



MEMO

May 30, 2024

To: District Engineers

From: Michael A. Chacon, P.E.
Director, Traffic Safety Division

Subject: Revisions to [Large] Sign Mounting Details, SMD(2)-24; Summary of Large Signs, SOLS; and Related Standard Sheets

DocuSigned by:
Michael A. Chacon, P.E.
06D7FD6C5CEC46B...

Attached are revisions to the [Large] Sign Mounting Details, Summary of Large Signs, and Related standard sheets. Descriptions of revisions are as follows:

SMD(2)-24

- ◆ Enhancements to figures, tables, sheets and notes for clarity and consistency.

SMD(2-1)-24

- ◆ Sheet relocated from SMD(2-2)-08.
- ◆ Reorganized and reformatted sheet for clarity and flow.
- ◆ Added a new standard Sign Riprap Apron Detail.
- ◆ Added Non-Reinforced Foundation Detail – dimensioning relocated from SMD(TY G)-08.
- ◆ W and S beam depiction added, for reference.
- ◆ Post sizes W10x26 and W6x12 removed, due to research results related to roadside signs.
- ◆ Removed conduit in foundation to be more representative of a standard guide sign foundation. Conduit now included on SMD(2-7) only.
- ◆ Relocated Detail A and Perforated Fuse Plate Detail and related portion of the Structural Data Table to SMD(2-2).

SMD(2-2)-24

- ◆ Sheet relocated from SMD(2-3)-08.
- ◆ Exit panel dimensioning updated to conform with the Standard Highway Sign Designs for Texas (SHSD).
- ◆ Post sizes W10x26 and W6x12 removed, due to research results related to roadside signs.
- ◆ Removed optional note on cope detail, to reinstate requirement.

- ◆ Added reference to TSR(2) for clarity on typical sign plaque placement.
- ◆ General Notes updated.
 - Option for fiberglass sign installation removed.

SMD(2-3)-24

- ◆ Sheet relocated from SMD(2-1)-08.
- ◆ Reorganized and reformatted sheet for clarity and flow.
- ◆ Added Departmental Material Specifications (DMS) for Aluminum Sign Blanks.
- ◆ Clarified the AASHTO reference used for wind loading calculations, for structural significance and historical/future reference.
- ◆ Removed option for fiberglass substrate.

SMD(2-4)-24

- ◆ Maximum Sign Support Spacing Table(s) revised.
 - Added the option for W6x12 sign supports, for increased sign depths.
 - Added the option for a 60%-40% split on the structure.
- ◆ Exit panel dimensioning updated to conform with the SHSD.
- ◆ Added reference to TSR(2) for clarity on typical sign plaque placement.
- ◆ Added general notes and DMS, for reference.
- ◆ Removed Sign Walkway & Lighting Brackets.

SMD(2-5)-24

- ◆ Sheet added.
- ◆ Relocated material from SB(SWL-1)-14 - centralizing sign connection details.
- ◆ Side view of sign assembly revised to show more relevant details.
- ◆ Crimp Plate Detail added.
- ◆ Bracket extension for light fixture and walkway removed.
- ◆ Added option for use of W6X12 and 60%-40% split, as it pertains to SMD(2-4)-24.
- ◆ Depiction of sign group added.

SMD(2-6)-24

- ◆ Sheet added.
- ◆ Relocated, reorganized, and reformatted material from MC(3)-22/MS(3)-22 - centralizing sign connection details.
- ◆ General Notes added, for reference.
 - Specified that only S4X7.7 supports, along with a 54%-46% split may be used.
- ◆ Bracket extension for light fixture and walkway removed.

SMD(2-7)-24

- ◆ Sheet relocated from SMD(2-6)-08 and retitled as 'Sign Mounting Details Large Roadside Sign Flashing Beacons'.
- ◆ Option for Solar Panel Power to Equipment on Sign added.
- ◆ Retaining hooks removed from Enclosure.
- ◆ Depiction of Enclosure cover added, for reference.
- ◆ Height of the Enclosure was changed to better accommodate fuse holders.
- ◆ Changed the gauge and material of Enclosure, based on adjusted Enclosure size, in accordance with the DMS.
- ◆ Removed vendor proprietary details and added Non-Fused Breakaway Electrical Connectors.
- ◆ Removed details for a battery box because batteries are now smaller and preferred in an above ground enclosure.
- ◆ Added details for mounting conduit and flashing beacons to sign, as well as antenna for solar panel application.
- ◆ Removed ground box details – should follow standard Electrical Detail (ED) sheets, if used for Underground Power to Equipment on Sign.

SMD (TY G)-08

- ◆ Sheet removed – support and clamp detail no longer standard.
- ◆ Non-reinforced foundation detailed dimensions moved to SMD(2-1)-23.

SMD (8W1)-08

- ◆ This sheet is replaced by the new Large Roadside Sign Support (SMD(LRSS (1-3))) standard sheets which include revised wind loading zone charts that meet MASH standards and reduce the likelihood of wind related fuse plate failures.

SMD (LRSS-(1-3))-24

- ◆ Zones separated, for ease of use.
- ◆ Post sizes W10x26 and W6x12 removed, due to research results related to roadside signs.
- ◆ Charts updated to reflect research results (weights and X variables have shifted).
- ◆ Total post weight equation, with reference to SOLS (TY G) – Note 5 added for clarity.
- ◆ Post weight per foot example added for clarity.
- ◆ Sign Type description removed from sheet(s).
- ◆ Depiction of sign added to show height and width designation(s).

SMD (8W2)-08

- ◆ Renamed as SMD(LRSS-4).

SMD (LRSS-4)-24

- ◆ Post sizes W10x26 and W6x12 removed, due to research results related to roadside signs.
- ◆ Minimum embedment of the Drilled Concrete Footing Depth Chart shifted to 4ft.
- ◆ Adjusted phi symbols used, to be more consistent with industry use.

SOLS

- ◆ Sheet split for ground mound and overhead signs respectively.

SOLS (TY G)

- ◆ Station or Location column added. Intended to be used by providing a station or latitude and longitude, county, lateral clearance, and/or direction of travel.
- ◆ Riprap Apron column added.
- ◆ Sign Text column has been updated to allow for Sign Images as well as, or instead of text - lines removed.
- ◆ (W x H) (FT) added to Sign Dimensions column for clarity.
- ◆ Replace Ground Mount (Type G) Background Substrate column added.
- ◆ 30" and 36" diameter drill shaft columns have been removed – current standards do not use these sizes.
- ◆ Large Roadside Sign Design Process notes have been added to the right side of the sheet to aid the designer in filling out this sheet.

SOLS (TY O)

- ◆ Station or Location column added. Intended to be used by providing a station or latitude and longitude, county, lateral clearance, and/or direction of travel.
- ◆ Sign Text column has been updated to allow for Sign Images as well as, or instead of text - lines removed.
- ◆ (W x H) (FT) added to Sign Dimensions column for clarity.
- ◆ Columns related to ground mount post details removed.
- ◆ Replace and Refurbish Background Substrate columns added.
- ◆ Depictions of Type O mounts added, for reference.

SOLSR

- ◆ Sheet added.
- ◆ Intended to be used to summarize and show signs to be removed.

Example(s) – SOLS (TY G), SOLS (TY O), & SOLSR

- ◆ Updated to show the use of adjusted columns and examples of more current sign data, using the updated Large Roadside Sign Support Post Selection Worksheets and Signs in accordance with SHSD.
 - Illustrates to use of both Sign Text and/or Sign Image being used.

District Engineers

5

May 30, 2024

SL(MV)-93 | Mercury Vapor Sign Lighting Fixture

- ◆ Removed standard, no longer a standard application.

SL(1)-95 | Sign Lighting Electrical Details

- ◆ Removed standard, no longer a standard application.

SWW(1)-14 | Sign Walkway and Handrail

- ◆ Removed standard, no longer a standard application.

SB(SWL-1)-14 | Support Bracket for Signs, Walkways and Lights

- ◆ Removed standard, no longer a standard application.
- ◆ Relocated relevant support to truss connection details to SMD(2-5)-24.

MC(3)-22 and MS(3)-22

- ◆ Removed sheet 3 from MC-22 and MS-22.
- ◆ Relocated support to monotube connection details for cantilever and span to SMD(2-6)-24; for clarity and flow of application, as it relates to the installation of overhead signs.

The standard sheets may be used immediately and shall be used for all applicable PS&E sets beginning with the November 2024 letting. The new sheets are available in MicroStation® "dgn" and Adobe® "pdf" formats at the following address:

<http://www.txdot.gov/insdtdot/orgchart/cmd/cserve/standard/toc.htm>

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

CC: ADM_ALL
Craig Otto, AUD
Frances Fletcher, SSD
#EO-DDD
#Traffic Engineers

Jennifer Woodard, AGC
Thomas Bohuslav, AGC
Herbert Bickley, ATSSA
Ed Burgos-Gomez, FHWA
Amelia Hayes, FHWA
Dawn Hinton, UTA
Jerome Pasket, TEEX

Attachment