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## ORIGINATION FORM

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### Proposed Revisions to a Standard Plans Index (Please provide all information — Incomplete forms will be returned)

**Contact Information:**

Date: June 15, 2020

Originator: Cheryl Hudson

Phone: (850) 414-5332

Email: cheryl.hudson@dot.state.fl.us

**Standard Plans:**

Index Number: 700-090

Sheet Number (s): 1 and 4

Index Title: Dynamic Message Sign Walk-In

**Summary of the changes:**

Sheet 1: Change Note 5.A.a reference to ASTM B308 to ASTM B221 throughout Standard Plans as an administrative change.

Sheet 4: Detail 'E' changed weld.

**Commentary / Background:**

ASTM withdrew B308-10 so need to change it to ASTM B221 in all applications.

Change weld to meet current criteria as requested by industry.

**Other Affected Offices / Documents:** (Provide name of person contacted)

Yes	No	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other Standard Plans –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	FDOT Design Manual –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Basis of Estimates Manual –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Standard Specifications –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Approved Product List –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Construction –
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Maintenance –

**Origination Package Includes:**

(Email or hand deliver package to Rick Jenkins)

Yes	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Redline Mark-ups
<input type="checkbox"/>	<input type="checkbox"/>	Proposed Standard Plan Instruction (SPI)
<input type="checkbox"/>	<input type="checkbox"/>	Revised SPI
<input type="checkbox"/>	<input type="checkbox"/>	Other Support Documents

**Implementation:**

- Design Bulletin (Interim)
- DCE Memo
- Program Mgmt. Bulletin
- FY-Standard Plans (Next Release)

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Contact the Roadway Design Office for assistance in completing this form

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**GENERAL NOTES:**

1. Work this Index with Specification 700.
2. Furnish and install the Dynamic Message Sign (DMS), sign structure in accordance with Index 700-040 or 700-041. Locate foundations at locations shown in the Plans.
3. Shop Drawings are required:
  - A. Include the DMS connection
  - B. Do not start fabrication until the shop drawings are approved
4. If required, install guardrail at location show in the Plans and in accordance with Index 536-001.

5. Materials:

A. Sign Mounting Components:

- a. Aluminum Structural Shapes: ASTM B308, Alloy 6061-T6
- b. Vertical Hangers: ASTM A704, Grade 36
- c. U-Bolts: ASTM A449 or A193 B7
- d. Steel Bolts, Nuts, and Washers:
  1. High Strength Bolts: ASTM F3125, Grade A325, Type 1
  2. Nuts: ASTM F563
  3. Washers: ASTM F463 (Flat Washer)

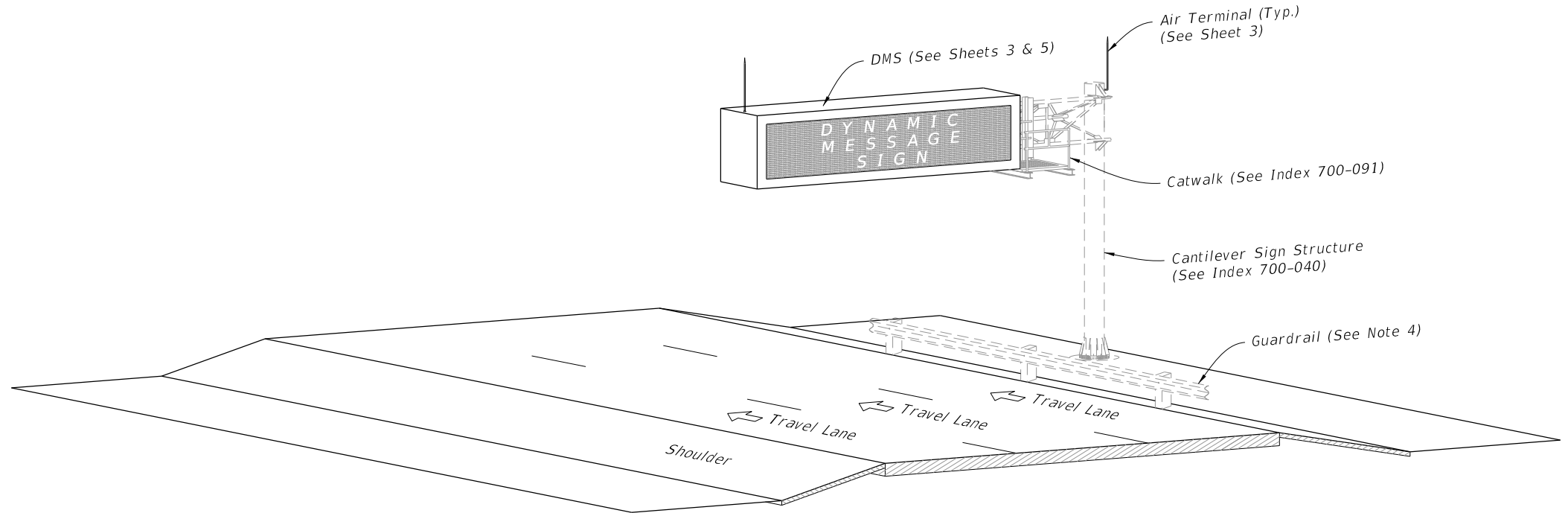
B221

B. Coatings:

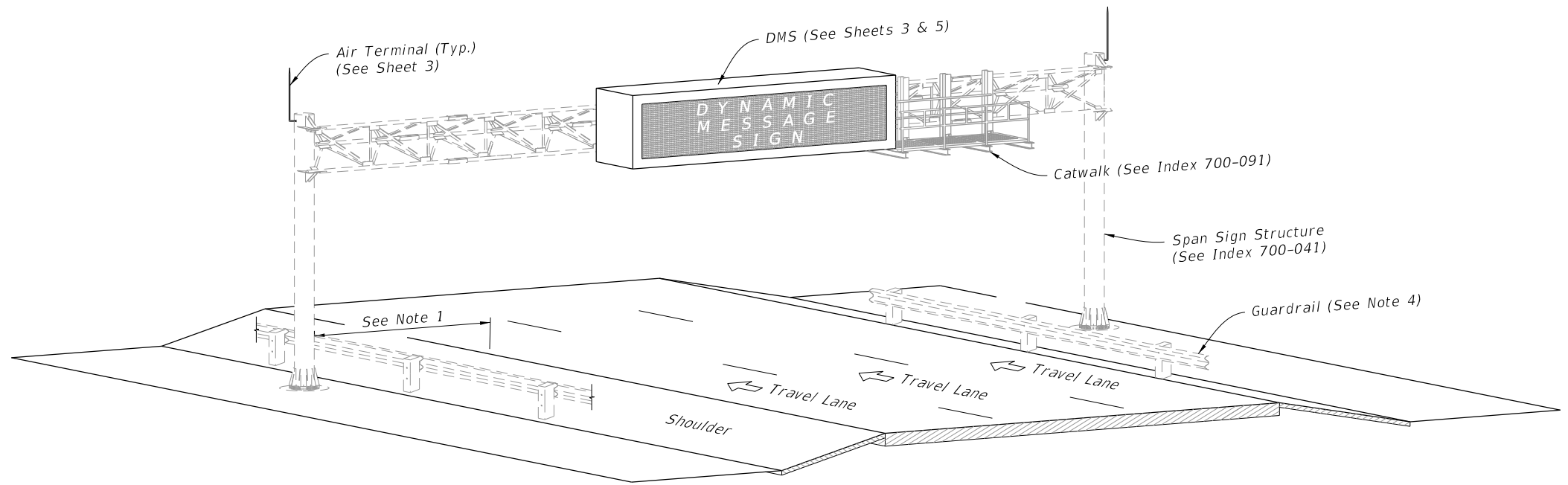
- a. All nuts, bolts and washers ASTM F2329
- b. All other steel items ASTM A123
- c. Bolt hole Diameters: Bolt plus 1/16" before galvanizing

6. Installation:

- A. See project requirements for location of DMS Cabinet.
- B. Field Adjust pole-mounted DMS cabinet height to achieve best access for maintenance personnel given site condition as directed by the Engineer. Avoid conflicts with stiffeners, handhole and maintenance of anchor bolts.
- C. Locate the sign horizontal on the structure as shown in the Plans. Vertically center the sign enclosure with the centerline of the truss.
- D. Before erection, field drill the bolt holes in the vertical hangers and horizontal mounting member attached to the sign enclosure. Field locate holes to allow vertical hanger placement as shown on the Plans with no conflicts with gusset or splice plates.
- E. Locate threaded couplings on sign side of upright above the sign truss
- F. Connect grounding conductors to the steel framework that has been cleaned to base metal by use of bonding plates having contact area of not less than 8 square inches or by welding or brazing. Drilling and tapping the steel structure to accept a threaded connector is also an acceptable method
- G. If steel framework is to be drilled and tapped to accept threaded connector, the threaded connector shall be galvanized and have at least 5 threads fully engaged and secured with a jam nut to the steel framework.
- H. Bends in the conduit must be greater than the minimum bending radius for the cable contained in the conduit.
- I. Completely encase all data, fiber optic and power cables for the DMS within the sign structure or in conduit.
- J. Permanently stamp/mark foundation to indicate conduit locations.
- K. Transition conduit in foundation to indicate underground conduit with appropriate reducer outside the limits of the foundation.



CANTILEVER ISOMETRIC VIEW



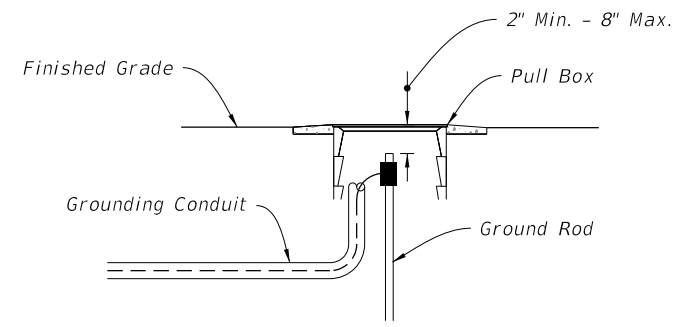
SPAN ISOMETRIC VIEW

DYNAMIC MESSAGE SIGN ASSEMBLY

10/14/2019 2:40:32 PM

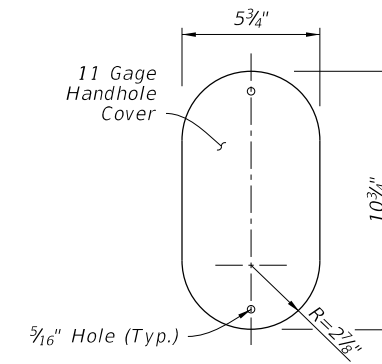
11/01/20

LAST REVISION	<del>11/01/19</del>	REVISION		DESCRIPTION:		 FY 2020-21 STANDARD PLANS	DYNAMIC MESSAGE SIGN WALK-IN	INDEX 700-090	SHEET 1 of 5
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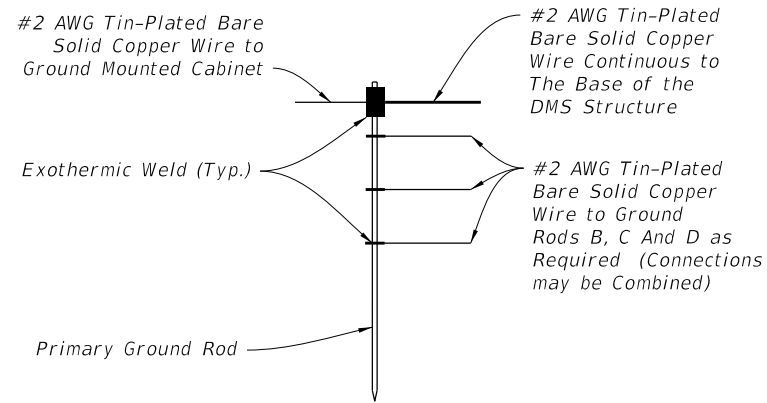


(Pole Mounted Cabinet Configuration Shown)

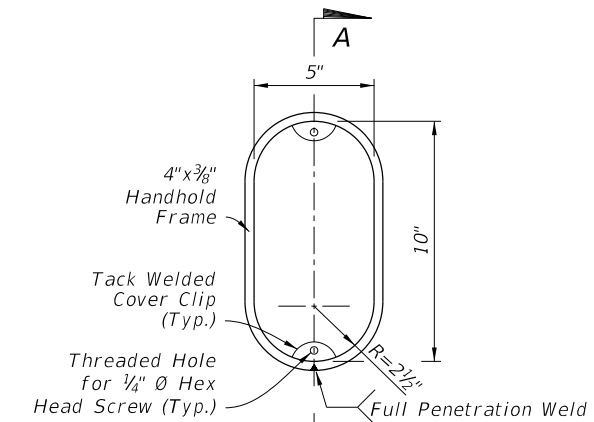
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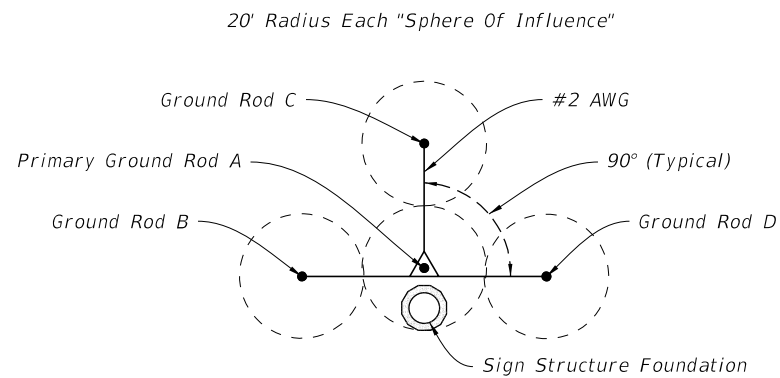
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**DETAIL "C"**

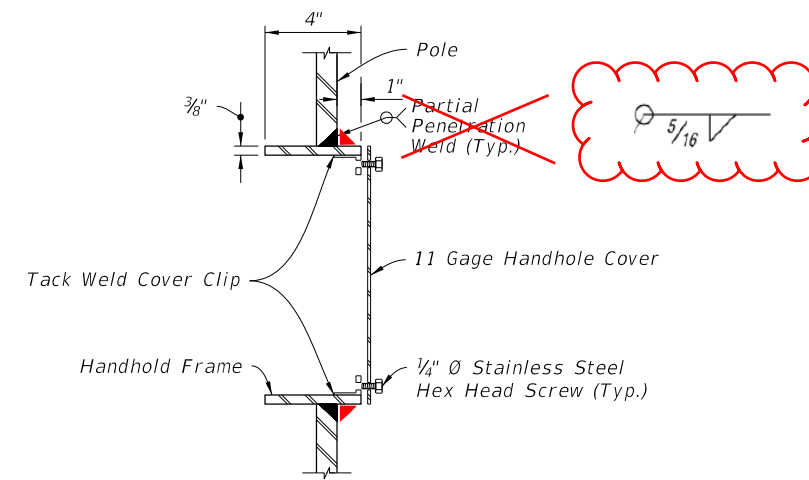


**FRAME**



TYPICAL  
(20' Rods, 40' Spacing)  
**GROUND ROD ARRAY DETAIL**

**DETAIL "D"**



(Thru Handhole)  
**SECTION A-A**

**DETAIL "E"**

11/01/20

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LAST REVISION	DESCRIPTION:
11/01/17	



FY 2020-21  
STANDARD PLANS

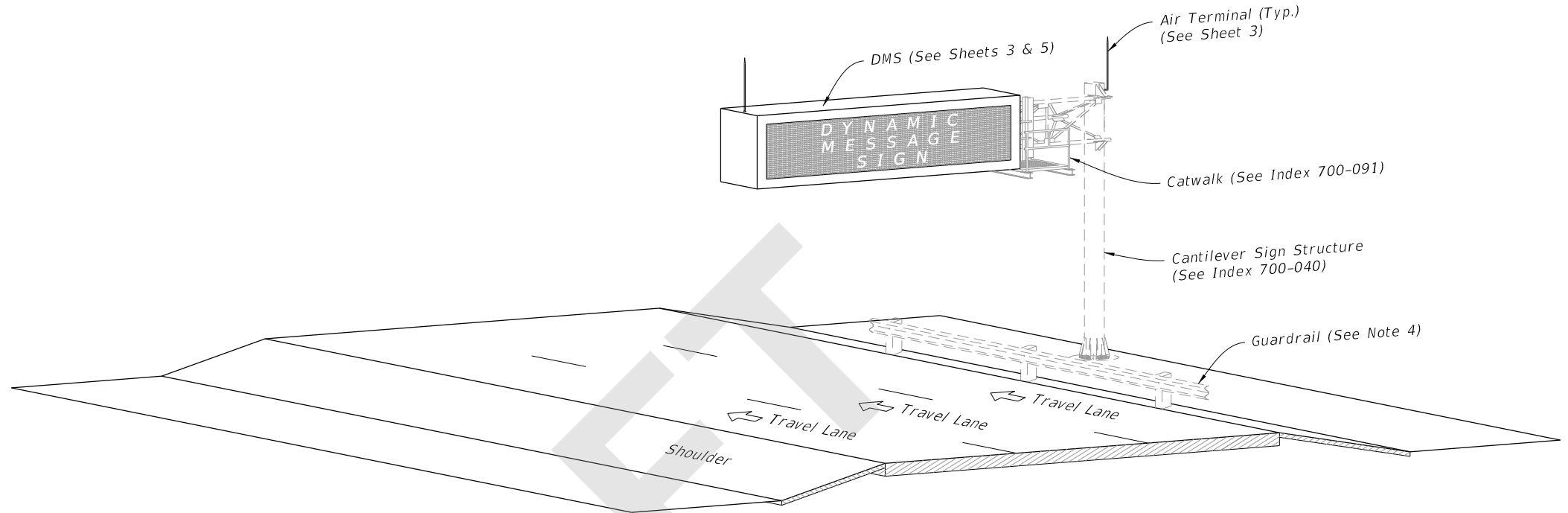
DYNAMIC MESSAGE SIGN WALK-IN

INDEX  
700-090

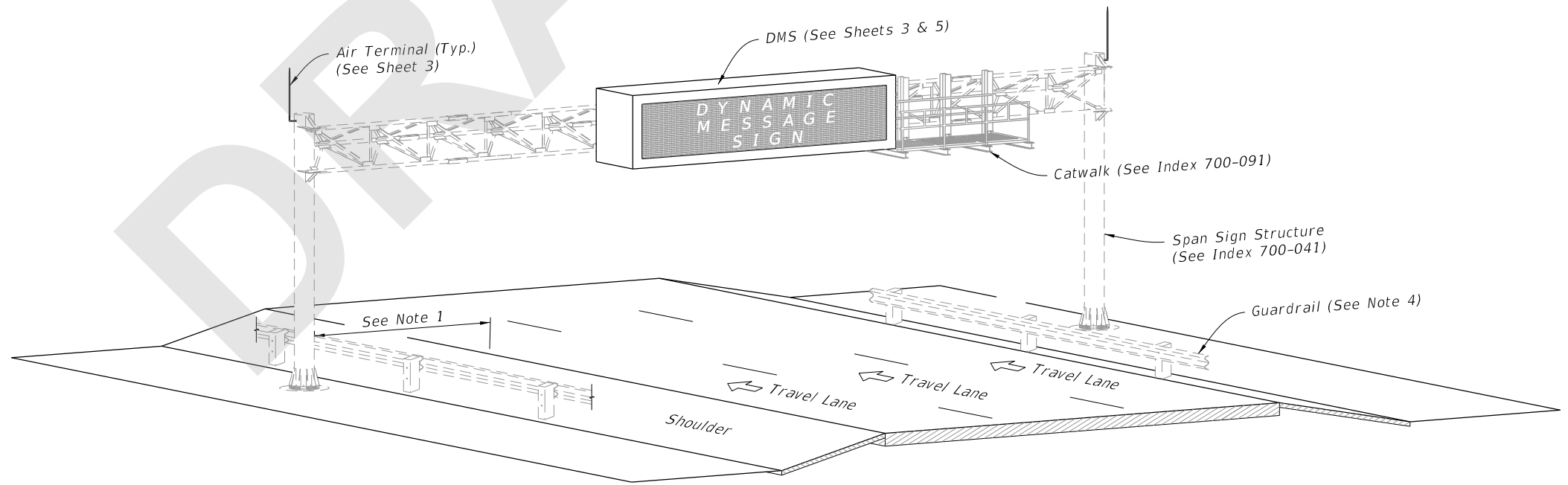
SHEET  
4 of 5

**GENERAL NOTES:**

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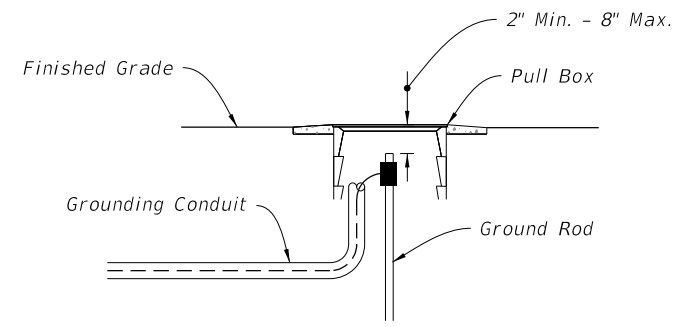


SPAN ISOMETRIC VIEW

DYNAMIC MESSAGE SIGN ASSEMBLY

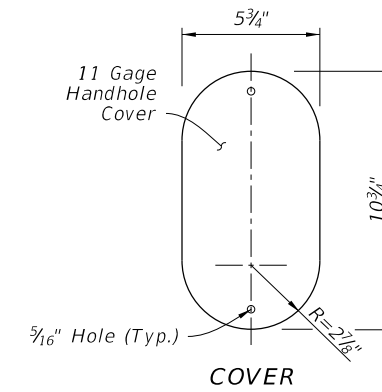
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LAST REVISION 11/01/20	REVISION	DESCRIPTION:	 FY 2021-22 STANDARD PLANS	DYNAMIC MESSAGE SIGN WALK-IN	INDEX 700-090	SHEET 1 of 5
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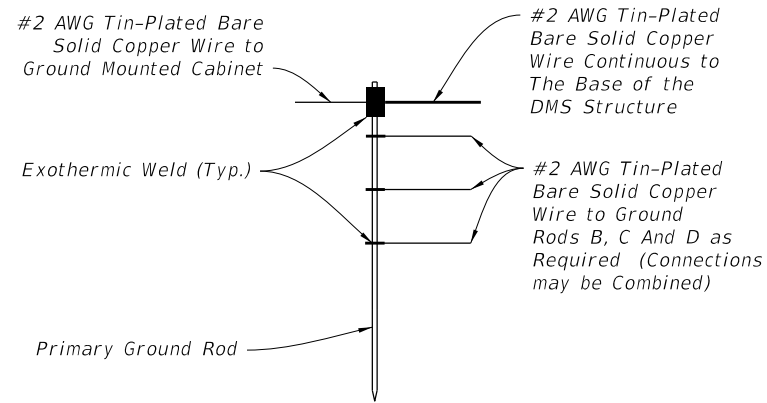


(Pole Mounted Cabinet Configuration Shown)

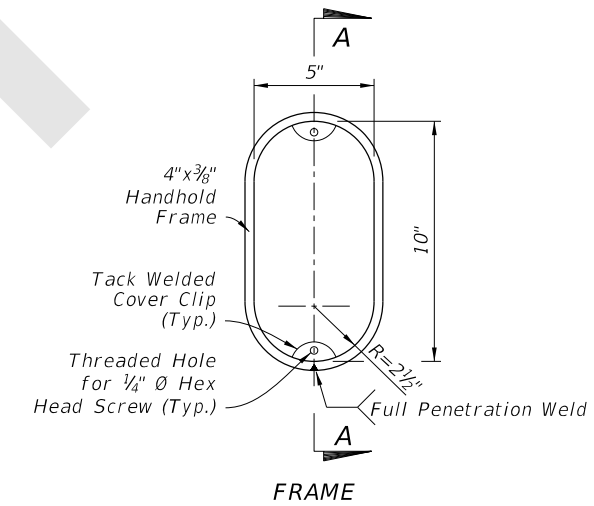
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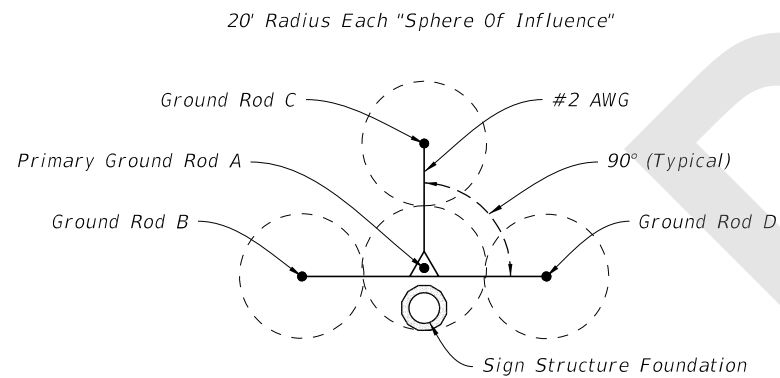
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**DETAIL "C"**



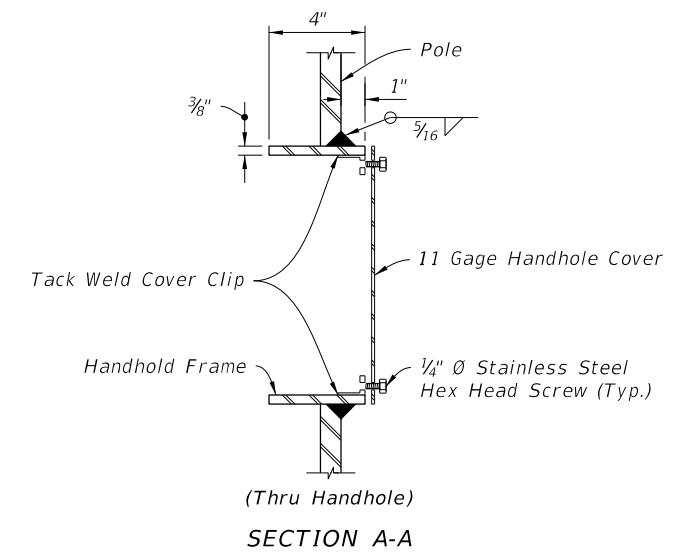
**FRAME**



TYPICAL  
(20' Rods, 40' Spacing)

**GROUND ROD ARRAY DETAIL**


**DETAIL "D"**



**SECTION A-A**

**DETAIL "E"**

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LAST REVISION 11/01/20	REVISION	DESCRIPTION:	 FY 2021-22 STANDARD PLANS	DYNAMIC MESSAGE SIGN WALK-IN	INDEX 700-090	SHEET 4 of 5
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