



Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

STEPHANIE KOPELOUSOS
SECRETARY

July

21, 2008

This Memo Has Expired

DCE MEMORANDUM NO. 19-08
(FHWA Approved: 7/16/08)

TO: DISTRICT CONSTRUCTION ENGINEERS

FROM: Brian Blanchard, Director, Office of Construction

COPIES: David Sadler, Chester Henson, Jim Mills, Leslie McCarthy (FHWA), Bob Burlison (FTBA)

SUBJECT: CHANGES TO INDEX 11200, 11300 AND 11860

This memo is issued to allow the contractor to use the recent changes to Index 11200 and 11860 of the Design Standards. Please refer to the attached Design Standards.

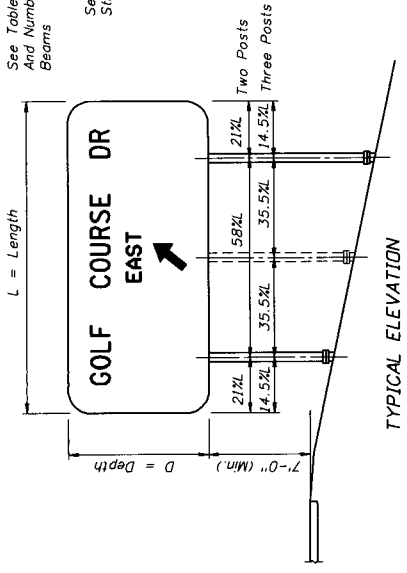
- Index 11200, Sheet 1 or 3, was modified to allow a horizontal panel splice at an interior Z bar support if the sign panel is deeper than **10 feet**, (instead of 12 feet).
- Index 11200, Sheet 2 of 3, General Note for the Foundation, was modified to allow **clean sand placed using hydraulic methods** (or flowable fill), to fill the void around the precast foundation.
- Index 11200, Sheet 3 of 3, was modified to allow **Class I (Special) Concrete** in the foundation (instead of Class II Concrete).
- Index 11300, Sheet 1 of 1, was modified to allow a horizontal panel splice at an interior Z bar support if the sign panel is deeper than **10 feet**, (instead of 12 feet).
- Index 11860, Sheet 4 of 8, was modified to allow **eliminating the centerline Z bracket wind beam** if the horizontal or vertical dimension of the sign is 30 inches or less (instead of requiring all three Z bracket wind beams regardless of the size).

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July 21, 2008
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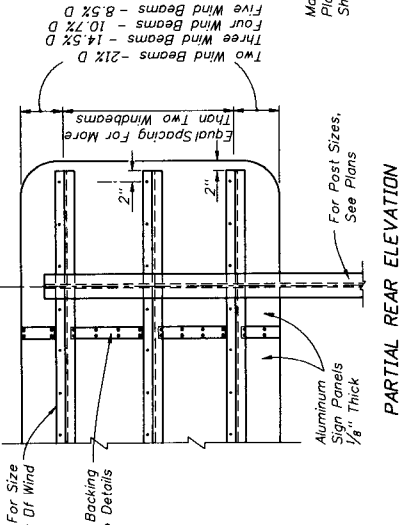
These Interim Indices are dated **01/01/08** and will not be referenced in contracts until the July 2008 letting. **For all projects let prior to July 2008, this memorandum serves as a blanket approval to process a \$0.00 contract change to allow the use of these Interim Indices. A copy of this memorandum should be attached to the Work Order or Supplemental Agreement.**

If you have any questions, please contact Stefanie Maxwell at (850) 414-4314.

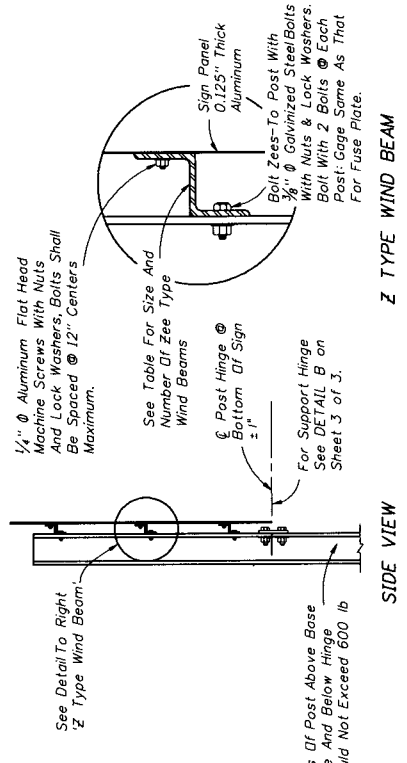
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TYPICAL ELEVATION
(For Notes And Dimensions Not Shown, See Plans)



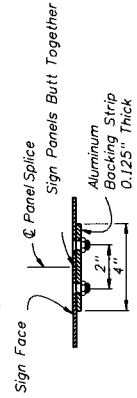
PARTIAL REAR ELEVATION



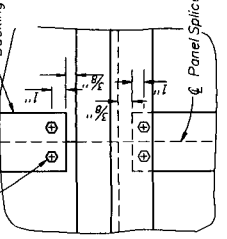
SIDE VIEW
Z TYPE WIND BEAM

Note: It shall be the contractor's responsibility to determine the length of the column supports in the field prior to fabrication.

Note: If the sign panels are deeper than 10', horizontal panel splices are allowed as long as the Z support strip drawings shall be followed. Minimum panel section width = 2'-6".



Pairs Of 1/4" Aluminum Flat Head Machine Screws With Nuts And Lock Washers Spaced At 1'-0" Centers Maximum - Backing Strip



BACKING STRIP DETAIL

DESIGN WIND SPEEDS BY COUNTY

110 mph
Alachua, Baker, Bradford, Clay, Columbia, Gadsden, Gilchrist, Hamilton, Hardee, Jackson, Jefferson, Lafayette, Lake, Leon, Madison, Marion, Polk, Putnam, Sumter, Suwannee, and Union Counties.

130 mph
Bay, Brevard, Calhoun, Charlotte, Citrus, DeSoto, Dixie, Duval, Flagler, Franklin, Glades, Gulf, Hendry, Hernando, Highlands, Hillsborough, Holmes, Lee, Levy, Liberty, Manatee, Nassau, Okaloosa, Okeechobee, Orange, Osceola, Pasco, Pinellas, Sarasota, Seminole, St. Johns, Taylor, Volusia, Wakulla, Walton, and Washington Counties.

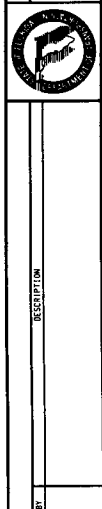
150 mph
Broward, Collier, Escambia, Indian River, Martin, Miami-Dade, Monroe, Palm Beach, Santa Rosa, and St. Lucie Counties.

| Wind Beams | No. Beams | Max. Depth | Wind | No. Posts | Length Of Sign (Feet) |
|------------|-----------|------------|------|-----------|-----------------------|
| | | | | | |
| 110 | 2 | 7'-0" | 150 | 3 | 6'-0" |
| 110 | 3 | 12'-0" | 150 | 3 | 10'-4" |
| 110 | 3 | 15'-4" | 150 | 4 | 14'-0" |
| 110 | 5 | 20'-8" | 150 | 5 | 17'-8" |
| 130 | 3 | 17'-8" | 150 | 3 | 17'-8" |
| 130 | 3 | 15'-4" | 150 | 3 | 15'-4" |
| 130 | 5 | 19'-0" | 150 | 5 | 19'-0" |

| Size Of Zee * | Length Of Sign (Feet) | |
|----------------------|-----------------------|-----------------|
| | 2 Posts | 3 Posts |
| Z 1.75 x 1.75 x 1.08 | 0 - 11'-0" | 0 - 17'-4" |
| Z 3 x 2.69 x 2.33 | 11'-1" - 19'-0" | 17'-5" - 29'-6" |
| Z 3 x 2.69 x 3.38 | 19'-1" - 20'-8" | 29'-7" - 31'-6" |

*Note: Zees Are Aluminum - No Steel Equivalent Available
Designation Gives (Member Depth) x (Flange-Width) x (lb/ft)

| DATE | BY | DESCRIPTION |
|----------|------|---|
| 07/01/07 | L.W. | Updated Sign Strip Drawing For 125' Note revised to 10' instead of 12' in BACKING STRIP DETAIL. |



2008 Interim Design Standard
MULTI-COLUMN GROUND SIGN

GENERAL NOTES

DESIGN SPECIFICATION

Design according to *FDOT Structures Manual* (current edition), *Standard Specification for Highway Signs, Luminaires and Traffic Signals, AASHTO 2001*. For welding refer to the latest editions of the *AWS Structural Welding Codes for Steel and Aluminum*, the *AASHTO Standard Specifications for Welding Structural Steel Highway Bridges*.

ALUMINUM MATERIALS

All aluminum materials shall meet the requirements of the Aluminum Association's Alloy 6061-T6 and also the following ASTM specifications: Sheets and plates, B209; extruded tube, bars, rods & shapes, B221; and standard structural shapes, B308. Sheets are to be degreased, etched, neutralized and treated with Alodine 1200, Iridite 14-2, Bonderite 721, or equal. No stenciling permitted on sheets. Aluminum welding rods shall meet the requirements of Aluminum Association Alloy No. 5556 filler wire.

STRUCTURAL STEEL

All structural steel shall meet the requirements of ASTM A36. Aluminum bolts shall meet the requirements of Aluminum Association Alloy 2024-T4 (ASTM F468). The bolts shall have an anodic coating at least 0.0002" thick and be Chromate sealed. Lock washers shall meet the requirements of Aluminum Association Alloy 7075-T6 (ASTM B221). Nuts shall meet the requirements of Aluminum Association Alloy 6061-T6 or 6262-T9 (ASTM F467).

STEEL BOLTS, NUTS, & WASHERS

All steel bolts, nuts and washers shall meet the requirements of ASTM A325.

ALTERNATE MATERIAL

Material meeting the requirements of ASTM B209 or Aluminum Association Alloys 5154-H38 or 5052-H38 may be used for sheet and plate. Material meeting the requirements of Aluminum Association Alloy 6351-T5 and ASTM B221 may be used for extruded bars, rods, shapes and tubes.

TOLERANCES

All above materials shall be in accordance with the governing ASTM specifications.

GALVANIZING

All steel shapes, angles, tees, plates, bolts, nuts and washers shall be galvanized in accordance with Standard Specifications 962-7.

BASE CONNECTION

High strength bolts L_s in the base connection shall be tightened only to the torque shown in the table on sheets 3 of 3. Overtightened base connections will not be accepted.

FUSE PLATES

All holes in fuse plates shall be drilled. All plate cuts shall, preferably, be saw cuts; however, flame cutting will be permitted provided all edges are ground. Metal projecting beyond the plane of the plate face will not be tolerated.

SIGN FACE

All sign face corners shall be rounded. See Sign Layout Sheet.

SHOP DRAWINGS

When ground sign supports are fabricated in accordance with these plans no shop drawings are required. Shop drawings will be required for approval when the column length exceeds the length shown in the plans by more than 2'-0". However, shop drawings for sign panels, messages, lettering and quantities shall be submitted to the Engineer of Record for approval.

FABRICATOR NOTE


All bolts shall be high strength bolts. All bolts, except L2 bolts and zee to post bolts, shall be tightened in the shop following a method approved by the engineer. Tightening shall be to such a degree so as to attain in each bolt the residual tension specified in the tabulation on sheet 1 of 3.

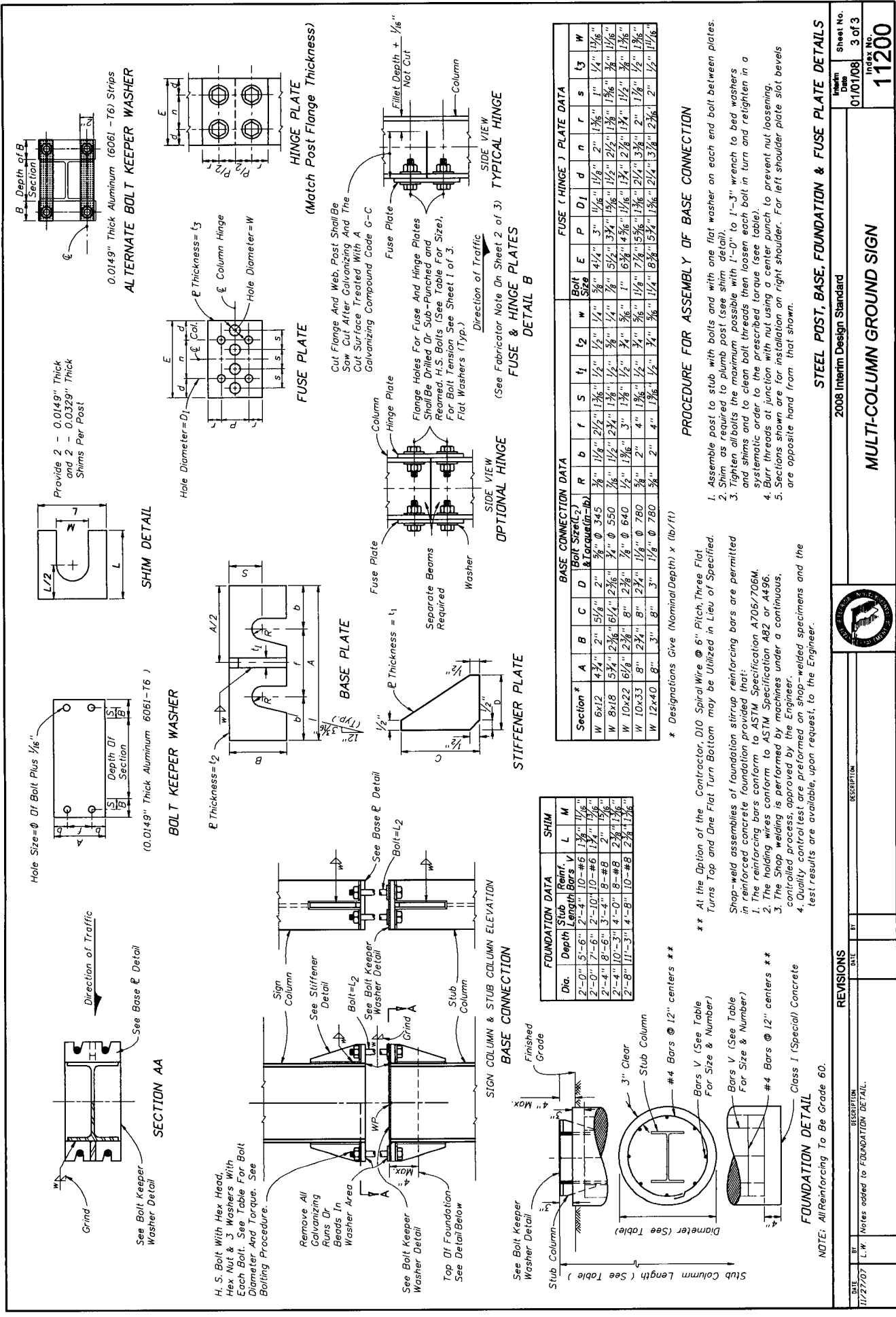
FOUNDATION

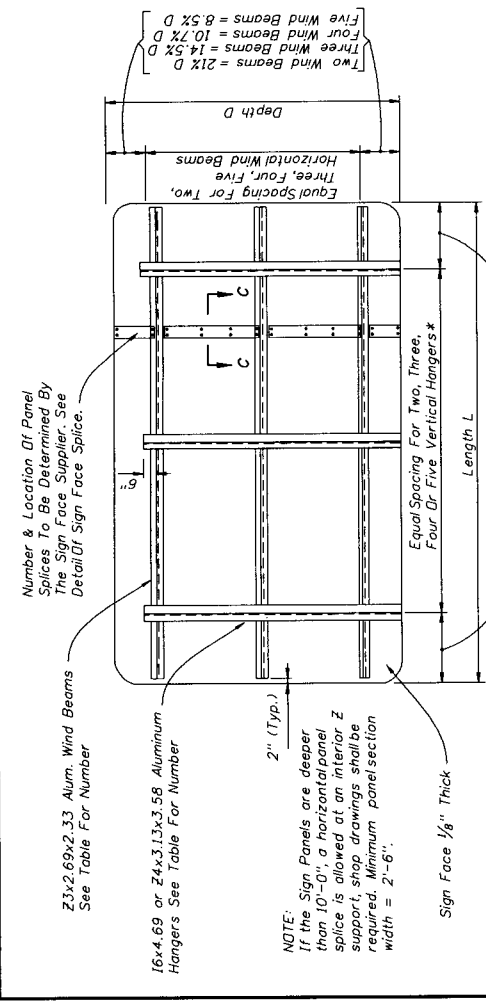
Contractor may use precast foundations in pre-drilled holes a minimum of 12" larger than the foundation indicated on the plans in either wet or dry conditions. The holes shall be clean and without loose material. Temporary casing shall be required if the soil is unstable. Fill the void around the precast foundation with flowable fill meeting the requirements of Section 121 or clear sand placed using hydraulic methods. The cost of flowable fill, installing and removal of casing shall be included in the unit price of Sign Multi-Post.

| DATE | BY | DESCRIPTION |
|----------|------|-------------------------|
| 09/05/07 | L.W. | Foundation note revised |

| REVISIONS | DATE | BY | DESCRIPTION |
|-----------|------|----|-------------|
| | | | |

| | | |
|--|--|---------------------|
| 2008 Interim Design Standard | | Sheet No. 2 of 3 |
|  | | Index No. 11200 |
| MULTI-COLUMN GROUND SIGN | | |

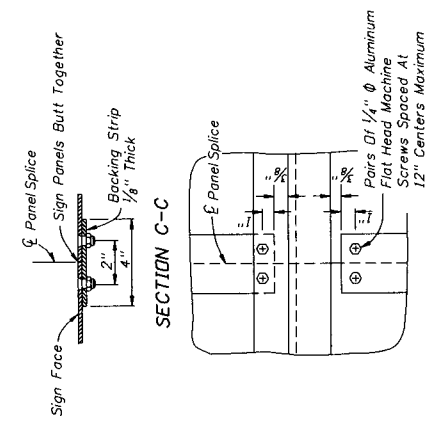




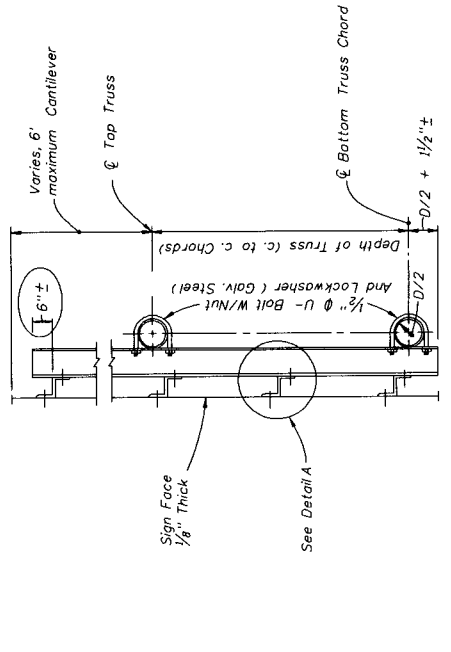
| Wind M.P.H. | No. Beams | Max. Depth | Number of 16x4.69 or 24x3.13x3.58 Vertical Hanger Beams For Sign Length | | | | |
|-------------|-----------|------------|---|------------------|------------------|-------------------|--|
| | | | 2 Hangers | 3 Hangers | 4 Hangers | 5 Hangers | |
| 150 | 2 | 5'-0" | 0 to 15'-0" | 15'-1" to 30'-0" | 30'-1" to 45'-0" | 45'-1" to 60'-0" | |
| 150 | 3 | 8'-6" | 0 to 15'-0" | 15'-1" to 30'-0" | 30'-1" to 45'-0" | 45'-1" to 60'-0" | |
| 150 | 4 | 11'-6" | 0 to 13'-0" | 13'-1" to 18'-3" | 18'-4" to 24'-9" | 24'-10" to 31'-4" | |
| 150 | 5 | 14'-0" | 0 to 13'-0" | 13'-1" to 18'-3" | 18'-4" to 24'-9" | 24'-10" to 31'-4" | |
| 130 | 2 | 5'-3" | 0 to 15'-0" | 15'-1" to 30'-0" | 30'-1" to 45'-0" | 45'-1" to 60'-0" | |
| 130 | 3 | 8'-10" | 0 to 15'-0" | 15'-1" to 30'-0" | 30'-1" to 45'-0" | 45'-1" to 60'-0" | |
| 130 | 4 | 12'-0" | 0 to 15'-0" | 15'-1" to 30'-0" | 30'-1" to 45'-0" | 45'-1" to 60'-0" | |
| 130 | 5 | 15'-0" | 0 to 11'-7" | 11'-8" to 16'-4" | 16'-5" to 22'-2" | 22'-3" to 28'-0" | |
| 110 | 2 | 5'-6" | 0 to 15'-0" | 15'-1" to 30'-0" | 30'-1" to 45'-0" | 45'-1" to 60'-0" | |
| 110 | 3 | 9'-6" | 0 to 15'-0" | 15'-1" to 30'-0" | 30'-1" to 45'-0" | 45'-1" to 60'-0" | |
| 110 | 4 | 12'-9" | 0 to 15'-0" | 15'-1" to 30'-0" | 30'-1" to 45'-0" | 45'-1" to 60'-0" | |
| 110 | 5 | 16'-0" | 0 to 14'-3" | 14'-4" to 20'-0" | 20'-1" to 27'-0" | 27'-1" to 34'-3" | |

*Note: Spacing of vertical hangers may be varied slightly or as necessary to clear the truss struts and diagonals at panel points.

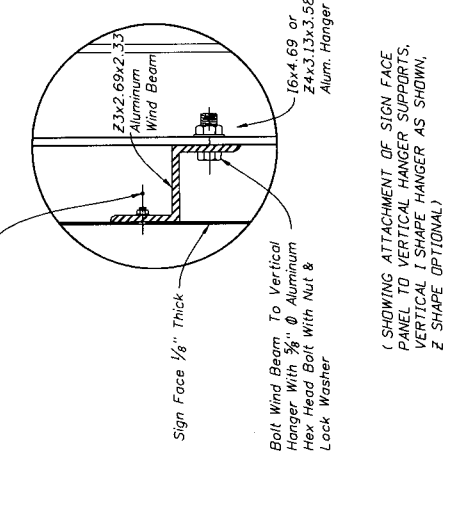
TYPICAL SIGN FACE ELEVATION FOR OVERHEAD TRUSS



BACKING STRIP DETAIL



TYPICAL DETAIL OF SIGN & TRUSS CONNECTION



DETAIL A

GENERAL NOTES
 (1) For "General Notes" covering Material Specifications see Index 11200.
 (2) Design based on 32 ft. maximum height to centroid of sign panel.
 (3) The Design Wind Speed shall conform to Wind Speed by County shown on Index 11200, Sheet 1 of 3.

| | | | |
|----------|------|--|-----------|
| DATE | | DESCRIPTION | REVISIONS |
| 11/14/07 | L.W. | 150mph-3 Beams-5 Hangers table values change max value from 10'-0" to 15'-0" L.W. | 11/14/07 |
| | | Detail A change wind beam to Vertical-Hanger aluminum Max head connection bolt from 3/8" to 3/4" | |

2008 Interim Design Standard

OVERHEAD SIGN STRUCTURES

Sheet No. 01/01/08 1 of 1

Index No. 11300

