COLORADO
Department of Transportation

COLORADO DEPARTMENT OF TRANSPORTATION

No Parking Sign Guide

2024 Edition

ACKNOWLEDGEMENTS

AASHTO A Policy on Geometric Design of Highways and Streets

FHWA Manual on Uniform Traffic Control Devices (2023).

Esayas Butta, CDOT HQ Traffic Safety & Engineering Services

Anthony Vu, CDOT HQ Traffic Safety & Engineering Services

Nathan Rivera, CDOT HQ Traffic Safety & Engineering Services

Yesenya Saucedo Paez, CDOT HQ Traffic Safety & Engineering Services

Alvin Stamp, CDOT Region 1

Azeb Seifu, CDOT Region 1

Christiana Lacombe, CDOT Region 1

Jocelyn Higashide, CDOT Region 1

Matt Jagow, CDOT Region 2

Pepper Whittlef, CDOT Region 2

James Biren, CDOT Region 2

Andi Staley, CDOT Region 3

Mark Bunnell, CDOT Region 3

Bryce Reeves, CDOT Region 4

Jonathan Woodworth, CDOT Region 4

James Lambrecht, CDOT Region 4

David Peyton, CDOT Region 5

COLORADO
Department of Transportation

Published on March 1, 2024

HQ Traffic Safety and Engineering Branch

2829 West Howard Place, 4th Floor

Denver, CO 80204

Telephone: (303) 757-9654

Fax: (303) 757-9219

INTRODUCTION

The NO PARKING ANY TIME (R7-1) and no parking symbol (R8-3) signs are an optional addition to the Colorado State Highway to reinforce sections where parking and/or stopping is prohibited. The Manual on Uniform Traffic Control Devices (MUTCD) does not have specific guidance on regulations surrounding signs that govern parking and stopping. The Model Traffic Code for Colorado prohibits stopping, standing, or parking along every highway, street, or roadway in respect to which owners or occupants of abutting lands and other persons have no legal right of access, and at other locations as found in C.R.S. 42-4-1204. The Colorado Department of Transportation (CDOT) has chosen to work with local agencies to allow a limited use of the R7-1 and R8-3 signs on Colorado State Highways. This document is intended to serve as a guide for the use and placement of the R7-1 and R8-3 signs. The local agency shall submit the request form in Appendix C to the corresponding CDOT Region Traffic Engineer (RTE) for review. The CDOT RTE will review the information provided from the local agency and determine whether signage is warranted.

SIGN GUIDANCE

Use of the R7-1 on State Highways are allowable only when a written agreement from local law enforcement that signs will be enforced and at least one (1) of the following criteria are met:

- The location is near a hazardous area such as an avalanche zone or rockslide area.
- The sight distance provided is less than the calculated sight distance' from the latest edition of the American Association of State Highway and Transportation Officials (AASHTO) *A Policy Geometric Design of Highways and Streets*.[1]
- A nearby attraction that would prompt travelers to park at the location.
- A pattern of parking related crashes the past 3 years in urban areas and the past 5 years in rural areas.
- Insufficient width of usable and paved shoulder at the location.
- The calculated intersection sight distance is impacted.[2]
- or at CDOT's RTE discretion for circumstances not covered above

When criteria is met, sign R7-1(L) may be installed at the beginning and R7-1(R) may be installed at the end of the no parking zone. For locations that are longer than 200' it is recommended that additional R8-3 signs may be installed at 200' intervals.

R7-2a may be used at the discretion of the RTE when the criteria is met for specific times of the day.

The final determination of whether or not to install no parking signs lies with the CDOT RTE.

R7-1(R)

R7-1(L)

R8-3

[1] See Appendix A for tables on stopping sight distance on level roads and grades from *A Policy Geometric Design of Highways and Streets.*

[2] See Appendix A for tables on intersection sight distance on level roads and grades from *A Policy Geometric Design of Highways and Streets.*

APPENDIX A: STOPPING SIGHT DISTANCE TABLES

The source of all the tables in Appendix A is AASHTO's *A Policy on Geometric Design of Highways and Streets*.

Table 3-1. Stopping Sight Distance on Level Roadways

U.S. Customary					Metric				
Design Speed (mph)	Brake Reaction Distance (ft)	Braking Distance on Level (ft)	Stopping Sight Distance		Design Speed (km/h)	Brake Reaction Distance (m)	Braking Distance on Level (m)	Stopping Sight Distance	
			Calculated (ft)	Design (ft)				Calculated (m)	Design (m)
15	55.1	21.6	76.7	80	20	13.9	4.6	18.5	20
20	73.5	38.4	111.9	115	30	20.9	10.3	31.2	35
25	91.9	60.0	151.9	155	40	27.8	18.4	46.2	50
30	110.3	86.4	196.7	200	50	34.8	28.7	63.5	65
35	128.6	117.6	246.2	250	60	41.7	41.3	83.0	85
40	147.0	153.6	300.6	305	70	48.7	56.2	104.9	105
45	165.4	194.4	359.8	360	80	55.6	73.4	129.0	130
50	183.8	240.0	423.8	425	90	62.6	92.9	155.5	160
55	202.1	290.3	492.4	495	100	69.5	114.7	184.2	185
60	220.5	345.5	566.0	570	110	76.5	138.8	215.3	220
65	238.9	405.5	644.4	645	120	83.4	165.2	248.6	250
70	257.3	470.3	727.6	730	130	90.4	193.8	284.2	285
75	275.6	539.9	815.5	820	140	97.3	224.8	322.1	325
80	294.0	614.3	908.3	910					
85	313.5	693.5	1007.0	1010					

Note: Brake reaction distance predicated on a time of 2.5 s; deceleration rate of 11.2 ft/s^2 [3.4 m/s^2] used to determine calculated sight distance.

Table 3-2. Stopping Sight Distance on Grades

U.S. Customary							Metric						
Design Speed (mph)	Stopping Sight Distance (ft)						Design Speed (km/h)	Stopping Sight Distance (m)					
	Downgrades			Upgrades				Downgrades			Upgrades		
	3%	6%	9%	3%	6%	9%		3%	6%	9%	3%	6%	9%
15	80	82	85	75	74	73	20	20	20	20	19	18	18
20	116	120	126	109	107	104	30	32	35	35	31	30	29
25	158	165	173	147	143	140	40	50	50	53	45	44	43
30	205	215	227	200	184	179	50	66	70	74	61	59	58
35	257	271	287	237	229	222	60	87	92	97	80	77	75
40	315	333	354	289	278	269	70	110	116	124	100	97	93
45	378	400	427	344	331	320	80	136	144	154	123	118	114
50	446	474	507	405	388	375	90	164	174	187	148	141	136
55	520	553	593	469	450	433	100	194	207	223	174	167	160
60	598	638	686	538	515	495	110	227	243	262	203	194	186
65	682	728	785	612	584	561	120	263	281	304	234	223	214
70	771	825	891	690	658	631	130	302	323	350	267	254	243
75	866	927	1003	772	736	704	140	341	367	398	302	287	274
80	965	1035	1121	859	817	782							
85	1070	1149	1246	949	902	862							

APPENDIX B: INTERSECTION SIGHT DISTANCE TABLES

The source of all the tables in Appendix A is AASHTO's *A Policy on Geometric Design of Highways and Streets*.

Table 9-4. Length of Sight Triangle Leg—Case A, No Traffic Control

U.S. Customary	
Design Speed (mph)	Length of Leg (ft)
15	70
20	90
25	115
30	140
35	165
40	195
45	220
50	245
55	285
60	325
65	365
70	405
75	445
80	485

Metric	
Design Speed (km/h)	Length of Leg (m)
20	20
30	25
40	35
50	45
60	55
70	65
80	75
90	90
100	105
110	120
120	135
130	150

Note: For approach grades greater than 3 percent, multiply the sight distance values in this table by the appropriate adjustment factor from Table 9-5.

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

U.S. Customary			
Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance for Passenger Cars	
		Calculated (ft)	Design (ft)
15	80	165.4	170
20	115	220.5	225
25	155	275.6	280
30	200	330.8	335
35	250	385.9	390
40	305	441.0	445
45	360	496.1	500
50	425	551.3	555
55	495	606.4	610
60	570	661.5	665
65	645	716.6	720
70	730	771.8	775
75	820	826.9	830
80	910	882.0	885

Metric			
Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance for Passenger Cars	
		Calculated (m)	Design (m)
20	20	41.7	45
30	35	62.6	65
40	50	83.4	85
50	65	104.3	105
60	85	125.1	130
70	105	146.0	150
80	130	166.8	170
90	160	187.7	190
100	185	208.5	210
110	220	229.4	230
120	250	250.2	255
130	285	271.1	275

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.

Table 9-11. Design Intersection Sight Distance—Case B3, Crossing Maneuver

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.

Table 9-15. Design Intersection Sight Distance—Case C2, Left or Right Turn at Yield-Controlled Intersections

U.S. Customary				Metric			
Design Speed (mph)	Stopping Sight Distance (ft)	Length of Leg Passenger Cars		Design Speed (km/h)	Stopping Sight Distance (m)	Length of Leg Passenger Cars	
		Calculated (ft)	Design (ft)			Calculated (m)	Design (m)
15	80	176.4	180	20	20	44.5	45
20	115	235.2	240	30	35	66.7	70
25	155	294.0	295	40	50	89.0	90
30	200	352.8	355	50	65	111.2	115
35	250	411.6	415	60	85	133.4	135
40	305	470.4	475	70	105	155.7	160
45	360	529.2	530	80	130	177.9	180
50	425	588.0	590	90	160	200.2	205
55	495	646.8	650	100	185	222.4	225
60	570	705.6	710	110	220	244.6	245
65	645	764.4	765	120	250	266.9	270
70	730	823.2	825	130	285	289.1	290
75	820	882.0	885				
80	910	940.8	945				

Note: Intersection sight distance shown is for a passenger car making a right or left turn without stopping onto a two-lane road.

Table 9-17. Intersection Sight Distance—Case F, Left Turn from the Major Road

U.S. Customary				Metric			
Design Speed (mph)	Stopping Sight Distance (ft)	Intersection Sight Distance Passenger Cars		Design Speed (km/h)	Stopping Sight Distance (m)	Intersection Sight Distance Passenger Cars	
		Calculated (ft)	Design (ft)			Calculated (m)	Design (m)
15	80	121.3	125	20	20	30.6	35
20	115	161.7	165	30	35	45.9	50
25	155	202.1	205	40	50	61.2	65
30	200	242.6	245	50	65	76.5	80
35	250	283.0	285	60	85	91.7	95
40	305	323.4	325	70	105	107.0	110
45	360	363.8	365	80	130	122.3	125
50	425	404.3	405	90	160	137.6	140
55	495	444.7	445	100	185	152.9	155
60	570	485.1	490	110	220	168.2	170
65	645	525.5	530	120	250	183.5	185
70	730	566.0	570	130	285	198.8	200
75	820	606.4	610				
80	910	646.8	650				

Note: Intersection sight distance shown is for a passenger car making a left turn from an undivided roadway. For other conditions and design vehicles, the time gap should be adjusted and the sight distance recalculated.

APPENDIX C: REQUEST FORM

COLORADO DEPARTMENT OF TRANSPORTATION
No Parking Sign Request Form

Local Agency Representative Contact Information

Name: _____ Email: _____ Phone Number: _____

Location Description

County/City: _____ Speed Limit: _____

State Highway: _____ Begin Milepost: _____ End Milepost: _____

Site Description

List all nearby attractions that may prompt someone to park:

Is this near a hazardous area (e.g., avalanche, rockslide area, etc.)? ◯ Yes ◯ No

If yes, what makes the area hazardous: _____

Available Sight Distance: _____ Calculated Sight Distance[1]: _____

Shoulder Width: _____

Additional Considerations

CDOT USE ONLY

Does maintenance see any concerns with parking at this location?

Do the number of parking related crashes exceed what is expected for the past 3 years in urban areas or past 5 years in rural areas? ◯ Yes ◯ No

[1] The method for calculated site distance shall be in accordance with AASHTO's *A Policy on Geometric Design of Highways and Streets*.