

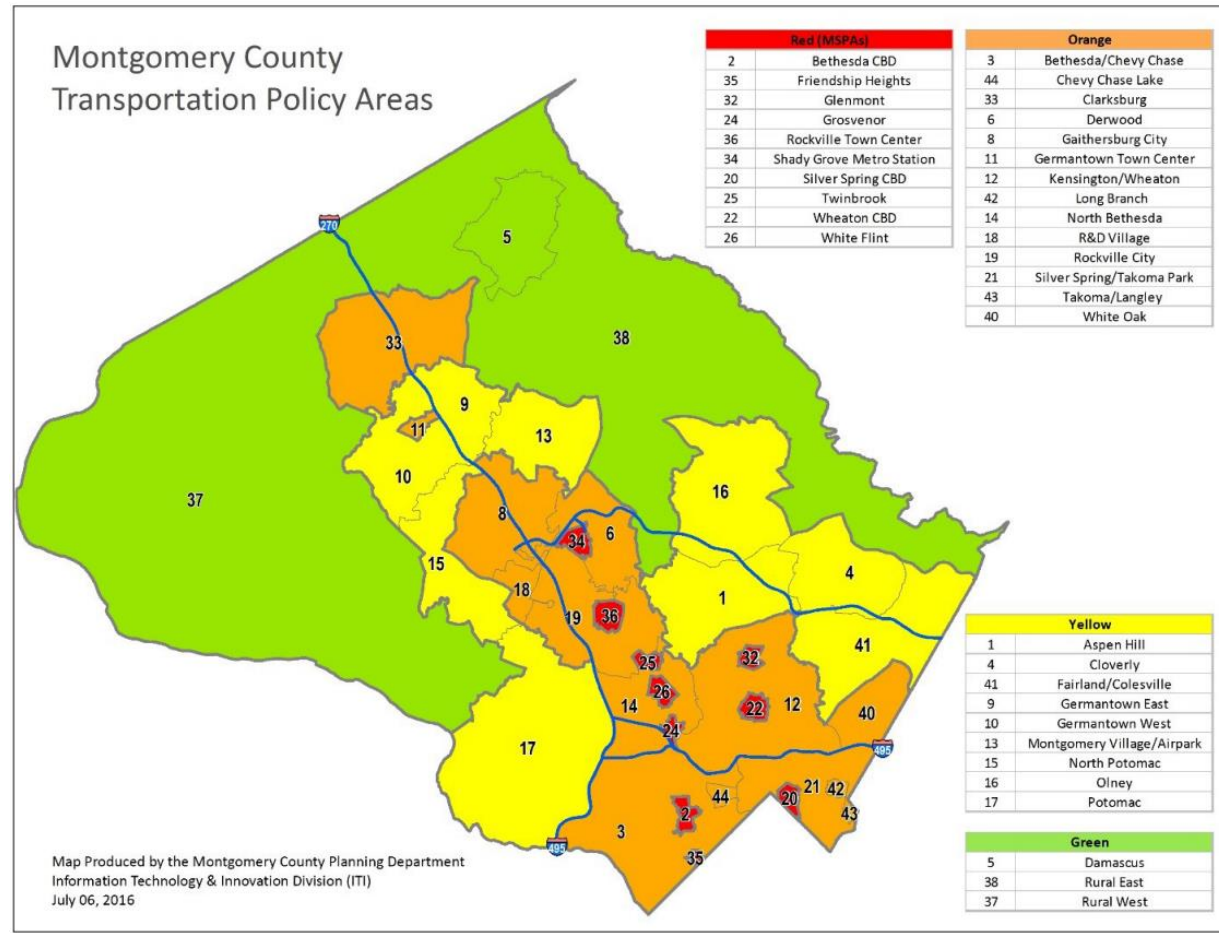
Montgomery County *Department of Transportation*

Bethesda Unified Mobility Program (BUMP)

Western Montgomery County
Citizens Advisory Board (WMCCAB)
June 17, 2019

What is the BUMP?

- Part of the Subdivision Staging Policy (SSP) for Red Policy Areas
- Included in the Bethesda Downtown Plan
- Modeled after the White Oak Local Area Transportation Improvement Program (LATIP)



<https://www.montgomerycountymd.gov/dot-dir/Resources/Files/LATR-WhitePaper.pdf>

But what *IS* it?

$$\frac{\text{Cost (\$\$\$)}}{\text{Traffic Generated (Trips)}} = \text{Fee (\$/trip)}$$

White Oak → $\frac{\$101,800,000}{20,324 \text{ trips}} = \$5010 / \text{trip}$

- Identification of necessary transportation infrastructure for...
 - SSP adequacy
 - A successful master plan
- Estimating costs for this infrastructure
- Allocating these costs equitably across future development
- A per-unit fee paid by new development
- Handled like Impact Tax
- Stays local; goes into a lockbox specifically for that UMP

Why?

- **Coordination**
- Equity
- Transparency
- Time & Fiscal Savings

Coordination

The scattered nature of development in an area can result in a number of uncoordinated transportation projects being pursued by various developers.

The UMP performs a unified analysis to identify all treatments required across the policy area. Implementation is at the behest of public agencies, coordinated by Council-appropriated funds and each project managed by either County or State transportation agencies.

Why?

- Coordination
- **Equity**
- Transparency
- Time & Fiscal Savings

Equity

Intersections tend to have some degree of excess capacity before they are considered to be failing and in need of treatment. The first developers to proceed with project approvals will tend to have first claim over this capacity, and later developers tend to be the projects left to mitigate impacts.

As new master plans potentially free up new capacity by relaxing congestion thresholds, it is the larger and more organized developments which will tend to be more able to proceed quickly.

With little transportation capacity remaining, smaller developments may be left with disproportionate mitigation needs (building a new lane can serve several hundred new vehicles, but the constructing developer may only need to mitigate a dozen vehicles).

UMPs are intended for each developer pays for its share of the cost of the improvements.

Why?

- Coordination
- Equity
- **Transparency**
- Time & Fiscal Savings

Transparency

A comprehensive analysis offers the potential for greater public awareness of what mitigating treatments are proposed for an area.

While each new development goes through a public process before the Planning Board, public awareness may tend to be focused only on a few select developments of interest, and interested parties may not be cognizant of transportation treatments proposed elsewhere in an area.

The analysis associated with the UMP can potentially provide a more transparent and visible sole source of information for the public to weigh in, with potential projects being identified comprehensively before the County Council rather than piecemeal before the Planning Board.

Why?

- Coordination
- Equity
- Transparency
- Time & Fiscal Savings

Time & Fiscal Savings

The UMP can reduce the number of traffic analyses which must be performed. As most of these analyses do not necessitate any treatments, this saves resources both for the private and public sectors.

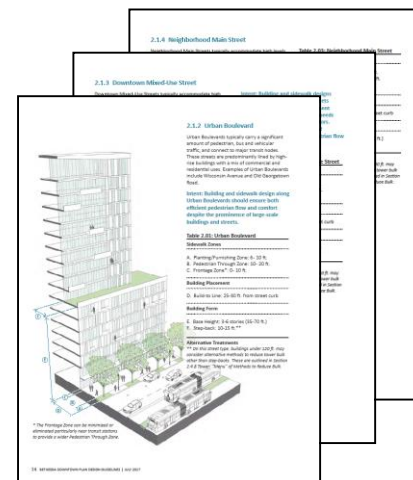
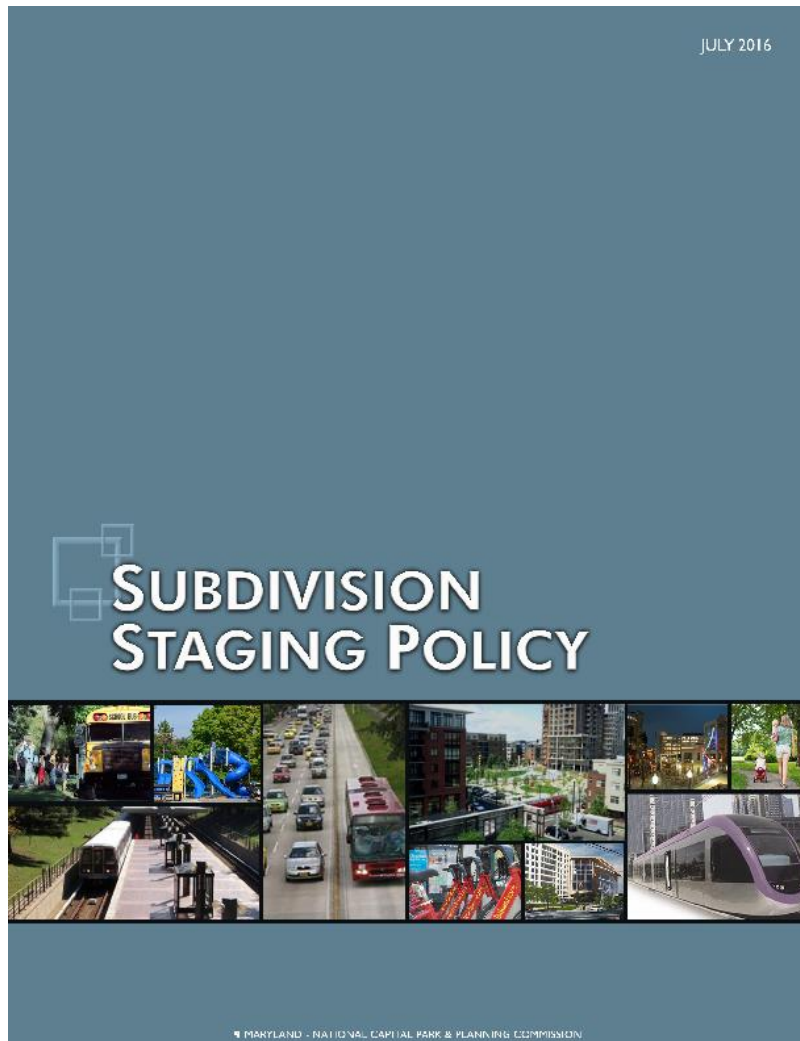
This relieves developers of the need to perform intensive studies and public officials of the resources spent reviewing them, which can often involve many months of back-and-forth comments & revisions.

The centralized analysis is itself a significant undertaking, but the consolidated analysis can provide a fiscal and time savings to all parties.

The “pay and go” approach significantly reduces risk to new development by providing a clear one-time payment for an applicant, serving to streamline the development review process.

Identifying Necessary Infrastructure

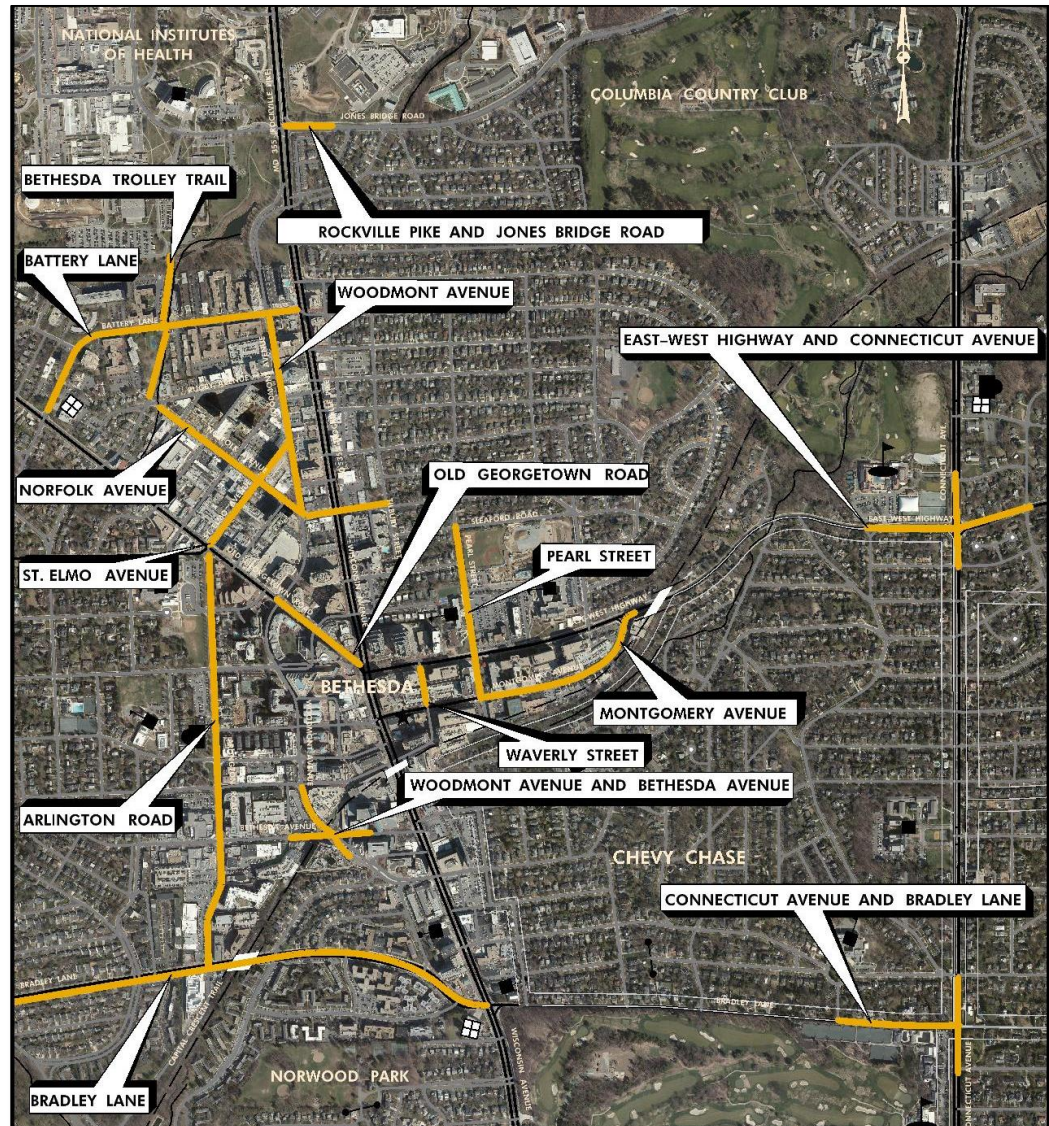
- Master Plan CIP
- Master Plan Goals
- Transportation Analysis



Project	Location	Project Type	Project Status	Project Description	Project Cost	Project Funding Source	Project Completion Date
MD 202 Corridor Study	MD 202 Corridor	Study	Completed	Study of MD 202 Corridor from I-495 to I-270	\$1,000,000	MDOT	2015
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So what's in the BUMP?

- Intersections
- ADA Upgrades
- Bikeways
- Transit



Intersections

ADA Upgrades

Bikeways

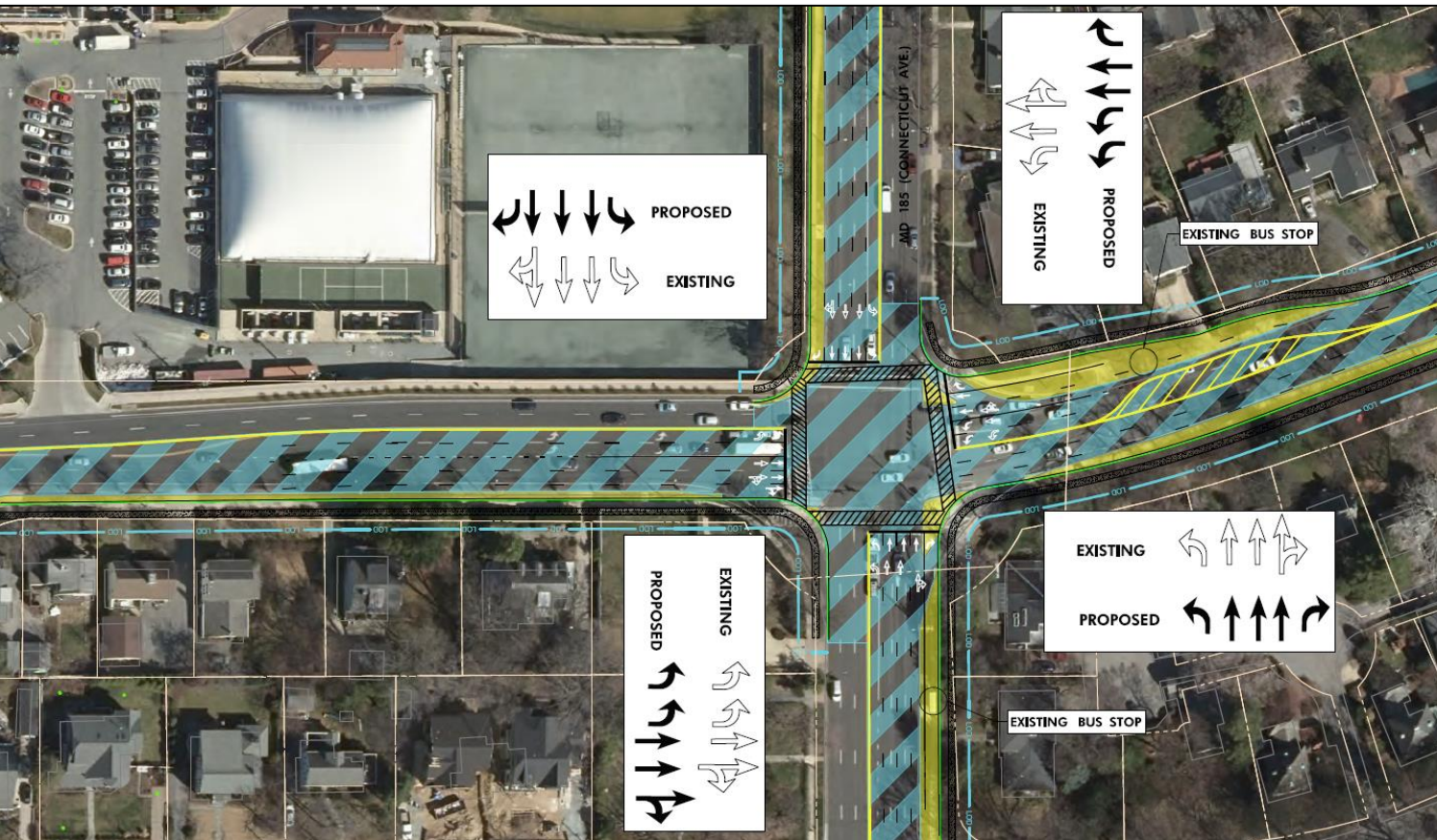
Transit

Intersections

MD 185 (Connecticut Ave) at MD 410 (East-West Hwy) **\$4,137,400**

MD 185 (Connecticut Ave) at MD 191 (Bradley Lane) **\$4,429,100**

MD 355 (Rockville Pike) at Jones Bridge Rd **\$517,700**



Delay:
78.8 s/veh*

SSP Limit:
80.0 s/veh

* s/veh = seconds per vehicle

Intersections

ADA Upgrades

Bikeways

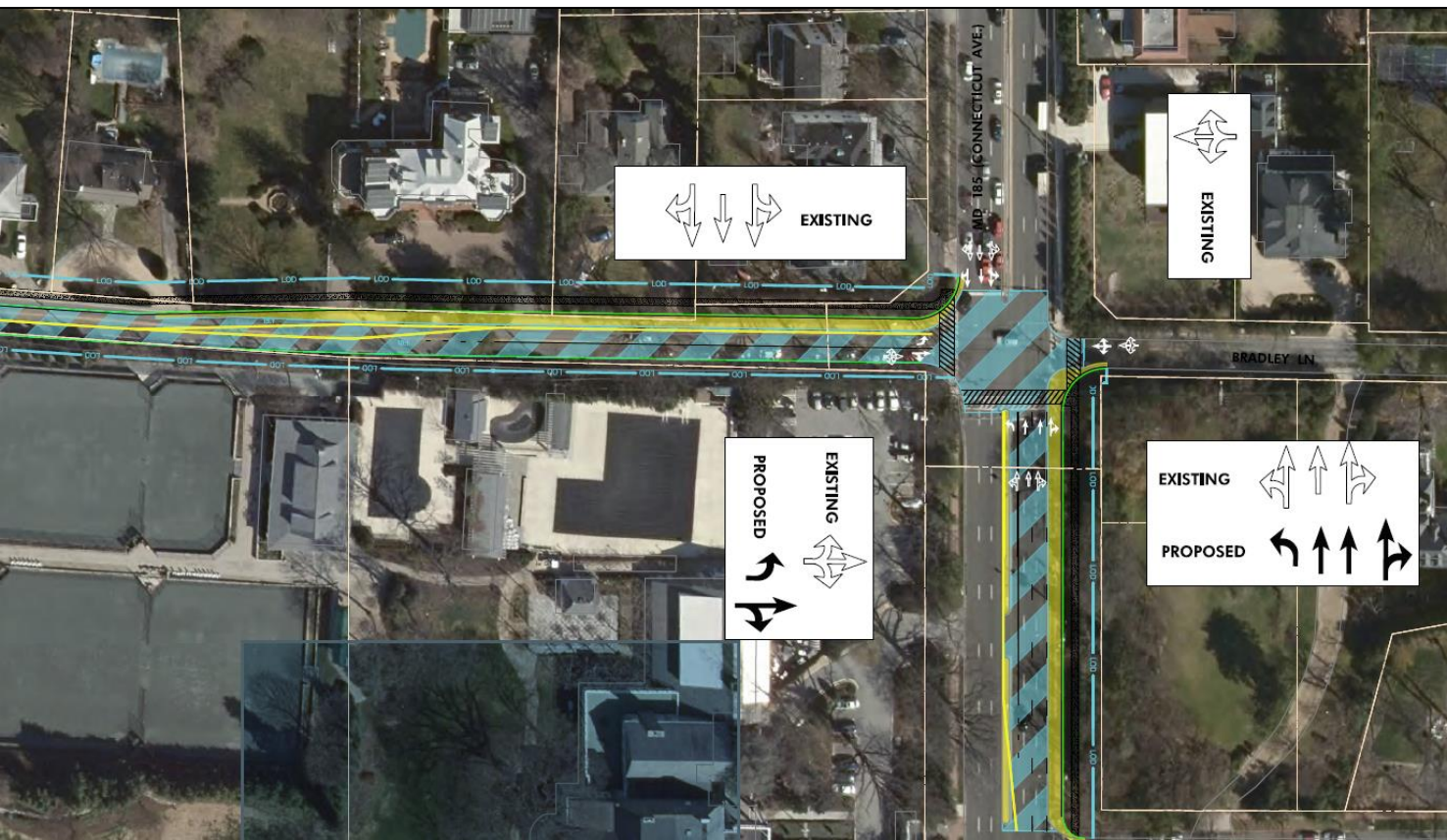
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MD 185 (Connecticut Ave) at MD 191 (Bradley Lane) \$4,429,100

MD 355 (Rockville Pike) at Jones Bridge Rd **\$517,700**



Delay:
52.9 s/veh

SSP Limit:
80.0 s/veh

Intersections

ADA Upgrades

Bikeways

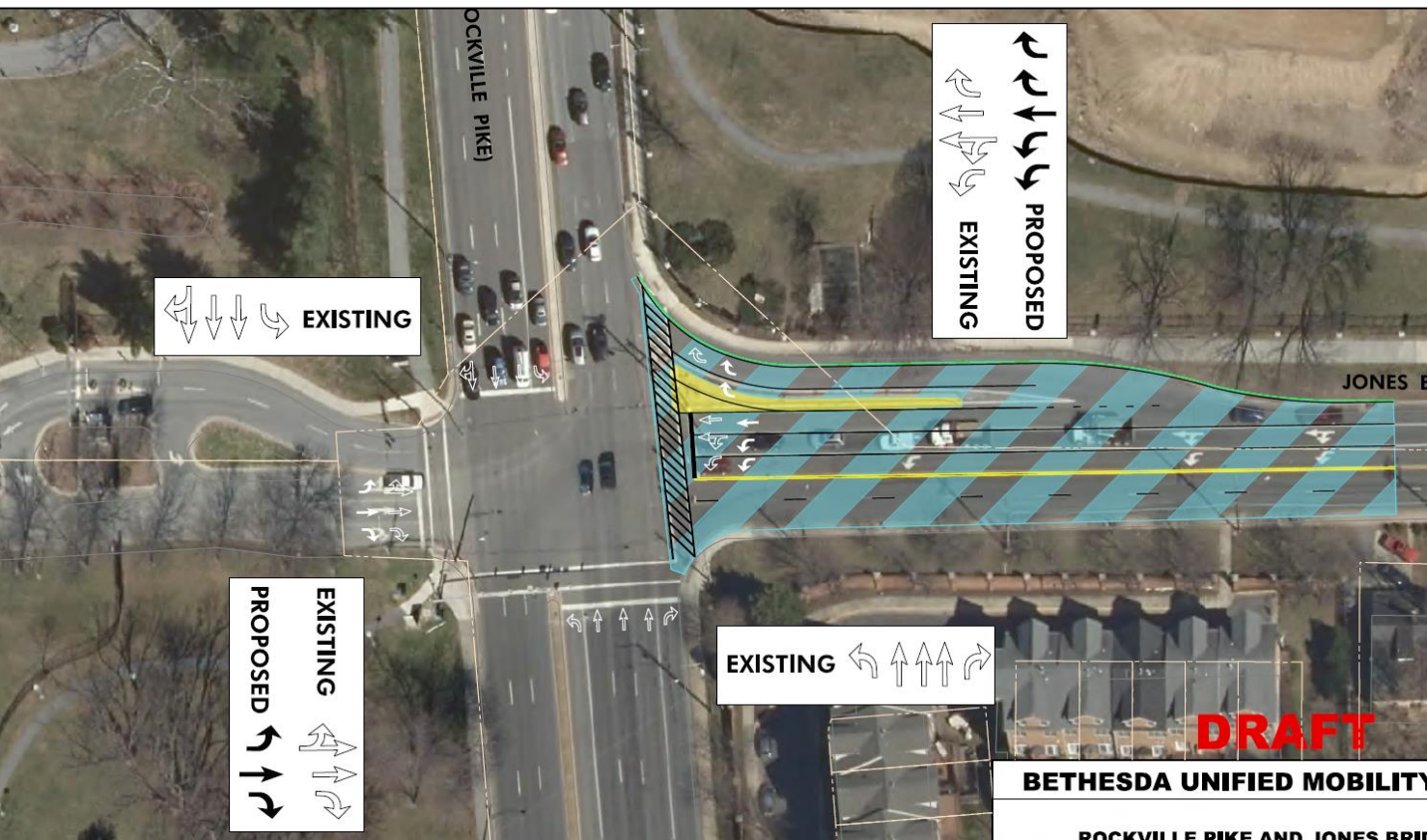
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MD 185 (Connecticut Ave) at MD 191 (Bradley Lane) **\$4,429,100**

MD 355 (Rockville Pike) at Jones Bridge Rd **\$517,700**



Delay:
77.5 s/veh

SSP Limit:
80.0 s/veh

Intersections

ADA Upgrades

Bikeways

Transit

ADA Upgrades

- \$14 per Linear Foot
- 55,000 Linear Feet
- \$770,000 for ADA facilities



Under consideration is whether this may be a separate fee, assessed based on how many LF of sidewalk are within 500 ft from site frontage.

Intersections
ADA Upgrades
Bikeways
Transit

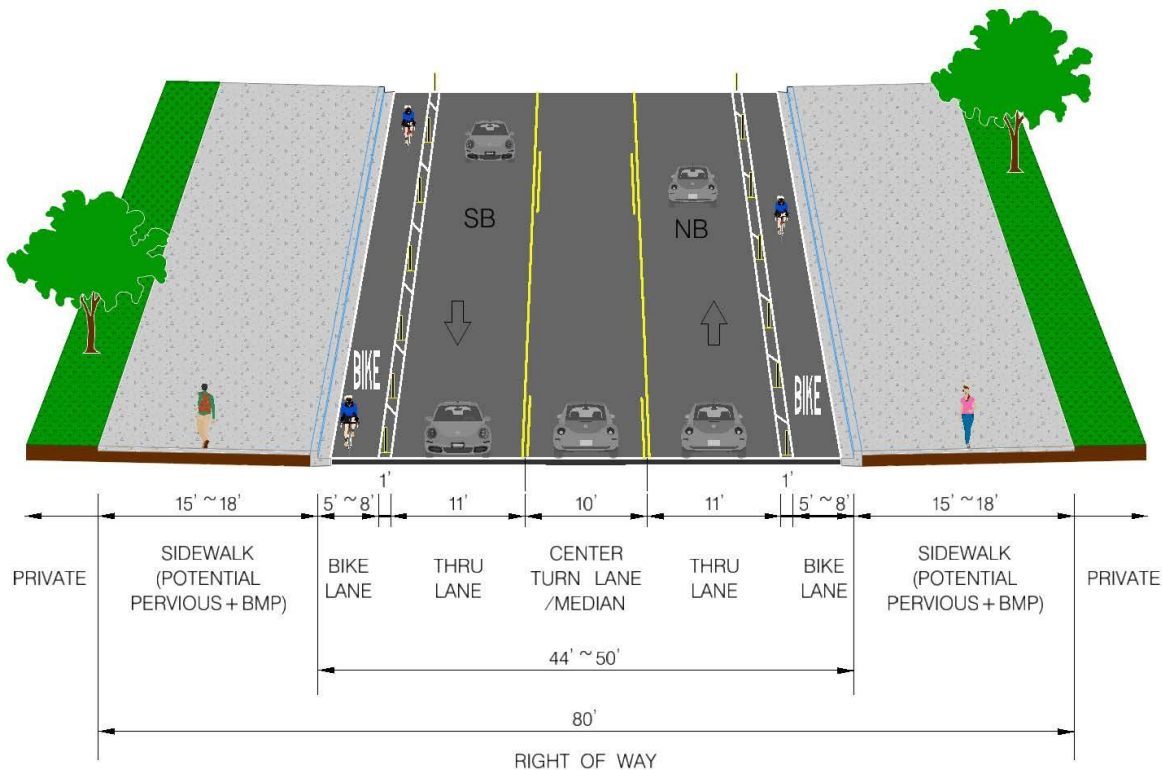
Bikeways

Arlington from Old Georgetown to Bradley	\$1,920,900
Battery from Old Georgetown to Wisconsin	\$441,300
Bethesda / Willow from Woodmont to 47 th	\$1,449,000
Bradley / Capital Crescent Trail Connection	\$2,307,800
Bradley from Glenbrook to Wisconsin	\$5,694,200
Montgomery from Woodmont to East-West	\$1,242,000
Norfolk / Cheltenham from Battery to Tilbury	\$4,500,100
North Bethesda Trail between Rugby and NIH	\$2,029,400
Old Georgetown from Woodmont to Wisconsin	\$220,800
Pearl from Montgomery to Sleaford	\$3,002,200
St Elmo from Wilson to Woodmont	\$262,400
Waverly from East-West to Montgomery	\$50,000
Woodmont / Bethesda Intersection	\$1,121,300
Woodmont from Battery to Wisconsin	\$2,135,900

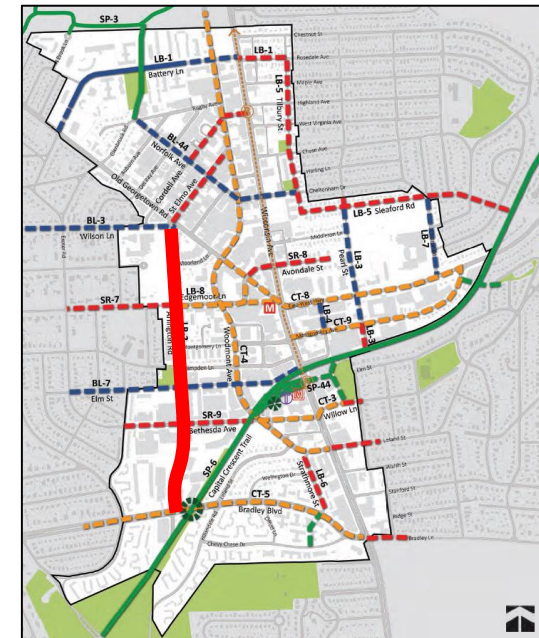


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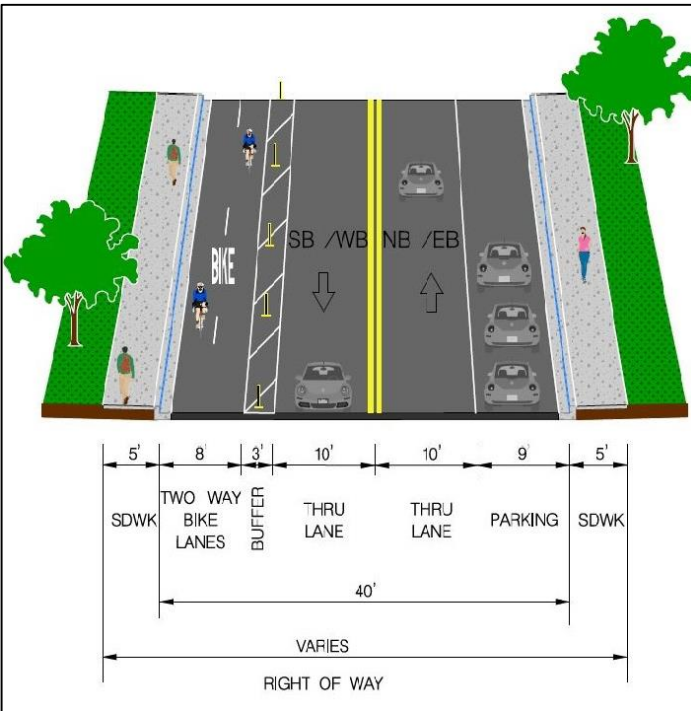


Arlington from Old Georgetown to Bradley

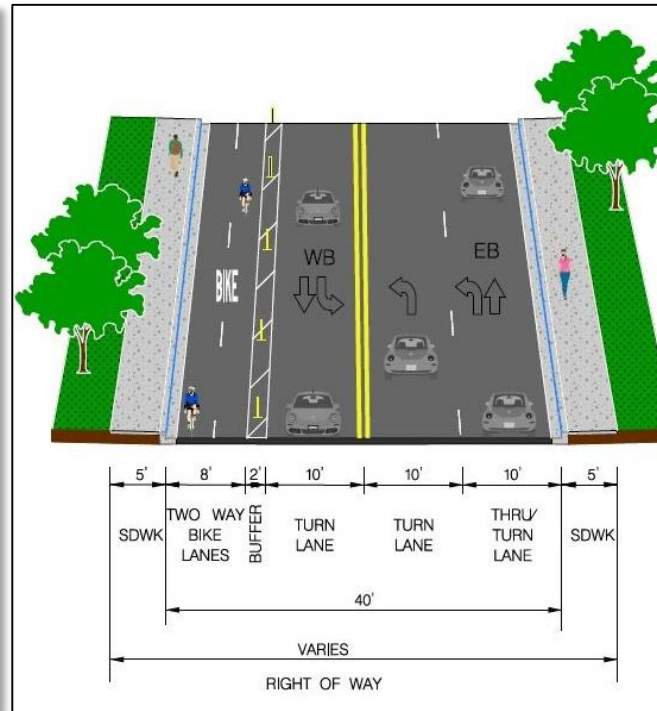
\$1,920,900

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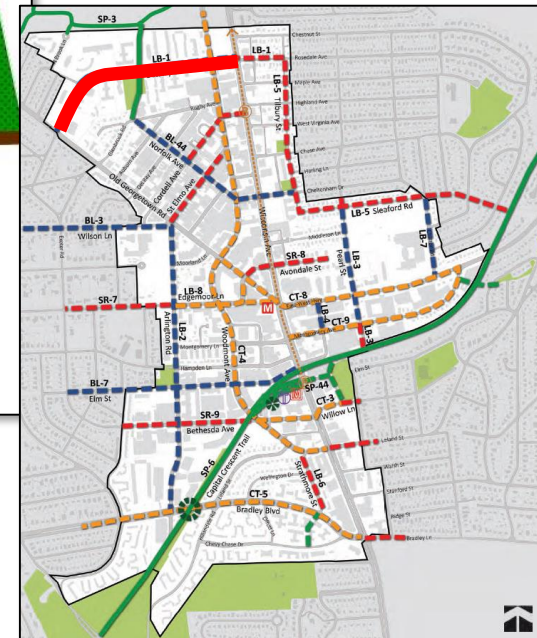


↑ Old Georgetown Rd
to Woodmont Ave↑



↑ Woodmont Ave
to Wisconsin Ave↑

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Battery from Old Georgetown to Wisconsin

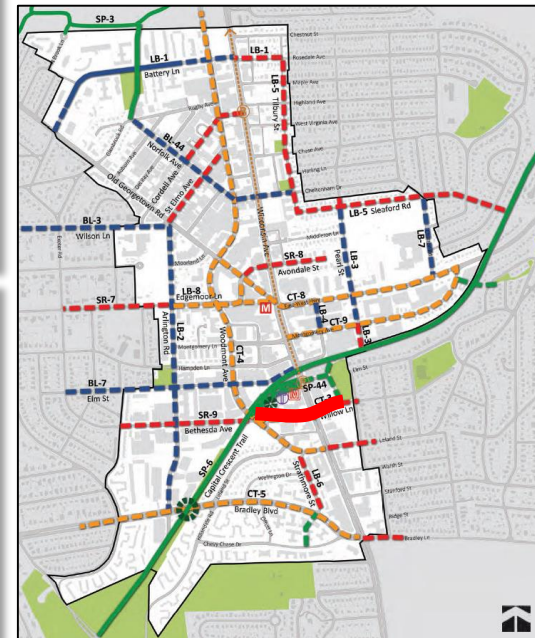
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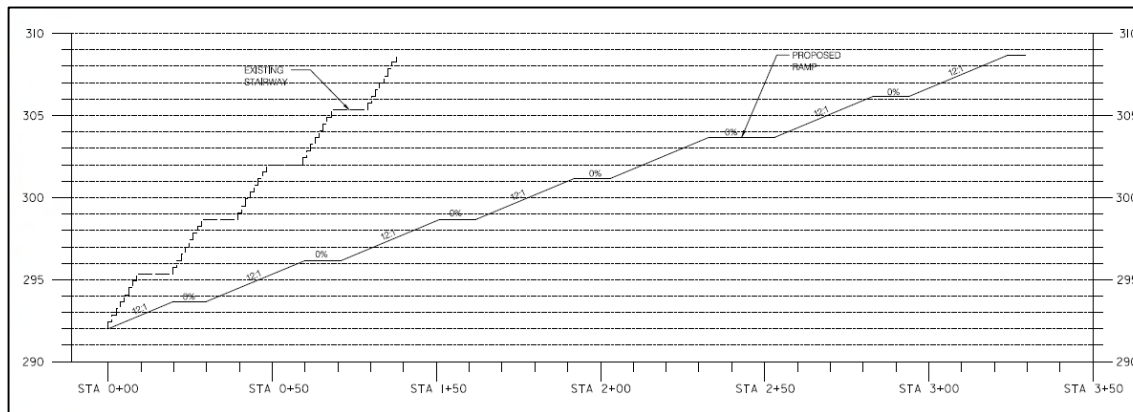


Bethesda / Willow from Woodmont to 47th **\$1,449,000**

<https://www.montgomerycountymd.gov/dot-dte/projects/bethesdabikewaypedfacilities/>

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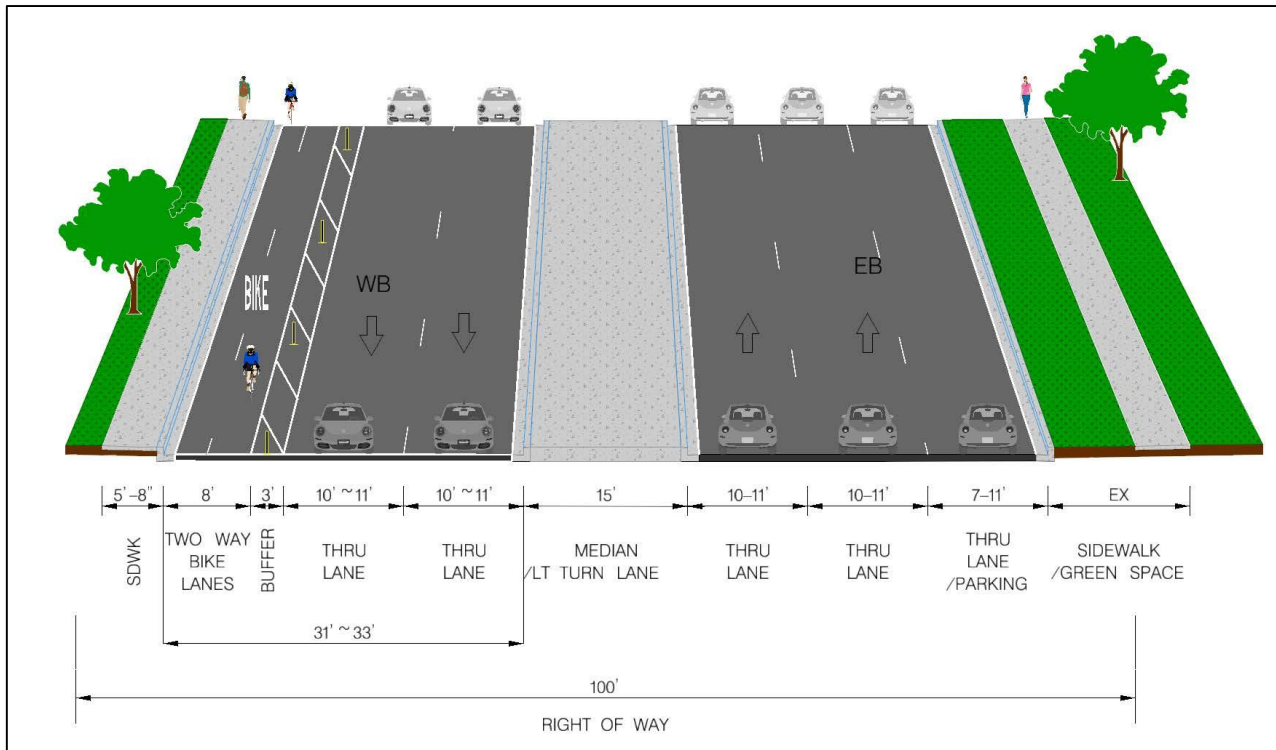


Bradley / Capital Crescent Trail Connection

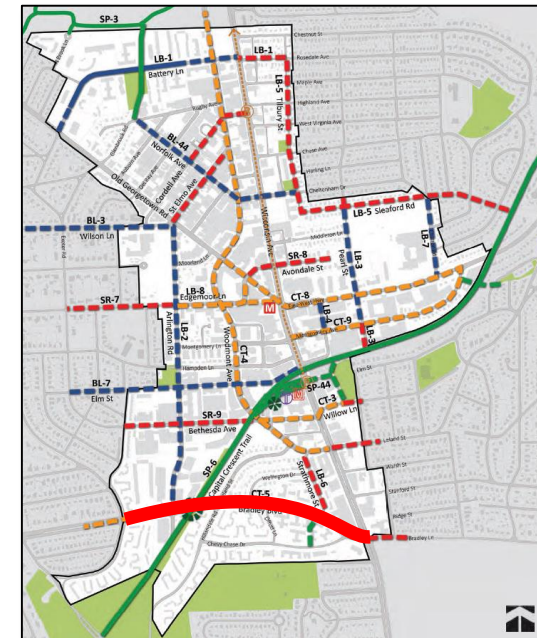
\$2,307,800

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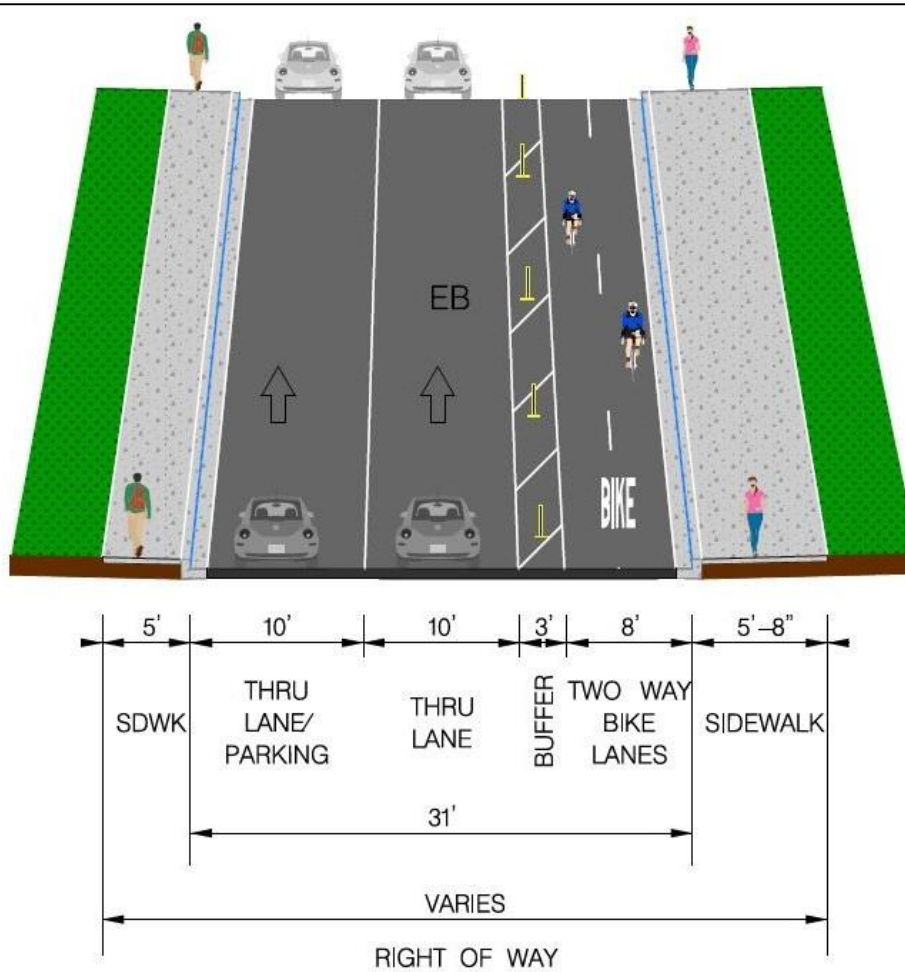


Bradley from Glenbrook to Wisconsin

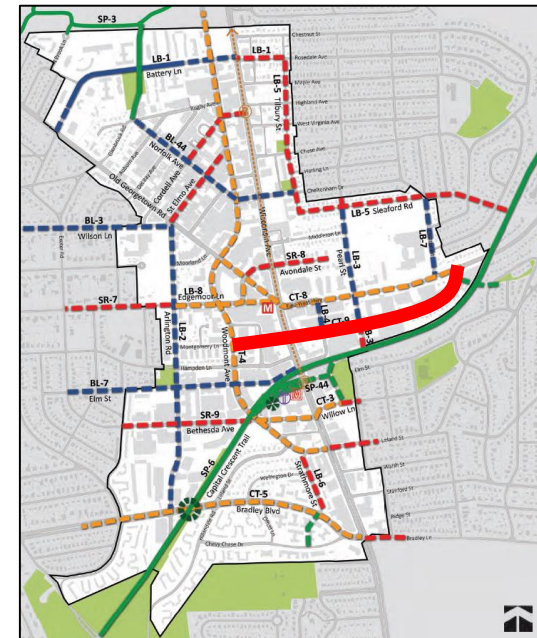
\$5,694,200

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Montgomery from Woodmont to East-West

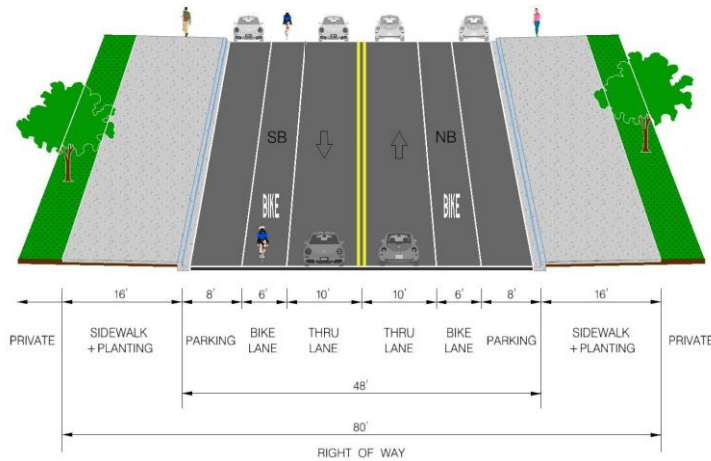
\$1,242,000

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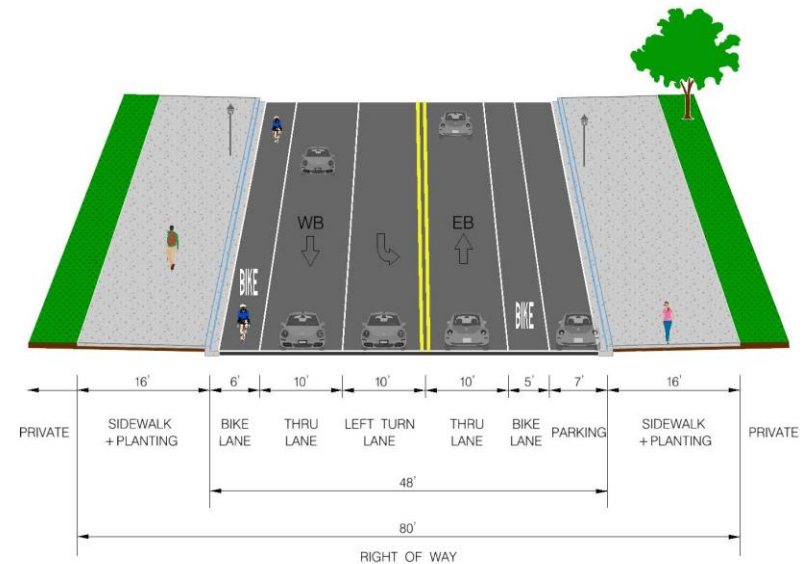
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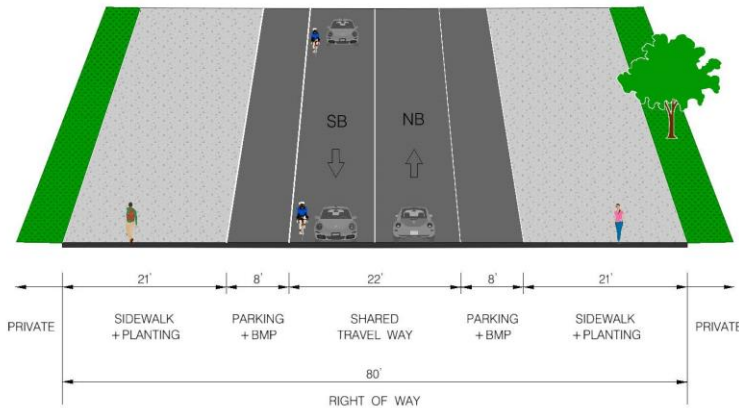
← Norfolk Short-Term



↓ Cheltenham Short-Term ↓



← Norfolk Long-Term

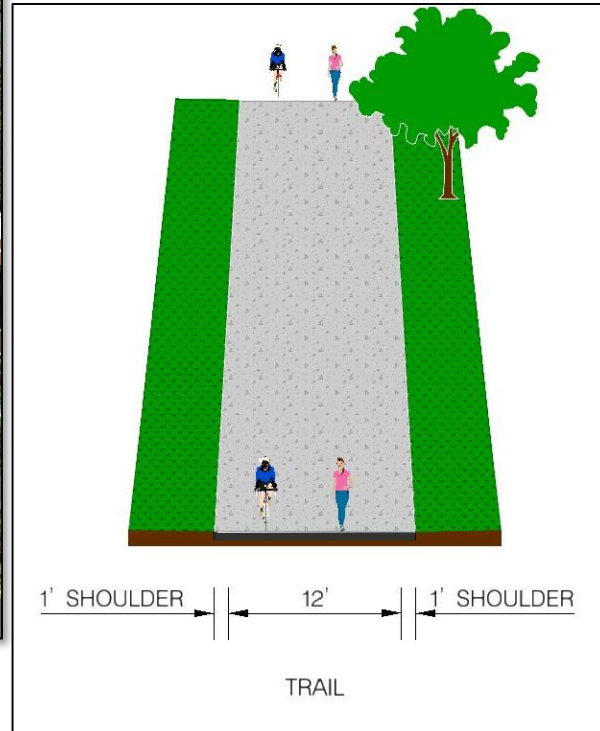
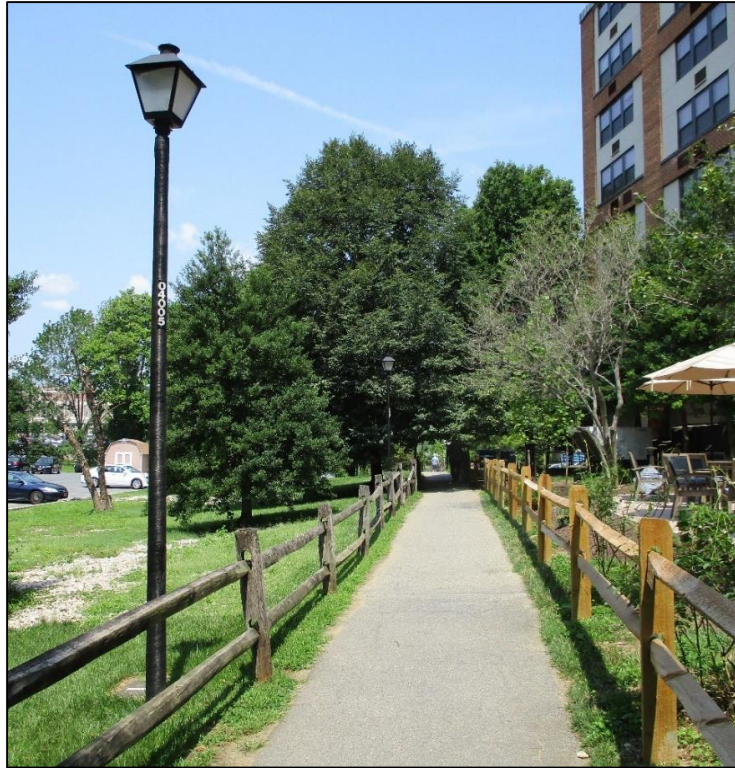


Norfolk / Cheltenham from Battery Lane Urban Park to Tilbury

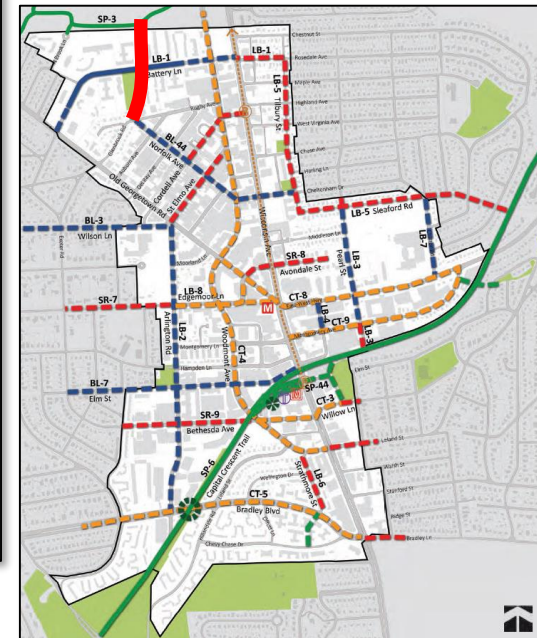
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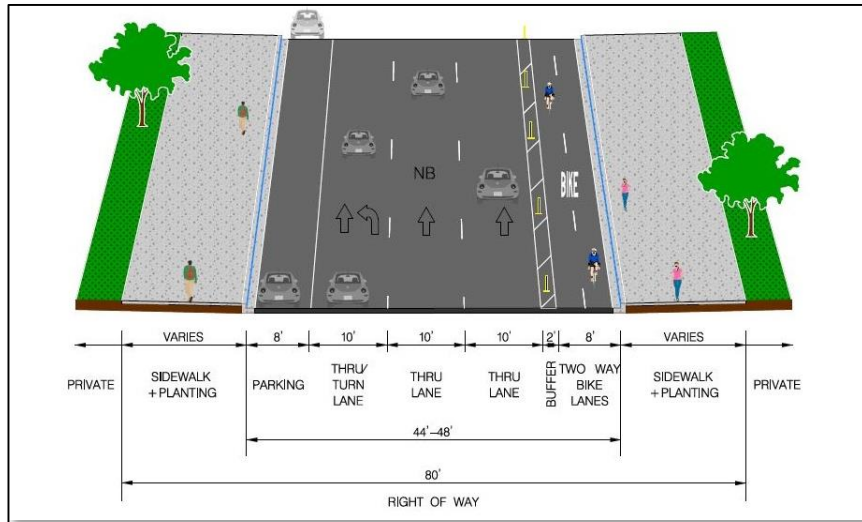


North Bethesda Trail between Rugby and NIH

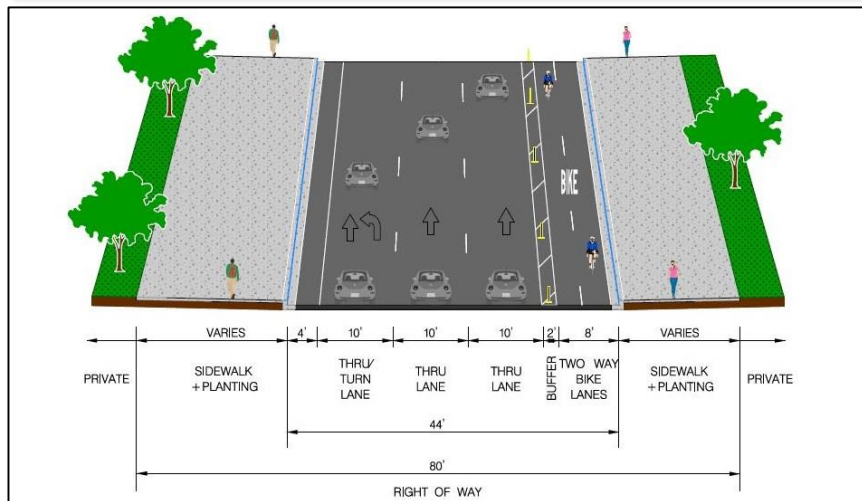
\$2,029,400

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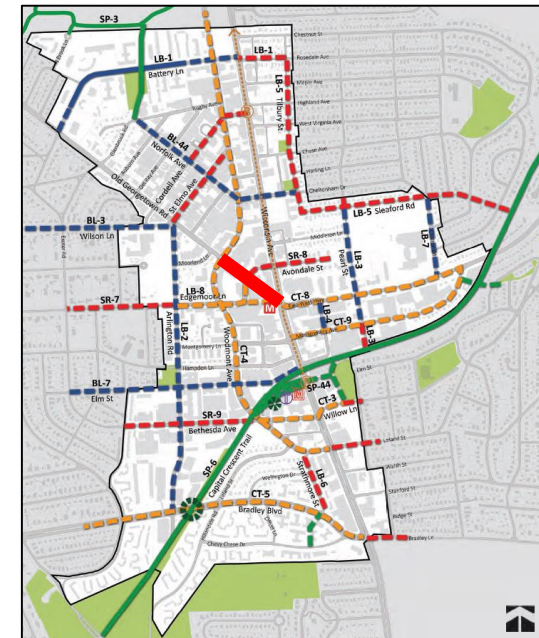


← Woodmont Ave
to Commerce Lane



← Commerce Lane
to Wisconsin Ave

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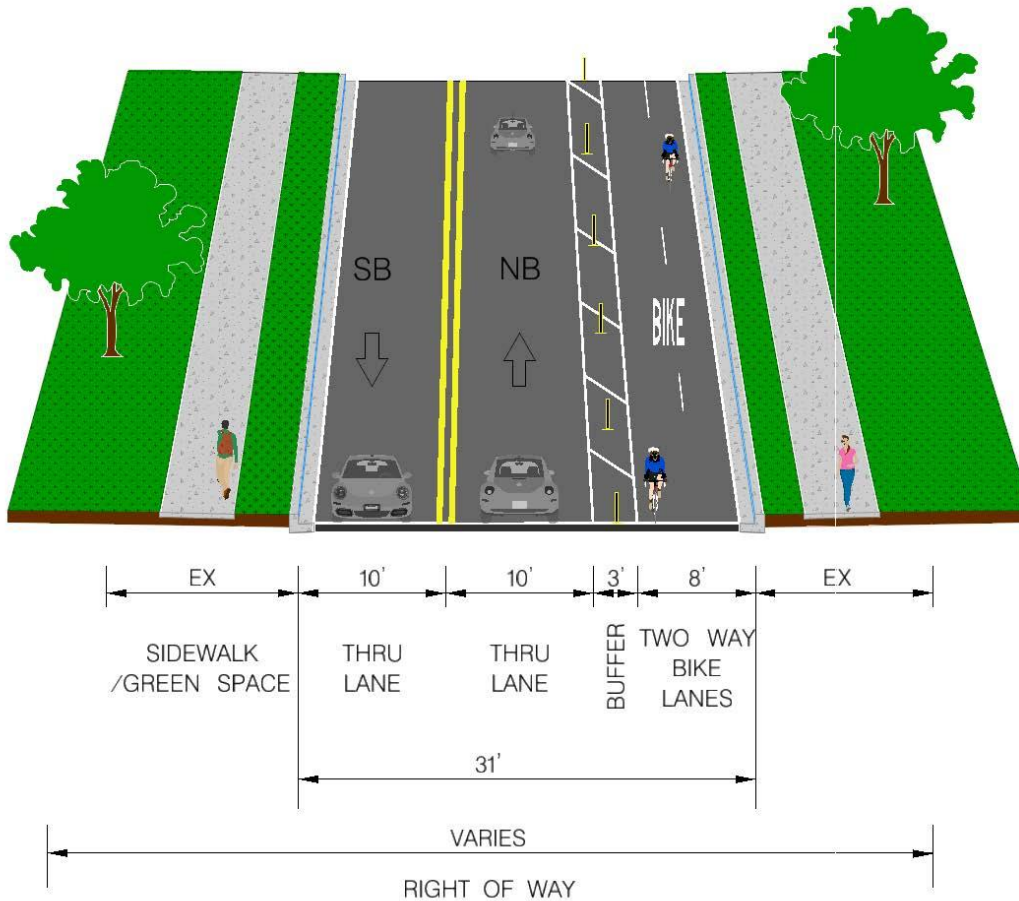


Old Georgetown from Woodmont to Wisconsin

\$220,800

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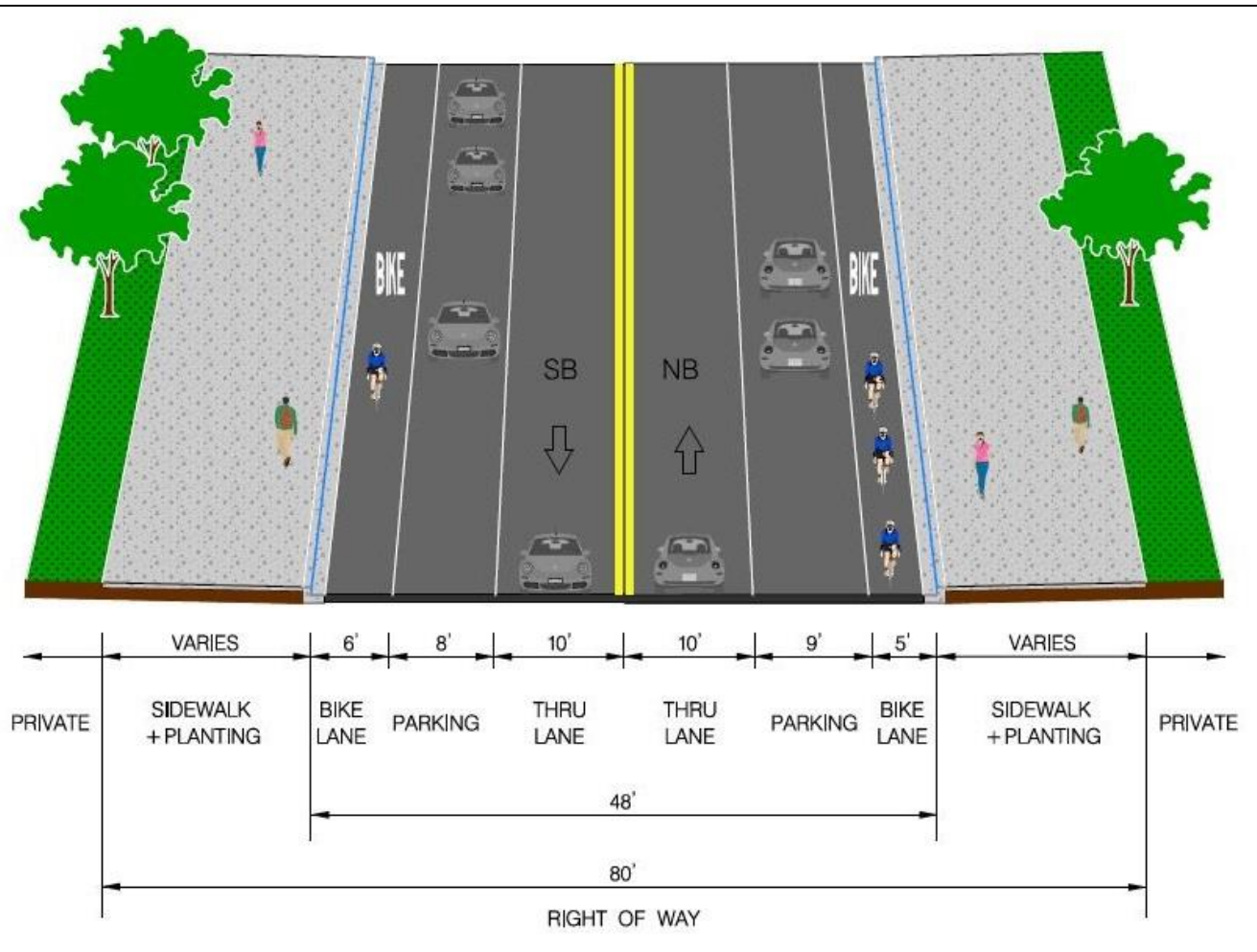


Pearl St from Montgomery to Sleaford

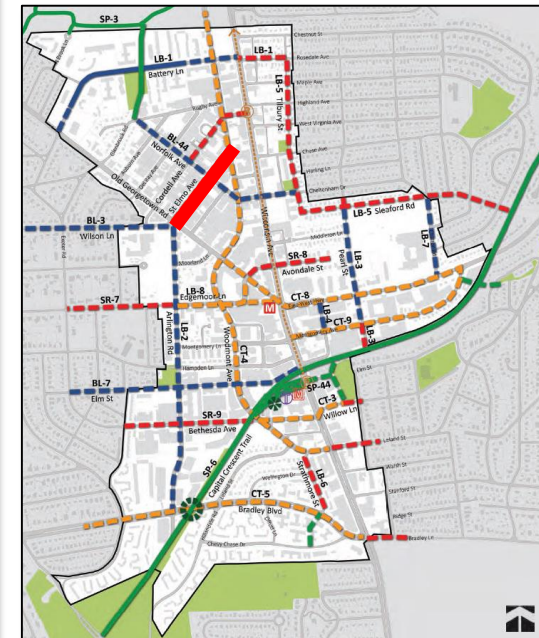
\$3,002,200

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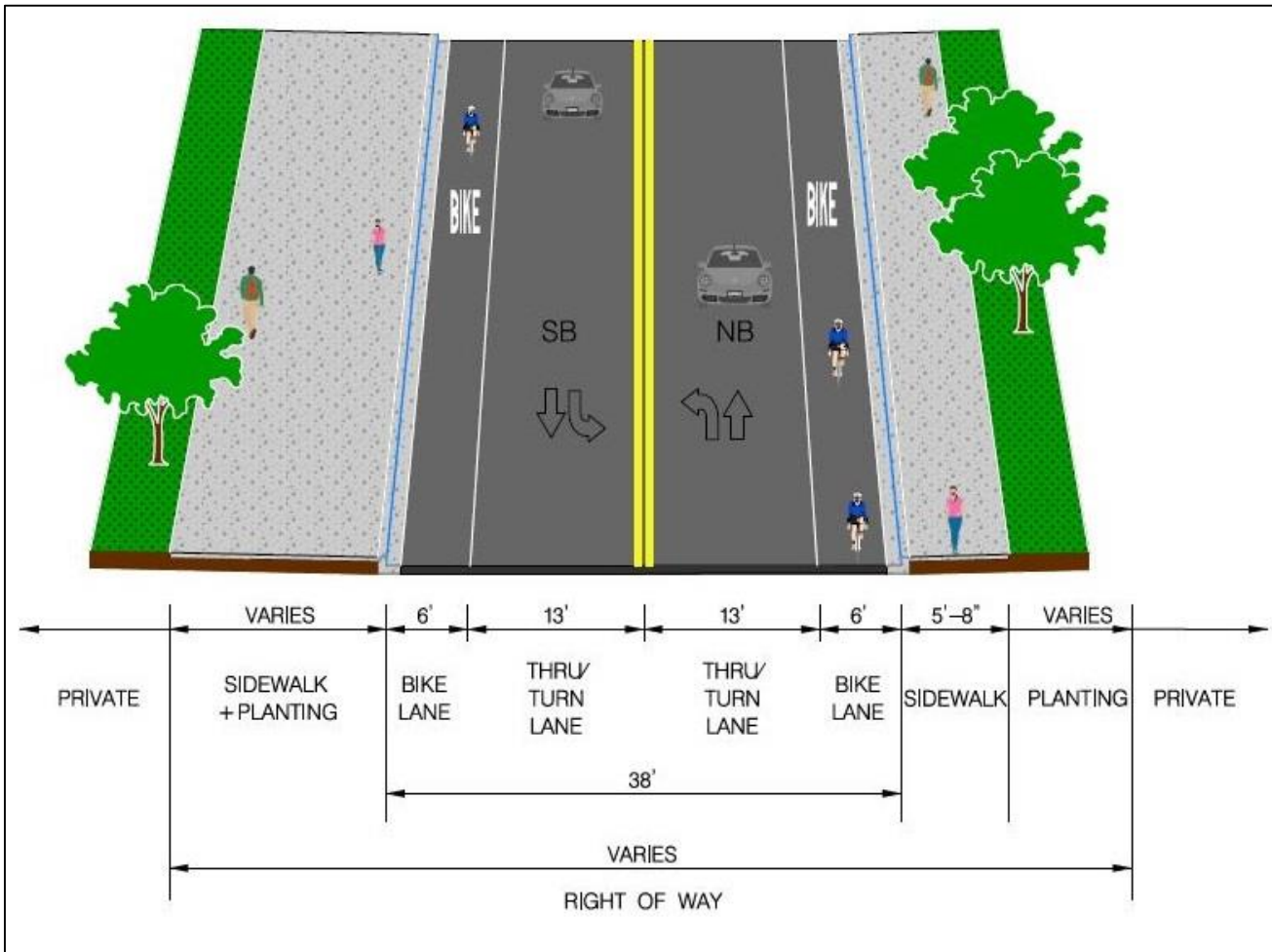


St Elmo Avenue from Wilson Lane to Woodmont Ave

\$262,400

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Waverly from East-West to Montgomery	\$50,000
Woodmont / Bethesda Intersection	\$1,121,300
Woodmont from Battery to Wisconsin	\$2,135,900

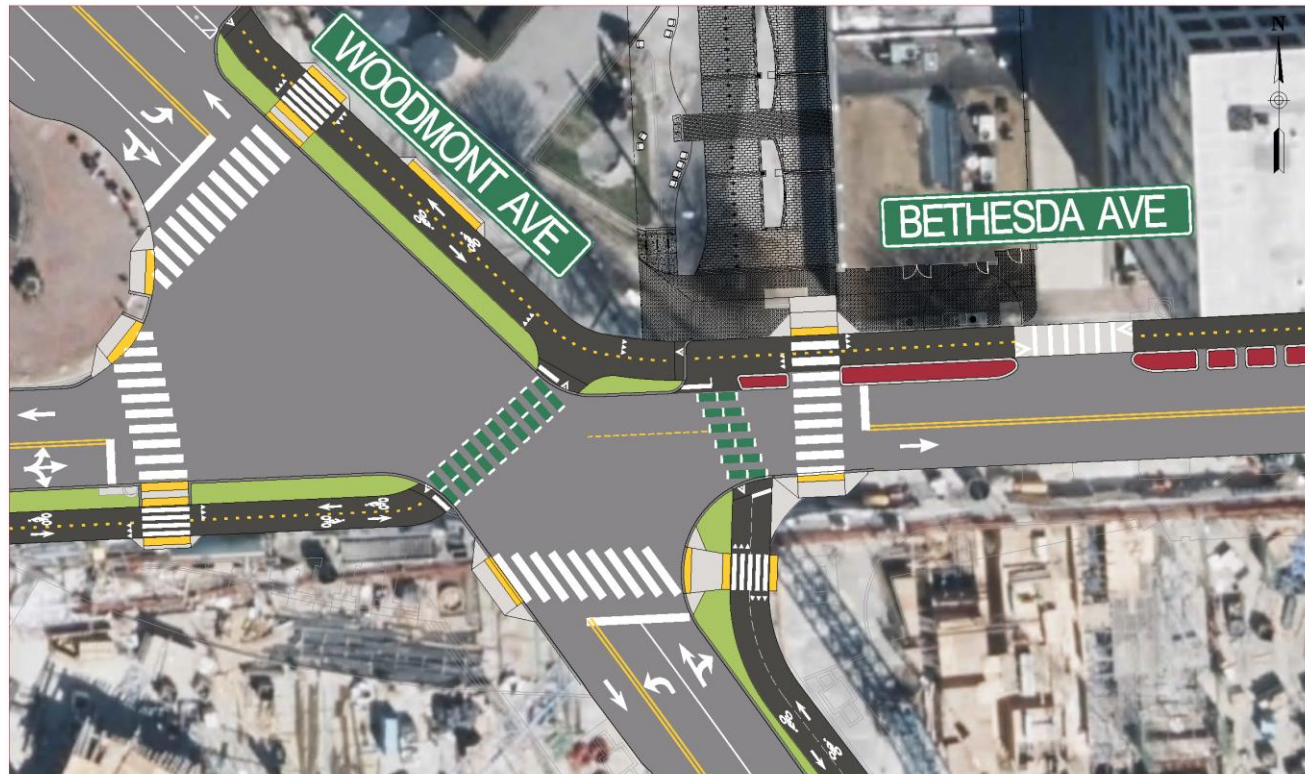


Waverly from East-West to Montgomery

\$50,000

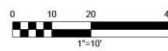
Intersections
ADA Upgrades
Bikeways
Transit

Bikeways



CAPITAL CRESCENT SURFACE TRAIL
Bethesda Avenue and Woodmont Avenue

NOT FOR CONSTRUCTION



MC DOT TOOLE
DESIGN
Montgomery County Department of Transportation

Arlington from Old Georgetown to Bradley	\$1,920,900
Battery from Old Georgetown to Wisconsin	\$441,300
Bethesda / Willow from Woodmont to 47 th	\$1,449,000
Bradley / Capital Crescent Trail Connection	\$2,307,800
Bradley from Glenbrook to Wisconsin	\$5,694,200
Montgomery from Woodmont to East-West	\$1,242,000
Norfolk / Cheltenham from Battery Lane Urban Park to Tilbury	\$4,500,100
North Bethesda Trail between Rugby and NIH	\$2,029,400
Old Georgetown from Woodmont to Wisconsin	\$220,800
Pearl from Montgomery to Sleaford	\$3,002,200
St. Elmo Avenue from Wilson Lane to Woodmont Ave	\$262,400
Waverly from East-West to Montgomery	\$50,000
Woodmont / Bethesda Intersection	\$1,121,300
Woodmont from Battery to Wisconsin	\$2,135,900



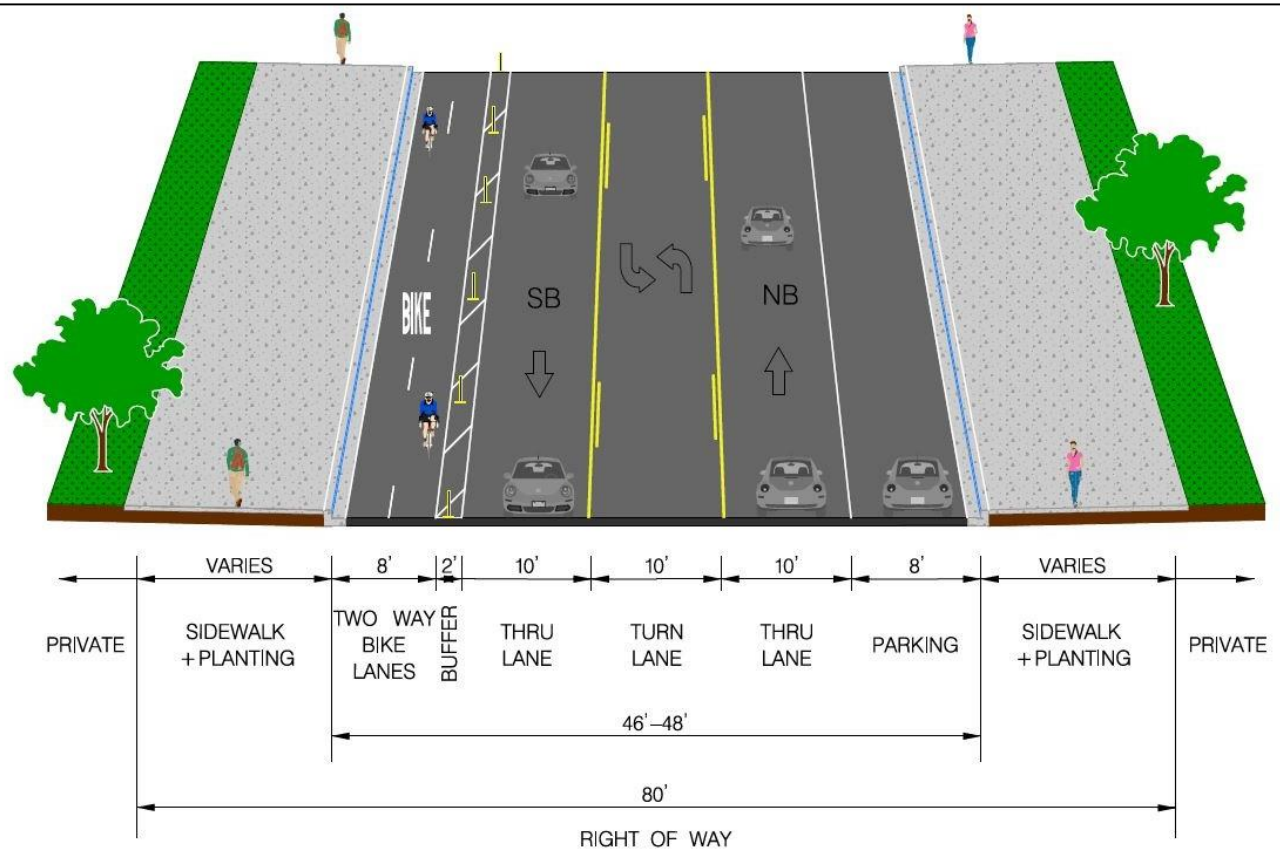
Woodmont / Bethesda Intersection **\$1,121,300**

<https://www.montgomerycountymd.gov/dot-dte/projects/bethesdabikewaypedfacilities/>

MC DOT
Montgomery County Department of Transportation

Intersections
ADA Upgrades
Bikeways
Transit

Bikeways



Arlington from Old Georgetown to Bradley	\$1,920,900
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Bradley / Capital Crescent Trail Connection	\$2,307,800
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Woodmont from Battery to Wisconsin

\$2,135,900

Transit

55% NADMS Goal

× 49,360 Total employment (2040)

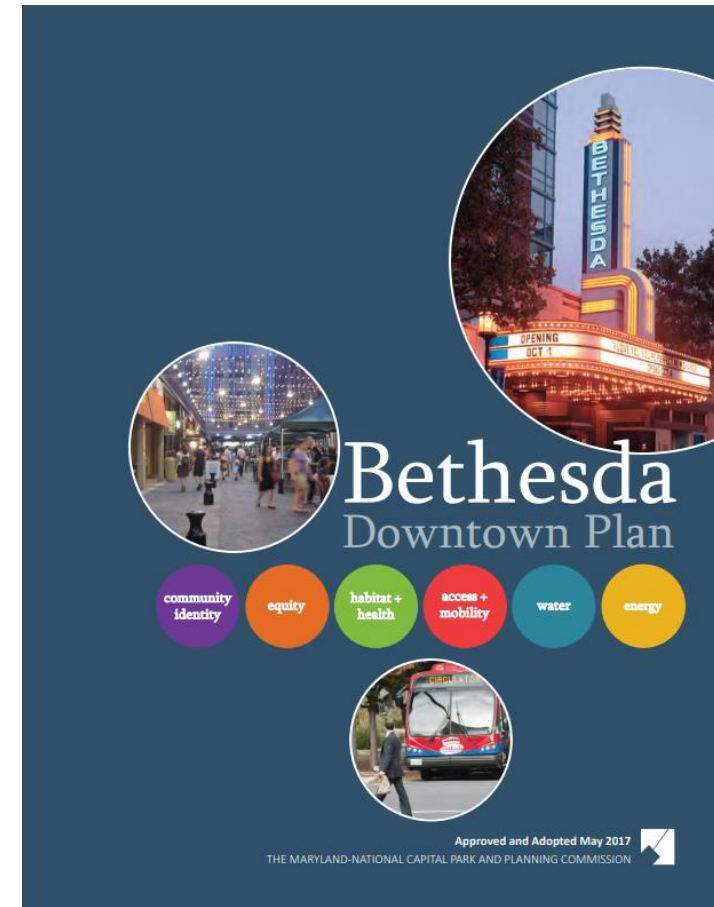
= 27,148 Non-Auto Commuters

27,148

- 20,241 No-Action NADMS

(37% + 4% from Purple Line)

= 6,907 Non-Auto Commuters to Mitigate (14%)



Transit

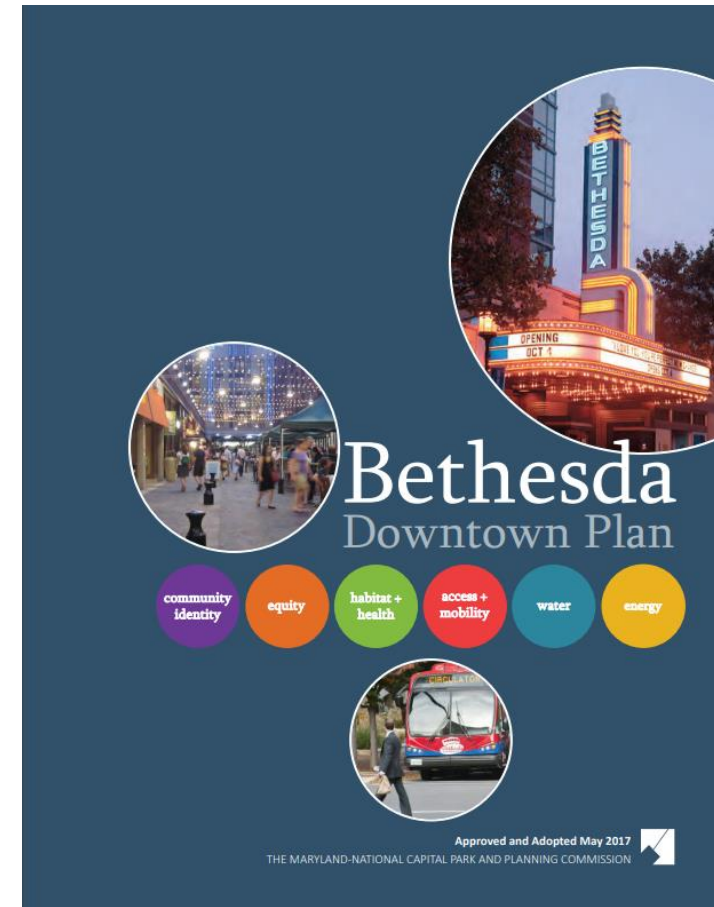
- 1,332 Telework increase from 7.3% to 10%
- 1,382 Walk increase from 3.2% to 6.0%
- 1,135 Bike increase from 0.7% to 3.0%
- 3,849 TDM & Local Infrastructure Increment

6,907 Non-Auto Commuters

- 3,849 TDM & Local Infrastructure Increment

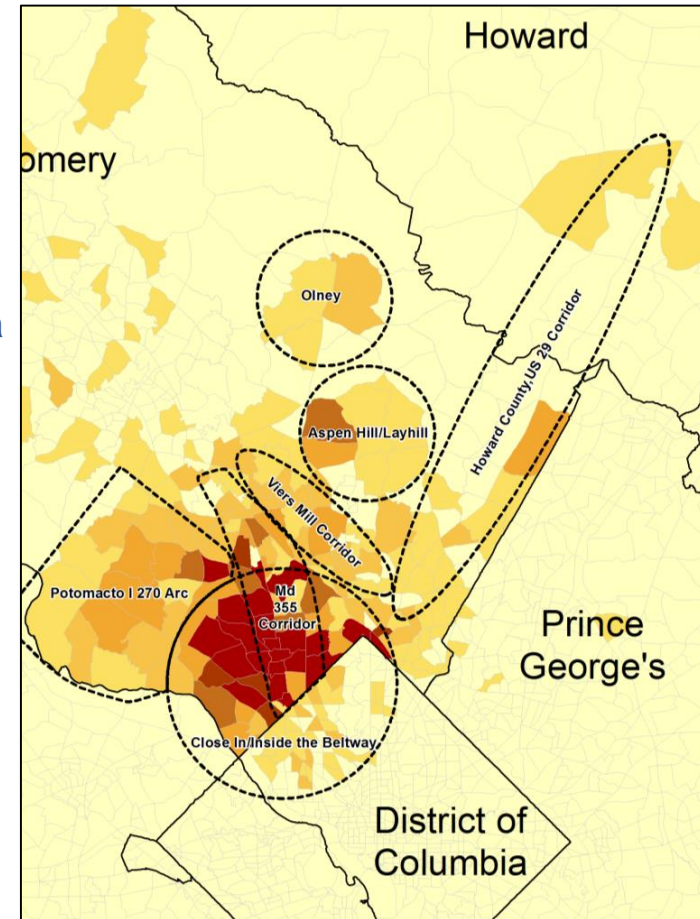
= 3,058 remaining employees

to be served by transit



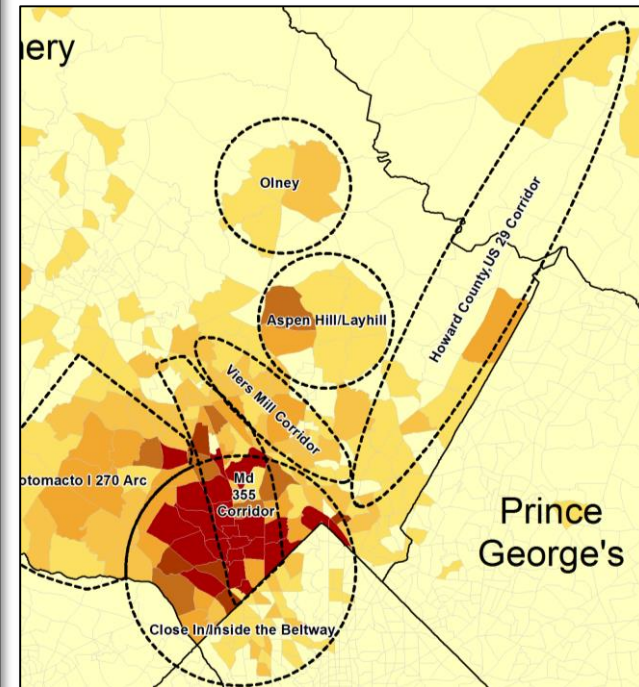
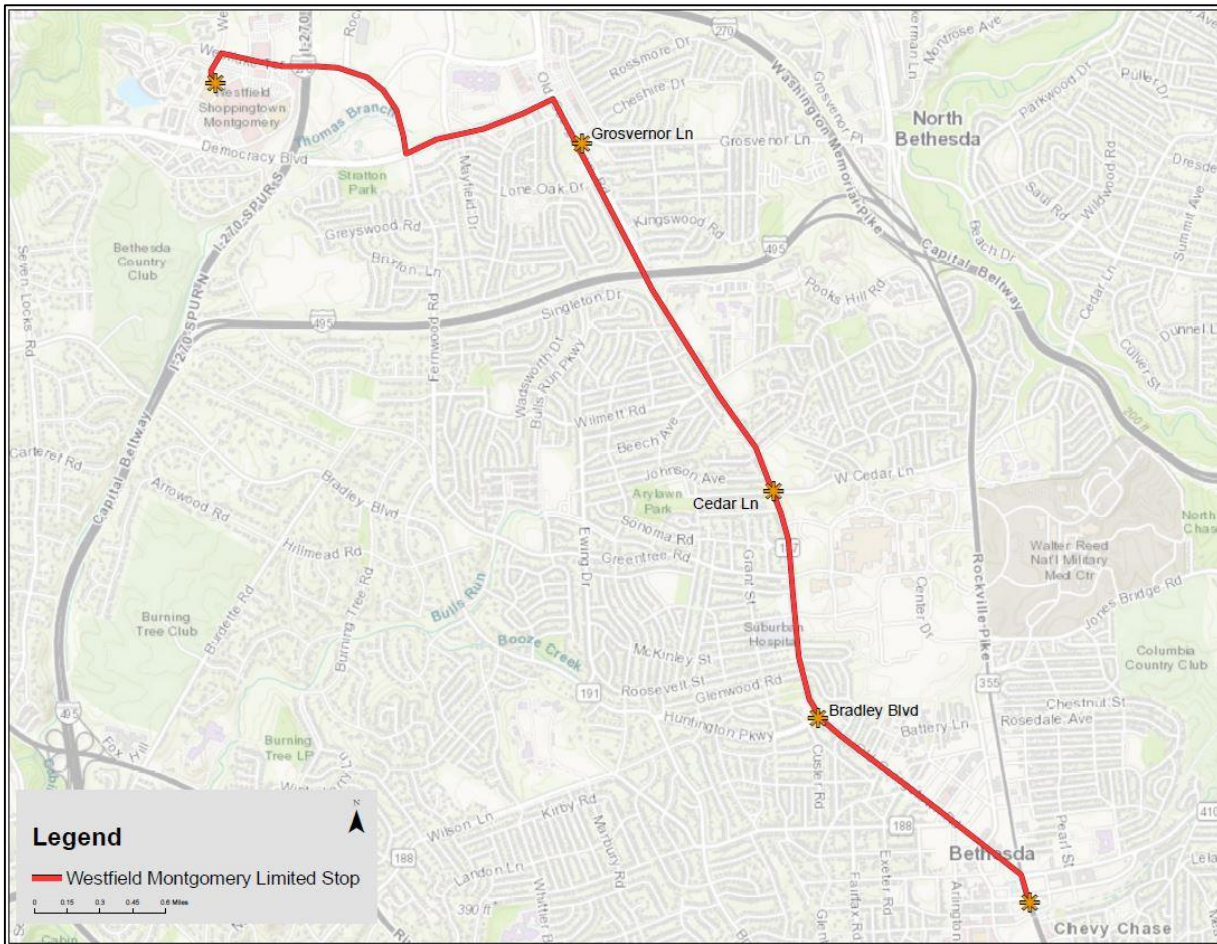
Transit

- 1,839 Rock Spring Park & Ride and Express Service
 - 1,536 Greater Bethesda Micro-Transit
 - 869 Extend 355 extRa to Bethesda & all-day service
 - 747 Layhill/Wheaton Express to White Flint Red Line
 - 530 Extend Metrobus 30 Routes from Friendship Hgts to Bethesda
 - 342 Howard County via US 29 FLASH Service to Purple Line
 - 264 Other Ride-On Improvements (29, 30, 32, 34, 36, 47)
 - 200 Olney / Aspen Hill Express to Shady Grove Red Line
 - 6,327 Total from New Transit Strategies
-
- Versus only 3,058 remaining commuters necessary to be served
 - Full implementation could achieve 62% NADMS



Transit

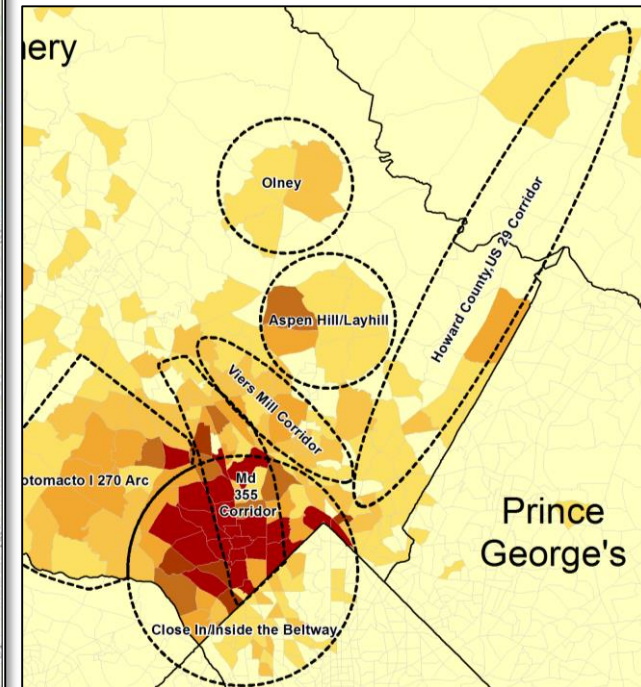
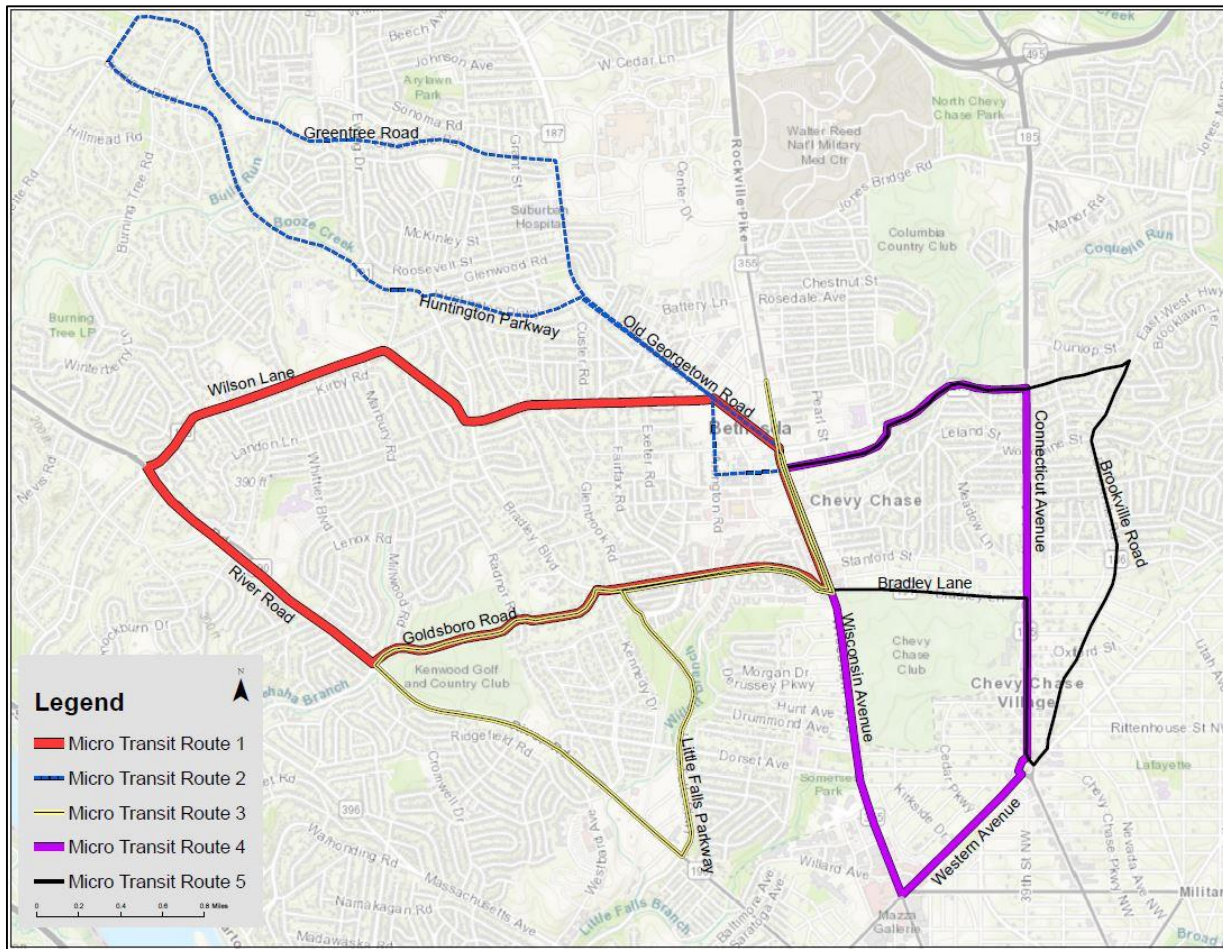
Rock Spring Park & Ride and Express Service	1,839
Greater Bethesda Micro-Transit	1,536
Extend 355 extRa to Bethesda & all-day service	869
Layhill/Wheaton Express to White Flint Red Line	747
Extend Metrobus 30 Routes from Friendship Hghts to Bethesda	530
Howard County via US 29 FLASH Service to Purple Line	342
Other Ride-On Improvements (29, 30, 32, 34, 36, 47)	264
Olney / Aspen Hill Express to Shady Grove Red Line	200



Rock Spring Park & Ride and Express Service 1,839

Transit

Rock Spring Park & Ride and Express Service	1,839
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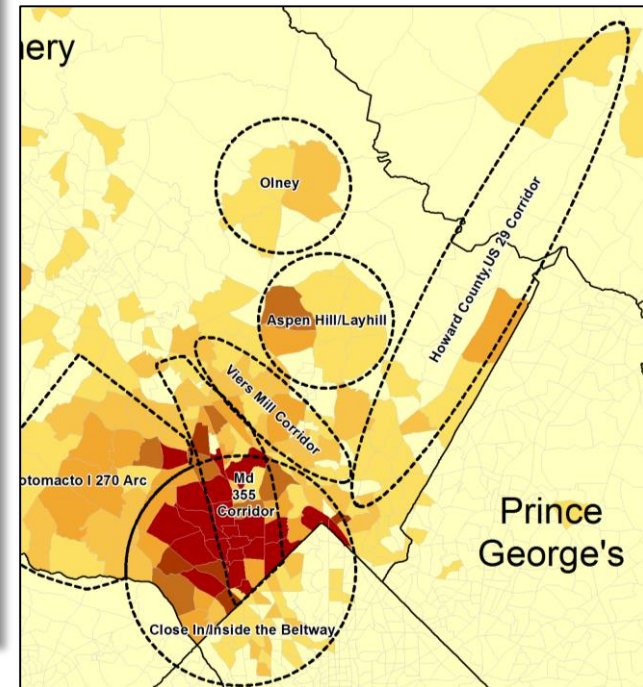


Transit



<https://www.montgomerycountymd.gov/dot-transit/RideOnExtra.html>

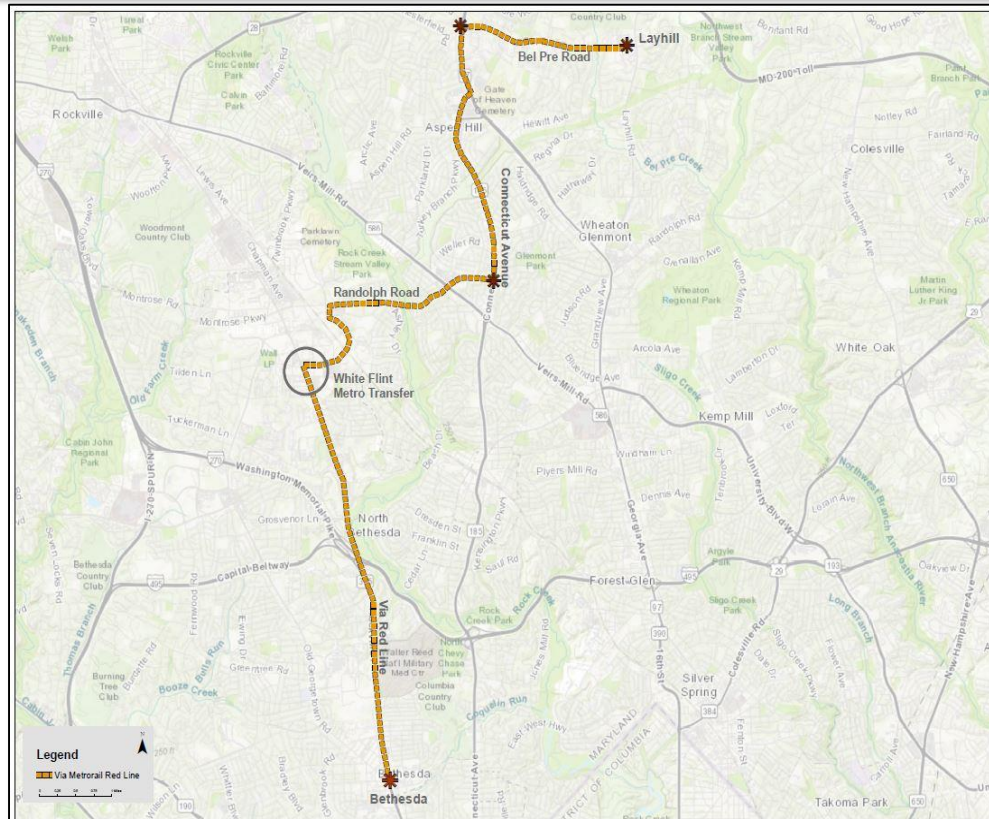
Rock Spring Park & Ride and Express Service	1,839
Greater Bethesda Micro-Transit	1,536
Extend 355 extRa to Bethesda & all-day service	869
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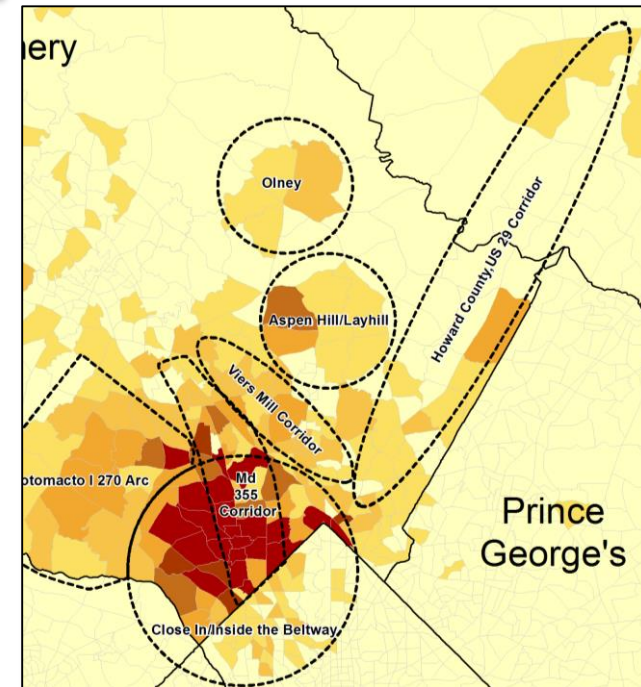
Extend 355 extRa to Bethesda & all-day service 869

Transit

Route Pattern	One Way Bus Travel Time	Time on Rail	Transfer Time (bus to rail)	Bus Dwell Time at each Park and Ride	Total Time
Layhill – White Flint Station – Dwntrn Bethesda	30	11	5	5 (10 min total)	56



Rock Spring Park & Ride and Express Service	1,839
Greater Bethesda Micro-Transit	1,536
Extend 355 extRa to Bethesda & all-day service	869
Layhill/Wheaton Express to White Flint Red Line	747
Extend Metrobus 30 Routes from Friendship Hgts to Bethesda	530
Howard County via US 29 FLASH Service to Purple Line	342
Other Ride-On Improvements (29, 30, 32, 34, 36, 47)	264
Olney / Aspen Hill Express to Shady Grove Red Line	200

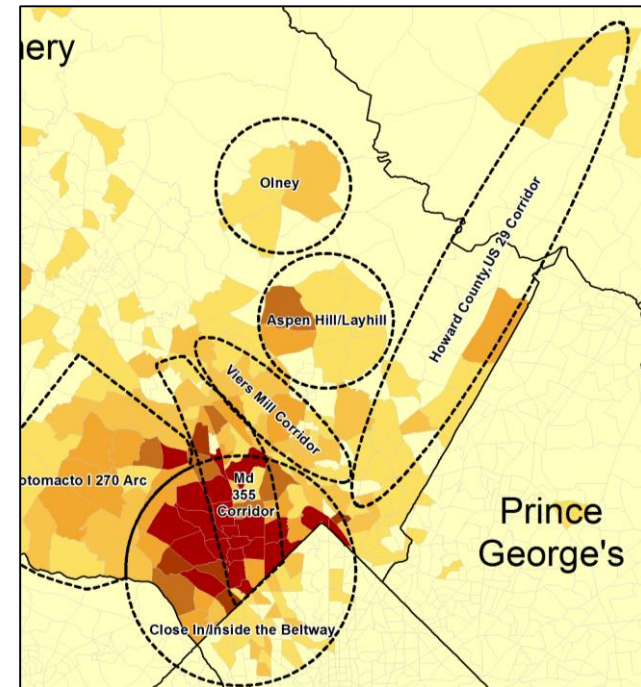


Layhill/Wheaton Express to White Flint Red Line 747

Transit



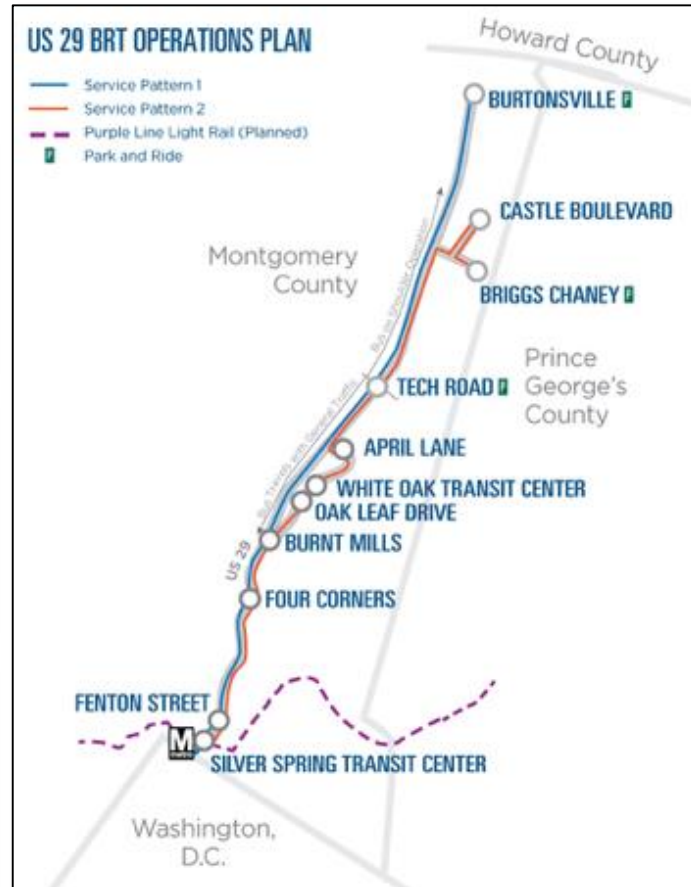
Rock Spring Park & Ride and Express Service	1,839
Greater Bethesda Micro-Transit	1,536
Extend 355 extRa to Bethesda & all-day service	869
Layhill/Wheaton Express to White Flint Red Line	747
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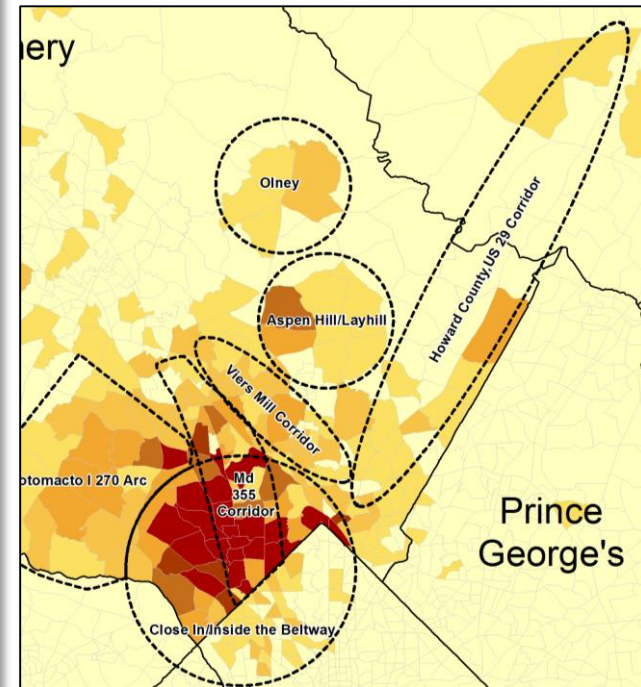
Extend Metrobus 30 Routes from Friendship Heights to Bethesda 530

Transit

<https://www.ridetheflash.com/>



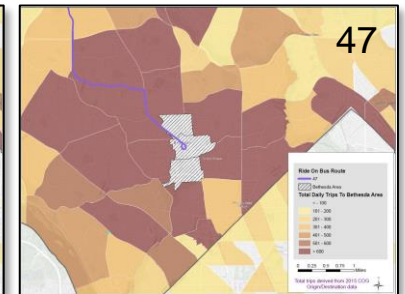
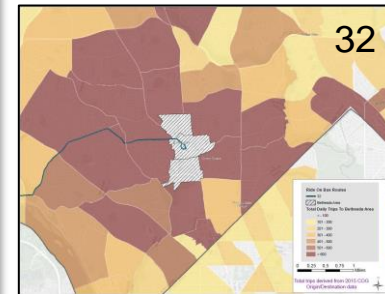
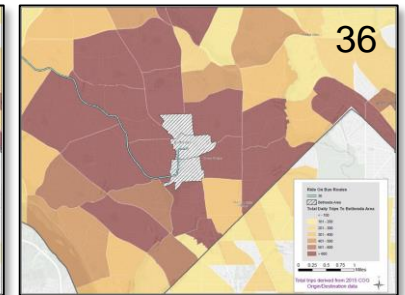
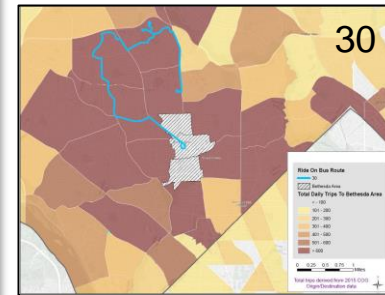
Rock Spring Park & Ride and Express Service	1,839
Greater Bethesda Micro-Transit	1,536
Extend 355 extRa to Bethesda & all-day service	869
Layhill/Wheaton Express to White Flint Red Line	747
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Olney / Aspen Hill Express to Shady Grove Red Line	200



Howard County via US 29 FLASH Service to Purple Line 342

Transit

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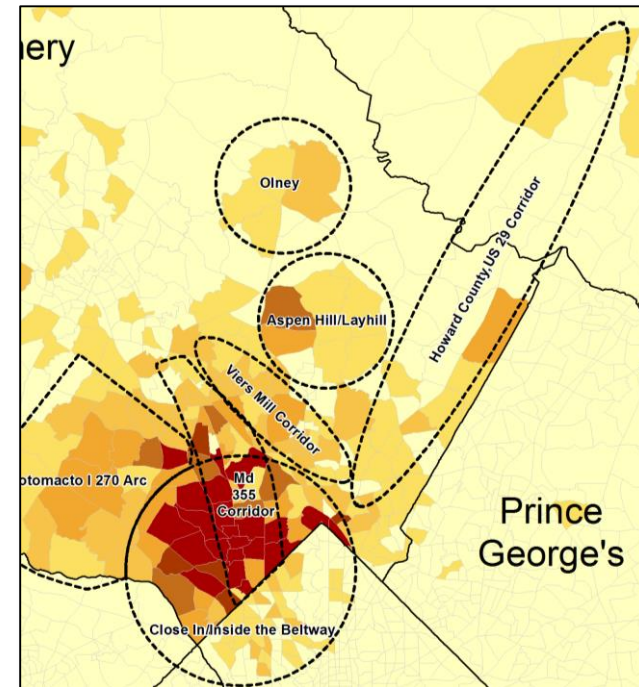
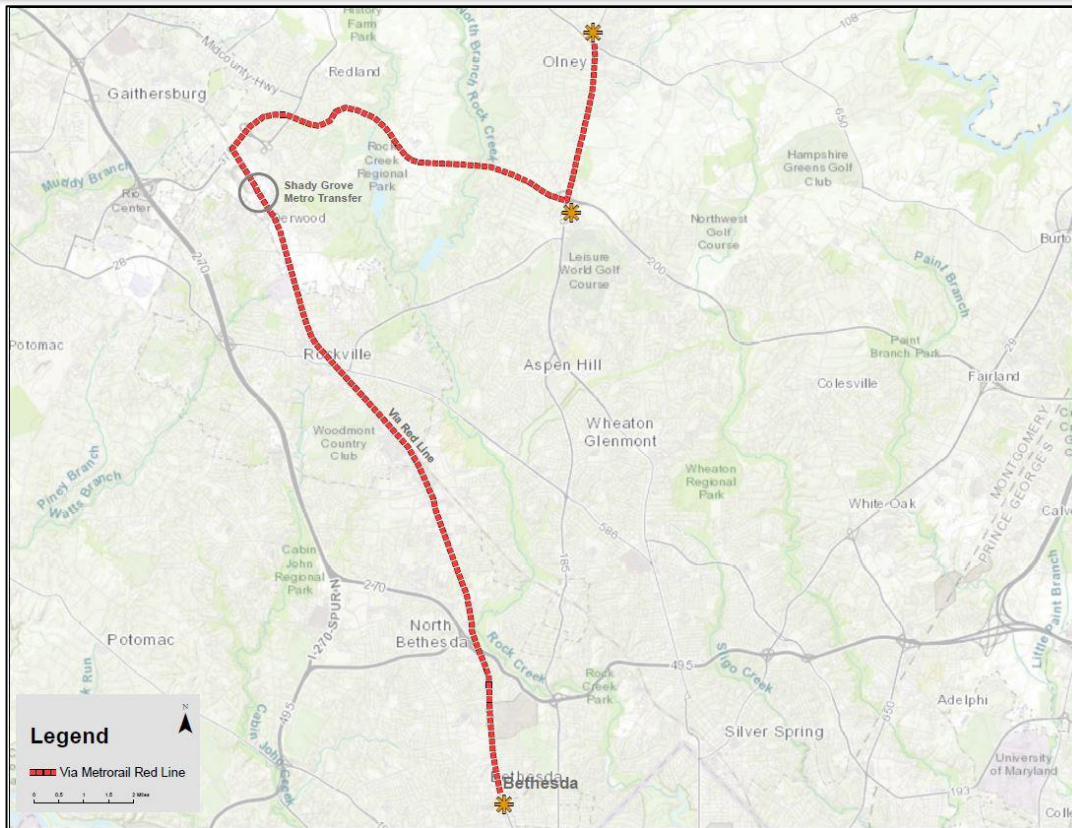


Other Ride-On Improvements (29, 30, 32, 34, 36, 47) 264

Transit

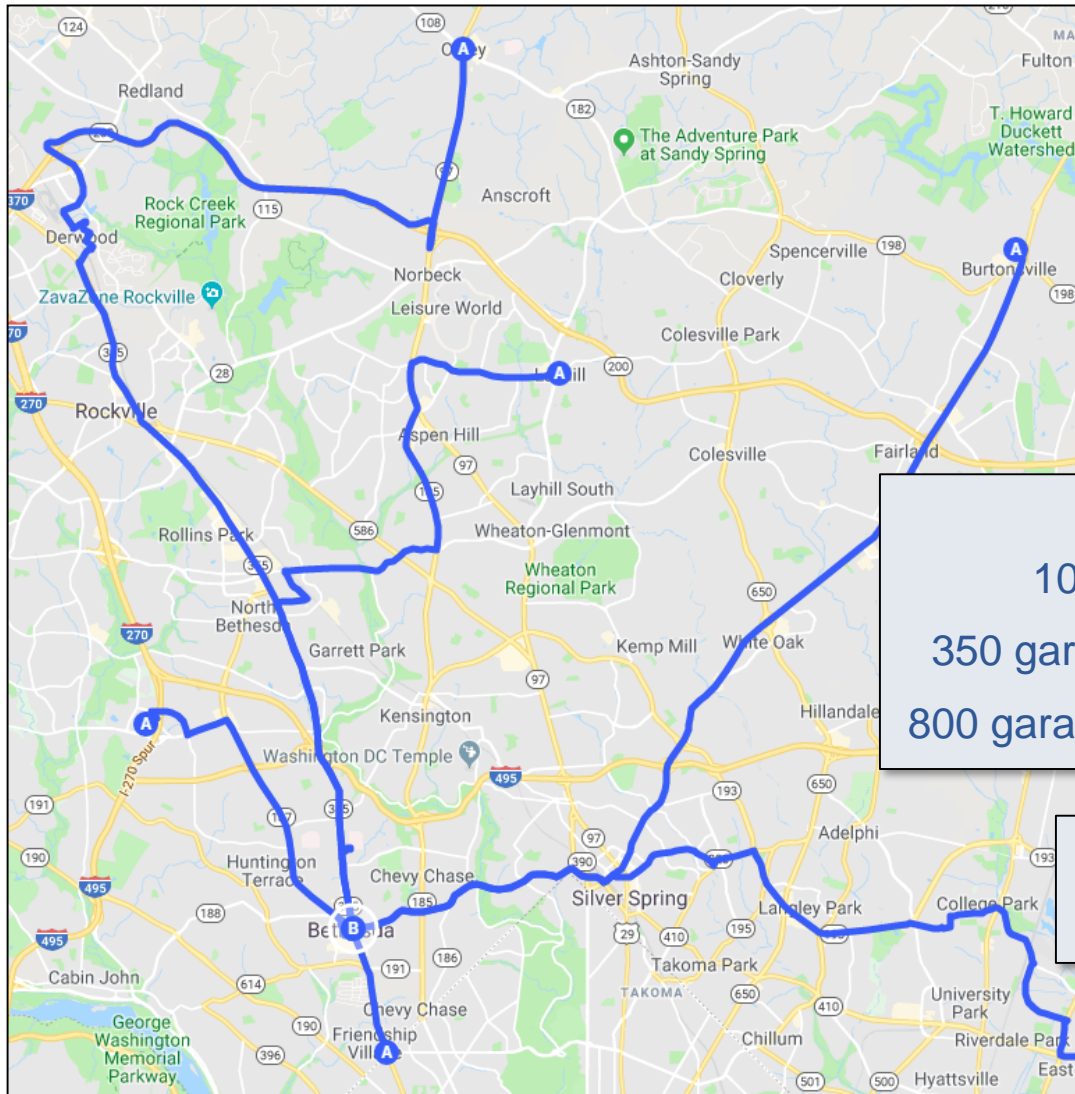
Route Pattern	One Way Bus Travel Time	Time on Rail	Transfer Time (bus to rail)	Bus Dwell Time at each Park and Ride	Total Time
Olney – Shady Grove Metro Station – Downtown Bethesda	20	19	5	5 (10 minutes total)	54

Rock Spring Park & Ride and Express Service	1,839
Greater Bethesda Micro-Transit	1,536
Extend 355 extRa to Bethesda & all-day service	869
Layhill/Wheaton Express to White Flint Red Line	747
Extend Metrobus 30 Routes from Friendship Hghts to Bethesda	530
Howard County via US 29 FLASH Service to Purple Line	342
Other Ride-On Improvements (29, 30, 32, 34, 36, 47)	264
Olney / Aspen Hill Express to Shady Grove Red Line	200



Olney / Aspen Hill Express to Shady Grove Red Line 200

Transit



PARK & RIDES

100 surface spaces at Olney	\$1,000,000
350 garage spaces at Burtonsville	\$8,750,000
800 garage spaces at Rock Spring	\$20,000,000

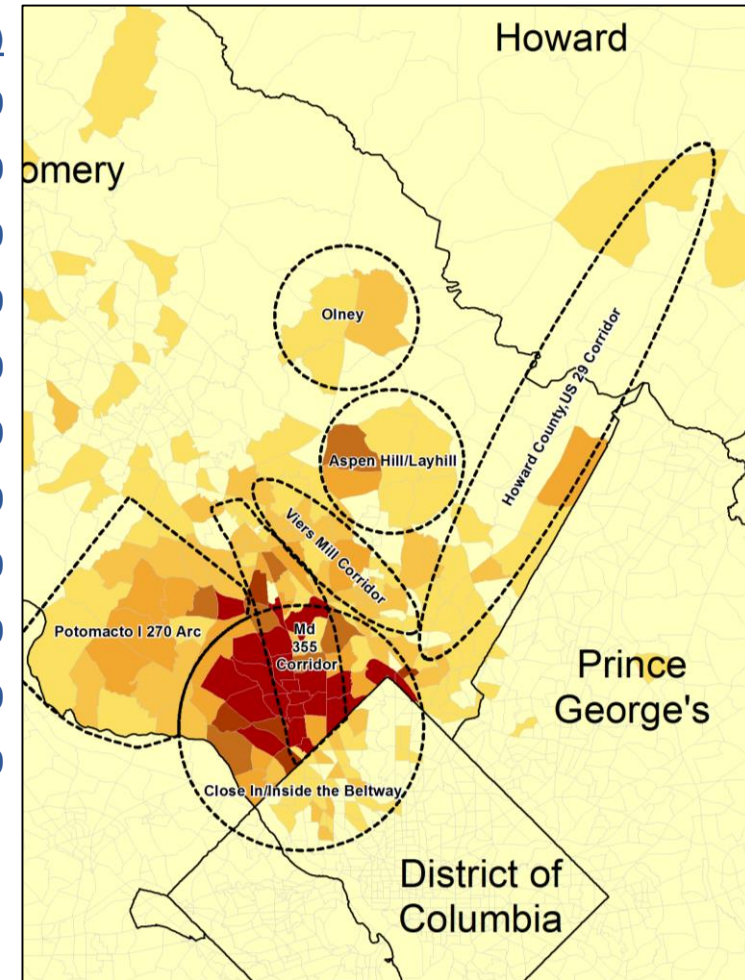
OPERATIONS & MAINT FACILITY

30 buses, location TBD \$21,000,000

Transit

CAPITAL COSTS (VEHICLE + PARK & RIDE)

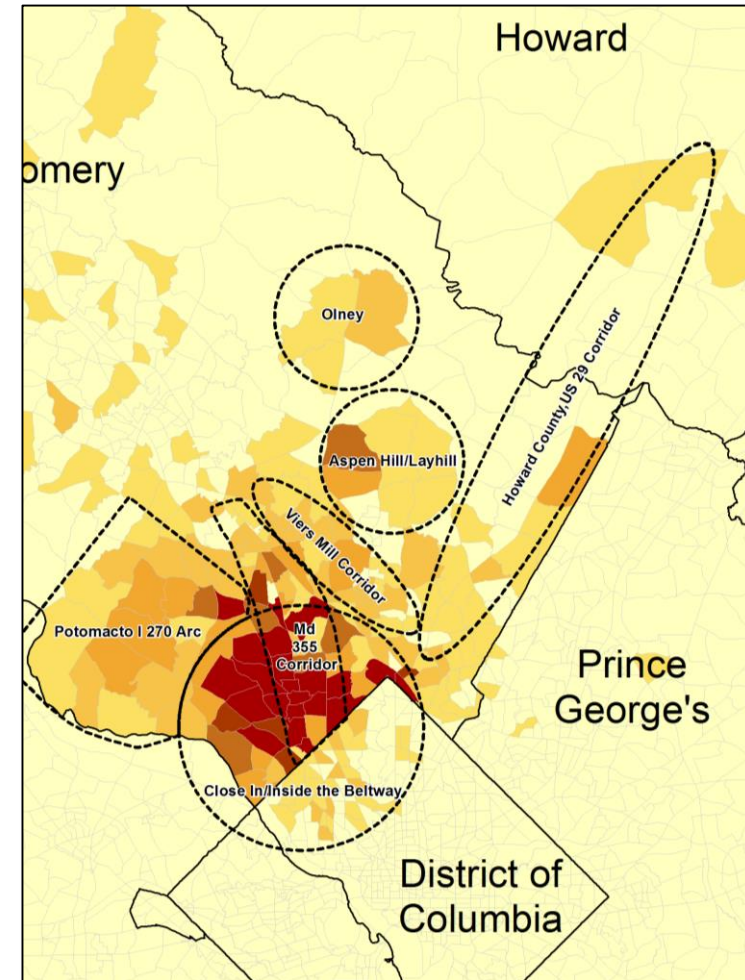
Rock Spring Park & Ride and Express Service	\$24,375,000
Greater Bethesda Micro-Transit	\$5,400,000
Extend 355 extRa to Bethesda & all-day service	\$535,000
Layhill/Wheaton Express to White Flint Red Line	\$6,125,000
Extend Metrobus 30s from Friendship Hghts to Bethesda	\$1,070,000
Howard County via US 29 FLASH Service to Purple Line	\$8,750,000
Other Ride-On Improvements (29, 32, 47)	\$4,280,000
Other Ride-On Improvements (30, 36)	\$2,675,000
Other Ride-On Improvements (34)	\$535,000
Olney / Aspen Hill Express to Shady Grove Red Line	\$2,605,000
Operations & Maintenance Facility Expansion	\$21,000,000



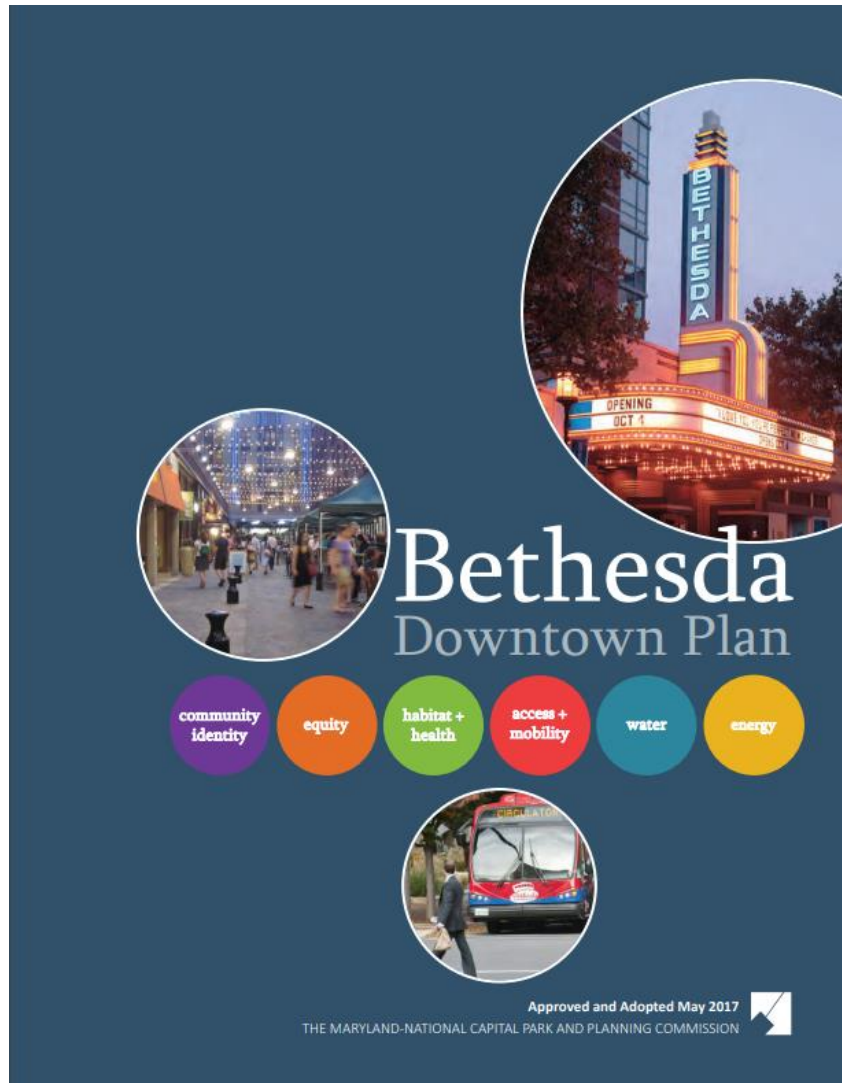
Transit

CAPITAL COSTS PER ESTIMATED RIDER

Rock Spring Park & Ride and Express Service	\$13,254	●
Greater Bethesda Micro-Transit	\$3,516	●
Extend 355 extRa to Bethesda & all-day service	\$616	●
Layhill/Wheaton Express to White Flint Red Line	\$8,199	●
Extend Metrobus 30s from Friendship Hghts to Bethesda	\$2,019	●
Howard County via US 29 FLASH Service to Purple Line	\$25,585	●
Other Ride-On Improvements (29, 32, 47)	\$32,424	●
Other Ride-On Improvements (30, 36)	\$30,398	●
Other Ride-On Improvements (34)	\$12,159	●
Olney / Aspen Hill Express to Shady Grove Red Line	\$13,025	●



Development & Estimated Fee



Intersections	\$9,084,200
ADA Compliance	\$770,000
Bikeways	\$26,337,300
Transit Vehicles	\$26,600,000
Park & Ride Expansion	\$29,750,000
<u>O&M Facility Expansion</u>	<u>\$21,000,000</u>
TOTAL	\$113,541,500

(White Oak \$101,800,000)

Development & Estimated Fee

Estimated Cost \$113,541,500

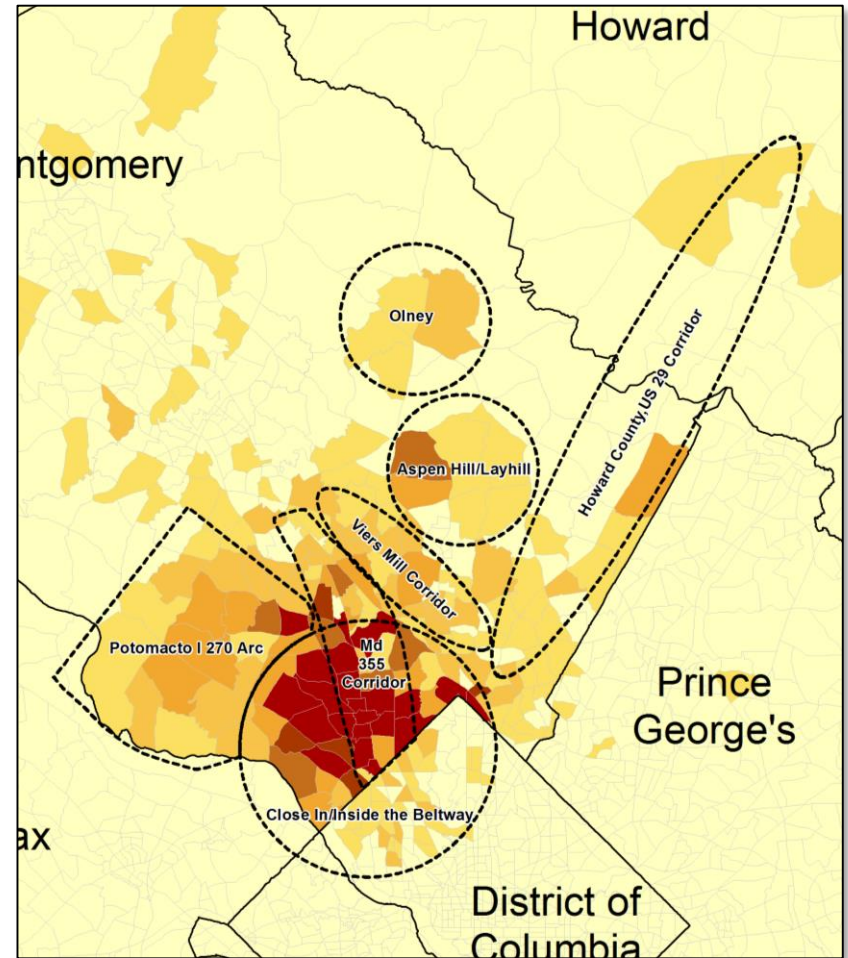
Estimated Development 8,800,000 SF

Estimated UMP Fee \$12.91/SF

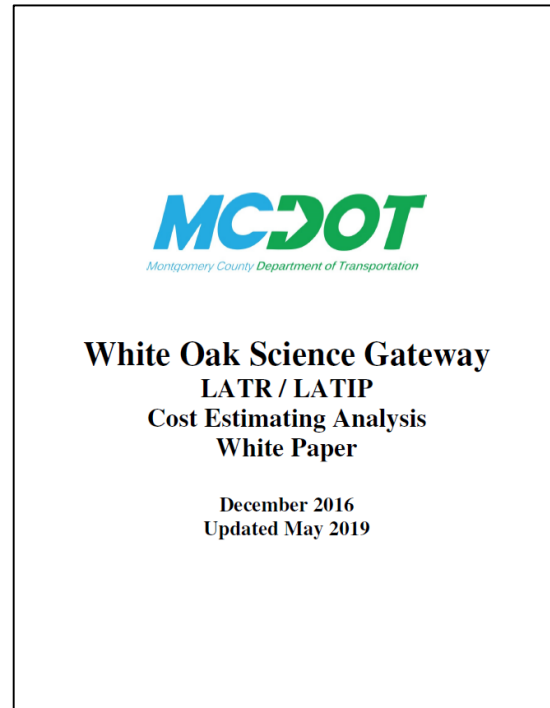
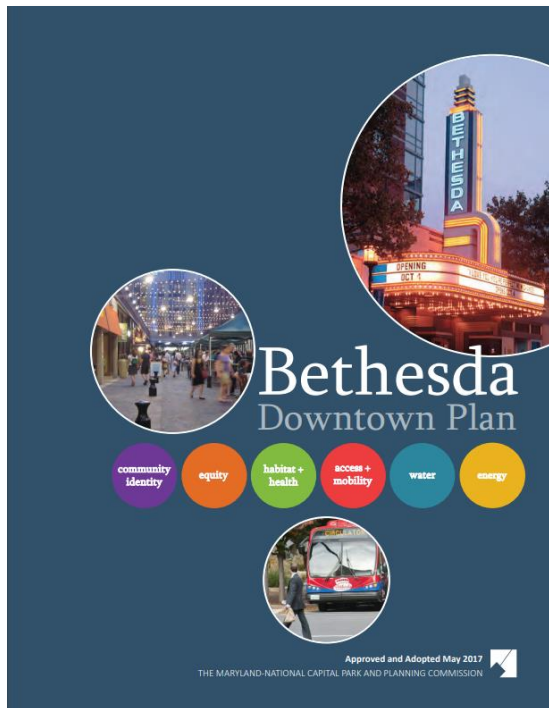
White Oak Approx \$5.50/SF

Bethesda UMP Estimate does not include costs of Transit Operations, monitoring, reassessments

However, not all transit projects are necessary to achieve 55% NADMS. Doing all would achieve 62% NADMS.



Developer Obligations



- Still required to evaluate site access
- Developments outside of Policy Area are unaffected by BUMP
- May construct UMP projects for credit
- See p14 of the White Oak LATIP White Paper

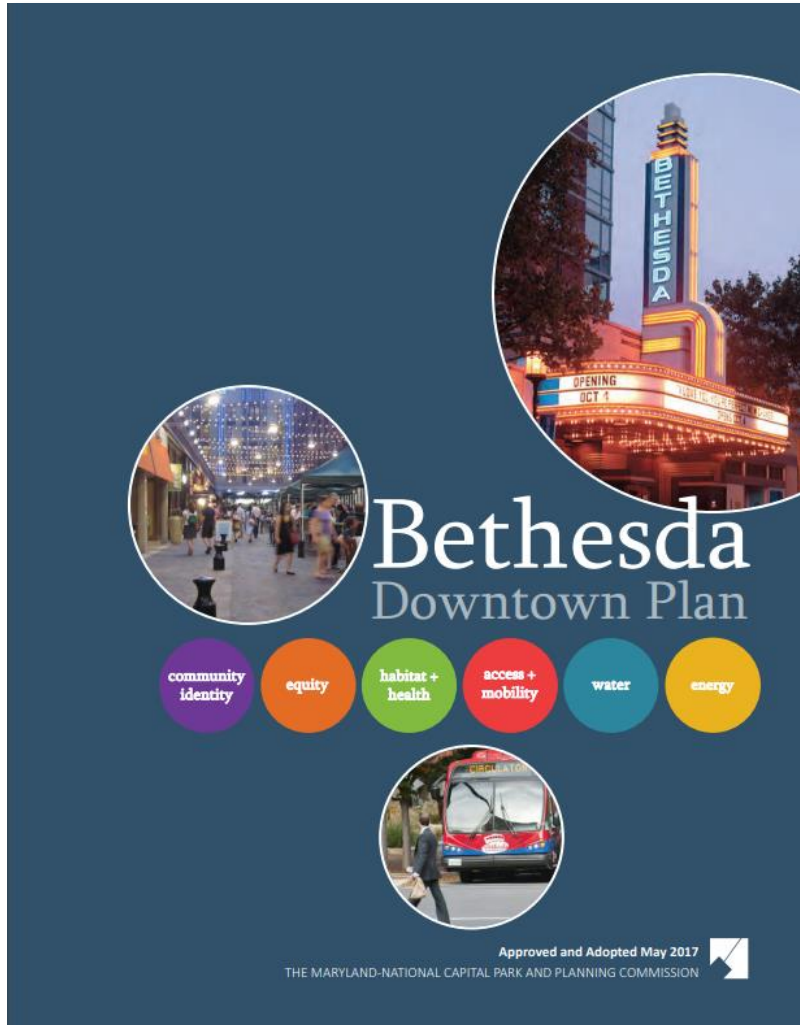
<https://www.montgomerycountymd.gov/dot-dir/Resources/Files/LATR-WhitePaper.pdf>

Next Steps

- Other Presentations
- Open House, late July
- Council, late Summer-Fall



Next Steps



- We prepare technical recommendations in coordination with County Executive
- Council ultimately determines what is in or out
- Forward Funding

Questions

- Questions?
- Anything you love?
- Anything you loathe?
- Is anything missing?
- What information do you want so that you can be prepared to share input with Council?

Andrew Bossi, P.E.

Senior Engineer for Transportation Policy

Office of the Director

Montgomery County Department of Transportation

andrew.bossi@montgomerycountymd.gov