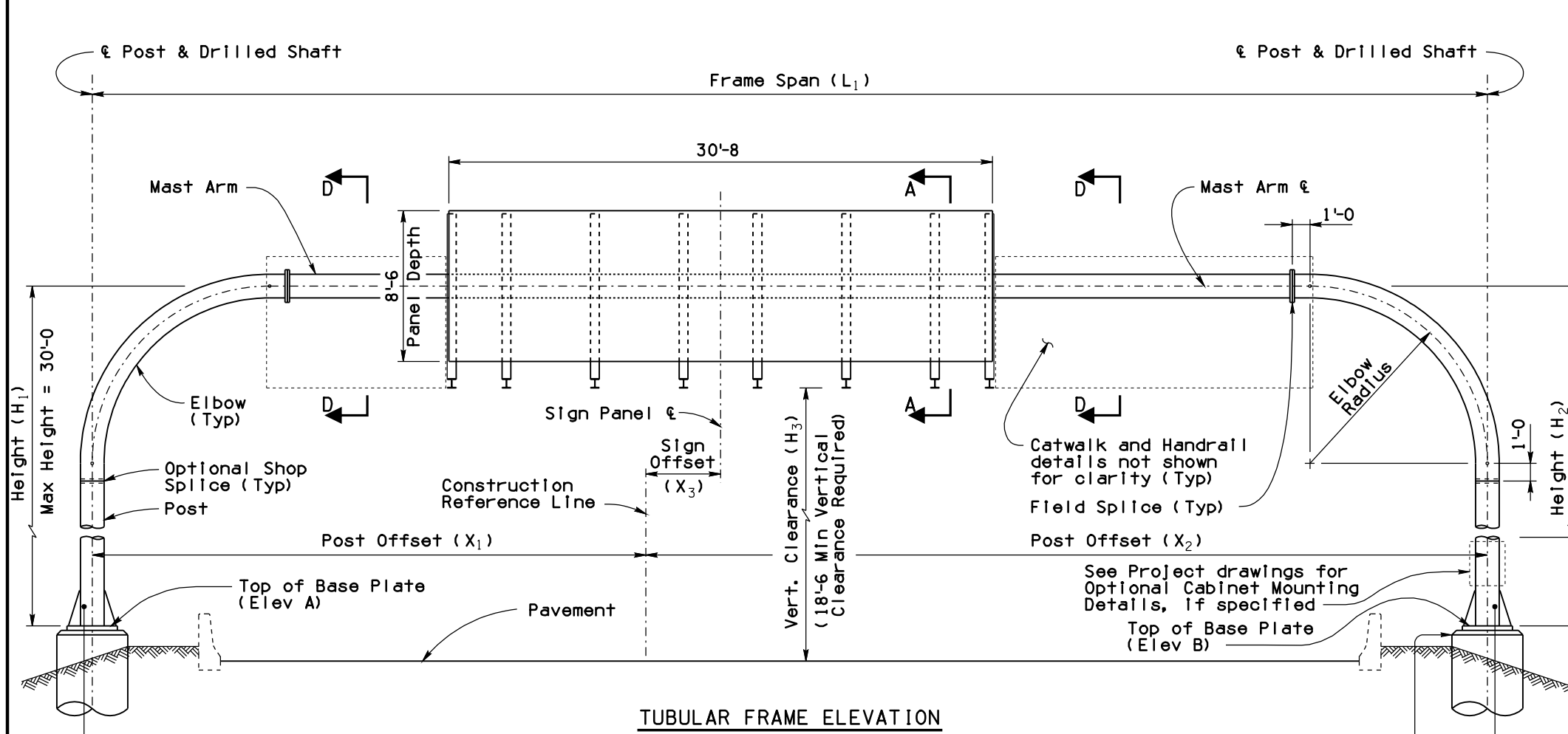
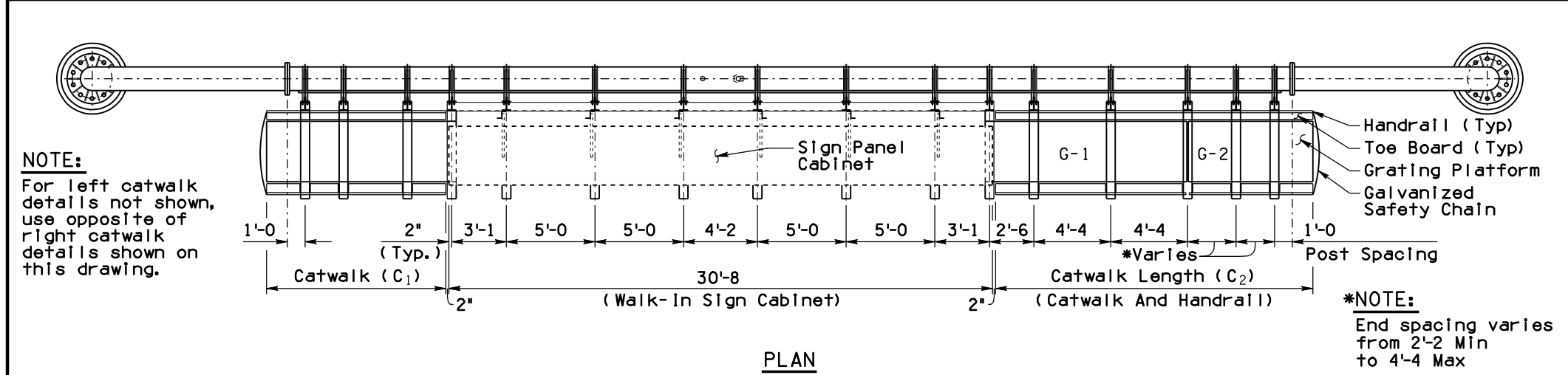


Note to Designer: This Standard Drawing has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability and applicability by a licensed professional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



**WALK-IN SIGN CABINET DESCRIPTION:**  
 Depth = 8'-6"      Length = 30'-8"  
 Width = 3'-3 3/4"      Weight = 4000 lbs.

TUBULAR FRAME DATA FOR SIGN CABINET SUPPORT						
TUBULAR FRAME				PIPE WALL THICKNESS (INCHES)		
Frame Type	Frame Span L <sub>1</sub>	Nominal Pipe Dia	90° Elbow Radius	Post	Elbow	Mast Arm
2F	56' - 70'	16"	10'-0"	1.219	1.219	0.500
3F	71' - 110'	20"	12'-0"	1.280	1.280	0.625
4F	111' - 142'	22"	12'-0"	1.125	1.125	0.875

**NOTES:**  
 See SD 9.50 (2 of 5) for SECTION A-A  
 See SD 9.50 (3 of 5) for SECTION B-B  
 For General Notes see SD 9.20 (1 of 5)  
 For Camber Diagram see SD 9.20 (3 of 5)  
 For Foundation Details see SD 9.20 (2 of 5)  
 Provide 10 inch diameter hole in center of column base plate to accommodate conduits  
 For Frame and Hand hole Details see SD 9.20 (3 of 5)  
 For Sign Support Details see SD 9.20 (4 of 5)  
 For Overhead Light Details see SD 9.20 (5 of 5)

**OVERHEAD SIGN NOTES:**  
 Wind Loading: 90 MPH Velocity  
 Maximum Height: 50'-0" from average surrounding terrain to the  $\epsilon$  of the mast arm (Regardless of post height). The Tubular Overhead has been designed for site conditions which are level and neither elevated above the average surrounding terrain by more than the 50'-0" height shown nor supported on a bridge.  
 Maximum difference between post heights for an individual frame = 5'-0".  
 Additional sign attachment to the tubular frame is not allowed.  
 For Standard pipe mast arms with lengths greater than 60'-0" an optional field splice will be permitted at the third points of mast arm length to facilitate hauling operations. All additional field splices in the Mast Arm proposed by the fabricator will not be allowed.  
 The Optional Shop Splice may not be used when the splice location is less than 5'-0" above the top of base plate. Shop splice of pipe sections (other than shown) are not permitted without prior approval.  
 Drill and tap for 1 1/2" chase nipples and plug with recessed pipe plugs. Place perpendicular to sign panel axis and away from approaching traffic. Install nipples on shoulder posts only.  
 Before any portion of the tubular frame is assembled in its final position, the Contractor shall demonstrate to the Engineer by preassembly or other approved methods that the span length of the frame in the no load condition is equal to ( $\pm 1/2$  inch) the field measured span length between foundations.  
 If the tubular frame is erected as one unit the frame shall be adequately suspended to avoid distortions or changes in span length between base plates.  
 The Field Splice surfaces shall be in full contact without gaps prior to the bolts being snug tightened and fully tensioned. The contact surface is the area defined by a 1 3/8" radius around each bolt.  
 Provide electrical grounding at pole foundations per ADOT Standard Specification Section 732-3.03.

**NOTE:**  
 Project drawings shall provide the following site specific frame and catwalk information on each LED Dynamic Message Sign location sheet:

FRAME AND CATWALK SUMMARY TABLE	
LED DMS NO.:	VERTICAL CLEARANCE, H <sub>3</sub> :
ROUTE:	TOP OF BASE PLATE, ELEV. A:
MILE POST:	TOP OF BASE PLATE, ELEV. B:
STATION:	POST OFFSET, X <sub>1</sub> :
FRAME SPAN, L <sub>1</sub> :	POST OFFSET, X <sub>2</sub> :
HEIGHT, H <sub>1</sub> :	SIGN OFFSET, X <sub>3</sub> :
HEIGHT, H <sub>2</sub> :	CATWALK LENGTH, C <sub>1</sub> :
TILT, T:	CATWALK LENGTH, C <sub>2</sub> :

STANDARDS ENGINEER  
**A. ALZUBI**  
 RECOMMENDED FOR APPROVAL  
 GROUP MANAGER  
**D. EBERHART**  
 APPROVED  
 STANDARDS COMMITTEE APPROVED FOR DISTRIBUTION      04/19  
 DATE

ARIZONA DEPARTMENT OF TRANSPORTATION  
 INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION  
 BRIDGE GROUP STANDARD DRAWING  
 DMS (VARIABLE TILT CABINET)  
 TUBULAR FRAME  
 PLAN AND ELEVATION  
 DRAWING NO.  
**SD 9.53**  
 (1 of 5)

PRIOR DISTRIBUTION DATE      01/15