MONTGOMERY COUNTY PLANNING DEPARTMENT THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

> MCPB Item No. 5 Date: 09-19-2019

Montgomery Lane Bike Lanes (CIP Project No. 500119), Mandatory Referral No. MR2019023

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Completed: 09/10/2019

DESCRIPTION

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Construction of 0.3-mile-long two-way separated bike lanes along the south side of Montgomery Lane and Montgomery Avenue between Woodmont Avenue and Pearl Street.

- Applicant: Montgomery County Department of Transportation
- Bethesda Downtown Master Plan Area
- Filing Date: July 1, 2019. 60-day review extended by consent of MCDOT



Staff Recommendation: Approval to Transmit Comments

MANDATORY REFERRAL REVIEW

This proposal for the construction of two-way separated bike lanes requires the Mandatory Referral review process under the Montgomery County Planning Department's Uniform Standards for Mandatory Referral Review. State law requires all federal, state, and local governments and public utilities to submit proposed projects for a Mandatory Referral review by the Commission. The law requires the Planning Board to review and approve the proposed location, character, grade and extent of any road, park, public way or ground, public (including federal) building or structure, or public utility (whether publicly or privately owned) prior to the project being located, constructed or authorized.

The applicant agreed to a Planning Department staff suggested extension to the 60-day window for review and comment. The original 60-day window extended to August 30, 2019. This was increased 20 days to September 19, 2019.

RECOMMENDATIONS

Staff recommends **Approval to transmit** the following comments to the Montgomery County Department of Transportation:

1. Consider constructing protected intersections as described in the Bicycle Master Plan at all intersections.

If MCDOT determines that protected intersections are not feasible, construct the following:

- a. At the western leg of the intersections of Montgomery Lane/Montgomery Avenue with East Lane, Wisconsin Avenue, Waverly Street, and Pearl Street, shift the pedestrian crossing west to provide forward queuing space for bicyclists. This change improves visibility for all road users and creates preferred perpendicular pedestrian crossings at these locations.
- b. Provide two-stage turn queue boxes at all intersections where they are currently not designed.
- 2. At all locations where floating transit island are provided (East Lane, Pearl Street), consider installing:
 - a. Raised pedestrian crossings between the floating transit island and the sidewalk to allow transit users to cross the separated bike lanes at a continuous elevation and encourage bicyclists to slow down and yield to transit users crossing the bikeway.
 - b. Tactile directional indicators that inform pedestrians where the edge of the sidewalk is located and direct them to the preferred crossing location.
 - c. Lean rails along the back of the floating bus stops to define the space and prevent conflict between bicyclists and transit users.
 - d. Pavement markings that indicate bicyclists should yield to pedestrians.
- 3. Continue coordinating with the Commission on People with Disabilities on floating bus stop design.
- 4. Consider the use of right-turn-on-red restrictions at all traffic signals along the bikeway.
- 5. Provide signs that state that southbound bicyclists at intersecting streets can turn right onto the separated bike lanes on Montgomery Lane.
- 6. Improve the ability of eastbound bicyclists to continue traveling past Pearl Street by altering the proposed curb extension at the southeast corner of Montgomery Avenue and Pearl Street.
- 7. Provide the following pedestrian improvements:
 - a. At the intersection of East Lane and Montgomery Lane, add a crosswalk on the east legs and install perpendicular curb ramps at the northeast corners.
 - b. At 4550 Montgomery Avenue, provide an ADA-compliant pedestrian clear zone across the parking garage driveway.
 - c. At the intersection of Pearl Street and Montgomery Avenue, add a crosswalk on the east leg and install curb ramps on the northeast and southeast corners.
- 8. Existing street trees should be protected during construction and any changes to existing curbs, including construction of new curb ramps, should allow for water infiltration to maintain tree health.

PROPOSAL

Project Description

The Montgomery County Department of Transportation (MCDOT) proposes to construct a 0.3-mile twoway separated bike lane along Montgomery Lane and Montgomery Avenue between Woodmont Avenue and Pearl Street in downtown Bethesda. The western project limit connects to a planned twoway separated bike lane on Woodmont Avenue that will ultimately connect north to the National Institutes of Health and south to the Capital Crescent Trail. The eastern project limit will connect to a bikeway on Pearl Street that extends north to Jones Bridge Road and extends south to the Capital Crescent Trail. The proposed bikeway is adjacent to commercial, office, and mixed-use residential/commercial properties and provides comfortable, low-stress east-west bicycle connectivity for people of all ages and bicycling abilities.



Figure 1: Project Extents

Within the project area, Montgomery Lane and Montgomery Avenue are classified as a Business District Streets. They travel one-way eastbound with a speed limit of 25 miles per hour. Currently, Montgomery Lane has four travel lanes between Woodmont Avenue and Wisconsin Avenue. Between Wisconsin Avenue and Pearl Street, Montgomery Avenue has three travel lanes. The proposed design is to be constructed between the existing roadway curbs by narrowing the existing travel lanes and converting one travel lane to the bikeway.

Status and Phasing

The bikeway will be constructed in three segments. The first segment is under construction between Wisconsin Avenue and Waverly Street as part of the Avocet Tower Development project at 7359 Wisconsin Avenue (Figure 2). The project received site plan approval from the Planning Board in June 2019 and is anticipated to be complete in Spring 2021. The second and third segments of the project are currently in the 30 percent design phase and are fully funded for construction under Capital Improvement Program #500119. The segment between Woodmont Avenue and Wisconsin Avenue will likely be begin construction second, as this segment provides value independent of the rest of the project. The segment between Waverly Street and Pearl Street will be constructed last, as this segment provides little value without the other two segments. An interim condition for the intersection of Montgomery Lane and Wisconsin Avenue is included in this Mandatory Referral's supplementary materials.



Figure 2: Separated bike lane and lay-by to be constructed by Avocet Tower project

Separated Bike Lane Design

Overview

The proposed two-way separated bike lanes will be located on the south side of Montgomery Lane and Montgomery Avenue between Woodmont Avenue and Pearl Street. They are proposed to be constructed at street-level. Generally, the bikeway is ten-feet wide with a curbed buffer that varies between six and eight feet wide. The bikeway narrows to eight feet for a short distance as it passes behind the bus stop at East Lane. Cross-sections are shown in the attached project plan documents.



Floating Bus Stops

There are two bus stops in the project area that

Figure 3: Floating bus stop at Pearl Street

will be upgraded to floating bus stops as part of this project (see Figure 3 for the floating bus stop at Pearl Street). Floating bus stops (Figure 4) eliminate the conflict between bicyclists traveling in the road

and buses that must pull to the side of the road to load and unload passengers by routing the bikeway behind the bus stop.



Figure 4: An example of a floating bus stop

Accessible On-street Parking

There are two locations between Wisconsin Avenue and Pearl Street along the bikeway that provide accessible on-street parking for accessing the businesses in the area by people with disabilities: in front of the Avocet Tower and 4550 Montgomery Avenue (see Figure 5). The parking areas are a minimum eight feet wide with a five-foot buffer between the parking lane and the bikeway to facilitate safe vehicle ingress and egress. The buffer between the parking and the bikeway consists of flexposts spaced ten feet apart, which provide sufficient space for people using mobility devices to exit a vehicle on the passenger side, traverse the buffer and the bikeway, and access the ramps that connect to the sidewalk.



Figure 5: Accessible On-street Parking in front of 4550 Montgomery Avenue

Intersections

At the intersection of Montgomery Lane and Woodmont Avenue, the Montgomery Avenue / Montgomery Lane bikeway connects to the planned two-way separated bike lanes on Woodmont Avenue. The design of this intersection (Figure 6) is being coordinated with both projects. At the western leg of the intersection of Montgomery Lane and Wisconsin Avenue, the project proposes to remove the "free right" and repurposes the space for the separated bike lane (Figure 7: "Free Right" from Montgomery Lane to southbound Wisconsin Avenue to be removedFigure 7). This design will improve safety for all road users by reducing the speed of right turning traffic and improving visibility.

At the intersection of Montgomery Avenue and Pearl Street, a two-stage queue box is provided on the south leg of the intersection to help bicyclists travel north (Figure 8). Curb extensions are provided on



Figure 6: Rendering of Woodmont Avenue and Montgomery Lane Bikeway Intersection

both the southeast and southwest corners to reduce pedestrian crossing distance.

Analysis

Master Plan Conformance

The project is in substantial conformance with the May 2017 Bethesda Downtown Plan, the November 2018 Bicycle Master Plan, and the 2018 Master Plan of Highways and Transitways.

The Bethesda Downtown Plan discusses two approaches for reconfiguring the East-West Highway/Montgomery Lane/Avenue one-way couplet:

> "Consider reconfiguration of the East-West Highway (MD 410)/Montgomery Lane/Old



Figure 7: "Free Right" from Montgomery Lane to southbound Wisconsin Avenue to be removed

Georgetown Road (MD 187)/Woodmont Avenue one-way pair into a two-way street system. Conversion of these one-way streets to two-way operation would slow vehicular traffic, improve bicycle accommodation (by virtue of slower vehicular traffic) and enliven the street for pedestrians. This operational change would also increase visibility to commercial establishments along the one-way segment and provide new opportunities for placemaking. From a traffic operation perspective, this change would also make car travel less confusing and more easily navigable. Alternatively: Reconfigure the East-West Highway (MD 410)/Montgomery Lane/Old Georgetown Road (MD 187)/Woodmont Avenue one-way pair using a "road diet" approach. A road diet is a technique by which an existing roadway is reconfigured to accommodate bicycle facilities, wider sidewalks, etc. by repurposing a travel lane. The future configuration should include two travel lanes, an on-street parking lane and a bike lane. Consideration should be given



Figure 8: Two-Stage Queue Box

to the provision of a two-way bike lane." (Bethesda Downtown Plan, page 36)

The Bicycle Master Plan recommends two-way separated bike lanes on the south side of Montgomery Lane from Woodmont Avenue to Wisconsin Avenue and two-way separated bike lanes on the south side of Montgomery Avenue from Wisconsin Avenue to East-West Highway.

This project is in conformance with the "alternative" approach in the Bethesda Downtown Plan and with the Bicycle Master Plan by repurposing an existing travel lane as a two-way separated bike lane.

Environmental Guidelines

The project is entirely within the existing public right-of-way. The project is 0.52 acres or 22,651.2 square feet. Under Section 22A-4 of the Forest Conservation Law, project disturbing less than 40,000 square feet are not subject to the law. Therefore, this project is exempt from submitting a Forest Conservation Plan and/or an exemption. The project received approval for its stormwater concept in March 2019.



Figure 9: Protected Intersection Example from Bicycle Master Plan Facility Design Toolkit

RECOMMENDATIONS

1. Construct protected intersections as recommended in the Bicycle Master Plan at all intersections.

As mentioned previously, the Bicycle Master Plan recommends protected intersections at any location where separated bike lanes "cross major highways, arterial roads, business district streets or other high-volume streets." As all streets that intersect this project fall into one of

these street types, the project should be modified to provide protected intersections at each intersection.

Protected intersections are a feature of separated bike lanes, not an add-on, that extend the low-stress bicycling experience through the intersection by physically separating bicyclists and motor vehicles, making it easier for all road users to see each other, and prioritizing bicyclist and pedestrian right-of-way. Without protected intersections, separated bike lanes are incomplete.

The original design for this project included protected intersections, but those features were removed over concerns about heavy vehicle turning movements and the small size of the curb islands that would be required. Staff recommends these protected intersection features be reinstated in the design.

While staff strongly recommends protected intersections, if MCDOT finds that protected intersections are not feasible, these treatments should be constructed:

 At the western leg of the intersection of Montgomery Lane/Avenue with East Lane, Wisconsin Avenue, Waverly Street, and Pearl Street, shift the pedestrian crossing west to provide forward queuing space for bicyclists.



Figure 10: Forward Bicycle Queuing Visibility Benefits from MassDOT Separated Bike Lane Planning & Design Guide

Rather than queuing behind the pedestrian crosswalk, the bicyclist stop bar should be in front of it, as shown with a red circle in Figure 10. This change improves visibility for all road users by moving bicyclists further ahead of motor vehicles and creates right angle pedestrian crossings at these locations.

Forward queuing space gives bicyclists a head start on motor vehicles when traffic signals turn green and – depending on the distance between the motor vehicle stop bar and the bicyclist stop bar – may make bicycling more safe by allowing bicyclists to pass through the intersection before turning vehicles enter it.

b. Provide two-stage turn queue boxes at all intersections where they are currently not designed.

At the intersections of East Lane, Wisconsin Ave and Waverly Street, it is unclear how bicyclists are supposed to exit the bikeway and travel north. Two-stage turn queue boxes are a type of treatment that can facilitate this movement and should be installed at these locations.

2. At all locations where floating transit island are provided (East Lane, Pearl Street), consider installing:

a. Raised pedestrian crossings between the floating transit island and the sidewalk to allow transit users to cross the separated bike lanes at a continuous elevation and encourage bicyclists to slow down and yield to transit users crossing the bikeway.

A raised bikeway, where bicyclists ramp up to sidewalk-level, reinforces that bicyclists are passing through pedestrian space and must yield.



Figure 11: Floating bus stop with raised pedestrian crossings from AC Transit Multimodal Corridor Guidelines

b. Tactile directional indicators that inform pedestrians where the edge of the sidewalk is located and direct them to the preferred crossing location.

While the curb between the sidewalk and the bikeway provides a detectable edge that helps those with low or no vision navigate safely and remain on the sidewalk, raising the bikeway along floating bus stops removes this detectable edge. Half domes are a common tactile treatment on ramps in the United States to warn those with low or no vision that they are approaching a decision point or conflict; they do not provide guidance as to the safe direction of travel. To provide more directional information to those with low or no vision, jurisdictions in Japan, Australia, and parts of Europe install tactile directional indicators. Installing tactile directional indicators along the flush sidewalk edge (Figure 12) allows those with low or no vision to follow the direction of the tactile indicators with either a cane, their feet or other means to access the designated crossings.

Additionally, tactile directional indicators are often installed perpendicular to a designated bus stop or crossing to direct people to the designated crossing, like the example in Figure 13.



Figure 12: Tactile Directional Indicators from AC Transit Multimodal Corridor Guidelines (Delft, Netherlands)

c. Lean rails along the back of the floating bus stops to define the space and prevent conflict between bicyclists and transit users.

Lean rails are shown in Figure 11 along the back of the bus stop. They channel transit users to designated bikeway crossings while also providing those waiting for the bus a place to lean against.

d. Pavement markings that indicate bicyclists should yield to pedestrians.

3. Continue coordinating with the Commission on People with Disabilities on floating bus stop design.

While floating bus stops eliminate conflicts between bicyclists and buses, as well as improve transit operations by allowing buses to stop in the travel lane, they create new conflict points between bicyclists and transit users who must cross the bikeway to get to the transit stop. MCDOT has been working closely with members of the community, particularly the Commission on People with Disabilities, to construct floating bus stops as part of several projects in the County in a way that prioritizes transit users and promotes bicyclist yielding, mitigating



Figure 13: Perpendicular Tactile Directional Indicators

the conflicts. The Commission on People with Disabilities continues to have concerns with floating bus stops and staff strongly supports continued coordination around the design of these bus stops.

4. Consider the use of right-turn-on-red restrictions at all traffic signals along the bikeway.

Two-way separated bike lanes are often preferable to two oneway separated bike lanes because they require less space, but they create a situation where motorists do not expect bicyclists traveling in the opposite direction of traffic. To mitigate this conflict, right-turn-on-red restrictions should be applied at East Lane, Waverly Street, and Pearl Street.



Figure 14: Recessed Stop Bar on East Lane

It may also be helpful to reinforce the right-turn-on-red restriction by moving the vehicular stop bar on intersecting

streets further back, as shown at East Lane in red in Figure 14. Recessing the stop bar would likely have the additional benefit of improving the ability for larger vehicles to safely navigate the protected intersection treatments proposed in Recommendation #1 at these locations by allowing a wider effective turning radius, as shown in Figure 15.

5. Provide signs stating that southbound bicyclists at intersecting streets can turn right onto the separated bike lanes on Montgomery Lane.

Currently, there are right-turn prohibitions on southbound streets that intersect Montgomery Lane and Montgomery Avenue. This is appropriate as these streets are currently one-way streets in the eastbound direction for motor vehicles and bicycles. When the bikeway is constructed, bicycle travel will become two-way along these roads, so the intersections should be signed appropriately to indicate that right turns for bicyclists into the bikeway are permissible.



Figure 15: Heavy Vehicle Accommodated with Recessed Stop Bar from Seattle Right-of-Way Improvement Manual

 Improve the ability of eastbound bicyclists to continue traveling past Pearl Street by altering the proposed curb extension at the southeast corner of Montgomery Avenue and Pearl Street.

While many bicyclists will choose to continue north along Pearl Street and utilize the two-stage queue box as designed, others will want to continue east on Montgomery Avenue toward East-West Highway. This movement needs to be accommodated.



Figure 16: Two-Stage Queue Box at Pearl Street



Figure 17: Transition from Separated Bike Lane to Shared Roadway

One idea is to design a treatment similar to the one in Figure 17 from the Planning Department's Bicycle Facility Design Toolkit. This treatment allows eastbound bicyclists to transition into a lane shared with traffic *after* passing through the intersection, rather than *in* the intersection as currently designed. Transitioning after the intersection is preferable from a safety standpoint because the bicyclist can establish themselves in the travel lane with no motor vehicles behind them.

- 7. Provide the following pedestrian improvements:
 - a. At the intersection of East Lane and Montgomery Lane, add a crosswalk on the east legs and install perpendicular curb ramps at the northeast corners.
 - b. At 4550 Montgomery Avenue, provide an ADA-compliant pedestrian clear zone across the parking garage driveway.
 - c. At the intersection of Pearl Street and Montgomery Avenue, add a crosswalk on the east leg and install curb ramps on the northeast and southeast corners.
- 8. Existing street trees should be protected during construction and any changes to existing curbs, including construction of new curb ramps, should allow for water infiltration to maintain tree health.

PUBLIC OUTREACH

A public meeting was held for this project on October 9, 2018. All public meeting presentation materials are available on MCDOT's website here: <u>https://www.montgomerycountymd.gov/dot-</u> <u>dte/Resources/Files/Bethesda%20Bikeways%20Public%20Meeting.pdf</u>.

CONCLUSION

Based on information provided by the Applicant, Staff recommends approval of the Mandatory Referral with comments listed at the front of this report to be transmitted to the Montgomery County Department of Transportation.

ATTACHMENT

a. Project plan documents.

PLANS FOR: MONTGOMERY LANE / MONTGOMERY AVE TWO-WAY SEPARATED BIKE LANES

BETHESDA, MARYLAND WOODMONT AVENUE TO PEARL STREET

FEBRUARY 1, 2019- 30% DESIGN PLANS

SHEET INDEX

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19	C6.4	SIGNING AND MARKING PLAN - 1
20	C6.5	SIGNING AND MARKING PLAN - 2
21	C6.6	SIGNING AND MARKING PLAN - 3
22	C6.7	SIGNING AND MARKING PLAN - 4
23	C7.0	MOT PLAN - 1
24	C7.1	MOT PLAN - 2
25	C7.2	MOT PLAN - 3
26	C7.3	MOT PLAN - 4







PERMIT TABLES

TREE CANOPY REC To be completed by the consultant and placed on the first plan set for	UIREMENTS TABLE sheet of the Sediment Control / Stormwater Management all projects.				
Exempt: Yes	Section 55-5 of the Code, please check the				
Total Property Area	Total Disturbed Area				
XXXsquare feet	XXX square feet				
Shade Trees Required	Shade Trees Proposed to be Planted				
XX	XX				
Foo in Liou					
(Trees Required – Trees Planted) x \$250	\$ <u>XXXX</u>				
Required Numbe	er of Shade Trees				
Area (sq. ft.) of the Limits of Disturbance	s Number of Shade Trees Required				
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If the square footage of the limits of di number of shade trees required must be ca (Number of Square Feet in Limits	sturbance is more than 40,000, then the alculated using the following formula: of Disturbance \div 40,000) \times 15				
EXEMPTIC	N CATEGORIES:				
 55-5(a) any activity that is subject to Article II of Chapter 22A; 55-5(b) any commercial logging or timber harvesting operation with an approved exemption from Article II of Chapter 22A; 55-5(f) any activity conducted by the County Parks Department; 55-5(g) routine or emergency maintenance of an existing stormwater management facility, including an existing access road, if the person performing the 	maintenance has obtained all required permits; 55-5(h) any stream restoration project if the person performing the work has obtained all necessary permits; 55-5(i) cutting or clearing any tree to comply with applicable provisions of any federal, state, or local law governing safety of dams; OTHER: Specify per Section 55-5 of the Code.				

<u>CONTACTS</u>						
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR					MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MONTCOMERY LANE (MONTCOMERY AVE
CONTACT: PATRICIA SHEPHERD, AICP					RECOMMENDED FOR APPROVAL	TWO-WAY SEPARATED BIKE LANES
<u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE,					Chief, Transportation Planning and Design Section Date APPROVED	WOODMONT AVE TO PEARL STREET BETHESDA, MD
SUITE 800 SILVER SPRING, MARYLAND 20910 TEL: (301) 927-1900					Chief Division of Transportation Engineering	SCALE AS SHOWN DATE 02/01/19
FAX: (301) 927–2800 CONTACT: LAURA BARNA, P.E.	NO.	REVISION	DATE	BY	DESIGNED BY LB DRAWN BY SE CHECKED BY JAC	DWG. C0.0 DWG. C0.0

	F	RELATE	D REQUIRED PE	RMITS					
To be completed by the consultant and placed on the first sheet of the Sediment Control/Stormwater Management plan set for all projects									
IT IS THE RESPONSIBLITY OF PERMITTEE/OWNER OF THIS SITE TO OBTAIN ALL REQUIRED PERMITS PRIOR TO ISSUANCE OF THE APPROVED SEDIMENT CONTROL PERMIT:									
TYPE OF PERMIT	REQ'D	NOT REQ'D	PERMIT NO.	EXPIRATION DATE	WORK RESTRICTION DATES				
MCDPS Floodplain district		х							
WATERWAYS/WETLAND(S) a. Corps of Engineers		x			NA				
b. MDE		X			NA				
c. MDE Water Quality Certification		x			NA				
MDE Dam Safety		Х							
*DPS Roadside Trees Protection Plan	х		MCDOT Blanket Permit No. 361405	APPROVAL DATE					
NPDES NOTICE OF INTENT		х			DATE FILED NA				
FEMA LOMR (Required post contruction)		x	NA	NA					
OTHERS (Please List):									
MNCPPC Park Construction Permit		X							
WSSC	Х		NA	NA					
Montgomery County Tree Canopy Conservation Law Approval	Х								
*A copy of the approved Roadside T	rees Protecti	on Plan mus	st be delivered to the sedime	ent control inspector a	t the preconstruction meeting				

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR: ICDPS ACCESS PERMIT STORMWATER MANAGEMENT SEDIMENT CONTROL TECHNICAL ADMINISTRATIVE REQUIREMENTS REQUIREMENTS: REVIEWED DATE REVIEWED DATE REVIEWED DATE SEDIMENT CONTROL PERMIT NO. MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL. IF THE PROJECT HAS NOT STARTED, UNLESS APPROVED DATE THE PERMIT HAS BEEN EXTENDED. DPS approval of a sediment control or stormwater management plan is for demonstrated compliance with minimum environmental runoff treatment standards and does not create or imply any right to divert or concentrate runoff onto any adjacent property without that property owner's permission. It does not relieve the design engineer or other responsible person of professional liability or ethical responsibility for the adequacy of the drainage design as it affects uphill or downhill properties.

GENERAL NOTES

1. ALL ELEVATIONS SHOWN ON THIS PLAN ARE IN ACCORDANCE WITH THE FOLLOWING: HORIZONTA COORDINATE SYSTEM (STATE PLANE GRID) BASED ON NORTH AMERICAN DATUM OF 1983 (NAD 83 AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

SURVEY BY: RUMMEL, KLEPPER & KAHL, LLP

700 EAST PRATT STREET, BALTIMORE, MD, 21202

TELEPHONE: 410-728-2900

DATED 09/27/2018

- 2. ALL STRIPING AND SIGNS WORK SHALL COMPLY WITH THE LATEST APPLICABLE MARYLAND MANU CONTROL (MDMUTCD) AND MCDOT STANDARDS AND SPECIFICATIONS. SIGNS SHALL BE FABRICA ACCORDANCE WITH MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT) AND M HIGHWAY ADMINISTRATION (MDSHA) STANDARDS AND SPECIFICATIONS.
- 3. ALL EXISTING PAVEMENT MARKINGS MAY NOT BE SHOWN. ALL EXISTING PAVEMENT MARKINGS T PROPOSED PAVEMENT MARKINGS SHALL BE ERADICATED BY A METHOD APPROVED BY MCDOT.
- 4. ALL CONSTRUCTION MATERIALS AND PROCEDURES SHALL BE GOVERNED BY THE MONTGOMERY TRANSPORTATION ENGINEERING DESIGN STANDARDS AND MDSHA STANDARDS.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING MISS UTILITY PRIOR TO BEGINNING WORK UTILITIES MUST BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- 6. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTION TO PROTECT ALL GRADING, SIDEWALKS THE LIMITS OF WORK AND SHALL REPAIR AND REPLACE OR OTHERWISE MAKE GOOD AS DIRECT SUCH OR CAUSED BY THE CONTRACTOR'S OPERATIONS AT NO ADDITIONAL COST TO MCDOT.





STANDARD SYMBOLS

ALMARYLAND 3) [.] VERTICALNORTH		EXISTING	PROPOSED			EXISTING	PROPOSED
	UNDERGROUND GAS, TELEPHONE,	G — T — E —	— — G — T — E —	WHEELC FENCE	HAIR RAMP		
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	DOUBLE CATCH BASIN	SD SD		(AATUR)	ABANDONED ACCORDING TO	UTILITY RECORDS	
	OVERFLOW RISER WITH BEEHINE GRATE	N/A	\bigcirc	(AATFI)	ABANDONED ACCORDING TO	FIELD INSPECTION	
	DOUBLE CATCH BASIN W/GRATE	N/A		(EATFI)	EMPTY ACCORDING TO FIEL	D INSPECTION	
	STANDARD SINGLE CATCH BASIN	(SD)	N/A	EOI	END OF ELECTRONIC DESIGN	IATING INFORMATION	
				EORI	END OF UTILITY RECORD INF	ORMATION	
	LUMINAIRE ARM AND TEARDROP FIXTURE	$ \longrightarrow$	$\diamondsuit \!$	(NAP)	NO ASSOCIATED PIPING F	OUND FROM UTILITY ST	RUCTURE
	TWIN 20 STREETLIGHT POLE		\bigcirc	[UTILITY ENDPOINT		
	#14 STREETLIGHT POLE	\odot	\diamond	(UTILITY CONTINUES OFF PRO	DJECT	
	20 FOOT TRAFFIC SIGNAL POLE	\odot	\bigcirc	\boxtimes_{TC}	TRAFFIC CONTROL BOX		
	8' TRAFFIC SIGNAL MAST ARM WITH CAP AND CLAMP	N / A	@				
	3 SECTION TRAFFIC SIGNAL HEAD		<─	ALL UTILITY	INFORMATION IS DEPICTED TO QU	ALITY LEVEL "B" (QL-B)	UNLESS
	2 SECTION PEDESTRIAN SIGNAL HEAD		$\overset{\bullet}{\leftarrow}$	OTHERWISI APPROPRIA	E NOTED. QL-B INFORMATION IS OB TE SURFACE GEOPHYSICAL METHO	TAINED THROUGH THE . ODS TO IDENTIFY THE E	APPLICATION OF XISTENCE AND
	TRAFFIC SIGNAL CONTROLLER WITH CABINET	NZAC	Π _{τc}	APPROXIM/	ATE HORIZONTAL POSITION OF SUB	SURFACE UTILITIES. QL	-B DATA ARE
	COBRA HEAD LIGHTING	,	$\bigcirc - \circ$	INFORMATI	IBLE BY SURFACE GEOPHYSICS AT ON IS SURVEYED TO APPLICABLE T	OLERANCES AND REDU	CED ONTO PLAN
	END WALL/END SECTION	N/A	\Box		S. SIZE INFORMATION SHOWN IS TA	KEN FROM AVAILABLE	UTILITY RECORDS.
	BMP	N/A		FIELD DESI	GNATING LIMITS AND NOT ENDPOIN	TS OF UTILITIES.	
	FLOW ARROWS	N/A		UTILITY INF	ORMATION LABELED "QL-C" OR "QL-	-D" IS DERIVED FROM FU	JRNISHED

OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR					MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING
CONTACT: PATRICIA SHEPHERD, AICP					RECOMMENDED FOR APPROVAL	TWO-WAY SEPARATED BIKE LANES
TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE, SUITE 800					Chief, Transportation Planning and Design Section Date APPROVED	- BETHESDA, MD GENERAL NOTES
TEL: (301) 927-1900					Chief, Division of Transportation Engineering Date	SCALE DATE02/01/19
CONTACT: LAURA BARNA, P.E.	NO.	REVISION	DATE	BY	DESIGNED BY LB DRAWN BY SE CHECKED BY JAC	DWG. C1.0 SHEET NO. 02 OF 26

RECORDS. SUCH INFORMATION MAY NOT BE ACCURATE OR RELIABLE. EDWARDS UTILITY MAPPING, INC. EXPRESSLY DISCLAIMS RESPONSIBILITY FOR THE ACCURACY OR RELIABILITY OF UTILITY INFORMATION DEPICTED ACCORDING TO RECORDS.

	Mc	ntaom			ino]	
	Number	Radius	76 99	Line/Chord Direction	A Value		
	C17	500.00	22.96	N86° 10' 01.20"E			
	L20		531.91	N87° 28' 56.72"E			
	C18	90.00	31.05	N77° 35' 50.95"E			
	L21		30.38	N67° 42' 45.18"E			
	C19	450.00	69.81	N63° 16' 06.39"E			
	C20	150.00	54.85	N69° 18' 00.89"E			
	L22		931.06 13 	N79° 46' 34.19"E	• • • • • • • • • • • • • • • • • • •		16+00
	0						
TOOOLI DESIG 8484 GEORGIA AVENUE, SUITE 800, SILVER SPR PHONE: (301) 927-1900 FAX: (301) 927 www.tooledesign.com	N ING, MD 2 -2800	20910		N		RA OR CONS	



						25+00		27+49
OWNER: MONTGOMERY COUNTY DEPARTMENT					MONTGOMERY COUNTY		MONTGOMERY COUN DEPARTMENT OF TRANSPO	TY RTATION
OF IRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD ALCP					ROCKVILLE, MARYLAND RECOMMENDED FOR APPROVAL		DIVISION OF TRANSPORTATION I MONTGOMERY LANE / MONTGO	ENGINEERING GOMERY AVE
<u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC					Chief, Transportation Planning and Design Section Date		I WO-WAY SEPARATED B WOODMONT AVE TO PEARL BETHESDA, MD	IKE LANES . STREET
8484 GEORGIA AVENUE, SUITE 800 SILVER SPRINC MARY AND 20010					APPROVED		ALIGNMENT PLA	AN
SILVER SPRING, MARYLAND 20910 TEL: (301) 927–1900 FAX: (301) 927–2800					Chief, Division of Transportation Engineering Date	SCALE _	DATE	02/01/19
CONTACT: LAURA BARNA, P.E.	NO.	REVISION	DATE	BY	DESIGNED BYLB DRAWN BYSE CHECKED BYJAC	dwg. C2.0		SHEET NO. <u>03</u> OF <u>26</u>





<u>TYPICAL SECTION</u> <u>MONTGOMERY LANE</u> <u>WOODMONT AVE TO EAST LN.</u> <u>(BUS STOP)</u> STA. 13+25 TO 13+75

11' EB TRAVEL LANE	10' EB TRAVEL LANE	11' EB TRAVEL LANE	7' BUFFER	10' BIKE PATH	
Γ					·

TYPICAL SECTION MONTGOMERY LANE EAST LN. TO WISCONSIN AVE. STA. 14+50 TO 15+50







<u>TYPICAL SECTION</u> <u>MONTGOMERY AVENUE</u> <u>WISCONSIN AVE. TO WAVERLY ST.</u> STA. 18+25 TO 19+50 STA. 20+75 TO 21+25







<u>TYPICAL SECTION</u> <u>MONTGOMERY AVENUE</u> <u>WAVERLY ST. TO PEARL ST.</u> <u>(BUS STOP)</u> STA. 24+00 TO 24+75

							N/A
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND					MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTA ROCKVILLE, MARYLAND	TION	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MONTGOMERY LANE / MONTGOMERY AVE
CONTACT: PATRICIA SHEPHERD, AICP					RECOMMENDED FOR APPROVAL		TWO-WAY SEPARATED BIKE LANES
CIVIL ENGINEER: TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE, SUITE 800					Chief, Transportation Planning and Design Section APPROVED	Date	WOODMONT AVE TO PEARL STREET BETHESDA, MD TYPICAL SECTIONS
TEL: (301) 927-1900					Chief, Division of Transportation Engineering	Date	SCALE DATE02/01/19
CONTACT: LAURA BARNA, P.E.	NO.	REVISION	DATE	BY	DESIGNED BY <u>LB</u> DRAWN BY <u>SE</u> CH	ECKED BY JAC	DWG. C3.0 SHEET NO. 03 OF 26

- EXISTING CURB, TYP.

– EXISTING SIDEWALK, TYP.

CURB, TYP



PROPOSED CURB AND GUTTER

- PROPOSED CONCRETE

- PROPOSED BRICK PAVERS
- PROPOSED DETECTABLE WARNING SURFACE
- PROPOSED MILL AND OVERLAY
- PROPOSED FULL DEPTH ASPHALT PAVEMENT
- – — EXISTING RIGHT OF WAY LINE
- ------ PROPOSED SAW CUT





OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR CAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP CIVIL ENGINEER: TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE, SUITE 800 SILVER SPRING, MARYLAND 20910 TEL: (301) 927–1900 MONTGOMERY COUNTY MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DEPARTMENT OF TRANSPORTATION DEPARTMENT OF TRANSPORTATION DEPARTMENT OF TRANSPORTATION DEPARTMENT OF TRANSPORTATION BETHESDAR, MARYLAND Chief, Transportation Planning and Design Section TEL: (301) 927–1900 MONTGOMERY LANE MONTGOMERY LANE DETAILS AND DATE MONTGOMERY LANE DETAILS AND DETAILS AND DETAI	
OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND DEPARTMENT OF TRANSPORTATION NOVISION OF TRANSPORTATION ENGINEERING GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP RECOMMENDED FOR APPROVAL MONTGOMERY LANE / MONTGOMERY AVE TWO-WAY SEPARATED BIKE LANES WOODMONT AVE TO PEARL STREET BETHESDA, MD SUITE 800 SILVER SPRING, MARYLAND 20910 TEL: (301) 927–1900 Date SCALE DATE02/01/19	
CIVIL ENGINEER: Image: Contract: TAINCIA SHEFFIERD, Allor CIVIL ENGINEER: Image: Contract: Taincia SheffierD, Allor	
8484 GEORGIA AVENUE, SUITE 800 APPROVED APPROVED SILVER SPRING, MARYLAND 20910 Image: state of the stat	
SILVER SPRING, MARTLAND 20910 Date SCALE DATE 02/01/19 TEL: (301) 927-1900 Date SCALE DATE 02/01/19	
CONTACT: LAURA BARNA, P.E. NO. REMISION DATE BY DESIGNED BY _ LB DRAWN BY _ SE CHECKED BY _ JAC DWG. C4.0	07_OF_26_





PROPOSED CURB AND GUTTER PROPOSED CONCRETE PROPOSED BRICK PAVERS PROPOSED DETECTABLE WARNING SURFACE PROPOSED MILL AND OVERLAY PROPOSED FULL DEPTH ASPHALT PAVEMENT — – – — EXISTING RIGHT OF WAY LINE





19+00 Internet of the second s	ESEPAR	TED TY, TYP.		SHEET 13		
OWNER: MONTGOMERY COUNTY DEPARTMENT				MONTGOMERY COUNTY		0' 20' 40' MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
UF IRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP <u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC				ROCKVILLE, MARYLAND RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section Date		DIVISION OF TRANSPORTATION ENGINEERING MONTGOMERY LANE / MONTGOMERY AVE TWO-WAY SEPARATED BIKE LANES WOODMONT AVE TO PEARL STREET BETHESDA, MD
8484 GEORGIA AVENUE, SUITE 800 SILVER SPRING, MARYLAND 20910 TEL: (301) 927–1900 EAX: (301) 927–2800				APPROVED Chief, Division of Transportation Engineering Date	SCALE .	ROADWAY PLANS DATE 02/01/19
⊦AX: (301) 927−2800 CONTACT: LAURA BARNA, P.E.	NO.	PEVISION	BY	DESIGNED BY LB DRAWN BY SE CHECKED BY JAC	DWG. C4.1	SHEET NO OF



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PROPOSED CURB AND GUTTER PROPOSED CONCRETE PROPOSED BRICK PAVERS PROPOSED DETECTABLE WARNING SURFACE PROPOSED MILL AND OVERLAY

PROPOSED FULL DEPTH ASPHALT PAVEMENT

— – – — EXISTING RIGHT OF WAY LINE





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					AT FUL 0'	L SIZE



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PROPOSED CURB AND GUTTER

PROPOSED CONCRETE

- PROPOSED BRICK PAVERS
- PROPOSED DETECTABLE WARNING SURFACE
- PROPOSED MILL AND OVERLAY
- PROPOSED FULL DEPTH ASPHALT PAVEMENT
- – — EXISTING RIGHT OF WAY LINE
- ------ PROPOSED SAW CUT

	NO.	REVISION	DATE	BY	
CONTACT' LAURA BARNA PE					
TEL: (301) 927–1900					Chief, Division of Transportation Engineering
SILVER SPRING, MARYLAND 20910]
SUITE 800					APPROVED
100LE DESIGN GROUP, LLC					Chief, Transportation Planning and Design Section
CIVIL ENGINEER:					
CONTACT: PATRICIA SHEPHERD, AICP					RECOMMENDED FOR APPROVAL
GAITHERSBURG, MARYLAND					· · · · · · · · · · · · · · · · · · ·
100 EDISON PARK, 4TH FLOOR					ROCKVILLE, MARYLANI
MONTGOMERY COUNTY DEPARTMENT					DEPARTMENT OF TRANSPOR
OWNER:					MONTGOMERY COUNTY

— – – — EXISTING RIGHT OF WAY LINE

------ PROPOSED SAW CUT

PROPOSED CURB AND GUTTER PROPOSED CONCRETE PROPOSED BRICK PAVERS PROPOSED DETECTABLE WARNING SURFACE PROPOSED MILL AND OVERLAY

LEGEND

EB TRAVEL L	ANE
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BLOCK	TYPICAL CONCRETE ISLAND WIDTH
WOODMONT AVE TO EAST LN	6'
EAST LN TO WISCONSIN AVE	4.5'
WISCONSIN AVE TO WAVERLY ST	7.4'
WAVERLY ST TO PEARL ST	2.3'

EB TRAVEL LAN	IE			
TYP. 	MDSHA STA. DETAIL 620.02 TYPE A (CURB AND GUTTER),TYPE R2', TYP. MDSHA STA. DETAIL 620.02 TYPE B (CURB), TYP.			
CK	TYPICAL CONCRETE ISLAND WIDTH]		
TAVE TO EAST LN	6'			
O WISCONSIN AVE	4.5'			
AVE TO WAVERLY ST	7.4'			
ST TO PEARL ST	2.3'			
CONCRETE ISLA	<u>AND DETAIL</u>			ΑΤ ΕΙ ΙΙ Ι SIZE
			0'	AT FULL SIZE
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR	MONTGOMI DEPARTMENT OF ROCKVILLE	ERY COUNTY TRANSPORTATION , MARYLAND	MONTGOMERY DEPARTMENT OF TRA DIVISION OF TRANSPORTA	5' 10' COUNTY ANSPORTATION ATION ENGINEERING
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP CIVIL ENGINEER: TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE, SUITE 800	MONTGOM DEPARTMENT OF ROCKVILLE RECOMMENDED FOR APPROVAL Chief, Transportation Planning and De APPROVED	TRANSPORTATION , MARYLAND	MONTGOMERY DEPARTMENT OF TRA DIVISION OF TRANSPORTA MONTGOMERY LANE / M TWO-WAY SEPARAT WOODMONT AVE TO I BETHESDA DETAIL SH	5' 10' COUNTY ANSPORTATION ATION ENGINEERING 1ONTGOMERY AVE ED BIKE LANES PEARL STREET ,, MD EET

	NO.	REVISION	DATE	L R L	
CONTACT: LAURA BARNA, P.E.					DESIGNED BYLB DRAWN BYSE
TEL: (301) 927–1900					Chief, Division of Transportation Engineering
SILVER SPRING, MARYLAND 20910]
SUITE 800					APPROVED
TOOLE DESIGN GROUP, LLC					Chief, Transportation Planning and Design Section
CIVIL ENGINEER:					1
CONTACT: PATRICIA SHEPHERD, AICP					RECOMMENDED FOR APPROVAL
GAITHERSBURG, MARYLAND					······································
100 EDISON PARK 4TH FLOOR					ROCKVILLE, MARYLAN
MONTGOMERY COUNTY DEPARTMENT					MONIGOMERY COUNI DEPARTMENT OF TRANSPOR
OWNER					

PROPOSED CURB AND GUTTER PROPOSED CONCRETE PROPOSED BRICK PAVERS

PROPOSED DETECTABLE WARNING SURFACE

DITERSTITUTE		R10, R2, R2, R2, R2, R2, R2, R2, R2, R2, R2	(ROUTE 35	REWISCONSIN					
				TO ING , TYP.	INTERSECTION 3				
<u>OWNER:</u>					MONTGOMERY COUNTY			AT FULL SIZE 0' 10' 20'	
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP <u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE, SUITE 800				RE	COMMENT COUNTY DEPARTMENT OF TRANSPORTA ROCKVILLE, MARYLAND COMMENDED FOR APPROVAL ef, Transportation Planning and Design Section PROVED	ATION Date	DIVI MON T	DEPARTMENT OF TRANSPORTATION SION OF TRANSPORTATION ENGINEERING GOMERY LANE / MONTGOMERY AVE WO-WAY SEPARATED BIKE LANES WOODMONT AVE TO PEARL STREET BETHESDA, MD INTERSECTION DETAIL	
TEL: (301) 927–1900 FAX: (301) 927–2800 CONTACT: LAURA BARNA, P.E.	NO.	REVISION	DATE	BY DES	ef, Division of Transportation Engineering	Date	SCALE DWG. C5.1	DATE02/01/19 SHEET NO1	 13OF26

PROPOSED CURB AND GUTTER PROPOSED CONCRETE PROPOSED BRICK PAVERS

PROPOSED DETECTABLE WARNING SURFACE

PROPOSED SAW CUT

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							<u>I</u>
TERSECTION 4							
						AT FU 0'	LL SIZE 10' 20'
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION		MONTGOM DEPARTMENT O	ERY COUNTY F TRANSPORTAT	ION		MONTGOMERY COUN DEPARTMENT OF TRANSPO DIVISION OF TRANSPORTATION	TY RTATION ENGINEERING
GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP <u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE, SUITE 800		RECOMMENDED FOR APPROVAL Chief, Transportation Planning and De APPROVED	esign Section	Date		MONTGOMERY LANE / MONT TWO-WAY SEPARATED B WOODMONT AVE TO PEARL BETHESDA, MD INTERSECTION	GOMERY AVE IKE LANES . STREET N DETAIL
SILVER SPRING, MARYLAND 20910 TEL: (301) 927-1900 FAX: (301) 927-2800		 Chief, Division of Transportation Engi	neering	Date	SCALE	DATE	02/01/19
CONTACT: LAURA BARNA, P.E.		· -					

INTERSECTION 5

LEGEND

PROPOSED CURB AND GUTTER

PROPOSED CONCRETE

PROPOSED BRICK PAVERS

PROPOSED DETECTABLE WARNING SURFACE

PROPOSED SAW CUT

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Recent control of the second s	BEARL STREET	S	SECTION 6						
							AT FULL	SIZE	
OWNER: MONTGOMERY COUNTY DEPARTMENT			МС	NTGOMERY COUN	TY				
OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP			DEPARTN RO RECOMMENDED FOR AP	IENT OF TRANSPO CKVILLE, MARYLA PROVAL	ND		DEPARTMENT OF TRANSPOR DIVISION OF TRANSPORTATION E MONTGOMERY LANE / MONTG TWO-WAY SEPARATED BI	NGINEERING OMERY AVE KE LANES	
<u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE, SUITE 800			Chief, Transportation Plann APPROVED	ing and Design Section	Date		WOODMONT AVE TO PEARL BETHESDA, MD INTERSECTION [STREET DETAIL	
SILVER SPRING, MARYLAND 20910 TEL: (301) 927–1900 FAX: (301) 927–2800			Chief, Division of Transport	ation Engineering	Date	SCALE _	DATE	02/01/19	
CONTACT: LAURA BARNA, P.E.	NO. REVISION	DATE BY	DESIGNED BY <u>LB</u>	DRAWN BY <u>SE</u>	CHECKED BY <u>JAC</u>	dwg. C5.3		SHEET NO. 15	∪⊦_26

SIGNING AND PAVEMENT MARKINGS

- ALL PAVEMENT MARKINGS ARE THERMOPLASTIC UNLESS OTHERWISE NOTED. ALL LINEAR WI INSTALLED ON CONCRETE SURFACES MUST BE INSTALLED WIITH BLACK CONTRAST TAPE, 3M EQUAL.
- 2. ALL SIGNS SHALL BE HIGH INTENSITY REFLECTIVE SHEETING MEETING THE REQUIREMENTS (
- 3. PROPOSED SIGNS SHALL BE INSTALLED SO THAT NO PORTION OF THE SIGN PANEL OVERHAN PAVEMENT, I.E. SHALL NOT HANG IN FRONT OF A FACE OF CURB.
- 4. PROPOSED SIGN POSTS SHALL BE LOCATED A MINIMUM OF 2 FEET BEHIND ANY ADJACENT FA ADJACENT TO SIDEWALKS, A 32" MINIMUM CLEAR AND 48" PREFERRED PASSING SPACE ON EX SIDEWALKS SHALL BE MAINTAINED.
- 5. PROPOSED SIGNS AND RELOCATED EXISTING SIGNS SHALL BE INSTALLED SO THEY DO NOT I EXISTING SIGNS OR SIGNALS, OR OBSTRUCT SIGHT LINES AT INTERSECTIONS.
- 6. PROPOSED SIGNS AND POSTS SHALL BE CLEAR OF EXISTING FIRE HYDRANTS, SURFACE UTIL EQUIPMENT A MINIMUM OF 10 FEET.
- 7. FOR NEW POST INSTALLATION, THE CONTRACTOR SHALL VERIFY THAT THERE ARE NO CONFL OVERHEAD UTILITIES.
- 8. NEW POST INSTALLATION SHALL COMPLY WITH MD SHA STANDARD NO. MD 802.04 AND MD 81
- SIGNS MOUNTED TO EXISTING LIGHT, SIGNAL OR UTILITY POLES SHALL BE FASTENED WITH A BANDING SYSTEM PER MD SHA STANDARD NO. MD 813.08. POLES SHALL NOT BE DRILLED DIF SHALL SUBMIT MANUFACTURER INFORMATION ON THE BANDING SYSTEM TO THE ENGINEER INSTALLATION.
- 10. IF SIGN INSTALLATION IS SHOWN ON A POLE THAT IS NOT OWNED BY THE COUNTY, WRITTEN FROM THE OWNER (UTILITY COMPANY OR PROPERTY OWNER). THE CONTRACTOR IS RESPOND REQUIRED PERMISSION.
- 11. ALL CROSSWALKS SHALL BE INSTALLED CONNECTING THE CURB RAMPS SUCH THAT THE CUR MARKED CROSSWALK. MINIMUM CROSSWALK WIDTH IS 10 FEET. MAXIMUM CROSSWALK WIDT CORNER CURB RAMPS SHALL HAVE A CLEAR SPACE OF FOUR FEET WITHIN THE CROSSWALK MARKINGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO FINAL INSTALLATION.

MARKING LEGEND

/HITE MARKINGS TO BE M STAMARK OR APPROVED	EXISTING	PROPOSED	_
OF AASHTO M268.		þ	SIGN AND POST
IGS ADJACENT ROADWAY		~~ .~~ ℃	BICYCLE LANE SYMBOL (REF
		5" SWL	5" SOLID WHITE LANE LINE (E
ACE OF CURB. IF LOCATED IN OR		10" SWL	10" SOLID WHITE LANE LINE (
AISTING AND PROPOSED		5" BWL	5" BROKEN WHITE LANE LINE
BLOCK THE VISIBILITY OF ANY		5"_DWL	5" DOTTED WHITE LANE LINE
		10"_DWL	10" DOTTED WHITE LANE LIN
ITY, AND OVERHEAD UTILITY		5" SYL	5" SOLID YELLOW LANE LINE
		5" SYCL	5" SOLID YELLOW CENTERLIN
LICTING UNDERGROUND OR		<u>5"_DAYCL</u>	5" DASHED YELLOW CENTER
2 0 9 1		<u> </u>	5" DOUBLE SOLID YELLOW CE
5.00-1.		<u> </u>	5" SOLID YELLOW LANE LINE (10' STRIPE, 30' SKIP)
MANUFACTURED STEEL RECTLY. THE CONTRACTOR FOR APPROVAL PRIOR TO		<u>8" SWCT</u>	8" SOLID WHITE/BLACK CONT 3M STAMARK OR APPROVE E
		10" SWCHL	10" SOLID WHITE CHANNELIZ
PERMISSION MUST BE OBTAINED		10" SYCHL	10" SOLID YELLOW CHANNEL
		16"SL	16" STOP LINE
RB RAMPS FALL WITHIN THE		24" SL	24" STOP LINE
TH IS 20 FEET. DIAGONAL MARKINGS. CROSSWALK		HVCW	CROSSWALK WITH 2' SWL - 5' TRAVEL UNLESS OTHERWISE
			WHITE PAVEMENT ARROW, R
			GREEN PAVEMENT MARKING LIQUID EPOXY-BASED AS SHO
	STOP	STOP	SIGN
			ADVANCE SPEED HUMP MAR
			YIELD AHEAD TRIANGLE SYM

OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR			MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MONTGOMERY LANE / MONTGOMERY AVE
CONTACT: PATRICIA SHEPHERD, AICP <u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE, SUITE 800			RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section Date APPROVED	TWO-WAY SEPARATED BIKE LANES WOODMONT AVE TO PEARL STREET BETHESDA, MD SIGNING AND
SULL 500 SILVER SPRING, MARYLAND 20910 TEL: (301) 927–1900 FAX: (301) 927–2800 CONTACT: LAURA BARNA, P.E.	NO. REVISION	DATE BY	Chief, Division of Transportation Engineering Date SC DESIGNED BYLB DRAWN BYSE CHECKED BYJAC DWG. C	MARKING LEGEND 02/01/19 CALENOT APPLICABLE DATE 02/01/19 C6.0 SHEET NO. 16 OF 26

ER TO MUTCD)

E.G. INSIDE BIKE LANE LINE) (E.G. OUTSIDE BIKE LANE LINE) E (10' STRIPE, 30' SKIP) E (2' STRIPE, 4' SKIP) NE (2' STRIPE, 4' SKIP)

NE (CYCLE TRACK) R LINE (CYCLE TRACK - 3' STRIPE, 9' SKIP) CENTERLINE E WITH 5" BROKEN YELLOW LANE LINE

TRAST TAPE (SUGGESTED MANUFACTURER: EQUAL) ZATION LINE (45° TYP.) LIZATION LINE (45° TYP.)

5' O.C. ALIGNED WITH DIRECTION OF E NOTED

REFER TO MDMUTCD

G MATERIAL, PREFORMED THERMOPLASTIC OR IOWN ON PLANS

NOT APPLICABLE

RKING , REFER TO MDMUTCD

MBOLS, REFER TO MDMUTCD

DATE

BY

REVISION

TEL: (301) 927–1900

FAX: (301) 927-2800

CONTACT: LAURA BARNA, P.E.

DICTULE CRUSSING						
N.T.S.						
			AS SHO	WN		
MONTGOMERY COUNTY			MONTGOMERY COUNT	Y		
DEPARTMENT OF TRANSPORTATION		DEPARTMENT OF TRANSPORTATION				
ROCKVILLE MARYLAND			DIVISION OF TRANSPORTATION EI	NGINEERING		
			MONTGOMERY LANE / MONTG			
RECOMMENDED FOR APPROVAL				CELANES		
	2.4.			DIREEI		
Chief, Transportation Planning and Design Section	Jate			_		
APPROVED			SIGNING ANI	J		
			MARKING DETA	ALS .		
Chief, Division of Transportation Engineering	Date	SCALE	DATE	02/01/19		
DESIGNED BYLB DRAWN BYSE CHECKED B	Y_JAC_	DWG. C6.1		SHEET NO. <u>17</u> OF <u>26</u>		
		1				

WHITE PREFORMED THERMOPLASTIC BIKE LANE SYMBOL WITH TURN ARROW

					AS S	HOWN
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR			MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTAT ROCKVILLE, MARYLAND	ION	MONTGOMERY COUN DEPARTMENT OF TRANSPO DIVISION OF TRANSPORTATION	NTY DRTATION ENGINEERING
CONTACT: PATRICIA SHEPHERD, AICP			RECOMMENDED FOR APPROVAL		TWO-WAY SEPARATED B	BIKE LANES
<u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE, SUITE 800 SILVER SPRING MARYLAND 20910			Chief, Transportation Planning and Design Section APPROVED	Date	WOODMONT AVE TO PEAR BETHESDA, MD SIGNING AN MARKING DET	l street ID AILS
TEL: (301) 927–1900			Chief, Division of Transportation Engineering	Date	SCALE DATE	02/01/19
FAX: (301) 927—2800 Contact: Laura Barna, p.e.	NO. REVISION	DATE BY	DESIGNED BY LB DRAWN BY SE CHEC	CKED BY JAC	DWG. C6.2	SHEET NO. <u>18</u>

R10-15R MOD
3'-0" × 2'-6"
0.63"
1.13"
Ground
TYPE: Reflective
COLOR: White/Yellow
TYPE: Reflective
COLOR: Black/Black

R10-15R MOD - "TURNING VEHICLES, STOP FOR BIKES AND PEDS" SIGN N.T.S.

Image: Sign	ERY LANE 13 DL, TYP. MUTCD) YIELD M (REFER R9-6	MARKINGS, TYP. TO MDMUTCD R9-6		OSSING, TYP. SHEET C6.1	AATCHLINE 14+50 SEE SHEET C2.1		ΔTFU	
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION				MONTGOMERY C DEPARTMENT OF TRAN	OUNTY ISPORTATION			
100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP			RECOMM	ROCKVILLE, MAR	YLAND	-	DIVISION OF TRANSPORTATION MONTGOMERY LANE / MONT TWO-WAY SEPARATED B	ENGINEERING GOMERY AVE IKE LANES
<u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC			Chief, Trar	nsportation Planning and Design Sec	ion Date		WOODMONT AVE TO PEARL BETHESDA, MD	STREET
8484 GEURGIA AVENUE, SUITE 800 SILVER SPRING, MARYLAND 20910			APPROVE	Ð			SIGNING ANE MARKING PLAI) NS
TEL: (301) 927-1900 FAX: (301) 927-2800 CONTACT: LAURA RARNA PF			Chief, Divis	Sion of Transportation Engineering			DATE	02/01/19 SHEFT NO 10 OF 26
UUNTAUT. LAUKA BAKNA, P.E.	NO. REVIS	ION DATE	BY DESIGNED	BY LD DRAWN BY SI	CHECKED BY JAC			31121 NO. 19 OF 20

	RKINGS, TYP. O MDMUTCD	MISCONSIN AVENUE	MATCHLINE STA. 18+00 SEE SHEET C2.2		
OWNER: Montgomery county department OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR Gaithersburg, Maryland Contact: Patricia Shepherd, aicp Civil Engineer: TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE, SUITE 800			MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCK VILLE, MARYLAND	DIV MON	AT FULL SIZE 20 40' 20 40'

14 20+00 20SED FLEX 20SED F	Completed	E CROSSING TYP TAIL SHEET C6.1	AVERLY STREE MAVERLY STREE MATCHLINE STA. 22+00 SEE SHEET C2.3		
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP <u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE, SUITE 800 SILVER SPRING, MARYLAND 20910 TEL: (301) 027 1000			MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section Date APPROVED	-	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MONTGOMERY LANE / MONTGOMERY AVE TWO-WAY SEPARATED BIKE LANES WOODMONT AVE TO PEARL STREET BETHESDA, MD SIGNING AND MARKING PLANS
TEL: (301) 927–1900 FAX: (301) 927–2800 CONTACT: LAURA BARNA, P.E.	NO. REVISION	DATE BY	Chief, Division of Transportation Engineering Date DESIGNED BY LB DRAWN BY SE CHECKED BY JAC	DWG.C6.6	DATE 02/01/19 SHEET NO. 21 OF 26

,	NO.	REVISION	DATE	BY	
CONTACT: LAURA BARNA, P.E.					DESIGNED BY LB DRAWN BY SE
TEL: (301) 927–1900				4	Chief, Division of Transportation Engineering
SILVER SPRING, MARYLAND 20910]
SUITE 800					APPROVED
TOOLE DESIGN GROUP, LLC					Chief, Transportation Planning and Design Section
CIVIL ENGINEER:	<u> </u>				f
CONTACT: PATRICIA SHEPHERD, AICP					RECOMMENDED FOR APPROVAL
GAITHERSBURG, MARYLAND					
OF TRANSPORTATION					ROCKVILLE MARYLAN
MONTGOMERY COUNTY DEPARTMENT				4	MUNIGUMERI CUUNI
OWNER:					

CHANNELIZING DEVICES WORK ZONE COMPLETED WORK

CONTACT. LAGINA DARMA, T.E.	NO.	REVISION	DATE	BY	DESIGNED BY DRAWN BY
CONTACT LAURA BARNA PE					
TEL: (301) 927–1900					Chief, Division of Transportation Engineering
SILVER SPRING, MARYLAND 20910					
SUITE 800					APPROVED
8484 GEORGIA AVENUE					Chief, Transportation Planning and Design Section
CIVIL ENGINEER:					1
CONTACT: PATRICIA SHEPHERD, AICP					RECOMMENDED FOR APPROVAL
GAITHERSBURG, MARYLAND					
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					ROCKVILLE MARYLAN
					MONTGOMERY COUNT

CHANNELIZING DEVICES WORK ZONE COMPLETED WORK

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OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION					MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION		
100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD. AICP					ROCKVILLE, MARYLAND RECOMMENDED FOR APPROVAL	MONTGOMERY LANE / MONT TWO-WAY SEDARATED R	GOMERY AVE
<u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC					Chief, Transportation Planning and Design Section Date	WOODMONT AVE TO PEAR BETHESDA, MD	L STREET
8484 GEORGIA AVENUE, SUITE 800					APPROVED	MOT PLANS	
SILVER SPRING, MARYLAND 20910 TEL: (301) 927–1900					Chief, Division of Transportation Engineering Date Date	SCALE DATE	02/01/19
FAX: (301) 927-2800 Contact: laura barna, p.e.	NO.	REVISION	DATE	BY	DESIGNED BYLB DRAWN BYSE CHECKED BYJAC	dwg. C7.1	SHEET NO. <u>24</u> OF <u>26</u>
			DAIL	וסו			

CHANNELIZING DEVICES WORK ZONE COMPLETED WORK

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		MAVERLY STR	
			AT FULL SIZE
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP <u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE, SUITE 800 SILVER SPRING, MARYLAND 20910 TEL: (301) 927–1900 FAX: (301) 927–2800 CONTACT: LAURA BARNA, P.E.		MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design Section APPROVED Chief, Division of Transportation Engineering Date DESIGNED BY LB DRAWN BY SE	MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION ENGINEERING MONTGOMERY LANE / MONTGOMERY AVE TWO-WAY SEPARATED BIKE LANES WOODMONT AVE TO PEARL STREET BETHESDA, MD MOT PLANS SCALE DATE 02/01/19 DWG. C7.2 SHEET NO. <u>25</u> OF <u>26</u>

REVISION	DATE	BV	DESIGNED BY LD DRAWN BY <u>SE</u>
			Chief, Division of Transportation Engineering
			Chief, Transportation Planning and Design Section
			1
			ROCKVILLE, MARYLAN
			DEPARTMENT OF TRANSPOR
			MONTGOMERY COUNT

_	 -	

PROPOSED CURB AND GUTTER

- EXISTING RIGHT OF WAY LINE
- ------ PROPOSED SAW CUT

AT FULL SIZE	40'
OWNER: MONTGOMERY COUNTY DEPARTMENT MONTGOMERY COUNTY DEPARTMENT MONTGOMERY COUNTY OF TRANSPORTATION DEPARTMENT OF TRANSPORTATION DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION	RING
Interstation Park, 41H FLOOR ROCK VILLE, MARYLAND GAITHERSBURG, MARYLAND MONTGOMERY LANE / MONTGOMERY CONTACT: PATRICIA SHEPHERD, AICP RECOMMENDED FOR APPROVAL	Y AVE ES
CIVIL ENGINEER: WOODMONT AVE TO PEARL STREET TOOLE DESIGN GROUP, LLC Chief, Transportation Planning and Design Section Date 8484 GEORGIA AVENUE, ITTILITY ΜΔΡ	
SUITE 800 SILVER SPRING, MARYLAND 20910	/01/10
IEL: (301) 927-1900 Date SCALE DATE02/ FAX: (301) 927-2800 CONTACT: LAURA BARNA RE	

 PROPOSED CURB AND
 EXISTING RIGHT OF WA
 PROPOSED SAW CUT

PROPOSED CURB AND GUTTER EXISTING RIGHT OF WAY LINE

1'OOLE DESIGN 8484 GEORGIA AVENUE, SUITE 800, SILVER SPRING, MD 20910 PHONE: (301) 927-1900 FAX: (301) 927-2800 www.tooledesign.com

18400 BICYCLI USE	E DETAIL INTER		ISHEET 13		
OWNER: MONTGOMERY COUNTY DEPARTMENT			MONTGOMERY COUNTY		TY
OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP			DEPARTMENT OF TRANSPORTATION ROCKVILLE, MARYLAND RECOMMENDED FOR APPROVAL	DEPARTMENT OF TRANSPO DIVISION OF TRANSPORTATION I MONTGOMERY LANE / MONTO TWO-WAY SEPARATED B	RIATION ENGINEERING GOMERY AVE IKE LANES
<u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE,			Chief, Transportation Planning and Design Section Date APPROVED	WOODMONT AVE TO PEARL BETHESDA, MD UTILITY MAF	STREET
SUITE 800 SILVER SPRING, MARYLAND 20910 TEL: (301) 927–1900			Chief, Division of Transportation Engineering Date	SCALE DATE	02/01/19
FAX: (301) 927-2800 CONTACT: LAURA BARNA, P.E.	NO. REVISION	DATE BY	DESIGNED BY LB DRAWN BY SE CHECKED BY JAC	DWG. C4.1	SHEET NO. <u>06</u> OF <u>26</u>

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PROPOSED CURB AND GUTTER EXISTING RIGHT OF WAY LINE

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	292 	-32' X 7.4' C SEE DETA		MAVERLY STREET C4.3			
			<u>1</u> 1	JOTE: .AY-BY WORK BY OTHERS. WORK ASSUMED COMPLETED.			
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP <u>CIVIL ENGINEER:</u>				MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION ROCK VILLE, MARYLAND RECOMMENDED FOR APPROVAL		AT FUL O' MONTGOMERY COUN DEPARTMENT OF TRANSPO DIVISION OF TRANSPORTATION E MONTGOMERY LANE / MONTO TWO-WAY SEPARATED BI WOODMONT AVE TO PEARL	L SIZE 20' 40' TY RTATION ENGINEERING SOMERY AVE KE LANES STREET
SUITE 800 SILVER SPRING, MARYLAND 20910 TEL: (301) 927-1900				Cnief, Transportation Planning and Design SectionDateAPPROVED	SCALE	UTILITY MAP	02/01/19

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CONTACT. LAGINA BANNA, T.L.	NO.	REVISION	DATE	BY	DESIGNED BY DRAWN BY
FAX: (301) 927 - 2800					
TEL: (301) 927–1900					Chief, Division of Transportation Engineering
SILVER SPRING, MARYLAND 20910					
SUITE 800					APPROVED
8484 GEORGIA AVENUE					Chief, Transportation Planning and Design Section
CIVIL ENGINEER:					
CONTACT: PATRICIA SHEPHERD, AICP					RECOMMENDED FOR APPROVAL
GAITHERSBURG, MARYLAND					
100 EDISON PARK, 4TH FLOOR					ROCKVILLE, MARYLANI
OF TRANSPORTATION					DEPARTMENT OF TRANSPOR
OWNER:					MONTGOMERY COUNT

020202020201	

PROPOSED CURB AND GUTTER

PROPOSED CONCRETE

PROPOSED BRICK PAVERS

PROPOSED DETECTABLE WARNING SURFACE

PROPOSED MILL AND OVERLAY

PROPOSED FULL DEPTH ASPHALT PAVEMENT

— – – — EXISTING RIGHT OF WAY LINE

MONTGOMERY COUNTY DEPARTMENT MONTGOMERY COUNTY MONTGOMERY COUNTY OF TRANSPORTATION DEPARTMENT OF TRANSPORTATION DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION GAITHERSBURG, MARYLAND MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION CONTACT: PATRICIA SHEPHERD, AICP MONTGOMERY LANE MONTGOMERY COUNTY CIVIL ENGINEER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION	PORTATION IN ENGINEERING ITGOMERY AVE BIKE LANES ARL STREET
TOOLE DESIGN GROUP, LLC Description Date 8484 GEORGIA AVENUE, SUITE 800 SUITE SPRING, MARYLAND 20910 Description Date BETHESDA, MD) ANS
TEL: (301) 927–1900 Date SCALE DATE FAX: (301) 927–2800 Designed by LB DRAWN BY SE CHECKED BY JAC DWG. C4.0	02/01/19 SHEET NO05_OF_26

PROPOSED CURB AND GUTTER PROPOSED CONCRETE PROPOSED BRICK PAVERS PROPOSED DETECTABLE WARNING SURFACE PROPOSED MILL AND OVERLAY PROPOSED FULL DEPTH ASPHALT PAVEMENT — – – — EXISTING RIGHT OF WAY LINE

TG+00 IG+00 IG+00 IG IG IG IG IG IG IG IG IG IG IG IG IG	DE SEPARATED LE FACILITY, TYP.	INTERSECTION 3	BON SHEET 13	MATCHLINE STA. 18+00 SEE SHEET C4.2		TULL SIZE
				COUNTY		
OWNER: MONTGOMERY COUNTY DEPARTMENT			MONTGOMERY DEPARTMENT OF TR	ANSPORTATION	DEPARTMENT OF TRANSF	JNTY PORTATION
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD. AICP			MONTGOMERY DEPARTMENT OF TR ROCKVILLE, M RECOMMENDED FOR APPROVAL	ANSPORTATION ARYLAND	DEPARTMENT OF TRANSP DIVISION OF TRANSPORTATION MONTGOMERY LANE / MON TWO-WAY SEDADATED	UNTY PORTATION NENGINEERING TGOMERY AVE BIKE LANES
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP <u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE			MONTGOMERY DEPARTMENT OF TR ROCKVILLE, M RECOMMENDED FOR APPROVAL	ANSPORTATION ARYLAND Section Date	DEPARTMENT OF TRANSP DIVISION OF TRANSPORTATION MONTGOMERY LANE / MON TWO-WAY SEPARATED WOODMONT AVE TO PEAR BETHESDA, MD	UNTY PORTATION N ENGINEERING TGOMERY AVE BIKE LANES RL STREET
OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR GAITHERSBURG, MARYLAND CONTACT: PATRICIA SHEPHERD, AICP <u>CIVIL ENGINEER:</u> TOOLE DESIGN GROUP, LLC 8484 GEORGIA AVENUE, SUITE 800 SILVER SPRING, MARYLAND 20910 TEL: (701) 007 1000			MONTGOMERY DEPARTMENT OF TR ROCKVILLE, M RECOMMENDED FOR APPROVAL Chief, Transportation Planning and Design S APPROVED	ANSPORTATION ARYLAND Section Date	DEPARTMENT OF TRANSP DIVISION OF TRANSPORTATION MONTGOMERY LANE / MON TWO-WAY SEPARATED WOODMONT AVE TO PEAP BETHESDA, MD ROADWAY PL	UNTY PORTATION N ENGINEERING TGOMERY AVE BIKE LANES RL STREET ANS

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PROPOSED CURB AND GUTTER PROPOSED CONCRETE PROPOSED BRICK PAVERS PROPOSED DETECTABLE WARNING SURFACE PROPOSED MILL AND OVERLAY

PROPOSED FULL DEPTH ASPHALT PAVEMENT

— – – — EXISTING RIGHT OF WAY LINE

					CONCRE	TE ISLAND, TYP.	SEE SHEET C4.3			
AT FULL SIZE 20 20 20 20 20 20 20 20 20 20						WAVE IN THE INFORMATION OF THE INFORMAT				
	OWNER: MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION 100 EDISON PARK, 4TH FLOOR					MONTGOMERY COUN DEPARTMENT OF TRANSPO ROCKVILLE, MARYLA	LETED. TY DR TATION ND		AT FUL O' MONTGOMERY COUNT DEPARTMENT OF TRANSPO DIVISION OF TRANSPORTATION E	
	FAX: (301) 927–2800 CONTACT: LAURA BARNA, P.E.	NO.	REVISION	DATE	BY	DESIGNED BY LB DRAWN BY SE	CHECKED BY JAC	DWG. C4.2		SHEET NO07_OF_26

PROPOSED CURB AND GUTTER

PROPOSED CONCRETE

- PROPOSED BRICK PAVERS
- PROPOSED DETECTABLE WARNING SURFACE
- PROPOSED MILL AND OVERLAY
- PROPOSED FULL DEPTH ASPHALT PAVEMENT
- – — EXISTING RIGHT OF WAY LINE
- ------ PROPOSED SAW CUT

CONTACT: EAGRA BARNA, T.E.	NO.	REVISION	DATE	BY	DESIGNED BY DRAWN BY
FAX: (301) 927 - 2800					
TEL: (301) 927–1900					Chief, Division of Transportation Engineering
SILVER SPRING, MARYLAND 20910					
SUITE 800					APPROVED
TOOLE DESIGN GROUP, LLC					Chief, Transportation Planning and Design Section
CIVIL ENGINEER:					
CONTACT: PATRICIA SHEPHERD, AICP					RECOMMENDED FOR APPROVAL
GAITHERSBURG, MARYLAND					
100 EDISON PARK, 4TH FLOOR					ROCKVILLE, MARYLAN
OF TRANSPORTATION					DEPARTMENT OF TRANSPOR
OWNER:					MONTGOMERY COUNT

TWO-WAY SEPARATED BIKE LANES - Montgomery Avenue/Montgomery Lane

LEGEND

DIRECTIONAL ARROW

NOT FOR CONSTRUCTION

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MONTGOMERY LN & WOODMONT AVE - Bird's Eye View Looking Northeast

BETHESDA, MD | 2018.10.09

PRELIMINARY CONCEPT – NOT FOR CONSTRUCTION

MONTGOMERY LN & WOODMONT AVE - Perspective View Looking North

BETHESDA, MD | 2018.10.09

PRELIMINARY CONCEPT – NOT FOR CONSTRUCTION

MONTGOMERY LN & WOODMONT AVE - Perspective View Looking West

BETHESDA, MD | 2018.10.09

PRELIMINARY CONCEPT – NOT FOR CONSTRUCTION