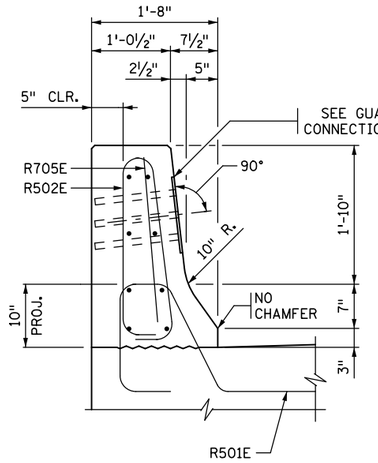
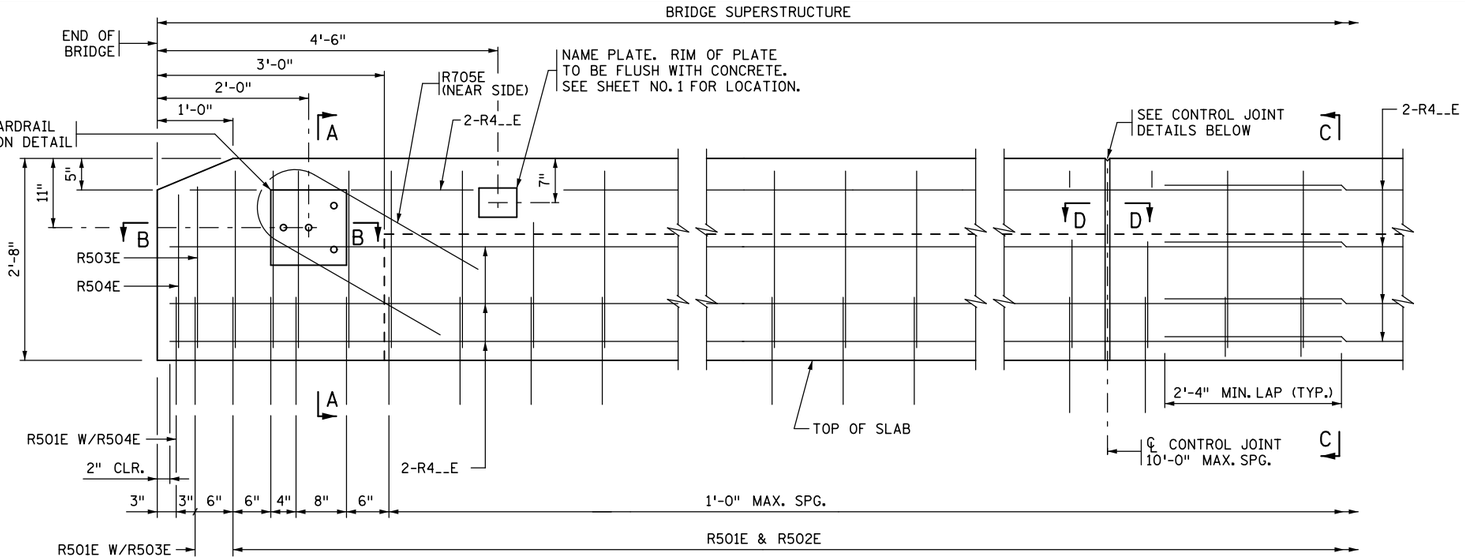


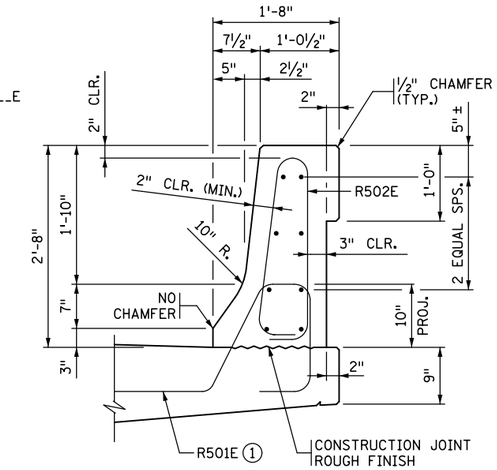
SECTION A-A



END OF BRIDGE

CONTROL JOINT

INSIDE ELEVATION OF BARRIER



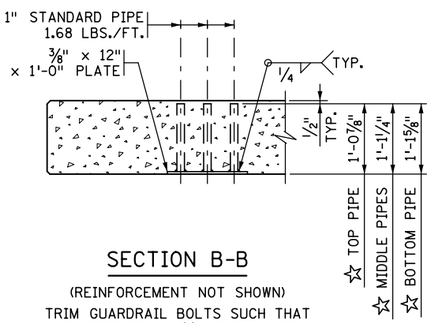
SECTION C-C

DESIGNER NOTE
(REMOVE PRIOR TO PLOTTING FINAL PLANS):
FOR BRIDGES WITH SUPERELEVATION EXCEEDING 2%, SHOW THE BARRIER FRONT FACE DIMENSIONS AS INDICATED ON THIS SHEET, AND ALSO CALCULATE AND SHOW THE BARRIER BACK FACE DIMENSIONS. ALSO VERIFY THAT BAR R501E HAS 10" MIN. PROJECTION WHEN CROSS SLOPE VARIES FROM NORMAL 0.02 FT/FT

BARRIER MEETS TEST LEVEL 4 REQUIREMENTS OF NCHRP REPORT 350

BILL OF REINFORCEMENT FOR BARRIER

BAR	NO.	LENGTH	SHAPE	LOCATION
R501E		5'-7"		BARRIER DOWEL
R502E		6'-2"		BARRIER VERTICAL
R503E		5'-8"		BARRIER VERTICAL
R504E		5'-6"		BARRIER VERTICAL
R705E		6'-6"		BARRIER VERTICAL
R4__E				BARRIER LONGIT.
R4__E				BARRIER LONGIT.
R4__E				BARRIER LONGIT.
R4__E				BARRIER LONGIT.
R4__E				BARRIER LONGIT.
R4__E				BARRIER LONGIT.

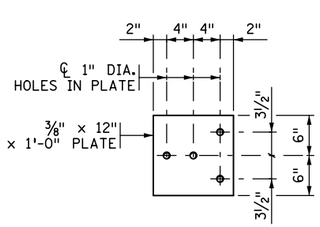


SECTION B-B

(REINFORCEMENT NOT SHOWN)

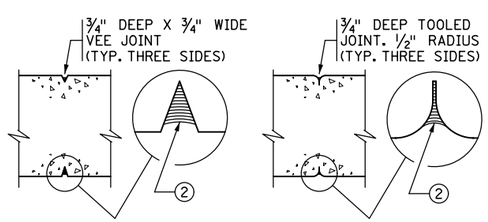
TRIM GUARDRAIL BOLTS SUCH THAT NO MORE THAN 1½" PROTRUDES FROM BACK FACE OF BARRIER.

☆ DIMENSIONS INCLUDE ⅜" PLATE



GUARDRAIL CONNECTION DETAIL

GALVANIZE AFTER FABRICATION PER SPEC. 3394
ESTIMATED WEIGHT = 23 LBS

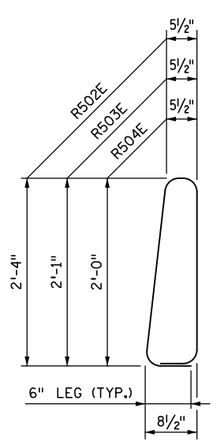


SECTION D-D
CONTRACTOR OPTION 1

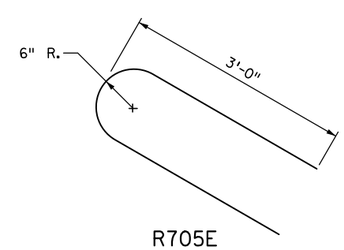
SECTION D-D
CONTRACTOR OPTION 2

CONTROL JOINT DETAILS

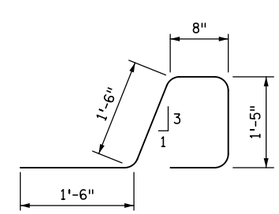
WHEN USING SLIP FORM METHOD TO PLACE THE CONCRETE, CUT JOINT 3 INCHES DEEP USING MARGIN TROWEL OR SIMILAR MEANS IMMEDIATELY AFTER CONCRETE PLACEMENT (TYP. THREE SIDES)



R502E,
R503E & R504E



R705E



R501E

GENERAL NOTES

MEASURE PAYMENT LENGTH BETWEEN THE OUTSIDE FACES OF THE BARRIER.

CONCRETE BARRIER = 464 LBS./FT. (0.115 CU. YDS./FT.)

FINISH ALL EDGES OF BARRIER WITH ½" CHAMFER, EXCEPT WHERE OTHERWISE NOTED.

SPACE CONTROL JOINTS AT 10 FT. MAXIMUM. SEE SUPERSTRUCTURE SHEET FOR JOINT SPACING.

GUARDRAIL CONNECTION TO BE STRUCTURAL STEEL, SPEC. 3306.

GUARDRAIL CONNECTION AND NAME PLATE TO BE CONSIDERED INCIDENTAL TO BARRIER.

BARRIER QUANTITIES ARE LISTED IN SUMMARY OF QUANTITIES FOR SUPERSTRUCTURE.

① PLACE BAR ON TOP OF BOTTOM REINFORCEMENT MAT.

② JOINT SEALANT PER MnDOT APPROVED/QUALIFIED PRODUCTS LIST - CRACK AND JOINT MATERIALS - SILICONE JOINT SEALERS.

REVISION:

APPROVED: JANUARY 13, 2015
Nancy Daubenberger
STATE BRIDGE ENGINEER

CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER _____ DATE
NAME: LIC. NO.

TITLE: CONCRETE BARRIER (TYPE F, TL-4)
INTEGRAL OR SEMI-INTEGRAL ABUTMENT WITH INTEGRAL END POST (WITHOUT CONCRETE WEARING COURSE) NO APPROACH PANEL

DES: DR: CHK: CHK:

SHEET NO. OF SHEETS

FIG. 5-397.115(C)

APPROVED:

BRIDGE NO.