MONTGOMERY COUNTY, MARYLAND

DEPARTMENT OF TRANSPORTATION

DEPARTMENT OF PERMITTING SERVICES

SIGHT DISTANCE EVALUATION

Plan Number:

Project Name: Parklawn Drive Self Storage

ENGINEER/ SURVEYOR CERTIFICATE

I hereby certify that this information is accurate and was collected in accordance with these guidelines.

Digitally signed by Scott Roser

Signature

Professional Certification

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed Professional Engineer under the Laws of the State of Maryland. Lic. No. 14979 Exp. Date. 07.02.2026

PLS/PE MD Reg. №

08/29/2024

Date

STATE OF MARYLAND · SCOTT DOUGLAS ROSER · No. 14979 · PROFESSIONAL ENGINEER

Montgomery County Review:

☐ Approved

☐ Disapproved:

By: _____

Date: _____

CLASS	Town Center Boulevard
SPEED (MPH)	25

VERTICAL		APPROACHING MOTOR VEHICLES		
		TARGET (FT)	MEASURED (FT)	OK?
	L	N/A		
	R	N/A		

HORIZONTAL		APPROACHING MOTOR VEHICLES			
	Grade	TARGET (FT)	MEASURED (FT)	OK?	
L	2.38%	240	265	Ok	
R	2.46%	280	330	Ok	

HORIZONTAL		APPROACHING BIKEWAYS		
	Grade	TARGET (FT)	MEASURED (FT)	OK?
L	2.45%	145	265	Ok
R	3.00%	170	330	Ok

HORIZONTAL		APPROACHING SIDEWALK (IF DIRECTED)		
	Grade	TARGET (FT)	MEASURED (FT)	OK?
L	N/A			
R	N/A			

COMMENTS

*Sight distance is clear from approaching both directions

FORM APPROVED 11.8.2023
Date

Chief, Division of Transportation Engineering
Montgomery County Dept. of Transportation

Chief, Land Development
Montgomery County Dept. of Permitting Services

REVISED

Montgomery County
Department of Transportation

Sight Distance
Review Form

Exhibit 24

H-154

MONTGOMERY COUNTY, MARYLAND

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SIGHT DISTANCE REQUIREMENTS ATTACHMENT

GENERAL INFORMATION

All sight distance targets are to be based on Intersection Sight Distance as defined in the current version of AASHTO's *A Policy on Geometric Design of Highways and Streets* (aka the "Green Book").

All sight distance measurements must account for anticipated obstructions such as the presence of full-grown foliage, street furniture, and vehicles occupying designated curbside areas (e.g. parked vehicles).

Designs are required to ensure that all approaches to conflict points provide adequate sight distance, even when approaches are not explicitly evaluated.

SPEEDS

The Posted Speed will generally be used for sight distance analyses where it may be presumed that it is reflective of operating speeds. MCDOT may instead direct that an applicant perform a speed study, in which case the higher of the posted speed or the speed study's 85th Percentile operating speed is to be used for determining sight distance needs.

If no Posted Speed is provided: perform a 24-hour speed study to identify the 85th Percentile Operating Speed (unless otherwise directed by MCDOT) for use in determining sight distance adequacy.

Where specific issues at a location limit the meaningfulness of a Speed Study (such as short blocks of free-flow travel), then with MCDOT approval the Target Speed for that road classification may be used in lieu of a speed study.

Along Neighborhood Streets and Neighborhood Yield Streets with no Posted Speed, and where speeds of 25 MPH or less may be reasonably expected, then with MCDOT approval the Target Speed for these streets may be used.

Use a 15 MPH design speed for Bikeways.

VERTICAL SIGHT DISTANCE

Unless otherwise directed by MCDOT or MCDPS: Vertical Sight Distance only needs to be evaluated for approaches toward motor vehicle travelways; not Bikeways or Sidewalks.

HORIZONTAL SIGHT DISTANCE

Horizontal Sight Distance evaluations are required for approaches to motor vehicle travelways and Bikeways.

Where visual inspection of plans raises concern, Horizontal Sight Distance evaluations may optionally be required by MCDOT or DPS for any other approaches to conflict points.

Drawings on the following pages provide guidance on how to measure horizontal sight distance.

Where Bikeways are present: measurements must consider individually the approach to the Bikeway as well as the approach to the Motor Vehicle travelway.

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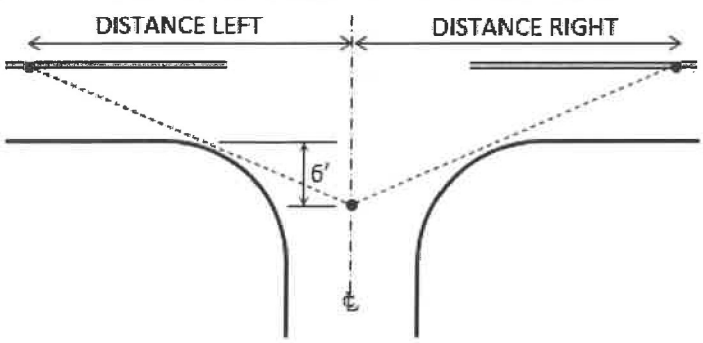
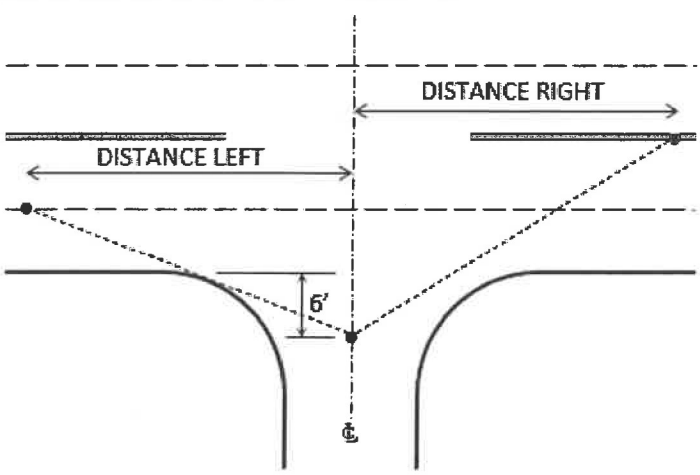
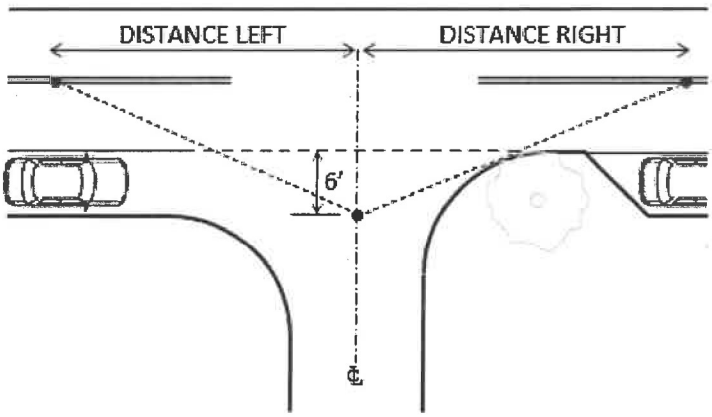
2-LANE UNDIVIDED ROADWAY



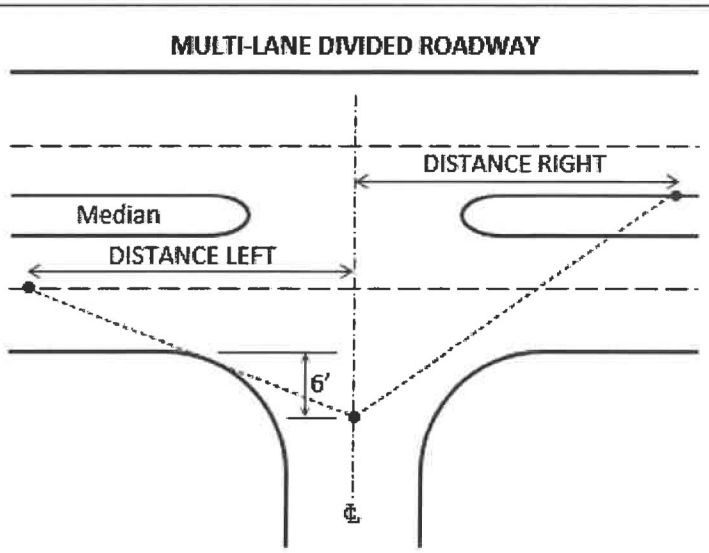
MULTI-LANE UNDIVIDED ROADWAY



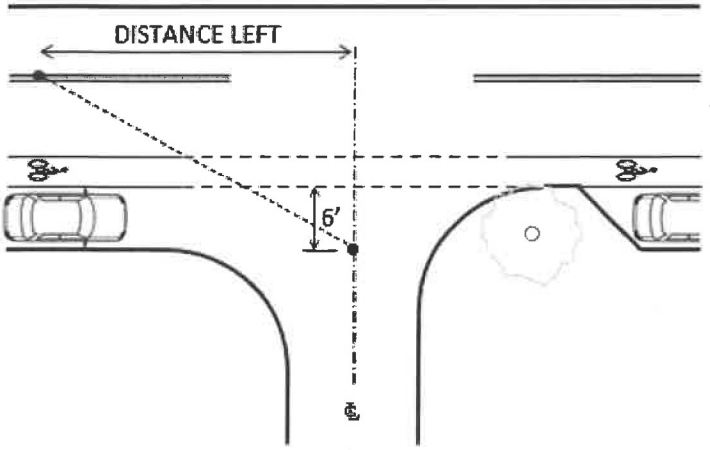
ROADWAY WITH CURBSIDE LANE



MULTI-LANE DIVIDED ROADWAY



MOTOR VEHICLE MEASUREMENT W/ CONVENTIONAL BIKE LANE



White Lane Lines

Double Yellow ℄

MEASURING SIGHT DISTANCE TOWARD CONFLICTING MOTOR VEHICLES

Sight distance for crossing motor vehicle travelways is measured:

- From an eye height of 3.5' at a point on the centerline of the approaching travelway 6' back from the face of curb or edge of the nearest Travel Lane,
- To a point 3.5' above the road surface along the intersecting road.
- Use the speed of the conflicting travelway.

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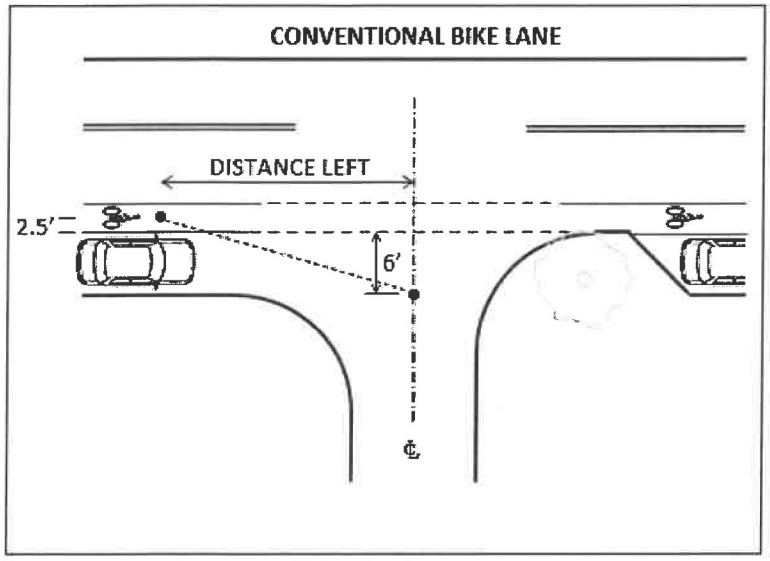
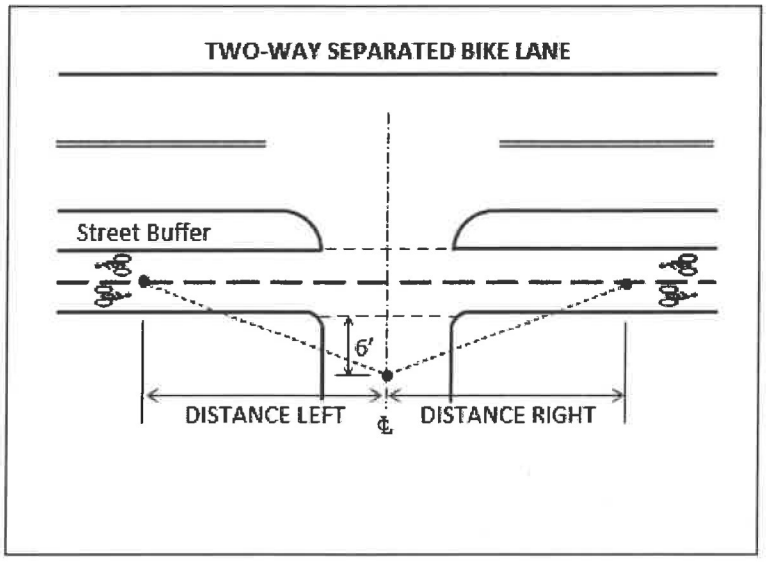
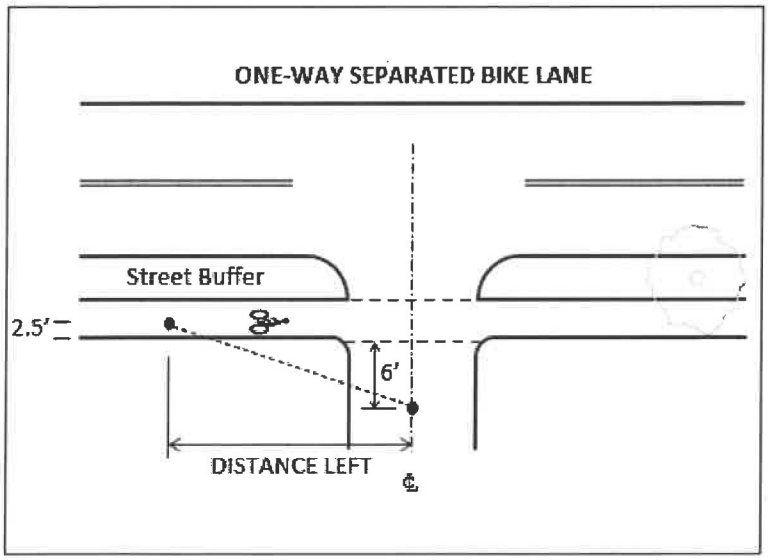
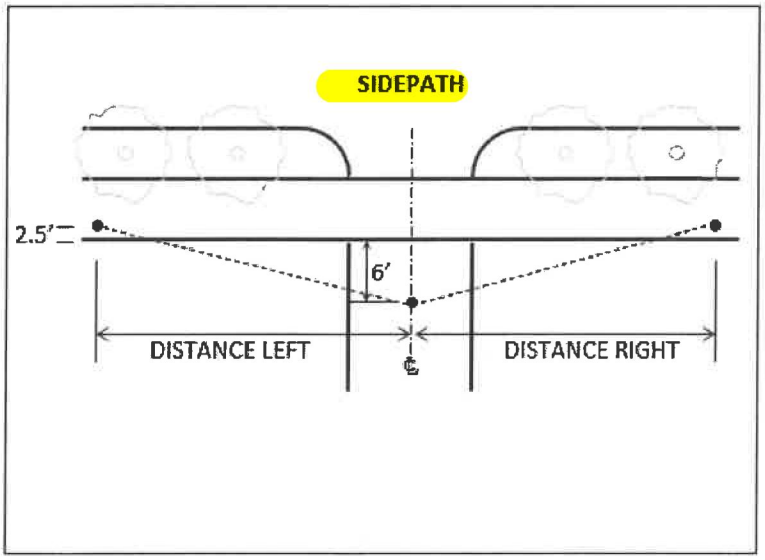




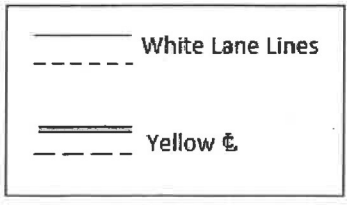




MEASURING SIGHT DISTANCE TOWARD CONFLICTING BICYCLES

Sight distance for crossing Bikeways is measured:

- From an eye height of 3.5' at a point on the centerline of the approaching travelway 6' back from the edge of the nearest Bikeway,
- To a point 3.5' above the intersecting Bikeway either along the centerline of bidirectional Bikeways or 2.5' horizontally beyond the nearest edge of a single-direction Bikeway.
- Use 15 MPH for the speed of Bikeways.
- Sight distance measurements must account individually for the Bikeway (as shown above) as well as the motor vehicle (as shown on the previous page).



MONTGOMERY COUNTY, MARYLAND

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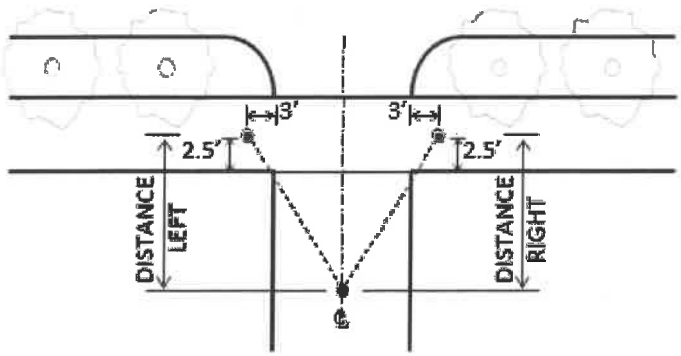
SIDEWALK



MEASURING SIGHT DISTANCE FOR APPROACHING SIDEWALKS

Sight distance for crossing Sidewalks is not typically required to be calculated unless otherwise directed by MCDOT for cases where it appears the proposed conditions may be limited (such as at parking garage exits).

Sight distance for crossing Sidewalks is measured from a point on the crossed Sidewalk instead of the approaching road / alley / driveway, using the speed of the approaching road / alley / driveway:

- From an eye height of 3.5' at a point 2.5' from the edge of the sidewalk nearest to the site, 3' away from the extension of the approaching road / alley / driveway's edge of pavement,
- To a point 3.5' above the approaching road / alley / driveway along the centerline of the nearest approaching lane.
- Sidewalks are typically located in the Clear Zone, but the point measured from may include the Frontage Zone &/or Maintenance Buffer if these areas are readily traversable as like the Clear Zone.

MCDOT may direct that garage exits, alleys, or driveways with a distinctly low-speed approach may use a design speed of 5 or 10 MPH.

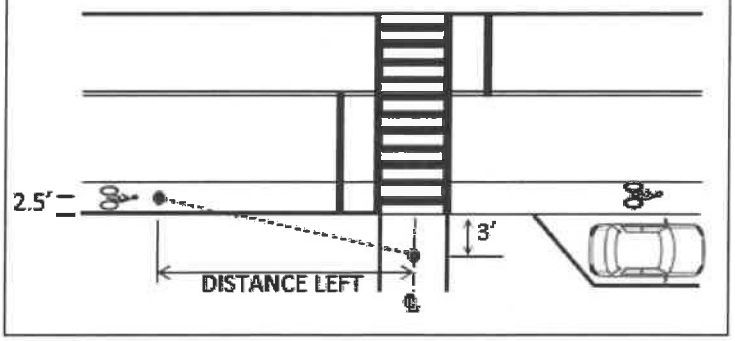
MEASURING SIGHT DISTANCE FOR APPROACHING PEDESTRIANS CROSSING BIKEWAYS

Sight distance measurements for a Sidewalk or Sidepath crossing a Bikeway are not typically required to be calculated unless otherwise directed by MCDOT for cases where it appears that proposed conditions may have limited sight distance.

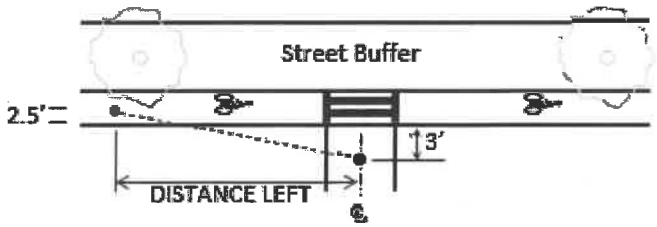
This sight distance is measured:

- From an eye height of 3.5' at a point on the centerline of the approaching Sidewalk / Sidepath 3' back from the edge of the nearest Bikeway,
- To a point 3.5' above the intersecting Bikeway, 2.5' horizontally beyond the nearest edge of the Bikeway.
- Use 15 MPH for the speed of Bikeways.

SIDEWALKS AT CONVENTIONAL BIKE LANE



SIDEWALK AT ONE-WAY SEPARATED BIKE LANE



SIDEWALK AT TWO-WAY SEPARATED BIKE LANE

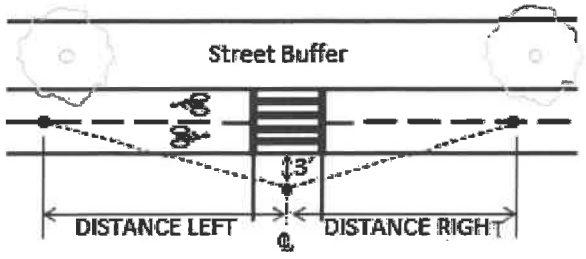


Table 9-7. Design Intersection Sight Distance—Case B1, Left Turn from Stop

U.S. Customary				Metric			
Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance for Passenger Cars		Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (ft)	Design (ft)			Calculated (m)	Design (m)
15	80	165.4	170	20	20	41.7	45
20	115	220.5	225	30	35	62.6	65
25	155	275.6	280	40	50	83.4	85
30	200	330.8	335	50	65	104.3	105
35	250	385.9	390	60	85	125.1	130
40	305	441.0	445	70	105	146.0	150
45	360	496.1	500	80	130	166.8	170
50	425	551.3	555	90	160	187.7	190
55	495	606.4	610	100	185	208.5	210
60	570	661.5	665	110	220	229.4	230
65	645	716.6	720	120	250	250.2	255
70	730	771.8	775	130	285	271.1	275
75	820	826.9	830				
80	910	882.0	885				

Stopping Sight Distance for Approaching Sidewalks

$d = 1.47Vt + 1.075 (V^2/ a)$

V = 10 mph
t = 2.5 s
$a = 11.2 ft/s^2$

d = 46 ft

Note: Intersection sight distance shown is for a stopped passenger car to turn left onto a two-lane highway with no median and grades 3 percent or less. For other conditions, the time gap should be adjusted and the sight distance recalculated.

Table 9-9. Design Intersection Sight Distance—Case B2, Right Turn from Stop

U.S. Customary				Metric			
Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance for Passenger Cars		Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (ft)	Design (ft)			Calculated (m)	Design (m)
15	80	143.3	145	20	20	36.1	40
20	115	191.1	195	30	35	54.2	55
25	155	238.9	240	40	50	72.3	75
30	200	286.7	290	50	65	90.4	95
35	250	334.4	335	60	85	108.4	110
40	305	382.2	385	70	105	126.5	130
45	360	430.0	430	80	130	144.6	145
50	425	477.8	480	90	160	162.6	165
55	495	525.5	530	100	185	180.7	185
60	570	573.3	575	110	220	198.8	200
65	645	621.1	625	120	250	216.8	220
70	730	668.9	670	130	285	234.9	235
75	820	716.6	720				
80	910	764.4	765				

Note: Intersection sight distance shown is for a stopped passenger car to turn right onto or to cross a two-lane roadway with no median and with grades of 3 percent or less. For other conditions, the time gap should be adjusted and the sight distance recalculated.

At Proposed Entrance Looking Left

At Proposed Entrance Looking Right

Approaching Proposed Entrance from left, 265'

Approaching Proposed Entrance from left, 240'

Approaching Proposed Entrance from Right, 330'

Approaching Proposed Entrance from Right, 280'