

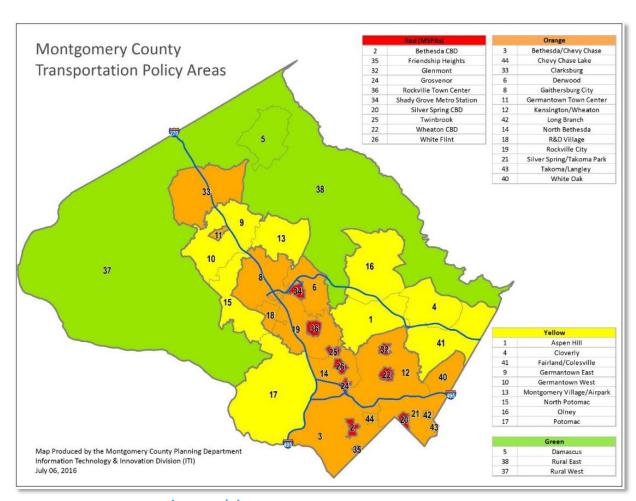


Bethesda Unified Mobility Program (BUMP)

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 BethesdaDowntown 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?

Cost (\$\$\$) <u>÷ Traffic Generated (Trips)</u> Fee (\$/trip)

\$101,800,000 White Oak → <u>÷ 20,324 trips</u> \$5010 / 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

- 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.



- 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.

- 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.



- 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.

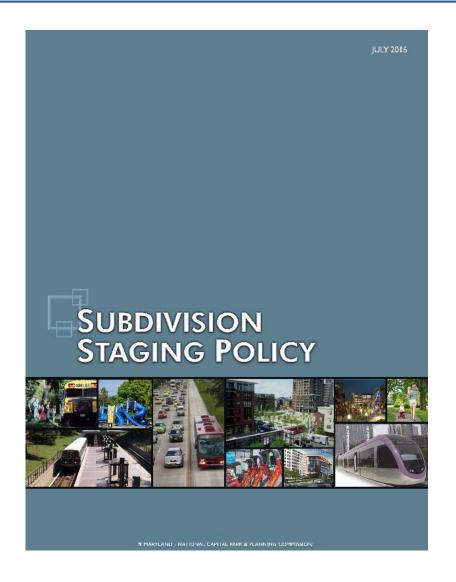
This relieves developers of the need to perform intensive studies and public officials of the resources spent reviewing them, which can often involve many months of back-and-forth comments & revisions.

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

TransportationAnalysis

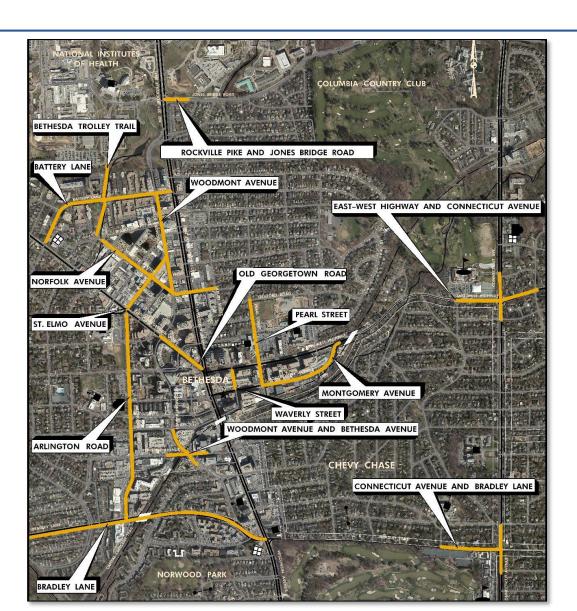


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So what's in the BUMP?

- Intersections
- ADA Upgrades
- Bikeways
- Transit



Intersections

MD 185 (Connecticut Ave) at MD 410 (East-West Hwy)

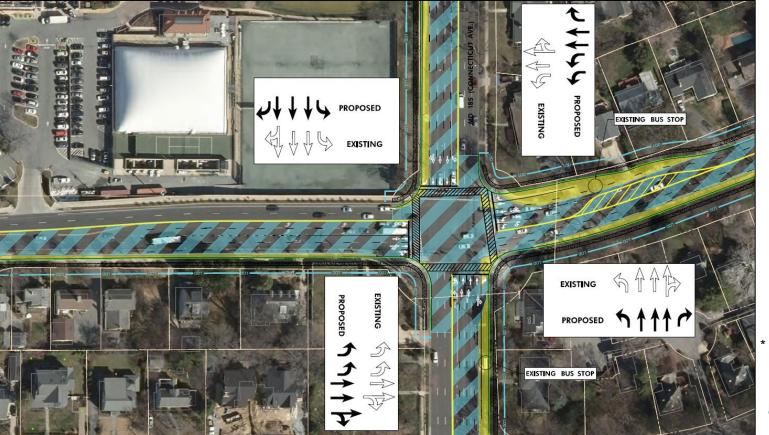
\$4,137,400

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

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:

52.9 s/veh

SSP Limit:

80.0 s/veh





Intersections

MD 185 (Connecticut Ave) at MD 410 (East-West Hwy)

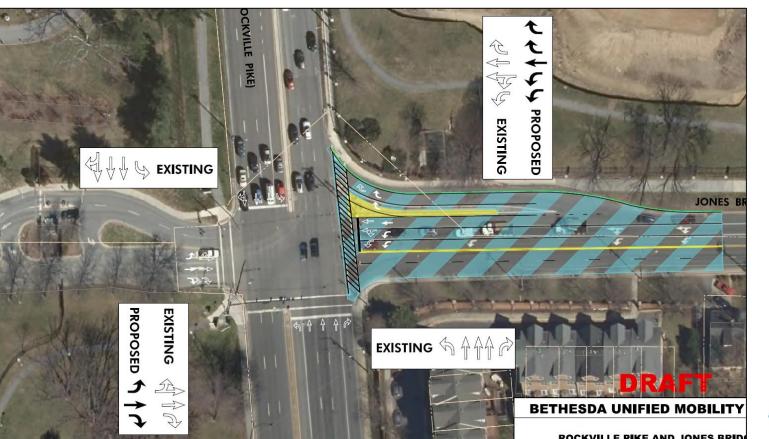
\$4,137,400

MD 185 (Connecticut Ave) at MD 191 (Bradley Lane)

\$4,429,100

MD 355 (Rockville Pike) at Jones Bridge Rd

\$517,700



Delay:

77.5 s/veh

SSP Limit:

80.0 s/veh





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.



Bikeways

Arlington from Old Georgetown to Bradley Battery from Old Georgetown to Wisconsin Bethesda / Willow from Woodmont to 47th Bradley / Capital Crescent Trail Connection Bradley from Glenbrook to Wisconsin Montgomery from Woodmont to East-West Norfolk / Cheltenham from Battery to Tilbury North Bethesda Trail between Rugby and NIH Old Georgetown from Woodmont to Wisconsin Pearl from Montgomery to Sleaford St Elmo from Wilson to Woodmont Waverly from East-West to Montgomery Woodmont / Bethesda Intersection Woodmont from Battery to Wisconsin

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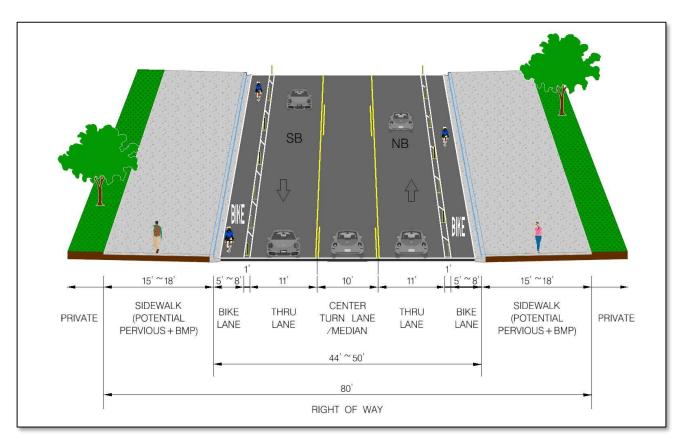
\$2,135,900





Transit

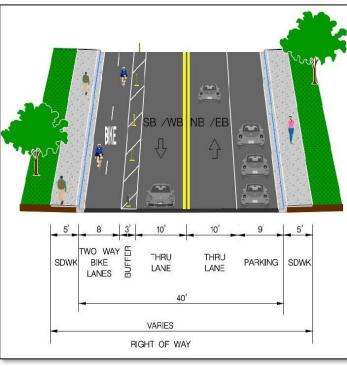
Bikeways



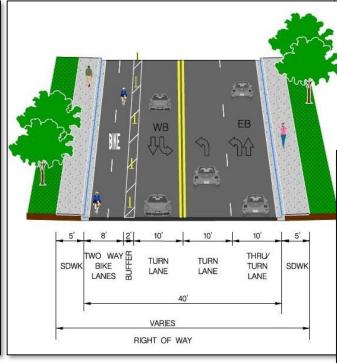




Bikeways







↑ Woodmont Ave to Wisconsin Ave↑







Intersections **ADA Upgrades**

Bikeways

Transit

Bikeways









Bethesda / Willow from Woodmont to 47th



Intersections **ADA Upgrades**

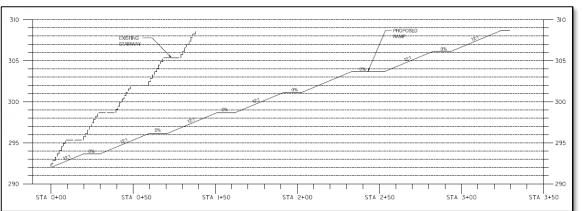
Bikeways

Transit

Bikeways







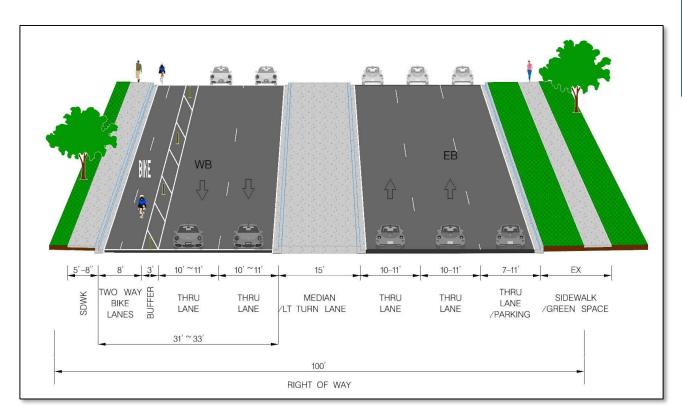
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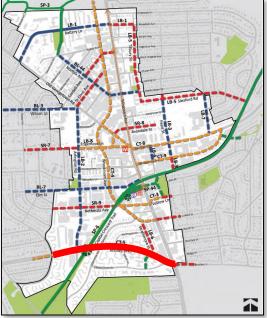
Bradley / Capital Crescent Trail Connection



Bikeways



Arlington from Old Georgetown to Bradley \$441,300 Battery from Old Georgetown to Wisconsin Bethesda / Willow from Woodmont to 47th \$1,449,000 Bradley / Capital Crescent Trail Connection \$2,307,800 \$5,694,200 Bradley from Glenbrook to Wisconsin 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 \$220,800 Old Georgetown from Woodmont to Wisconsin 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

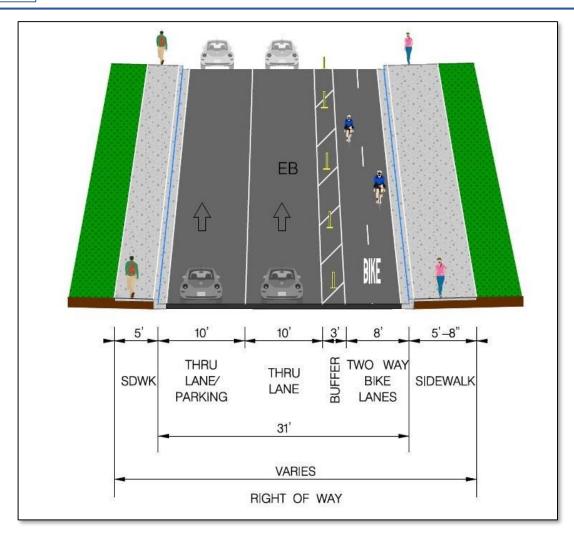


Intersections **ADA Upgrades**

Bikeways

Transit

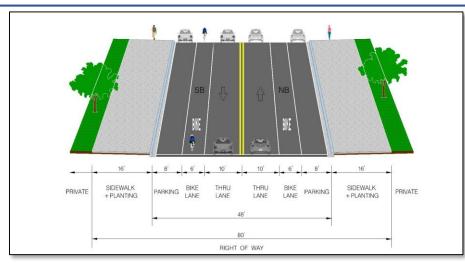
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Bikeways



PRIVATE

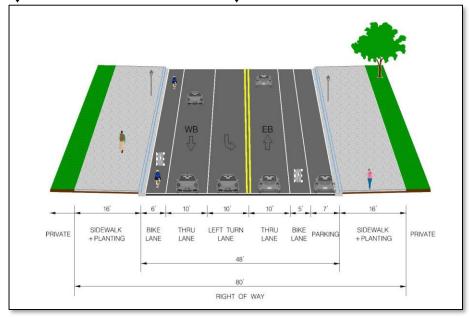
SIDEWALK PARKING SHARED PARKING SIDEWALK PLANTING TRAVEL WAY + BMP + PLANTING PRIVATE

80'
RIGHT OF WAY

← Norfolk Short-Term

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↓ Cheltenham Short-Term ↓



← Norfolk Long-Term



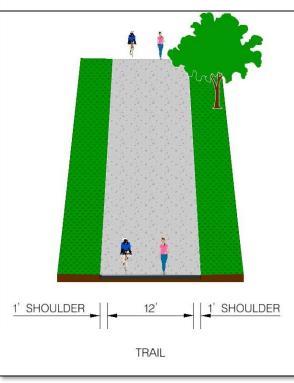
Intersections **ADA Upgrades**

Bikeways

Transit

Bikeways

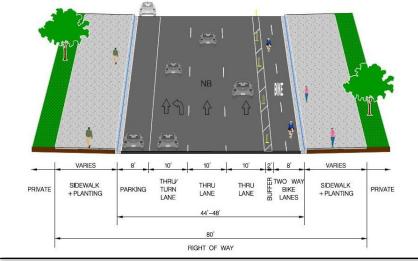




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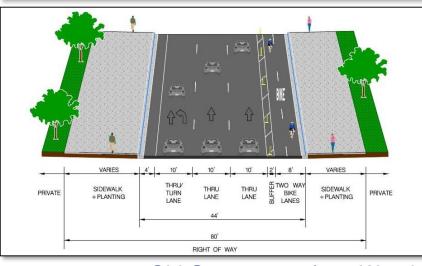
Bikeways



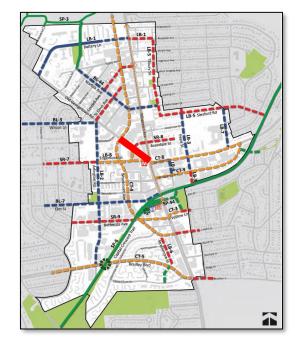
← Woodmont Ave to Commerce Lane

Battery from Old Georgetown to Wisconsin \$441,300 Bethesda / Willow from Woodmont to 47th \$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 North Bethesda Trail between Rugby and NIH \$2.029.400 \$220.800 Old Georgetown from Woodmont to Wisconsin 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

Arlington from Old Georgetown to Bradley



← Commerce Lane to Wisconsin Ave

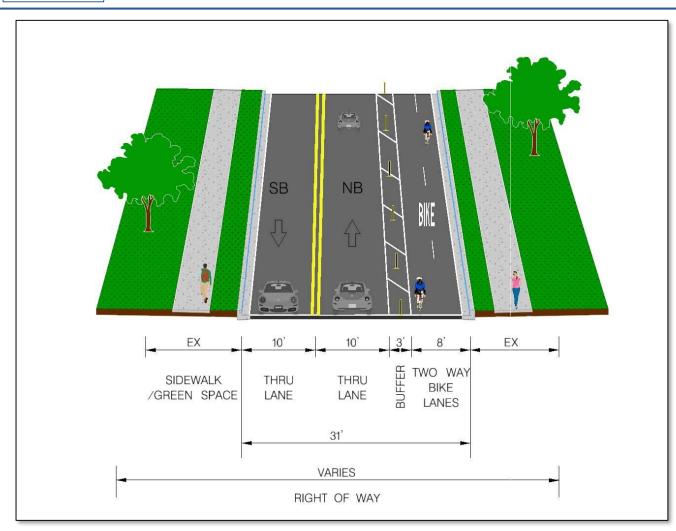


Intersections **ADA Upgrades**

Bikeways

Transit

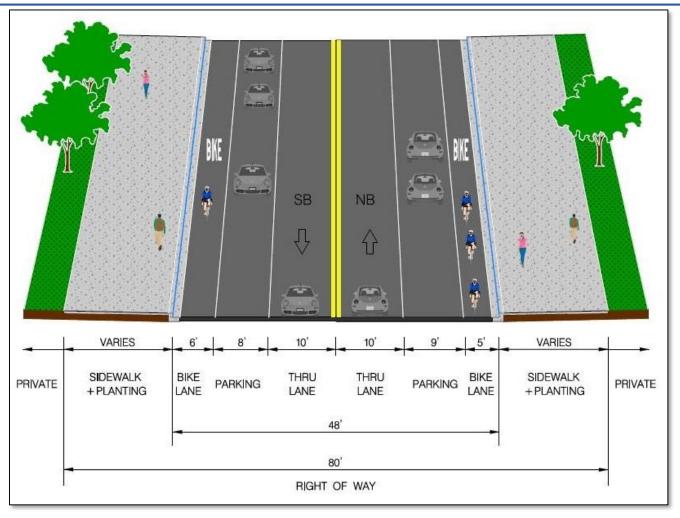
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Bikeways



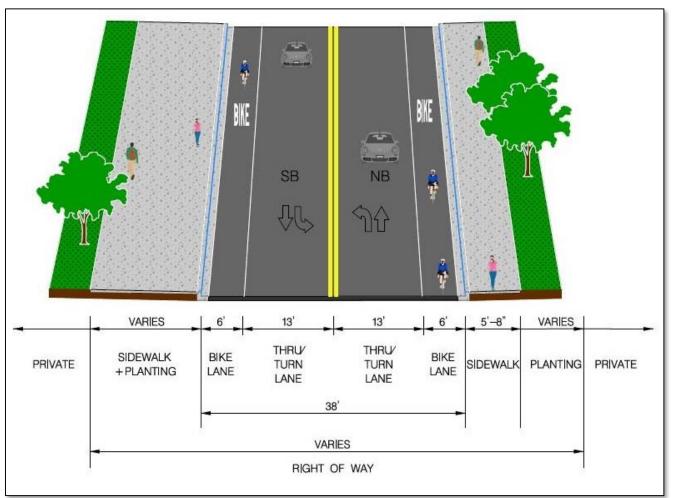
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Intersections **ADA Upgrades**

Bikeways

Bikeways Transit



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Intersections **ADA Upgrades**

Bikeways

Transit

Bikeways



CAPITAL CRESCENT SURFACE TRAIL Bethesda Avenue and Woodmont Avenue

NOT FOR CONSTRUCTION





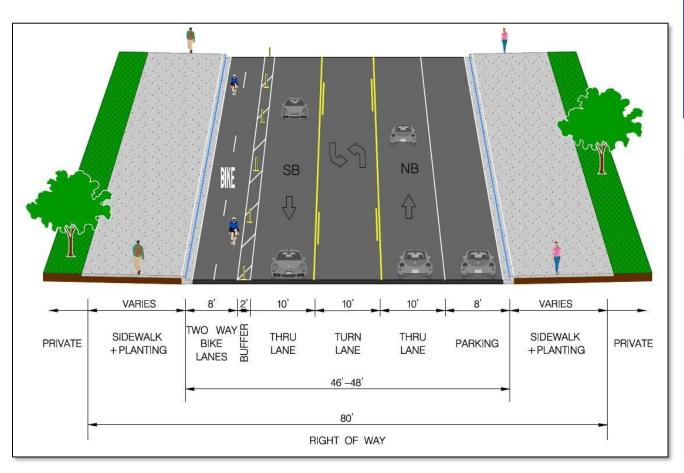


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Woodmont from Battery to Wisconsin \$2,135,900



Bikeways



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55% NADMS Goal

× 49,360 Total employment (2040)

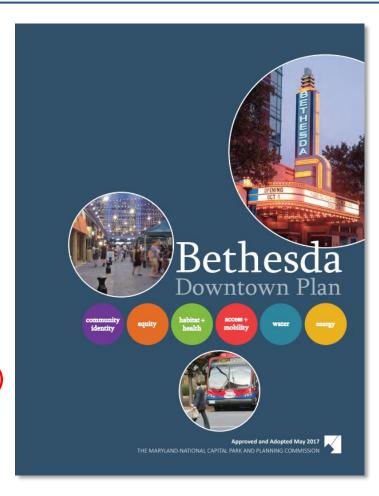
= 27,148 Non-Auto Commuters

27,148

- 20,241 No-Action NADMS

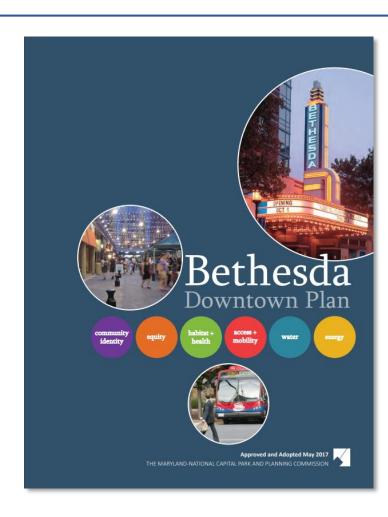
(37% + 4% from Purple Line)

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



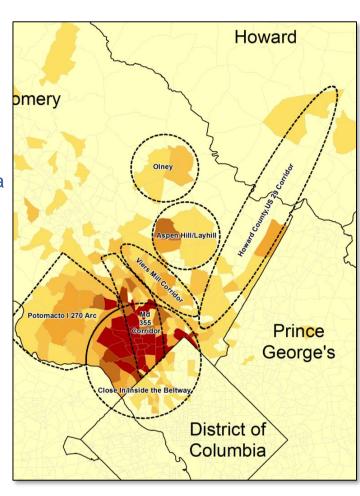


- 1,332 Telework increase from 7.3% to 10%
- 1,382 Walk increase from 3.2% to 6.0%
- 1,135 Bike increase from 0.7% to 3.0%
- 3,849 TDM & Local Infrastructure Increment
 - 6,907 Non-Auto Commuters
- 3,849 TDM & Local Infrastructure Increment
- = 3,058 remaining employees to be served by transit

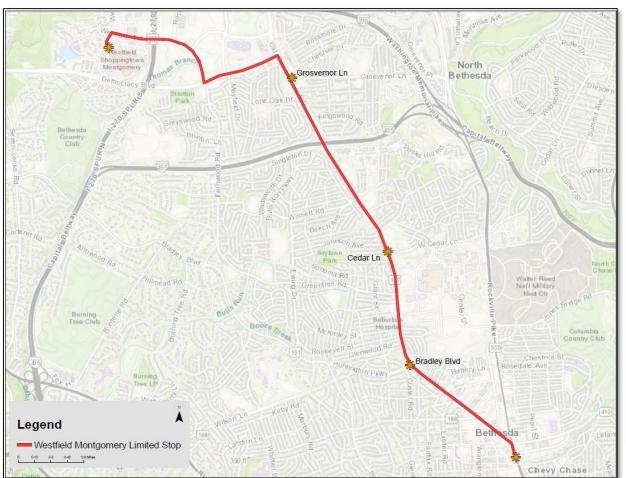




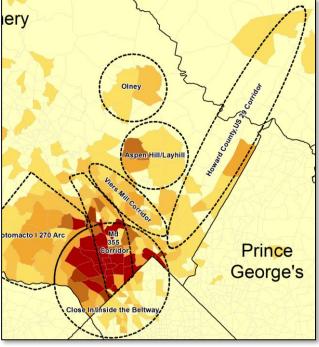
- 1,839 Rock Spring Park & Ride and Express Service
- 1,536 Greater Bethesda Micro-Transit
- 869 Extend 355 extRa to Bethesda & all-day service
- 747 Layhill/Wheaton Express to White Flint Red Line
- 530 Extend Metrobus 30 Routes from Friendship Hghts to Bethesda
- 342 Howard County via US 29 FLASH Service 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



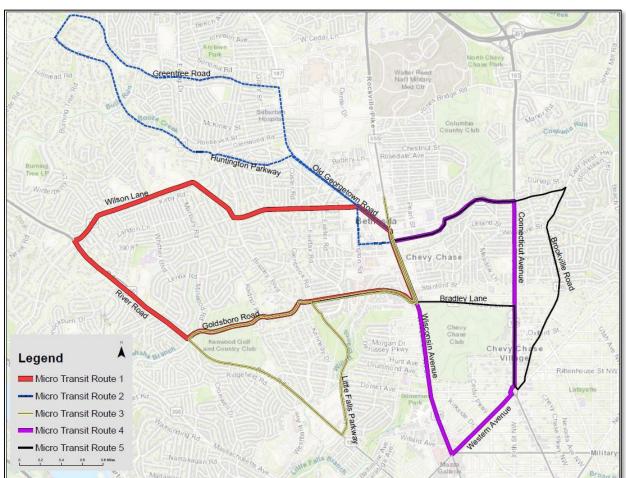












Rock Spring Park & Ride and Express Service 1,839

Greater Bethesda Micro-Transit 1,536

Extend 355 extRa to Bethesda & all-day service 869

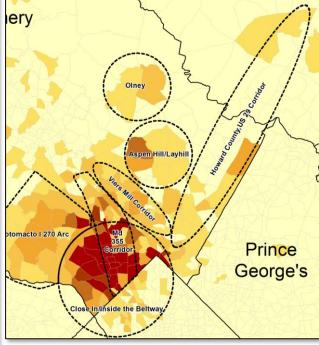
Layhill/Wheaton Express to White Flint Red Line 747

Extend Metrobus 30 Routes from Friendship Hghts to Bethesda 530

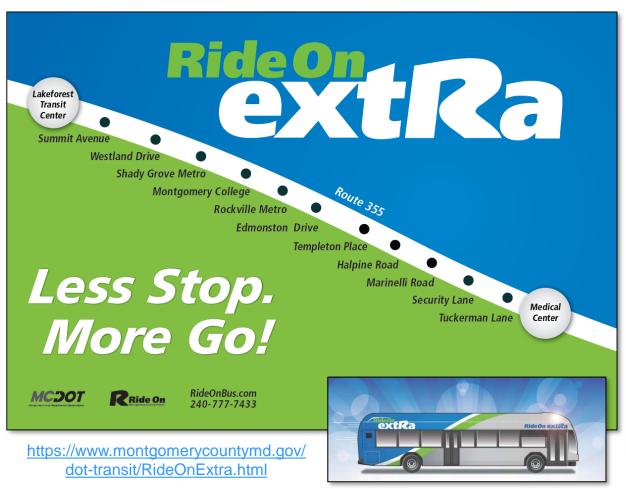
Howard County via US 29 FLASH Service to Purple Line 342

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

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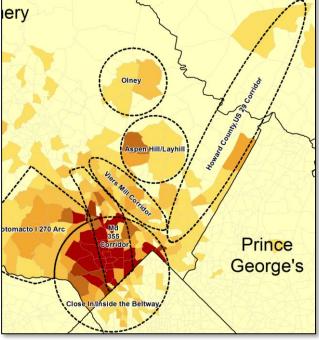
Layhill/Wheaton Express to White Flint Red Line 747

Extend Metrobus 30 Routes from Friendship Hghts to Bethesda 530

Howard County via US 29 FLASH Service to Purple Line 342

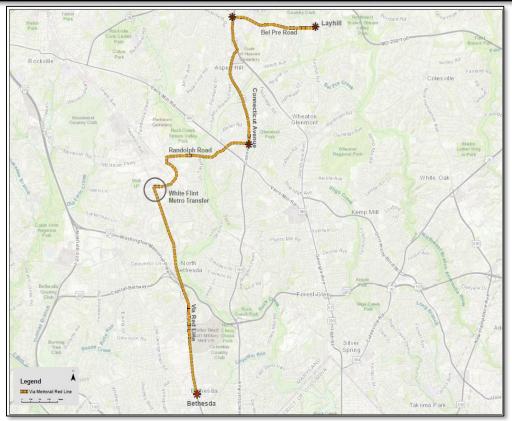
Other Ride-On Improvements (29, 30, 32, 34, 36, 47) 264

Olney / Aspen Hill Express to Shady Grove Red Line 200

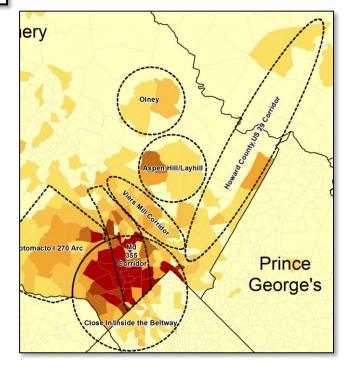




Route Pattern	One Way Bus Travel Time	Time on Rail	Transfer Time (bus to rail)	Bus Dwell Time at each Park and Ride	Total Time
Layhill – White Flint	30	11	5	5	56
Station – Dwntn Bethesda				(10 min total)	



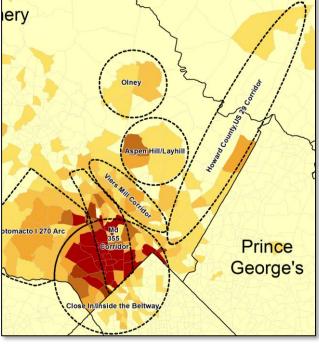












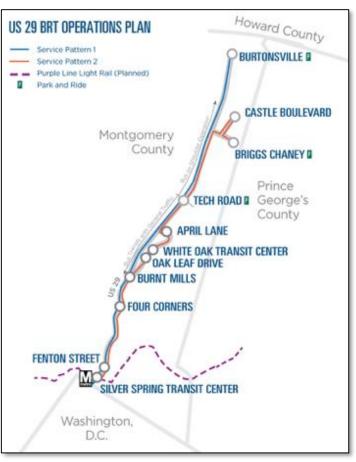


https://www.ridetheflash.com/









Rock Spring Park & Ride and Express Service 1,839

Greater Bethesda Micro-Transit 1,536

Extend 355 extRa to Bethesda & all-day service 869

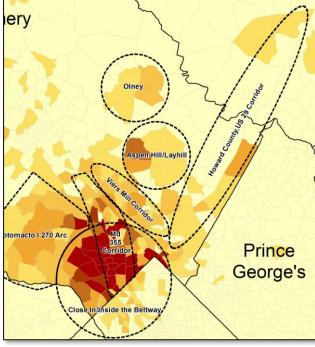
Layhill/Wheaton Express to White Flint Red Line 747

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





0 Jones Bridge Rd Greentree Rd Medical Center M National Institutes Suburban Hospital of Health 47 70 Huntington Pkwy Wilson Ln County Service Bethesda M BETHESDA L8 1 Bradley Blvd Willard Ave Friendship He Rock Spring Park & Ride and Express Service 1,839

Greater Bethesda Micro-Transit 1,536

Extend 355 extRa to Bethesda & all-day service 869

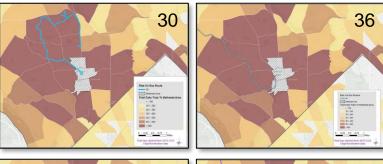
Layhill/Wheaton Express to White Flint Red Line 747

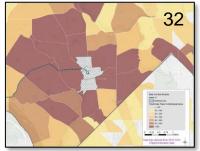
Extend Metrobus 30 Routes from Friendship Hghts to Bethesda 530

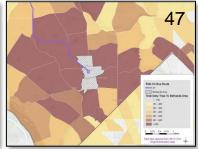
Howard County via US 29 FLASH Service to Purple Line 342

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

Olney / Aspen Hill Express to Shady Grove Red Line 200



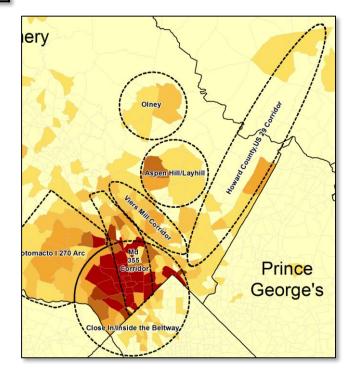




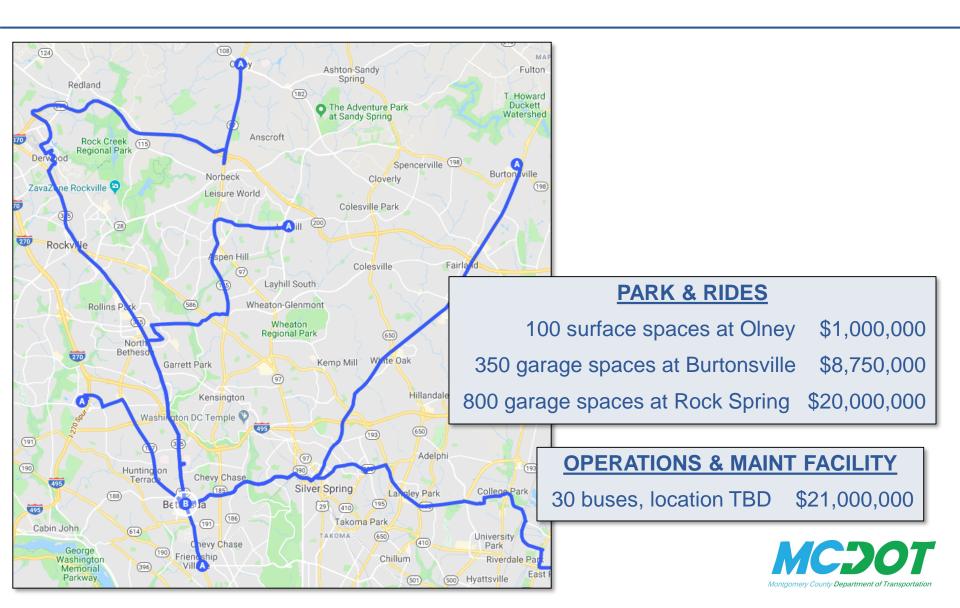
Route Pattern	One Way Bus Travel Time	Time on Rail	Transfer Time (bus to rail)	Bus Dwell Time at each Park and Ride	Total Time
Olney – Shady Grove Metro	20	19	5	5	54
Station – Downtown Bethesda				(10 minutes total)	

Gaithersburg Redland Gaithersburg Roc Creek Pagional Metro Transfer Fair Shady Grove Fair Metro Transfer	Olney Olney	ampahire eens Goil Club
Potomac Rokville	Northwest Course Laisure World Golf Course As pen Hill	Pain Branch Paik Colesville Fairland
Woodmont Country Club Regional Regional Park Park	Wheaton Glenmont Wheaton Regional Park	White Oak Calver
Potomac Legend No Beth	silver Spi	Adelphi

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







CAPITAL COSTS (VEHICLE + PARK & RIDE)

Rock Spring Park & Ride and Express Service

Greater Bethesda Micro-Transit

Extend 355 extRa to Bethesda & all-day service

Layhill/Wheaton Express to White Flint Red Line

Extend Metrobus 30s from Friendship Hghts to Bethesda

Howard County via US 29 FLASH Service to Purple Line

Other Ride-On Improvements (29, 32, 47)

Other Ride-On Improvements (30, 36)

Other Ride-On Improvements (34)

Olney / Aspen Hill Express to Shady Grove Red Line

Operations & Maintenance Facility Expansion

\$24,375,000

\$5,400,000 pmery

\$535,000

\$6,125,000

\$1,070,000

\$8,750,000

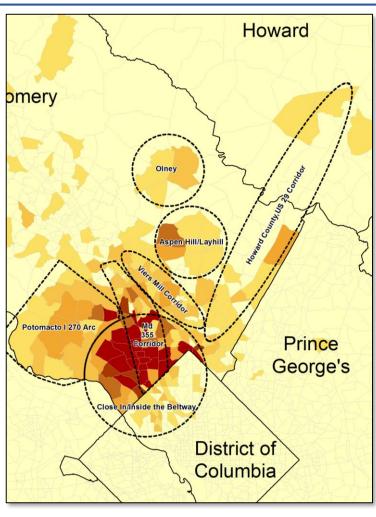
\$4,280,000

\$2,675,000

\$535,000

\$2,605,000

\$21,000,000





\$616

\$2,019

\$32,424

\$30,398

\$12,159

\$13,025

CAPITAL COSTS PER ESTIMATED RIDER

\$13,254 Rock Spring Park & Ride and Express Service

> Greater Bethesda Micro-Transit \$3,516

Extend 355 extRa to Bethesda & all-day service

\$8,199 Layhill/Wheaton Express to White Flint Red Line

Extend Metrobus 30s from Friendship Hghts to Bethesda

Howard County via US 29 FLASH Service to Purple Line \$25,585

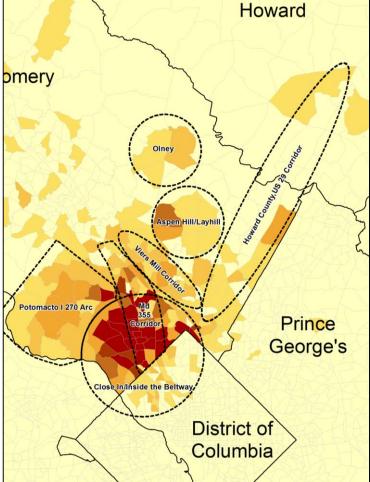
Other Ride-On Improvements (29, 32, 47)

Other Ride-On Improvements (30, 36)

Other Ride-On Improvements (34)

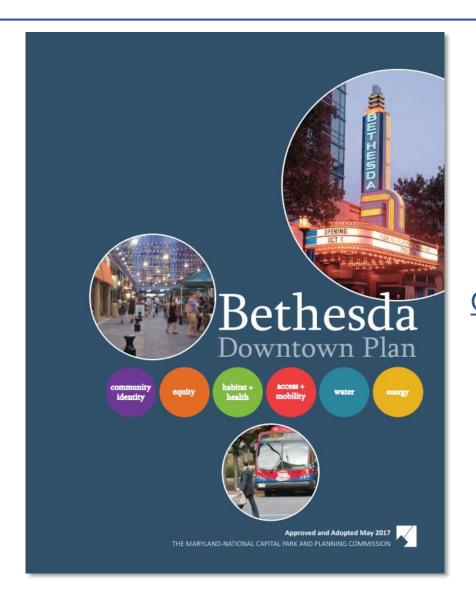
Olney / Aspen Hill Express to Shady Grove Red Line







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

O&M Facility Expansion \$21,000,000

TOTAL \$113,541,500

(White Oak \$101,800,000)



Development & Estimated Fee

Estimated Cost \$113,541,500

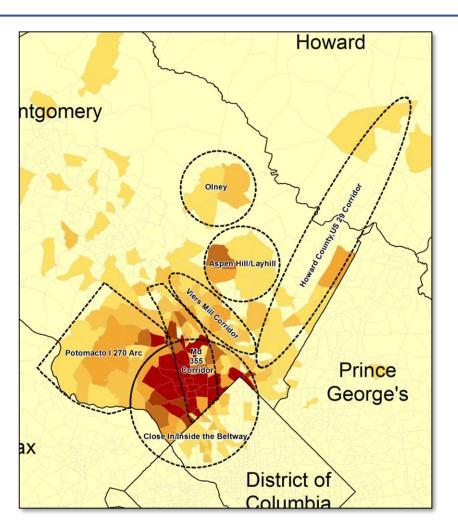
Estimated Development 8,800,000 SF

Estimated UMP Fee \$12.91/SF

White Oak Approx \$5.50/SF

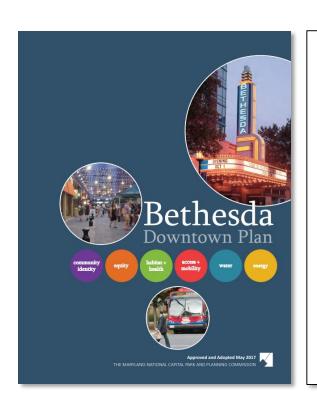
Bethesda UMP Estimate does not include costs of Transit Operations, monitoring, reassessments

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





Developer Obligations





White Oak Science Gateway
LATR / LATIP
Cost Estimating Analysis
White Paper

December 2016 Updated May 2019

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

- 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

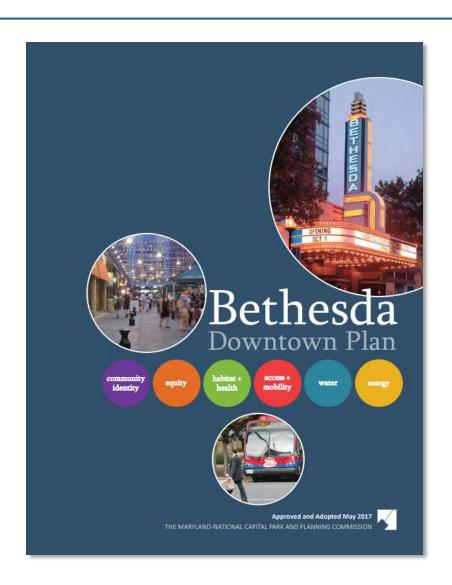
Next Steps

- 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

