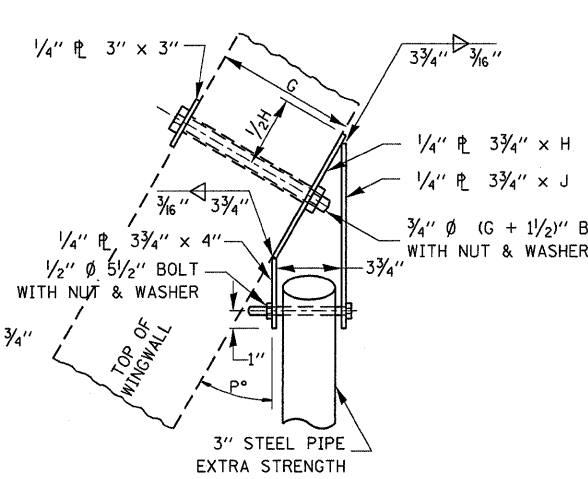
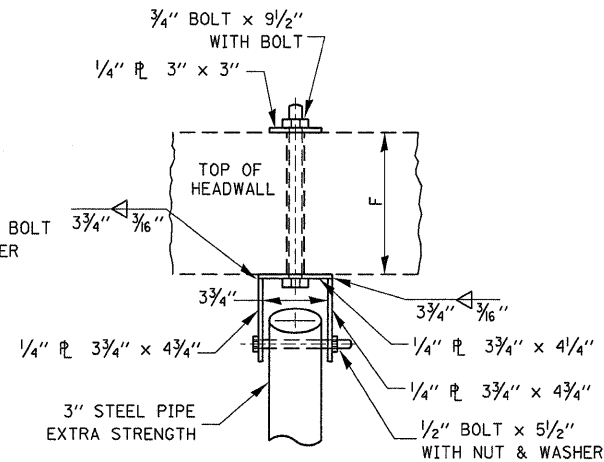


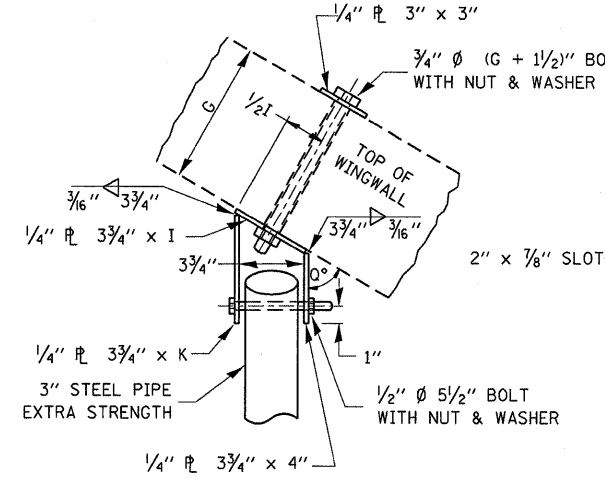
PLAN
END BRACKET ASSEMBLY - LEFT



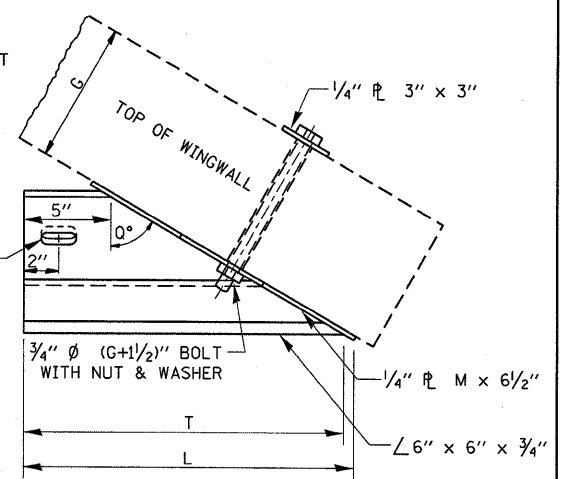
PLAN
WINGWALL BRACKET ASSEMBLY - LEFT



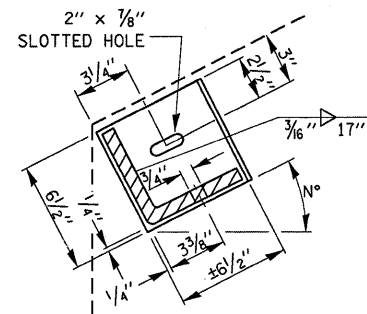
PLAN
HEADWALL BRACKET ASSEMBLY



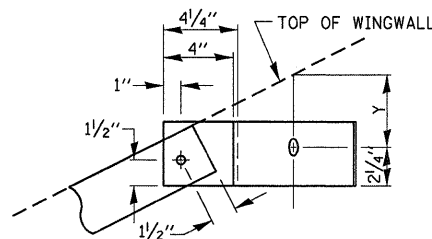
PLAN
WINGWALL BRACKET ASSEMBLY - RIGHT



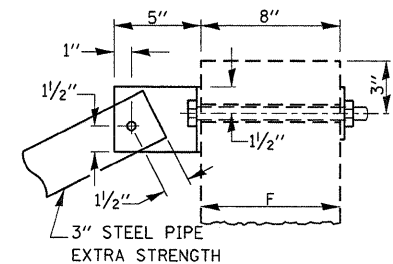
PLAN
END BRACKET ASSEMBLY - RIGHT



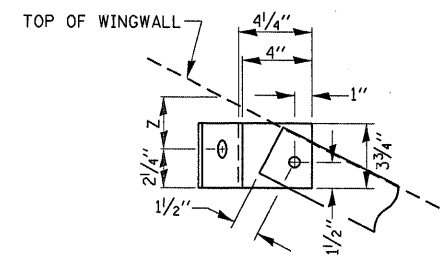
SECTION THRU
DETAIL A



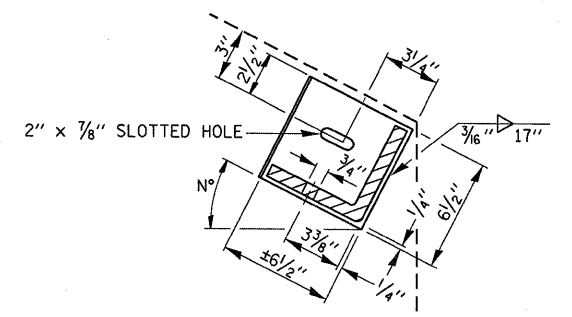
SECTION THRU
DETAIL B



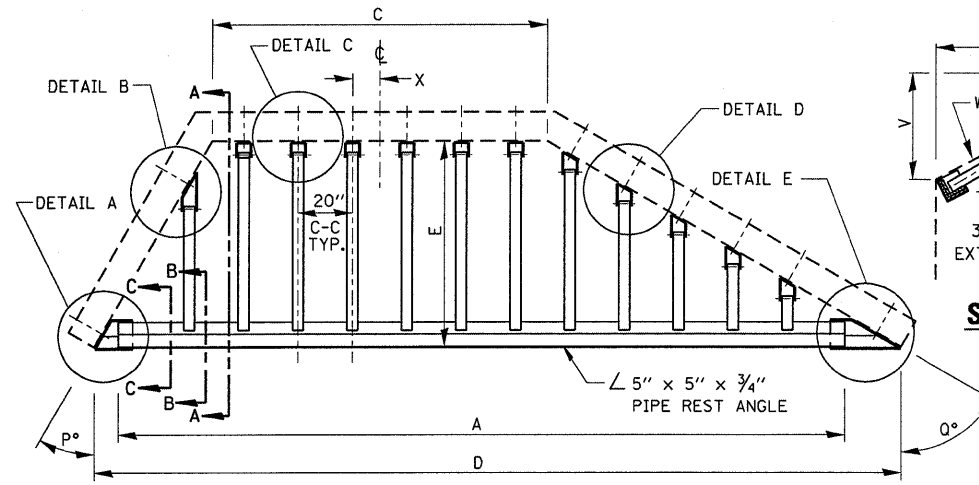
SECTION THRU
DETAIL C



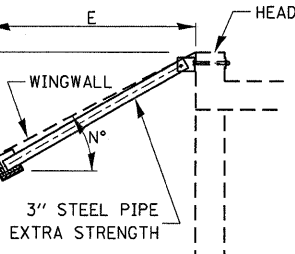
SECTION THRU
DETAIL D



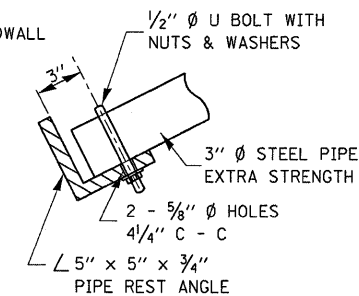
SECTION THRU
DETAIL E



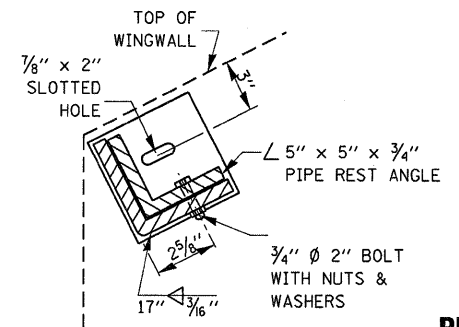
PLAN VIEW



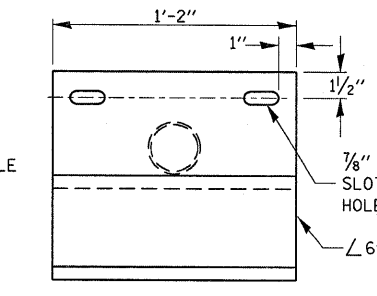
SECTION A-A



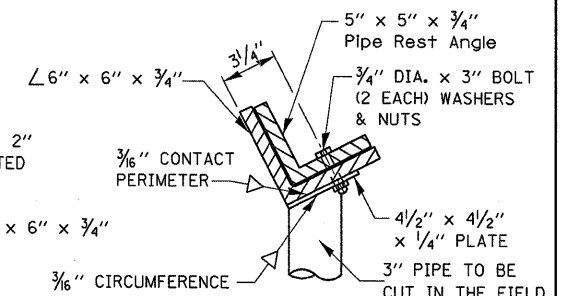
SECTION B-B



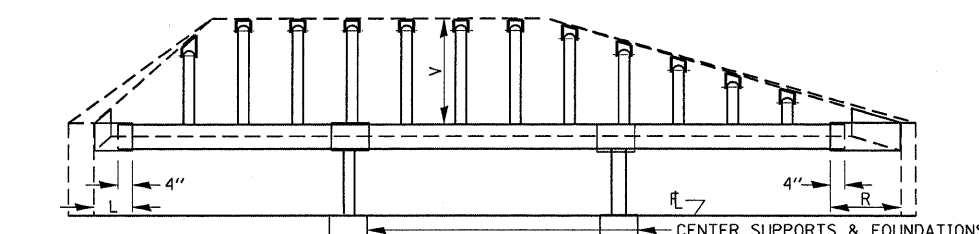
SECTION C-C



PLAN VIEW OF SUPPORT



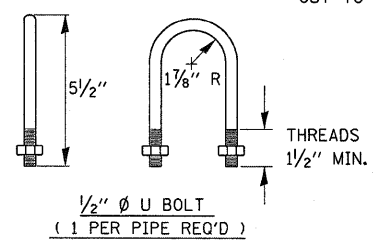
END VIEW OF SUPPORT



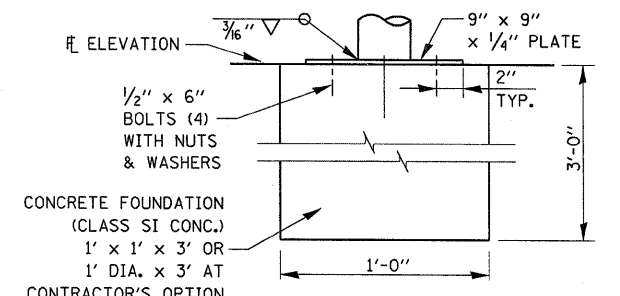
ELEVATION VIEW

GENERAL NOTES

BOLTS AND NUTS SHALL CONFORM TO ASTM A 307. ALL BOLTS SHALL HAVE WASHERS AT EACH END. HOLES SHALL BE 1/16" OVERSIZE UNLESS OTHERWISE NOTED EXCEPT IN CONCRETE WHICH SHALL BE 1/8" OVERSIZE. ANGLES AND STEEL PLATES SHALL CONFORM TO AASHTO M183. STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B OR ASTM A 501. STEEL PIPES, ANGLES AND PLATES SHALL BE HOT DIPPED GALVANIZED CONFORMING TO THE REQUIREMENTS OF AASHTO M111. BOLTS, NUTS AND WASHERS SHALL BE HOT DIPPED GALVANIZED CONFORMING TO THE REQUIREMENTS OF AASHTO M232. THE APPROXIMATE WEIGHT OF STEEL GIVEN IN TABLES INCLUDES PLATES, ANGLES, AND PIPES. BOLTS, NUTS AND WASHERS ARE NOT INCLUDED. ALL DIMENSIONS ARE TO BE VERIFIED IN THE FIELD. CUTTING OF THE EXTRA STRENGTH PIPE AND ANGLES TO THE EXACT LENGTHS AND DRILLING HOLES IS TO BE DONE IN THE FIELD. THIS ITEM PAID FOR AS GRATING FOR CONCRETE HEADWALL



DETERMINING NEED OF CENTER SUPPORTS		
TIP TO TIP OF WINGWALLS (DIMENSION "D")	NUMBER OF SUPPORTS REQUIRED	LOCATION
0'-0" TO 12'-6"	0	--
12'-6" TO 18'-0"	1	CENTER OF SPAN
18'-0" TO 24'-0"	2	1/3 OF SPAN
24'-0" TO 30'-0"	3	1/4 OF SPAN



CENTER SUPPORT FOUNDATION

FILE NAME =	USER NAME = braboypa	DESIGNED -	REVISED -
c:\pwork\pwork\dot1\braboypa\d0155828\036986-9HT-PLNPRF-355-361.dgn		DRAWN -	REVISED -
	PLOT SCALE = 20.0000' / IN.	CHECKED -	REVISED -
	PLOT DATE = Dec 05, 2009 - 04:00:43 PM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT GRATE DETAIL

SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1323	(102)	KANKAKEE	11	6
CONTRACT NO. 66986			ILLINOIS FED. AID PROJECT	