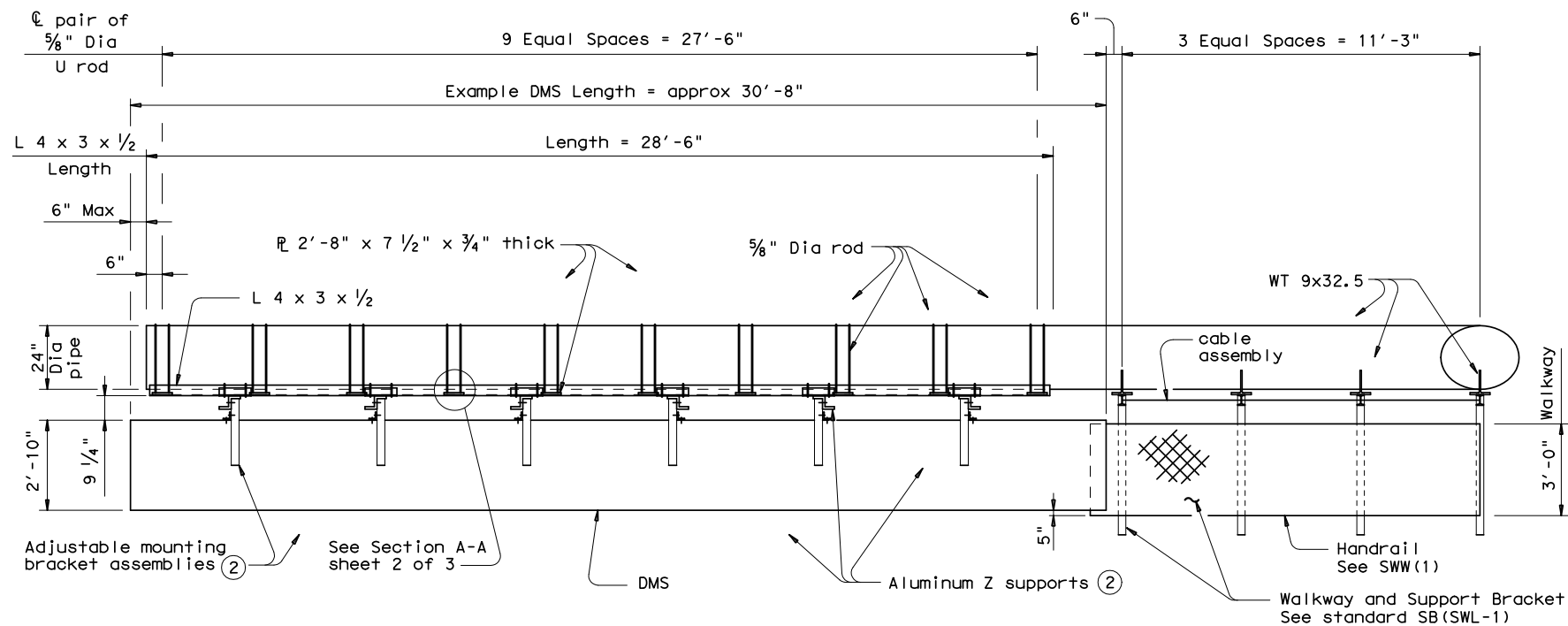
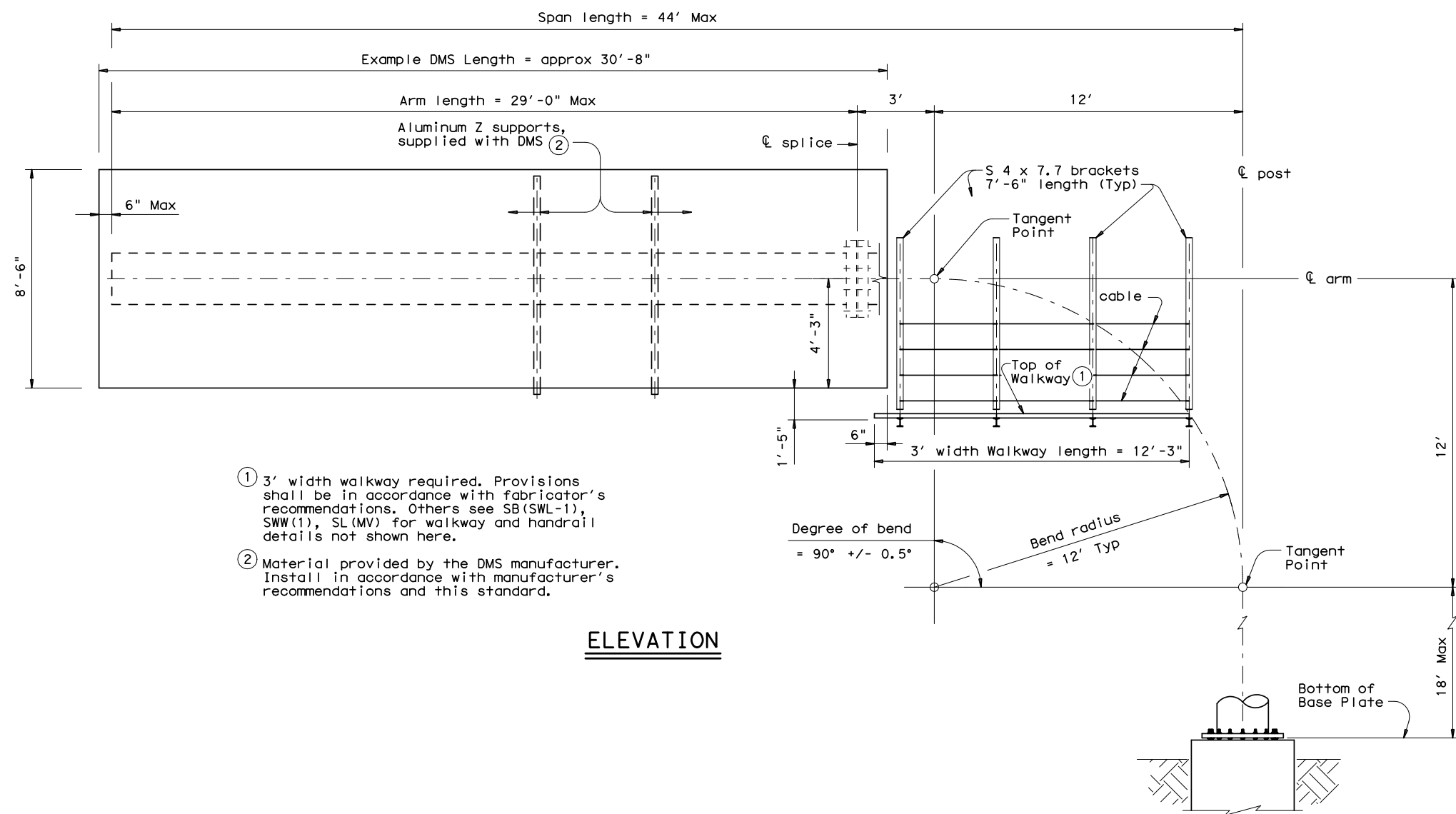


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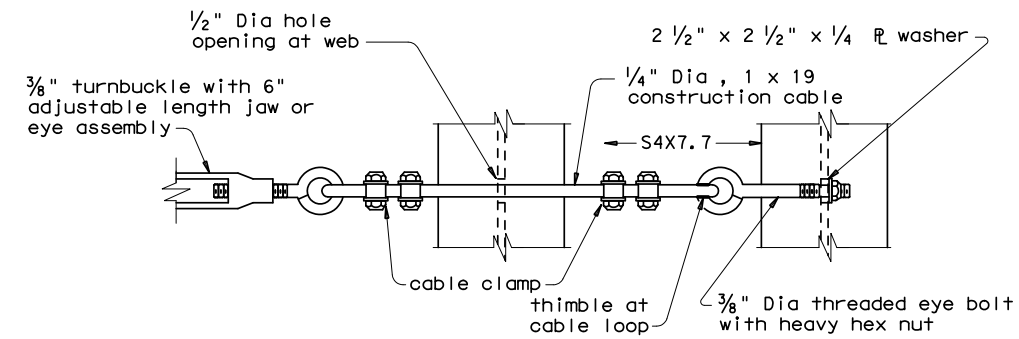


PLAN

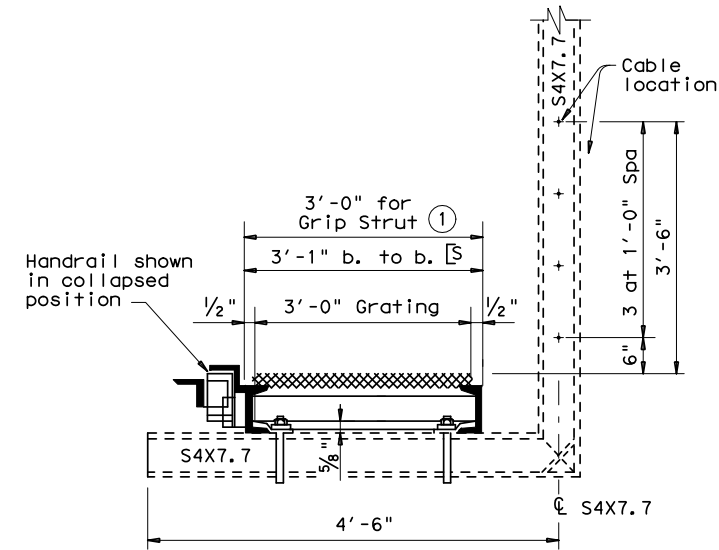


ELEVATION

- ① 3' width walkway required. Provisions shall be in accordance with fabricator's recommendations. Others see SB (SWL-1), SWW(1), SL(MV) for walkway and handrail details not shown here.
- ② Material provided by the DMS manufacturer. Install in accordance with manufacturer's recommendations and this standard.



CABLE ASSEMBLY



END VIEW OF WALKWAY

GENERAL NOTES:
 Cable and its assemblies shown here is an example only. Optional designs in accordance with manufacturer's recommendations can also be approved. The cable assembly must meet:
 1. Each cable strand has a minimum breaking strength 6,000 lbs.
 2. Turnbuckle, clamp, eye bolt or jaw sustains a 1,200 lbs working tensile capacity.
 Cable must be type 316 stainless steel strands or equal, turnbuckle must conform to ASTM F1145 Class D,G or H, clamp conform to ASTM A36 or equal and eye bolt conforms to ASTM F541. Unless otherwise shown, all materials must be "Low-Alloy Steel" for non-bridge structures per Item 442, "Metal for Structures". All parts can be either stainless steel or hot-dip galvanized finish.
 Tension cable must be measured to 300 lbs with a tolerance of 30 lbs +/-.
 Shown here and on sheet 2 of 3 are example details for attachment of dynamic message sign (DMS) at cantilever-type monotube structure. See sheet 3 of 3 for more example details for DMS attachment. Attachment details for DMS at span-type monotube structure are similar.
 The installation of walkway and supporting assemblies is optional unless otherwise specified in the contract plans.

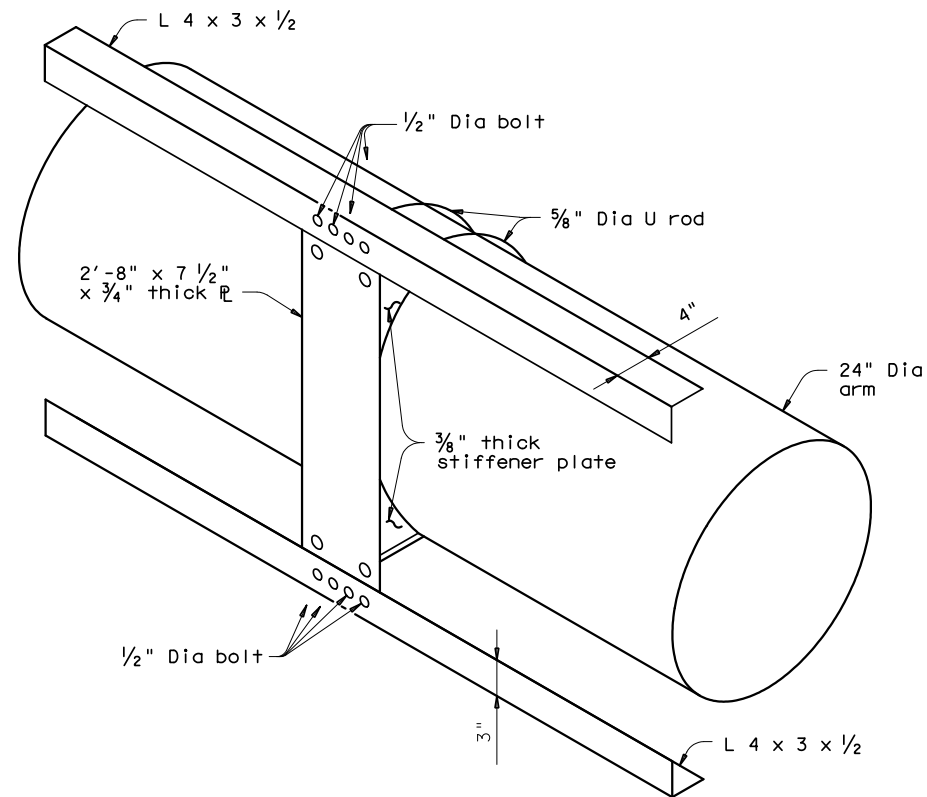
SHEET 1 OF 3

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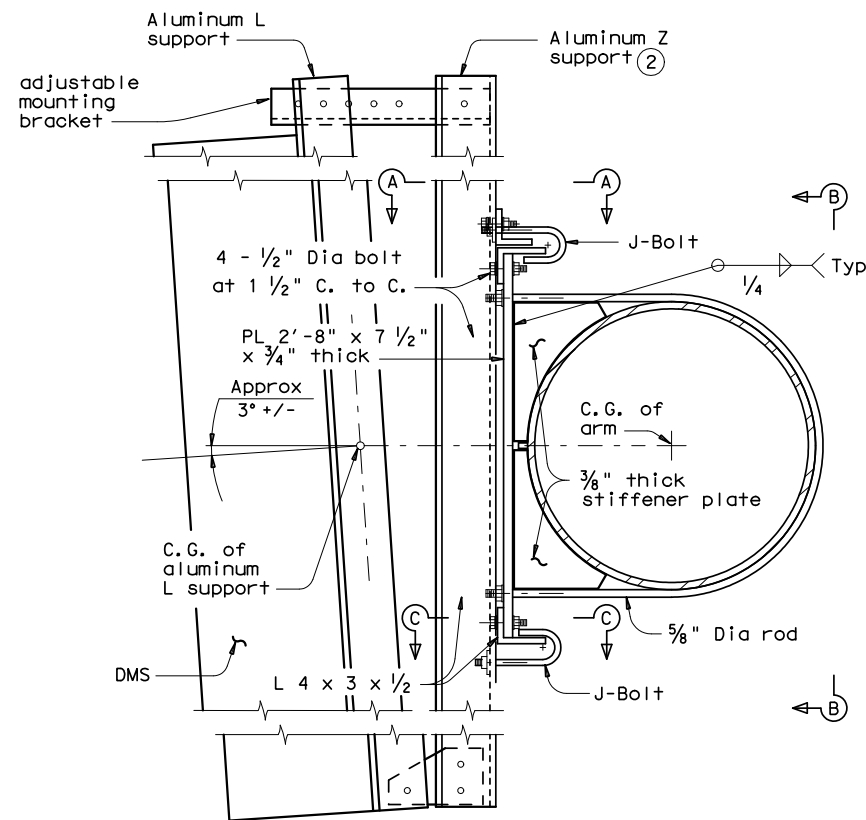
**MONOTUBE SIGN STRUCTURE
 ATTACHMENT OF
 DYNAMIC MESSAGE SIGN**
MDM(1)-07

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		QTY	QUANTITY	SHEET NO.	

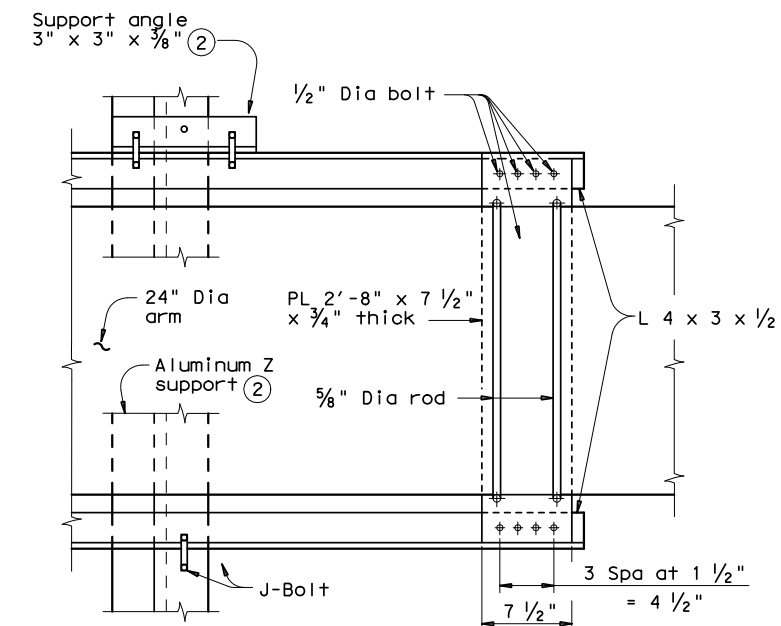
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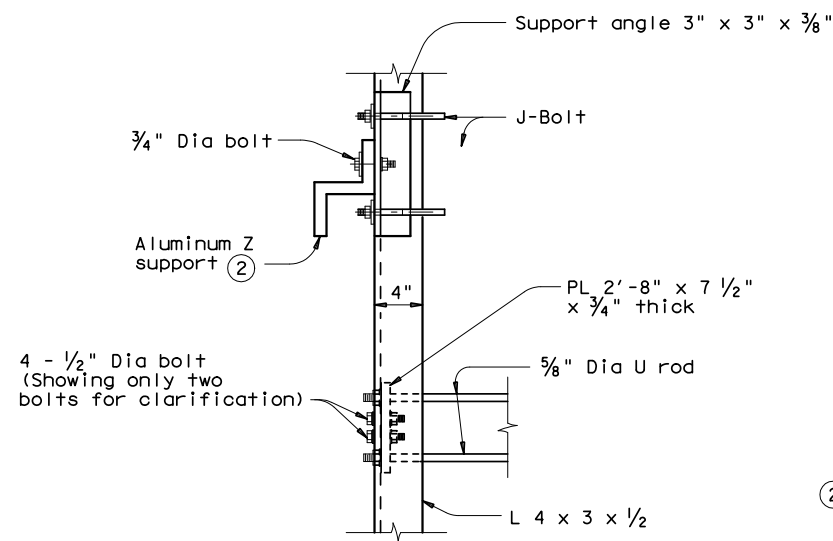
ATTACHMENT CONFIGURATION



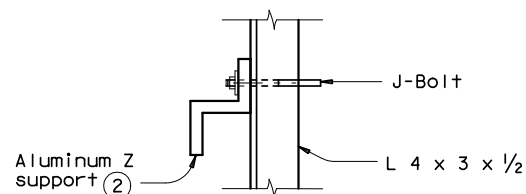
SECTION THRU COMPLETE ATTACHMENT



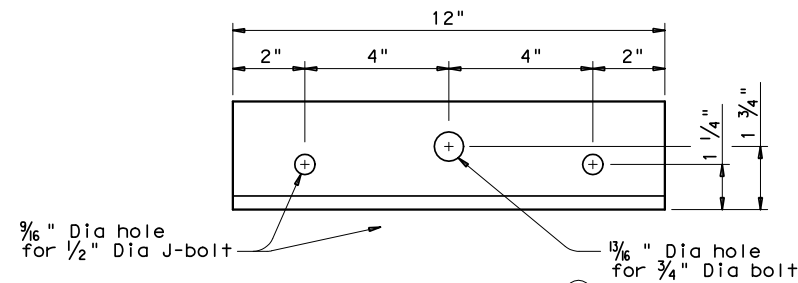
SECTION B-B



SECTION A-A



SECTION C-C



SUPPORT ANGLE

L 3" x 3" x 3/8" galvanized to match sign bridge

② Material provided by the DMS manufacturer. Install in accordance with manufacturer's recommendations and this standard.

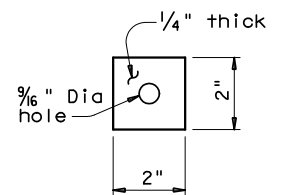
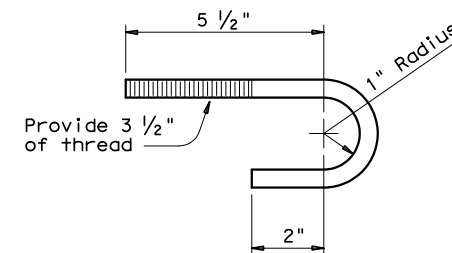


PLATE WASHER

304 Stainless Steel



J-BOLT

1/2" Dia 304 Stainless Steel with nut and plate washer. Min yield strength 70 ksi.

GENERAL NOTES:

The attachment shown in here is illustrative only. DMS manufacturer may provide an alternate method to attach DMS. All steel parts shall be galvanized finish except as noted. Aluminum Z support conforms to ASTM B221 alloy 6061-T6.

SHEET 2 OF 3

Texas Department of Transportation
Traffic Operations Division

MONOTUBE SIGN STRUCTURE
ATTACHMENT OF
DYNAMIC MESSAGE SIGN

MDM(2)-07

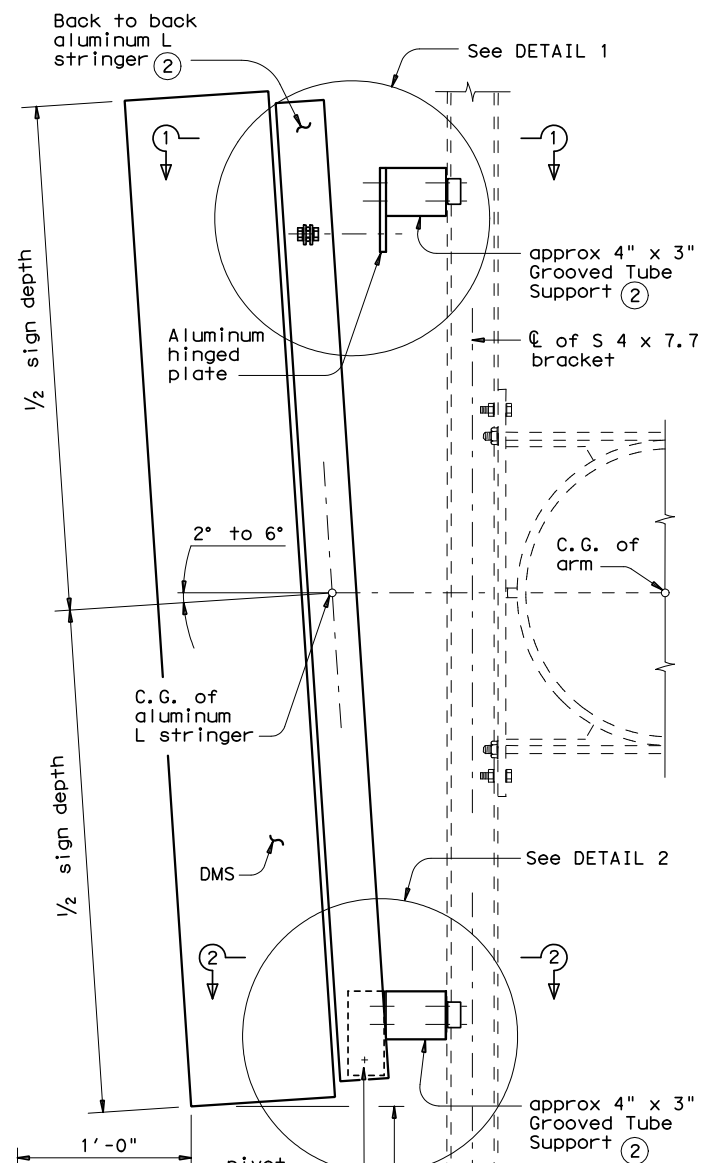
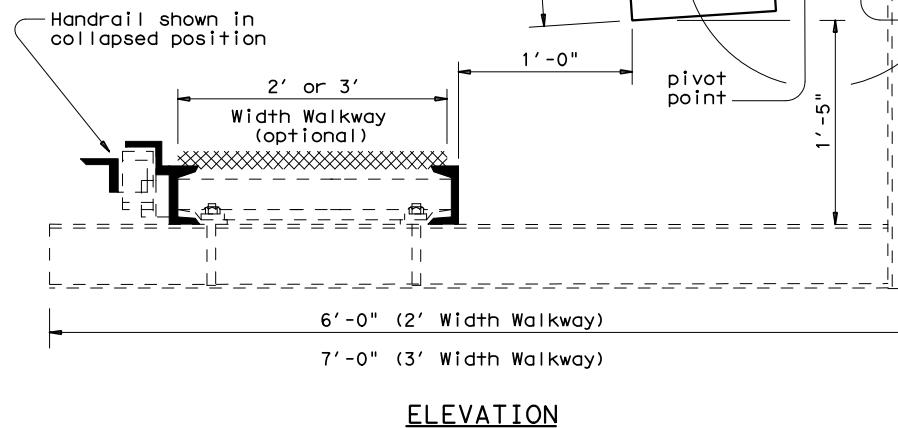
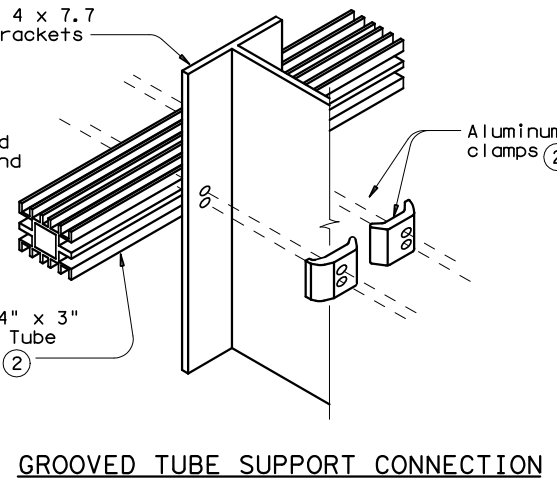
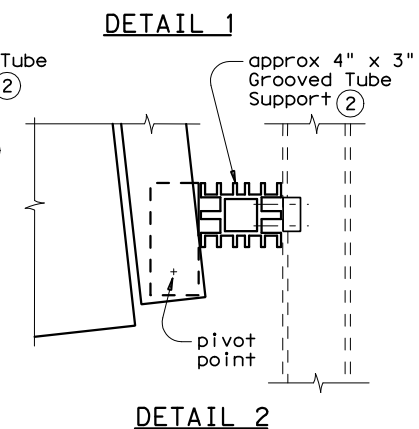
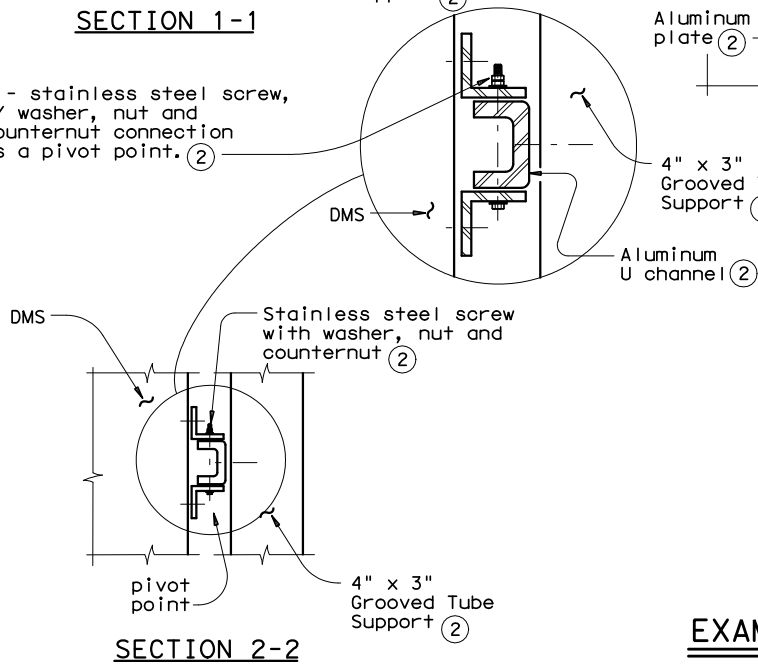
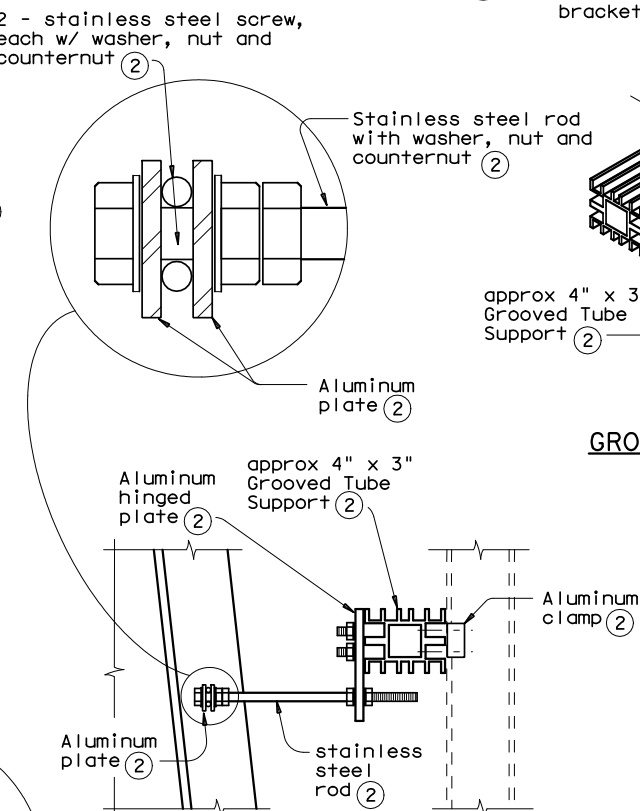
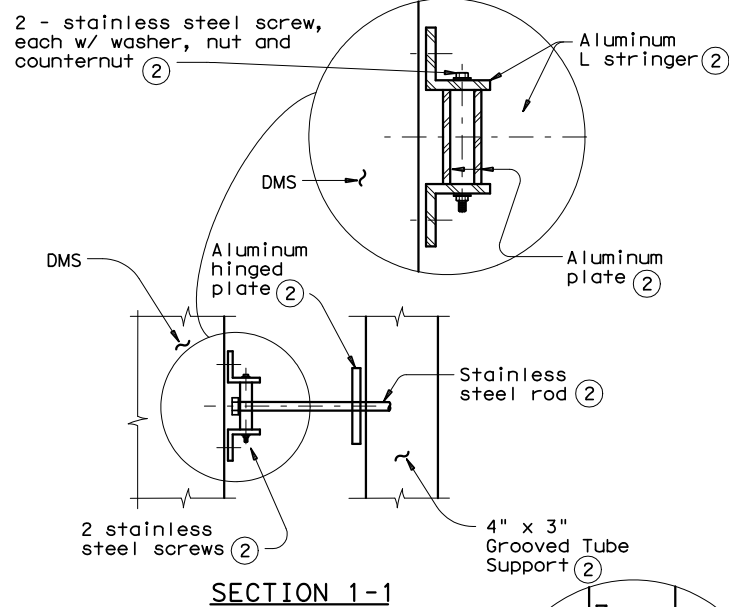
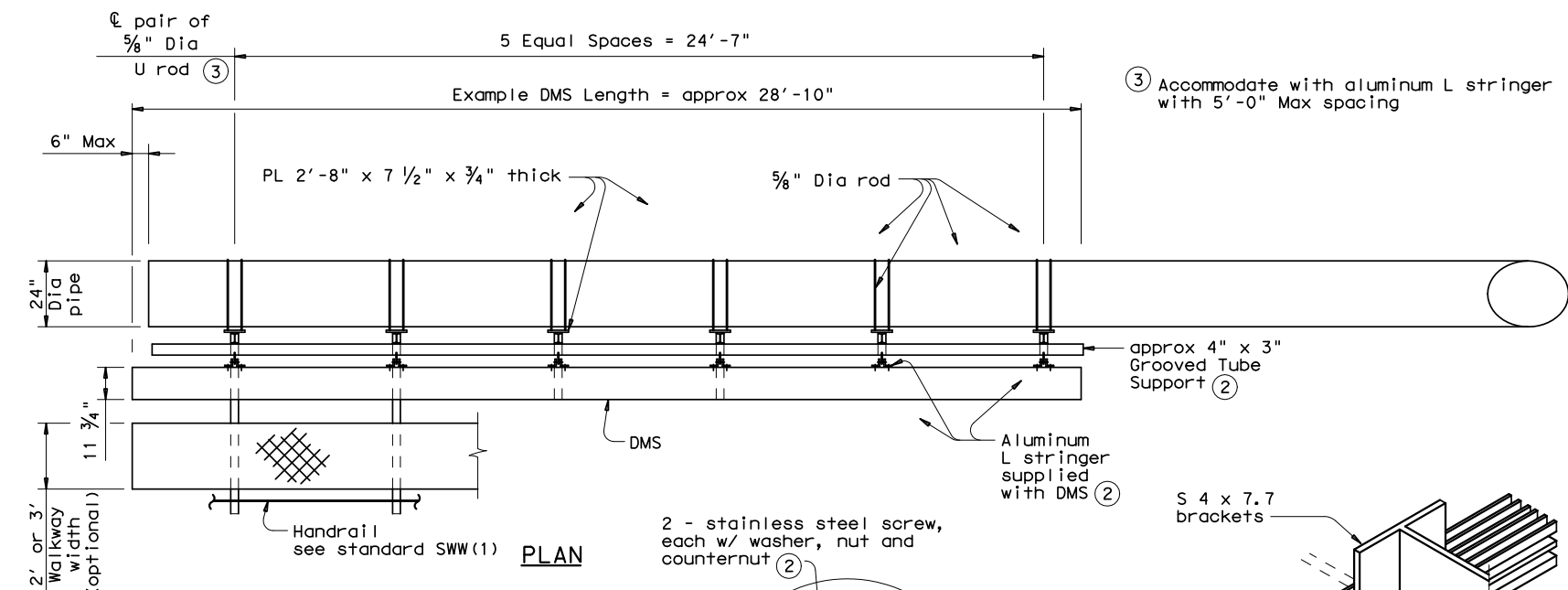
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EXAMPLE ATTACHMENT OF DYNAMIC MESSAGE SIGN

DATE:
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GENERAL NOTES:
 The attachment shown in here is an example only. DMS supplier may provide an alternate method to attach DMS.
 All steel parts shall be galvanized finish except as noted.
 Stainless steel rod and screws conform to ASTM A325 or A449 with A536 stainless nuts and counternuts and F436 washer.
 Aluminum L stringer plate, grooved tube support and channel conform to ASTM B221 alloy 6060 T5.
 Aluminum clamp conforms to ASTM B221 alloy 6005 T5. All aluminum assemblies and stainless steel rod provided by DMS manufacturer.

SHEET 3 OF 3

Texas Department of Transportation
Traffic Operations Division

MONOTUBE SIGN STRUCTURE
ATTACHMENT OF
DYNAMIC MESSAGE SIGN
MDM(3)-07

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REVISIONS	DATE	BY	REASON	APPROVED BY