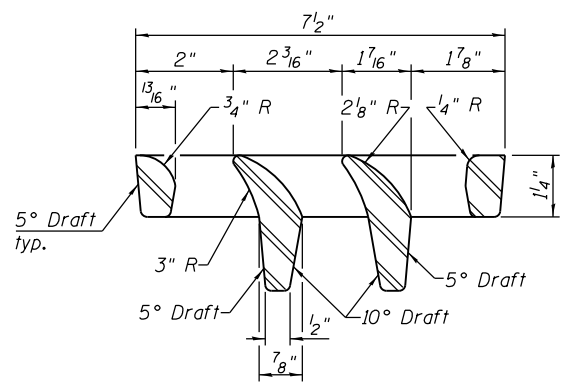


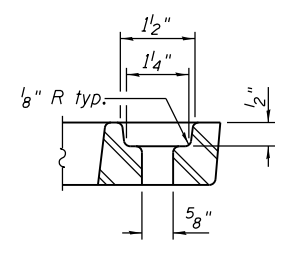
Drill and tap scupper for 4 1/2" φ stainless steel hexagon head bolts with lock washers

Drill and tap 1/2"-13x3/4" DP. for 1/2" φ Anchor Studs 4 locations

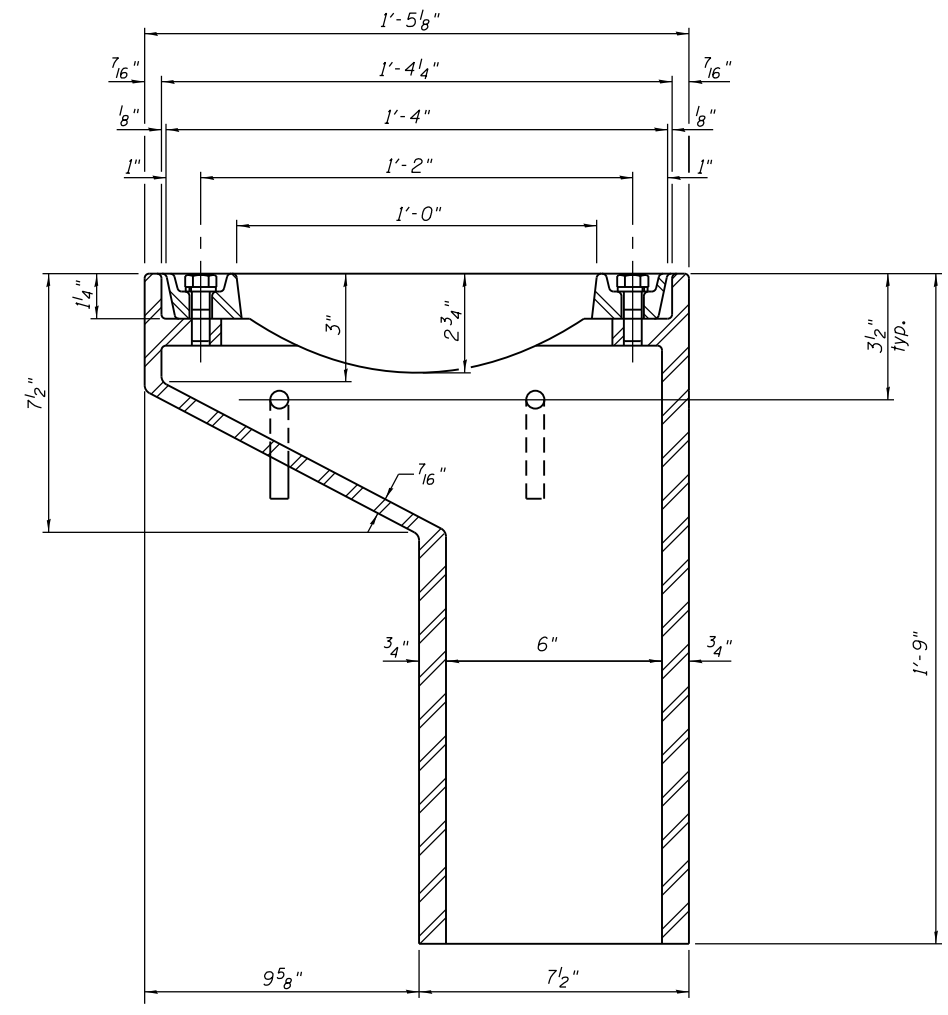
PLAN



VANE GRATE DETAIL

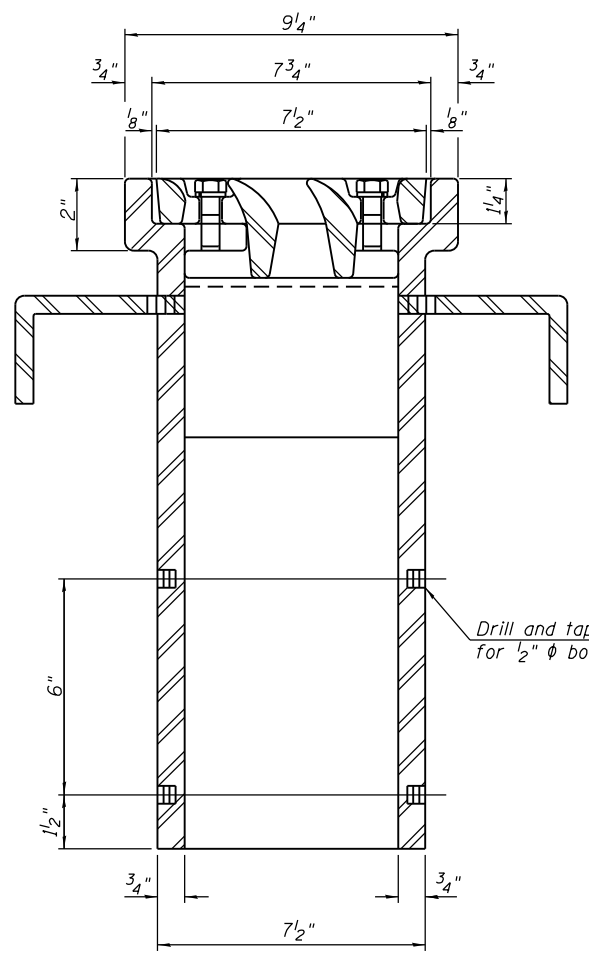


BOLT HOLE DETAIL



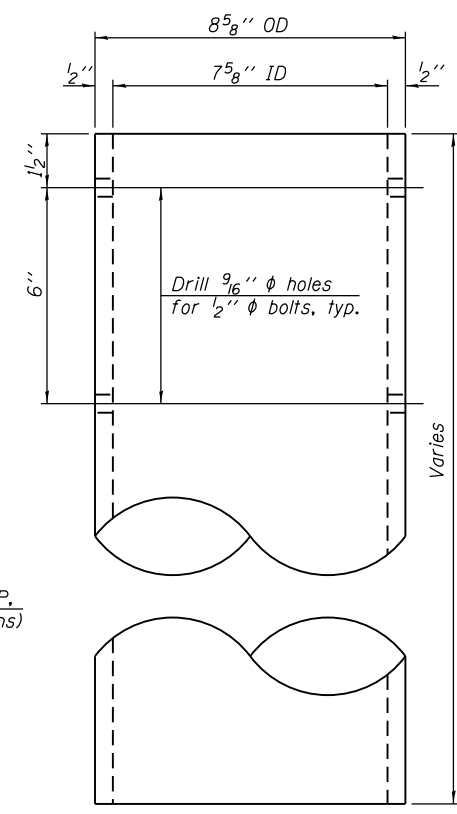
SECTION A-A

See sheet S-1 through S-3 for scupper location.

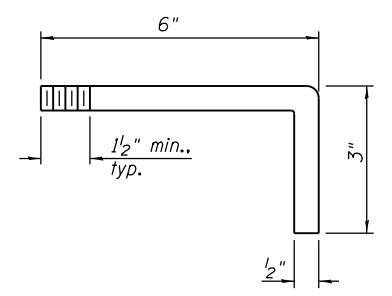


SECTION B-B

Drill and tap 1/2"-13x1/2" DP. for 1/2" φ bolts. (4 locations)



DOWNSPOUT



ANCHOR STUD DETAIL

Notes:
 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 Scupper, 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.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	20

0161705-60W28-5072-Drainage.dgn

DS-11

7-1-10



USER NAME = floresg	DESIGNED - ATB	REVISED
PLOT SCALE = N.T.S.	CHECKED - ATB	REVISED
PLOT DATE = 5/7/2014	DRAWN - MRK	REVISED
	CHECKED - ATB	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER DETAILS
STRUCTURE NO. 016-1705

SHEET NO. S-72 OF S-165 SHEETS

F.A.I. RTE. 90/94/290	SECTION 2013-010R	COUNTY COOK	TOTAL SHEETS 747	SHEET NO. 388
CONTRACT NO. 60W28			ILLINOIS FED. AID PROJECT	