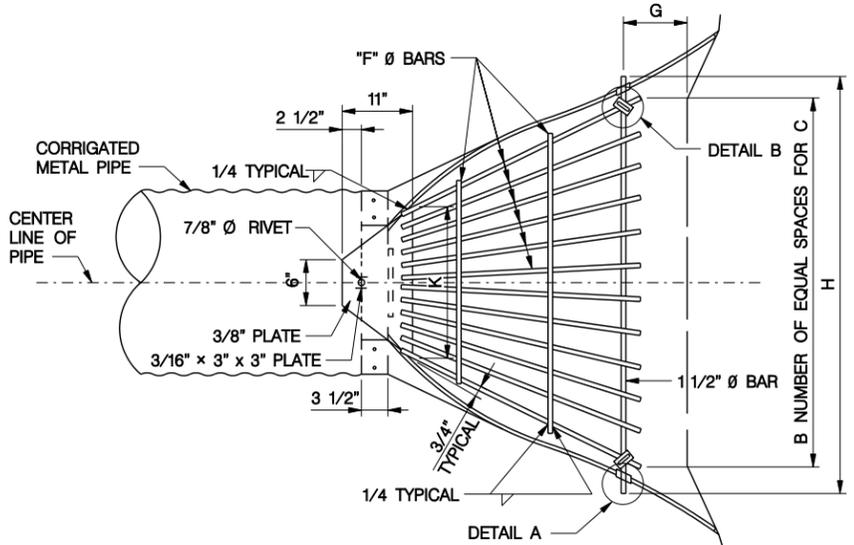
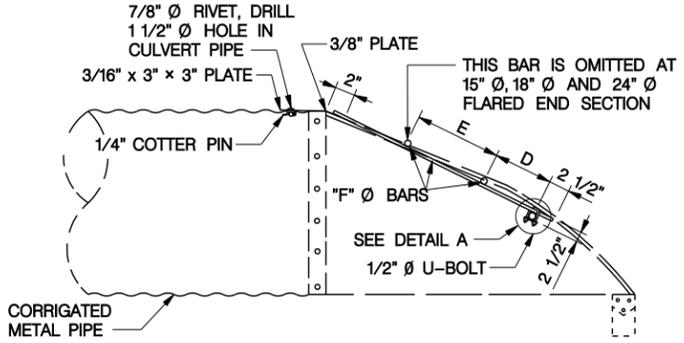


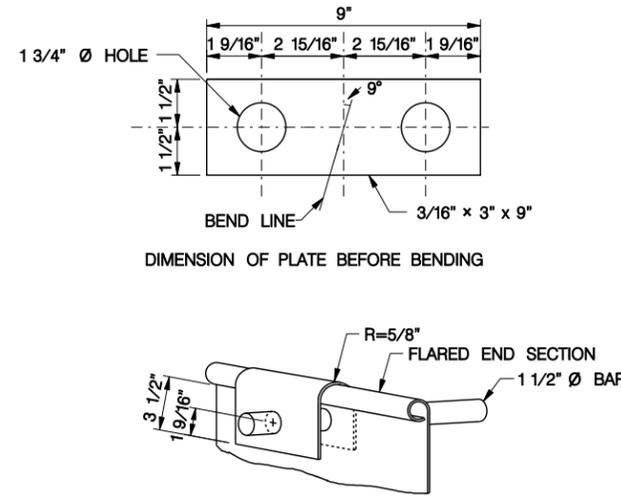
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 PEN: ..\..\..\..\..\Pen\SW_PENTABLE.TBL
 USER: elocaw
 DATE: 9/27/2011
 DGN: ..\STANDARD\Curent\Nsp161.dgn



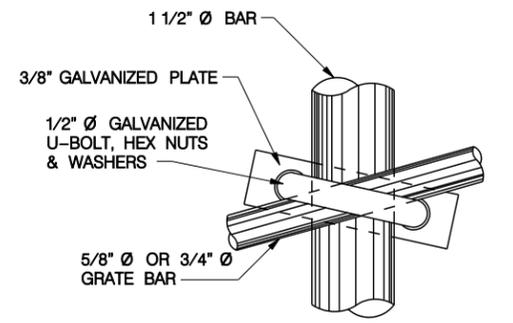
PLAN FOR BAR GRATE
BAR GRATE FOR METAL FLARED END SECTION



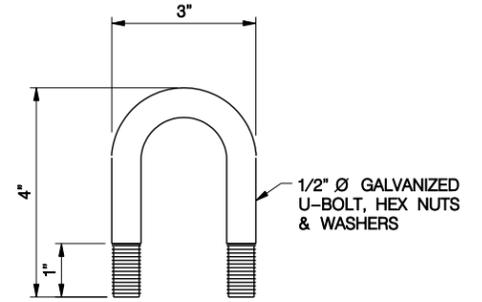
ELEVATION OF BAR GRATE



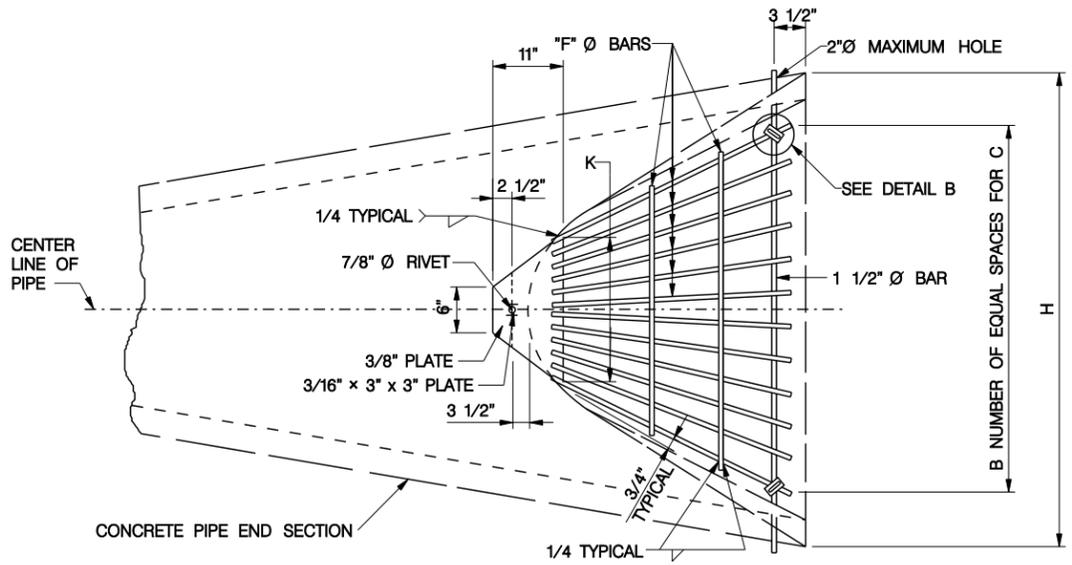
DETAIL A
 (2) 3/16" x 3" x 9" PLATES
 REQUIRED PER ASSEMBLY



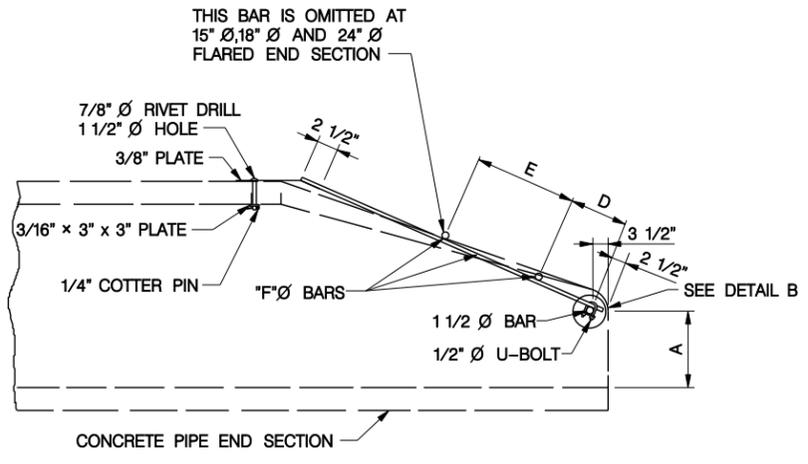
DETAIL B



U-BOLT AND PLATE DETAIL



PLAN OF BAR GRATE
BAR GRATE FOR CONCRETE PIPE END SECTION

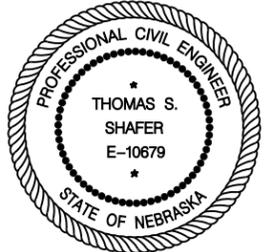


ELEVATION OF BAR GRATE

NOTE:
 ALL BARS USED IN GRATES SHALL CONFORM TO THE REQUIREMENTS OF A.S.T.M. A575 GRADE 1020 STEEL.
 THE BAR GRATE MAY BE SHOP ASSEMBLED WITH THE FLARED END SECTIONS.

BAR GRATE DATA									
	A	B	C	D	E	F	G	H	K
15" Ø PIPE	5"	4	2'-0"	6"	—	5/8"	6"	2'-11"	1'-4"
18" Ø PIPE	8"	5	2'-6"	6"	—	5/8"	8"	3'-6"	1'-4"
24" Ø PIPE	8 1/2"	7	3'-6"	9"	—	5/8"	8"	4'-7"	1'-8"
30" Ø PIPE	11"	9	4'-6"	1'-0"	1'-6"	3/4"	1'-0"	5'-8"	1'-8"
36" Ø PIPE	1'-2"	11	5'-6"	1'-0"	1'-6"	3/4"	1'-0"	6'-9"	2'-0"

NOTE:
 INSTALL BAR GRATE ON INLET ENDS OF STORM SEWER SYSTEM ONLY.



This document was originally issued and sealed by Thomas S. Shafer, E-10679, on 3-1-10. This media should not be considered a certified document.