GENERAL NOTES:

1. Mark 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 shown in the Plans and in accordance with Index 536-001.

5. Materials:
   a. Sign Mounting Components:
      1. Aluminum Structural Shapes: ASTM B308, Alloy 6061-T6
      2. Vertical Mangers: ASTM A414, Grade 36
      3. D-Bolts: ASTM A440 or A193 B7
      4. Steel Bolts, Nuts, and Washers:
         i. High Strength Bolts: ASTM F3125, Grade A325, Type 1
         ii. Nuts: ASTM F567
         iii. Washers: ASTM F463 (Flat Washer)
   b. Coatings:
      i. All nuts, bolts and washers ASTM F2239
      ii. All other steel items ASTM A123
      iii. Bolt hole Diameters: Bolt plus $\frac{1}{6}$" 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, handholes 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.
   l. Transition conduit to outdoor elements as shown on the Plans.
   m. Provide conduit and socket to allow vertical hanger placement as shown on prior lines.
   n. Do not start fabrication until the shop drawings are approved.
   o. Include the DMS connection
   p. Do not start fabrication until the shop drawings are approved

5. Materials:
   a. Sign Mounting Components:
      1. Aluminum Structural Shapes: ASTM B308, Alloy 6061-T6
      2. Vertical Mangers: ASTM A414, Grade 36
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         i. High Strength Bolts: ASTM F3125, Grade A325, Type 1
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         iii. Washers: ASTM F463 (Flat Washer)
   b. Coatings:
      i. All nuts, bolts and washers ASTM F2239
      ii. All other steel items ASTM A123
      iii. Bolt hole Diameters: Bolt plus $\frac{1}{6}$" before galvanizing
DESCRIPTION:

STANDARD PLANS

PRIMARY GROUND ROD

#2 AWG Tin-Plated Bare Solid Copper Wire to Ground Mounted Cabinet

Exothermic Weld (Typ.)

Primary Ground Rod

DETAIL "B"

20' Radius Each "Sphere of Influence"

Ground Rod C

#2 AWG (Typical)

Primary Ground Rod A

Ground Rod B

Sign Structure Foundation

GROUND ROD ARRAY DETAIL

DETAIL "D"

TYPICAL

(20' Rods, 40' Spacing)

DETAIL "E"

SECTION A-A

DYANMIC MESSAGE SIGN WALK-IN

INDEX

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STANDARD PLANS

700-090

4 of 5
**HANGER LOCATION DETAIL**

**SECTION B-B**

- **Vertical Hanger Galvanized W6x9 (Typ.)**
- **Hanger @ 5'-0" (Max.) Spacing**
- **2-1/2" Ø U-Bolts**
- **Double Nuts and Washers**
- **Provide 2 - 1/2" Ø Bolts**
- **Field Drill Holes And**
- **Holes For 1/2" Ø Bolts**
- **With Nuts and Washers**

**SECTION C-C**

- **Vertical Hanger**
- **W6x9 (Typ.)**
- **Zee Beam**
- **Vertical Hanger**
- **Hanger @ 5'-0" (Max.) Spacing**
- **2-1/2" Ø U-Bolts**
- **Double Nuts and Washers**
- **Provide 2 - 1/2" Ø Bolts**
- **Field Drill Holes And**
- **Holes For 1/2" Ø Bolts**

**SECTION D-D**

- **Vertical Hanger**
- **W6x9 (Typ.)**
- **Zee Beam**
- **Vertical Hanger**
- **Hanger @ 5'-0" (Max.) Spacing**
- **2-1/2" Ø U-Bolts**
- **Double Nuts and Washers**
- **Provide 2 - 1/2" Ø Bolts**
- **Field Drill Holes And**
- **Holes For 1/2" Ø Bolts**

**Zee Beam Aluminum Zee 4½x3½x337 (Typ.)**

- **Horizontal Member Attached to the Internal Framework and Included with the DMS Sign**
- **Back Face of DMS Sign Enclosure**
- **Horizontal Member Attached to the Internal Framework and Included with the DMS Sign**
- **Back Face of DMS Sign Enclosure**

**SECTION C-C**

- **Top Truss Chord**
- **Bottom Truss Chord**
- **Zee Beam Aluminum Zee Beam**
- **Vertical Hanger**
- **Hanger @ 5'-0" (Max.) Spacing**
- **2-1/2" Ø U-Bolts**
- **Double Nuts and Washers**
- **Provide 2 - 1/2" Ø Bolts**
- **Field Drill Holes And**
- **Holes For 1/2" Ø Bolts**

**SECTION D-D**

- **Top Truss Chord**
- **Bottom Truss Chord**
- **Zee Beam Aluminum Zee Beam**
- **Vertical Hanger**
- **Hanger @ 5'-0" (Max.) Spacing**
- **2-1/2" Ø U-Bolts**
- **Double Nuts and Washers**
- **Provide 2 - 1/2" Ø Bolts**
- **Field Drill Holes And**
- **Holes For 1/2" Ø Bolts**

**DYNAMIC MESSAGE SIGN END VIEW**

- **Truss Chord**
- **Zee Beam**
- **Vertical Hanger**
- **Hanger @ 5'-0" (Max.) Spacing**
- **2-1/2" Ø U-Bolts**
- **Double Nuts and Washers**
- **Provide 2 - 1/2" Ø Bolts**
- **Field Drill Holes And**
- **Holes For 1/2" Ø Bolts**

- **2-1/2" Threaded Couplings**
- **Cantilever Sign Structure Shown, Span Sign Structure Similar**

**2-1/2" Threaded Couplings**

- **Cantilever Sign Structure Shown, Span Sign Structure Similar**

**DYNAMIC MESSAGE SIGN WALK-IN**

- **Zee Beam Aluminum Zee 4½x3½x337 (Typ.)**
- **Horizontal Member Attached to the Internal Framework and Included with the DMS Sign**
- **Back Face of DMS Sign Enclosure**
- **Horizontal Member Attached to the Internal Framework and Included with the DMS Sign**
- **Back Face of DMS Sign Enclosure**