

**END SECTION  
GRATING DETAILS  
US 20 /IL RTE 84  
F.A.P. RTE 301 SECTION 29T-2  
JO DAVIESS COUNTY  
STA. 876 + 47**

**GENERAL NOTES**

Length and number of steel pipes shall be determined by the Contractor except as shown. All steel pipe shall be standard weight (Sch. 40) unless otherwise noted.

All components of the Steel Pipe Grate System shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable.

Fabrication of the Steel Pipe Grate System shall conform to the requirements in Section 505 of the Standard Specifications unless noted otherwise.

Structural steel shapes and plates shall conform to the requirements of Article 1006.04 of the Standard Specifications. Steel pipes shall conform to the requirements of ASTM A 53 (Type E or S), Grade B.

Anchor rods shall conform to the requirements of ASTM F1554, Grade 105. Anchor rods shall be drilled and epoxy grouted according to the requirements of Section 584 of the Standard Specifications. The chemical adhesive system shall be capable of achieving a minimum proof load of 5000 pounds and an ultimate shear capacity of 8000 pounds per anchor.

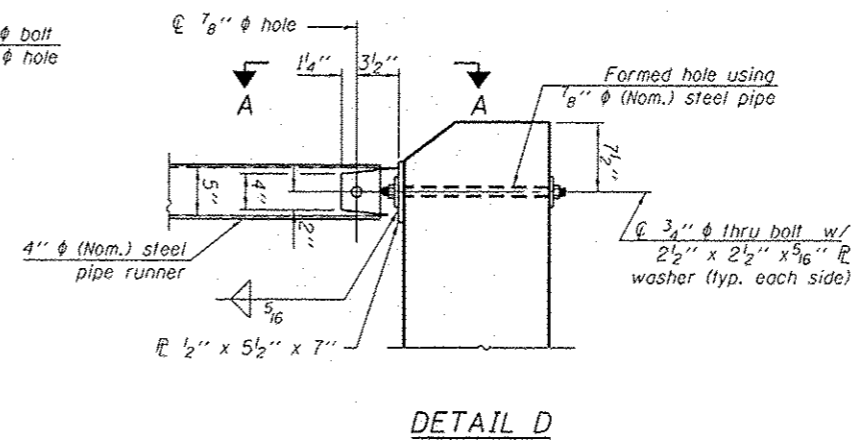
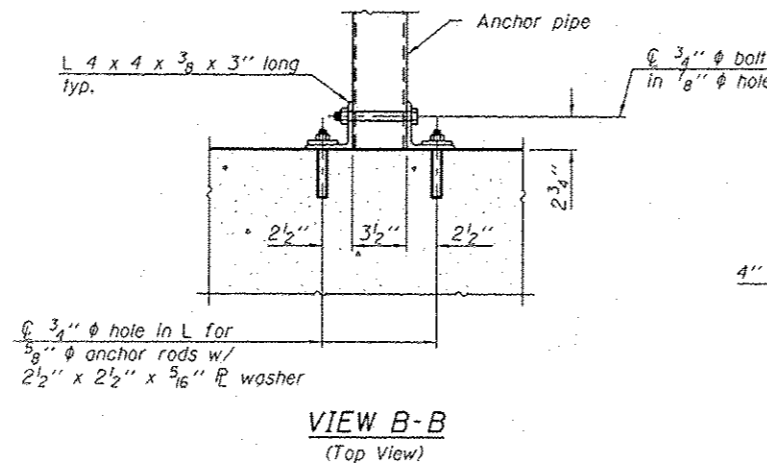
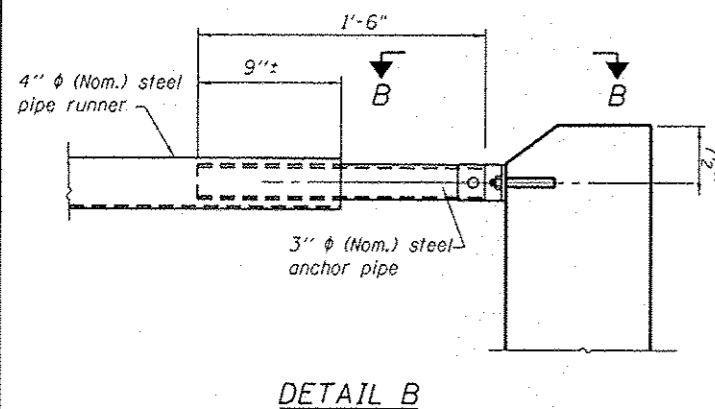
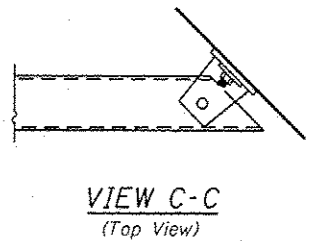
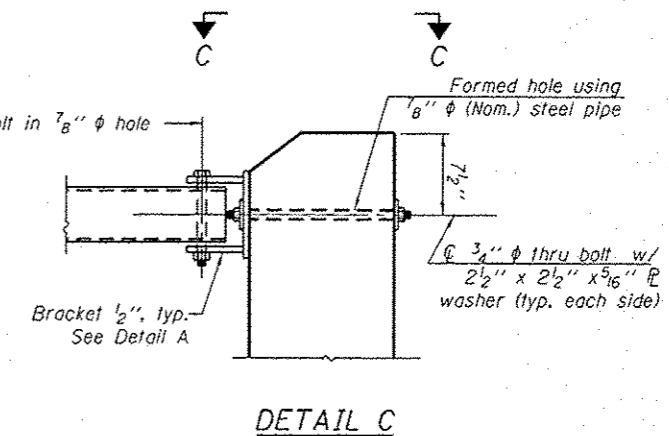
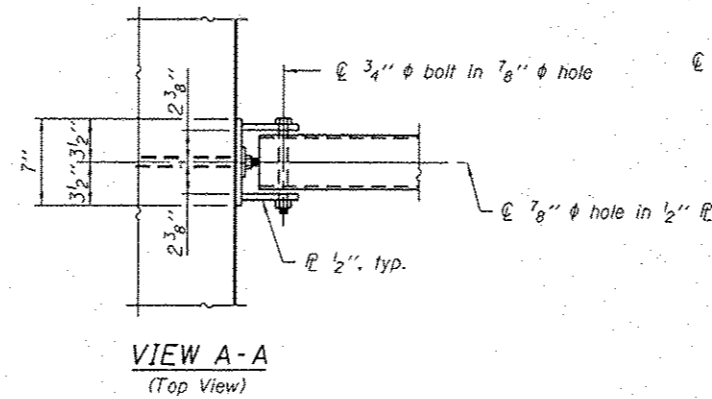
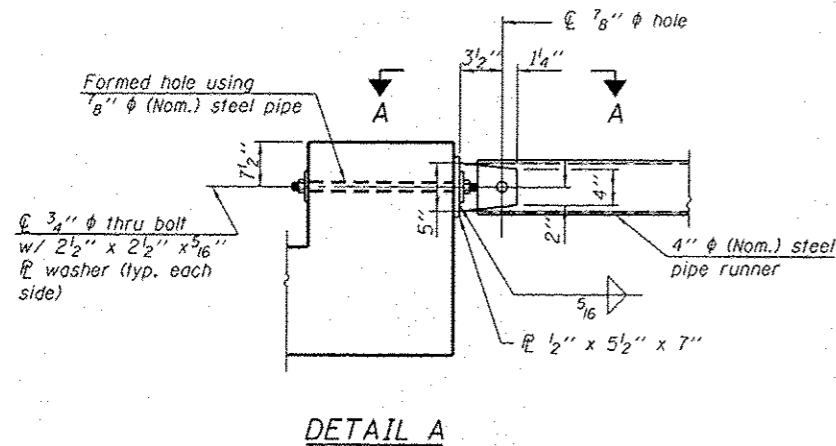
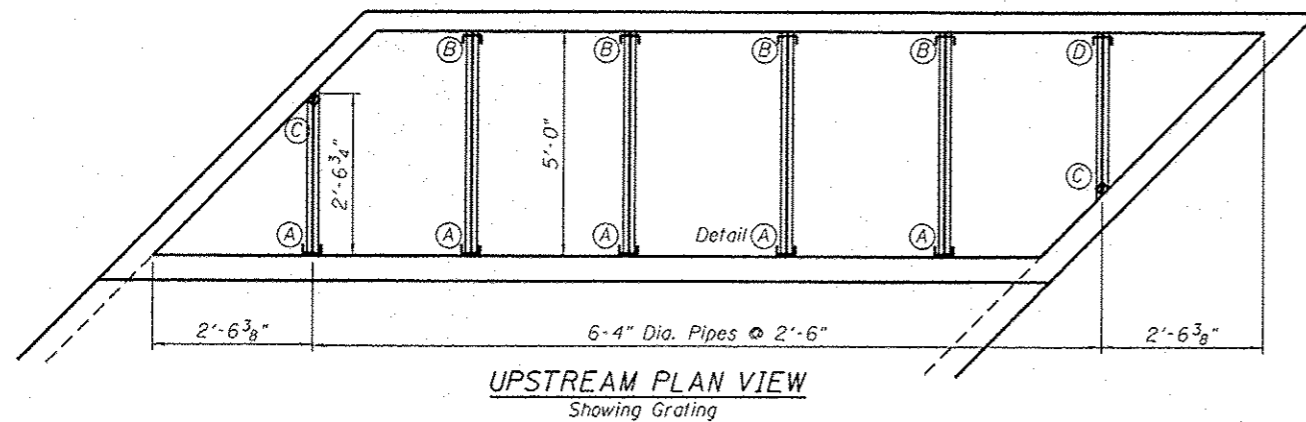
Bolts and thru bolts shall conform to the requirements of Article 1006.08 of the Standard Specifications except threaded rods conforming to the requirements of ASTM F1554, Grade 105 may be used for the thru bolts.

The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be  $1\frac{1}{2}$ " unless noted otherwise.

Bolts and anchor rods shall be snug tightened by a few impacts of an impact wrench or the full force of a worker using an ordinary spud wrench.

All cost associated with fabricating, furnishing, and installing the Steel Pipe Grate System shall be included in the contract unit price per foot for **Transversible Pipe Grate (SPECIAL)**.

**TRAVERSABLE**



**BILL OF MATERIAL**

Item	Unit	Quantity
Transversible Pipe Grate	Foot	25

Transversible (SPECIAL)

2-16-11



USER NAME = Jamie Shaw	DESIGNED SB	REVISED -
WES JOB # = 2120114	DRAWN BEH	REVISED -
PLOT SCALE = 100.0000 / in.	CHECKED DB	REVISED -
PLOT DATE = 12/7/2012	DATE 12/07/2012	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**END SECTION GRATING DETAILS  
STRUCTURE NO. 043-113, STA. 876 + 47**

SHEET 6 OF 7 SHEETS STA. 876+47

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
301	29T-2	JO DAVIESS	52	26
			CONTRACT NO. 64H17	
ILLINOIS FED. AID PROJECT				