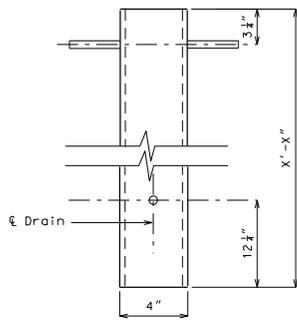
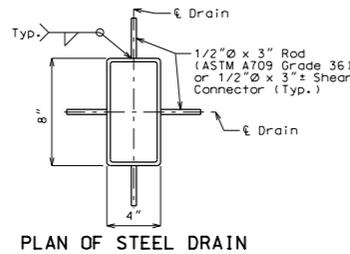


Standard Drawing Guidance (do not show on plans):

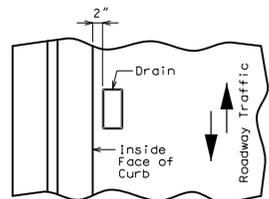
- ① Replace example Plan of Slab Showing Slab Drain Locations with actual plan.
- ② Details shown inside the sheet border are for drains transverse to roadway. Use the below details for drains parallel to roadway.



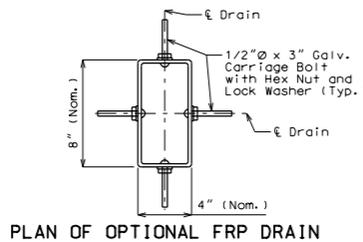
ELEVATION OF DRAIN



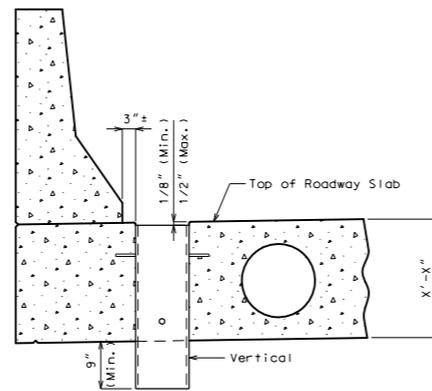
PLAN OF STEEL DRAIN



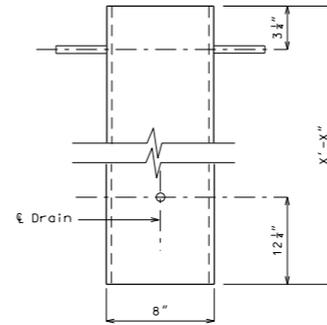
PART PLAN OF SLAB AT DRAIN



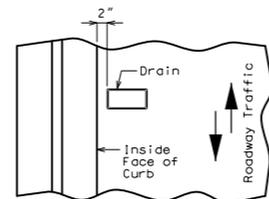
PLAN OF OPTIONAL FRP DRAIN



PART SECTION NEAR DRAIN

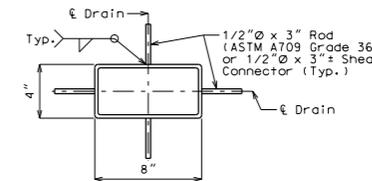


ELEVATION OF DRAIN

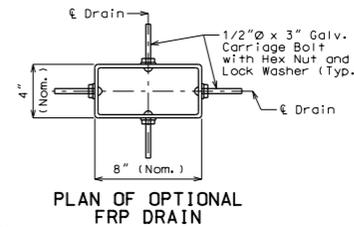


PART PLAN OF SLAB AT DRAIN

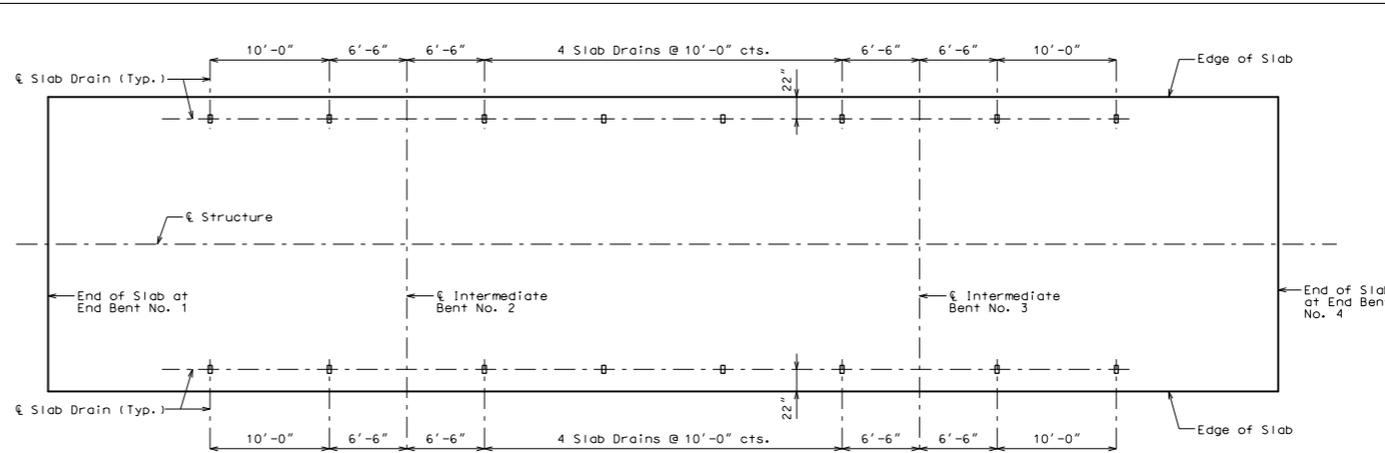
SLAB DRAIN DETAILS



PLAN OF STEEL DRAIN



PLAN OF OPTIONAL FRP DRAIN



PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS

**General Notes:**

Contractor shall have the option to construct either steel or FRP slab drains. All drains shall be of same type.

Locate drains in slab by dimensions shown in Part Section Near Drain.

Reinforcing steel shall be shifted to clear drains.

Shop drawings will not be required for the slab drains.

**Notes for Steel Drain:**

Slab drains may be fabricated of either 1/4" welded sheets of ASTM A709 Grade 36 steel or from 1/4" structural steel tubing ASTM A500 or A501.

Outside dimensions of drains are 8" x 4".

The drains shall be galvanized in accordance with ASTM A123.

**Notes for FRP Drain:**

Drains shall be machine filament-wound thermosetting resin tubing meeting the requirements of ASTM D2396 with the following exceptions:

Shape of drains shall be rectangular with outside nominal dimensions of 8" x 4".

Minimum reinforced wall thickness shall be 1/4 inch.

The resin used shall be ultraviolet (UV) resistant and/or have UV inhibitors mixed throughout. Drains may have an exterior coating for additional UV resistance.

The color of the slab drain shall be Gray (Federal Standard #26373). The color shall be uniform throughout the resin and any coating used.

The combination of materials used in the manufacture of the drains shall be tested for UV resistance in accordance with ASTM D4329 Cycle A. The representative material shall withstand at least 500 hours of testing with only minor discoloration and without any physical deterioration. The contractor shall furnish the results of the required ultraviolet testing prior to acceptance of the slab drains.

At the contractor's option, drains may be field cut. The method of cutting FRP slab drain shall be as recommended by the manufacturer to ensure a smooth, chip free cut.

No additional payment will be made for this substitution.

DATE PREPARED	1/12/2016
ROUTE	MO
DISTRICT	BR
COUNTY	*
JOB NO.	*
CONTRACT ID.	*
PROJECT NO.	*
BRIDGE NO.	DRAIN07

STATE	MO
COUNTY	*
JOB NO.	*
CONTRACT ID.	*
PROJECT NO.	*
BRIDGE NO.	DRAIN07

DESCRIPTION	DATE

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION



105 WEST CAPITOL JEFFERSON, MISSOURI 64601  
1-888-ASK-MODOT (1-888-275-6636)

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

Detailed Checked

Note: This drawing is not to scale. Follow dimensions.

Sheet No. of