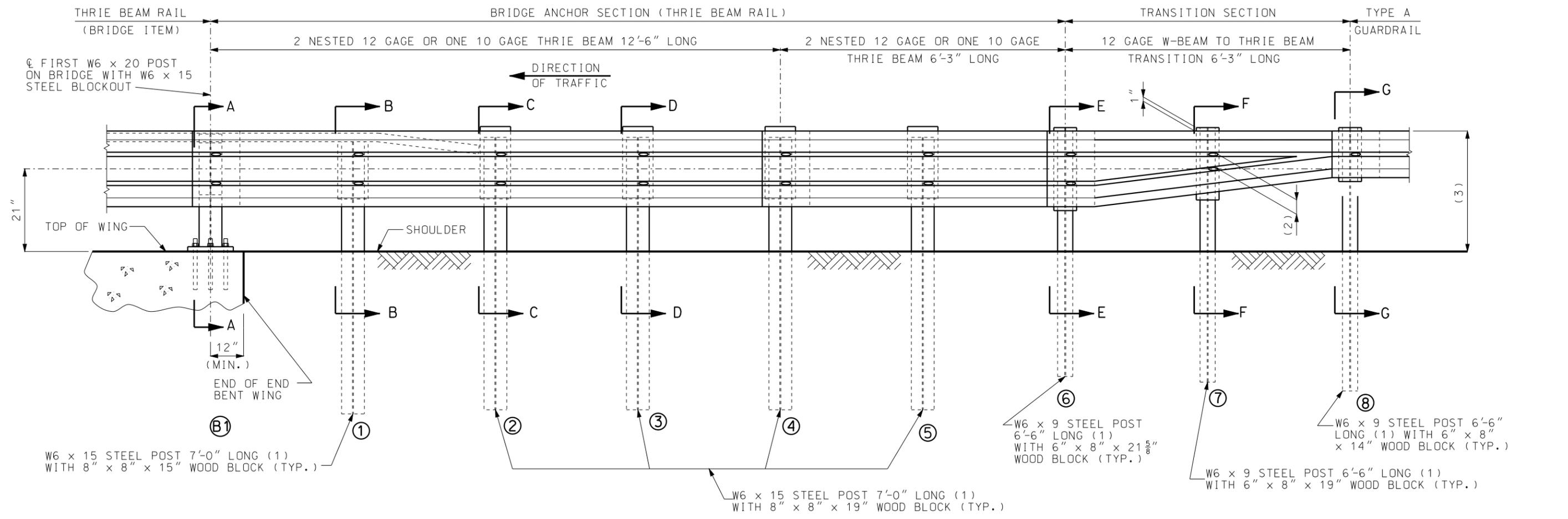


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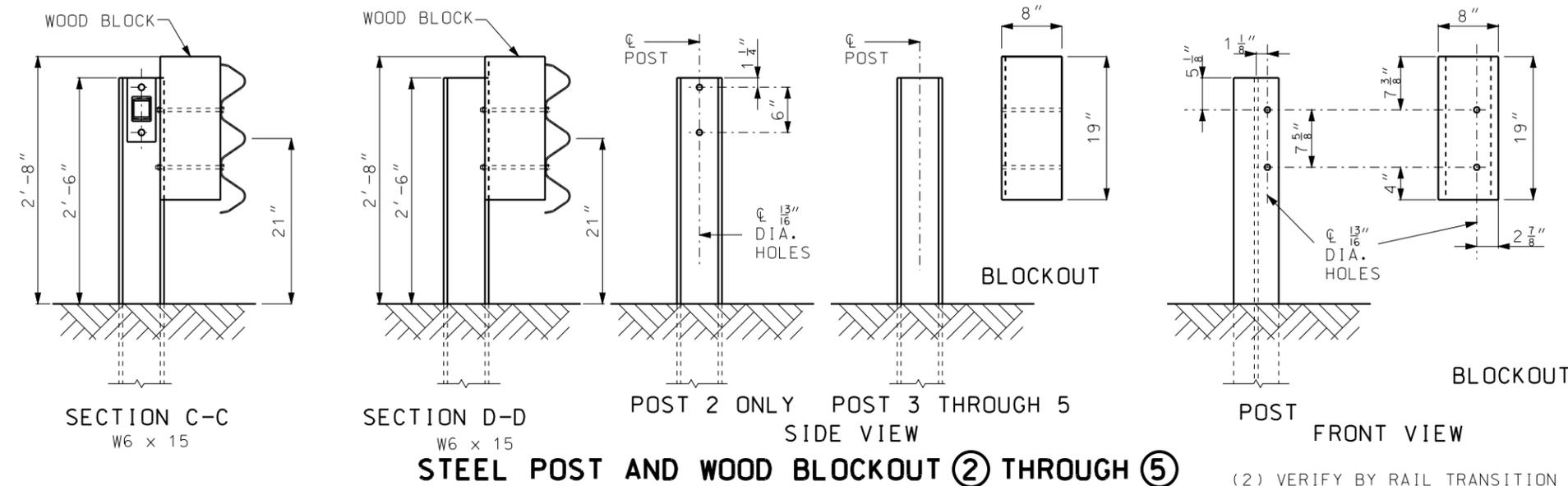
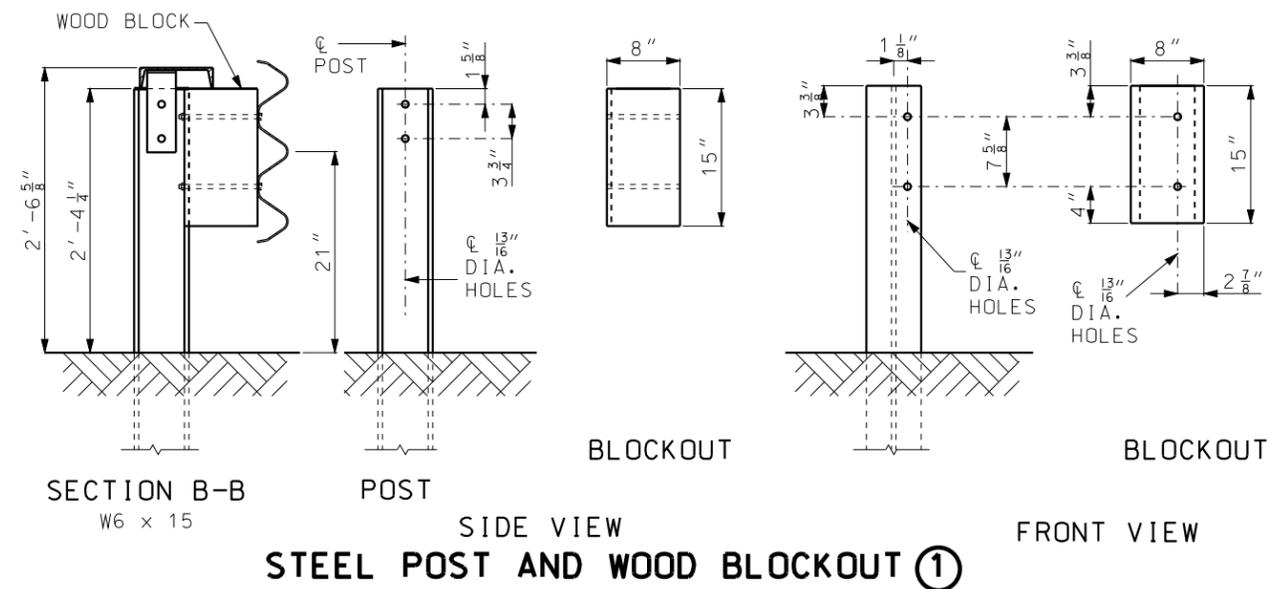
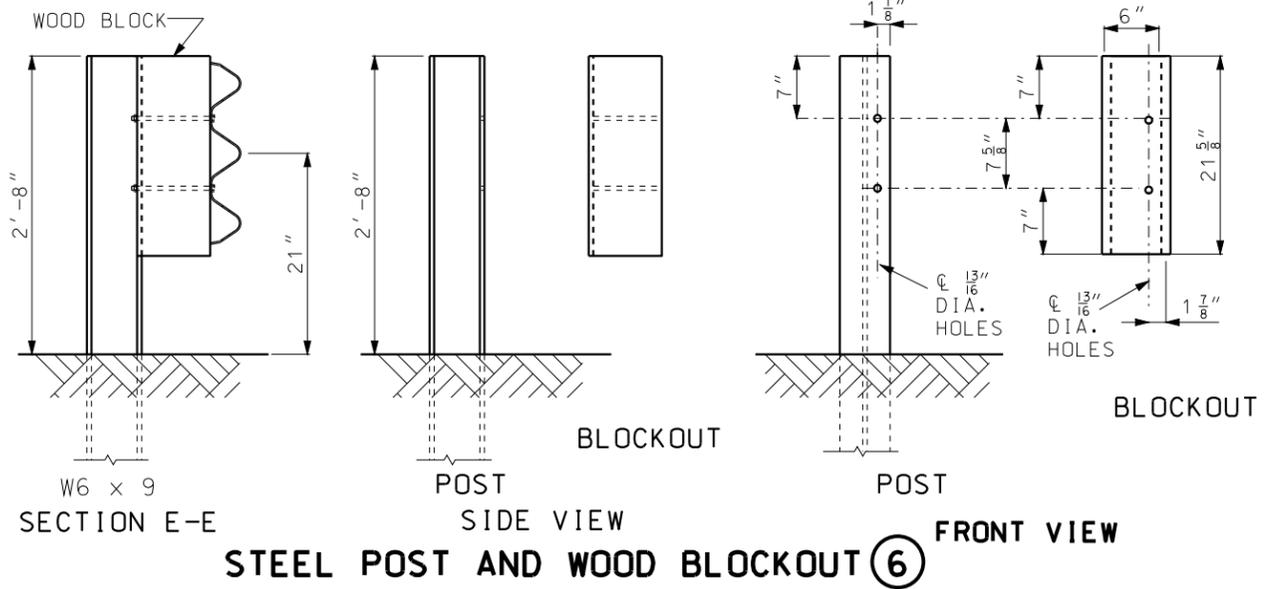
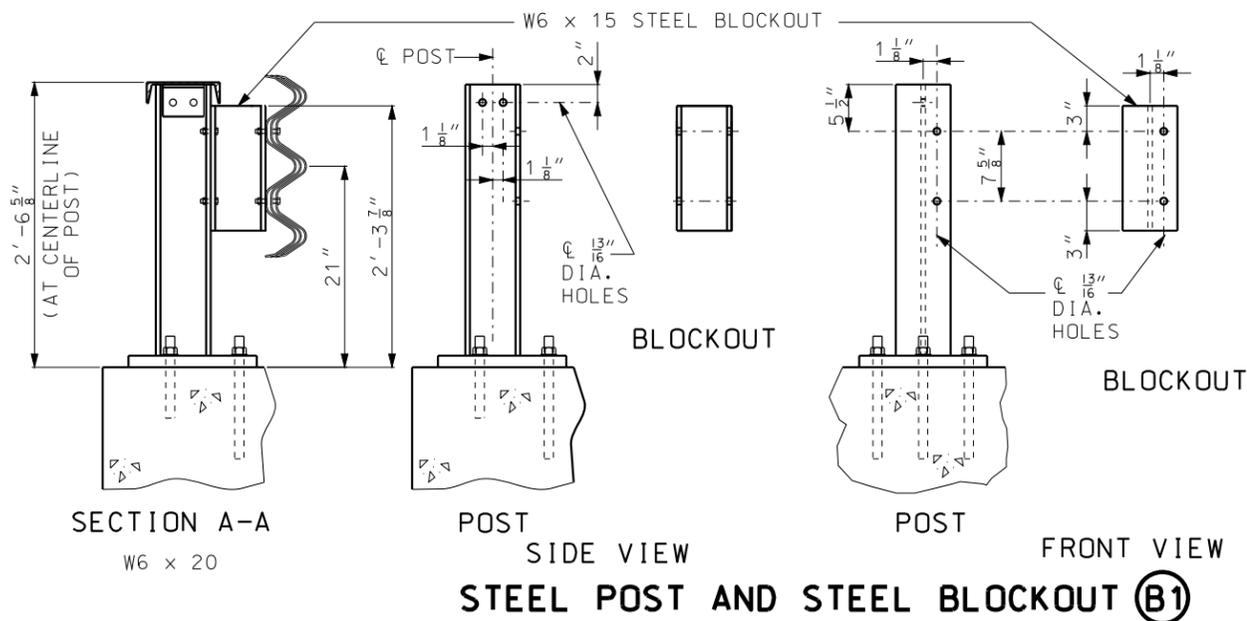
PART SECTION THROUGH SLAB AT END OF WING

NOTES:
 FOR GENERAL NOTES, SEE SHEET 2 OF 5.
 FOR POST DETAILS AND SECTION VIEWS, SEE SHEET 2 AND 3 OF 5.

- (1) AT CONTRACTOR'S OPTION, EQUIVALENT SECTIONS MAY BE FABRICATED FROM MATERIAL MEETING AND IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A769 GRADE 36 OR 40. THE SECTIONS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO 111.
- (2) VERIFY BY RAIL TRANSITION PRODUCER.
- (3) TRANSITION FROM 31" TO 29" HEIGHT OVER NEXT EIGHT UPSTREAM 12.5' W-BEAMS.

 MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	BRIDGE ANCHOR SECTION (THRIE BEAM RAIL ON BRIDGE)
DATE EFFECTIVE: 08/01/2012 DATE PREPARED: 11/26/2012	606.231
SHEET NO. 1 OF 5	

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



GENERAL NOTES:

DESIGN BASED UPON NCHRP REPORT 350 TEST LEVEL 3 (TL-3).

THE THRIE BEAM RAIL FOR THE BRIDGE ANCHOR SECTION SHALL BE 12 GAGE OR 10 GAGE AT THE CONTRACTOR'S OPTION, AND THE TRANSITION SECTION SHALL BE 12 GAGE.

FABRICATED STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

FOR PROTECTIVE COATING AND MATERIAL REQUIREMENTS, SEE SECTION 1040 OF THE STANDARD SPECIFICATIONS.

RAIL POSTS SHALL BE SET PERPENDICULAR TO THE ROADWAY PROFILE GRADE AND VERTICALLY IN CROSS SECTION.

WASHERS SHALL BE USED AT ALL POST BOLTS.

USE 5/8" BUTTON-HEAD, OVAL SHOULDER BOLTS WITH HEX NUTS (THICKNESS OF HEX NUTS = 3/8" MIN.) AT ALL SLOTS.

ALL LAP SPLICES SHALL BE MADE IN THE DIRECTION OF TRAFFIC.

THE COST OF FURNISHING, FABRICATING AND INSTALLING TRANSITION SECTION, COMPLETE-IN-PLACE, SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH.

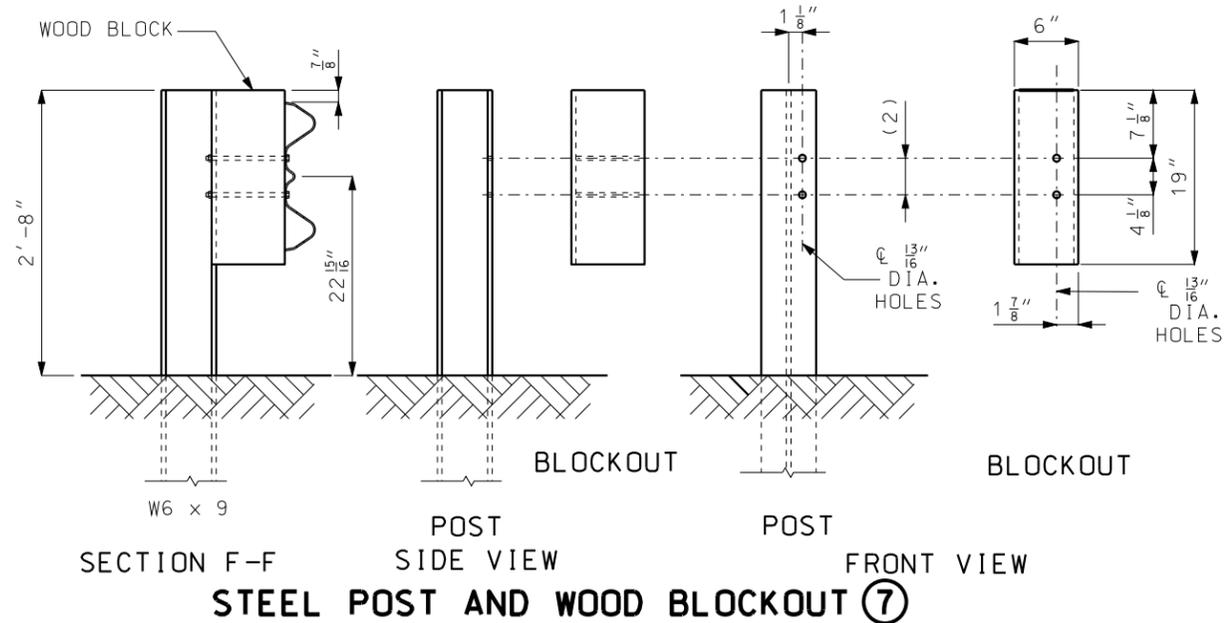
THE COST OF FURNISHING, FABRICATING AND INSTALLING BRIDGE ANCHOR SECTION (THRIE BEAM), COMPLETE-IN-PLACE, SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH.

FOR DETAILS NOT SHOWN, SEE BRIDGE THRIE BEAM RAIL SHEET.

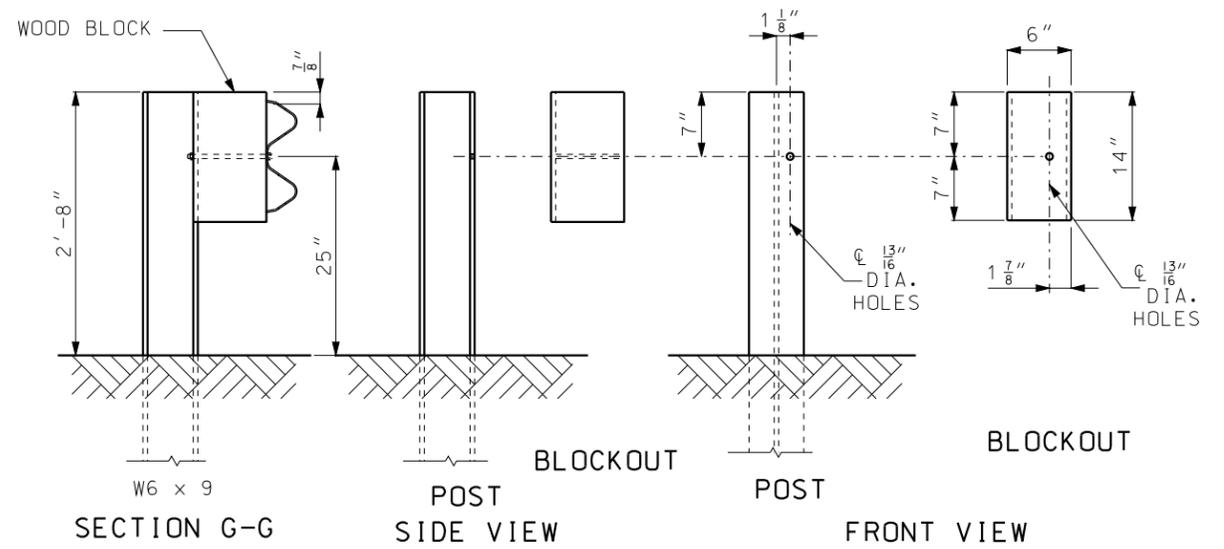
<p>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</p> <p>105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)</p>	
<p>KATHRYN PHILLIPS HARVEY NUMBER PE-23751 PROFESSIONAL ENGINEER</p> <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	<p>BRIDGE ANCHOR SECTION (THRIE BEAM RAIL ON BRIDGE)</p>
<p>DATE EFFECTIVE: 08/01/2012 DATE PREPARED: 7/19/2012</p>	<p>606.231</p> <p>SHEET NO. 2 OF 5</p>

(2) VERIFY BY RAIL TRANSITION PRODUCER.

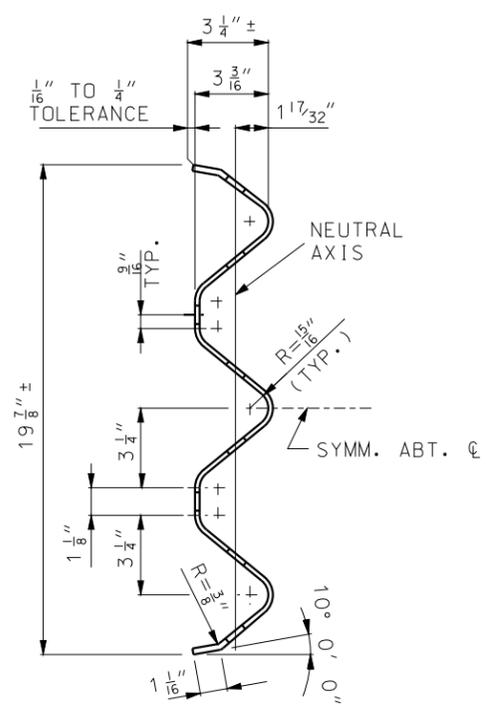
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



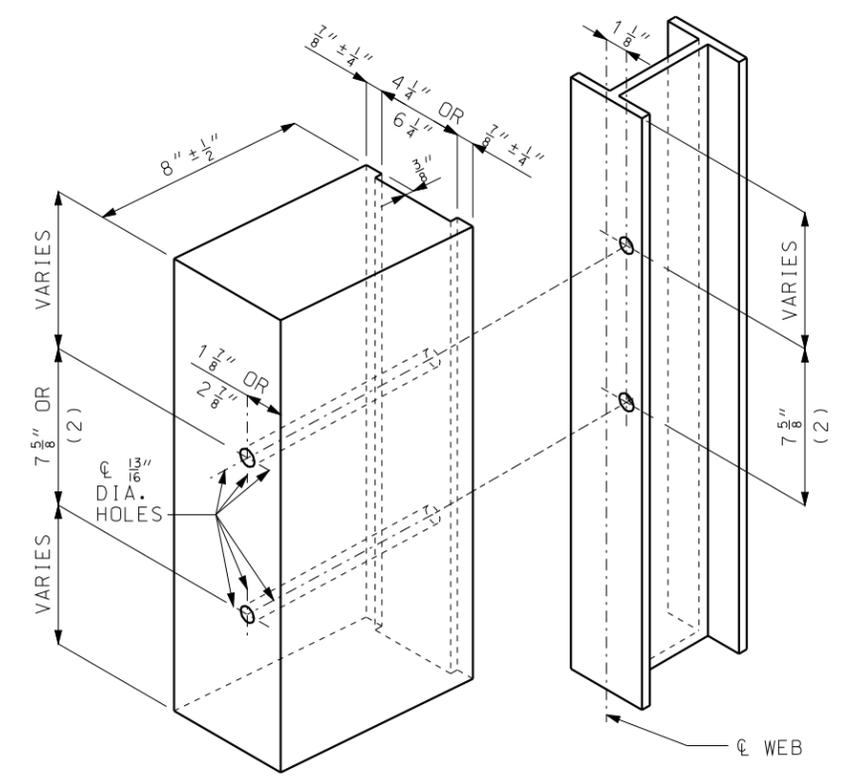
STEEL POST AND WOOD BLOCKOUT (7)



STEEL POST AND WOOD BLOCKOUT (8)

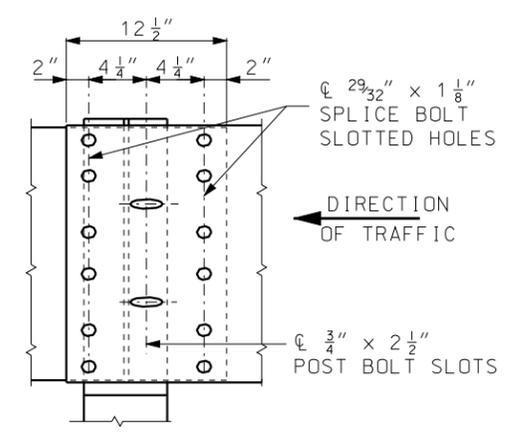


SECTION H-H THROUGH THRIE BEAM RAIL

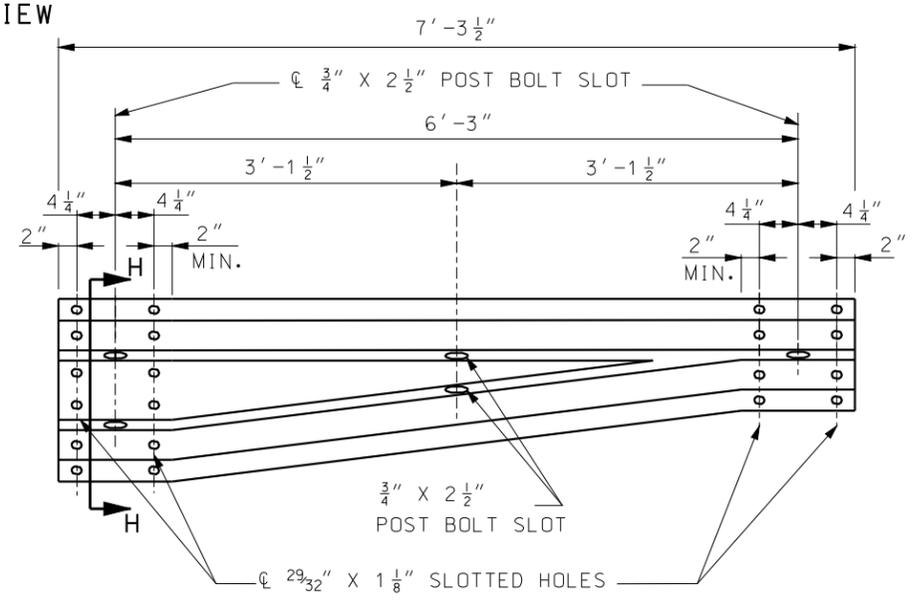


POST (7) - (2) VERIFY BY RAIL TRANSITION PRODUCER (SEE FRONT SHEET)
 POST (8) - ONLY 1 HOLE REQUIRED
 ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED

HOLE PUNCHING DETAIL FOR STEEL POST & WOOD BLOCKS (6" AND 8")



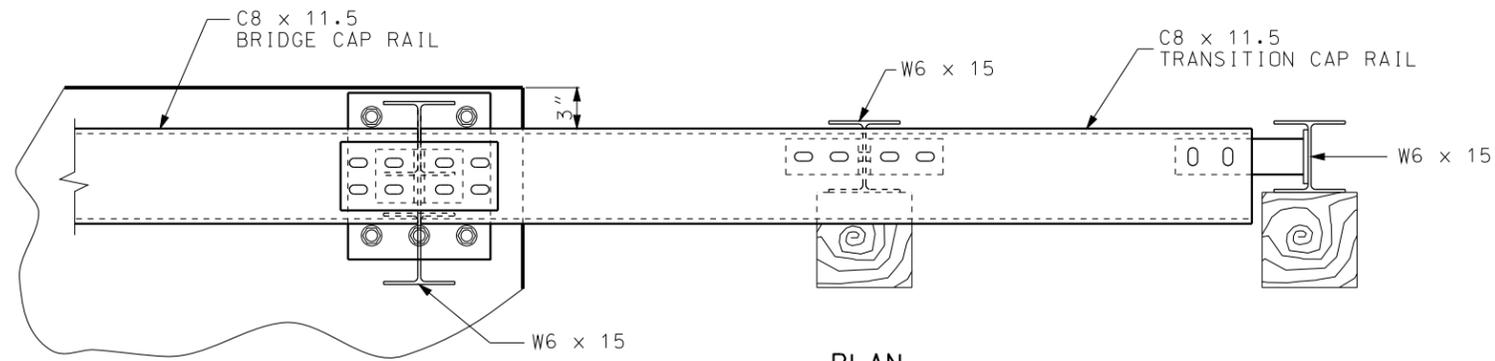
THRIE BEAM RAIL SPLICE AT POST



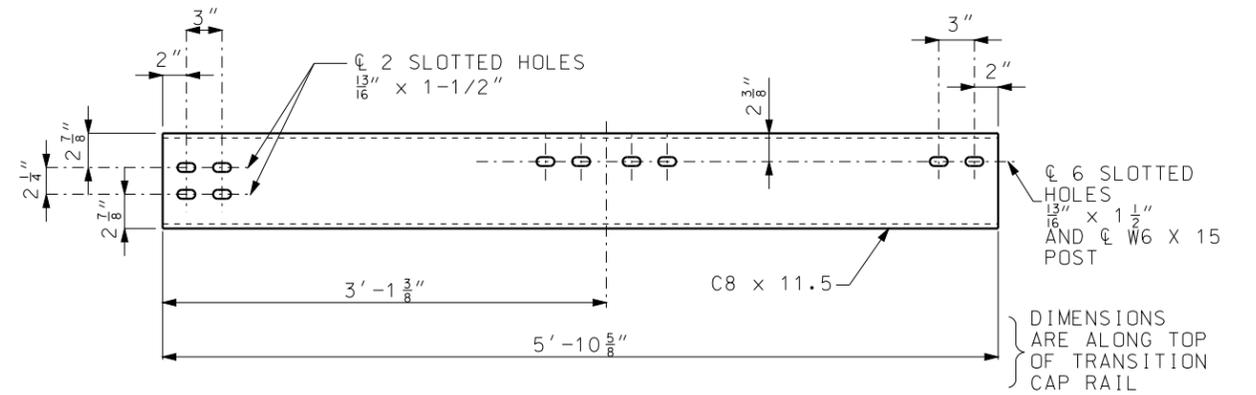
ASYMMETRICAL TRANSITION SECTION

<p>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION</p> <p>105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)</p>	
<p>STATE OF MISSOURI KATHRYN PHILLIPS HARVEY NUMBER PE-23751 PROFESSIONAL ENGINEER</p> <p>THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.</p>	<p>BRIDGE ANCHOR SECTION (THRIE BEAM RAIL ON BRIDGE)</p>
<p>DATE EFFECTIVE: 08/01/2012 DATE PREPARED: 11/26/2012</p>	<p>606.231</p>
<p>SHEET NO. 3 OF 5</p>	

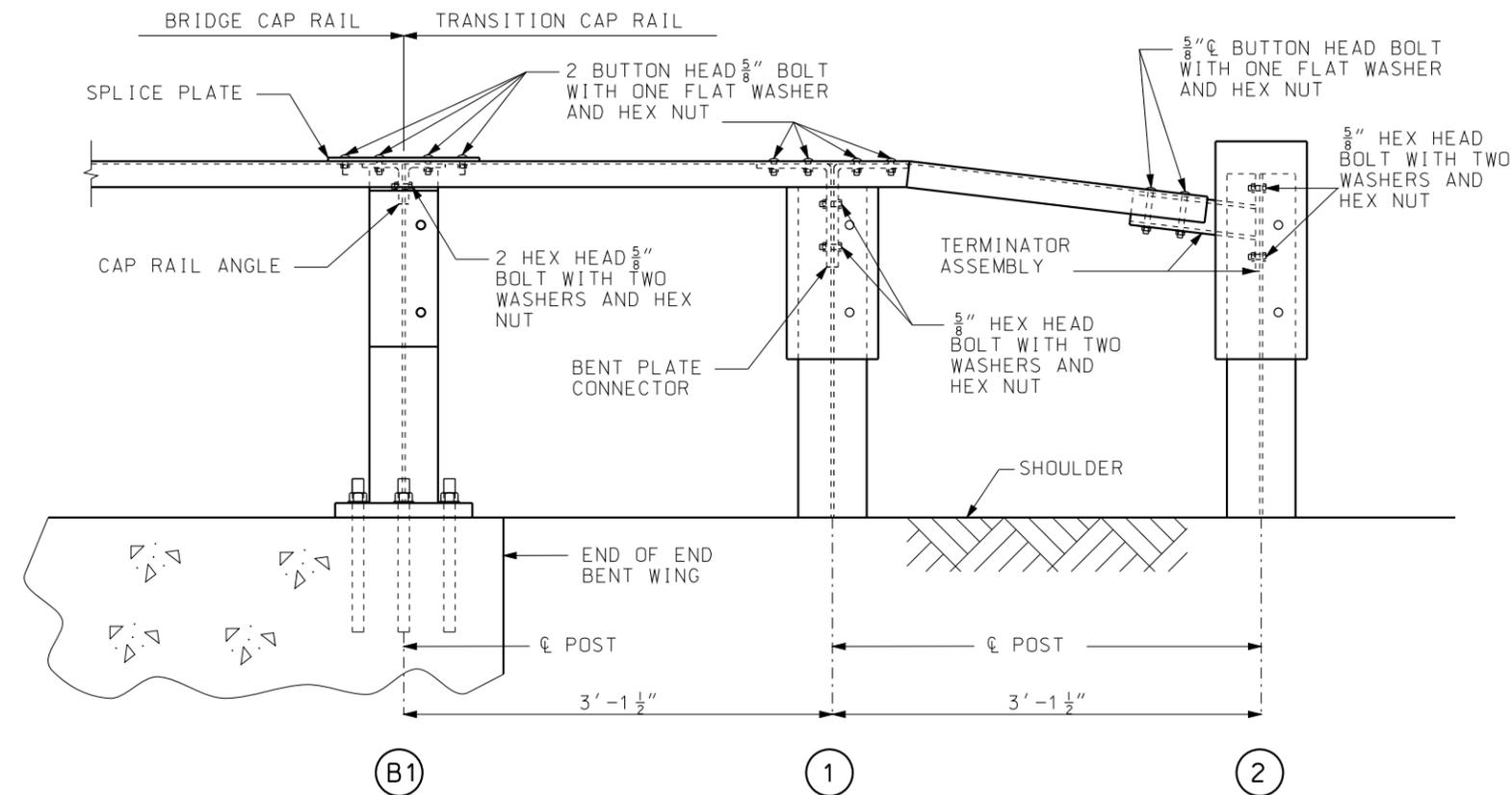
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



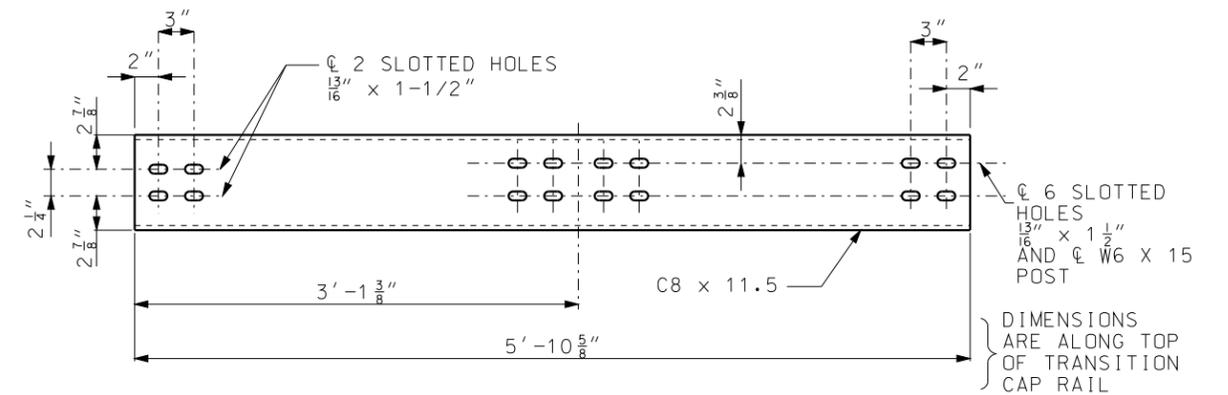
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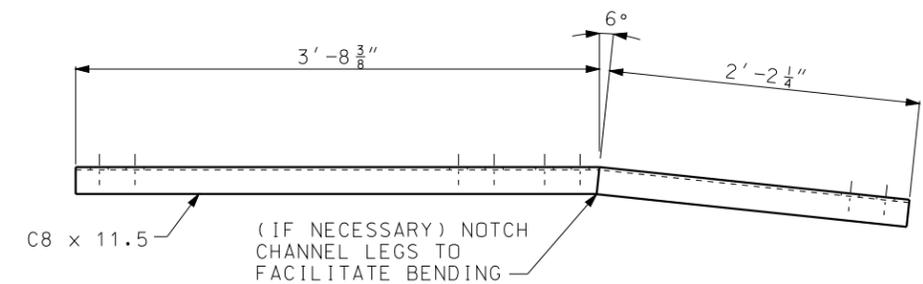
TOP VIEW (ALTERNATE 1)



ELEVATION
(THRIE BEAM RAIL NOT SHOWN)



TOP VIEW (ALTERNATE 2)

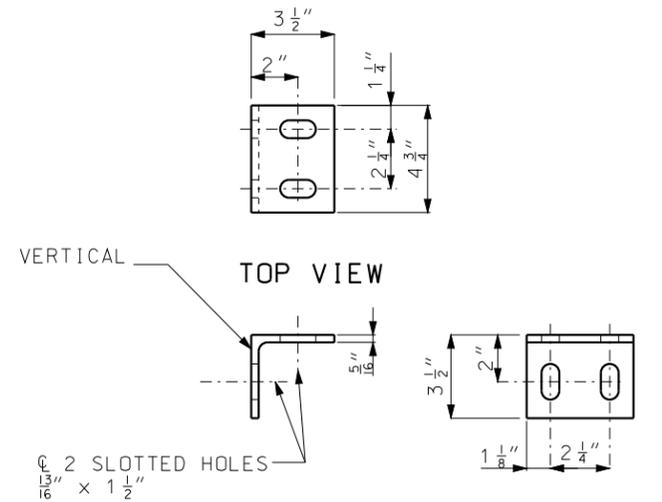


ELEVATION
TRANSITION CAP RAIL

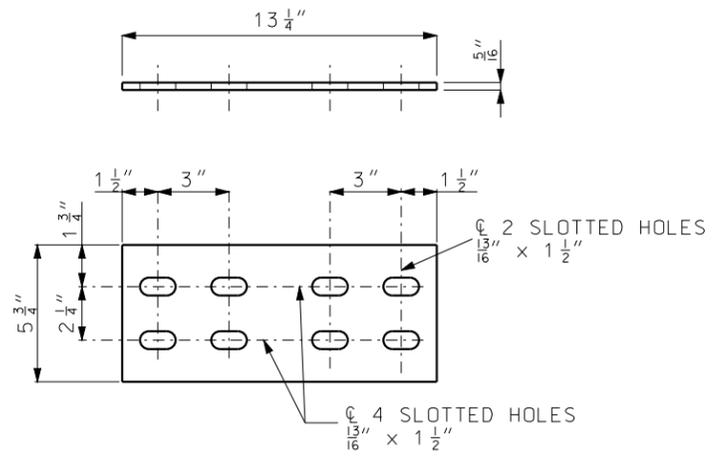
GENERAL NOTES:

	MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION	
	105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MODOT (1-888-275-6636)	
	BRIDGE ANCHOR SECTION (THRIE BEAM RAIL ON BRIDGE)	
	DATE EFFECTIVE: 08/01/2012 DATE PREPARED: 7/19/2012	606.231

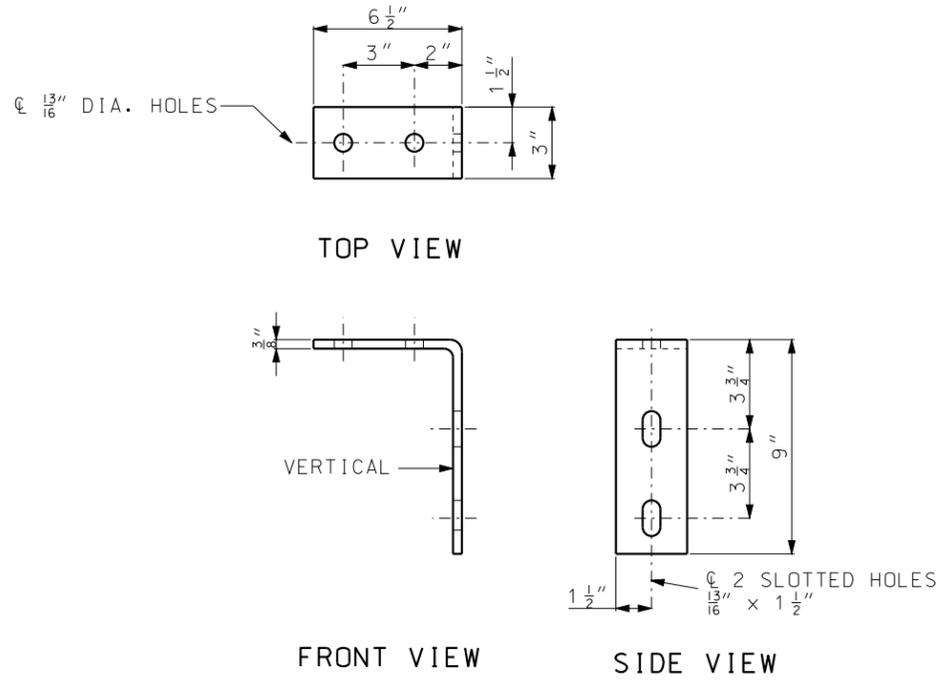
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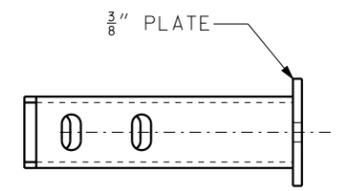
CAP RAIL ANGLE
 $\angle 3 \frac{1}{2}'' \times 3 \frac{1}{2}'' \times \frac{5}{16}''$



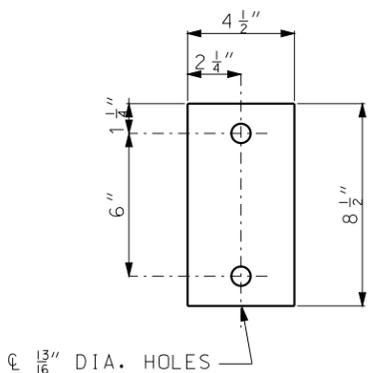
SPLICE PLATE



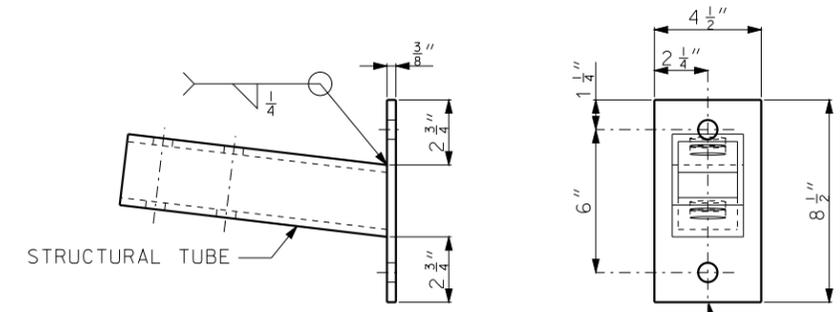
BENT PLATE CONNECTOR



TOP VIEW

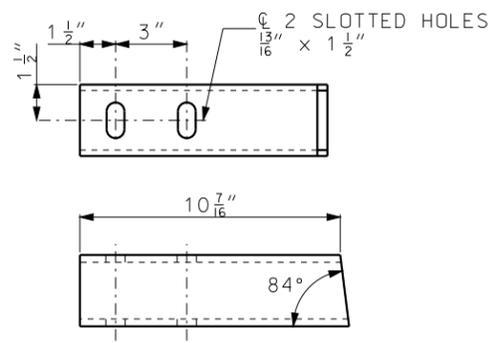


$\frac{3}{8}''$ PLATE
 $\varnothing \frac{13}{16}''$ DIA. HOLES



$\varnothing \frac{13}{16}''$ DIA. HOLES

TERMINATOR ASSEMBLY



STRUCTURAL TUBE
 TS 3" x 3" x $\frac{5}{16}''$

MoDOT MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
 105 WEST CAPITOL
 JEFFERSON CITY, MO 65102
 1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI
 KATHRYN PHILLIPS HARVEY
 NUMBER PE-23751
 PROFESSIONAL ENGINEER
 THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

BRIDGE ANCHOR SECTION
 (THREE BEAM RAIL ON BRIDGE)

DATE EFFECTIVE: 08/01/2012	606.231	SHEET NO. 5 OF 5
DATE PREPARED: 7/19/2012		

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