# Montgomery County Bicycle Master Plan Preliminary Bikeway Recommendations

February 3, 2017

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Dear Bicycle Master Plan Community Advisory Group members,

This is the first submittal of the Planning Department staff's draft bikeway recommendations to the Bicycle Master Plan Community Advisory Group. This document includes an overview of the recommended bicycle facility types, bikeway maps and bikeway tables.

#### **Bicycle Facility Types**

Please note that we have added one bicycle facility type: Priority Shared Lanes. This bikeway is described in greater detail in the document, but in summary it is used to show bikeway connections on higher stress roads in very constrained locations where the actions needed to reduce traffic stress to a low level are not recommended. These locations tend to include older roads such as the retail section of Carroll Ave in the City of Takoma Park, where but traffic volumes are moderate and on-street parking turnover is high, leading to a moderate-low level of traffic stress.

#### **Policy Areas**

To present these recommendations in manageable segments we have organized the County into geographies known as "Policy Areas". This geographical organization of the County comes from the County's Subdivision Staging Policy, which was just updated in 2016. Each policy area is represented by a bikeway map and table. This submittal includes policy areas south of Interstate 495.

#### Bethesda CBD

At this time we are not submitting recommendations for the Bethesda CBD. We have left this area out as it is actively under review by the Montgomery County Council and want to avoid confusion with the recommendations in that plan. Many of the changes that we will proposed as part of the Bicycle Master Plan are related to the signed shared roadway category, which the Bicycle Master Plan is recommending to replace with other bikeway facilities. We will submit our recommendations for the Bethesda CBD to the advisory group upon approval of the Bethesda Downtown Plan. For reference, we are including relevant pages from the draft Bethesda Downtown Plan.

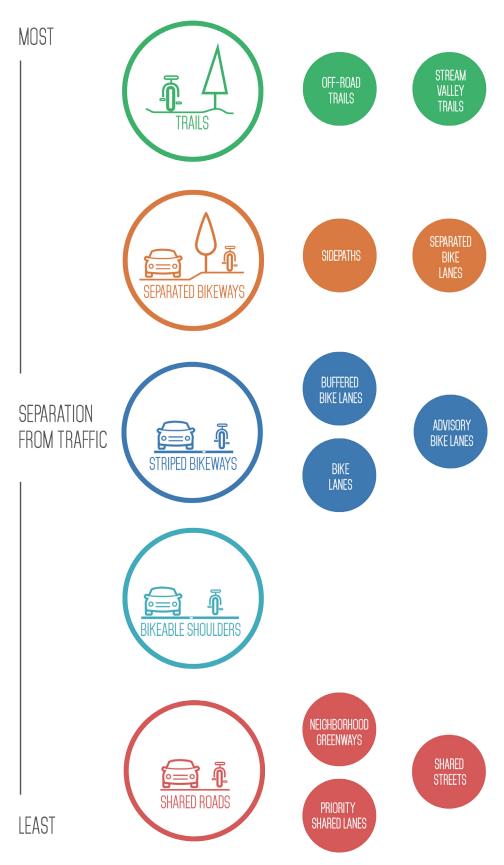
#### Comments

Not all advisory group members will be familiar with the area south of Interstate 495, but if you have comments please send them to david.anspacher@montgomeryplanning.org by Friday, February 24. A comment form is included in the email for your use. You can compare the bikeway recommendations in this document to bikeway recommendations in approved master plans by going to: http://ow.ly/8Ycw308BGuH.

Thanks for all of your help to make this a great plan.

Dave, Stephen and Jon

# BICYCLE FACILITY CLASSIFICATION



Bethesda Trolley Trail

## TRAILS

Trails are paths that are located outside of the road right-of-way. They provide two-way travel designated for walking, bicycling, jogging and skating. Trails are typically 10 feet wide, but can vary between 8 feet (in constrained locations) and 14 feet wide (where usage is likely to be higher). On trails with very high levels of walking and bicycling, spaces for pedestrians and bicyclists are often separated to reduce conflicts and improve comfort. Trails include **Off-Road Trails** and **Stream Valley Trails**.

#### **Benefits**

- Provide a bicycling environment suitable for all ages and abilities.
- Tend to have fewer at-grade crossings than other bikeways.

#### **Typical Application**

 Often located within existing or unused railroad rights-of-way, utility rights-of-way or along linear environmental features, such as streams and rivers.

#### **Examples in Montgomery County**

#### Stream Valley Trails:

- Rock Creek Trail
- Sligo Creek Trail

#### Off-Road Trails:

- North Bethesda Trail
- Capital Crescent Trail



## SEPARATED BIKEWAYS

Separated bikeways provide physical separation from traffic and include **sidepaths** and **separated bike lanes**. Generally, they will be considered on any road with one or more of the following characteristics:

- Traffic lanes: 4 lanes or more.
- Posted speed limit: 35 mph or faster.
- Traffic: 6,000 vehicles per day or more.
- On-Street parking turnover: frequent.
- Bike lane obstruction: likely to be frequent.

Once the decision is made to provide a separated bikeway from traffic, planners must determine whether the bikeway should also be separated from pedestrians.

Pedestrian demand will be the primary consideration for determining whether a separated bikeway should be implemented as a sidepath or a separated bike lane. All other things being equal, sidepaths will be recommended where observed or anticipated pedestrian demand is lower, since conflicts between people walking and bicycling will be infrequent. Separated bike lanes will be recommended where pedestrian volumes are observed or anticipated to be higher.

#### Another closely related factor is the land use type and density of the surrounding environment.

Sidepaths tend to be more appropriate in suburban areas where pedestrian travel is less and where pedestrian movements tend to be more predictable. In urban areas, pedestrian travel is characterized by meandering and stop-and-go movements as people socialize, enter and exit stores, dine outdoors, access transit or walk to and from on-street parking. Pedestrians movements are less predictable in urban locations, so providing separated bike lanes and sidewalks is recommended in the vicinity of commercial and higher-density mixed-use areas and major transit facilities.



Sidepath on MacArthur Boulevard, Bethesda

#### SIDEPATHS

Sidepaths are shared use paths that are located within the road right-of-way. They provide two-way travel designated for walking, bicycling, jogging and skating. Sidepaths are typically 10 feet wide, but can vary between 8 feet (in constrained locations) and 14 feet wide (where usage is likely to be higher). Sidepaths are separated from motorized traffic by a curb, barrier or landscaped panel.

#### **Benefits**

 More attractive to a wider range of bicyclists than striped bikeways on higher volume and higher speed roads

#### **Typical Application**

- See section overview.
- Adjacent to the roadway.
- Recommended on higher volume and higher speed roads where pedestrian volumes are low, including suburban streets.

#### Examples in Montgomery County

- MacArthur Boulevard
- Key West Avenue
- Olney-Laytonsville Road
- Briggs Chaney Road



#### **Benefits**

- More attractive to a wider range of bicyclists than striped bikeways on higher volume and higher speed roads.
- Eliminate the risk of a bicyclist being hit by an opening car door.
- Prevent motor vehicles from driving, stopping or waiting in the bikeway.
- Provide greater comfort to pedestrians.

#### **Typical Application**

- See section overview.
- Adjacent to the roadway.
- Recommended on higher volume and higher speed roads where pedestrian volumes are high, including higher density areas, commercial and mixed-use development, and near major transit stations.

#### Examples in Montgomery County

- Woodglen Drive
- Nebel Street (forthcoming)
- Spring Street (forthcoming)

#### **SEPARATED BIKE LANES**

Separated Bike Lanes are an exclusive bikeway facility type that combines the user experience of a sidepath with the on-street infrastructure of a conventional bike lane. They are physically separated from motor vehicle traffic and distinct from the sidewalk.

Separated bike lanes can provide different levels of separation:

- Separated bike lanes with flexible delineator posts ("flex posts") alone offer the least separation from traffic and are appropriate as interim solution.
- Separated bike lanes that are raised with a wider buffer from traffic provide the greatest level of separation from traffic, but will often require road reconstruction.
- Separated bike lanes that are protected from traffic by a row of on-street parking, such as shown in the image of Woodglen Avenue, offer a high-degree of separation, but would benefit from additional design features.

Bike Lanes on Battery Lane, Bethesda

## **STRIPED BIKEWAYS**

Striped bikeways are designated spaces for bicycling that are distinguished from traffic lanes and shoulders by striping and pavement markings. Until a few years ago, **conventional bike lanes** were the gold standard of North American bicycle planning in urban areas. Currently, 150 miles of bike lanes are recommended in Montgomery County's master plans and about 30 miles have been fully implemented.

Over the past few years, a variety of new bike lane types have arisen, including **buffered bike lanes** and **advisory bike lanes**. Collectively, this reports refers to the variety of bike lanes as striped bikeways. While striped bikeways remain a useful tool to reduce traffic stress, they are insufficient to attract "interested but concerned" bicyclists in many environments because they do not provide sufficient separation from traffic and are often obstructed by motorized vehicles.

STRIPED RIKEWAY

Striped bikeways will generally be considered on any roads with one or more of the following characteristics:

- Traffic lanes: 3 lanes or less.
- Posted speed limit: 30 mph or less.
- Traffic: 9,000 vehicles per day or less.
- On-Street parking turnover: infrequent.
- Bike lane obstruction: likely to be infrequent.
- Where a separated bikeway is infeasible or not desirable.

#### **Benefits**

TRIPEN RIKEWA

- Provides greater separation between motor vehicles and bicyclists.
- Provides space for one bicyclist to pass another without encroaching into the adjacent motor vehicle travel lane.
- Encourages bicyclists to ride outside of the door zone when the buffer is between parked cars and the bike lane.
- Provides a greater space for bicycling without making the bike lane appear so wide that it might be mistaken for a travel lane or a parking lane.
- Appeals to a wider cross-section of bicycle users.

#### **Typical Application**

• See section overview.

#### **Examples in Montgomery County**

None

Buffered Bike Lanes on East Capitol Street SE, Washington, DC

#### **BUFFERED BIKE LANES**

Buffered Bike Lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane. Conventional Bike Lanes on Morinelli Road, North Bethesda

#### **CONVENTIONAL BICYCLE LANES**

Conventional Bicycle Lanes (or simply bicycle lanes) are portions of the roadway that have been designated by striping, signage and pavement markings for the preferential or exclusive use of bicyclists. They are typically 5 to 6 feet wide in Montgomery County.

This category also includes climbing lanes and contra-flow bike lanes. **Climbing Lanes** include a bicycle lane in the uphill direction and a shared lane in the downhill direction. These lanes are used to improve safety on hills where there is a higher speed differential between bicyclists and motor vehicles. **Contra-flow Bicycle Lanes** are bicycle lanes designed to allow bicyclists to ride in the opposite direction of motor vehicle traffic. They convert a one-way traffic street into a two-way street: one direction for motor vehicles and bikes, and the other for bikes only.

#### **Benefits**

 Increases bicyclist comfort and confidence on busy streets.

STRIPED RIKEW

- Creates separation between bicyclists and automobiles.
- Increases predictability of bicyclist and motorist positioning and interaction.
- Increases total capacities of streets carrying mixed bicycle and motor vehicle traffic.
- Visually reminds motorists of bicyclists' right to bicycle in the street.

#### **Typical Application**

• See section overview.

#### Examples in Montgomery County

- Dufief Mill Road
- Battery Lane
- Bonifant Road
- Fairland Road

#### Benefits

TRIPED BIKEWAY

- Require less space to implement than conventional bike lanes.
- Encourage motorists to safely pass bicyclists.
- Visually reminds motorists of bicyclists' right bicycle in the street.
- Removing the center line reduces the speed of motor vehicles.

#### **Typical Application**

- Where there is insufficient space for conventional bike lanes and two lanes of traffic.
- Residential land uses.
- Number of travel lanes: un-laned, bidirectional streets.
- Street width: The un-laned two-way travel space should be 12 to 18 feet.
- Posted speed: 30 mph or less.
- Traffic: 2,000 to 4,000 vehicles per day.
- Parking: May be used on streets with or without on-street parking.

#### **Examples in Montgomery County**

None

Advisory Bike Lanes on Potomac Green Drive, Alexandria, Virginia

#### **ADVISORY BIKE LANES**

Advisory Bike Lanes are a way to reduce the stress of bicycling on lower volume and lower speed residential streets where there is insufficient space to provide two bike lanes and two travel lanes. Space is provided for bike lanes by removing the center line from the road and narrowing the area for automobiles.

Unlike a conventional bike lane where motorists are discouraged from entering the bike lane marked by a solid lane line, the advisory bike lane is continuously dashed to allow motorists to temporarily enter the bike lane to provide oncoming traffic sufficient space to safely pass, as long as a bicyclist is not approaching. This behavior is similar to the passing behavior on many narrow residential, un-laned, two-way "yield" streets where traffic lanes are not designated with striping and motorists must pull to the side (into parking gaps or driveways) to let oncoming vehicular traffic pass. Bikeable Shoulders on Sanibel Causeway Sanibel Island, Florida. Source: http://bikewalklee.blogspot.com

ONLY

## **BIKEABLE SHOULDERS**

Bikeable shoulders are portions of the roadway that accommodate stopped or parked vehicles, emergency use and bicycles and motor scooters. Bikeable shoulders of at least three feet in width can improve comfort on some roadways for some bicyclists. They are more likely to be present in suburban and rural locations in the county, often where posted speed limits are 40 mph and higher.

Bicyclists often encounter potentially hazardous conditions while using roadway shoulders, which are often inconsistent in their width and pavement quality. Shoulders sometimes end unexpectedly or are otherwise unusable because of parked vehicles, forcing bicyclists to move into the travel lane.

It is unlikely that the Working Draft of the Bicycle Master Plan will recommend widening the road to create new bikeable shoulders where they would not otherwise be implemented. emergency use and stopped vehicles because on most roads they

#### **Benefits**

• Provide separation from traffic.

#### **Typical Application**

- Primarily found in suburban or rural locations.
- Posted Speed Limit: ≥ 40 mph

#### **Examples in Montgomery County**

- River Road
- New Hampshire Avenue from MD 198 to MD 108
- Norwood Road from MD 182 to MD 650

do not create a low-stress bicycling environment. However, where bikeable shoulders are provided, roadway shoulders should be upgraded to provide a consistent width and pavement quality.



## SHARED ROADS

**Shared Roads** are bikeways that share space with automobiles. They include neighborhood greenways in suburban areas and shared streets in urban areas. Of course, all roadways where bicycles share space with automobiles are de facto shared roads, but only some are master-planned.

#### SHARED STREETS

Shared Streets constitute an urban design approach where pedestrians, bicycles and motor vehicles can comfortably coexist. They are typically located on low traffic volume, low traffic speed and high pedestrian volume streets, and often eliminate design features such as curbs, road surface markings, traffic signs and traffic lights. Shared streets will be included in the Working Draft of the Bicycle Master Plan as a bikeway facility type. However, this facility type is dependent on the roadway and land use contexts, which are typically addressed in area master plans, so only existing shared streets will be reflected in the Working Draft of the Bicycle Master Plan.

Note: The Montgomery County Department of Transportation is not currently pursuing shared streets along public roads, as they present maintenance and liability issues. At this time, shared streets are most likely to be realized as part of privately owned and maintained facilities.

Examples in Montgomery County:

None.

A neighborhood greenway on SE Lincoln Street in Portland, Oregon. Source: Toole Design Group

#### **NEIGHBORHOOD GREENWAYS**

Neighborhood Greenways (also called bicycle boulevards) are streets with low motorized traffic volumes and speeds, designated and designed to give walking and bicycling priority. They use signs, pavement markings and speed and volume management measures to discourage through trips by motor vehicles and create safe, convenient crossings of busy arterial streets. The Working Draft of the Bicycle Master Plan will include a concept plan for a neighborhood greenway between Downtown Silver Spring and Wheaton.

Neighborhood greenways incorporate several design elements:

- Traffic diverters at key intersections to reduce through motor vehicle traffic while permitting passage for through bicyclists.
- At two-way, stop-controlled intersections, priority assignment that favors the neighborhood greenway, so bicyclists can ride with few interruptions.
- Neighborhood traffic circles and mini-roundabouts at minor intersections to slow traffic but allow bicyclists to maintain momentum.
- Traffic-calming to lower motor traffic speeds.

#### **Benefits**

- Attractive to a wide range of bicyclists.
- Reduce the speed and volume of traffic.

SHARED ROAD

- Prioritize walking and bicycling at minor street crossings.
- Improve safety and reduce delay for walking and bicycling at major street crossings.

#### **Typical Application**

- Posted Speed Limit:  $\leq$  25 mph.
- Context: areas where through traffic can be diverted to parallel streets.
- Street pattern: where a continuous route for bicycling is possible.

#### **Examples in Montgomery County**

- None
- Wayfinding signs to guide bicyclists along the route and to key destinations.
- Shared-lane markings (sharrows) where appropriate to alert drivers to the path bicyclists need to take on a shared roadway.
- Crossing improvements where the boulevard crosses major streets (including traffic signals, median refuges and curb extensions).

#### **Priority Shared Lanes**

Shared lane markings with additional visual cues to denote bicycle priority and encourages motor vehicles to pass bicycles by switching lanes.

#### **Benefits**

Provide additional visual cues to denote bicycle priority and encourages motor vehicles to pass bicycles by switching lanes.

#### **Typical Application**

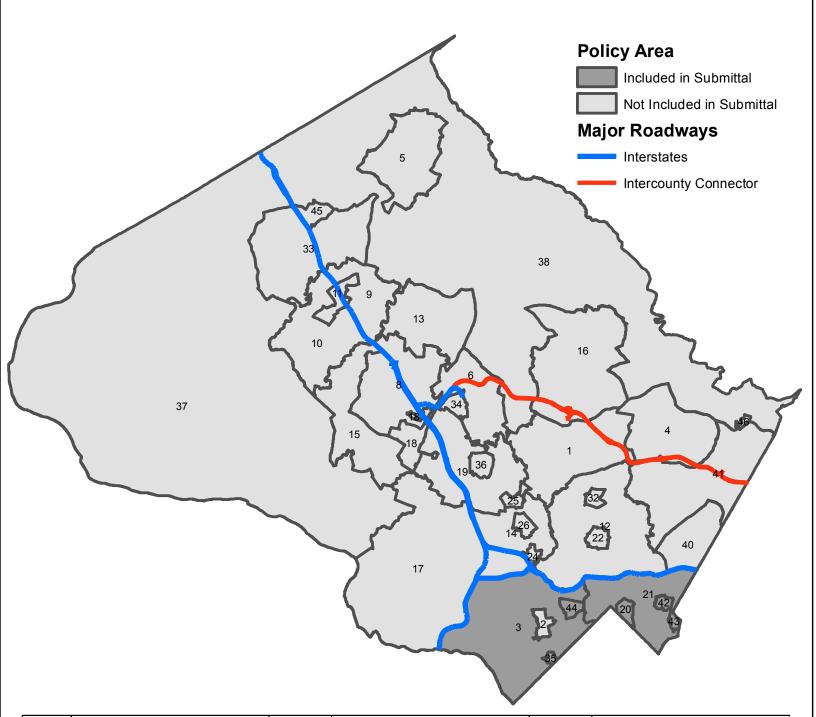
Used on streets with higher levels of traffic stress levels in very constrained locations where the actions needed to reduce traffic stress to a low level are not recommended. These locations include older roads such as the retail section of Carroll Ave in the City of Takoma Park, where but traffic volumes are moderate and on-street parking turnover is high, leading to a moderate-low level of traffic stress.



Priority Lane on 200 South in Salt Lake City



Bicycle priority lanes on Longwood Avenue in Brookline, MA



#	NAME	#	NAME	#	NAME
1	Aspen Hill	15	North Potomac	34	Shady Grove Metro Station
2	Bethesda CBD	16	Olney	35	Friendship Heights
3	Bethesda/Chevy Chase	17	Potomac	36	Rockville Town Center
4	Cloverly	18	R&D Village	37	Rural West
5	Damascus	19	Rockville City	38	Rural East
6	Derwood	20	Silver Spring CBD	40	White Oak
8	Gaithersburg City	21	Silver Spring/Takoma Park	41	Fairland/Colesville
9	Germantown East	22	Wheaton CBD	42	Long Branch Sector Plan
10	Germantown West	24	Grosvenor	43	Takoma/Langley
11	Germantown Town Center	25	Twinbrook	44	Chevy Chase Lake Master Plan
12	Kensington/Wheaton	26	White Flint	45	Clarksburg Town Center
13	Montgomery Village/Airpark	32	Glenmont	46	Burtonsville Town Center
14	North Bethesda	33	Clarksburg		

# SILVER SPRING-TAKOMA PARK (EAST)



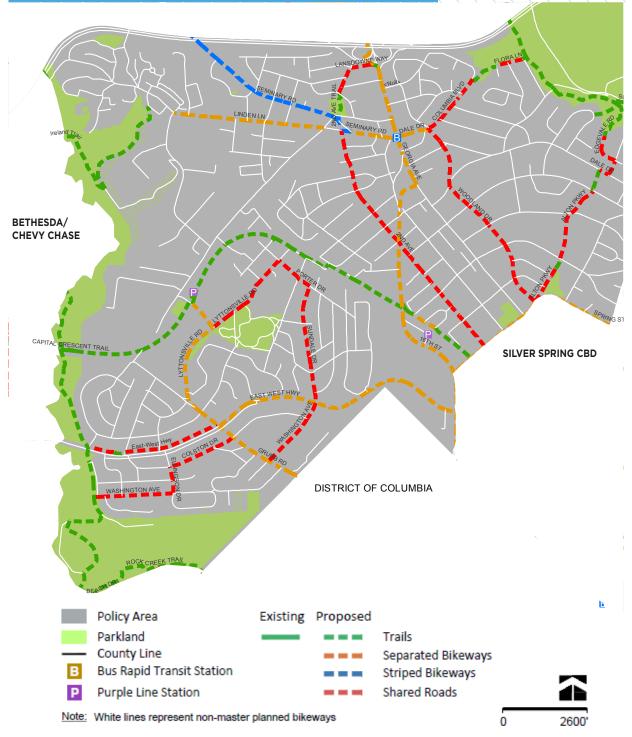
STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
University Blvd	TBD (north of study area)	Langley Dr	Sidepath	Both Sides
University Blvd	Langley Dr	Prince George's County	Separated Bike Lanes	Two-Way, Both Sides
New Hampshire Ave	TBD (north of study area)	Prince George's County	Sidepath	Both Sides
	University Blvd	Erskine St	Separated Bike Lanes	Two-Way, Both Sides
New Hampshire Ave	Erskine St	Ethan Allen Ave	Sidepath	Both Sides
	Ethan Allen Ave	District of Columbia	Separated Bike Lanes	Two-Way, Both Sides
Sligo Creek Trail	Prince George's County	Orebaugh Ave	Stream Valley Park Trail	
I-495 Bridge	TBD (north of I-495)	Fairway Ave	Off-Road Trail	
Fairway Ave	Marshall Ave	Granville Dr	Neighborhood Greenway	
Caroline Ave	Granville Dr	Franklin Ave	Neighborhood Greenway	
Indian Spring Dr	US 29	University Blvd	Neighborhood Greenway	
Franklin Ave	End of Franklin Ave	University Blvd	Neighborhood Greenway	
Franklin Ave	University Blvd	Worth Ave	Conventional Bike Lanes	
Worth Ave	Franklin Ave	Hamilton Ave	Neighborhood Greenway	
Hamilton Ave	Worth Ave	Worth Ave	Neighborhood Greenway	
Worth Ave	Hamilton Ave	Sligo Creek Pkwy	Neighborhood Greenway	
Oakview Dr	Northwest Branch Trail	New Hampshire Ave	Neighborhood Greenway	

STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Bennington Ln	Sligo Creek Trail Connector	Bennington Dr	Neighborhood Greenway	
Bennington Dr	Bennington Ln	Ellsworth Dr	Neighborhood Greenway	
Ellsworth Dr	Bennington Rd	Cedar St	Neighborhood Greenway	
Trail	Franklin Ave	Sudbury Rd	Off-Road Trail	
Sudbury Rd	Off-Road Trail	Plymouth St	Neighborhood Greenway	
Plymouth St	Sudbury Rd	Walden St	Neighborhood Greenway	
Walden Rd	Plymouth St	Arliss St	Neighborhood Greenway	
Silver Spring Green Trail / Wayne Ave	Sligo Creek Pkwy	Cedar St	Sidepath	North Side
Silver Spring Ave	Fenton St	Piney Branch Rd	Neighborhood Greenway	
Gist Ave	Selim Dr	Ray Dr	Neighborhood Greenway	
Ray Dr	Gist Ave	Piney Branch Rd	Neighborhood Greenway	
Takoma Ave	Gist Ave	Albany Ave	Neighborhood Greenway	
Cedar St	Wayne Ave	Bonifant St	Neighborhood Greenway	
Bonifant St	Cedar St	Grove St	Neighborhood Greenway	
Grove St	Bonifant St	Sligo Ave	Neighborhood Greenway	
Sligo Ave	Grove St	Woodbury Dr	Sidepath	North Side
Woodbury Dr	Sligo Ave	Fenton St	Neighborhood Greenway	

STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Piney Branch Rd	Philadelphia Ave	Flower Ave	Sidepath	South Side
Piney Branch Rd	Carroll Ave	Prince George's County	Sidepath	North Side
Creat Ave	Piney Branch Rd	Hancock Ave	Neighborhood Greenway	
Grant Ave	Hancock Ave	Carroll Ave	Contra Flow Bike Lane	
City of Takoma Park	Philadelphia Ave	Grant Ave	Off-Road Trail	
Philadelphia Ave	Holly Ave	Maple Ave	Neighborhood Greenway	
Cedar Ave	Philadelphia Ave	District of Columbia	Neighborhood Greenway	
	Kennebec Ave	Hilltop Rd	Neighborhood Greenway	
Maple Ave	Hilltop Rd	Philadelphia Ave	Separated Bike Lanes	One-Way, Both Sides
	Philadelphia Ave	District of Columbia	Neighborhood Greenway	
	Piney Branch Rd	Merrimac Dr	Separated Bike Lanes	One-Way, Both Sides
	Merrimac Dr	Long Branch Pkwy	Conventional Bike Lanes	
Carroll Ave	Long Branch Pkwy	Flower Ave	Priority Shared Lanes	
	Flower Ave	Lee Ave	Conventional Bike Lanes	
	Lee Ave	District of Columbia	Priority Shared Lanes	
Ethan Allen Ave	Carroll Ave	New Hampshire Ave	Priority Shared Lanes	
	Piney Branch Rd	Carroll Ave	Priority Shared Lanes	
Flower Ave	Carroll Ave	Sligo Creek Pkwy	Neighborhood Greenway	
Kennebec Ave	Sligo Creek Pkwy	Long Branch Trail	Neighborhood Greenway	
Greenwood Ave	Piney Branch Rd	Division St	Neighborhood Greenway	

STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Division St	Greenwood Ave	Flower Ave	Neighborhood Greenway	
Maplewood Ave	Maple Ave	Flower Ave	Neighborhood Greenway	
Maplewood Ave Trail	Flower Ave	Greenwood Ave	Off-Road Trail	
Maplewood Ave	Greenwood Ave	Garland Ave	Neighborhood Greenway	
Jackson Ave	Flower Ave	Glenside Dr	Neighborhood Greenway	

## SILVER SPRING-TAKOMA PARK (WEST)



STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Capital Crescent Trail	Woodmont Ave	Silver Spring Transit Center	Off-Road Trail	
Rock Creek Trail	Needwood Lake Cir	East-West Hwy	Stream Valley Park Trail	
Meadowbrook Ln	East-West Hwy	Rock Creek Trail	Sidepath	West Side
Rock Creek Trail	Meadowbrook Ln	District of Columbia	Stream Valley Park Trail	
Sligo Creek Trail	Prince George's County	Orebaugh Ave	Stream Valley Park Trail	
Ireland Trail	Ament St	Rock Creek Trail	Off-Road Trail	
Seminary Rd	Forest Glen Rd	Columbia Blvd	Conventional Bike Lanes	
Columbia Blvd	200 Feet East Of 2nd Ave	Georgia Ave	Separated Bike Lanes	One-Way, Both Sides
Dale Dr	Georgia Ave	Woodland Ave	Separated Bike Lanes	One-Way, Both Sides
Columbia Blvd	Woodland Ave	Flora Ln	Neighborhood Greenway	
Trail	Columbia Blvd	Flora Ter	Off-Road Trail	
Flora Ln	Flora Ter	Sligo Creek Trail Connector	Neighborhood Greenway	
Linden Ln	Stephen Sitter Ave	Brookeville Rd	Sidepath	South Side
Lyttonsville Pl	Brookville Rd	Lyttonsville Rd	Separated Bike Lanes	Two-Way, East Side
Lyttonsville Rd	Lyttonsville Pl	Grubb Rd	Separated Bike Lanes	One-Way, Both Sides
Grubb Rd	Lyttonsville Pl	District of Columbia	Separated Bike Lanes	Two-Way, South Side
Lyttonsville Rd	Lyttonsville Pl	Michigan Ave	Neighborhood Greenway	
Michigan Ave	Lyttonsville Pl	Pennsylvania Ave	Neighborhood Greenway	

STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Pennsylvania Ave	Michigan Ave	Lanier Dr	Neighborhood Greenway	
Porter Dr	Lanier Dr	Sundale Dr	Neighborhood Greenway	
Sundale Dr	Porter Dr	East-West Hwy	Neighborhood Greenway	
Washington Ave	East-West Hwy	Grubb Rd	Neighborhood Greenway	
Washington Ave	Meadowbrook La	Ellingson Dr	Neighborhood Greenway	
Ellingson Dr	Washington Ave	Colston Dr	Neighborhood Greenway	
Colston Dr	Ellingson Dr	Grubb Rd	Neighborhood Greenway	
East-West Hwy	Rock Creek Trail	Grubb Rd	Neighborhood Greenway	
Last West Hwy	Grubb Rd	16th St	Sidepath	North Side
Georgia Ave	Lansdowne Way	16th St	Separated Bike Lanes	Two-Way, West Side
16th St	Georgia Ave	District of Columbia	Separated Bike Lanes	Two-Way, East Side
I-495 Pedestrian Over / Underpass	Forest Glen Rd	Lansdowne Way	Sidepath	West Side
Trail	Lansdowne Way	Georgia Ave	Off-Road Trail	
Lansdowne Way	Georgia Ave	2nd Ave	Neighborhood Greenway	
2nd Ave	Lansdowne Way	Riley Rd	Neighborhood Greenway	
2nd Ave Trail	Riley Rd	Seminary Pl	Off-Road Trail	
2nd Ave	Seminary Pl	Seminary Rd	Conventional Bike Lanes	
2nd Ave	Seminary Rd	16th St	Conventional Bike Lanes	

STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
2nd Ave	16th St	Spring St	Neighborhood Greenway	
Woodland Dr	Columbia Blvd	Spring St	Neighborhood Greenway	
Sligo Creek Trail Connector	Sligo Creek Trail	Edgevale Rd	Off-Road Trail	
Edgevale Rd	Sligo Creek Trail Con- nector	Harvey Rd	Neighborhood Greenway	
Harvey Rd	Edgevale Rd	Dale Dr	Neighborhood Greenway	
Trail	Dale Dr	Highland Dr	Off-Road Trail	
Alton Pkwy	Highland Dr	Noyes Dr	Neighborhood Greenway	
Trail	Noyes Dr	Burton St	Off-Road Trail	
Alton Pkwy	Burton St	Spring St	Neighborhood Greenway	

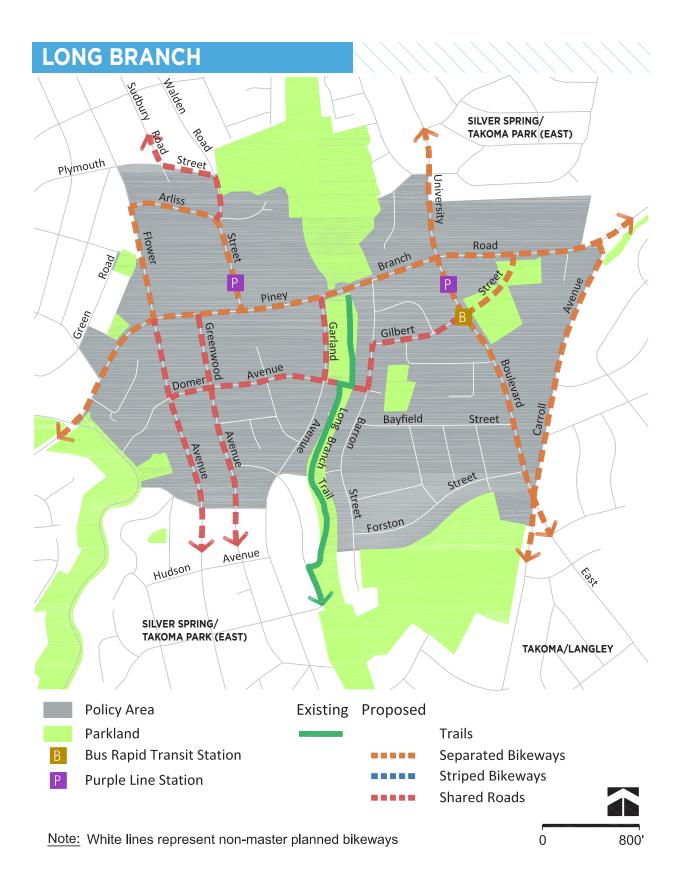


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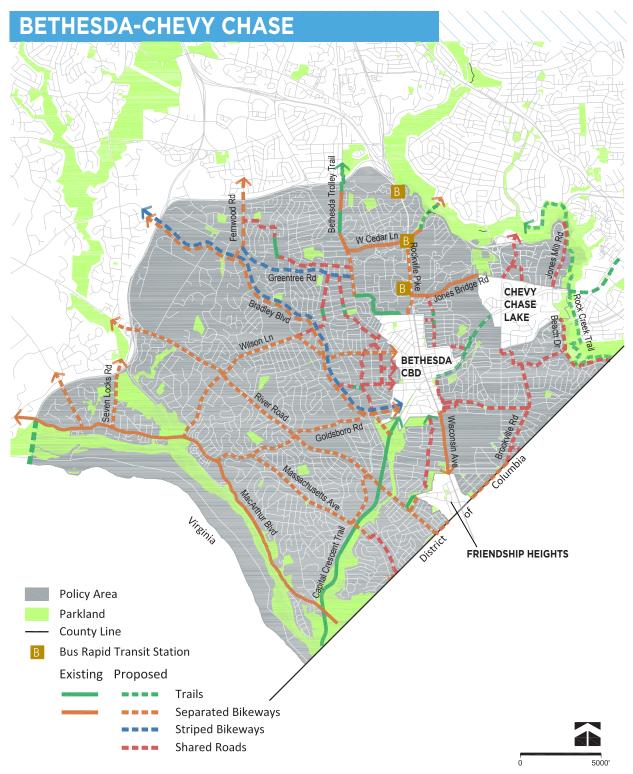
STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
13th St / Burlington Ave	District of Columbia	Georgia Ave	Separated Bike Lanes	TBD
16th St	Georgia Ave	District of Columbia	Separated Bike Lanes	Two-Way, East Side
2nd Ave	Spring St	Colesville Rd	Separated Bike Lanes	One-Way, Both Sides
Cameron St	Spring St	2nd Ave	Separated Bike Lanes	TBD
Capital Crescent Trail	47th St	Silver Spring Transit Center	Off-Road Trail	
Colesville Rd	East-West Hwy	Wayne Ave	Separated Bike Lanes	Two-Way, Both Sides
Dixon Ave	Wayne Ave	Georgia Ave	Separated Bike Lanes	One-Way, Both Sides
East-West Hwy	16th St	Colesville Rd	Separated Bike Lanes	Two-Way, North Side
Fenton St Extended	Spring St	Cameron St	Separated Bike Lanes	Two-Way, West Side
Fenton St	Cameron St	King St	Separated Bike Lanes	Two-Way, West Side
Metropolitan Branch Trail	Silver Spring Transit Center	King St	Off-Road Trail	
Metropolitan Branch Trail	King St	District of Columbia	Sidepath	West Side
Newell St	District of Columbia	East-West Hwy	Conventional Bike Lanes	
Philadelphia Ave / Gist Ave	Selim Rd	Fenton St	Priority Shared Lanes	
Selim Rd	Philadelphia Ave	Metropolitan Branch Trail	Sidepath	West Side
Silver Spring Ave	Georgia Ave	Fenton St	Separated Bike Lanes	One-Way, Both Sides
Spring St / Cedar St	16th St	Wayne Ave	Separated Bike Lanes	One-Way, Both Sides
Wayne Ave	Colesville Rd	Cedar St	Separated Bike Lanes	Two-Way, North Side



STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Anne St	Glenside Dr	University Blvd	Neighborhood Greenway	
Carroll Avenue	University Boulevard	Merrimac Dr	Separated Bike Lanes	One-Way, Both Sides
Carroll Avenue	Merrimac Dr	Long Branch Trail	Conventional Bike Lanes	
Erskine St	New Hampshire Ave	Prince George's County	Neighborhood Greenway	
Glenside Dr	Carroll Ave	New Hampshire Ave	Neighborhood Greenway	
Holton La	Wildwood Dr	New Hampshire Ave	Neighborhood Greenway	
Holton La	New Hampshire Ave	Prince George's County	Separated Bike Lanes	One-Way, Both Sides
Jackson Ave Trail	Glenside Dr	Garland Ave	Stream Valley Trails	
New Hampshire Ave	University Blvd	Erskine St	Separated Bike Lanes	Two-Way, Both Sides
New Hampshire Ave	Erskine St	Ethan Allen Ave	Sidepath	Both Sides
Sligeo Creek Trail	Orebaugh Ave	Prince George's County	Stream Valley Trails	
Street B-2	University Blvd	Holton La	Separated Bike Lanes	One-Way, Both Sides
University Blvd	Prince George's County	Langley Dr	Separated Bike Lanes	Two-Way, Both Sides
Wildwood Dr	Carroll Ave	Glenside Dr	Neighborhood Greenway	



STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Arliss St	Flower Ave	Piney Branch Rd	Separated Bike Lanes	One-Way, Both Sides
Barron St	Domer Ave	Gilbert St	Neighborhood Greenway	
Carroll Ave	Piney Branch Rd	Merrimac Dr	Separated Bike Lanes	One-Way, Both Sides
Domer Ave	Flower Ave	Barron St	Neighborhood Greenway	
Flower Ave	Arliss St	Piney Branch Rd	Separated Bike Lanes	One-Way, Both Sides
Flower Ave	Piney Branch Rd	Carroll Ave	Priority Shared Lanes	
Gilbert St	Barron St	University Blvd	Neighborhood Greenway	
Gilbert St Ext	University Blvd	Piney Branch Rd	Separated Bike Lanes	One-Way, Both Sides
Greenwood Ave	Piney Branch Rd	Division St	Neighborhood Greenway	
Long Branch Trail	Piney Branch Rd	Haddon Dr	Stream Valley Park Trail	
Piney Branch Rd	Philadelphia Ave	Flower Ave	Sidepath	South Side
Piney Branch Rd	Flower Ave	Carroll Ave	Separated Bike Lanes	Two-Way, North Side
Piney Branch Rd	Carroll Ave	Prince George's County	Sidepath	North Side
Plymouth St	Sudbury Rd	Walden Rd	Neighborhood Greenway	
University Blvd	TBD (north of study area)	Langley Dr	Sidepath	Both Sides
University Blvd	Langley Dr	Prince George's County	Separated Bike Lanes	Two-Way, Both Sides
Walden Rd	Plymouth St	Arliss St	Neighborhood Greenway	



Note: White lines represent non-master planned bikeways

STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
American Legion Bridge	Virginia	Mac Arthur Blvd	Off-Road Trail	
Mac Arthur Blvd	Falls Rd	District of Columbia	Sidepath	West Side
	Counselman Rd	Westbard Ave Ext	Sidepath	East Side
River Rd	Westbard Ave Ext	Little Falls Pkwy	Separated Bike Lanes	Two-Way, East Side
	Little Falls Pkwy	Western Ave	Sidepath	East Side
Seven Locks Rd	TBD (north of study area)	Mac Arthur Blvd	Sidepath	East Side
Persimmon Tree Rd	River Rd	Mac Arthur Blvd	Sidepath	West Side
Wilson Ln	Mac Arthur Blvd	Old Georgetown Rd	Sidepath	North Side
Goldsboro Rd	Mac Arthur Blvd	Bradley Blvd	Separated Bike Lanes	One-Way, Both Sides
Massachusetts Ave	Goldsboro Rd	Baltimore Ave	Sidepath	East Side
Baltimore Ave	Massachusetts Ave	Worthington Dr	Neighborhood Greenway	
Worthington Dr	Baltimore Ave	District of Columbia	Neighborhood Greenway	
Bradley Blvd	TBD (north of study area)	Fairfax Rd	Sidepath (east side) & Conventional Bike Lanes	
Capital Crescent Trail	District Of Columbia	Woodmont Ave	Off-Road Trail	
Greentree Rd	Fernwood Rd	Old Georgetown Rd	Conventional Bike Lanes	
Garfield St -	Greentree Rd	Roosevelt St	Neighborhood Greenway	
Garfield Street Trail -	Roosevelt St	Northfield Rd	Off-Road Trail	
Garfield St -	Northfield Rd	Huntington Pkwy	Neighborhood Greenway	

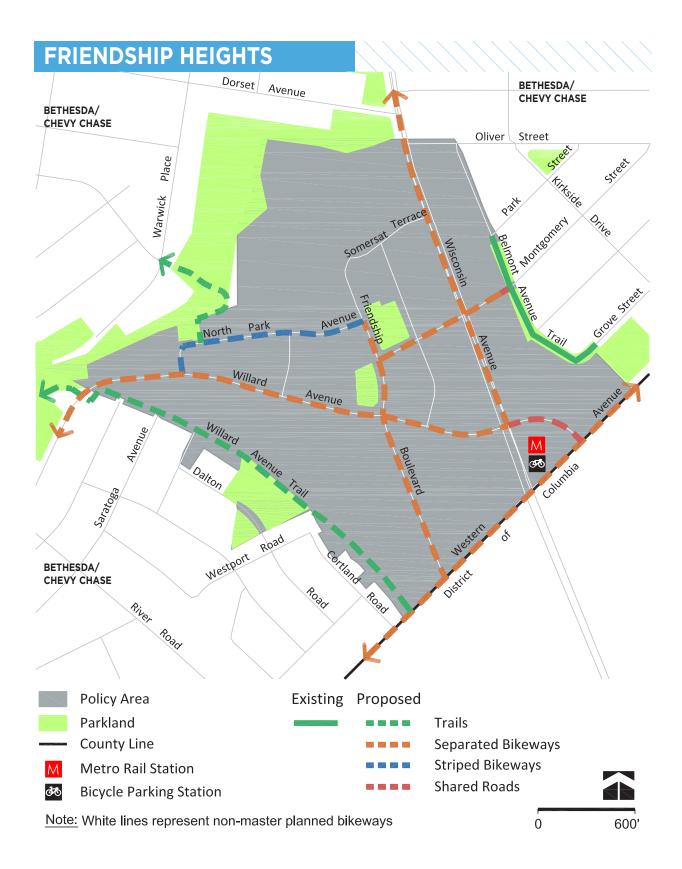
STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Aberdeen PI -	Huntington Pkwy	Aberdeen Rd	Neighborhood Greenway	
Aberdeen Rd	Aberdeen Pl	Wilson Ln	Neighborhood Greenway	
Grant St	Greentree Rd	Roosevelt St	Neighborhood Greenway	
Trail	Roosevelt St	Northfield Rd	Off-Road Trail	
Moorland La	Northfield Rd	Custer Rd	Neighborhood Greenway	
Custer Rd	Moorland La	Lambeth Rd	Neighborhood Greenway	
Park La	Lambeth Rd	Battery Ln	Neighborhood Greenway	
Rosedale Ave	Maryland Ave Trail	Wisconsin Ave	Neighborhood Greenway	
Battery Ln	Wisconsin Ave	Old Georgetown Rd	Conventional Bike Lanes	
Battery Ln	Old Georgetown Rd	Wilson Ln	Neighborhood Greenway	
Glenbrook Rd	Battery Ln	Bradley Blvd	Neighborhood Greenway	
Glenbrook Rd	Bradley Blvd	Little Falls Pkwy	Sidepath	West Side
Exeter Rd	Wilson Ln	Elm St	Neighborhood Greenway	
Fernwood Rd	TBD (north of study area)	Greentree Rd	Separated Bike Lanes	One-Way, Both Sides
	Greentree Rd	Bradley Blvd	Sidepath	TBD
Marywood Rd	Fernwood Rd	Kirkdale Rd	Neighborhood Greenway	
Kirkdale Rd	Marywood Rd	Wilmett Rd	Neighborhood Greenway	

STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Wilmett Rd	Kirkdale Rd	Bulls Run Pkwy	Neighborhood Greenway	
Bulls Run Pkwy	Wilmett Rd	Adelaide Dr	Neighborhood Greenway	
Trail	Adelaide Dr	Bradmoor Dr	Off-Road Trail	
Bradmoor Dr	Ridge Pl	Lindale Dr	Neighborhood Greenway	
Rolston Rd	Lindale Dr	Oak Pl	Neighborhood Greenway	
Oak Pl	Rolston Rd	Sonoma Rd	Neighborhood Greenway	
Sonoma Rd	Oak Pl	Old Georgetown Rd	Neighborhood Greenway	
	Tuckerman Access	Charles St	Off-Road Trail	
Bethesda Trolley Trail	Charles St	South of Lincoln St	Sidepath	East Side
	Old Georgetown Rd	Rugby Ave	Off-Road Trail	
Cornish Rd	Bradley Blvd	Burling Rd	Neighborhood Greenway	
Trail	Burling Rd	Glenbrook Rd	Off-Road Trail	
Edgemoor La	Exeter Rd	Arlington Rd	Neighborhood Greenway	
Trail	Glenbrook Rd	Exfair Rd	Off-Road Trail	
Elm St	Exfair Rd	Arlington Rd	Neighborhood Greenway	
Trail	Chevy Chase Dr	Norwood Rd	Trail	
Stratford Rd	Norwood Rd	Hunt Ave	Neighborhood Greenway	

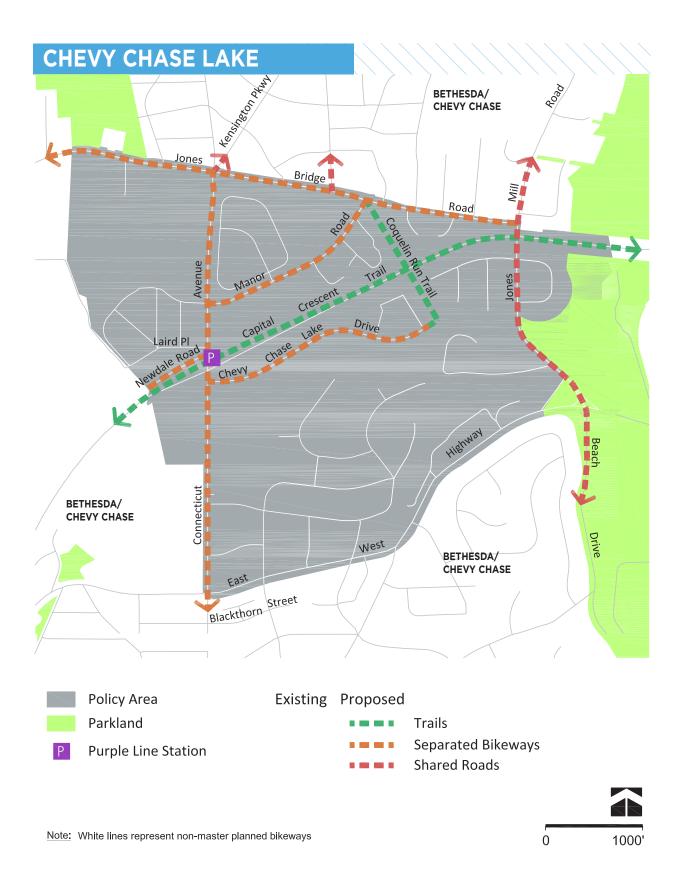
STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Trail	Hunt Ave	Drummond Ave	Trail	
Warwick Ln	Drummond Ave	Cumberland Ave	Neighborhood Greenway	
Cumberland Ave	Neighborhood Con- nector	Warwick Pl	Neighborhood Greenway	
Warwick Pl	Cumberland Ave	Vinton Park Con- nector	Neighborhood Greenway	
Vinton Park Con- nector	Vinton Park	N Park Ave	Off-Road Trail	
	Massachusetts Ave	Westbard Cir	Sidepath	West Side
Westbard Ave	Westbard Cir	River Rd	Separated Bike Lanes	One-Way, Both Sides
Willard Ave Park Trail	River Rd	Willard Ave	Off-Road Trail	
	River Rd	Cortland Rd	Sidepath	North Side
Western Ave	Cortland Rd	Kirkside Dr	Separated Bike Lanes	Two-Way, North Side
Western Ave	Kirkside Dr	Chevy Chase Cir	Sidepath	North Side
	Chevy Chase Cir	Brookville Rd	Sidepath	North Side
Rockville Pike	W Cedar Ln	Woodmont Ave	Sidepath	West Side
Woodmont Ave	Rockville Pike	Battery Ln	Sidepath	West Side
Wisconsin Ave	Bradley Blvd	Somerset Ter	Sidepath	East Side
Ridge St	West Ave	East Ave	Neighborhood Greenway	
East Ave	Ridge St	Stanford St	Neighborhood Greenway	
Stanford St	West Ave	Rosemary St	Neighborhood Greenway	

STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Rosemary St	Stanford St	Connecticut Ave	Neighborhood Greenway	
Raymond St	Connecticut Ave	Brookville Rd	Neighborhood Greenway	
W Cedar La	Bethesda Trolley Trail	Rockville Pike	Sidepath	South Side
Cedar La	Rockville Pike	Elmhirst Pkwy Trail	Separated Bike Lanes	
Elmhirst Pkwy Trail	Cedar La	Cedar La	Off-Road Trail	
Cedar La	Elmhirst Pkwy Trail	Rock Creek Trail	Separated Bike Lanes	
Maryland Ave	Jones Bridge Rd	Chelsea La	Neighborhood Greenway	
Maryland Ave Trail	Chelsea Ln	Maple Ave	Off-Road Trail	
Maryland Ave	Maple Ave	Chase Ave	Neighborhood Greenway	
Sleaford Rd	Tilbury St	Kentbury Dr	Neighborhood Greenway	
Capital Crescent Trail	47th St	Silver Spring Transit Center	Off-Road Trail	
46th St	Elm St	Walsh St	Neighborhood Greenway	
Walsh St	46th St	West Ave	Neighborhood Greenway	
West Ave	Walsh St	Bradley Ln	Neighborhood Greenway	
Blackthorn St -	Connecticut Ave	Glendale Rd	Neighborhood Greenway	
Glendale Rd -	Blackthorn St	Woodbine St	Neighborhood Greenway	
Woodbine St	Glendale Rd	Beach Dr	Neighborhood Greenway	

STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Connecticut Ave	Chevy Chase Lake Dr	Blackthorn St	Sidepath	East Side
Jones Bridge Rd	Wisconsin Ave	Platt Ridge Rd	Sidepath	North Side
Jones Bhuge Ku	Platt Ridge Rd	Jones Mill Rd	Sidepath	South Side
Brookville Rd	Woodbine St	Western Ave	Priority Shared Lanes	
Jones Mill Rd	TBD (north of study area)	East-West Hwy	Priority Shared Lanes	
Beach Dr	East-West Hwy	District of Columbia	Priority Shared Lanes	
Kenilworth Drwy	Kensington Pkwy	Montgomery Ave	Neighborhood Greenway	
Montgomery Ave	Kenilworth Drwy	Jones Bridge Rd	Neighborhood Greenway	
Kensington Pkwy	TBD (north of study area)	Connecticut Ave	Neighborhood Greenway	
Lenox St	Brookville Rd	Nevada Ave	Neighborhood Greenway	
Nevada Ave	Lenox St	Western Ave	Neighborhood Greenway	
Rock Creek Trail	Needwood Lake Cir	Western Ave	Stream Valley Park Trail	



STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Belmont Ave Trail	Park St	Grove St	Off-Road Trail	
Friendship Blvd	N Park Ave	Western Ave	Separated Bike Lanes	Two-Way, West Side
N Park Ave	Willard Ave	Friendship Blvd	Buffered Bike Lanes	
S Park Ave / Montgomery St	Friendship Blvd	Belmont Ave Trail	Separated Bike Lanes	Two-Way, South Side
Vinton Park Connector	Vinton Park	N Park Ave	Off-Road Trail	Construct as boardwalk
Western Ave	Cortland Rd	Kirkside Dr	Separated Bike Lanes	Two-Way, North Side
Willard Ave	River Rd	Wisconsin Ave	Separated Bike Lanes	One-Way Both Sides
Willard Ave Trail	Willard Ave	Western Ave	Off-Road Trail	
Wisconsin Ave	Bradley Blvd	Somerset Ter	Sidepath	East Side
Wisconsin Ave	Somerset Ter	Wisconsin Cir	Separated Bike Lanes	Two-Way, East Side
Wisconsin Cir	Wisconsin Ave	Western Ave	Priority Shared Lanes	



STREET	FROM	то	BIKEWAY TYPE	CONFIGURATION
Beach Dr	TBD (north of study area)	East-West Highway	Priority Shared Lanes	
Capital Crescent Trail	Woodmont Ave	Silver Spring Transit Center	Off-Road Trail	
Chevy Chase Lake Dr	Connecticut Ave	Coquelin Run Trail	Sidepath	North Side
Connecticut Ave	Jones Bridge Rd	Manor Rd	Sidepath	East Side
Connecticut Ave	Manor Rd	Laird Pl	Separated Bike Lanes	Two-Way, East Side
Connecticut Ave	Laird Pl	Newdale Rd	Sidepath (west) & Separated Bike Lanes (east)	Two-Way, West & East Side
Connecticut Ave	Newdale Rd	Chevy Chase Lake Dr	Separated Bike Lanes	Two-Way, East Side
Connecticut Ave	Chevy Chase Lake Dr	Blackthorn St	Sidepath	East Side
Coquelin Run Trail	Jones Bridge Rd	Chevy Chase Lake Dr	Off-Road Trail	
Jones Bridge Rd	Wisconsin Ave	Jones Bridge Rd	Sidepath	South Side
Jones Mill Rd	East-West Highway	District of Columbia	Priority Shared Lanes	
Kensington Pkwy	TBD (north of study area)	Connecticut Ave	Neighborhood Greenway	
Manor Rd	Connecticut Ave	Jones Bridge Rd	Sidepath	South Side
Montgomery Ave	Kenilworth Drwy	Jones Bridge Rd	Neighborhood Greenway	
Newdale Rd	Connecticut Ave	Capital Crescent Trail	Sidepath	South Side



Designation	Roadway/ Route	Limits	Status
Separated Bike Land	2		
CT-4	Woodmont Avenue <sup>1</sup>	Battery Lane to Bethesda Avenue	New Proposal
CT-5	Bradley Boulevard	W. Sector Plan Boundary to E. Sector Plan Boundary	New Proposal
CT-3	Capital Crescent Trail (Surface Route: Bethesda Ave/ Willow Ln)	47th Street to Woodmont Avenue	Proposed
Bike Lane			
BL-3	Wilson Lane (MD 188)	Aberdeen Road to Old Georgetown Road	Proposed
BL-7	Elm Street	Exeter Road to Wisconsin Avenue	Proposed
LB-1	Battery Lane	Old Georgetown Road to Woodmont Avenue	Existing
BL-44	Norfolk Avenue	Battery Lane Urban Park to Wisconsin Avenue	New Proposal
LB-2	Arlington Road	Old Georgetown Road to Bradley Boulevard	New Proposal
LB-3	Pearl Street	East-West Highway to Montgomery Avenue	New Proposal
Shared Roadway <sup>2</sup>			
LB-4	Cheltenham Drive	Wisconsin Avenue to Tilbury Street	New Proposal
SR-8	Edgemoor Ln/ Commerce Ln/ Avondale St	Exeter Road to Avondale Street	New Proposal
SR-9	Bethesda Avenue	Clarendon Road to Woodmont Avenue	Proposed
LB-1 <sup>3</sup>	Rosedale Avenue	Wisconsin Avenue to Tilbury Street	New Proposal
LB-5	Tilbury Street/ Sleaford Road	Rosedale Avenue to CCT	New Proposal
LB-6	Strathmore Street	Woodmont Avenue to Bradley Boulevard	Proposed
LB-7	Pearl Street	N. Sector Plan Boundary to East-West Highway	New Proposal
LB-3	Pearl Street	Montgomery Avenue to S. Sector Plan Boundary	New Proposal
Shared Use Path			
SP-3	North Bethesda Trail <sup>4</sup>	N. Sector Plan Boundary to Rugby Avenue	Existing
SP-6	Capital Crescent Trail	W. Sector Plan Boundary to E. Sector Plan Boundary	Existing
SP-44	Capital Crescent Trail (Surface Route)	Elm Street to Willow Lane via 47th Street	Proposed
SP-62	Wisconsin-Woodmont Trail	N. Sector Plan Boundary to Battery Lane	Existing

<sup>1</sup> Woodmont Avenue may be improved with either bike lanes or separated bike lanes, depending on the future one-way/ twoway operation of the street. If the street remains one-way southbound in its ultimate condition, two-way separated bike lanes are is necessary to facilitate safe, adequate and efficient bicycle circulation. Design and operation to be determined by MCDOT at the time of facility planning.

<sup>2</sup> All roads in the Sector Plan area should be designed for shared use by motor vehicles and bicycles and are designated as shared roadways unless another higher quality bicycle facility is provided (e.g. bike lanes). These shared roadways are called out for wayfinding purposes. This sector plan recommends amending the practice of implementing shared roadways on wide travel lanes; Bicycles should operate on-road as vehicles where the prevailing roadway operation is characterized by low vehicular speed and volume.

<sup>3</sup> The "LB" designation is a "Local Bikeway" that is not included in the Countywide Bikeway Master Plan due to its limited importance to the County as a whole. LB bikeways can be implemented as any facility designation.