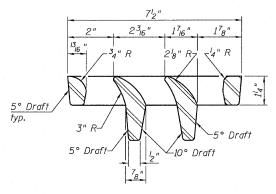
# 1'-2" **♣** Drill and tap scupper for 4 $^{l_2}$ " $\phi$ stainless steel hexagon head bolts with lock washers $B \blacktriangleleft$ Drill and tap $\frac{1}{2}$ "-13x $\frac{3}{4}$ " DP. for 2" \$ Anchor Studs PLAN 4 locations 1'-5'8" 1'-414" 1'-4" 1'-2" 1'-0" 6" 75" 95<sub>8"</sub> SECTION A-A See sheet 13 of 38 for scupper location relative to parapet.

#### STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

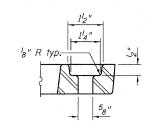


VANE GRATE DETAIL

34"

7/2"

SECTION B-B



BOLT HOLE DETAIL

Drill and tap  $\frac{l_2}{2}$  - 13x $\frac{l_2}{2}$  DP, for  $\frac{l_2}{2}$  \$\phi\$ bolts. (4 locations)

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

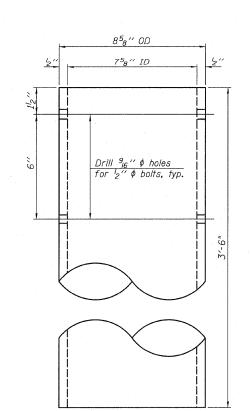
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

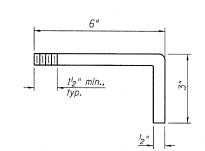
The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scuppers, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.







#### ANCHOR STUD DETAIL

## BILL OF MATERIAL

|                          | Unit | Quantity |
|--------------------------|------|----------|
| Drainage Scuppers, DS-11 | Each | 4        |
|                          |      |          |

### DRAINAGE SCUPPERS, DS-11 STRUCTURE NO. 026-0105

TOTAL SHEET SHEETS NO. F.A.P. RTE. SECTION COUNTY SHEET NO. 17 752 (U-2BR1)B-1 FAYETTE 71 38 SHEETS CONTRACT NO. 74235 FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT



Eastport Business Center 1 100 Lanter Court, Suite 1 Collinsville, Illinois 62234 618-345-2200 Design Firm License No. 184.001115

DESIGNED -CHECKED -DRAWN CHECKED -

10-1-08

DS-11