**ISOMETRIC VIEW**

### Truss Data

<table>
<thead>
<tr>
<th>Truss Length</th>
<th>Number of Panels</th>
<th>End Panel Length</th>
<th>Truss Depth (Chord-to-Chord)</th>
<th>Base Plate Diameter</th>
<th>Camber at Midpoint</th>
</tr>
</thead>
<tbody>
<tr>
<td>140'</td>
<td>14</td>
<td>10'-0&quot;</td>
<td></td>
<td>3 1/8&quot;</td>
<td></td>
</tr>
<tr>
<td>135'</td>
<td>14</td>
<td>7'-6&quot;</td>
<td></td>
<td>2 7/8&quot;</td>
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</tr>
<tr>
<td>130'</td>
<td>13</td>
<td>10'-0&quot;</td>
<td></td>
<td>2 5/8&quot;</td>
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</tr>
<tr>
<td>125'</td>
<td>13</td>
<td>7'-6&quot;</td>
<td></td>
<td>2 1/2&quot;</td>
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</tr>
<tr>
<td>120'</td>
<td>12</td>
<td>10'-0&quot;</td>
<td></td>
<td>2 1/4&quot;</td>
<td></td>
</tr>
<tr>
<td>115'</td>
<td>12</td>
<td>7'-6&quot;</td>
<td></td>
<td>2 1/8&quot;</td>
<td></td>
</tr>
<tr>
<td>110'</td>
<td>11</td>
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<td></td>
<td>2&quot;</td>
<td></td>
</tr>
<tr>
<td>105'</td>
<td>11</td>
<td>7'-6&quot;</td>
<td></td>
<td>2&quot;</td>
<td></td>
</tr>
<tr>
<td>100'</td>
<td>10</td>
<td>10'-0&quot;</td>
<td></td>
<td>1 7/8&quot;</td>
<td></td>
</tr>
<tr>
<td>95'</td>
<td>10</td>
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<td>1 3/4&quot;</td>
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<tr>
<td>90'</td>
<td>9</td>
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</tr>
<tr>
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<td>9</td>
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<td>1 3/8&quot;</td>
<td></td>
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<tr>
<td>80'</td>
<td>8</td>
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<td></td>
<td>1 1/4&quot;</td>
<td></td>
</tr>
<tr>
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<td>1 1/8&quot;</td>
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<tr>
<td>70'</td>
<td>7</td>
<td>7'-6&quot;</td>
<td></td>
<td>1&quot;</td>
<td></td>
</tr>
<tr>
<td>65'</td>
<td>7</td>
<td>10'-0&quot;</td>
<td></td>
<td>7/8&quot;</td>
<td></td>
</tr>
<tr>
<td>60'</td>
<td>6</td>
<td>7'-6&quot;</td>
<td></td>
<td>3/4&quot;</td>
<td></td>
</tr>
<tr>
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<td>6</td>
<td>10'-0&quot;</td>
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<td>5/8&quot;</td>
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<tr>
<td>50'</td>
<td>5</td>
<td>10'-0&quot;</td>
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<td></td>
<td></td>
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</tbody>
</table>

* see camber diagram sheet 2
NOTES:
2. Maximum sign area is 1200 square feet. Signs should not project past the ends of the truss.
3. Type I signs shall not be used on the same truss as variable message signs.
4. All structural steel, bolts, welding and galvanizing shall be per "MDOT Standard Specifications for Construction".
5. Hot-dip galvanize all truss components prior to bolted assembly.
6. Tighten all high strength galvanized bolts by the turn of the nut method according to Subsection 707.03.0. except at splice connections. Splice connections shall have a flat washer and lock washer under each nut and tightened to a snug tight condition.
7. Do not lift the trusses by the web members.
8. Maximum projection of the sign beyond the top chord is 6 feet.
9. For truss lengths 50 feet to 105 feet, minimum sign height with aluminum beam is 7 feet.
10. For truss lengths 110 feet to 140 feet, minimum sign height with aluminum beam is 9 feet.
11. Field splices may be placed along the structure to facilitate fabrication. Place field splice @ 1'-6" min. to the gusset plate edge. Any deviation from the details shown on this typical will require approved shop drawings before fabrication.
12. Perform ultrasonic inspection of butt welded splices in column and chord members.
13. Blast clean base plates, stiffeners, and all weldments prior to galvanizing.
15. See current MDOT Sign Support Typical Plan Sign-700-Series for sign connection.
16. Column sections shall be ASTM A53, Grade B or API-5l-X42, sections for 50 feet to 105 feet trusses shall be 24"O x 0.938", 24"O x 0.969" may be substituted. Sections for 110 feet to 140 feet trusses shall be 24"O x 1.213".
17. Chord sections shall be ASTM A500, Grade B HSS 6"O x 0.500", ASTM A519-4140 annealed HSS 6"O HSS 0.375" or ASTM A500, Grade B HSS 6 5/8" x 0.432" or ASTM A500, Grade B HSS 6 5/8" x 0.432".
18. Web angles shall be ASTM A36 1 5" x 5" x 7/16" or 1 5" x 5" x 1/2".
19. All steel plates shall be ASTM A709, Grade 36.
20. Use 7/8" ASTM A325 bolts for all connections. Provide 1" holes unless otherwise stated. Use an ASTM F436 flat washer and a lock washer according to Section 908.09.0 of the MDOT Standard Specifications for Construction under each nut for splice connections.
21. The estimated weight of the truss is 195 lbs/ft.
22. During the erection process the minimum number of bolts required to be installed prior to letting traffic resume under the erected truss shall be: 2 bolts minimum per chord-column connection plate for span lengths between 50' and 105', and 4 bolts minimum per chord-column connection plate for span lengths between 110' and 140'. No signs shall be erected until all bolts are installed.
23. Warpage in the base plate shall not exceed 1/16 per foot.
VIEW A-A

RIGHT COLUMN TRUSS CONNECTION DETAIL

(LEFT COLUMN SIMILAR)
(Web members and connection plates omitted for clarity)

NOT TO SCALE
SECTION B - B
CHORD - COLUMN CONNECTION PLATE DETAILS

Plate Washer Detail
(2-1/2" x 3-1/2" x 5/16")

Truss chord

15/16" hole (typ.)

1-1/2"

2-1/2"

3-1/2"

3/4" Plate and 3/4" truss chord

2 1/8" x 15/16" Slotted hole (typ.)
A plate washer is required under the nut. ASTM F436 flat washers required under the bolt head and the nut.

NOT TO SCALE
MICHIGAN DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAY DEVELOPMENT STANDARD PLAN

Sheets 4 OF 10
SIGN-360-A

F.H.W.A. APPROVAL
08/11/11
PLAN DATE
09/15/11

NOTE: THE ORIGINAL SIGNED COPY IS KEPT ON FILE AT THE MICHIGAN DEPARTMENT OF TRANSPORTATION.
**SECTION C-C**

**DETAIL B**

*Wrap weld around outside edge
stop weld 1/4" around corner clip

**PLAN VIEW 38" BASE PLATE**

**NOT TO SCALE**
SECTION D-D

PLAN VIEW 42" BASE PLATE

NOT TO SCALE
NOTE: THE ORIGINAL DRAWING COPY IS KEPT ON FILE AT THE MICHIGAN DEPARTMENT OF TRANSPORTATION.

TYPICAL SECTION OF TRUSS

VIEW E-E (VIEW F-F SIMILAR)

FRONT OF TRUSS ELEVATION

(BACK TRUSS CHORD AND ATTACHED ANGLES NOT SHOWN FOR CLARITY)

NOT TO SCALE
* Dimension typical for all connection details.

** See sheet 9 of 10 for alternate connection details.
* Dimension typical for all connection details.
COLUMN CAP DETAIL

SECTION H-H

PLUG DETAIL
(USE AT EACH END OF BACK CHORD)

SECTION G-G

CHORD SPlice CONNECTION DETAILS

ELEVATION