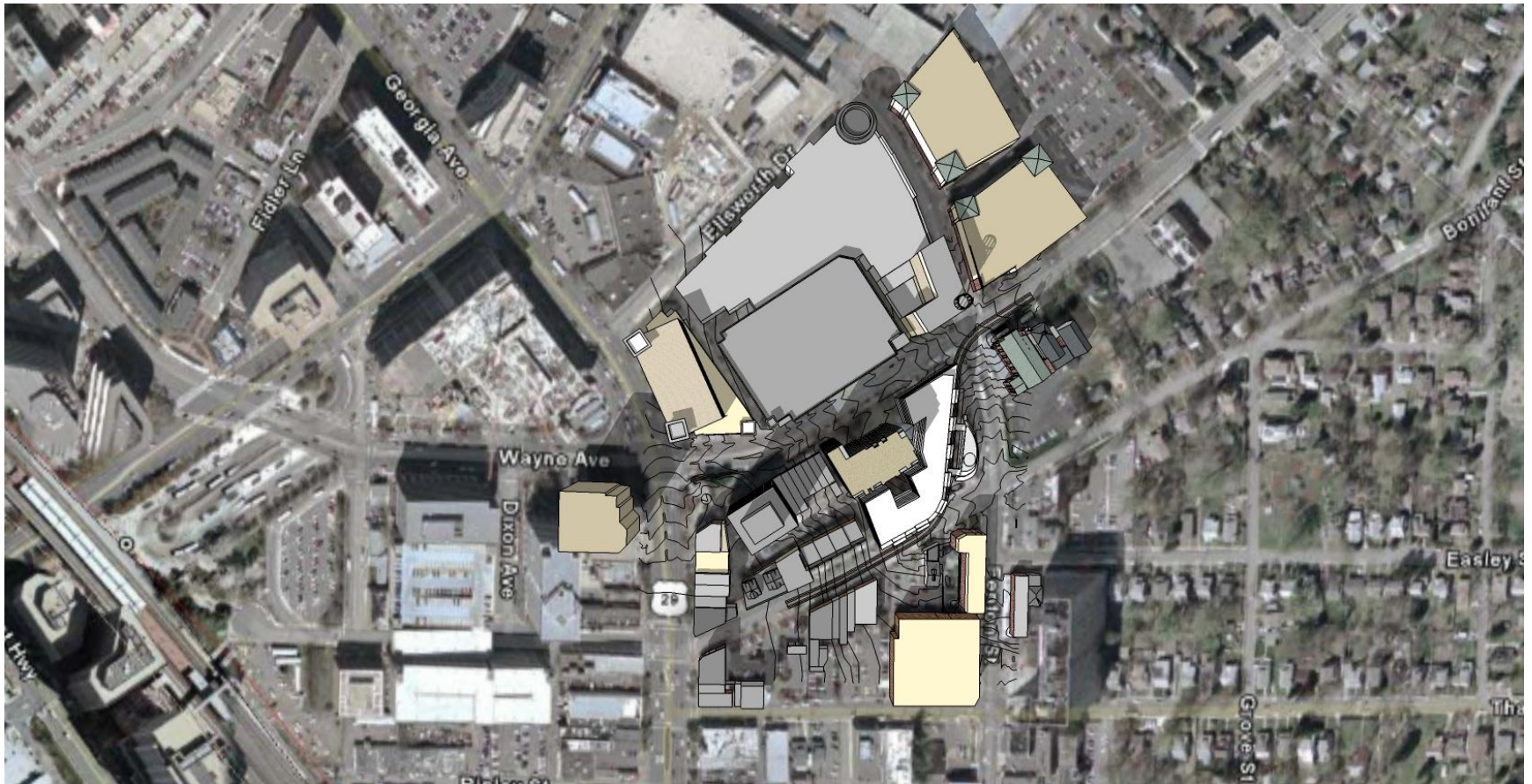


# Downtown Silver Spring

Coordination with Montgomery County and SS Library to integrate transitway and additional station at Fenton Street into new library development site



# Silver Spring Library Site



# Silver Spring Library



# East Silver Spring (north)



# East Silver Spring

- Community impacts of East Silver Spring surface alignments and high cost of tunnel options
- In response to community concerns, the MTA is looking at additional tunnel options
- A range of surface alignment configurations (shared, shared with left turn lanes, and dedicated lanes) are being evaluated to compare level of community, parking, and traffic impacts
- MTA is conducting additional traffic counts to verify volumes and assess potential for cut-through traffic
- Two additional stations are being evaluated to better serve the community
- Continuing to work with Montgomery County on traffic and transit operations issues
- Working with Councilmember Valerie Ervin and local community associations on Wayne Avenue alternatives

# Wayne Avenue

- Extensive community coordination
- Evaluation of longer tunnel
- Better visual representation of designs



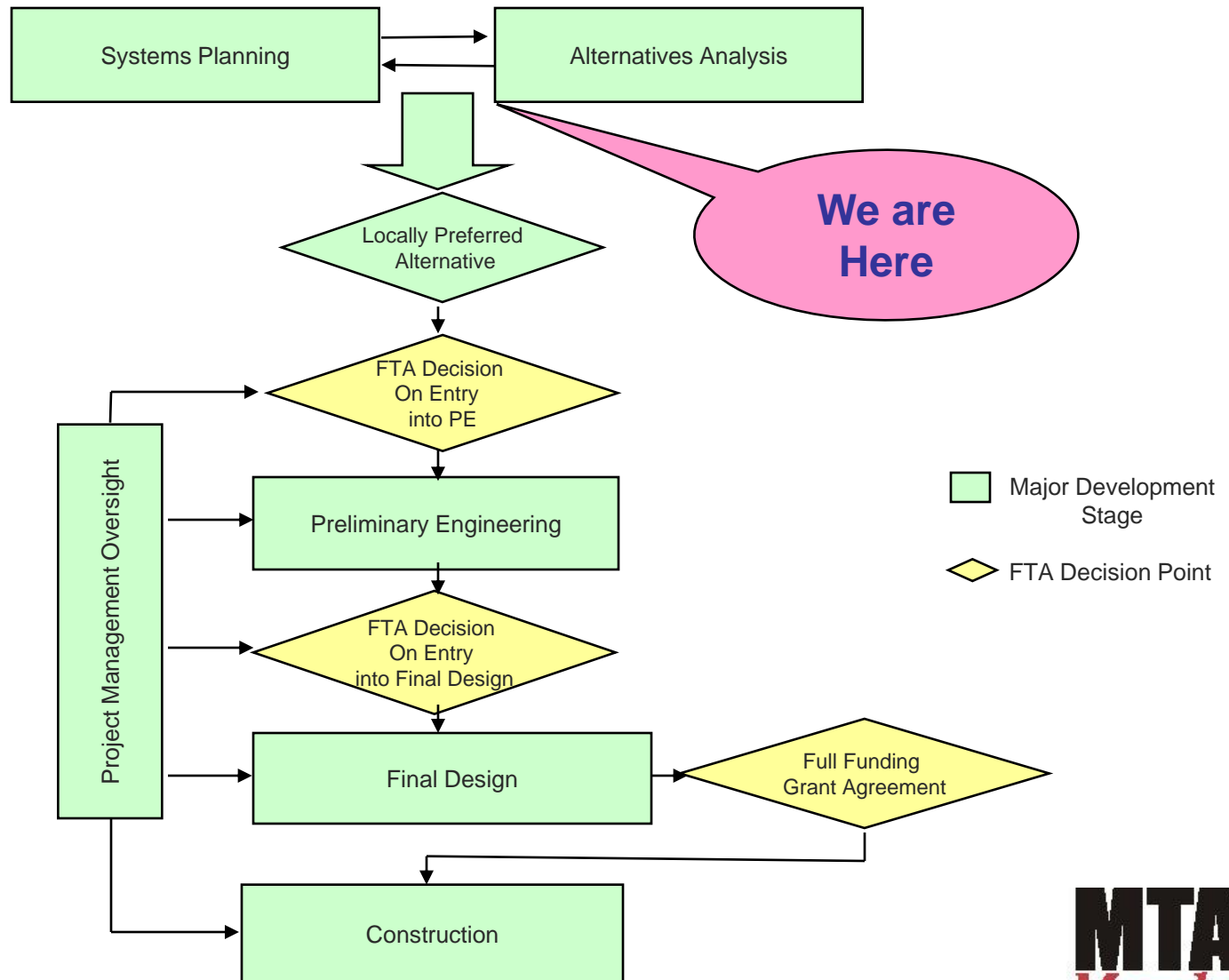
# Project Schedule

- Public Outreach Ongoing
- Public Open Houses May 2008
- AA/DEIS August 2008
- AA/DEIS Circulation and Public Hearing August – November 2008  
(expanded to 90 days per community requests)
- Public Hearing September 2008
- Selection of Preferred Alternative December 2008
- Request permission to enter PE/  
New Starts submission March 2009
- PE/FEIS Completion February 2010
- Initiate Final Design July 2011
- Start Construction Summer 2012

# Locally Preferred Alternative

- Mode selection
- Alternative alignments
- Low/Medium/High project scope
- Consider possible phasing
- Public Hearing review process
  - Citizen/community groups
  - Montgomery and Prince George's County Government
  - Environmental agencies assessment
- Cost Effectiveness
- Funding/Affordability

# New Starts Process



# Project Funding

## Sources

- Federal – Federal Transit Administration (FTA) Section 5309 New Starts
  - New fixed guideway systems (rail, bus rapid transit)
  - Extensions to existing systems
  - Typically matched at 50%+
  - Project funding decisions made jointly by FTA and Congress – national competition
- State – via the Transportation Trust Fund
- Montgomery and Prince George’s Counties

# New Starts Evaluation Criteria

- Project ratings given to two composite measures: project justification and project finance
  - Rating – “high”, “medium high”, “medium”, “medium low”, “low”
- Project justification
  - Mobility benefits: travel time, transit dependent usage, etc.
  - Cost-effectiveness: ratio of cost to user benefit (expressed in travel time savings)
  - Land Use: transit supportive land use
- Project finance
  - Amount and reliability of non-Federal share of New Starts

# Cost Effectiveness

- Cost-effectiveness ~(approx.) 50% of project justification rating
  - Hours of user benefits
  - Annualized incremental capital cost plus annual operating cost
- Must get a “medium” rating in cost-effectiveness for a project to be recommended
- Cost-effectiveness benchmarks:
  - “high”: less than or equal to \$11.99
  - “medium high”: \$12.00 - \$15.49
  - “medium”: \$15.50 - \$23.99

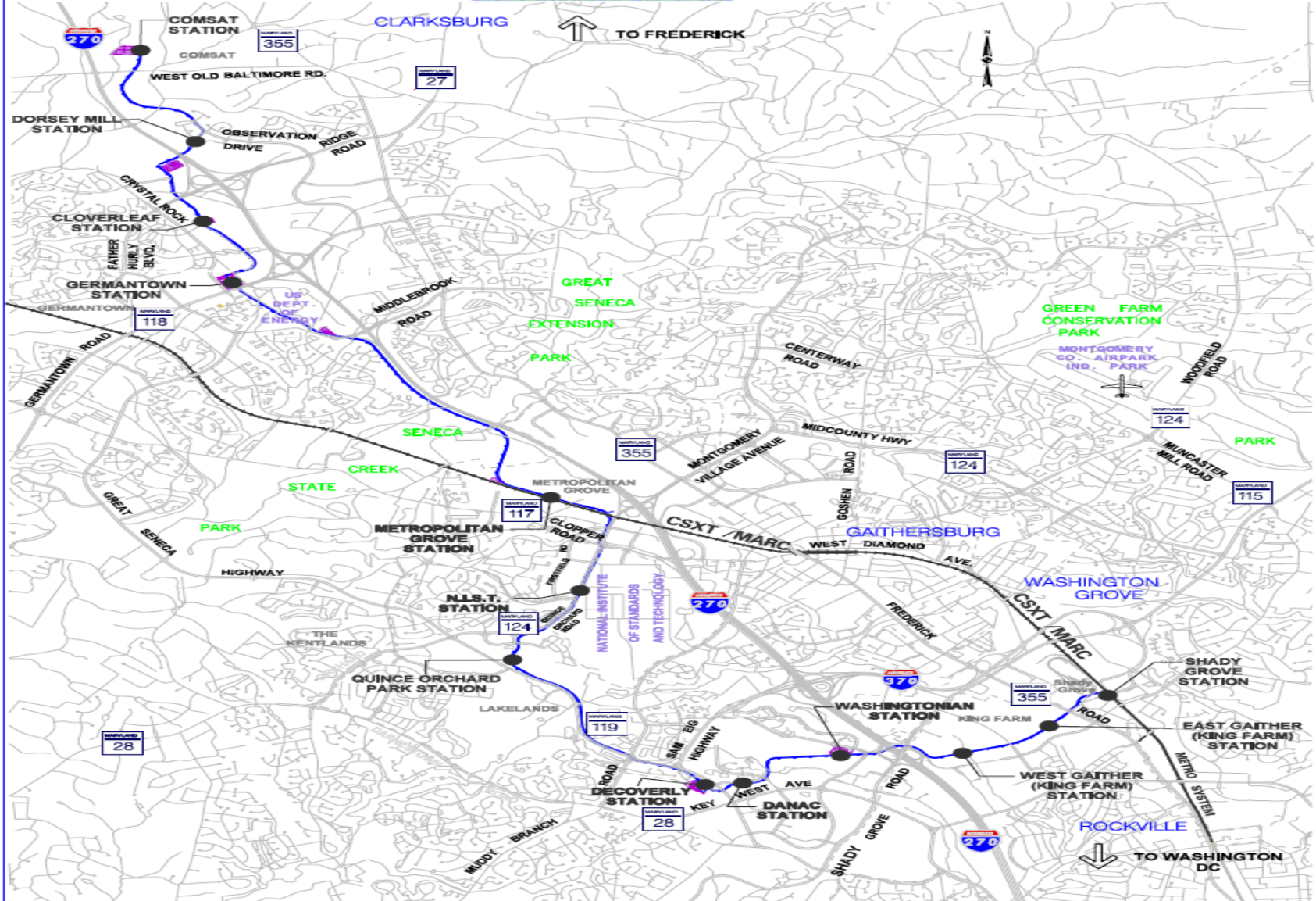
# Next Steps

- Continue agency coordination and public outreach
- Conduct review process
- Hold public hearings
- Select cost effective, affordable Locally Preferred Alternative
- Secure state/local funding
- Seek Federal New Starts funding









MARYLAND DEPARTMENT OF TRANSPORTATION  
**MTA**  
 Maryland  
 MARYLAND TRANSIT ADMINISTRATION

**SNA**  
 MARYLAND STATE HIGHWAY ADMINISTRATION

**LEGEND**

CCT ALIGNMENT

PARK-N-RIDE LOT

I-270/US 15 MULTIMODAL TRANSITWAY STUDY AREA  
 SEPTEMBER 2006

HORIZ. 1 MILE  
 HORIZ. 4000 FT.

**CORRIDOR CITIES TRANSITWAY**  
 STUDY AREA  
 SEPTEMBER 2006



