



COLORADO
Department of Transportation

COLORADO DEPARTMENT OF TRANSPORTATION



Off-Highway Vehicle (OHV) Crossing Sign Guide

2024 Edition

ACKNOWLEDGEMENTS

AASHTO A Policy on Geometric Design of Highways and Streets

FHWA Manual on Uniform Traffic Control Devices (2023).

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INTRODUCTION

Off-Highway Vehicles (OHV) are not allowed to drive along Colorado State Highways, but are permitted to cross them. OHV includes motorcycles, dirt bikes, three-wheelers, all-terrain vehicles, surplus military vehicles, and dune buggies that are operated on public lands and trails in Colorado. Signing may be used to mark OHV crossing zones where an official all-terrain network intersects the state facility. The Colorado Department of Transportation (CDOT) has chosen to work with agencies to allow limited use OHV crossing zone signing on state highways. This document is intended to serve as a guide for the use and placement of OHV crossing zone signs. The local agency, United States Department of Agriculture Forest Service, Bureau of Land Management, or National Park Service shall submit the request form in Appendix B 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

The OHV crossing symbol sign (W11-58_CO) may be considered at crossing locations that meet all of the following criteria:

- The speed limit is equal to or greater than 45 mph.
- 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
- Crashes observed over the last 3 years in urban areas and 5 years in rural areas are more than expected².
- Location is highly used by OHVs during an entire season or year-round.

Supplemental plaque W11-15p should be mounted below W11-58_CO to warn the traveling public of off-highway vehicles crossing the roadway. Supplemental plaque W16-7P or W16-9P may be used as shown in the configurations below. When W16-9P is used the sign location should be based from MUTCD "Table 2C-4 Guidelines for Advance Placement of Warning Sign".

The final determination of whether or not to install OHV crossing signage lies with the CDOT RTE.



W11-58_CO



W11-19P



W11-7P



W11-9P

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 OHVs may be classified as "motorized bicycle" or "other" in crash data.

Configuration 1



Configuration 2



Configuration 3



APPENDIX A: STOPPING SIGHT DISTANCE TABLES

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/s² [3.4 m/s²] 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: REQUEST FORM

COLORADO DEPARTMENT OF TRANSPORTATION

Off Highway Vehicle (OHV) Crossing Sign Request Form

Local Agency Representative Contact Information

Name: _____ Email: _____ Phone Number: _____

Location Description

County/City: _____ Speed Limit: _____

State Highway: _____ Milepost: _____

Please include a map that shows the OHV path through the area and crossing(s) locations.

Map of OHV crossing location provided.

Site Description

Anticipated use season:

Spring

Summer

Fall

Winter

Available Sight Distance: _____

Calculated Sight Distance¹: _____

Average Annual Daily Traffic (AADT)²: _____

OHV AADT: _____

Additional Considerations

CDOT USE ONLY

Do the number of OHV 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*.

² CDOT's Online Transportation Information System (<https://dtdapps.coloradodot.info/otis/TrafficData>) may be used to calculate annual average daily traffic