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**SECTION B-B**

1. Splicing Flanges shall be attached to each truss unit with the truss shop assembled to match shown. Truss units shall be in proper alignment and flanges surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to assure flanges until remaining welds are made otherwise discernibly. Adjacent flanges shall be "match machined" to insure proper field assembly.

**ISOMETRIC VIEW**

**TYPICAL TRUSS UNIT**

- Units shall be shipped individually with adequate provisions to prevent detrimental motion during transport. This may require ropes between horizontal and diagonal or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.

**SPlicing Flanges**

- Flanges I.D. longer than bolt diameter.

**CAMBER ATTAINMENT EXAMPLES**

- Camber shown in fabrication only, measured with truss fully supported. (No-load condition)

**CAMBER DIAGRAM**

- Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.
**Handhole Covers**

- As an alternative to bolts, may use galvanized drive-fit caps installed after galvanizing frame. Cap plates to be ground to ANSI Roughness of 500 \( \mu m \) or less.
- Provide 6\( \frac{1}{2} \)" x 4\( \frac{1}{2} \)" cover. Provide 4\( \frac{1}{2} \)" holes in cover for 1\( \frac{1}{2} \)"-20 round head hot dip galvanized or stainless steel machine screws. (See cover details)

**Handhole Details**

- Weld handhole covers to pipe. Can be welded to pipe or be precut to fit. Per code, handholes shall be drilled and de-burred.
- All cut faces shall be ground to ANSI Roughness of 500 \( \mu m \) or less.

**Steel Pipe, Plate, Carbon Steel Handhole Covers and Rolled Sections**

-Steel pipe, plates, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-S-1.

**Support Design Loads**

- See Base Sheet OS-S-1 for design and loading criteria.

- Load combinations checked include:
  - 100% wind normal to sign, 20% parallel to sign.
  - 60% wind normal to sign, 30% parallel to sign.

- In lieu of fabricated handhole frame as shown, may cut from 2" pipe (framing direction vertical). All cut faces to be ground to ANSI Roughness of 500 \( \mu m \) or less.

- Galvanizing vent holes of adequate size shall be provided on underside of each end of bracing pipes. Afterhand, holes may be provided to wall of pipe column. All vent holes shall be drilled and de-burred, typ.

- Provide two washers and two \( \frac{1}{4} \)" U-bolt. Hot dip galvanized after fabrication.

- Galvanized carbon steel, hot dip galvanized after fabrication.

**For Type III-S Steel Truss**

- Shear wall thickness is specified as 2\( \frac{1}{4} \)" to support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive RT or UT inspection criteria at Contractor's expense.

- Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.

- "H" based on 15'-0" or actual sign height, whichever is greater.

- For dynamic message sign installations, provide upper and lower handholes in both legs of each support frame.

- See General Notes for fasteners.

- Painting is not permitted. See Base Sheet OS-S-1.

- Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.

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- Painting is not permitted. See Base Sheet OS-S-1.
200 lb.-ft. minimum torque. Nuts shall each be tightened per AASHTO M232. Nuts, washer (bottom). Galvanize (top), leveling nut and Hexagon locknut and washer.

Rib shall be cut to fit slope of pipe. Stainless steel banding. After erection with 2" lap. Secure to base plate AWG. No. 16 with a minimum minimum wire diameter of maximum opening with a Grade Wire Cloth, 3" wide, Stainless Steel Standard.

6" for 1" rod ~ 1" holes ~ 1" edge distance. Maintain perpendicularity. Optionally may use four (4) separate bars. Need to maintain perpendicularity.

6", Min.

Base ` 1" x 1'-11" x 1'-11"

SECTION B-B

At each location, provide 1/2" thick positioning washer size not to exceed 2" to be used with leveling nuts to maintain anchor bolts position during concrete placement.

4" plate and extra bolts become Contractor's property. Cost included in Drilled Shaft Concrete Foundation.

Provide 1 nut per rod. Before thread or use chemical thread lock to secure.

ANCHOR ROD DETAIL

Anchor rod detail conforms to ASTM F1554
Grade 105. Galvanize upper 12" minimum per AASHTO M232. No welding shall be permitted on ribs.

TYPE III-S STEEL TRUSS

12" PIPE SUPPORT FRAME DETAILS

Notes:

FOR TYPE III-S Truss spans greater than 250 ft. and up to 360 ft.

1. 1/2" rod, 1/2" holes
2. 3/4" edge distance
3. Base E. 1/4" x 1'-11" x 1'-11"
**TYPICAL PLAN**

(Inner diagonal bracing not shown)

Midway, railing and rights of way required without for clarity.

Sign support structures may be subjected to damaging vibrations and oscillations when sign panels are not in place during erection or maintenance of the structure. To avoid these, attach temporary blank sign panels or other bracing to the structure until permanent signs are installed.

**TYPICAL ELEVATION**

(Elevation at point of minimum clearance to sign, walkway support or truss)

See Sign Structures Manual (for rough sign support)

See Sign Structures Manual (for rough sign support)

**CONSTRUCTION**

Current for new or existing Illinois Department of Transportation Standards Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

**LOADING**

90 MPH WIND VELOCITY

Walkway Loading: Dead load plus 500 lbs. concentrated live load.

Allowable Unit Stresses:
- Structural Steel - 20,000 p.s.i.
- Reinforcing Steel - 40,000 p.s.i.

Minimum Clearance: Vertical Roadway Clearances: 17'-3" (At Obstructions)

Welding: All welding to be done in accordance with current AWS D1.1 Structural Welding Code (Steel) and the Standard Specifications.

**MATERIALS**

All Structural Steel Plate shall be ASTM A572 Gr. 50 or A588. Structural Steel Pipe shall be ASTM A500 Gr. B or C. Steel Grip Bar shall be ASTM A615. All Structural Steel shall be US standard grades or equivalent.

Reinforcing Steel - 20,000 p.s.i.

Welding: All welding to be done in accordance with current AWS D1.1 Structural Welding Code (Steel) and the Standard Specifications.

**TOTAL BILL OF MATERIAL**

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**DESIGN WIND LOADING DIAGRAM**

Particulars shown are data for 60% of Structural Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

**GENERAL NOTES**

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signs. ("AASHTO Specifications")

CONSTRUCTION: Current for new or existing Illinois Department of Transportation Standards Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 MPH WIND VELOCITY

Walkway Loading: Dead load plus 500 lbs. concentrated live load.

Allowable Unit Stresses:
- Structural Steel - 20,000 p.s.i.
- Reinforcing Steel - 40,000 p.s.i.

Minimum Clearance: Vertical Roadway Clearances: 17'-3" (At Obstructions)

Welding: All welding to be done in accordance with current AWS D1.1 Structural Welding Code (Steel) and the Standard Specifications.

Materials: All Structural Steel Plate shall be ASTM A572 Gr. 50 or A588. Structural Steel Pipe shall be ASTM A500 Gr. B or C. Steel Grip Bar shall be ASTM A615. All Structural Steel shall be US standard grades or equivalent.

Reinforcing Steel - 20,000 p.s.i.
OVERHEAD SIGN STRUCTURES—STEEL TRUSS DETAILS

FOR TRUSS TYPES I-S, II-S AND III-S

SECTION A-A

(Vertical and horizontal diagonals not shown)

Notes:
1. Contractor must use standard drive-fit caps to close ends.  5" diameter hole in drive-fit cap installed after galvanizing. (Typ. at non-splice ends of chords)
2. 5⅝" end dimension may vary by ⅛" to provide uniform panel spacing (PL)
3. Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-S, or 4'-5" and 5'-6" for Types II-S and III-S.
4. Vertical Diagonals in front and back face shall alternate inclination.
5. Vertical Diagonals in front and back face shall alternate inclination.
6. All galvanizing vent holes of adequate size shall be provided on underside at each end of truss members except chords. Alternately, holes may be provided in wall of chord. All vent holes shall be drilled and de-burred, typ.
7. Horizontal and diagonal members shall be cut back to facilitate making connections per AWS D1.1, Fig 3.8.

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Vertical Diagonals in front and back face shall alternate inclination.

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All galvanizing vent holes of adequate size shall be provided on underside at each end of truss members except chords. Alternately, holes may be provided in wall of chord. All vent holes shall be drilled and de-burred, typ.

Horizontal and diagonal members shall be cut back to facilitate making connections per AWS D1.1, Fig 3.8.
Provide two washers and two hexagon locknuts. 4 slots required per pipe.

(4 slots required per pipe)

At 90° intervals. All cutouts centered on 100% wind normal to sign, 20% parallel to sign.

Load combinations checked include dead load plus:

- 100% wind normal to sign, 30% parallel to sign
- 50% wind normal to sign, 50% parallel to sign
- 100% wind normal to sign, 20% parallel to sign

Support Design Loads:
See Base Sheet OS-S-1 for design and loading criteria.

Load combinations checked include dead load plus:

- 100% wind normal to sign, 20% parallel to sign
- 50% wind normal to sign, 50% parallel to sign

Support Design Loads:
See Base Sheet OS-S-1 for design and loading criteria.

Load combinations checked include dead load plus:

- 100% wind normal to sign, 20% parallel to sign
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- 100% wind normal to sign, 20% parallel to sign
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Support Design Loads:
See Base Sheet OS-S-1 for design and loading criteria.

Load combinations checked include dead load plus:

- 100% wind normal to sign, 20% parallel to sign
- 50% wind normal to sign, 50% parallel to sign

Support Design Loads:
See Base Sheet OS-S-1 for design and loading criteria.
Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize upper 12" minimum per AASHTO W332. No welding shall be permitted on rods.

Provide 1 nut per rod. Before thread or use chemical thread lock to secure.

All rods shall be "snug tight" against anchor plate.

All Thread = NC (National Coarse)

Provide 2 uncoated nuts per rod. Deform thread permitted on rods.

Deform thread or use chemical thread lock to secure.

Grade 105. Galvanize upper 12" minimum per AASHTO W332. No welding shall be permitted on rods.

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Deform thread or use chemical thread lock to secure.

Grade 105. Galvanize upper 12" minimum per AASHTO W332. No welding shall be permitted on rods.

Provide 1 nut per rod. Before thread or use chemical thread lock to secure.

All rods shall be "snug tight" against anchor plate.

All Thread = NC (National Coarse)

Provide 2 uncoated nuts per rod. Deform thread permitted on rods.

Deform thread or use chemical thread lock to secure.

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Grade 105. Galvanize upper 12" minimum per AASHTO W332. No welding shall be permitted on rods.

Provide 1 nut per rod. Before thread or use chemical thread lock to secure.

All rods shall be "snug tight" against anchor plate.

All Thread = NC (National Coarse)
Provide two washers and two
hexagon locknuts. (ASTM A307)
Galv. Bolts
4-\(\frac{1}{8}\) \(\frac{3}{8}\) \(\frac{1}{4}\)
Provide 4-\(\frac{3}{8}\) \(\frac{3}{8}\) \(\frac{1}{4}\)
holes in cover for
\(\frac{1}{2}\)\&\(\frac{1}{2}\) screws. Chase threads after galvanizing.

\[ D \approx \frac{1}{2} \text{ Outside Diameter} \]

As an alternative to bolts, may use galvanized
drive-fit caps installed after galvanizing frame.

At E pipe:
 Provide 6\(\frac{1}{4}\) x 6\(\frac{1}{4}\) plate coupling and cap, and 4\(\frac{3}{8}\) holes in cover.

Support Design Loads:
See Base Sheet OS-S-1 for design and loading criteria.

Load combinations checked include deadload plus:
300% wind normal to sign, 20% parallel to sign.

For Foundation Details see those Sheet OS-A-3 or OS-E-2.
200 lb-ft. minimum torque.

Nuts shall each be tightened against base plate with AASHTO M232. Nuts and washers (bottom). Galvanize (top), leveling nut and hexagon locknut and washer (bottom). Stainless steel banding.

After erection with 2'' lap. Secure to base plate AWG. No. 16 with a minimum wire diameter of Grade Wire Cloth, 3'' wide, Stainless Steel Standard for 1'' rods.

1'-5'' holes 6'' x 6'' | 6'' x 6'' Positioning Plate(s)

At each location, provide 1/2'' thick positioning plates and use additional nuts to be used with leveling nuts to maintain anchor bolts position during concrete placement.

1/2'' plate and extra nuts become contractor's property. Cost included in Drilled Shaft Concrete Foundations.

Drilled Shaft Foundation

Anchor rods shall conform to ASTM F2554 Grade 105. Galvanize upper 12'' minimum per AASHTO M232. No welding shall be permitted on rods.

All Thread = NC (National Coarse)

Provide 1 nut per rod. Do not thread or use chemical threadlock to secure.

Provided 2概念股 nuts per rod. Nuts shall be strong enough to withstand anchor plate.

Anchor plate

Spread Footing Foundation

Contractor's property. Cost included in Drilled Shaft Concrete Foundations.

30° during concrete placement.

to maintain anchor bolts position

All Thread = NC (National Coarse)

Provide 1 nut per rod. Do not thread or use chemical threadlock to secure.

Provided 2概念股 nuts per rod. Nuts shall be strong enough to withstand anchor plate.

Anchor plate

Spread Footing Foundation

Contractor's property. Cost included in Drilled Shaft Concrete Foundations.

30° during concrete placement.
Support Design Loads:
See Base Sheet OS-S-1 for design and loading criteria.

Load combinations checked include deadload plus:
50% wind normal to sign, 20% parallel to sign.
50% wind normal to sign, 20% parallel to sign.
50% wind normal to sign, 20% parallel to sign.
50% wind normal to sign, 20% parallel to sign.
50% wind normal to sign, 20% parallel to sign.
50% wind normal to sign, 20% parallel to sign.
50% wind normal to sign, 20% parallel to sign.
50% wind normal to sign, 20% parallel to sign.
50% wind normal to sign, 20% parallel to sign.
50% wind normal to sign, 20% parallel to sign.

Provide two washers and two hexagon locknuts. 
Typ. 4-6 x 0.25'' slots on ~ 10'' } pipe.

Galvanizing vent holes of adequate size shall be provided
on underside of top of pipe column. All vent holes shall be drilled and de-burred.

Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication.
Painting is not permitted. See Base Sheet OS-S-1.

See General Notes for fasteners.

Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.

"H" based on 15'-0'' or actual sign height, whichever is greater.

For Foundation Details See Base Sheet
OS-F3 (Spread Footing) or OS4-F3 (Drilled Shaft).

In lieu of fabricated handhole frames as shown, may cut from 3/4'' plate.

For geometry

Frame received 100% support from welds, typ.

Continuous backing ring

** 10'' } PIPE TRUSS SUPPORT FRAME

One butt welded joint is allowed only on one post per
support frame. If used, weld procedure must be pre-approved by Engineer and joint shall receive 100% RT or UT (non-penetrating) at Contractor's expense.

See Structural Assemblies and Loading for other welds, typ.

Painting is not permitted. See Base Sheet OS-S-1.

Steel pipe, plate, carbon steel handhole covers and rolled
sections shall be hot dip galvanized after fabrication.
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See General Notes for fasteners.

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See General Notes for fasteners.

Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.

"H" based on 15'-0'' or actual sign height, whichever is greater.
 Anchor rods shall conform to ASTM F1554 Grade 105. Galvanize upper 32" minimum per AASHTO M322. No welding shall be permitted on rods.

**SECTION C-C**

Anchor plate

Spread Footing Foundation

SECTION D-D

Anchor Rod Detail

Spread Floating Foundation

**10" PIPE SUPPORT FRAME DETAILS**

Anchor plate

At each location, provide 1/4" thick positioning pad(s) and we no additional nuts to be used with leading nuts to match anchor bolts position during concrete placement.

Provide 1 nut 2" Rod. Option: thread or use chemical thread lock to secure.

**POSITIONING PLATES**

At each location, provide 1/4" thick positioning pad(s) and we no additional nuts to be used with leading nuts to match anchor bolts position during concrete placement.

Provide 1 nut 2" Rod. Option: thread or use chemical thread lock to secure.

**ANCHOR ROD DETAIL**

Anchor plate

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Walkway and Overhead Sign Structures

**Bracket Table**

<table>
<thead>
<tr>
<th>Width (W6x9)</th>
<th>Sign Widths</th>
<th>Number of Brackets Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater Than</td>
<td>8'-0''</td>
<td>2</td>
</tr>
<tr>
<td>14'-0''</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20'-0''</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26'-0''</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Notes:
- Space W6x9 walkway brackets and sign brackets W6x9 for efficiency and within limits shown.
- f = 18'' maximum, 4'' minimum (end of sign to 6 of nearest bracket)
- g = 36'' maximum, 4'' minimum (end of walkway grating to 6 of nearest support bracket)
- h = 6'-0'' minimum % to 6 of sign and/or walkway support brackets
- k = 2'' maximum gap between adjacent walkway grating sections and handrail ends

**WALKWAY AND HANDRAIL SKETCH**

Plan view shows bracket arrangements.

**SECTION A-A**

Handrail and walkway shall span a minimum of three brackets between splices or gap joints. Place all sign and walkway brackets as close to panel points as practical. Handrail joints, grating, and light support splices placed as needed.

**STATE OF ILLINOIS**

DEPARTMENT OF TRANSPORTATION

Overhead Sign Structures

Steel Walkway Details

**TYPICAL FRONT ELEVATION**

With lights and handrail omitted for clarity.
If walkway is required left of the DMS cabinet, 1'-6'' and sidewalk lengths.
If walkway is not required left of the DMS cabinet, 1'-6'' and "a" is dimension from left support frame to left end of cabinet.

TYPICAL FRONT ELEVATION
With handrail omitted for clarity.

Bracket and grating dimensions are nominal and will vary based on actual DMS cabinet dimensions plus manufacturer's mounting devices.

Notes:
1. Spliced W6x9 walkway brackets and sign brackets for efficiency and within limits shown.
2. 12'' maximum, 4'' minimum (End of sign to left and nearest bracket)
3. 12'' maximum, 4'' minimum (End of walkway grating to left and nearest support bracket)
4. 6'-0'' maximum 4'' to sign or walkway support brackets, W6x9
5. Maximum DMS weight = 5000 lbs. 4'-2'' maximum cabinet depth includes depth of cabinet plus connection to WF6x5.40.
6. For Section B-B and Grating Splice Details, see Base Sheet OS-S-10-DMS.
7. For Handrail Splice Details, see Base Sheet OS-S-11-DMS.

Walkway and Truss Grating width dimensions are nominal and may vary 1/2" based on available standard widths.

For Handrail Splice Details, see Base Sheet OS-S-11-DMS.
For Section B-B and Grating Splice Details, see Base Sheet OS-S-10-DMS.

Cost of truss grating is included in "Overhead Sign Structure".

** Steel Walkway Details for DMS

OVERHEAD SIGN STRUCTURES - ALTERNATE

<table>
<thead>
<tr>
<th>Structure Number</th>
<th>Station</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>Lg</th>
<th>Warranty Grating and Handrail Splice</th>
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<tbody>
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FILE NAME USER NAME
PLOT SCALE PLOT DATE = =
REVISED REVISED = =
TOTAL SHEETS SHEET NO. SHEET NO. OF SHEETS
CONTRACT NO. RTE. COUNTY
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
OS-S-9-DMS 6-1-12
**Walkway Support Only**

Top of W6x9

**Sign Bracket**

Top of W6x9

**Support and Sign Bracket**

Top of W6x9 Walkway

See sign detail sheet(s).

Sign panels. For locations, see sign detail sheet(s).

Cost of truss grating is included in “Overhead Sign Structure”.

(centre to centre of support frames) 12" on overhead trusses.

Truss grating to facilitate inspection shall run full length.

Weight of W6x9

Grating

Walkway and Truss Grating

Greater than

8'-0"

14'-0"

20'-0"

26'-0"

6'-0"

6'-0"

2'-0"

1'-6"

6'-0"

2'-0"

Handrail Lengths

Walkway Grating

**Gra tin g**

**T ru ss**

2'-0"

1'-4"

Lighting fixtures. (If required)

Length as required for Light fixture supports.

**Handrail Lengths**

**Walkway Width**

Greater than

8'-0"

14'-0"

20'-0"

26'-0"

32'-0"

Grating, handrail and light support splices placed as needed.

Place all sign and walkway brackets as close to panel points as practical.

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints.

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints.

**Notes:**

- Space W6x9 walkway brackets and sign brackets for efficiency and within limits shown.
- Back of sign and/or walkway support brackets, 4" minimum spacing allowed.
- Truss grating is included in “Overhead Sign Structure”.
- Be sure to add bracket at safety chain location if walkway bracket is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-S-11.
- If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-S-11.

**Bracket Table**

<table>
<thead>
<tr>
<th>Structure Number</th>
<th>Station</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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</tbody>
</table>

**For Section B-B, see Base Sheet OS-S-10.**

For Details T and W, Section B-B and Grating Splice Details, see Base Sheet OS-S-10.

For Handrail Details, see Base Sheet OS-S-11.

**PLAN**

Walkway and Truss Grating width depending on opening and may vary 1/2" based on available standard widths.

**WALKWAY AND HANDRAIL SKETCH**

Walkway and Truss Grating

**WALKWAY AND HANDRAIL SKETCH**

Plan view (Orchard Truss marked)

**BRACKET TABLE**

<table>
<thead>
<tr>
<th>Sign Width</th>
<th>Greater Than</th>
<th>Less Than or Equal To</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>8'-0&quot;</td>
<td>8'-0&quot;</td>
<td>8'-0&quot;</td>
<td>5</td>
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<tr>
<td>14'-0&quot;</td>
<td>14'-0&quot;</td>
<td>14'-0&quot;</td>
<td>9</td>
</tr>
<tr>
<td>20'-0&quot;</td>
<td>20'-0&quot;</td>
<td>20'-0&quot;</td>
<td>12</td>
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<tr>
<td>26'-0&quot;</td>
<td>26'-0&quot;</td>
<td>26'-0&quot;</td>
<td>16</td>
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<tr>
<td>32'-0&quot;</td>
<td>32'-0&quot;</td>
<td>32'-0&quot;</td>
<td>20</td>
</tr>
</tbody>
</table>

**Notes:**

- Space W6x9 walkway brackets and sign brackets for efficiency and within limits shown.
- Back of sign and/or walkway support brackets, 4" minimum spacing allowed.
- Truss grating is included in “Overhead Sign Structure”.
- Be sure to add bracket at safety chain location if walkway bracket is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-S-11.
- If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-S-11.

For Details T and W, Section B-B and Grating Splice Details, see Base Sheet OS-S-10.

For Handrail Details, see Base Sheet OS-S-11.
1. Horizontal handrail member shall be continuous 4' by 9" pipe. Provide 1'-2" hole in 1'-2" pipe for 1" eyebolt. Field drill 1'-2" hole in horizontal rail member. Provide washer and locknut for bolt. (Use 1" eyebolts in 1'-2" holes on top rail at ends.)

2. Install standard force-fit end caps or weld "1" and plates with 1/2" c.f.w. and grind smooth. (All rail ends)

3. Grating tie down chain 3' Standard Steel

4. Grating tie down chain 3' Standard Steel

5. Eyebolt pipe 1" ANSI Steel

6. Eyebolt pipe 1" ANSI Steel

7. Drill in field (No sign interference)

8. Field cut ends of light support channel shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

9. Field drill 1'-2" hole in 1'-2" pipe.
Plan Detail "A"
- Span between panel points

Plan Detail "B"
- Span of panel joint

Plan Detail "C"
- Span and splice

Section A-A
- Span

Section B-B
- Cross axis (Detail "A" and "B") or horizontal (Detail "C")

Section C-C
- Span

Truss damping device connection detail (Typical)

Damping device mounting tube U-bolt detail (Typical)

Top chord to cross tube U-bolt detail (Typical)

NOTES
- Damper: One damper per truss. (31 lbs. Stockbridge-Type - 29" minimum between ends of weights). Cost included in Overhead Sign Structure.
- Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.