



MEMO

March 16, 2015

To: District Engineers

From: Carol T. Rawson, P.E., Director
Traffic Operations Division *Carol T. Rawson, P.E.*

Subject: Revised Delineator & Object Marker (D&OM) Standard Sheets

The Traffic Operations Division has revised the standard sheets Delineator and Object Marker Standard Sheets (D&OM) (1 through 4)-15 and D&OM (VIA)-15 to be consistent with the 2014 Specification Book and changes to Departmental Material Specification (DMS) 8600. These standard sheets may be used immediately.

As an overview, the original six D&OM Standard Sheets have been reorganized into the following five sheets:

- D&OM (1) - A description of each device
- D&OM (2) - Details of each mounting option
- D&OM (3) - The required application and spacing of devices
- D&OM (4) - Examples of specific applications
- D&OM (VIA) - Object markers for attenuators

An overview of the changes to each sheet are as follows:

D&OM(1)-15:

- The previous D&OM(1) contained descriptions of each device and details of some of the mounting options. The mounting options have been moved to the revised D&OM(2) and the device descriptions have been reformatted in a table-type layout.
- The One Direction Large Arrow (W1-6) sign has been added to the sheet since the sign is now used at horizontal curves.
- The 2014 Specification Book and DMS 8600 no longer use the term "Type C" to describe Barrier Reflectors. The descriptive code for Barrier Reflectors has changed from "TYC" to "BRF."

D&OM(2)-15:

- The previous D&OM(2) contained some of the mounting options available and a table indicating the "Condition for Use" of devices and their suggested spacing. The table and suggested spacing has been moved to D&OM(3) and the revised D&OM(2) now contains only details of the mounting options available for delineators and object markers.

D&OM(3)-15:

- The previous D&OM(3) contained examples of specific delineation applications. The examples have been moved to D&OM(4) and the revised D&OM(3) now contains the table indicating the application of devices and their spacing. The table has been revised significantly. The columns titled "required", "recommended" and "optional" have been deleted and replaced with a single column titled "Required Treatment." The table now references examples of specific applications that are shown on D&OM(4). A new requirement added to the table requires:
 - delineators or barrier reflectors to be used on all longitudinal barriers that are within 2 feet of the travel lane (with the exception of urban areas with continuous illumination).
- The table for "Warning Devices at Curves with Advisory Speed Limits" has been updated to require either delineators or the One Direction Large Arrow (W1-6 or W1-9T) sign at the 15 mph and 20 mph advisory speed reduction levels.
- The Texas Manual Uniform Traffic Control Devices (TMUTCD) requires the One Direction Large Arrow sign but a recently completed NCHRP study (03-106) suggests that driver responses to large arrow signs are equivalent to responses to delineators.
- The study recommends that the large arrow sign can be used as an alternative treatment to delineators if the geometry of a curve and its roadside environment are so restrictive that there is not enough space to effectively employ delineators.

D&OM(4)-15:

- The previous D&OM(3, 4, and 5) sheets contained examples of the application of delineation devices. These three sheets have been combined into a single sheet.
 - A median crossover detail has been added.
 - A permanent installation of a dead end barricade has been added which is similar to the temporary installation detail that was on the WZ(DERD) standard.

D&OM(VIA)-15:

- Object markers placed at the end of attenuation devices were shown with the nomenclature "OB" on the previous D&OM(VIA) sheet. This nomenclature has been removed because the attenuation object markers are typically supplied by manufacturers of the attenuators and are subsidiary to the attenuators.

The revised standard sheets are available in MorcoStation and PDF formats at the following web address:

<http://www.dot.state.tx.us/insdtdot/orgchart/cmd/cserve/standard/toc.htm>

If you have any questions, please contact Michael Chacon at (512) 416-3120 or me at (512) 416-3200.

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