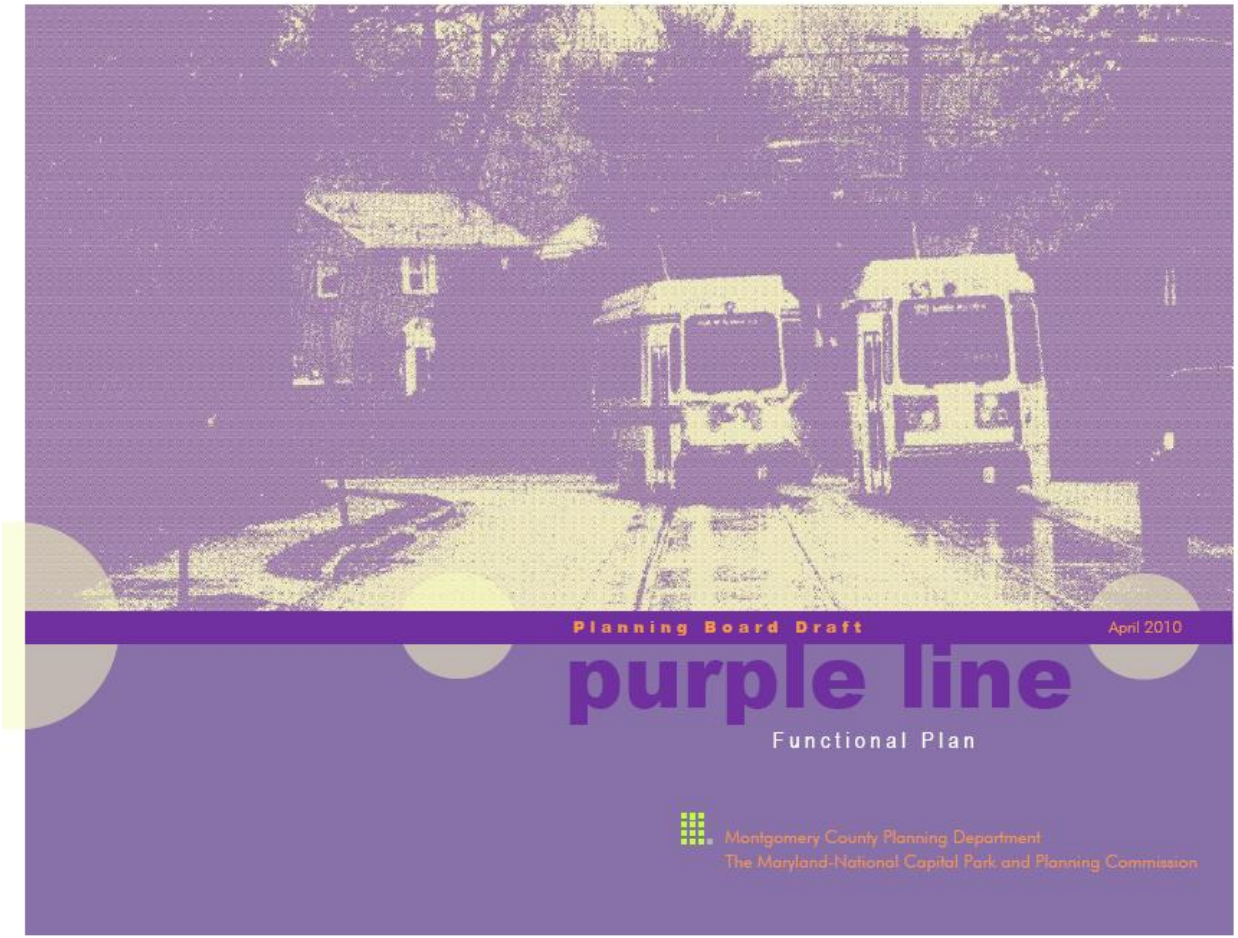
Purple Line Functional Plan – Worksession Two

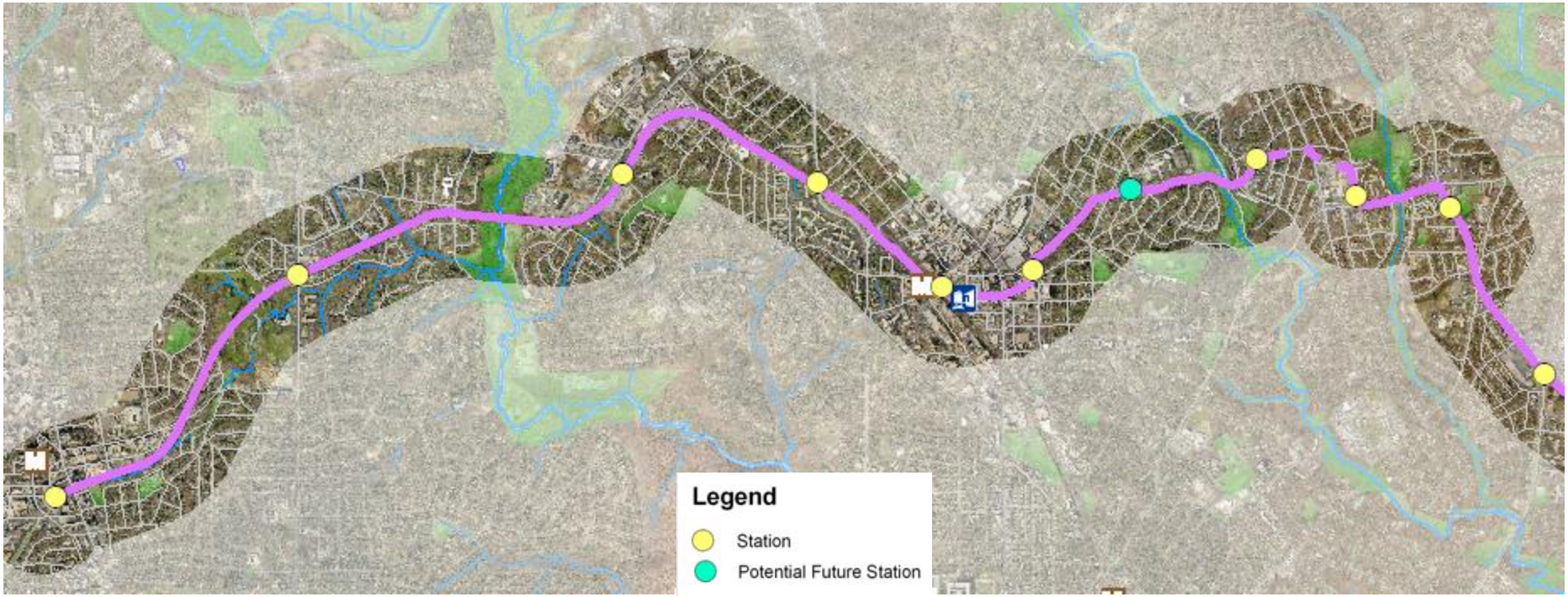


Staff Recommendation / Next Steps

- Staff Recommendation
  - Approve Attachment A – with revisions - as Planning Board Draft
  - Forward Planning Board Draft to County Council and County Executive
- Next Steps
  - April – Forward Planning Board Draft Plan
  - May and June – County Executive Fiscal Review of Plan
  - June – County Council Hearing Notice Period
  - July – County Council Review and Adoption of Plan

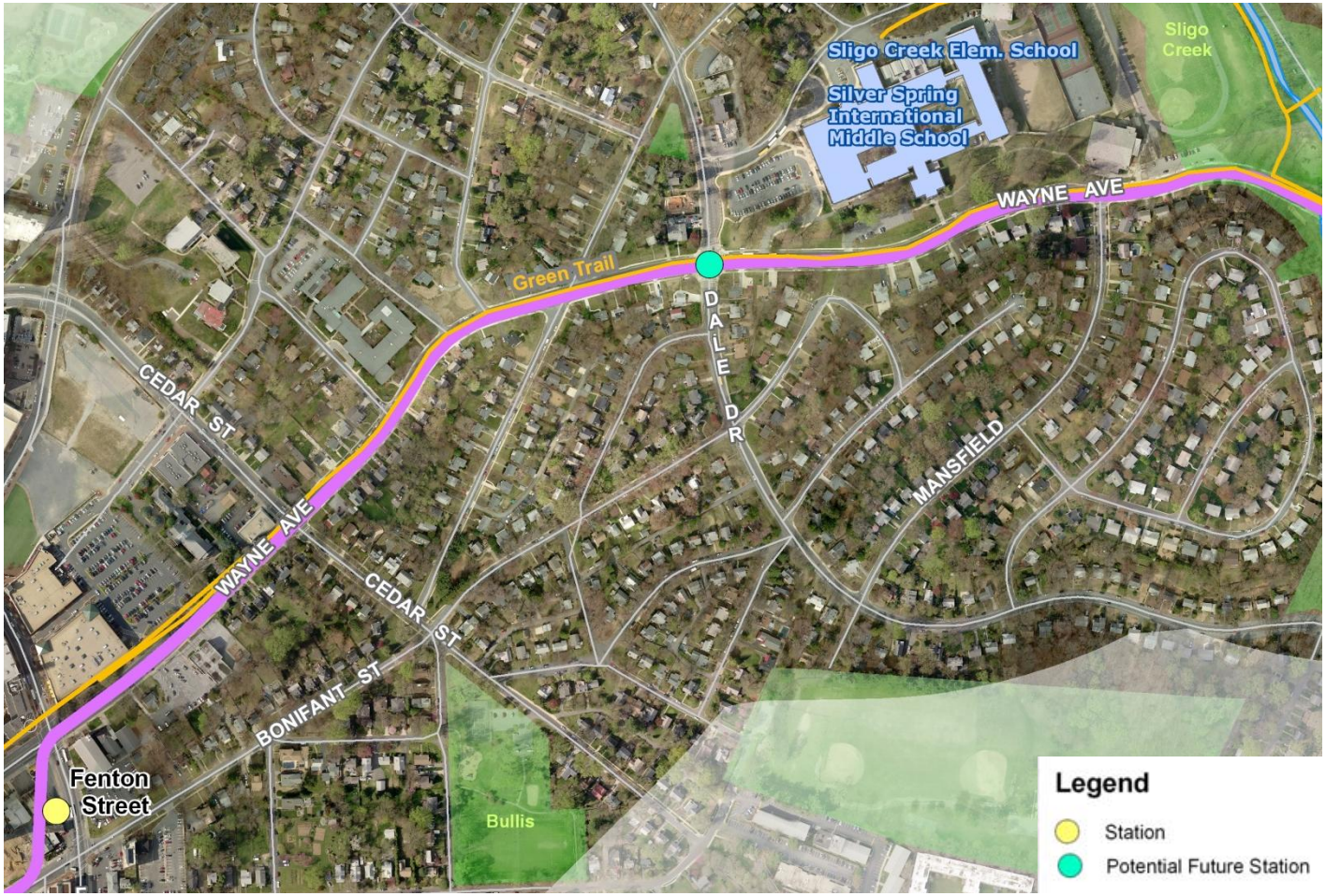
Revisions to Planning Board Draft

- Maps 1 & 13 – add dot denoting location of “Potential Future Station” at Dale Dr.



Revisions to Planning Board Draft

- Maps 1 & 13 – add dot denoting location of "Potential Future Station" at Dale Dr.



Revisions to Planning Board Draft

- On page 9 – indicate the ramp providing access from Elm Street Park is in the segment from the “west end of the tunnel to the east end of the tunnel”

Staff Recommendation / Next Steps

- Staff Recommendation
  - Approve Attachment A – with revisions - as Planning Board Draft
  - Forward Planning Board Draft to County Council and County Executive
- Next Steps
  - April – Forward Planning Board Draft Plan
  - May and June – County Executive Fiscal Review of Plan
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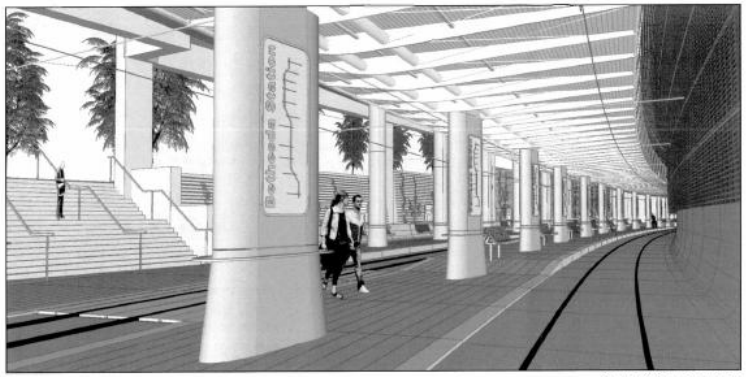
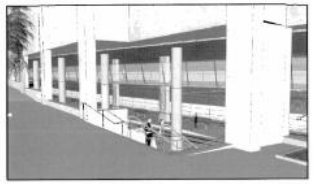
Concept Plan – Bethesda Station



Center Platform Perspective



Station Entry Perspective

Pedestrian Bridge Underside Perspective

Materials; Ipe wood, precast concrete, and painted steel finishes

Moderate maitenance and low vandalism potential

Wood louvers form a folded and curved ribbon

Graphics and pay stations are mounted to columns

A delicate steel pedestrian bridge floats in the space

Ipe wood benches on side and center platform

Pedestrian Bridge Deck Perspective - Retail Shop Shown

Bethesda Station 03.24.10

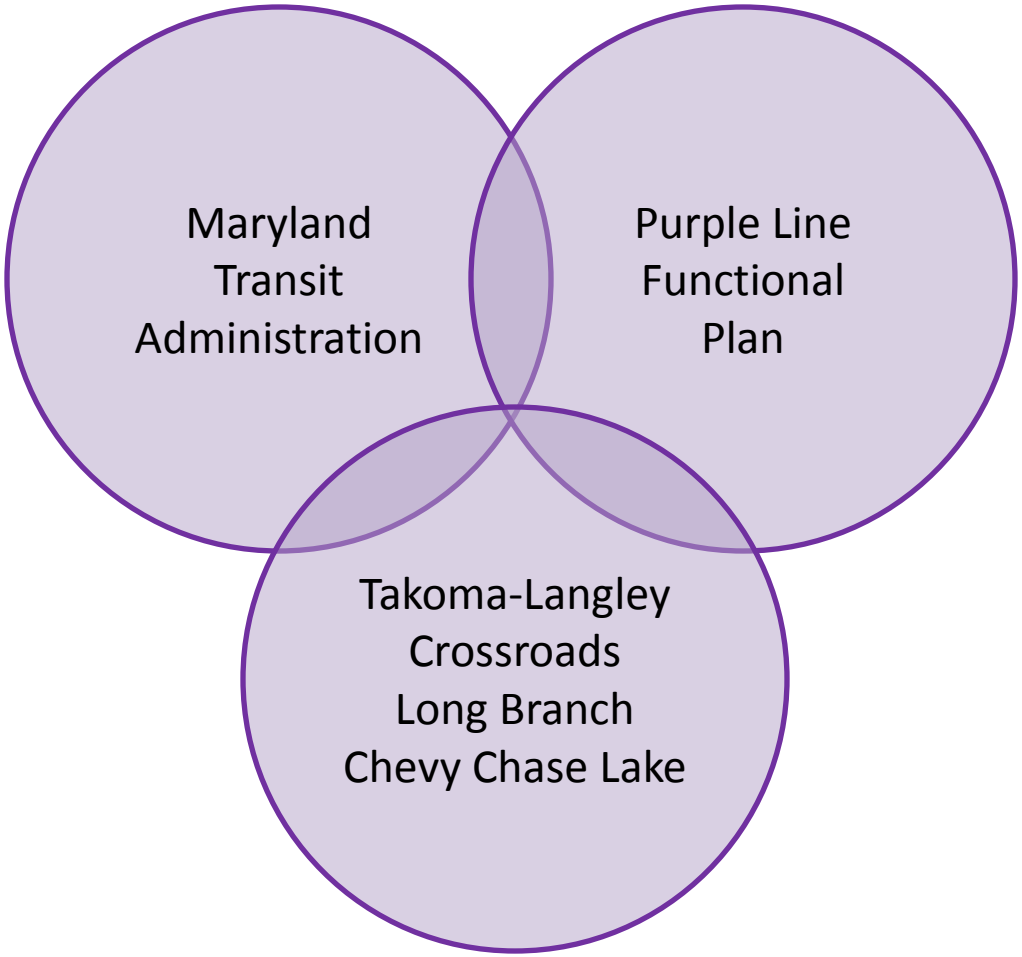
KGP Design Studio

Station Perspective - Lighting Study

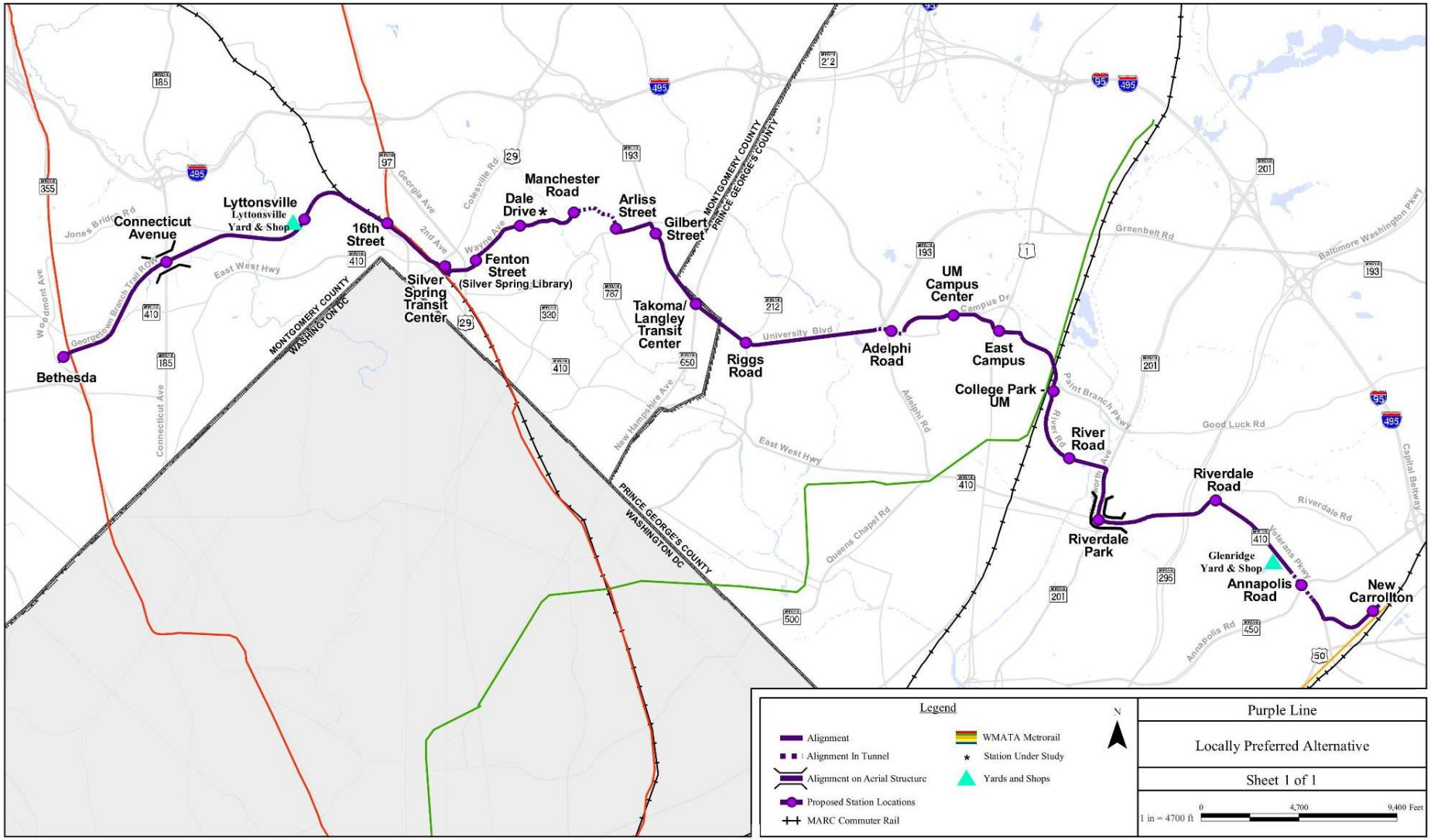
Bethesda Station 03.24.10

KGP Design Studio

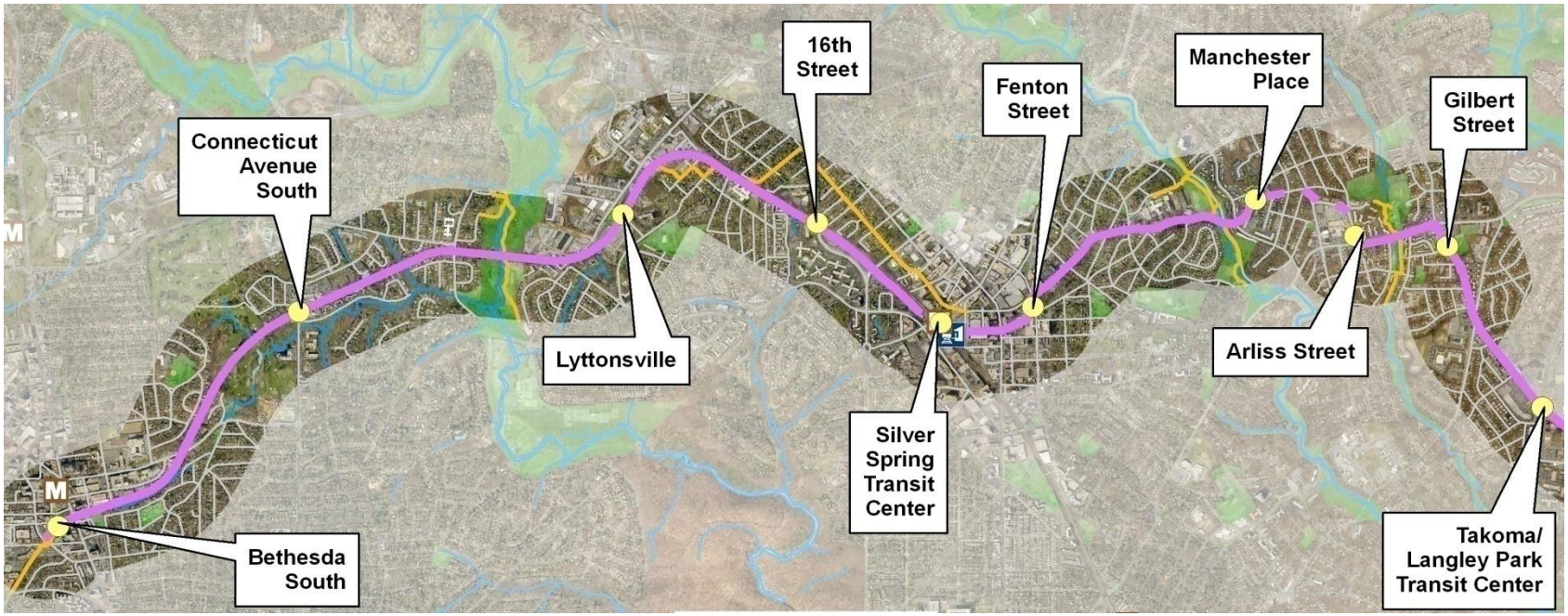
Plan Coordination



Locally Preferred Alternative



Purple Line in Montgomery County



Exclusive Right of Way - 1990 Plan & New Plan

Shared or Dedicated Lanes – New Plan

Purpose / Approach / Next Steps

- Purpose

  Get Planning Board Guidance on Key Issues Raised During Public Comment Period

- Approach

  Briefly review staff recommendations

  Examine each key issue with staff and MTA

  Provide direction to staff on proceeding with finalizing Planning Board Draft Plan

- Next Steps

  April 8 – Hold Worksession Two

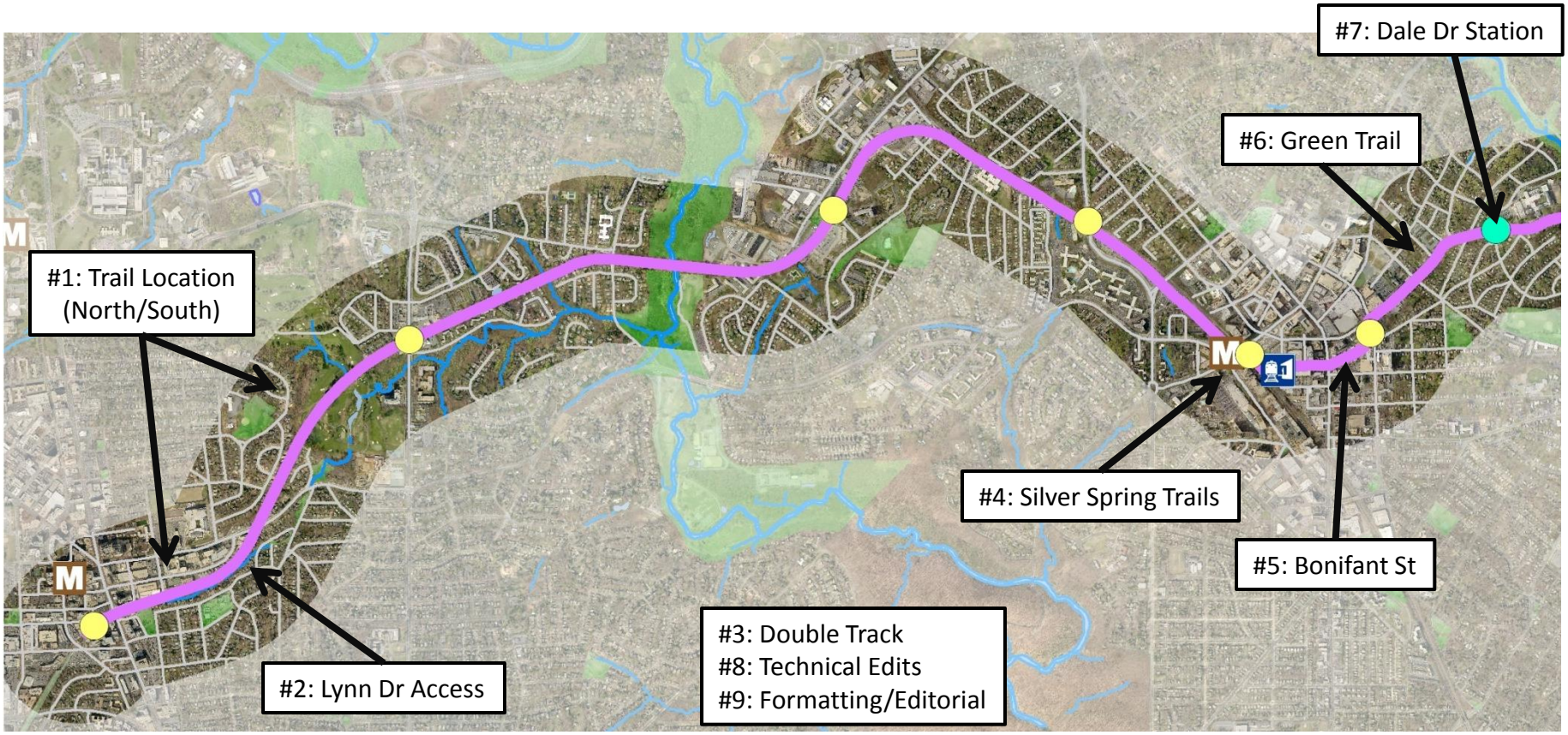
  April – Forward Planning Board Draft Plan

  May and June – County Executive Fiscal Review of Plan

  June – County Council Hearing Notice Period

  July – County Council Review and Adoption of Plan

Area of Discussion

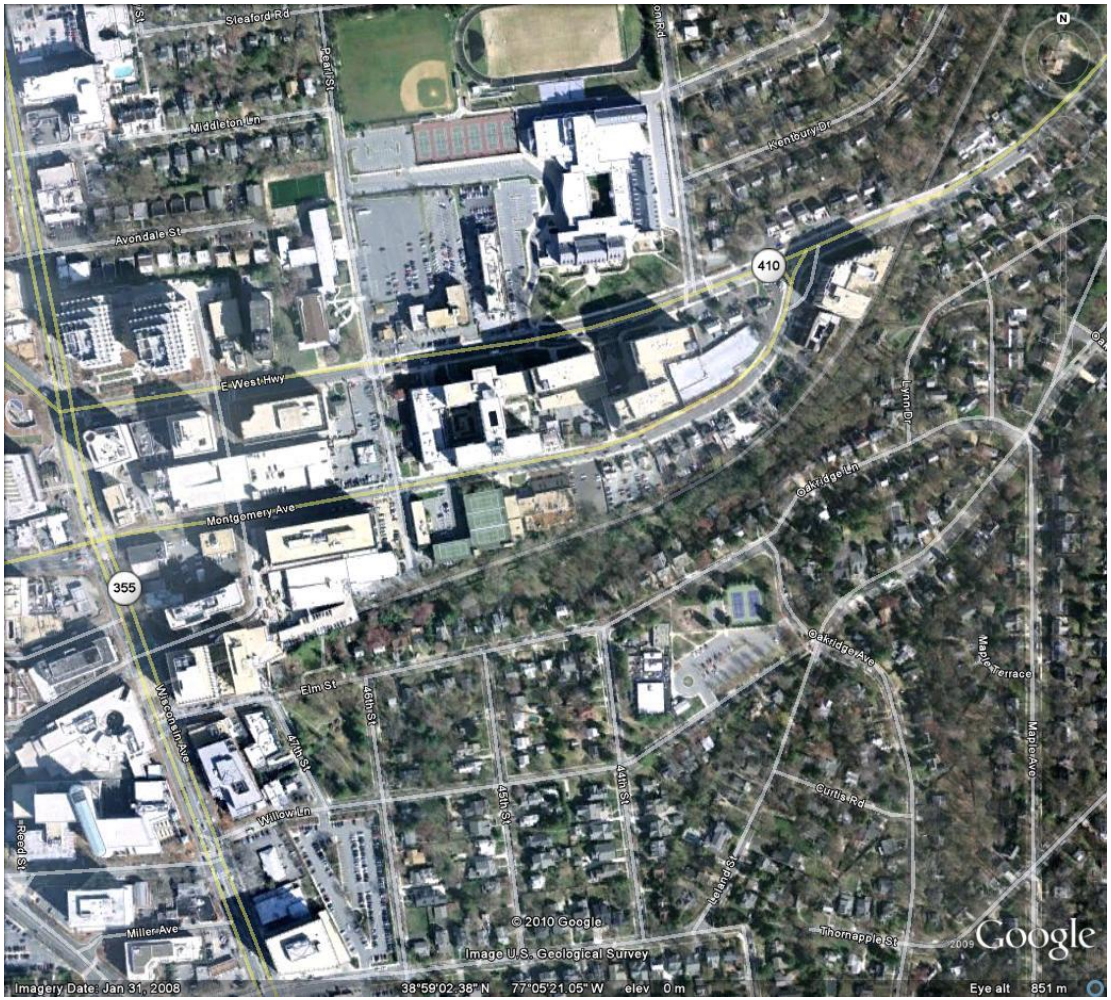


Staff Recommendations

1. Retain Draft Plan trail location on north side
2. Retain Draft Plan at-grade crossing at Lynn Drive with understanding that active warning devices may be required. Request MTA to review alternatives to this at-grade crossing
3. Retain Draft Plan double track configuration
4. Confirm objectives to Capital Crescent Trail and Met Branch Trail connection at Silver Spring Transit Center
5. Confirm status of design and analysis underway related to Bonifant Street.
6. Clarify Draft Plan width of Silver Spring Green Trail
7. Confirm Draft Plan recommendation that design will incorporate space necessary for possible future station in vicinity of Dale Drive.
8. Approve selected technical edits
9. Approve selected formatting and editorial changes

1. Retain Trail On North Side Between Bethesda & Jones Mill Road

Element	Favors North	Favors South
Access / Buffer – Density	●	
Access / Buffer-Town		●
Topography/ Trail Separation from Train	●	
Noise	Neither Side	Neither Side



Retain Trail On North Side Between Bethesda & Jones Mill Road

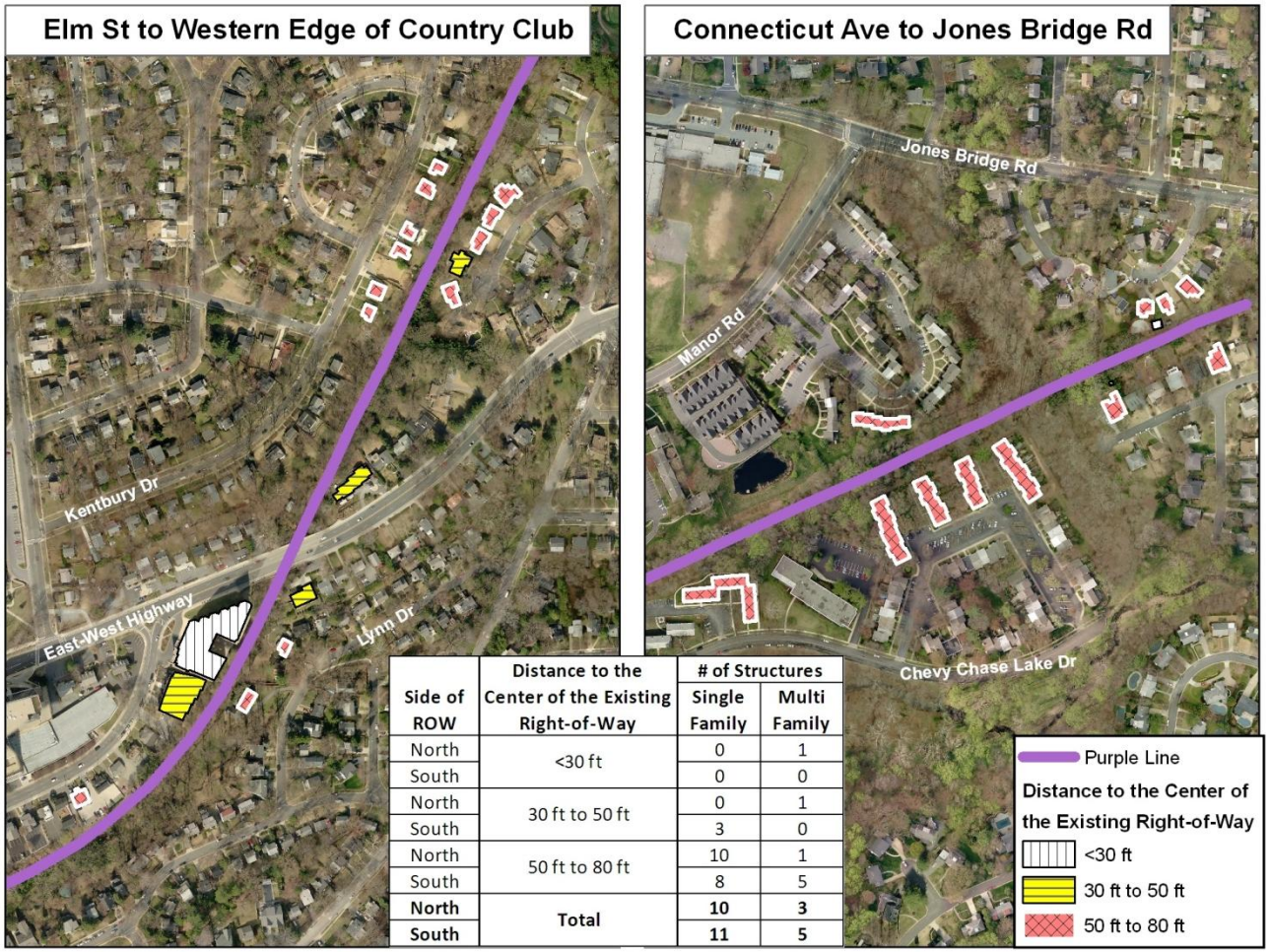
Proximity to Center of Right of Way – North vs. South

Within Town of Chevy Chase …

More north side residences (multi-family) closer

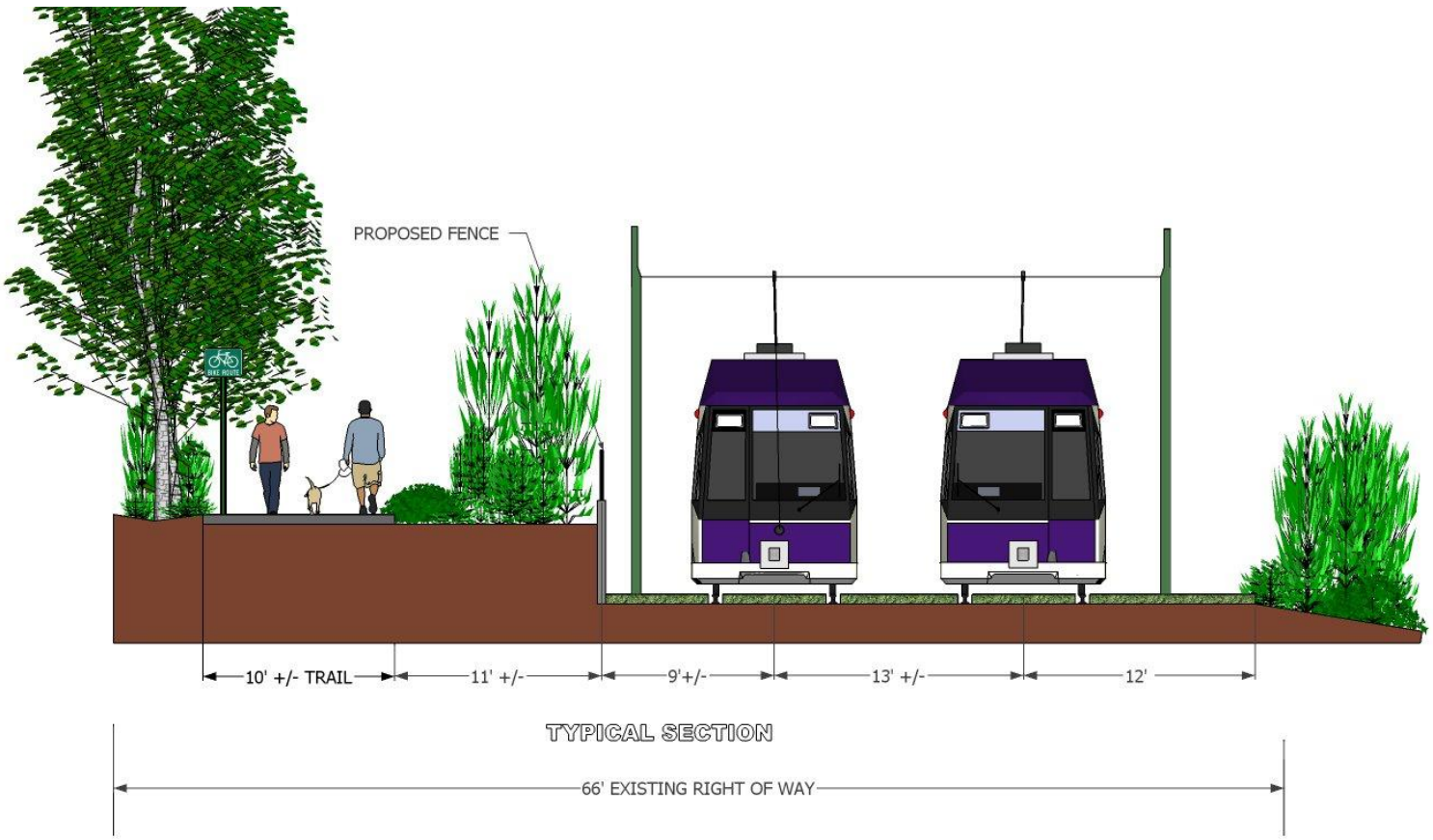
Along entire segment from Bethesda to Jones Mill Road …

No significant difference



Side of ROW	Distance to the Center of the Existing Right-of-Way	# of Structures	
		Single Family	Multi Family
North	<30 ft	0	1
South		0	0
North	30 ft to 50 ft	0	1
South		3	0
North	50 ft to 80 ft	10	1
South		8	5
North	**Total**	**10**	**3**
South		**11**	**5**

Trail – Typical Section for 66’ ROW



Retain Trail On North Side Between Bethesda & Jones Mill Road

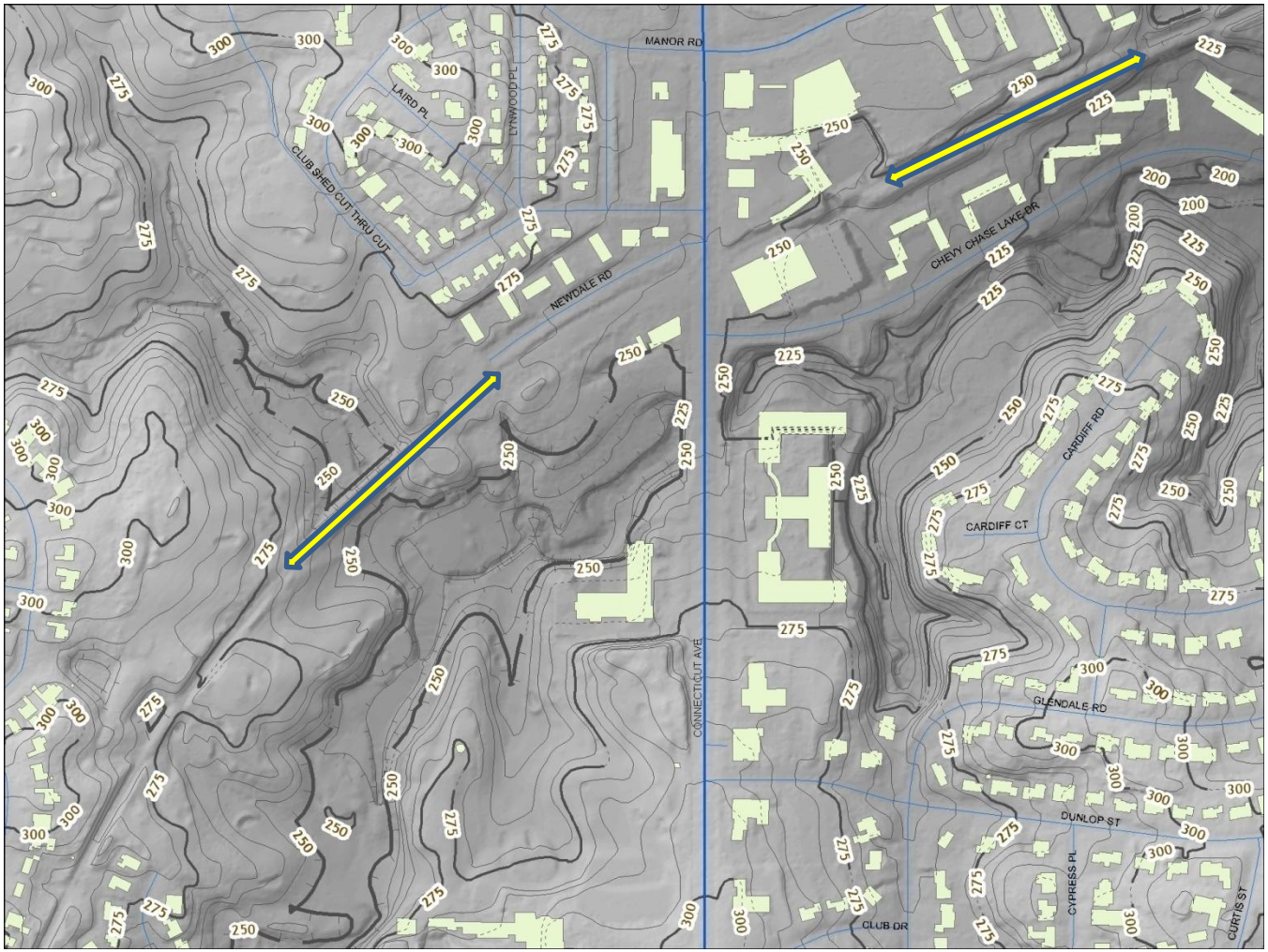
North Side is higher along Town boundary – Affording Better Opportunity for both Vertical and Horizontal Separation With Fewer and Lower Retaining Walls

Retain Trail On North Side Between Bethesda & Jones Mill Road

MTA drawing of separation of trail and train. Location is just west of East West Highway bridge.

Retain Trail On North Side Between Bethesda & Jones Mill Road

Little difference in elevation going east after East West Highway until you cross Connecticut Avenue where north side is again higher than south.



Retain Trail On North Side Between Bethesda & Jones Mill Road

North side remains higher until you reach Hamlet Place where it is essentially level crossing Jones Mill Road.

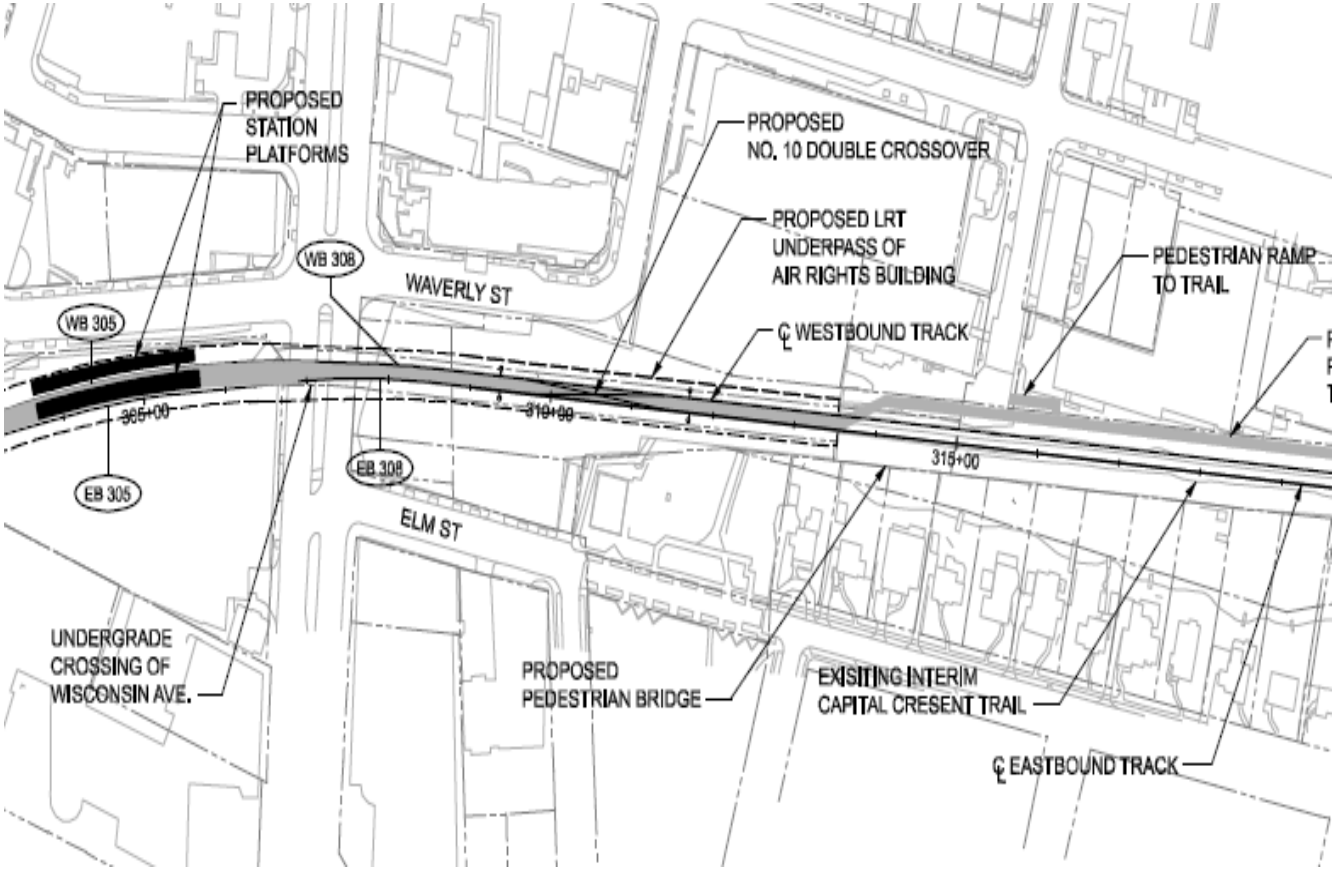
Staff Memo pages 4-9

2. Retain Draft Plan at-grade crossing at Lynn Drive but look for alternatives

First – a look at trail access west of Lynn Drive

Elm Street Park on South Side

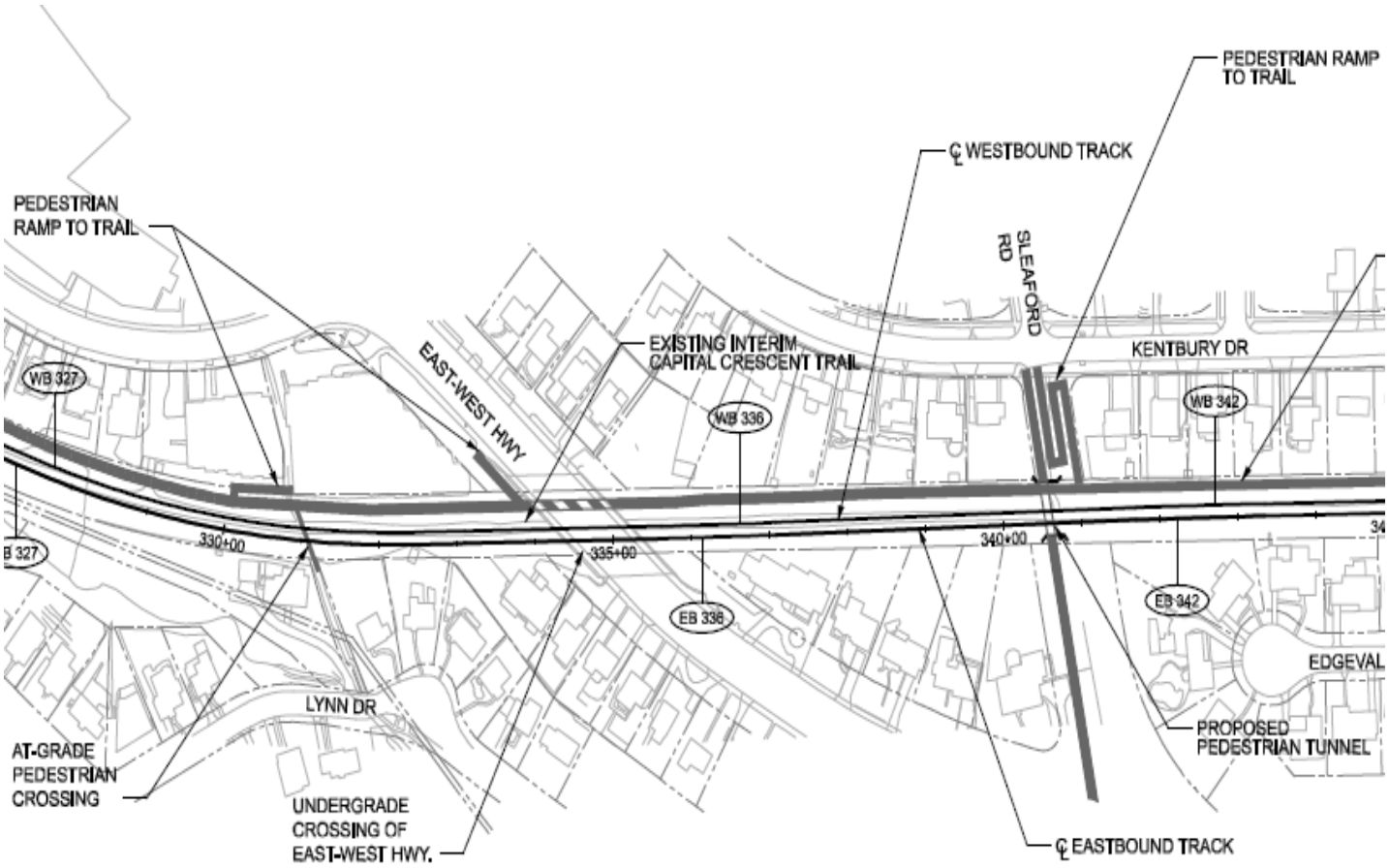
Pearl Street on North Side



Retain Draft Plan at-grade crossing at Lynn Drive but look for alternatives

Lynn Drive trail access is about 1,500 feet east of Pearl Street

Sleaford Road trail access is about 1,000 feet east of Lynn Drive and on other side of East West Highway

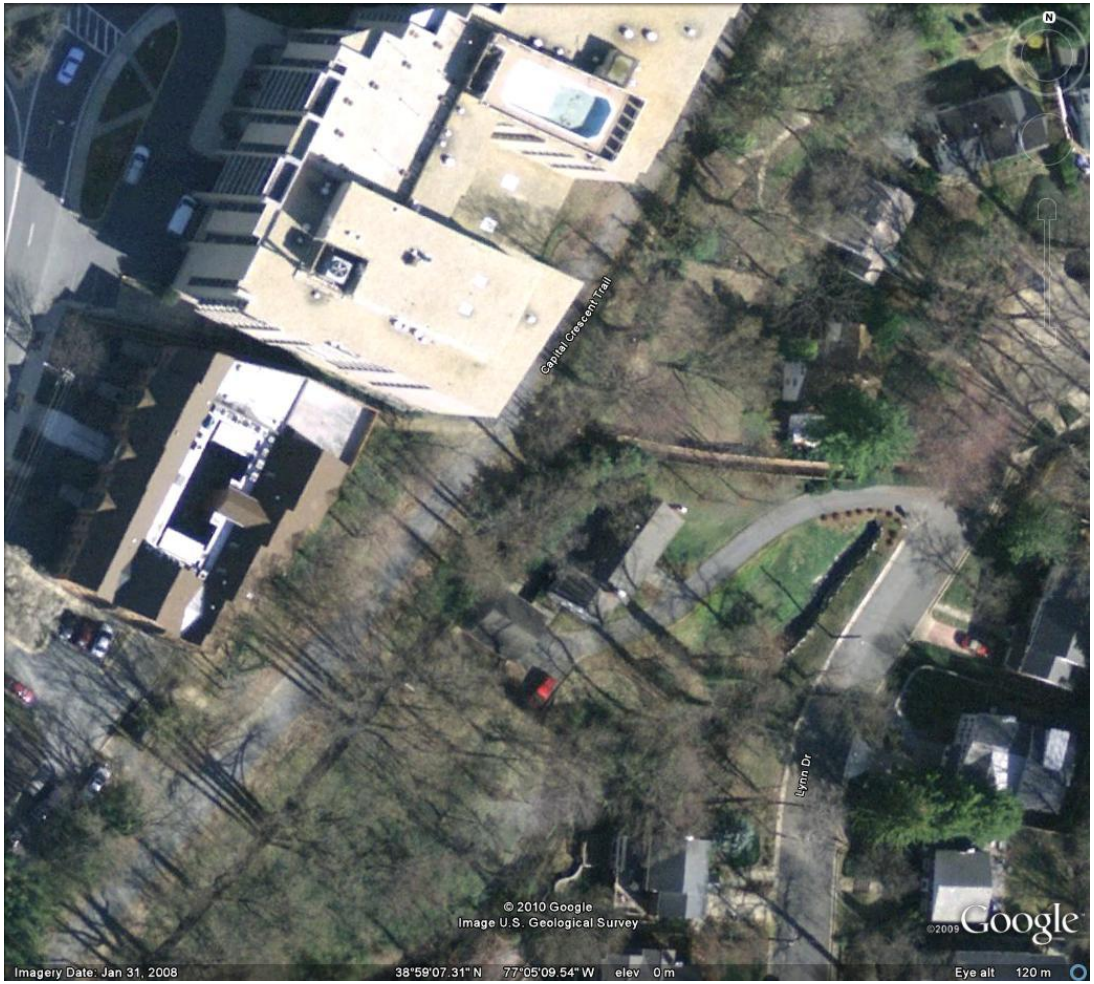


Retain Draft Plan at-grade crossing at Lynn Drive but look for alternatives

Eliminate hazard where feasible

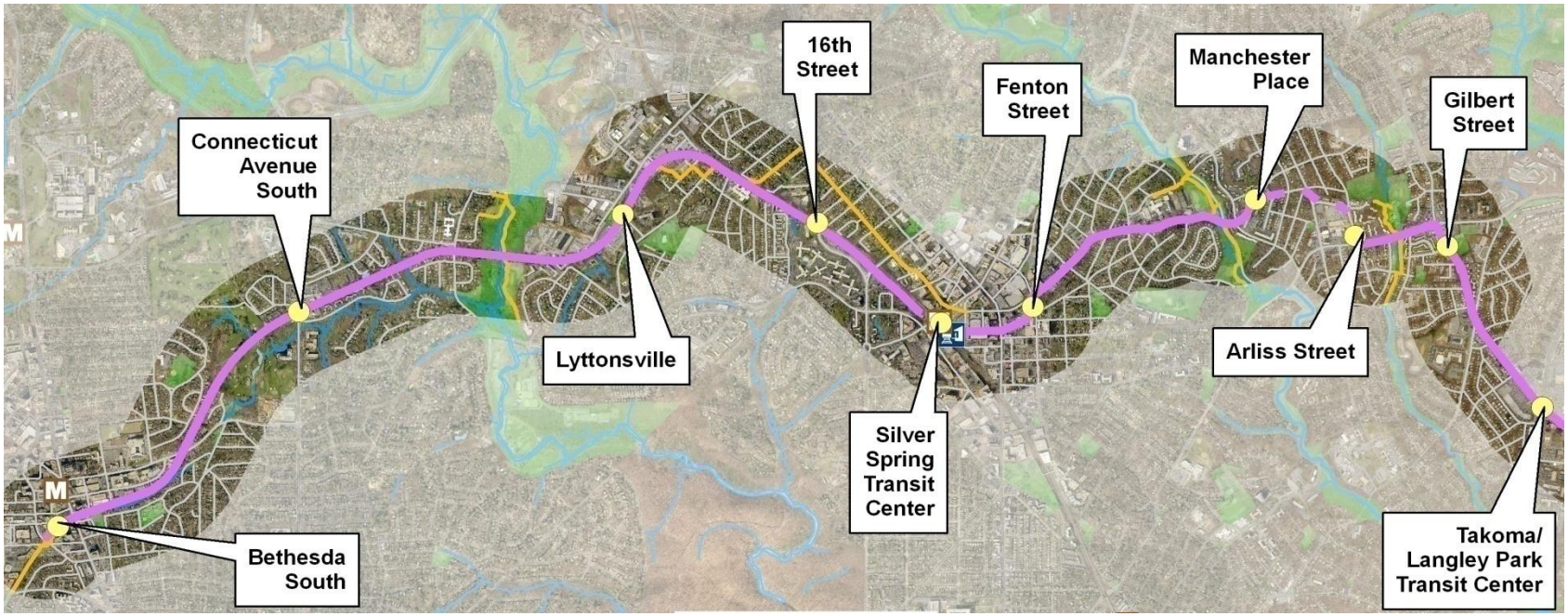
Mitigate unavoidable risks with safety treatments

Provide warning devices



Staff Memo pages 10-14

3. Retain Double Track Configuration



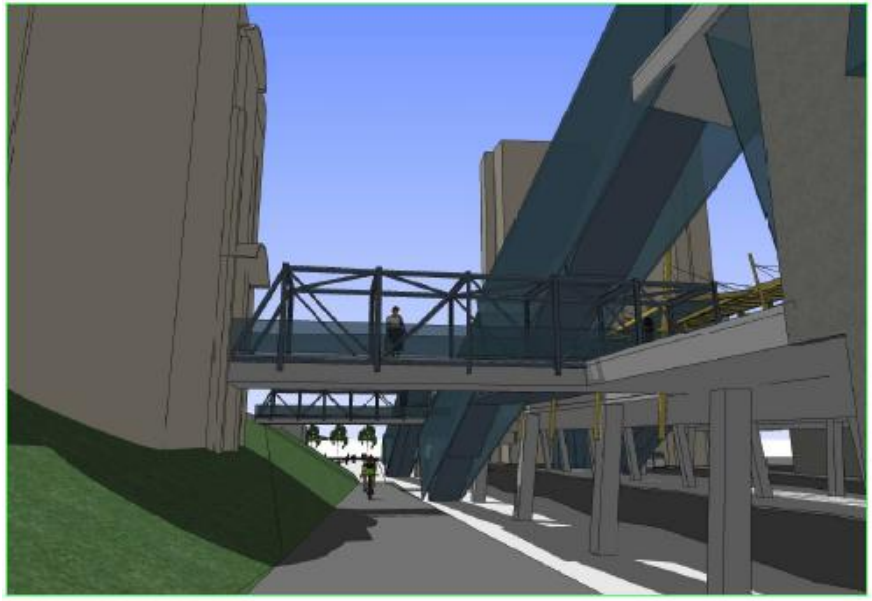
Exclusive Right of Way - 1990 Plan & New Plan

Shared or Dedicated Lanes – New Plan

Staff Memo page 14

4. Connecting the Trails at the Transit Center

Objective is connection that ….



VIEW ALONG METROPOLITAN BRANCH TRAIL, COLESVILLE ROAD IN THE DISTANCE

Does not require a person to get off a bike, climb stairs, etc.

Does not conflict with transit passengers

Staff Memo pages 14-18

5. Making Sure Bonifant Street Works

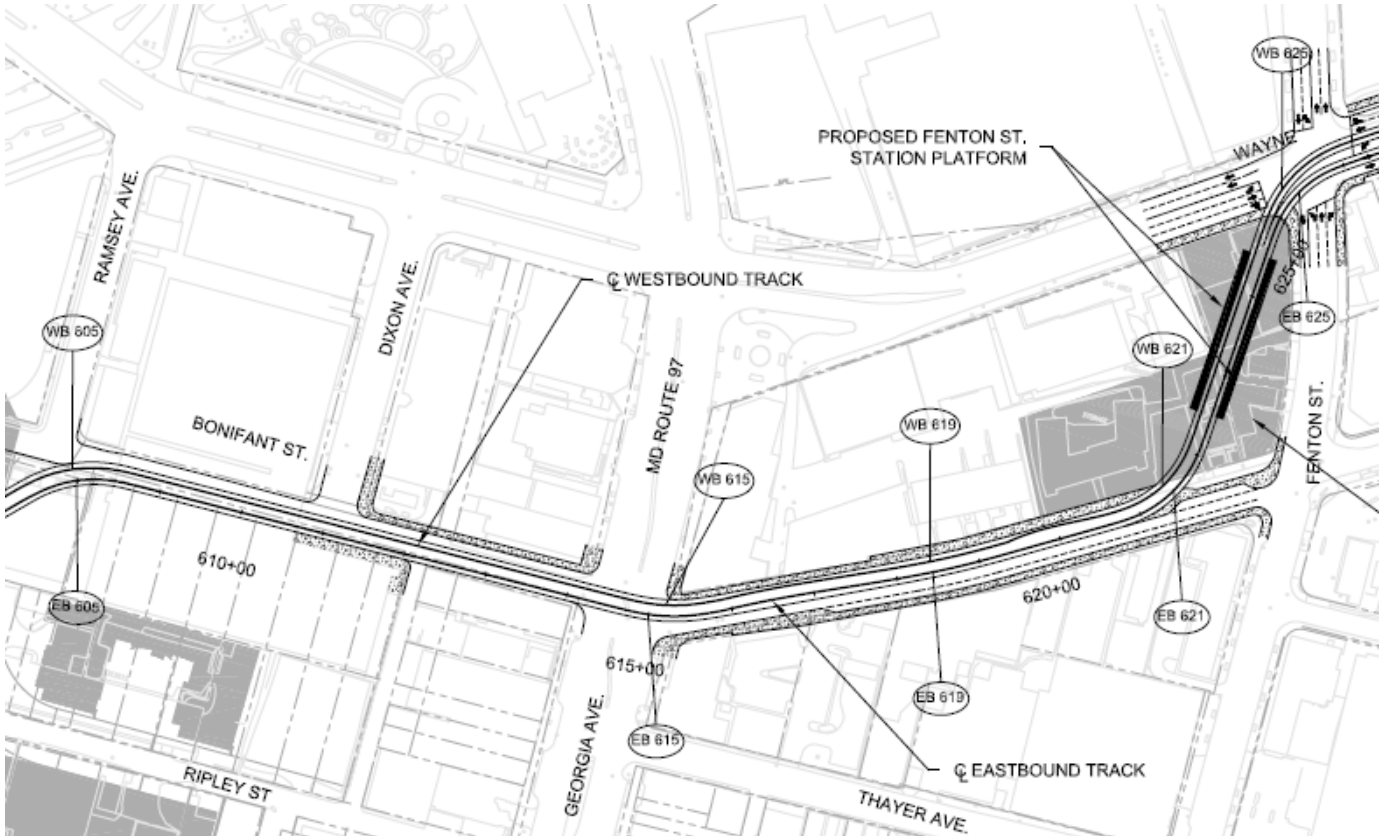
West of Georgia Ave – on south side of Bonifant Street

East of Georgia Ave – on north side of Bonifant Street

Options on east side:

On-street parking and one lane of traffic <u>or</u>

No on-street parking and two lanes of traffic

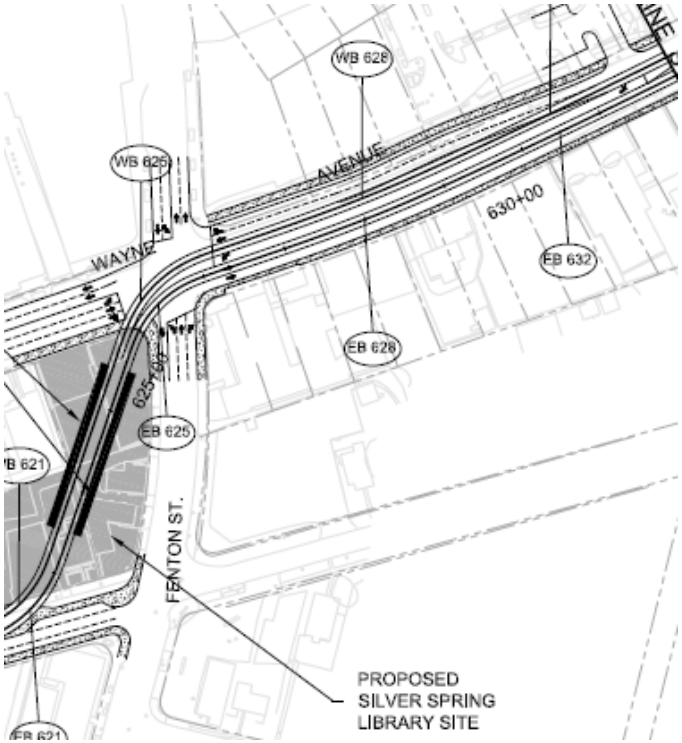


Staff Memo pages 19-21

6. Silver Spring Green Trail

Design objective – combined trail and buffer of minimum 13 feet with minimum 8 foot wide trail.

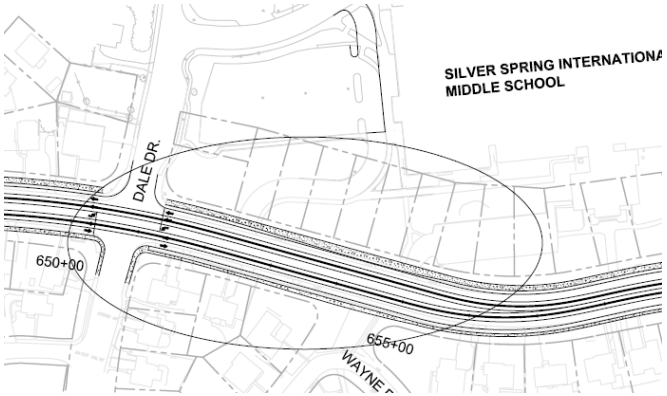
MTA examining areas where up to ten foot path could be provided.



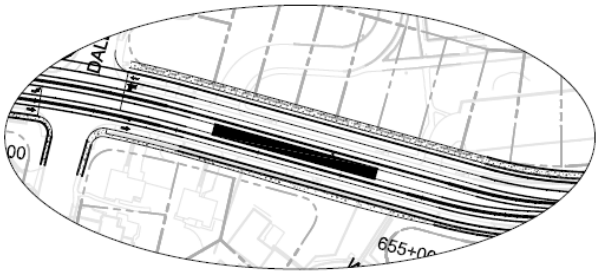
Staff Memo pages 21-23

7. Dale Drive Station

- Community remains divided on issue
- More supporters have come forward
- No station planning effort in work program
- Double ridership of Fenton Street?



Need to clarify LPA drawings

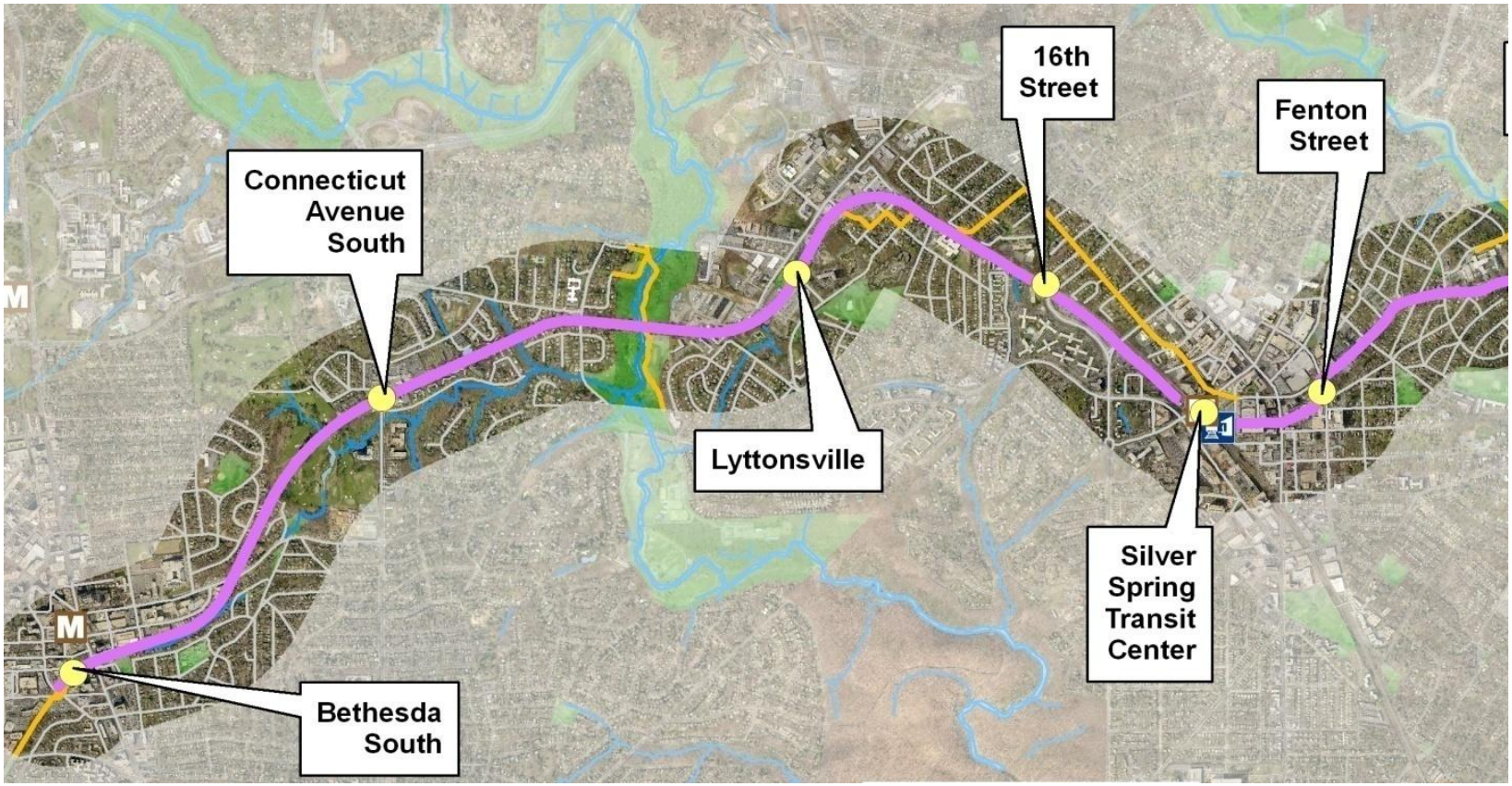


ALTERNATE DESIGN
WITH DALE DRIVE STATION

Staff Memo pages 23-26

8. and 9. Approvals

- Approve selected technical edits
- Approve selected formatting and editorial changes



Other Worksession Items

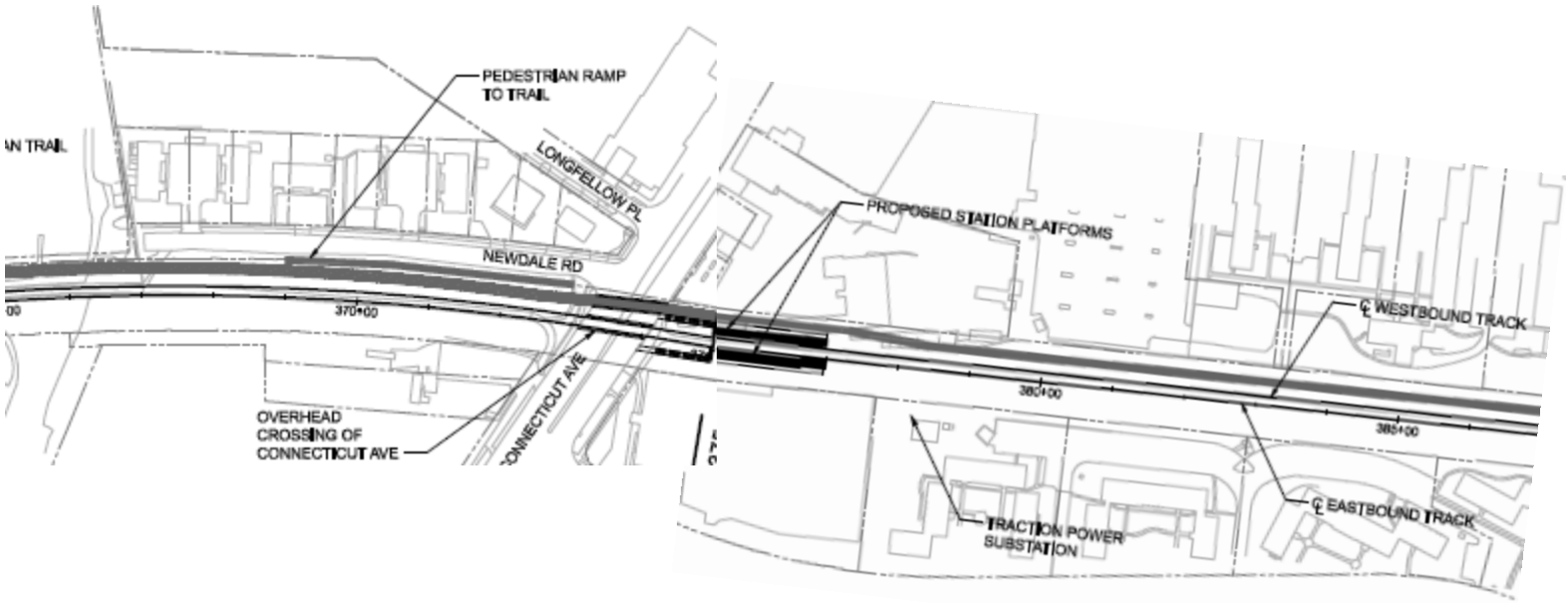
Executive Branch Comments and Staff Responses – Staff Memo pages 26 – 29

MTA Comments – Attachments B and E and in separate memo dated 03/03/10

Comments Related to wording and suggested changes of a technical nature – Staff memo page 29

Additional staff recommended changes – Staff Memo pages 29-30.

Connecticut Ave. Station
Trail and Platform Connection



Train and trail on their own overpass over Connecticut Ave.

Trail is about 8-12 feet below platform

Will you be able to get from one to the other without walking down to the surface?

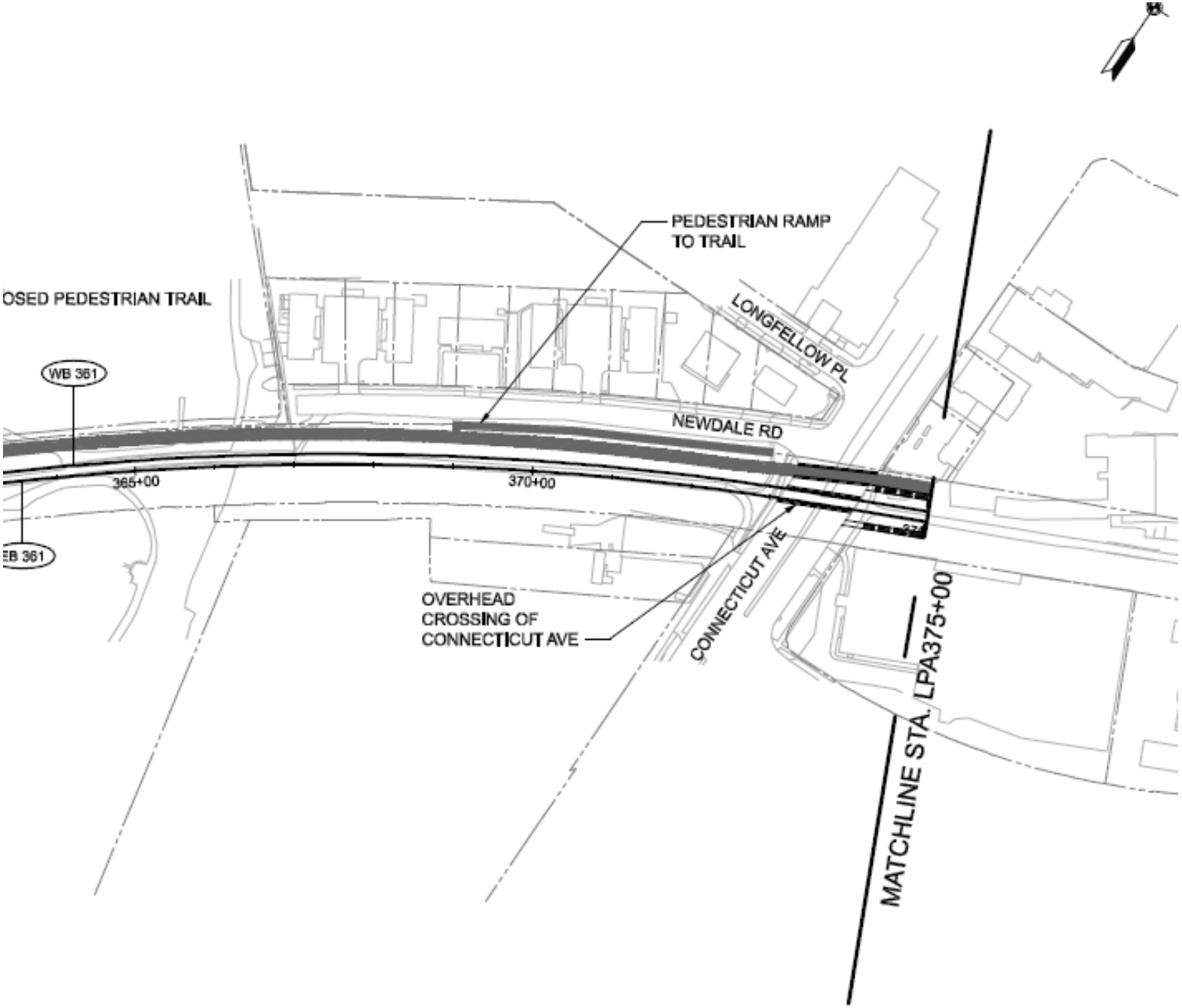
Staff Memo Attachment B – comment 82, (item 17)

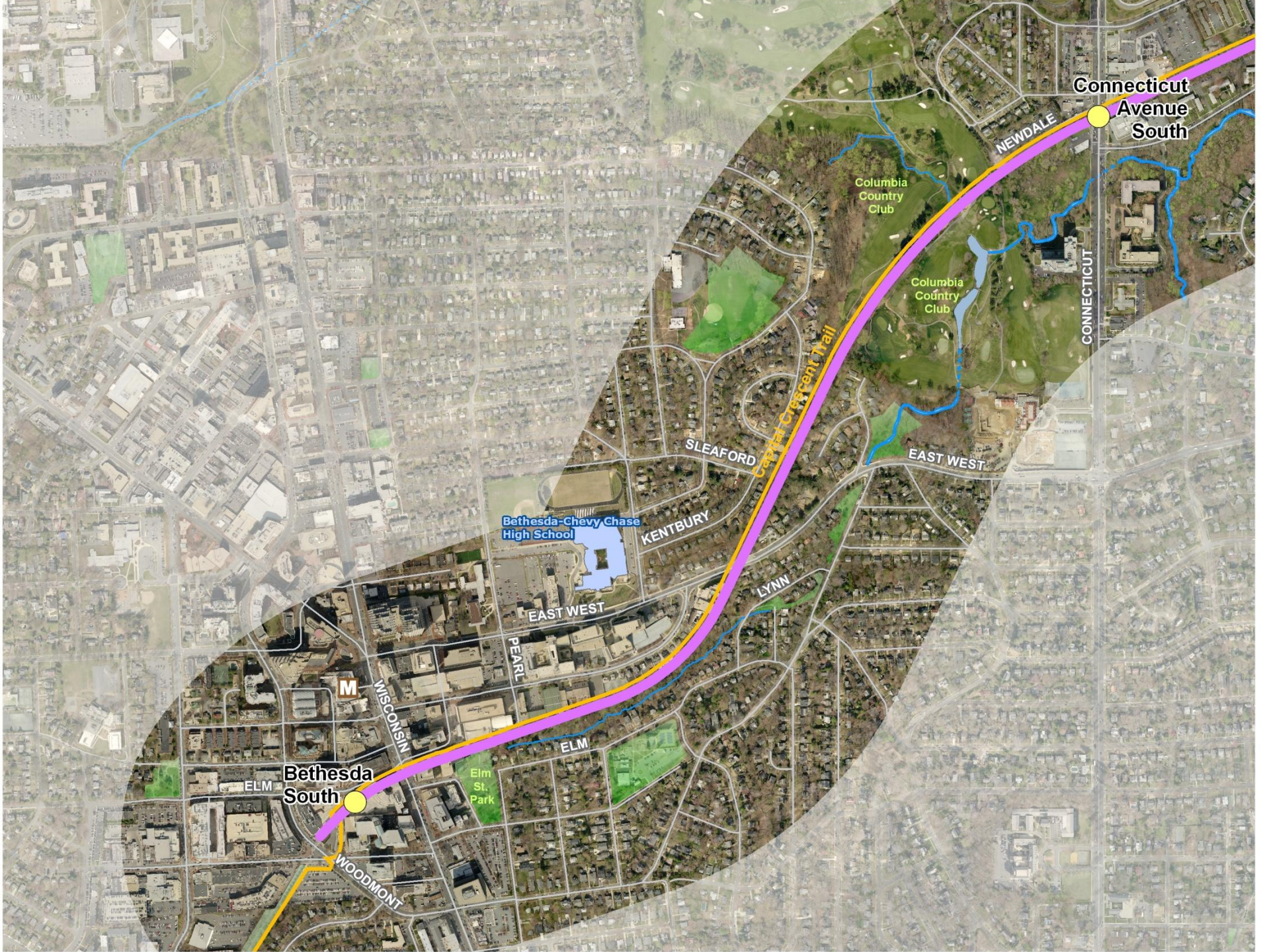
Anticipated Project Schedule

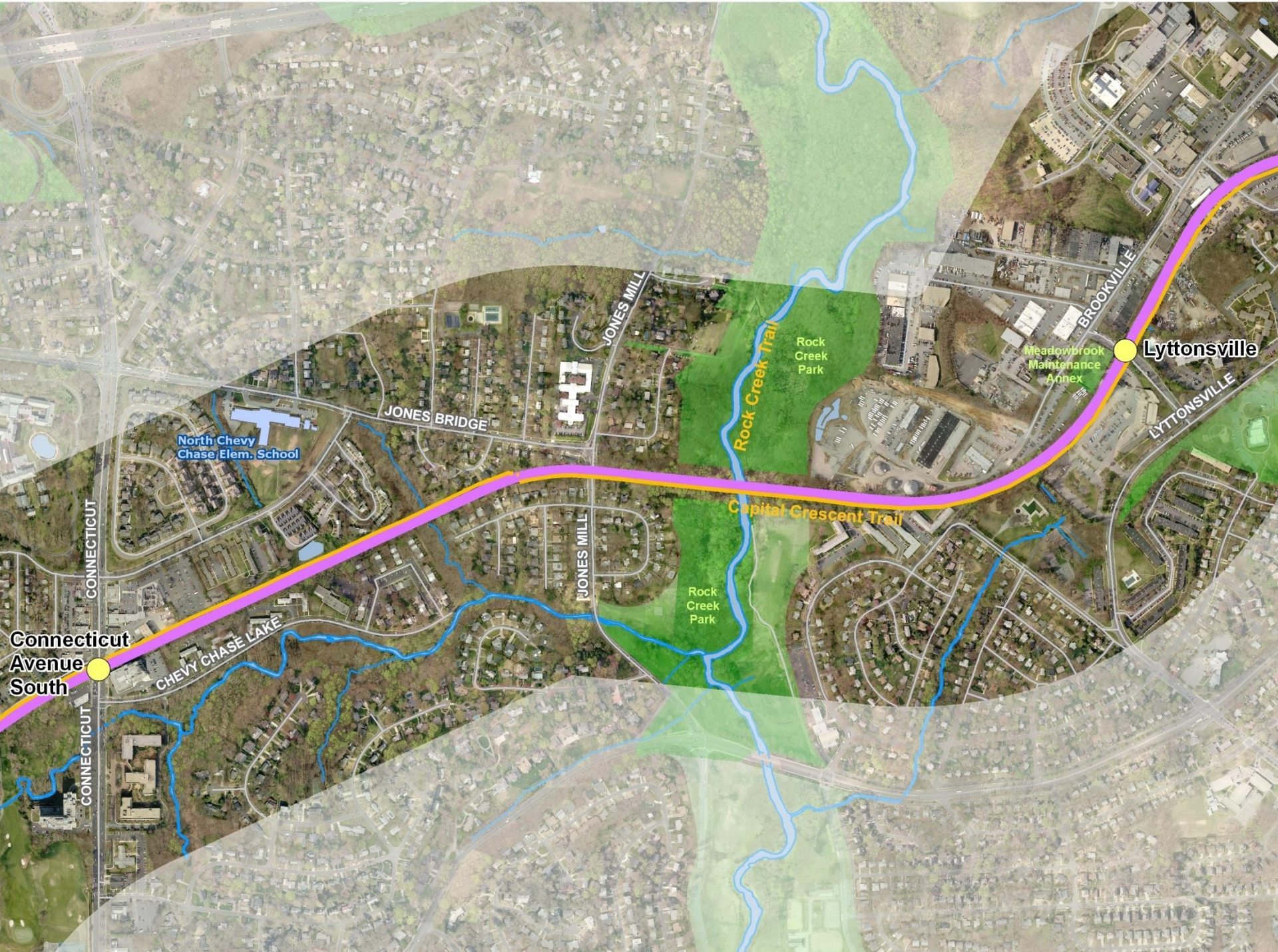
• Request Permission to Enter Preliminary Engineering	Winter/Spring 2010
• PE and Final Environmental Impact Statement Begin	Spring 2010
• PE and Final Environmental Impact Statement Completed	Winter 2011/12
• Begin Final Design	Spring 2012
• Final Design Completed	2013
• Construction Begins	2013/2014
• Complete Construction	2016/2017

The Following Are Additional Slides That Were Used for Illustrative Purposes Only

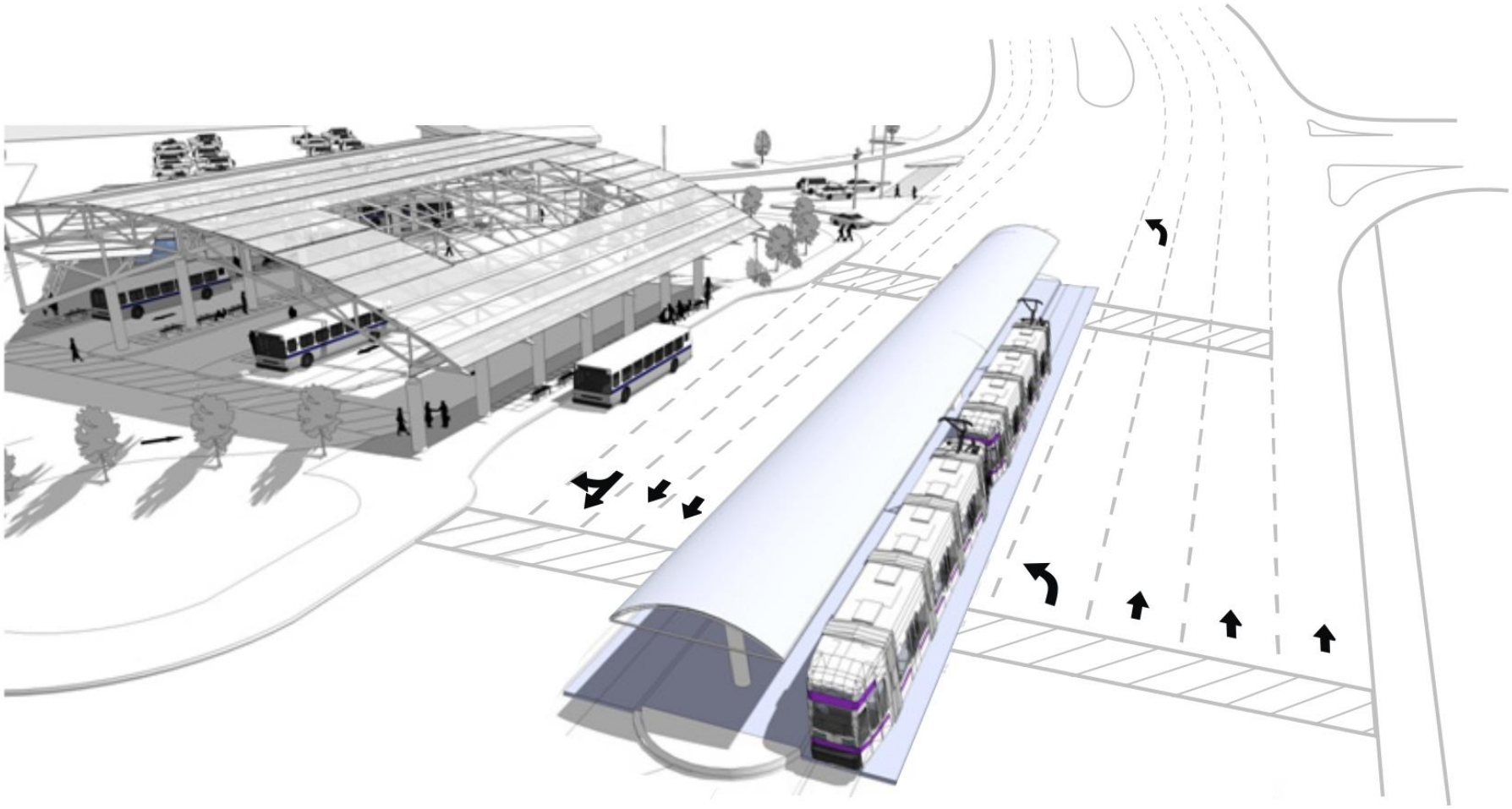
Purple Line and Silver Spring Library Site

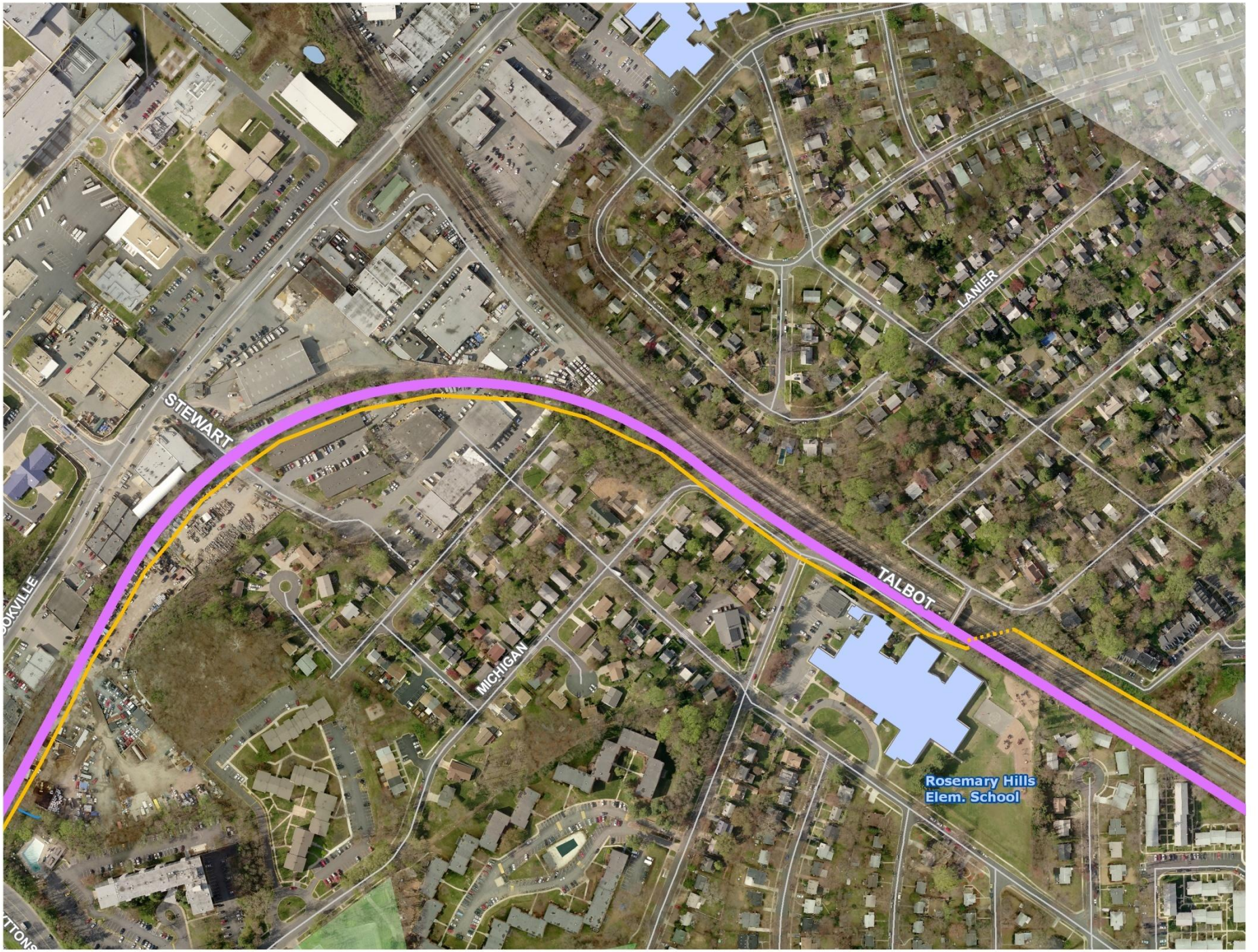

PEDESTRIAN RAMP
TO TRAIL
OSED PEDESTRIAN TRAIL
LONGFELLOW PL
WB 361
NEWDALE RD
365+00
370+00
EB 361
OVERHEAD
CROSSING OF
CONNECTICUT AVE
CONNECTICUT AVE
MATCHLINE STA. LPA375+00


Connecticut Avenue South
NEWDALE
Columbia Country Club
Columbia Country Club
CONNECTICUT
Capital Crescent Trail
SLEAFORD
EAST WEST
Bethesda-Chevy Chase High School
KENTBURY
LYNN
EAST WEST
PEARL
WISCONSIN
ELM
Elm St. Park
Bethesda South
ELM
WOODMONT


Connecticut Avenue South
Lyttonsville
CONNECTICUT
CHEVY CHASE LAKE
JONES BRIDGE
JONES MILL
North Chevy Chase Elem. School
Rock Creek Trail
Rock Creek Park
Capital Crescent Trail
Meadowbrook Maintenance Annex
BROOKVILLE
LYTTONSVILLE

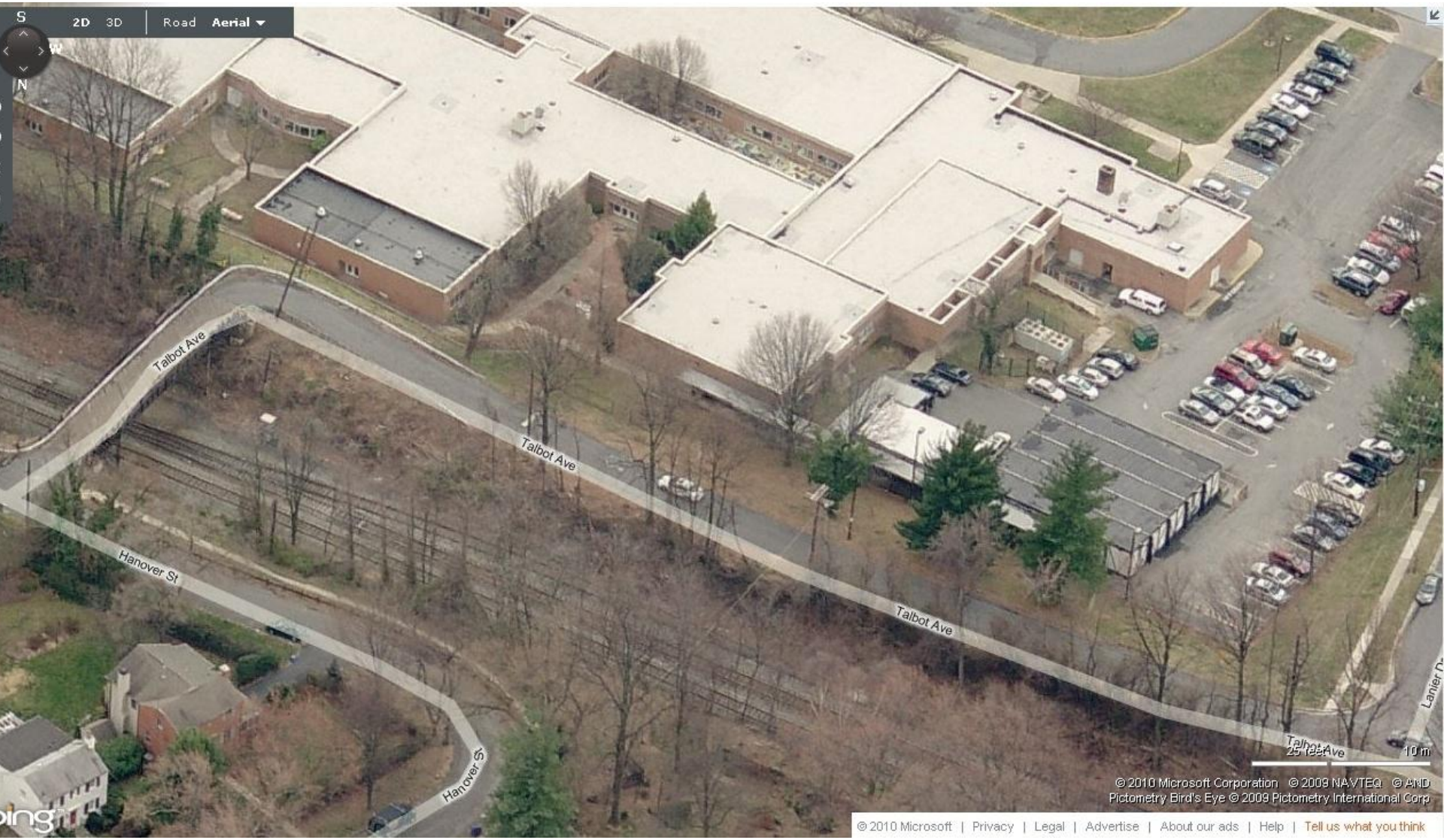
TLC Transit Center

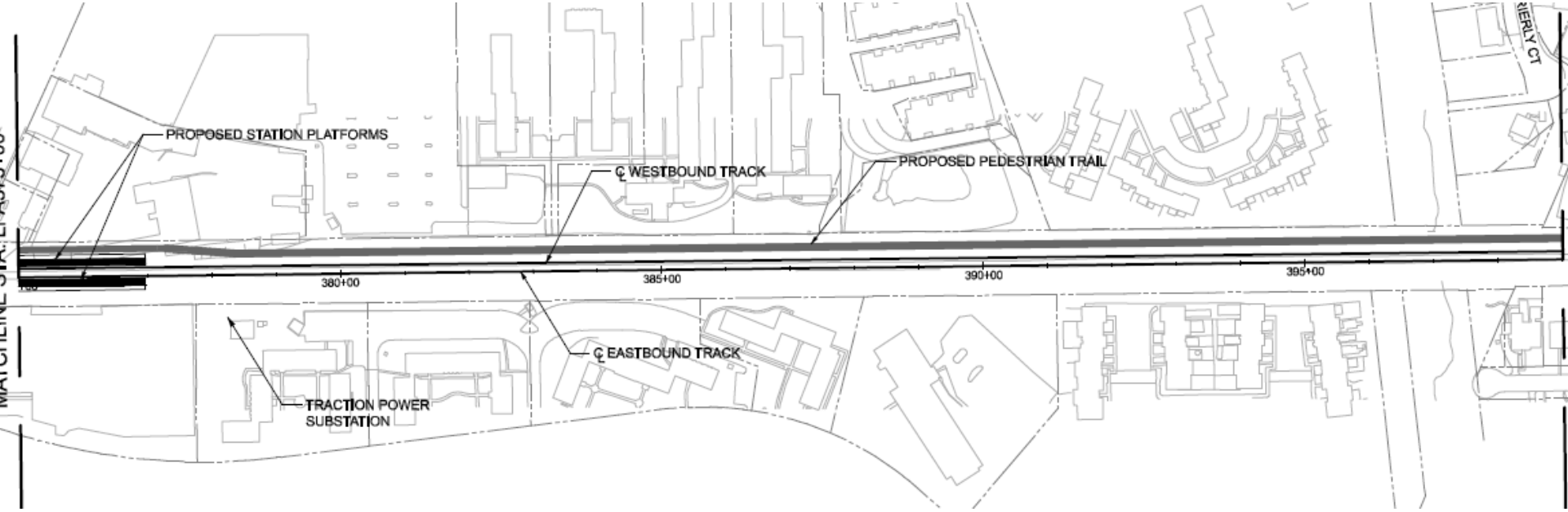


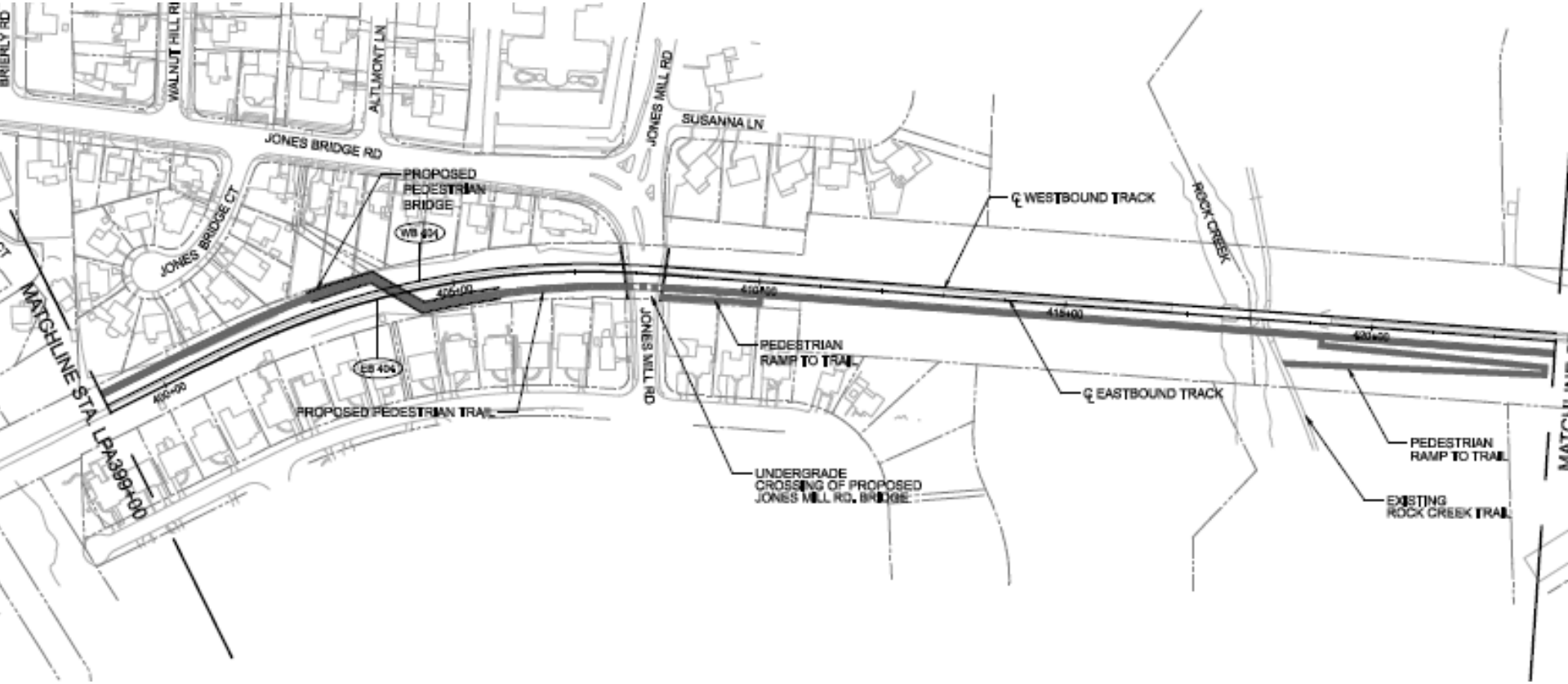

STEWART
LANIER
TALBOT
MICHIGAN
Rosemary Hills
Elem. School

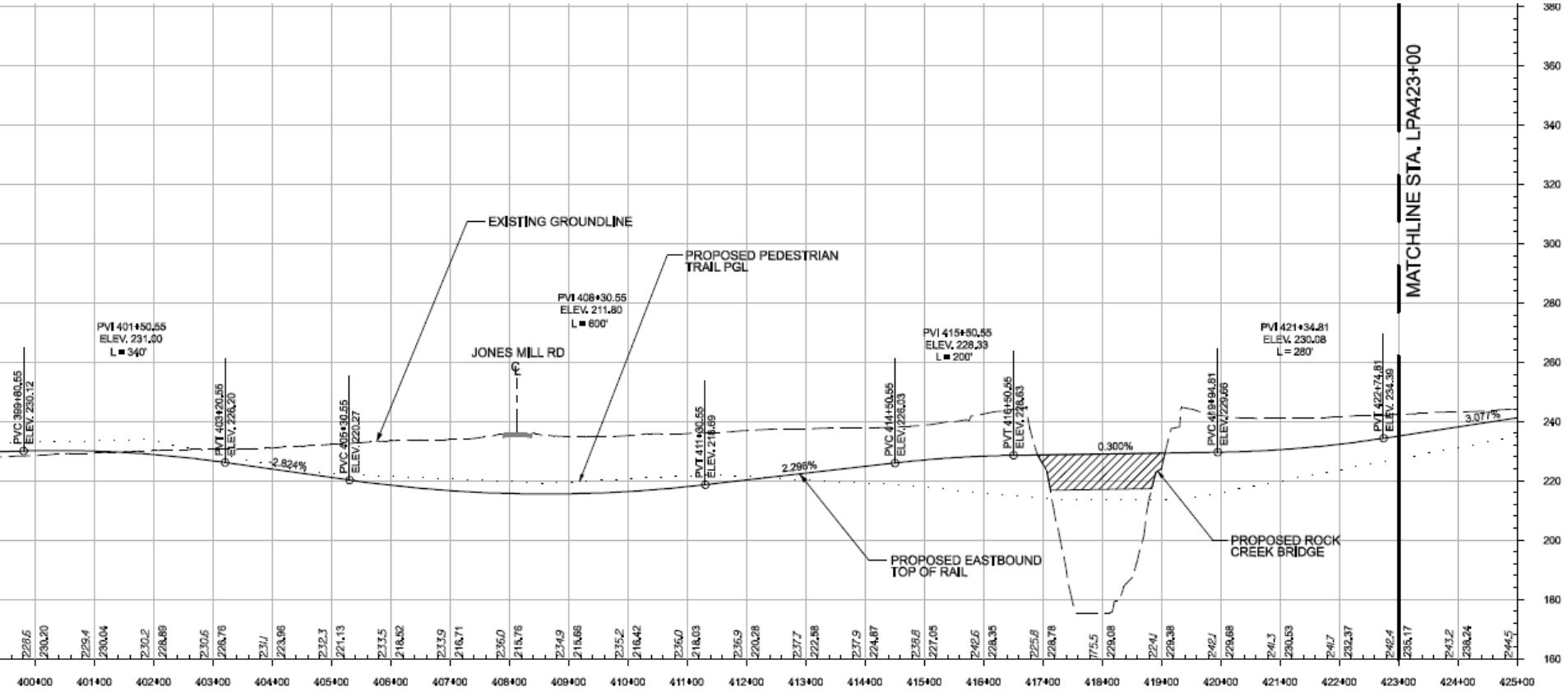
Rosemary Hills Elementary School

Rosemary Hills Elementary School




PROPOSED STATION PLATFORMS
℄ WESTBOUND TRACK
PROPOSED PEDESTRIAN TRAIL
380+00
385+00
390+00
395+00
℄ EASTBOUND TRACK
TRACTION POWER
SUBSTATION


BRIERLY RD
WALNUT HILL RD
ALTMONT LN
JONES BRIDGE RD
JONES MILL RD
SUSANNA LN
JONES BRIDGE CT
PROPOSED PEDESTRIAN BRIDGE
WB 404
EB 404
425+00
410+00
415+00
420+00
400+00
MATCHLINE STA. LPA399+00
PROPOSED PEDESTRIAN TRAIL
℄ WESTBOUND TRACK
ROCK CREEK
PEDESTRIAN RAMP TO TRAIL
℄ EASTBOUND TRACK
UNDERGRADE CROSSING OF PROPOSED JONES MILL RD. BRIDGE
PEDESTRIAN RAMP TO TRAIL
EXISTING ROCK CREEK TRAIL


EXISTING GROUNDLINE
PROPOSED PEDESTRIAN TRAIL PGL
PVI 408+30.55
ELEV. 211.80
L = 600'
PVI 401+50.55
ELEV. 231.00
L = 340'
JONES MILL RD
PVI 415+50.55
ELEV. 228.33
L = 200'
PVI 421+34.81
ELEV. 230.08
L = 280'
MATCHLINE STA. LPA423+00
PVC 399+80.55
ELEV. 230.12
PVT 403+20.55
ELEV. 226.20
PVC 405+30.55
ELEV. 220.27
PVT 411+90.55
ELEV. 218.89
PVC 414+50.55
ELEV. 226.03
PVT 416+50.55
ELEV. 228.63
PVC 419+94.81
ELEV. 229.66
PVT 422+74.81
ELEV. 234.39
-2.824%
2.296%
0.300%
3.077%
PROPOSED EASTBOUND TOP OF RAIL
PROPOSED ROCK CREEK BRIDGE
400+00
401+00
402+00
403+00
404+00
405+00
406+00
407+00
408+00
409+00
410+00
411+00
412+00
413+00
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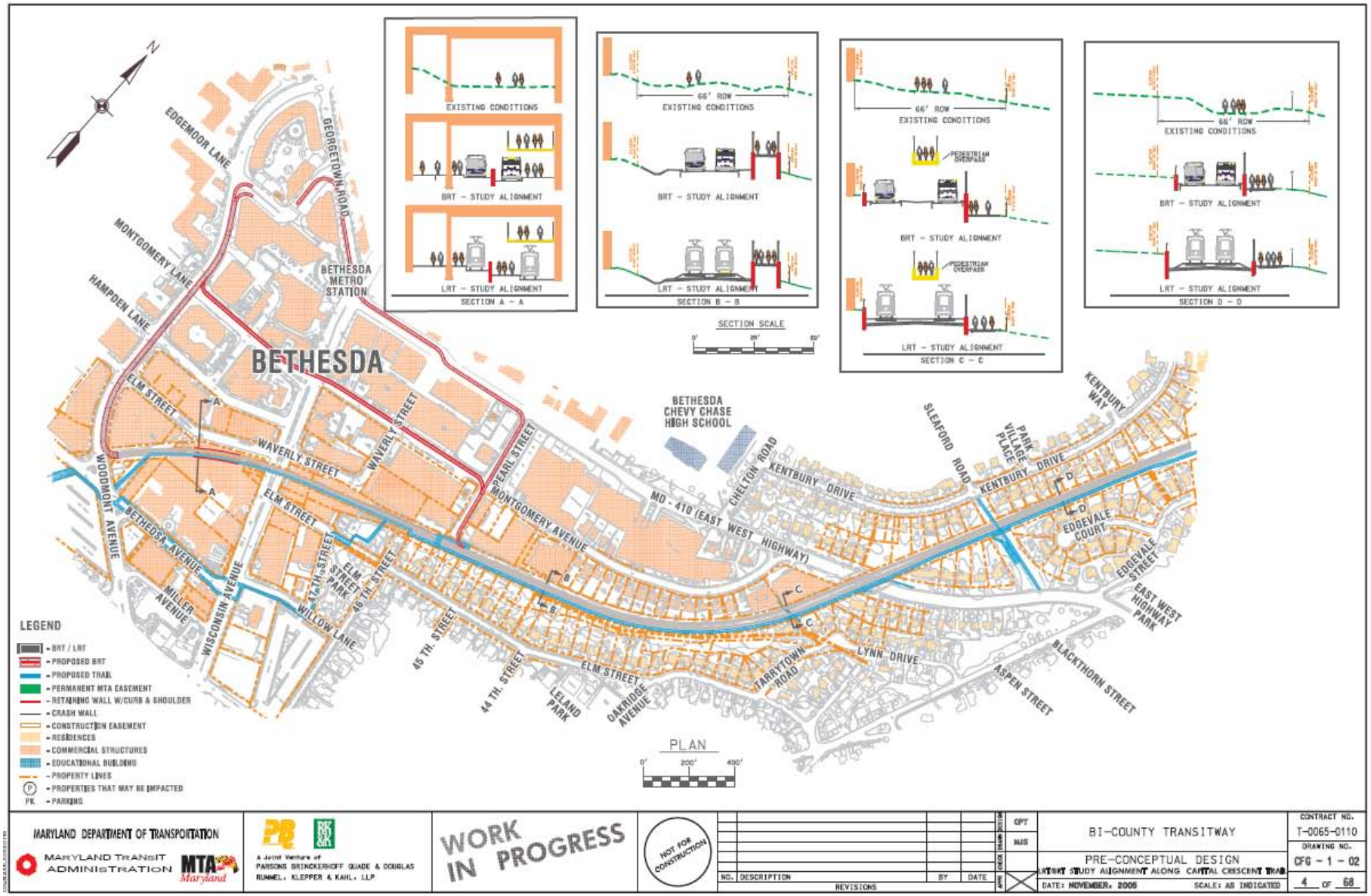
424+00
425+00


EXISTING CONDITIONS
BRT - STUDY ALIGNMENT
LRT - STUDY ALIGNMENT
SECTION A - A
66' ROW
SECTION B - B
PEDESTRIAN OVERPASS
SECTION C - C
SECTION D - D
SECTION SCALE
BETHESDA
BETHESDA METRO STATION
BETHESDA CHEVY CHASE HIGH SCHOOL
EDGEMOOR LANE
GEORGETOWN ROAD
MONTGOMERY LANE
HAMPDEN LANE
ELM STREET
WAVERLY STREET
PEARL STREET
WOODMONT AVENUE
BETHESDA AVENUE
MILLER AVENUE
WISCONSIN AVENUE
WILLOW LANE
44TH. STREET
PARK
46TH. STREET
45TH. STREET
44TH. STREET
LELAND PARK
OAKRIDGE AVENUE
MONTGOMERY AVENUE
MD - 410 (EAST WEST HIGHWAY)
CHELTON ROAD
KENTBURY DRIVE
SLEAFORD ROAD
PARK VILLAGE PLACE
KENTBURY WAY
EDGEVALE COURT
EDGEVALE STREET
EAST WEST HIGHWAY PARK
TARRYTOWN ROAD
LYNN DRIVE
ASPEN STREET
BLACKTHORN STREET
LEGEND
- BRT / LRT
- PROPOSED BRT
- PROPOSED TRAIL
- PERMANENT MTA EASEMENT
- RETAINING WALL W/CURB & SHOULDER
- CRASH WALL
- CONSTRUCTION EASEMENT
- RESIDENCES
- COMMERCIAL STRUCTURES
- EDUCATIONAL BUILDING
- PROPERTY LINES
- PROPERTIES THAT MAY BE IMPACTED
PK - PARKING
PLAN
MARYLAND DEPARTMENT OF TRANSPORTATION
MARYLAND TRANSIT ADMINISTRATION
MTA Maryland
A Joint Venture of PARSONS BRINCKERHOFF QUADE & DOUGLAS RUMMEL, KLEPPER & KAHL, LLP
WORK IN PROGRESS
NOT FOR CONSTRUCTION
NO. DESCRIPTION BY DATE
REVISIONS
CPT
MJS
BI-COUNTY TRANSITWAY
PRE-CONCEPTUAL DESIGN
LRT/BRT STUDY ALIGNMENT ALONG CAPITAL CRESCENT TRAIL
DATE: NOVEMBER, 2005
SCALE: AS INDICATED
CONTRACT NO.
T-0065-0110
DRAWING NO.
CFG - 1 - 02
4 OF 68

Trails Analysis - Design Guidelines

- No required design specifications by a national organization
- The Purple Line incorporated recommended design guidelines from the U.S. DOT *Rails-With-Trails; Lessons Learned*; August 2002

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Trail Analysis – Objective 1

Evaluate the Trail Location on the North Versus the South Side of the Transitway.

Influenced by 2 factors:

1. Maintaining the trail 3-4' above the trackbed to provide vertical separation, while trying to follow existing topography of the land

   Benefits:

   - ✓ Improves aesthetics
   - ✓ Minimizes retaining wall heights; reduces construction costs
   - ✓ Minimizes environmental and construction impacts
   - ✓ Creates greater comfort level for trail users when trains pass
   - ✓ Limits pedestrian trackbed crossings to the designated crossings

2. Providing access to many residents

Trail Analysis – Objective 1 Results

DESCRIPTION	NORTH VS SOUTH	LENGTH
Beginning of the project (Woodmont Ave.) to Pearl St.	South	0.3 miles
Pearl St. through Columbia Country Club, past Connecticut Ave. until 400' west of Jones Mill Rd.	North	1.7 miles
Over Rock Creek until the study area limit, 100' east of Talbot Ave. bridge	South	1.5 miles

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Trail Analysis – Objective 1 Results

DESCRIPTION	NORTH VS SOUTH	LENGTH
Talbot Ave. bridge to Spring St. (BRT only)	North	0.6 miles
OR…Talbot Ave. bridge to Silver Spring Transit Center (LRT only)	North	0.9 miles

Trail Analysis – Objective 2

Evaluate the Possibility of Increasing the Separation Between the Trail and the Trackbed

Goal:

- Setback of 25’ (centerline of track to inside edge of trail) resulting in about a 10’ wide planting area

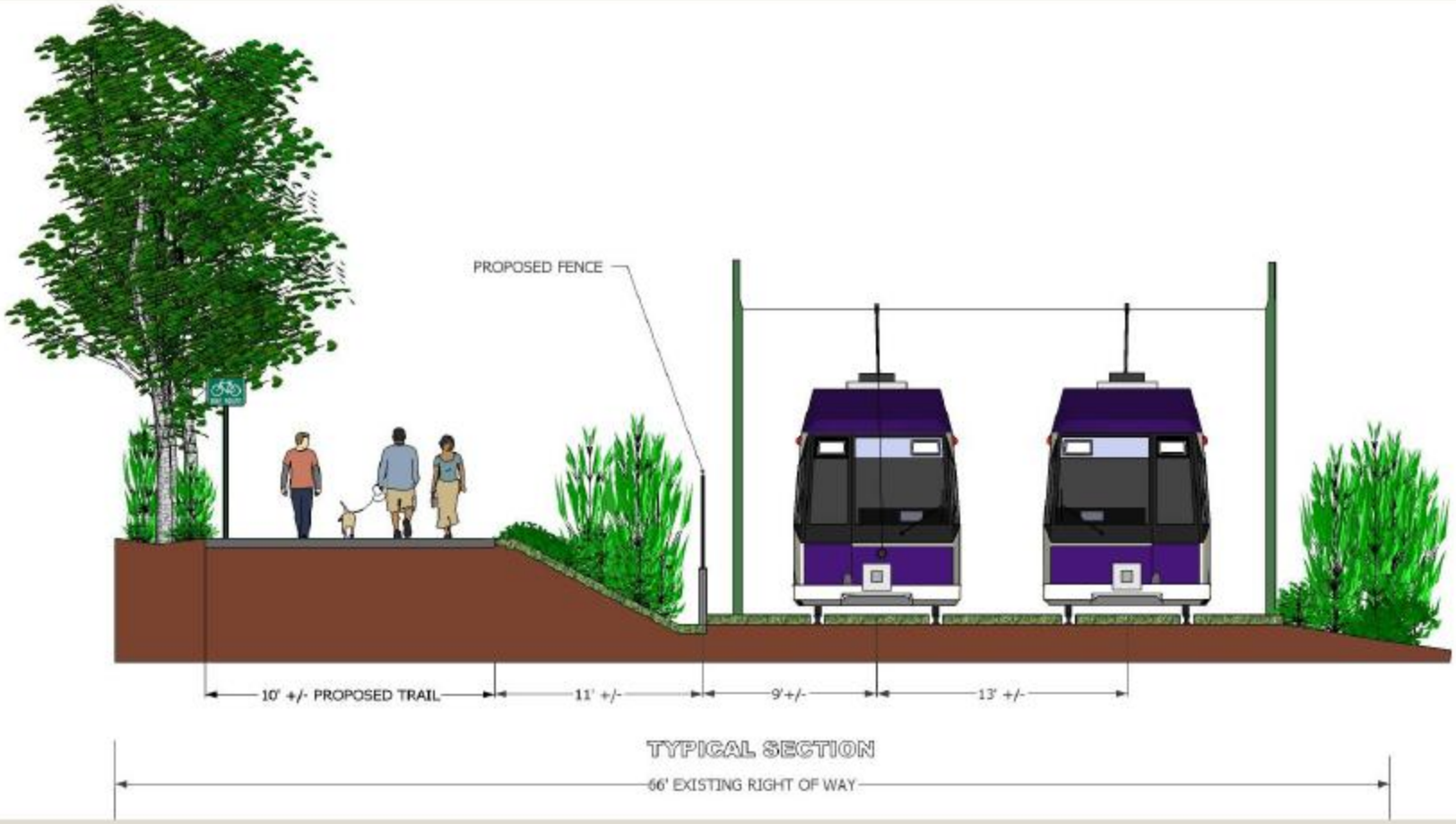
Planting Area Benefits:

- Acts as a screen or buffer between the trail and trackbed
- Improves the aesthetics of the trail

Trail Analysis - Recommendations

- The proposed location of the trail *(combination of north and south side of trail)* be adopted
- The trail and trackbed's horizontal and vertical alignments be revised to increase the horizontal separation wherever possible

Trail Aesthetics – Typical Section



Trail Aesthetics – Isometric View

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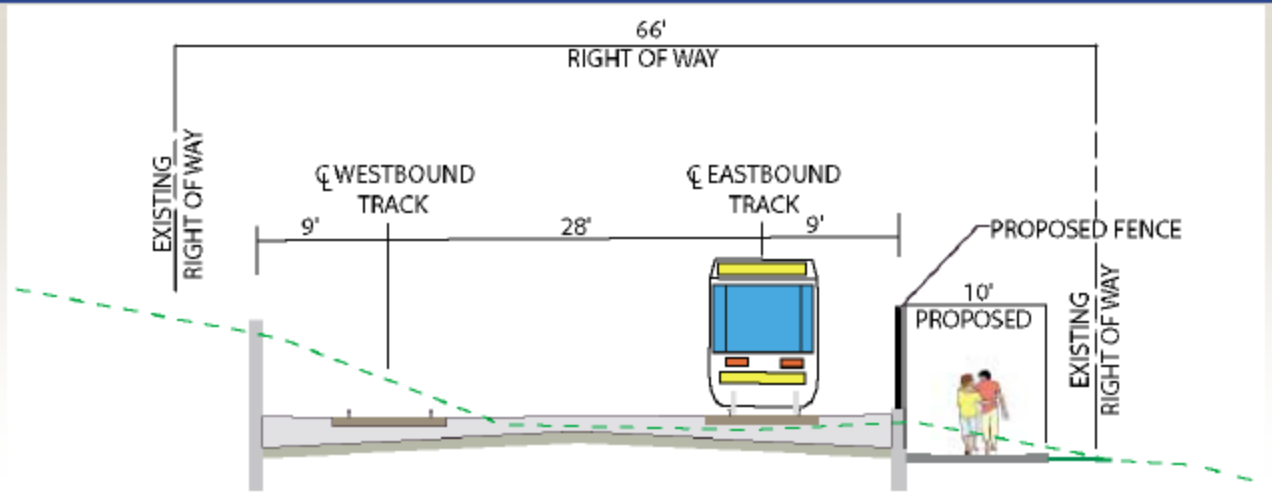
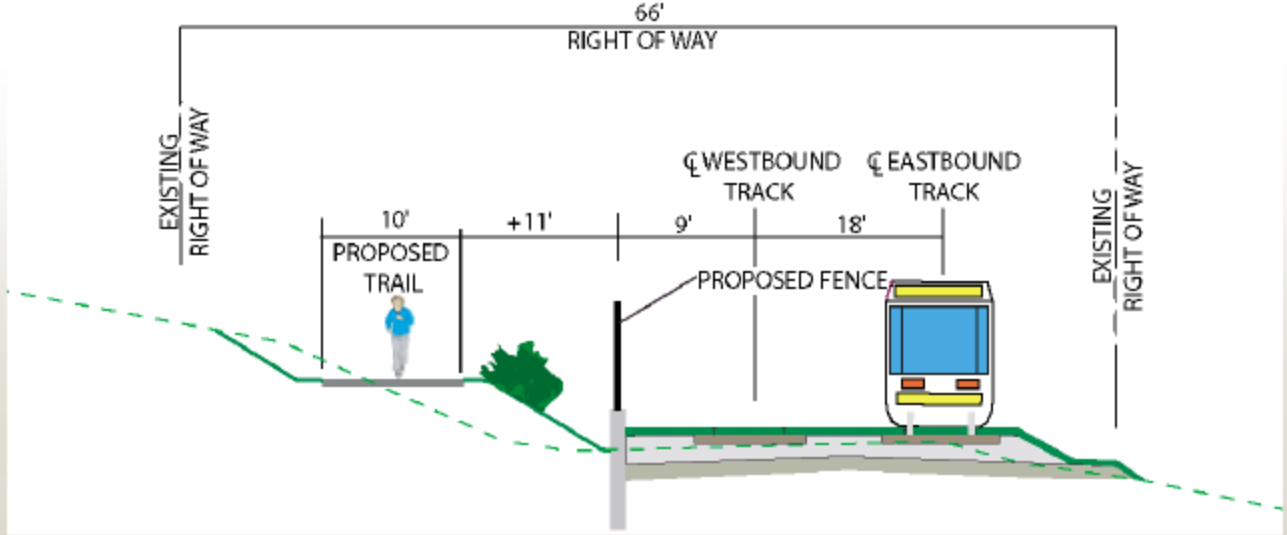
FEBRUARY 2008

Trail Aesthetics – Just west of East West Hwy





Current Design

- Trail on south side
- Trail lower than track
- No planting area btwn track and trail

Proposed Design

- Trail on north side
- Trail higher than track
- 11' planting area btwn track & trail
- Grass Tracks
- Fence btwn track & trail

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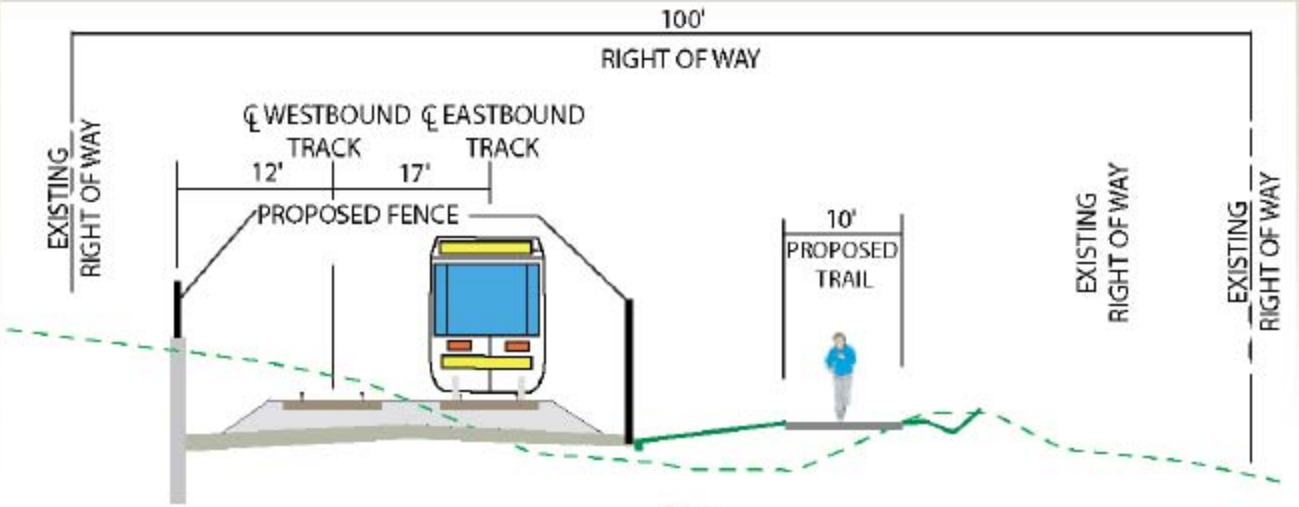
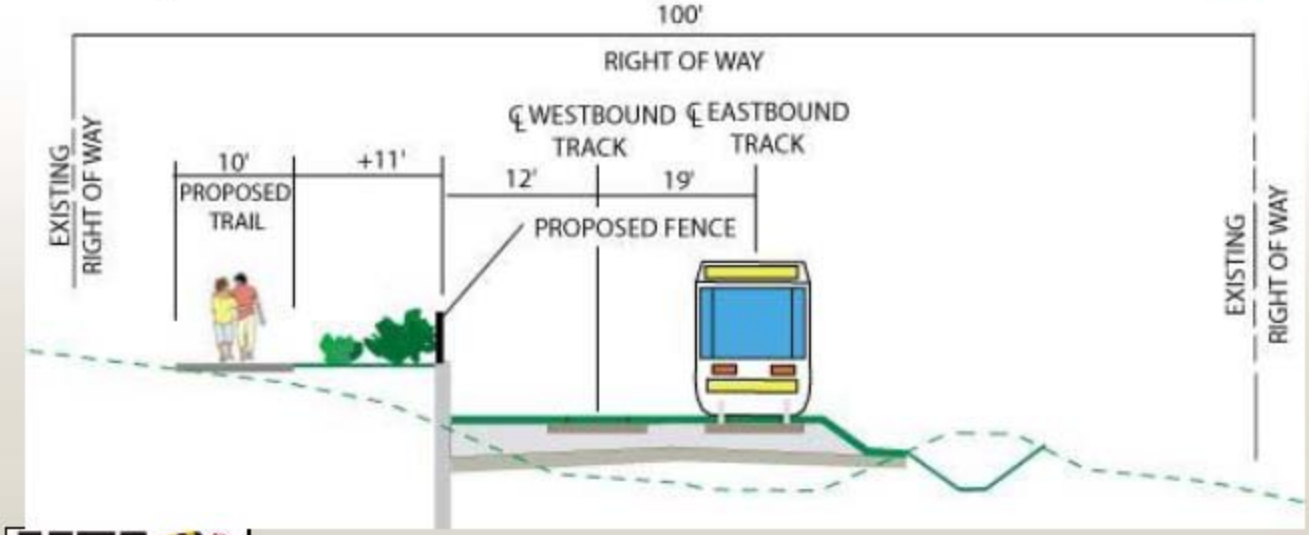
Trail Aesthetics – Near Columbia Country Club





Current Design

- Trail on south side
- Trail lower than track
- 12' planting area btwn track and trail

Proposed Design

- Trail on north side
- Trail higher than track
- Grass Tracks
- 12' planting area btwn track & trail
- Fence btwn track & trail

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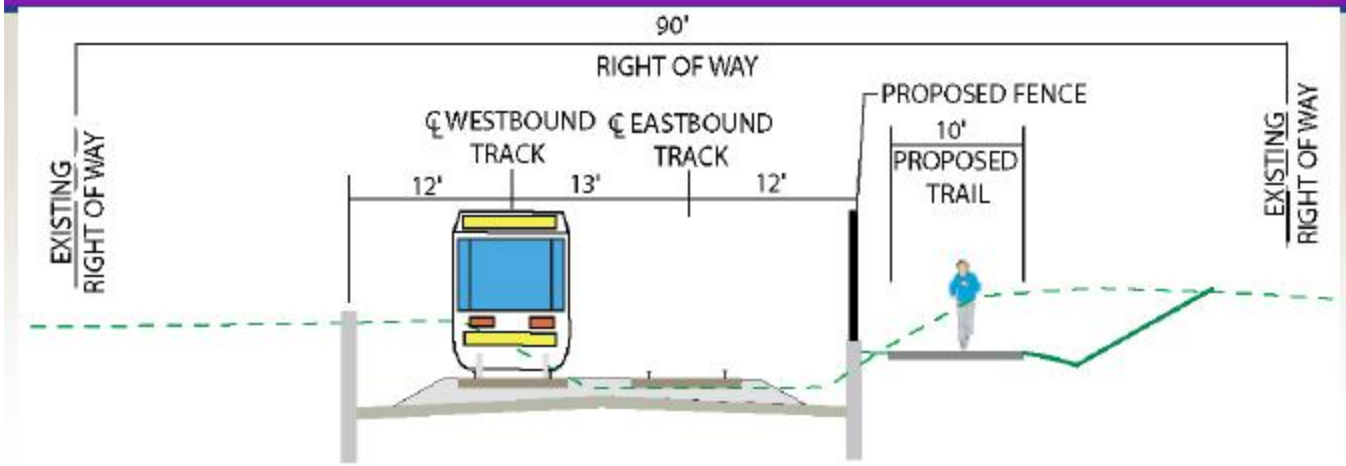
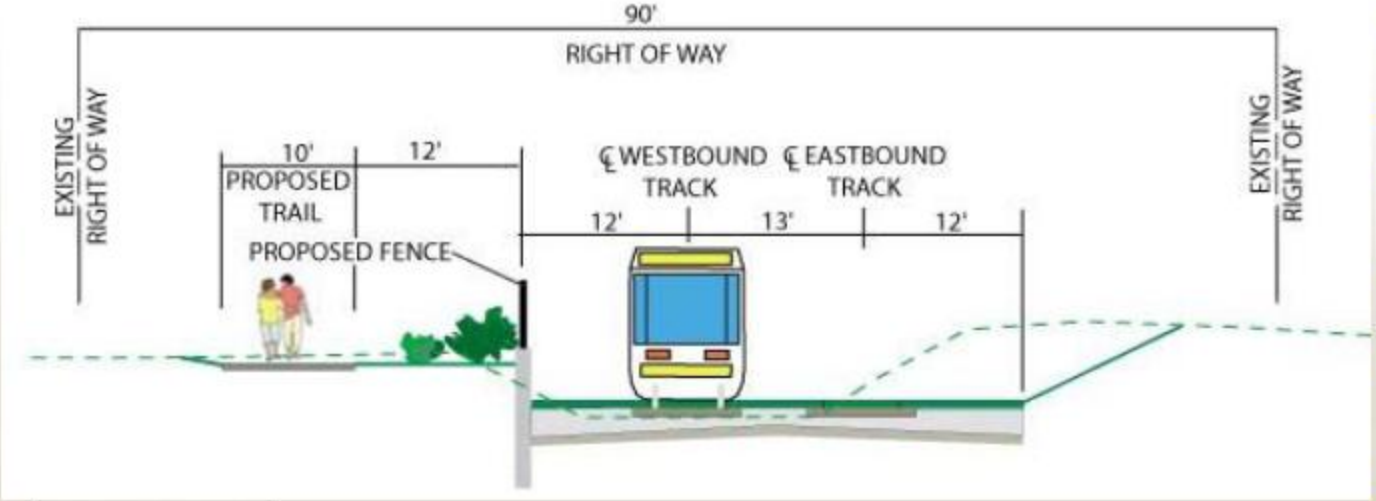
Trail Aesthetics – West of Jones Mill Rd



Current Design

- Trail on south side
- Trail higher than track
- 0'-2' planting area btwn track and trail



Proposed Design

- Trail on north side
- Trail higher than track
- Grass tracks
- 12' planting area btwn track and trail
- Fence btwn track & trail

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Advantages

Advantages:

- A more naturalistic environment
- A buffer/screen between the trail and track
- Minimizes retaining wall heights resulting in reduced construction costs
- Creates greater comfort level for trail users
- Increases safety by preventing trail users from crossing trackbed except at designated crossings
- Improves trail experience

Disadvantages

Disadvantages:

- Residences on the south side of the trackbed would lose their current direct access to the trail
- The Transitway would be closer to the residences on the south side

Trail Aesthetics – Ornamental Fencing

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Trail Aesthetics – Ornamental Fencing

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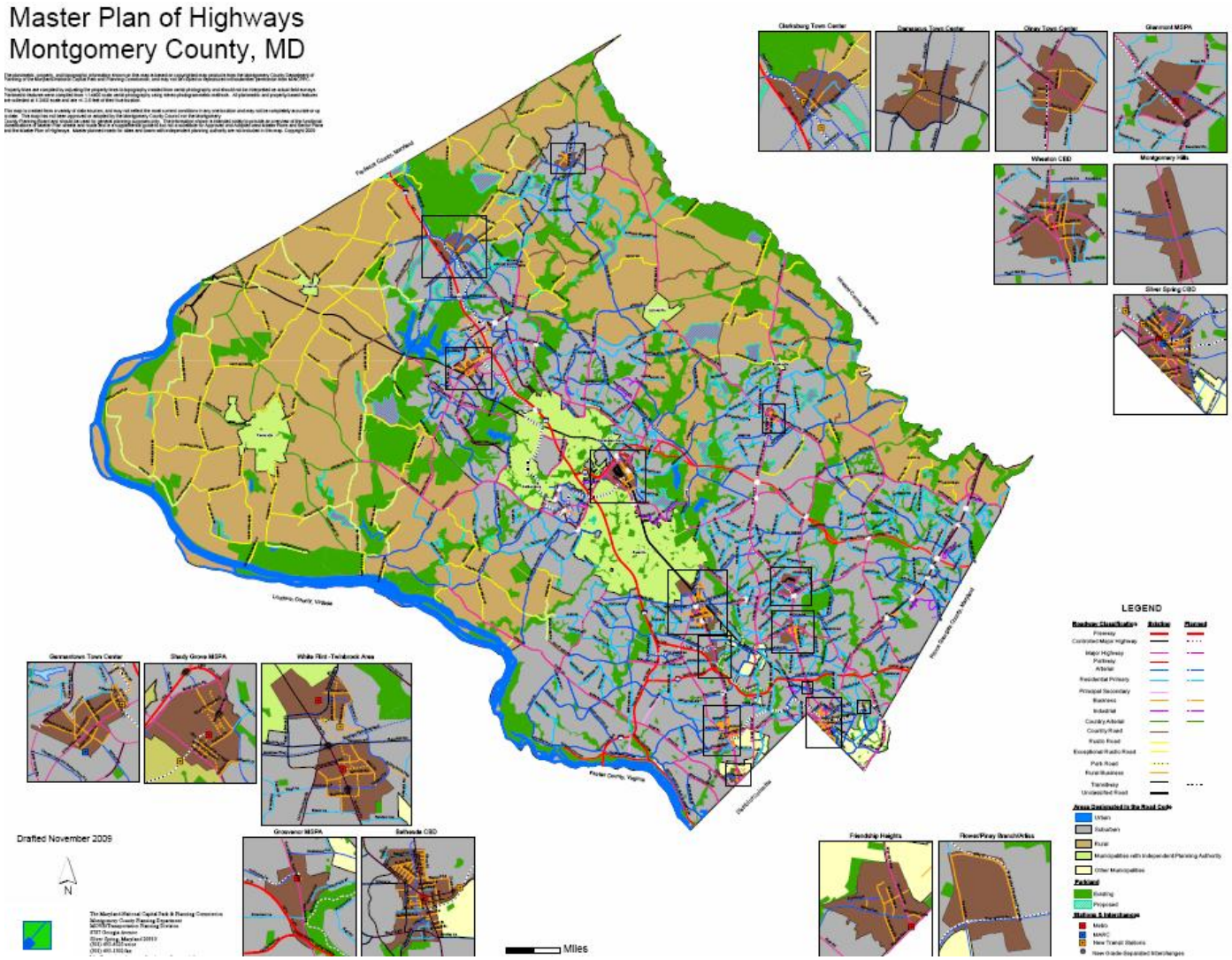
Conclusions

Revisions to Planning Board Draft

- Add a Map 18 to coincide with Table 18

Revisions to Planning Board Draft

- Replace the representative master plan of highways map with a more current (also representative) map