



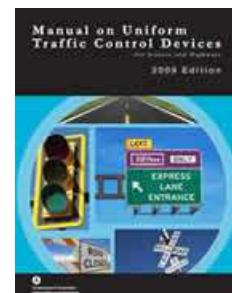
Object Markers

By Bill Anderson, NDLTAP Technical Support Representative

The following definitions are from the "Manual on Uniform Traffic Control Devices, 2009 Edition, Section A.13".

Roadway - that apportion of a highway, improved, designed or ordinarily used for vehicular travel and parking lanes, but exclusive of the sidewalk, berm or shoulder

Warning sign - a sign that gives notice to road users of a situation that might not be readily apparent.



Type 1, 2, and 3 object markers are used to mark obstructions within or adjacent to the roadway. *Type 4 object markers* are used to mark the end of the roadway. "Manual on Uniform Traffic Control Devices, 2009 Edition Section 2C.64".

Obstructions not actually within the roadway are sometimes so close to the edge of the road that they need a marker. These include underpass piers, bridge abutments, handrails, ends of traffic barriers, utility poles and culvert headwalls. "Manual on Uniform Traffic Control Devices, 2009 Edition, Section 2C.65".

Type 1 and Type 4 object markers shall not be used to mark obstructions adjacent to the road. "Manual on Uniform Traffic Control Devices, 2009 Edition, Section 2C.65".

Where *Type 3 object markers* are applied to guardrail or other roadside appurtenances, the sheeting, without substrate shall be directly affixed to the approach end of the guardrail. "Manual on Uniform Traffic Control Devices, 2009 Edition, Section 2C.65".

Culverts and culvert headwalls are the most numerous obstructions adjacent to rural North Dakota roadways.

The *minimum clear zone* based upon AASHTO design standards is 7 feet for very low traffic speeds and volume. The first objective should be to remove hazards/obstructions within the clear zone of the roadway. This will still leave hazards/obstructions not readily apparent to the road users. In particular, large drainage structures are the most apparent. Often the in-slope of the roadway steepens at the ends of these structures. In my opinion, where the end section is vertical or near vertical, prior to the normal bottom of the in-slope object markers is warranted.

Where the end section of the structure does not affect the in-slope and clear zone requirements are met the object marker is not warranted.

Do not confuse *delineators* with the object markers. *Delineators* are used to mark roadway location and not hazards. "Manual on Uniform Traffic Control Devices, 2009 Edition, Section 3F.01"

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