

DMS CABINET DESCRIPTION:

Front Panel Depth = 7'-10"
 Top Cabinet Width = 11"
 Length = 27'-6 1/4"
 Weight = 2290 Lbs

NOTES:

See Traffic Plans for the sign structure location.

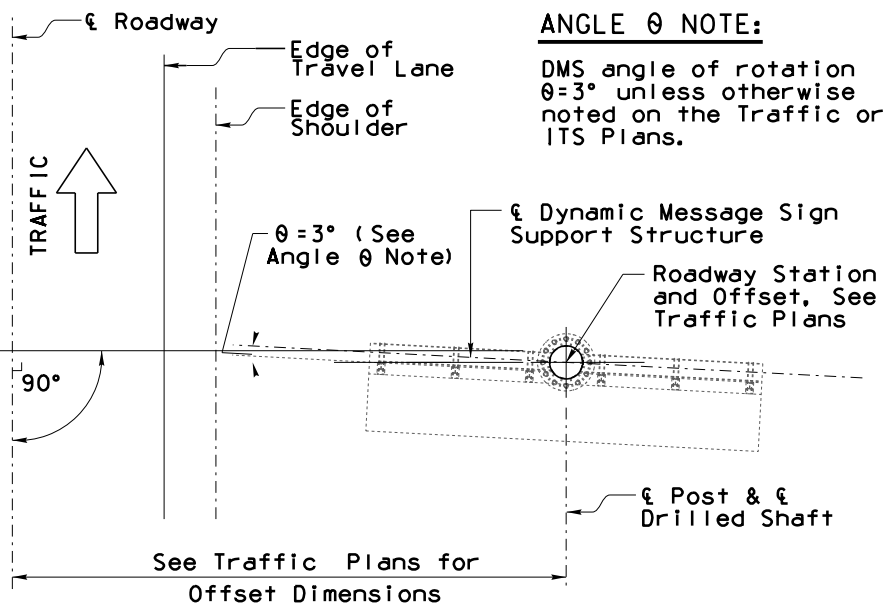
See Traffic Plans to determine if catwalk is optional. If catwalk is omitted, the W6 X 20 mounting posts length shall be reduced by 1'-2" (See Section 1 on sheet 4 of 7).

PAY ITEM NOTES:

Pay Item for butterfly sign structure foundation includes the drilled shaft and the anchor bolt assembly.

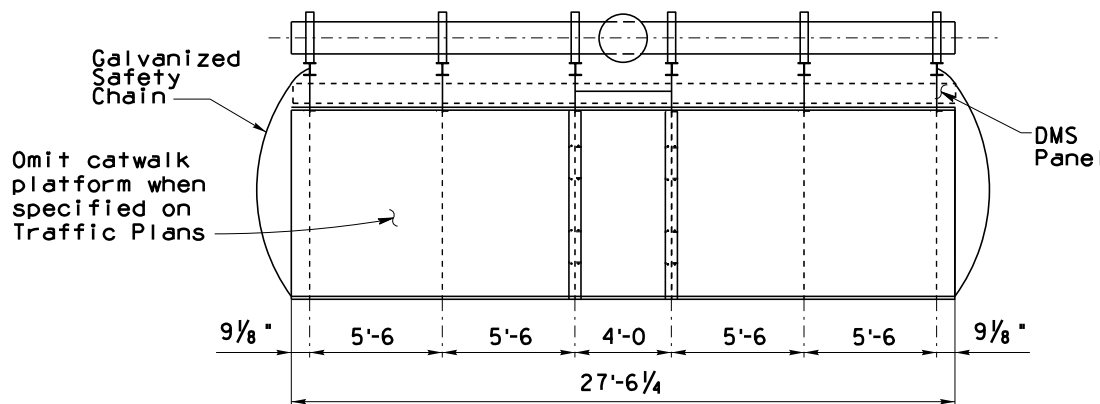
Pay Item for butterfly sign structure foundation in the median with concrete barrier includes the drilled shaft, the formed pedestal on drilled shaft, and the anchor bolt assembly. For median formed pedestal details not shown here, see SD 9.10 (5 of 5).

Pay Item	Description	Measure
6060036	SIGN STRUCTURE (BUTTERFLY DMS)	Each
6060080	FOUNDATION FOR BRIDGE SIGN STRUCTURE (BUTTERFLY DMS)	Each

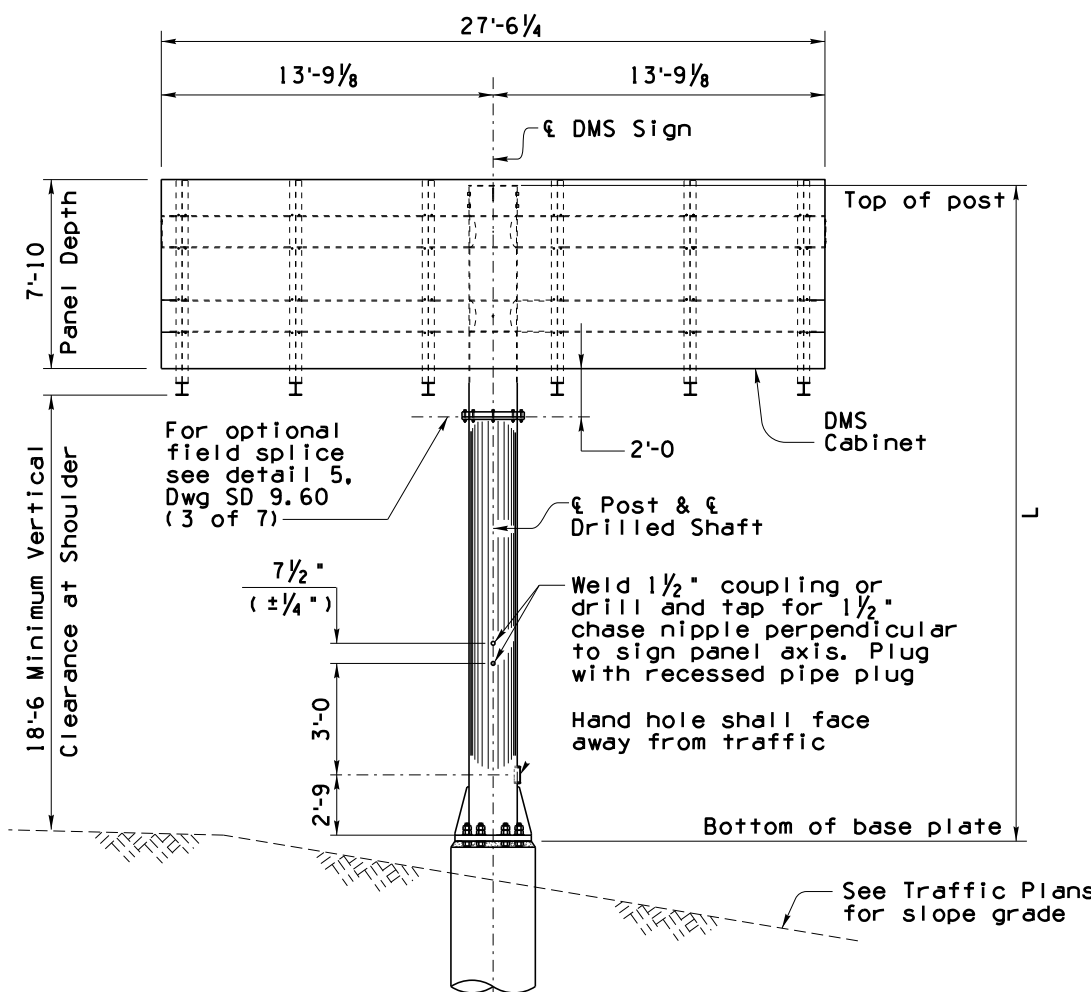


ANGLE θ NOTE:
 DMS angle of rotation $\theta = 3^\circ$ unless otherwise noted on the Traffic or ITS Plans.

ROADSIDE INSTALLATION PLAN (2)



PLAN (1)



ELEVATION (3)

GENERAL NOTES:

Construction Specification - Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, Edition of 2021.

Design Specifications - AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, Sixth Edition (2013) including the 2015, 2019 and 2020 interims.

Wind Loading: 90 MPH Velocity.

All concrete shall be Class 'S' ($f'c = 3,500$ psi).

Reinforcing steel shall conform to ASTM A615 specification, and shall be furnished as Grade 60.

Structural Steel shall conform to ASTM A36 specification, unless noted otherwise.

All connection bolts shall be high strength bolts conforming to ASTM F3125 Grade A325 Specification. All high strength bolts, nuts and washers shall be galvanized in accordance with the requirements of ASTM F2329. All other steel shall be galvanized after fabrication in accordance with the requirements of ASTM A123.

All Tubular Structural Pipes shall be welded or seamless steel pipes, and shall conform to the ASTM specifications listed below:

A53	Grade B	Type E or S	Fy = 35 ksi
A252	Grade 2	Type E or S	Fy = 35 ksi
A106	Grade B	Type S only	Fy = 35 ksi
API 5L	Grade B	Type E or S	Fy = 35 ksi
API 5LX	Grade X42	Type E or S	Fy = 42 ksi
A500	Grade B		Fy = 46 ksi

Prior to erecting any portion of the Sign Structure, the Contractor shall provide the Engineer an erection plan for review and approval.

Dimensions shall not be scaled from drawings.

WELDING NOTES:

Welding of structural tubing shall conform to the requirements of the American Welding Society (AWS), Structural Welding Code D1.1, latest edition.

All other welding shall conform to the requirements of the American Welding Society, ANS/AASHTO/AWS D1.5, Bridge Welding Code, latest edition.

All welding shall be continuous unless noted otherwise.

All butt welds shall be full penetration using prequalified welding procedures, and shall be tested by ultrasonic testing.

All butt welds shall be ground flush, full width. Grinding striations shall be parallel to length of member.

Drilled shaft location and top of drilled shaft elevation shall be field verified by the Contractor prior to fabrication of post.
 Shop drawings for sign structure fabrication shall not be submitted until the drilled shaft is constructed, and the top of the drilled shaft elevation has been verified.

BUTTERFLY SIGN STRUCTURE		POST PIPE DATA			MAST ARM PIPE DATA			
Maximum DMS Dimensions	Max DMS Weight	Pipe Nominal Diameter (IN)	Pipe Wall Thickness (IN)	*Max Post Height L (FT)	Pipe Nominal Diameter (IN)	Pipe Wall Thickness (IN)	Mast Arm Length (FT)	Mast Arm Spacing (FT)
27'-6 1/4" W x 7'-10" H x 11" D	2290 Lbs	24.0	0.50	28'-0"	16.0	0.50	27'-6 1/4"	3'-6"

* Maximum design post height. Project specific post height shall be determined by elevations provided in the traffic plans.

STANDARDS ENGINEER A. ALZUBI
RECOMMENDED FOR APPROVAL GROUP MANAGER D. EBERHART
APPROVED STANDARDS COMMITTEE APPROVED FOR DISTRIBUTION
03/22 DATE

ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION BRIDGE GROUP STANDARD DRAWING	
DYNAMIC MESSAGE SIGN BUTTERFLY GENERAL PLAN AND ELEVATION	DRAWING NO. SD 9.60 (1 of 7)

Note to Designer: This drawing has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.

PRIOR DISTRIBUTION DATE