STATE OF MINNESOTA  
DEPARTMENT OF TRANSPORTATION  

DETAIL NO.  
BRIDGE OFFSET FLOOR DRAIN  
(STRUCTURAL TUBE)  

STATE BRIDGE ENGINEER  

1" BELOW BOTTOM OF BEAM EXCEPT ON RURAL STREAM CROSSINGS WHERE DRAIN SHOULD BE EVEN TO BOTTOM OF BEAM.

ATTACH TO BEAM WITH 3/4" DIA. BOLT, LOCK WASHER AND NUT AS REQUIRED. SEE SPECIAL PROVISIONS FOR APPROVED ANCHORAGE REQUIRED FOR CONCRETE BEAMS. ANCHORAGE TO MISS DRAPED STRANDS.

NOTES:

MATERIAL TO BE STRUCTURAL STEEL PER Mn/DOT SPEC 3306.

GALVANIZE MATERIAL PER Mn/DOT SPEC 3394 AFTER FABRICATION.

PAYMENT FOR FLOOR DRAIN, TYPE , SHALL INCLUDE ALL MATERIAL SHOWN ON THIS DETAIL.

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ATTACH TO BEAM WITH 3/4" DIA. BOLT, LOCK WASHER AND NUT AS REQUIRED. SEE SPECIAL PROVISIONS FOR APPROVED ANCHORAGE REQUIRED FOR CONCRETE BEAMS. ANCHORAGE TO MISS DRAPED STRANDS.

NOTE:  
1/4" TYP.

1"x1/2" BARS (TYP.)

4" CLEAR (MAX.) OPENING BETWEEN BARS (TYP.)

1/4" x 3" BAR

FABRICATE FROM 1/4" PLATE OR STRUCTURAL TUBING

1/4" TYP.

1" x 1/2" BRACE FOR BEAMS 4'-0" AND OVER

3/4" x 3/4" x 3" BAR

FABRICATE FROM 1/4" PLATE OR STRUCTURAL TUBING

1/4" TYP.

1/4" x 3" BAR

FABRICATE FROM 1/4" PLATE OR STRUCTURAL TUBING

1/4" TYP.

1" x 1/2" BARS (TYP.)

4" CLEAR (MAX.) OPENING BETWEEN BARS (TYP.)

1/4" TYP.

1/4" TYP.

STATE BRIDGE ENGINEER  

APPROVED: NOVEMBER 22, 2002  

PLAN

SECTION A-A

ELEVATION

FLOOR DRAIN PLACEMENT DIAGRAM

REVISION

DETAIL NO.

STATE OF MINNESOTA  
DEPARTMENT OF TRANSPORTATION  

BRIDGE OFFSET FLOOR DRAIN  
(STRUCTURAL TUBE)  

STATE BRIDGE ENGINEER  

APPROVED: NOVEMBER 22, 2002  

PLAN

SECTION A-A

ELEVATION

FLOOR DRAIN PLACEMENT DIAGRAM