

**DESIGNER NOTES**  
 REMOVE PRIOR TO PLOTTING FINAL PLAN.  
 VERIFY THAT UTILITIES OR CONDUITS PLACED WITHIN THE PARAPET DO NOT INTERFERE WITH ANCHORAGE PLACEMENT.  
 OMIT GUARDRAIL CONNECTION IF THE PARAPET IS PROTECTED BY A TRAFFIC BARRIER THAT INCLUDES THE GUARDRAIL ATTACHMENT.  
 X-OUT ALL DETAILS NOT BEING USED.

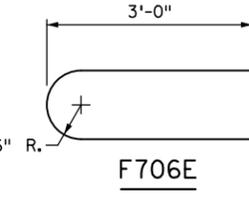
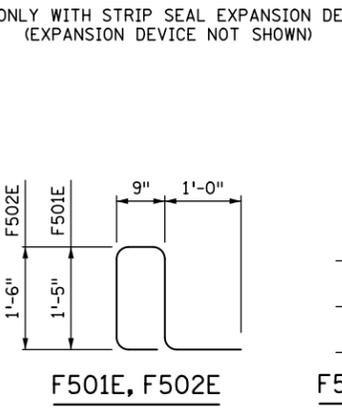
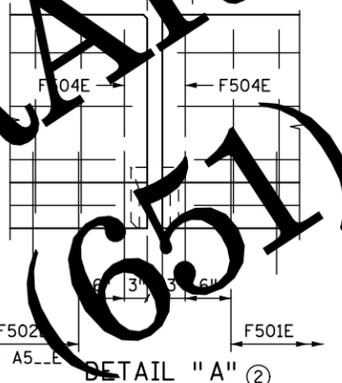
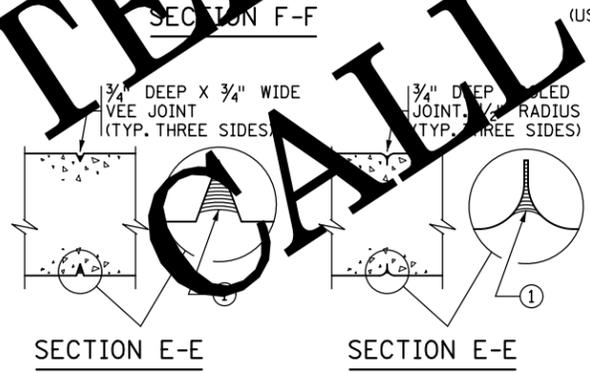
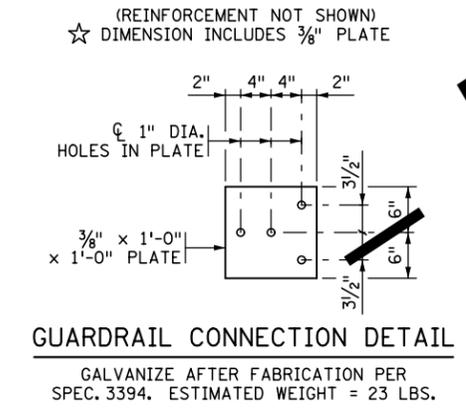
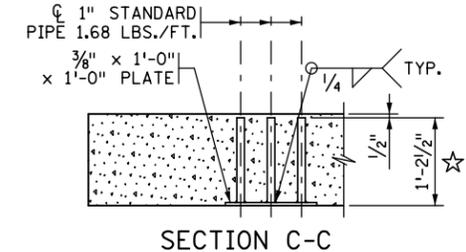
PARAPET MEETS TEST LEVEL 2 REQUIREMENTS OF NCHRP REPORT 350

**DESIGNER NOTE:**  
 CHOOSE ONE JOINT OPENING AND DELETE OTHER.

**BILL OF REINFORCEMENT FOR PARAPET**

| BAR   | NO.   | LENGTH | SHAPE | LOCATION         |
|-------|-------|--------|-------|------------------|
| F501E | 5'-2" |        |       | PARAPET VERTICAL |
| F502E | 5'-0" |        |       | PARAPET VERTICAL |
| F503E | 6'-5" |        |       | PARAPET VERTICAL |
| F504E | 4'-9" |        |       | PARAPET VERTICAL |
| F505E | 5'-1" |        |       | PARAPET VERTICAL |
| F706E | 6'-7" |        |       | PARAPET VERTICAL |
| F501E |       |        |       | PARAPET LONGIT.  |
| F502E |       |        |       | PARAPET LONGIT.  |
| F503E |       |        |       | PARAPET LONGIT.  |
| F504E |       |        |       | PARAPET LONGIT.  |
| F505E |       |        |       | PARAPET LONGIT.  |

\* F504E WHEN STRIP SEAL EXPANSION DEVICE IS USED, WITHOUT RAISED SIDEWALK. (SEE DETAIL "A")



**GENERAL NOTES**

- CONTINUOUSLY GROUND ALL METAL RAILINGS; SEE THE SPECIAL PROVISIONS. REFER TO THE ELECTRICAL PLANS AND ELECTRICAL SPECIAL PROVISIONS FOR DETAILS REGARDING BONDING MULTIPLE ELECTRICAL GROUNDING SYSTEMS.
- PAYMENT LENGTH SHALL BE MEASURED BETWEEN THE OUTSIDE FACES OF THE CONCRETE PARAPET.
- CONCRETE PARAPET = 416 LBS./FT. (0.103 CU. YDS./FT.)
- CONCRETE PARAPET W/ADJACENT SIDEWALK (BASED ON A 10" SIDEWALK HEIGHT) = 573 LBS./FT. (0.141 CU. YDS./FT.)
- FINISH ALL EDGES OF PARAPET WITH 1/2" CHAMFER, EXCEPT WHERE OTHERWISE NOTED.
- MAXIMUM SPACING OF CONTROL JOINTS ON SUPERSTRUCTURE, APPROACH AND WINGWALL SHALL BE 10 FT. SEE SUPERSTRUCTURE SHEET FOR JOINT SPACING.
- GUARDRAIL CONNECTION TO BE STRUCTURAL STEEL, SPEC. 3306. GUARDRAIL CONNECTION AND NAME PLATE TO BE CONSIDERED INCIDENTAL TO "TYPE P-1 PARAPET CONCRETE (3Y46 OR 3Y46A)".
- SEE STANDARD FIGURE 5-397.... FOR LIGHT BLISTER DETAILS.
- PARAPET QUANTITIES ARE LISTED IN SUMMARY OF QUANTITIES FOR SUPERSTRUCTURE.
- ① JOINT SEALANT PER MnDOT APPROVED/QUALIFIED PRODUCTS LIST - CRACK AND JOINT MATERIALS - SILICONE JOINT SEALERS.
- ② REFER TO STANDARD FIGURE 5-397.632 FOR COVER PLATE DETAILS.

REVISION:  
 APPROVED: NOVEMBER 6, 2013  
 Nancy Suberberger  
 STATE BRIDGE ENGINEER

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)

CERTIFIED BY \_\_\_\_\_  
 LICENSED PROFESSIONAL ENGINEER DATE \_\_\_\_\_  
 NAME: \_\_\_\_\_ LIC. NO. \_\_\_\_\_

TITLE: **CONCRETE PARAPET (TYPE P-1)**  
 WITH INTEGRAL END POST  
 (WITHOUT CONCRETE WEARING COURSE)

DES: \_\_\_\_\_ DR: \_\_\_\_\_  
 CHK: \_\_\_\_\_ CHK: \_\_\_\_\_  
 APPROVED: \_\_\_\_\_  
 SHEET NO. OF SHEETS \_\_\_\_\_  
 BRIDGE NO. \_\_\_\_\_

FIG. 5-397.166