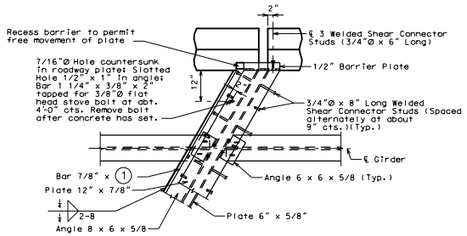
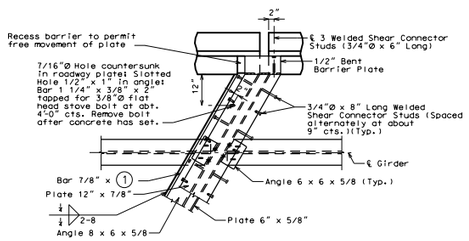


PART PLAN
Note: Concrete vent holes not shown for clarity.

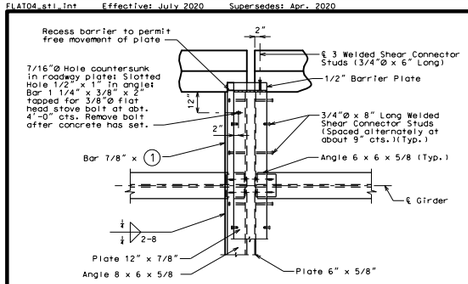
LA TYPE D BARRIER



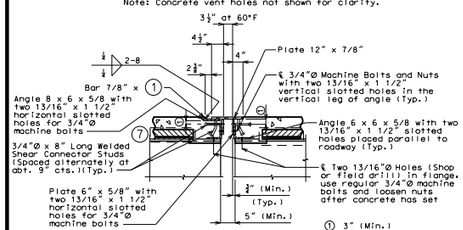
PART PLAN
Note: Concrete vent holes not shown for clarity.

① 3" (Min.)

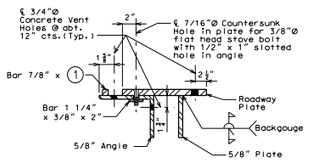
LA TYPE B BARRIER (SBC)



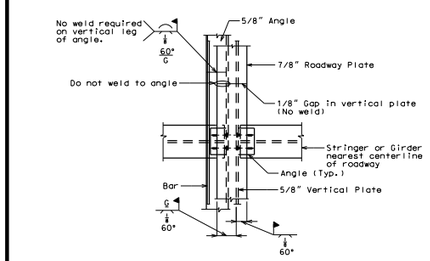
PART PLAN
Note: Concrete vent holes not shown for clarity.



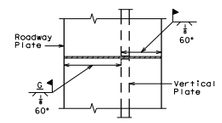
SECTION AT INTERMEDIATE BENT



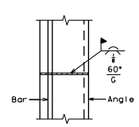
SECTION THRU DEVICE



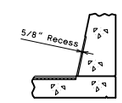
PERMISSIBLE FIELD SPLICE AT INT. BENT



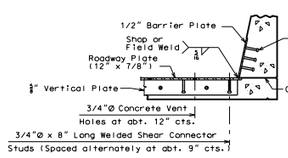
PART PLAN SHOWING ROADWAY PLATE AND VERTICAL PLATE



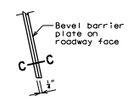
PART PLAN OF ANGLE AND BAR



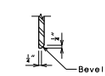
SECTION B-B



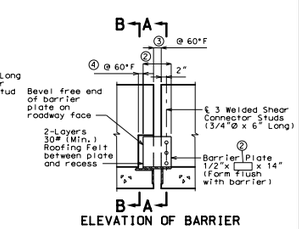
SECTION A-A



PART ELEVATION AT END OF BARRIER PLATE



SECTION C-C



ELEVATION OF BARRIER

GENERAL NOTES:

Expansion device shall be fabricated in one section, except for stage construction and when the length is over 50 feet. A complete joint penetration groove weld splice shall be required. Welds shall be ground flush to provide a smooth surface. The expansion device shall be fabricated and installed to the crown and grade of the roadway.

Plan dimensions are based on installation at 60°F. The expansion gap and other dimensions shall be increased or decreased ⅛" for each 10° fall or rise in temperature at installation. ⑤

Material for the expansion device shall be ASTM A709 Grade 36 structural steel. Anchors for the expansion device shall be in accordance with Sec 1037.

Structural steel for the expansion device and barrier plate shall be coated with a minimum of two coats of inorganic zinc primer to provide a total dry film thickness of 4 mils minimum, 6 mils maximum, or galvanized in accordance with ASTM A123. Anchors need not be protected from overspray.

Payment for furnishing, coating or galvanizing and installing the structural steel for the expansion device will be considered completely covered by the contract unit price for Expansion Device (Flat Plate) per linear foot.

Concrete shall be forced under and around flat plate, anchors and angles. Proper consolidation shall be achieved by localized internal vibration. Finishing of the concrete shall be achieved by hand finishing within one foot of the expansion device. The vertical and horizontal concrete vent holes shall be offset from each other. Do not alternate holes at the 12" spacing.

Longitudinal reinforcing steel shall be placed so that ends shall not be more than 11" from vertical plate and the vertical leg of the angle at the expansion device.

Complete joint penetration welds utilized in the fabrication of the expansion device shall be nondestructively tested by an approved method.

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

GATE PREPARED	
7/21/2020	
ROUTE	STATE
*	MO
DISTRICT	SHEET NO.
BR	*
COUNTY	
*	
JOB NO.	
*	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	
FLAT04	

DESCRIPTION	DATE

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

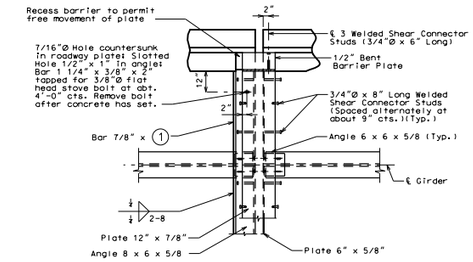
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

FLAT PLATE EXPANSION DEVICE AT INT. BENT NO.

Detailed
Checked

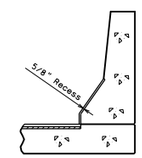
Note: This drawing is not to scale. Follow dimensions. Sheet No. of

FLAT04_sti_int.dgn 11:09:12 AM 7/21/2020

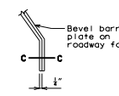


PART PLAN
Note: Concrete vent holes not shown for clarity.

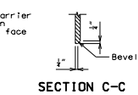
SQ TYPE B BARRIER (SBC)



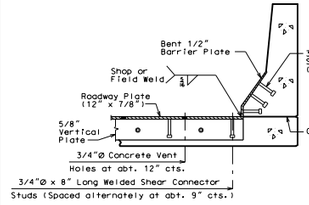
SECTION B-B



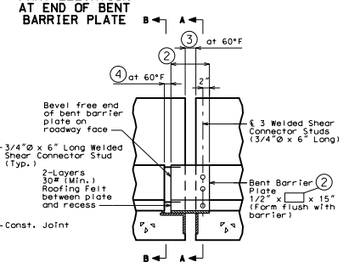
PART ELEVATION AT END OF BENT BARRIER PLATE



SECTION C-C

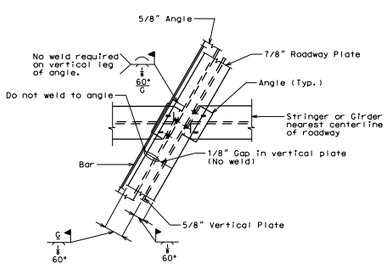


SECTION A-A

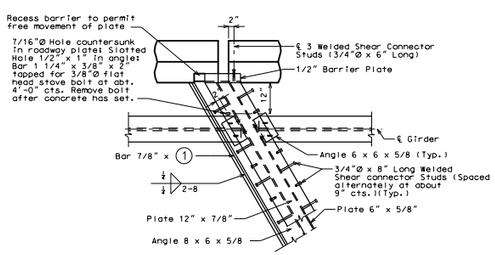


ELEVATION OF BARRIER

TYPE B BARRIER (SBC)(ALL)

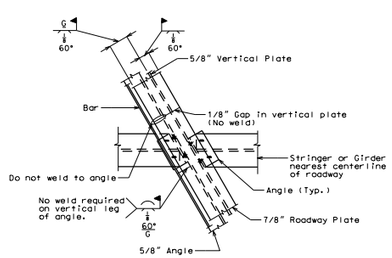


PERMISSIBLE FIELD SPLICE AT INT. BENT

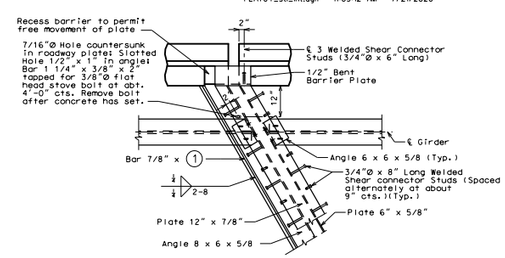


PART PLAN
Note: Concrete vent holes not shown for clarity.

RA TYPE D BARRIER



PERMISSIBLE FIELD SPLICE AT INT. BENT



PART PLAN
Note: Concrete vent holes not shown for clarity.

RA TYPE B BARRIER (SBC)

STANDARD DRAWING GUIDANCE (do not show on plans):

1. Bar height.
2. Plate length = 12"/cos(skew) [12" for 0° skew]
3. Barrier gap = $3\frac{1}{2}$"/cos(skew) [$3\frac{1}{2}$" for 0° skew]
4. Barrier recess gap = 2 3/8"/cos(skew) [$2\frac{3}{8}$" for 0° skew]. Assume recess ends at front edge of bar.
5. Installation gap adjustment for temperature: normal to joint.
6. Check and revise locations of slotted wells to clear girder end section reinforcement.
7. Delete panel for CIP slab.