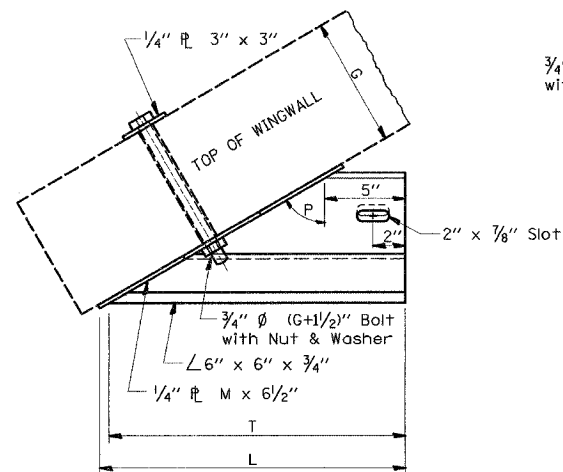


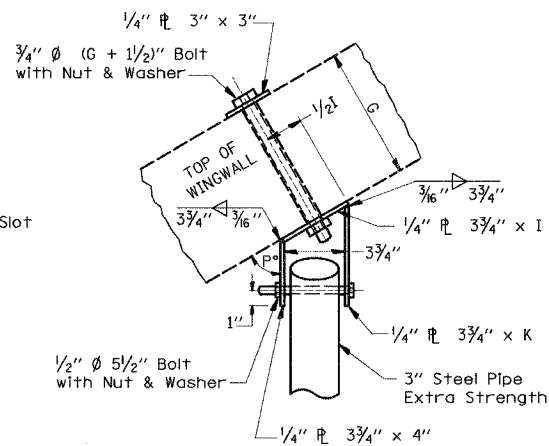
DATE _____
 BY _____
 SURVEYED _____
 ALIGNED _____
 CHECKED _____
 DATE OF MEASUREMENT _____
 NAME OF MEASUREMENT _____
 NO. _____

DATE _____
 BY _____
 PROFILE SURVEYED _____
 GRADES CHECKED _____
 S.M. NOTED _____
 NO. _____
 STRUCTURE NOTATION(S) (S)NO _____

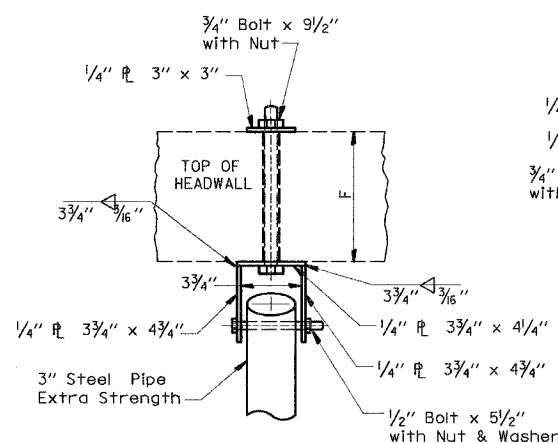
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 PROJECT CONTACT: #PROJECT CONTACT#
 CLIENT: #CLIENT#
 DATES: #DATES#
 FILES: #FILES#



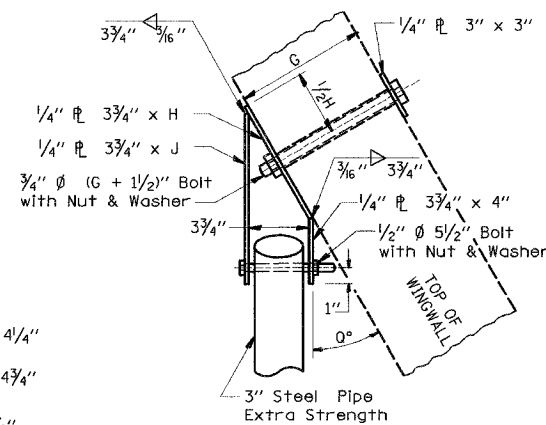
PLAN
END BRACKET ASSEMBLY - LEFT



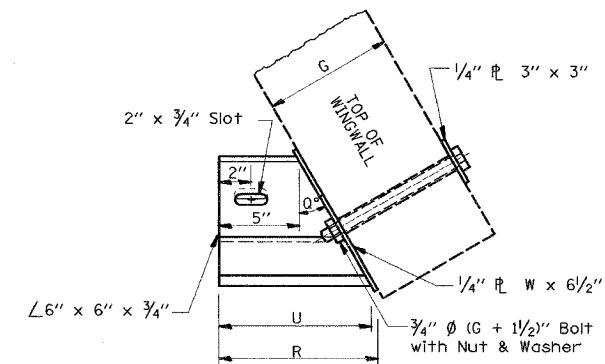
PLAN
WINGWALL BRACKET ASSEMBLY - LEFT



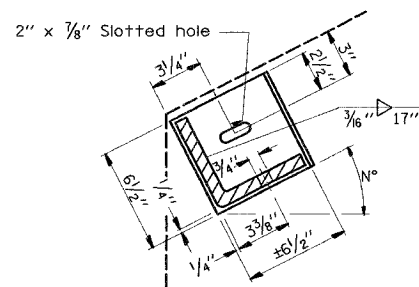
PLAN
HEADWALL BRACKET ASSEMBLY



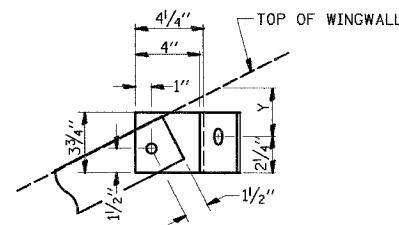
PLAN
WINGWALL BRACKET ASSEMBLY - RIGHT



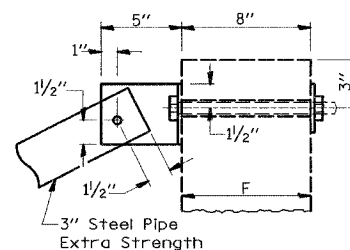
PLAN
END BRACKET ASSEMBLY - RIGHT



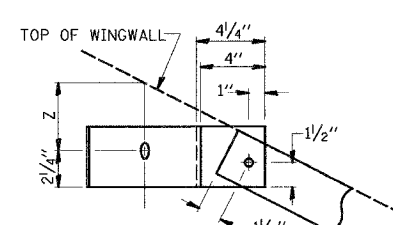
SECTION THRU
DETAIL A



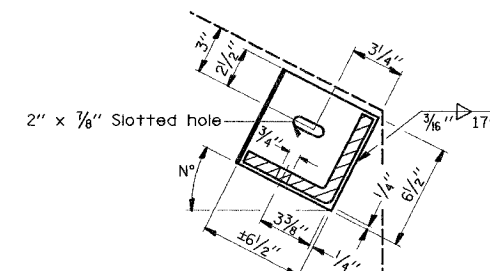
SECTION THRU
DETAIL B



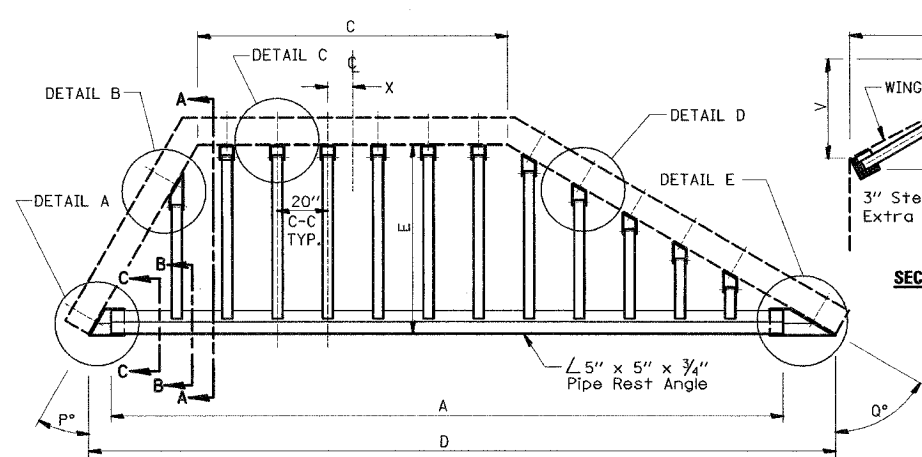
SECTION THRU
DETAIL C



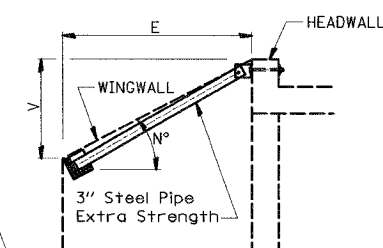
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DETAIL D



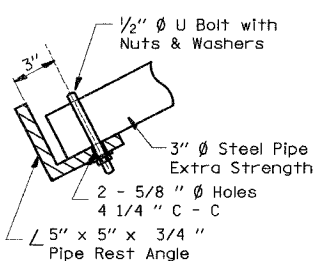
SECTION THRU
DETAIL E



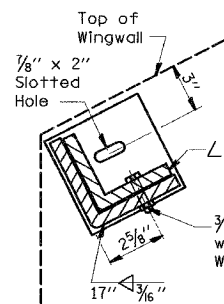
PLAN VIEW



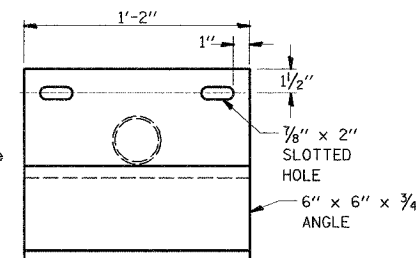
SECTION A-A



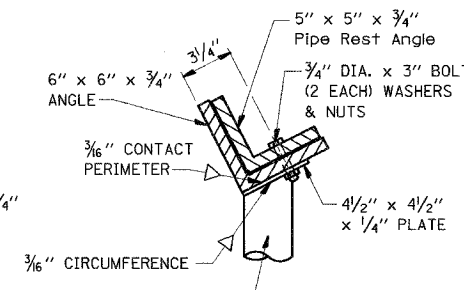
SECTION B-B



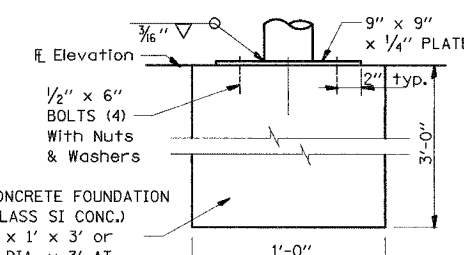
SECTION C-C



PLAN VIEW OF SUPPORT
 3" STEEL PIPE, EXTRA STRENGTH
 x 2' LONG TO BE
 CUT TO FIT IN THE FIELD



END VIEW OF SUPPORT



CENTER SUPPORT FOUNDATION

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 WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE "EACH" FOR GRATING FOR CONCRETE HEADWALLS IN PLACE, AND SHALL INCLUDE FABRICATION PAINTING, CENTER SUPPORTS WHEN REQUIRED, AND INSTALLATION OF THE GRATING AS DETAILED.

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.S. 1517 (U.S. ROUTE 150)
MISCELLANEOUS DETAILS

SCALE: VERT. _____
 HORIZ. _____
 DATE _____
 DRAWN BY _____
 CHECKED BY _____

GRATING FOR CULVERTS WITH WINGWALLS