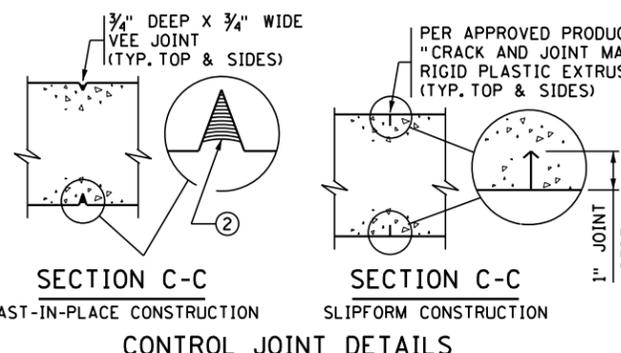
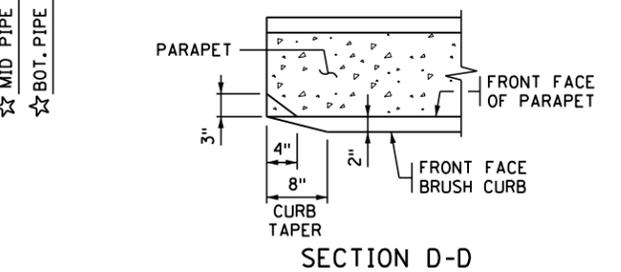
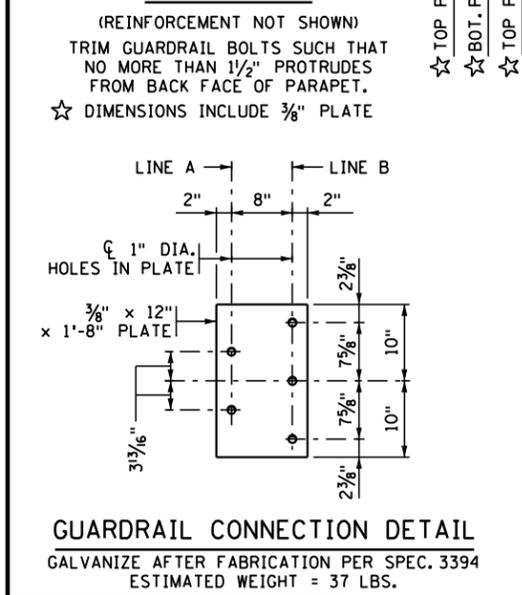


DESIGNER NOTE (REMOVE PRIOR TO PRINTING FINAL PLAN):

MINIMUM PARAPET LENGTH ON APPROACH PANEL IS 13'-4" WITH MINIMUM OF 18 R502E & R503E DOWELS WITH ACCOMPANYING APPROPRIATE PARAPET VERTICAL BARS, 12" MAX. SPACING. VERIFY APPROACH PARAPET LENGTH, NEED FOR A GUARDRAIL CONNECTION, WITH ROADWAY DESIGNER. REFER TO MEMO TO DESIGNERS *2020-01 FOR ADDITIONAL REQUIREMENTS REGARDING PARAPET PLACEMENT.

DESIGNER NOTE (REMOVE PRIOR TO PRINTING FINAL PLAN):

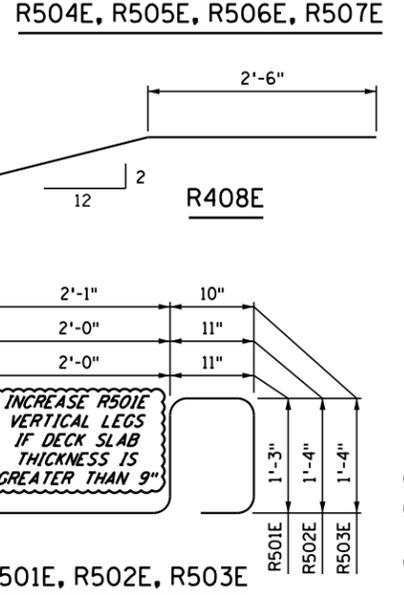
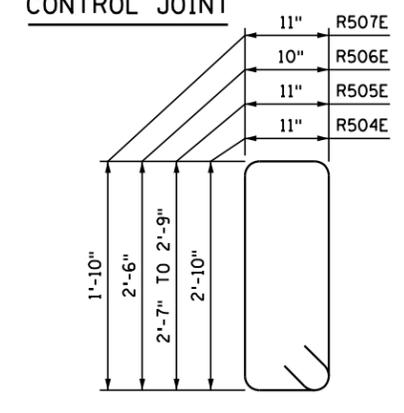
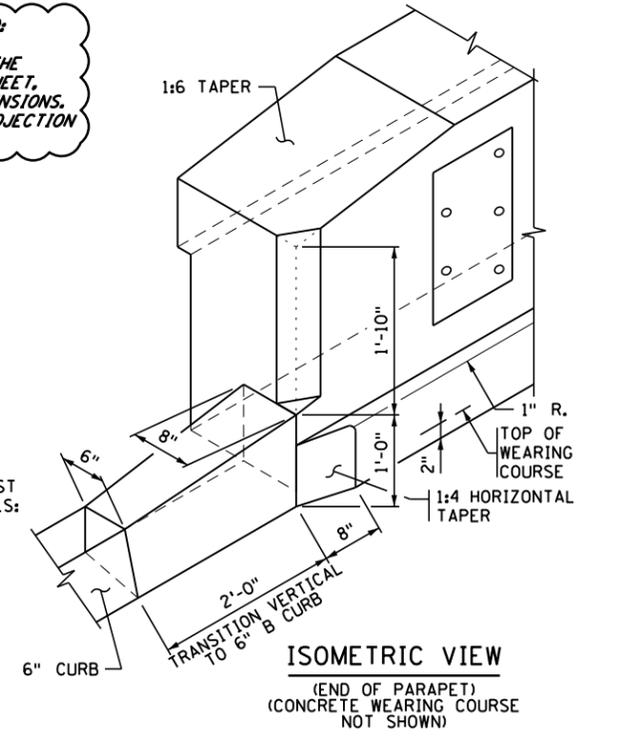
FOR BRIDGES WITH SUPERELEVATION EXCEEDING 2%, SHOW THE PARAPET FRONT FACE DIMENSIONS AS INDICATED ON THIS SHEET, AND ALSO CALCULATE AND SHOW THE PARAPET BACK FACE DIMENSIONS. ALSO VERIFY THAT BAR R501E, R502E & R503E HAS 10" MIN. PROJECTION WHEN CROSS SLOPE VARIES FROM NORMAL 0.02 FT/FT



INSIDE ELEVATION OF PARAPET

CONCRETE WEARING COURSE NOT SHOWN

PARAPET MEETS MASH TL-4 REQUIREMENTS ON BRIDGE DECK AND TL-3 ON APPROACH PANEL



BILL OF REINFORCEMENT FOR PARAPET				
BAR	NO.	LENGTH	SHAPE	LOCATION
R501E		5'-11"		PARAPET DOWEL
R502E		6'-1"		PARAPET DOWEL
R503E		6'-1"		PARAPET DOWEL
R504E		8'-5"		PARAPET VERTICAL
R505E	...SER. OF 3	7'-11" TO 8'-3"		PARAPET VERTICAL
R506E		7'-5"		PARAPET VERTICAL
R507E		6'-5"		PARAPET VERTICAL
R408E		4'-4"		PARAPET LONGIT.
R4_E				PARAPET LONGIT.
R4_E				PARAPET LONGIT.
R4_E				PARAPET LONGIT.

- GENERAL NOTES**
- MEASURE PAYMENT LENGTH BETWEEN THE OUTSIDE ENDS OF THE PARAPET.
- FOR SLIPFORM CONSTRUCTION, TIE 100% OF THE REINFORCEMENT BAR INTERSECTIONS IN THE PARAPET.
- CONCRETE PARAPET = 658 LBS./FT. (0.162 CU. YDS./FT.)
- FINISH ALL EDGES OF PARAPET WITH 1/2" CHAMFER, EXCEPT WHERE OTHERWISE NOTED.
- SPACE CONTROL JOINTS AT 10 FT. MAXIMUM. REFER TO SUPERSTRUCTURE SHEET FOR SPECIFIC SPACING INFORMATION.
- GUARDRAIL CONNECTION TO BE STRUCTURAL STEEL IN ACCORDANCE WITH SPEC. 3306.
- GUARDRAIL CONNECTION AND NAMEPLATE TO BE CONSIDERED INCIDENTAL.
- PARAPET QUANTITIES ARE LISTED IN SUMMARY OF QUANTITIES FOR SUPERSTRUCTURE.
- PLACE BAR ON TOP OF BOTTOM REINFORCEMENT MAT IN DECK.
 - JOINT SEALANT PER MNDOT APPROVED/QUALIFIED PRODUCTS LIST - CRACK AND JOINT MATERIALS - SILICONE JOINT SEALERS.
 - REMOVE CONCRETE FROM PIPE ENDS AFTER SLIPFORMING OR FORM REMOVAL.
 - MATCH GUTTERLINE ELEVATION.

REVISED:

APPROVED: APRIL 09, 2020

Kevin Westrom
STATE BRIDGE ENGINEER

FOR SLIPFORM CONSTRUCTION: IMMEDIATELY AFTER CONCRETE IS PLACED AND WHILE IT IS STILL WET, CREATE A ONE INCH STRAIGHT GROOVE USING A TROWEL. INSERT RIGID PLASTIC EXTRUSION INTO GROOVE TO A DEPTH 1/8" BELOW THE SURFACE; FINISH OVER GROOVE COMPLETELY HIDING THE EXTRUSION.

CERTIFIED BY _____ DATE _____

NAME: _____ LIC. NO. _____

TITLE: CONCRETE PARAPET (TYPE P-4, TL-4) PARAPET ABUTMENT (WITH 2" CONCRETE WEARING COURSE)

DES: _____ DR: _____

CHK: _____ CHK: _____

APPROVED: _____

SHEET NO. OF SHEETS

BRIDGE NO. _____

FIG. 5-397.173(D)