07 - STRUCTURES
INDEX OF DRAWINGS

DRAWING NUMBER	DRAWING TITLE	DRAWING NUMBER	DRAWING TITLE
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S-2	EXTRUDED ALUMINUM SIGN PANEL - CONNECTION DETAILS		
S-3	EXTRUDED ALUMINUM SIGN PANEL - MANUFACTURING DETAILS		

THE DESIGN APPEARS TO CONFORM TO APPLICABLE CRITERIA. APPROVAL IS NOT TO BE CONSTRUED TO MEAN THAT ALL ASPECTS OF THE DESIGN HAVE BEEN PERSONALLY CHECKED BY THE UNDERSIGNED.

Rabih M. Barakat P.E.

Digitally signed by Rabih M. Barakat P.E.
DN: CN=Rabih M. Barakat P.E., O=State of Connecticut, E=rabih.barakat@ct.gov, OU=Department of Transportation, OU=Transportation Principal Engineer of Bridge Design, OU=Division of Bridges and Facilities, L=Newington, S=Connecticut, C=US
Date: 2015.05.05 16:02:57-04'00'

TRANSPORTATION PRINCIPAL ENGINEER

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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Plotted Date: 4/27/2015

DESIGNER/DRAFTER: ACC

CHECKED BY: JPC

SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\SB_DrawingIndex.dgn

SIGNATURE/ BLOCK:

OFFICE OF ENGINEERING

APPROVED BY:

PROJECT TITLE:

ROUTE 25
UPDATE HIGHWAY SIGNS
ROUTE 8 TO ROUTE 111

TOWN: TRUMBULL

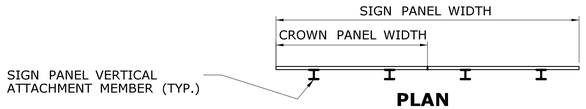
DRAWING TITLE: DRAWING INDEX

PROJECT NO. 144-193

DRAWING NO. S-1

SHEET NO. 07.01

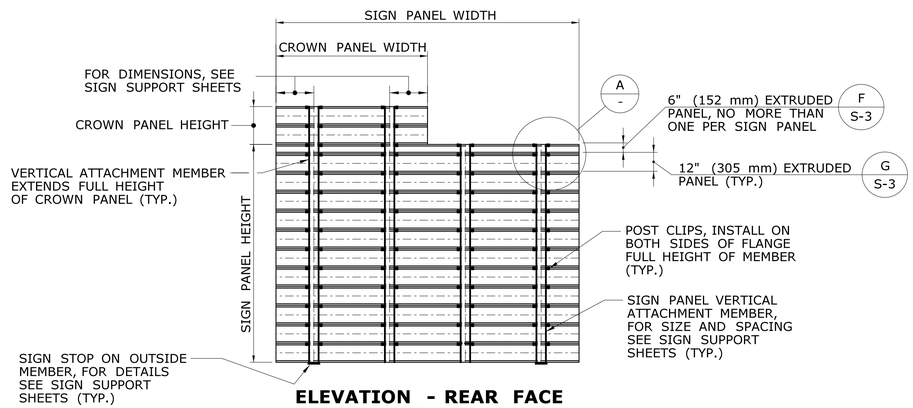
Connecticut Department of Transportation
QA/QC Format Check



PLAN

OVERHEAD MOUNTED SIGN PANEL

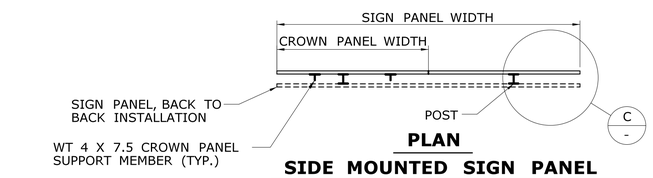
SCALE: 1/4" = 1' - 0"



ELEVATION - REAR FACE

OVERHEAD MOUNTED SIGN PANEL

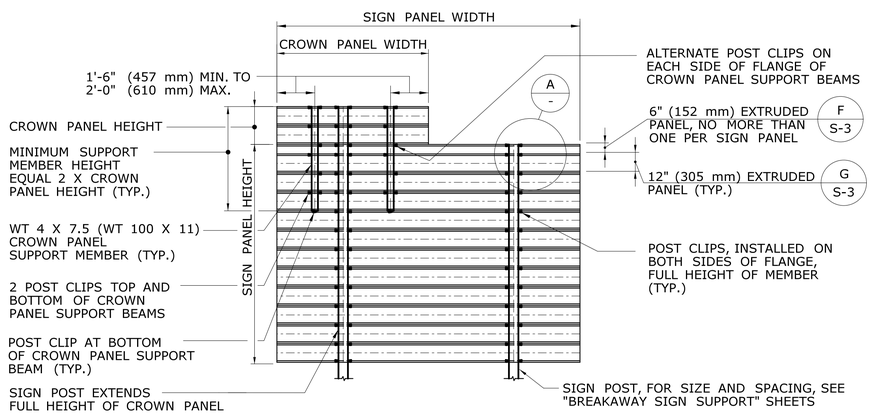
SCALE: 1/4" = 1' - 0"



PLAN

SIDE MOUNTED SIGN PANEL

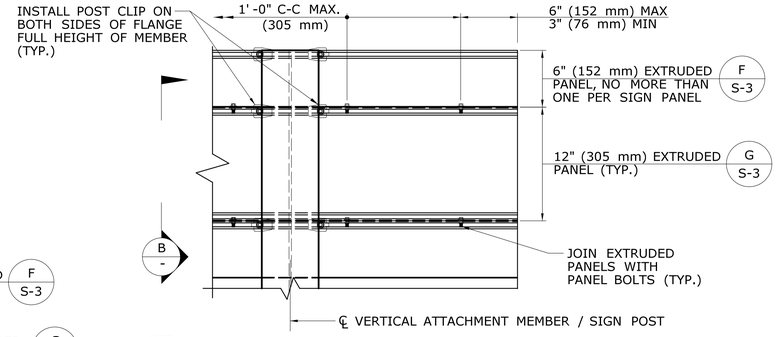
SCALE: 1/4" = 1' - 0"



ELEVATION - REAR FACE

SIDE MOUNTED SIGN PANEL

SCALE: 1/4" = 1' - 0"

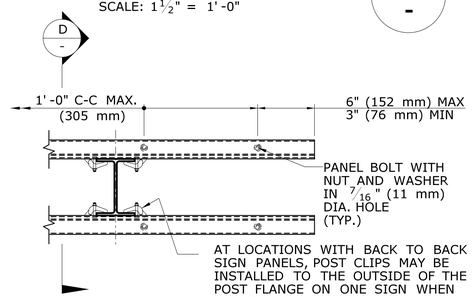


NOTE:

THE EXTRUDED ALUMINUM SIGN PANELS SHALL BE CONNECTED TOGETHER WITH PANELS BOLTS INSTALLED IN ACCORDANCE WITH THE SPACING CRITERIA SHOWN. IF THE PANEL BOLTS CANNOT BE INSTALLED DUE TO MISALIGNED HOLES, A NEW HOLE(S) SHALL BE INSTALLED IN THE FLANGE OF THE EXTRUDED PANEL. THE NEW HOLE(S) SHALL BE A MINIMUM OF 2" (50 mm) FROM ANY EXISTING PANEL BOLT HOLES.

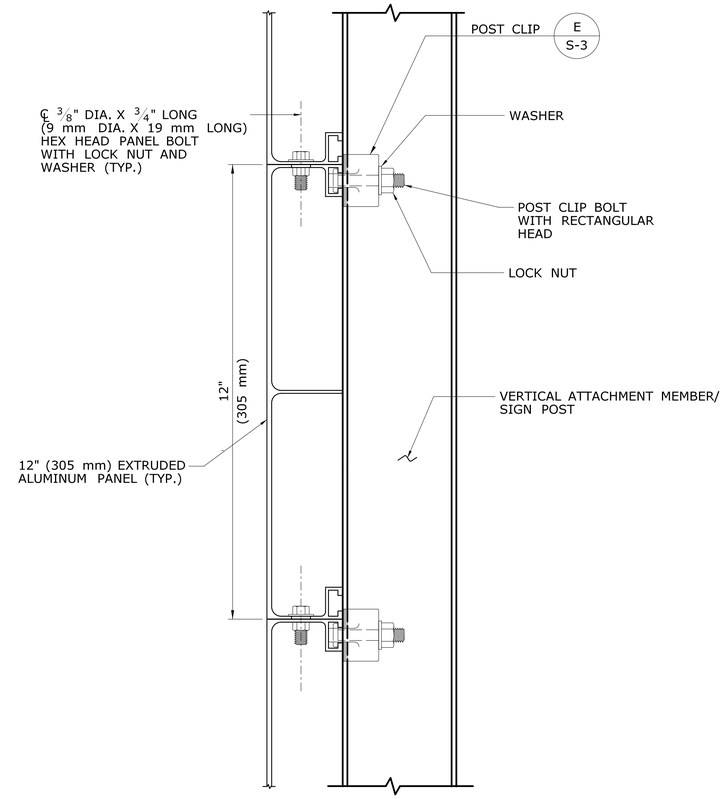
SIGN PANEL CONNECTION DETAILS **A** **-**

SCALE: 1 1/2" = 1'-0"



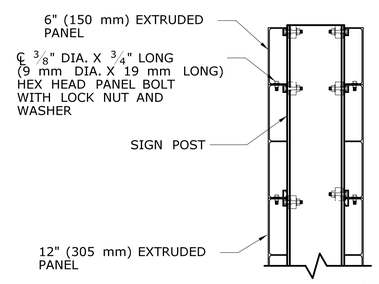
PLAN - PANEL BOLT **C** **-**

SCALE: 1 1/2" = 1'-0"



SECTION - SIGN PANEL CONNECTION **B** **-**

SCALE: 6" = 1'-0"



SECTION - DOUBLE PANELS **D** **-**

SCALE: 1 1/2" = 1'-0"

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

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Plotted Date: 4/27/2015

DESIGNER/DRAFTER: ACC
CHECKED BY: JPC
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\144-193_SB_ExtrudedAlSignPanel_ConnectionDetails.dgn

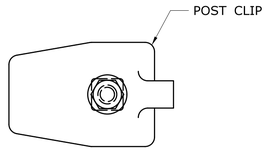
SIGNATURE/ BLOCK: OFFICE OF ENGINEERING
APPROVED BY:

PROJECT TITLE: ROUTE 25 UPDATE HIGHWAY SIGNS ROUTE 8 TO ROUTE 111

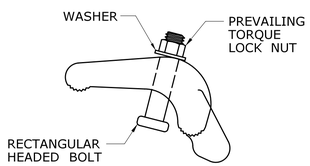
TOWN: TRUMBULL

DRAWING TITLE: EXTRUDED ALUMINUM SIGN PANEL CONNECTION DETAILS

PROJECT NO. 144-193
DRAWING NO. S-2
SHEET NO. 07.02



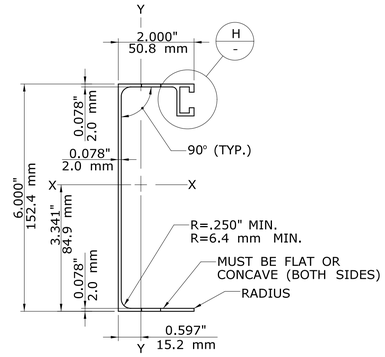
PLAN



ELEVATION

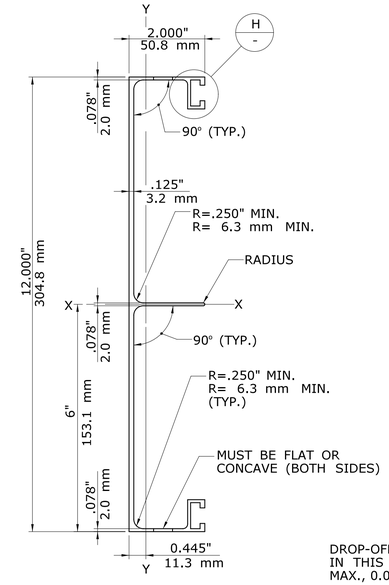
POST CLIP DETAIL (E / -)

FULL SCALE

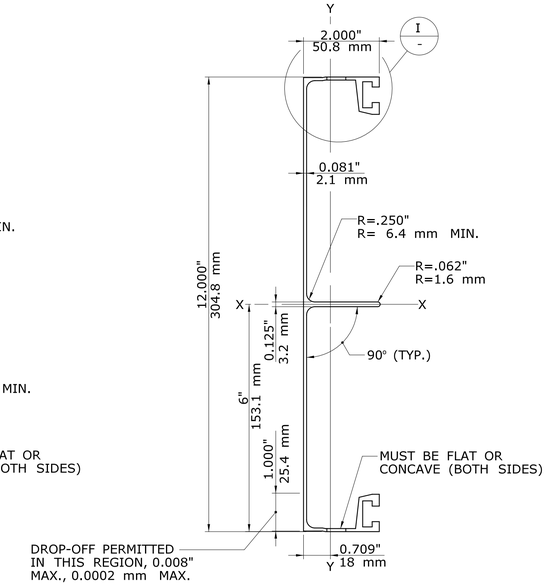


6" (150 mm) EXTRUDED PANEL (F / -)

SCALE: 6" = 1-0'



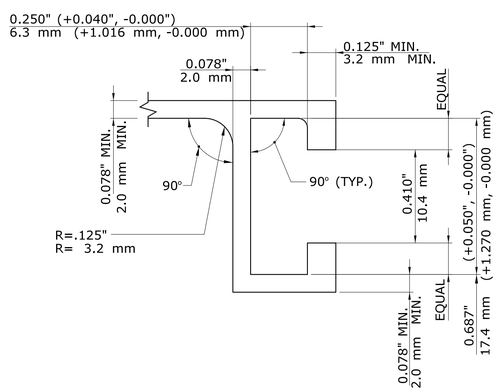
ALTERNATE A



ALTERNATE B

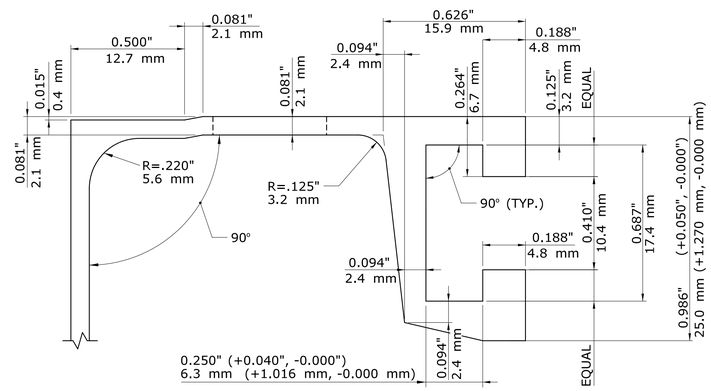
12" (305 mm) EXTRUDED PANEL (G / -)

SCALE: 6" = 1-0'



DETAIL (H / -)

SCALE: 3 X FULL SCALE



DETAIL (I / -)

SCALE: 3 X FULL SCALE

NOTES

THE EXTRUDED PANELS SHALL CONFORM TO THE REQUIREMENTS ASTM B221, ALLOY 6063-T6 AND THE FOLLOWING SECTION PROPERTIES:

SECTION	AREA OF SECTION in^2 (mm^2)	WT. / FT. LBS. / FT. (KG / M)	I_{X-X} in^4 (mm^4)	I_{Y-Y} in^4 (mm^4)
6" (150 mm) EXTRUDED PANEL	0.933 (601.93)	1.13 (0.16)	5.023 (2 090 730)	0.473 (196 877)
12" (305 mm) EXTRUDED PANEL ALTERNATE A	2.237 (1443.22)	2.72 (0.38)	36.284 (15 102 541)	0.941 (391 674)
12" (305 mm) EXTRUDED PANEL ALTERNATE B	2.091 (1349.03)	2.54 (0.35)	38.947 (16 210 965)	1.183 (492 402)

THE PANEL BOLTS SHALL CONFORM TO ASTM A193, CLASS 1, GRADE B8 (TYPE 304). THE NUTS SHALL BE A COMPATIBLE HEX, PREVAILING TORQUE (NYLON INSERT) LOCK NUTS CONFORMING TO ASTM A194, CLASS 1, GRADE B8 (TYPE 304). THE WASHERS SHALL BE A COMPATIBLE, FLAT, CIRCULAR WASHERS CONFORMING TO ASTM A276, TYPE 304, ANNEALED.

THE POST CLIP ASSEMBLY SHALL COMPOSED OF A POST CLIP AND A BOLT WITH A NUT AND WASHER. THE POST CLIP SHALL CONFORM TO THE REQUIREMENTS OF ASTM B26, ALLOY 356.0-T6. THE POST BOLT SHALL BE A $^3/_8$" DIA. X $1^3/_4$" LONG (9 mm DIA. X 44 mm LONG) RECTANGULAR HEAD BOLT CONFORMING TO ASTM A193, CLASS 1, GRADE B8 (TYPE 304). THE NUT SHALL BE A COMPATIBLE HEX, PREVAILING TORQUE (NYLON INSERT) LOCK NUT CONFORMING TO ASTM A194, CLASS 1, GRADE B8 (TYPE 304). THE WASHER SHALL BE A COMPATIBLE, FLAT, CIRCULAR WASHER CONFORMING TO ASTM A276, TYPE 304, ANNEALED. THE DIMENSIONS OF THE RECTANGULAR BOLT HEAD SHALL BE SUCH THAT IT WILL FIT INTO THE EXTRUDED PANEL SLOT AND WILL NOT ROTATE WHILE THE NUT IS BEING TURNED.

THE COST OF FURNISHING AND INSTALLING THE EXTRUDED ALUMINUM SIGN AND CROWN PANELS, INCLUDING THE PANELS BOLTS AND POST CLIP ASSEMBLIES, SHALL BE PAID FOR UNDER THE ITEM "SIGN FACE - EXTRUDED ALUMINUM (TYPE IV RETROREFLECTIVE SHEETING)".

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Plotted Date: 4/27/2015

DESIGNER/DRAFTER: ACC

CHECKED BY: JPC

SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\144-193_SB_ExtrudedAlSignPanel_ManufacturingDetails.dgn

SIGNATURE/BLOCK: OFFICE OF ENGINEERING

APPROVED BY:

PROJECT TITLE: ROUTE 25 UPDATE HIGHWAY SIGNS ROUTE 8 TO ROUTE 11

TOWN: TRUMBULL

DRAWING TITLE: EXTRUDED ALUMINUM SIGN PANEL MANUFACTURING DETAILS

PROJECT NO. 144-193

DRAWING NO. S-3

SHEET NO. 07.03