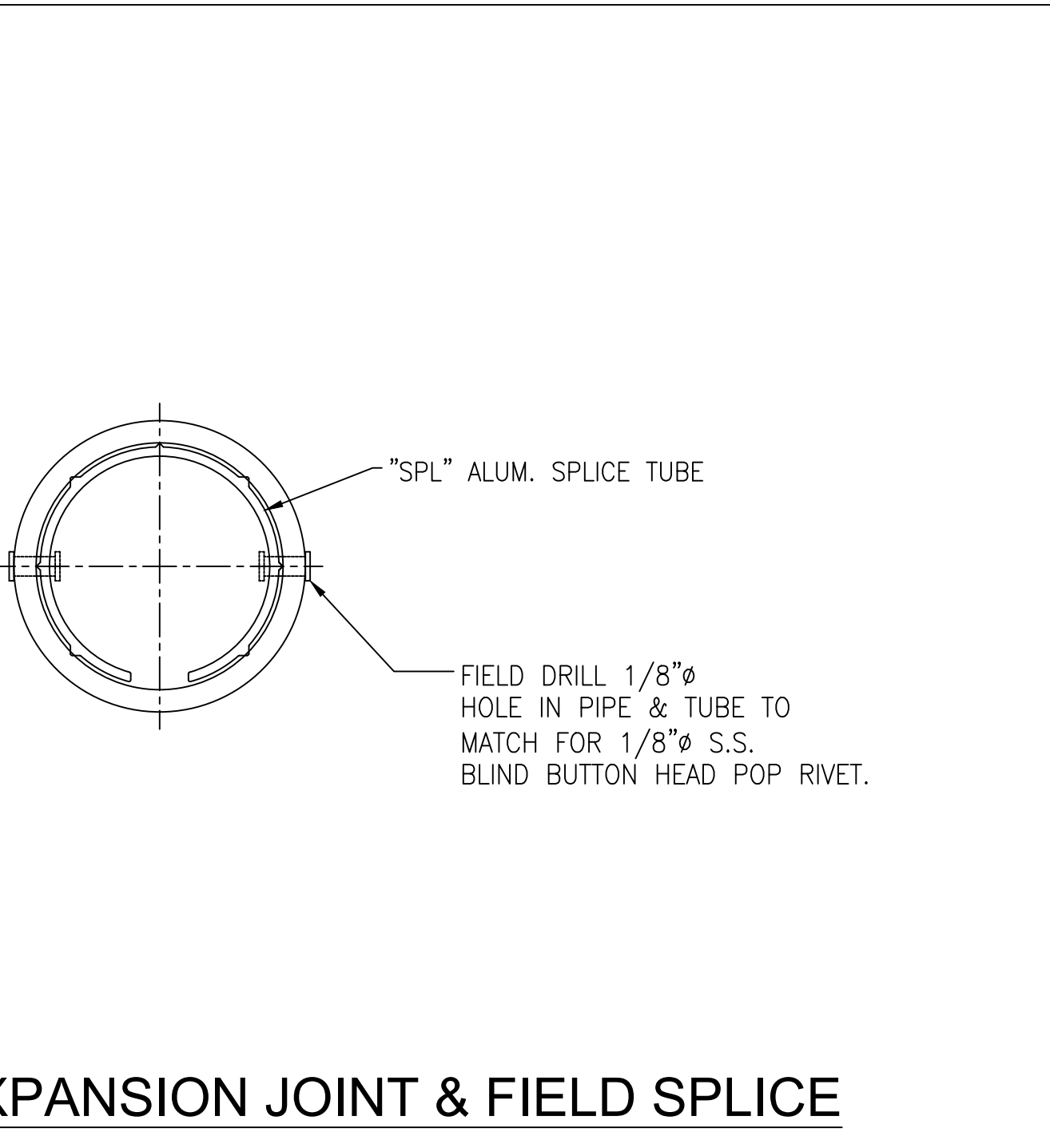
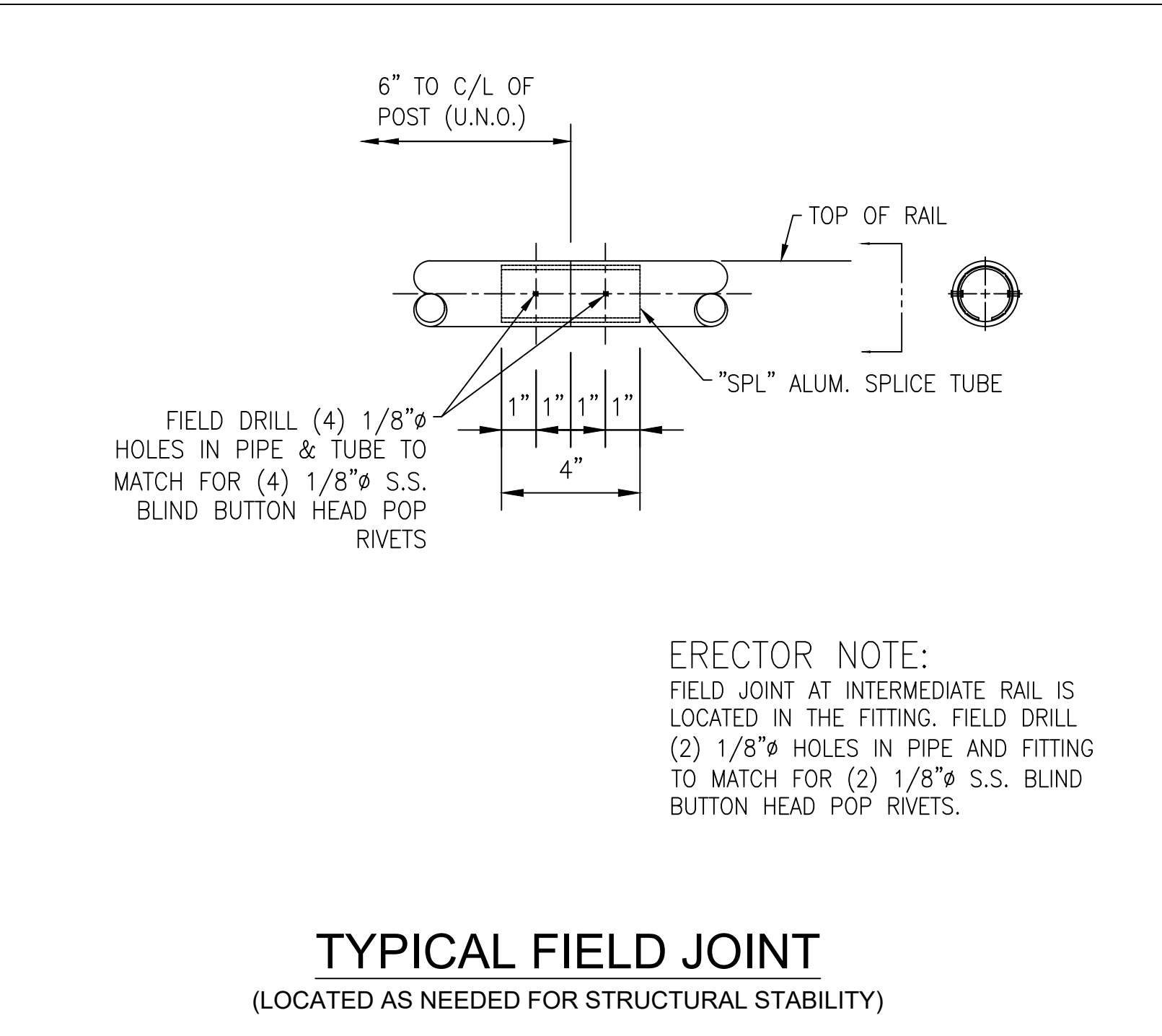
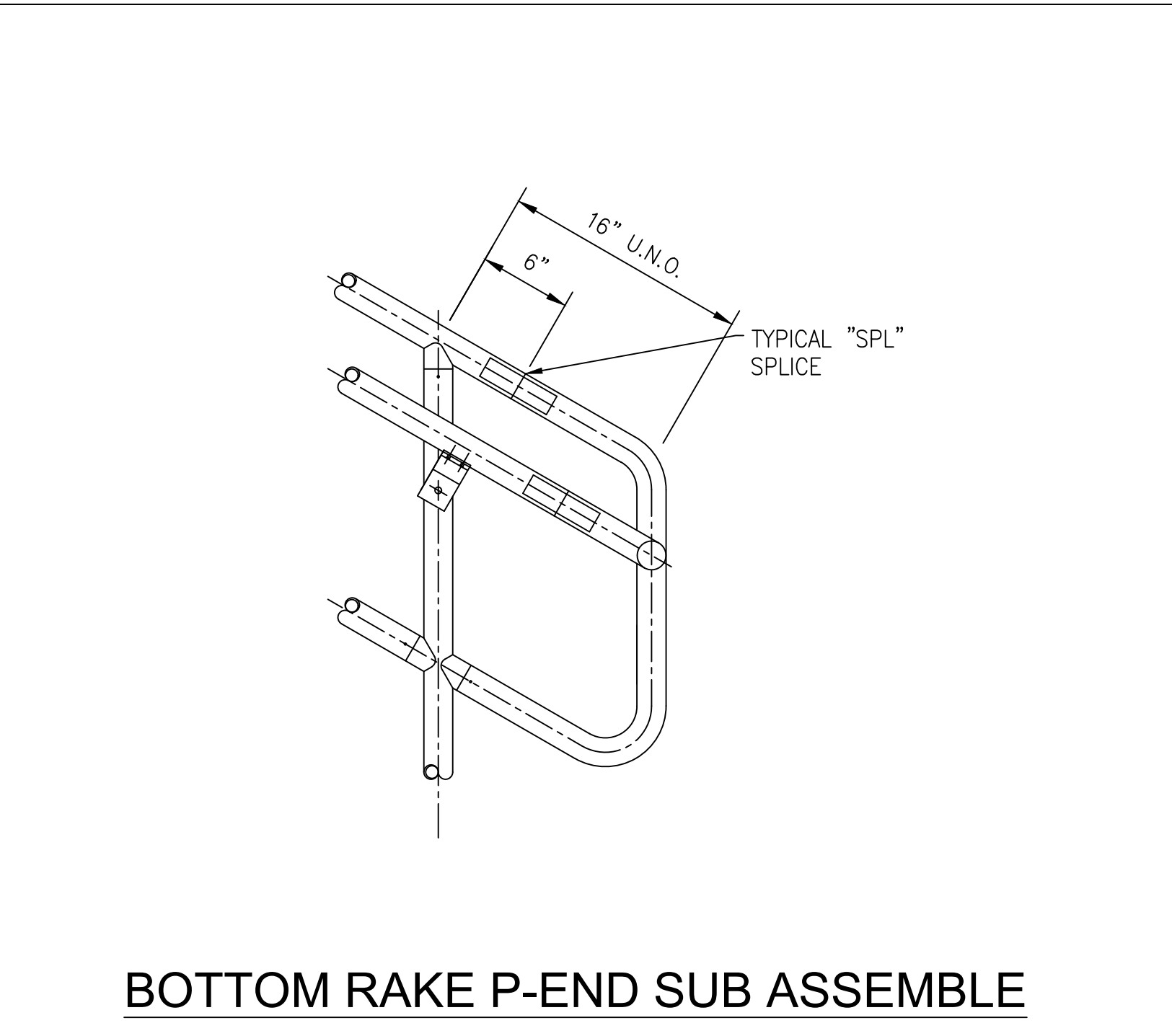
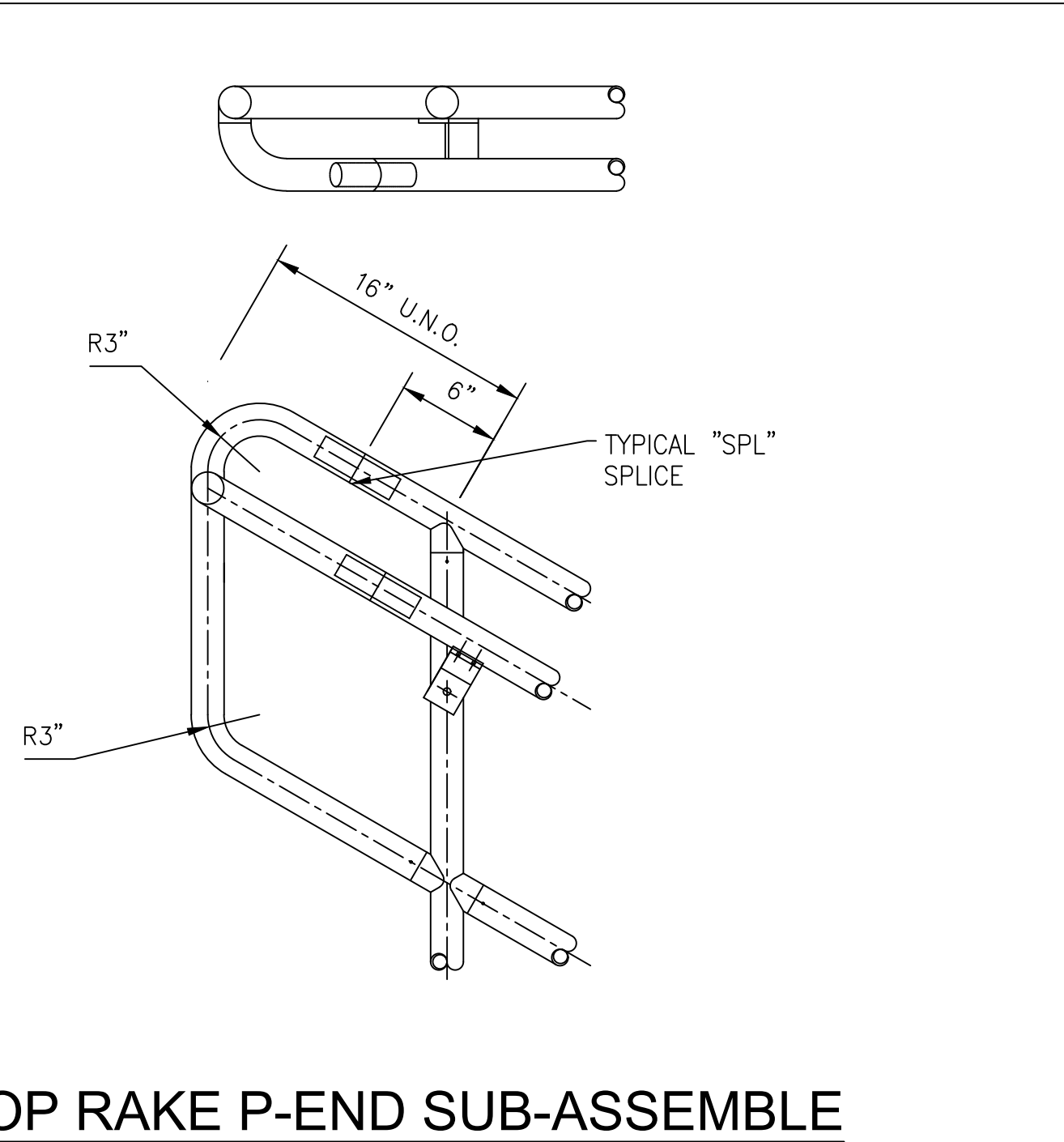
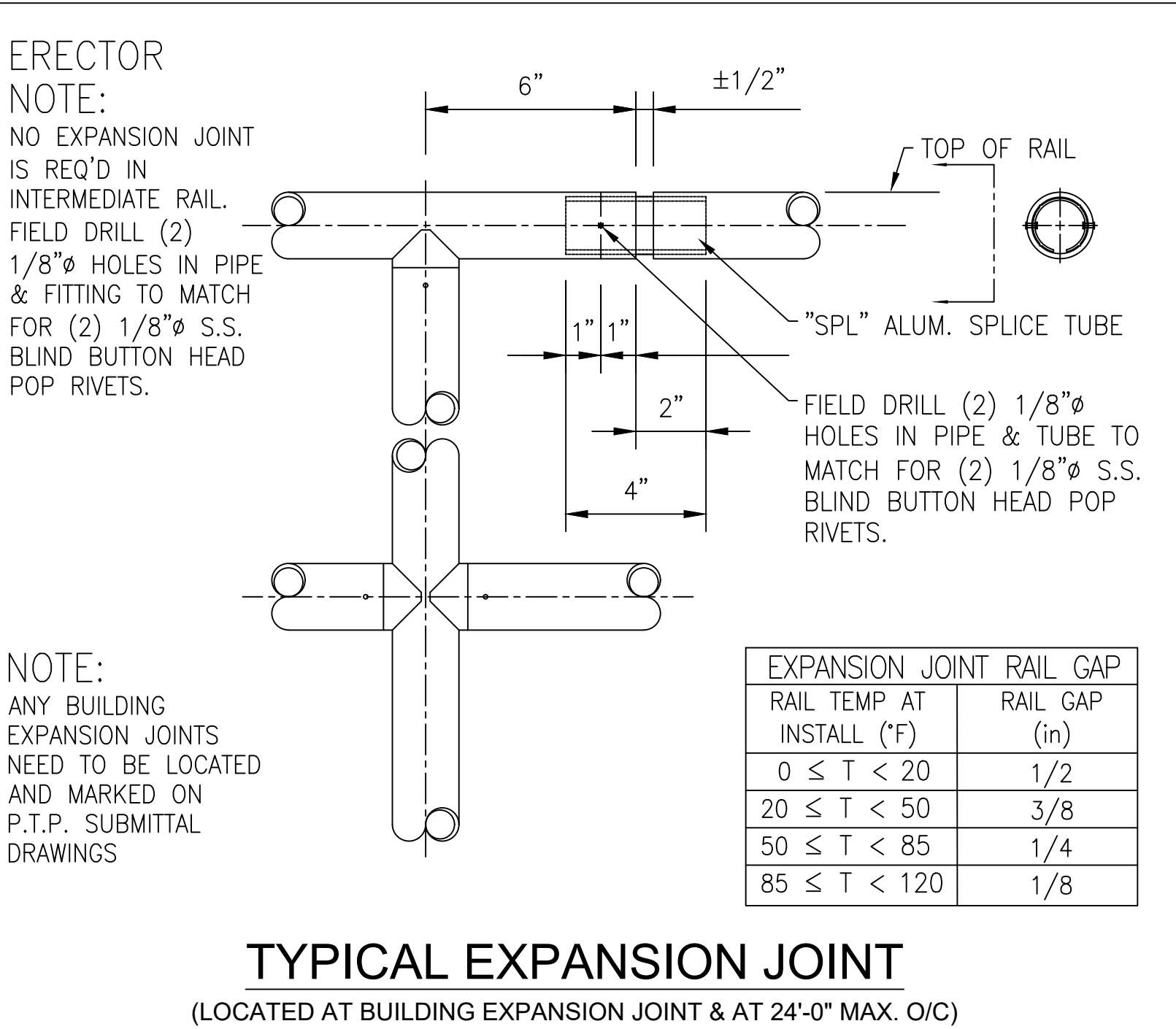
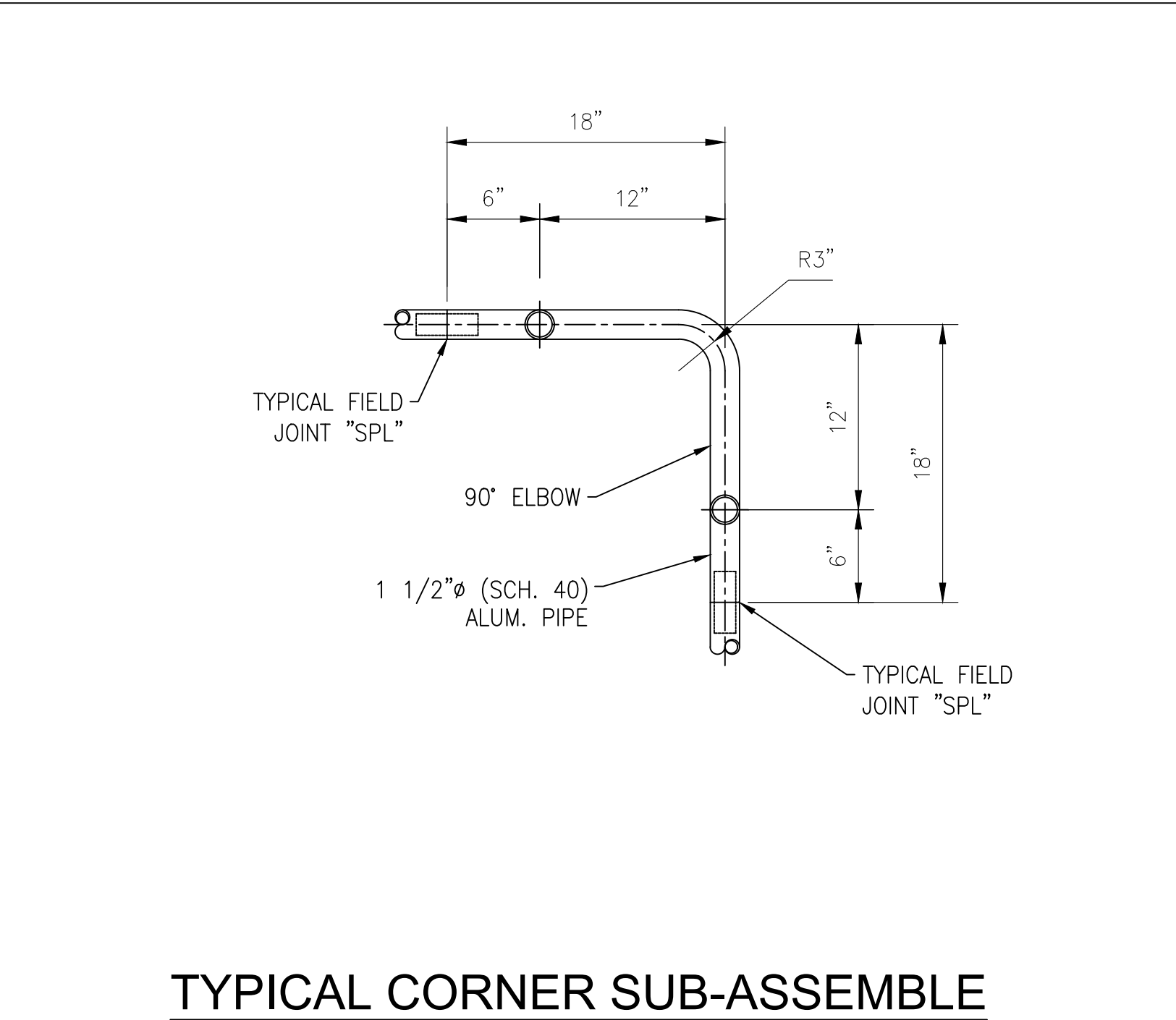

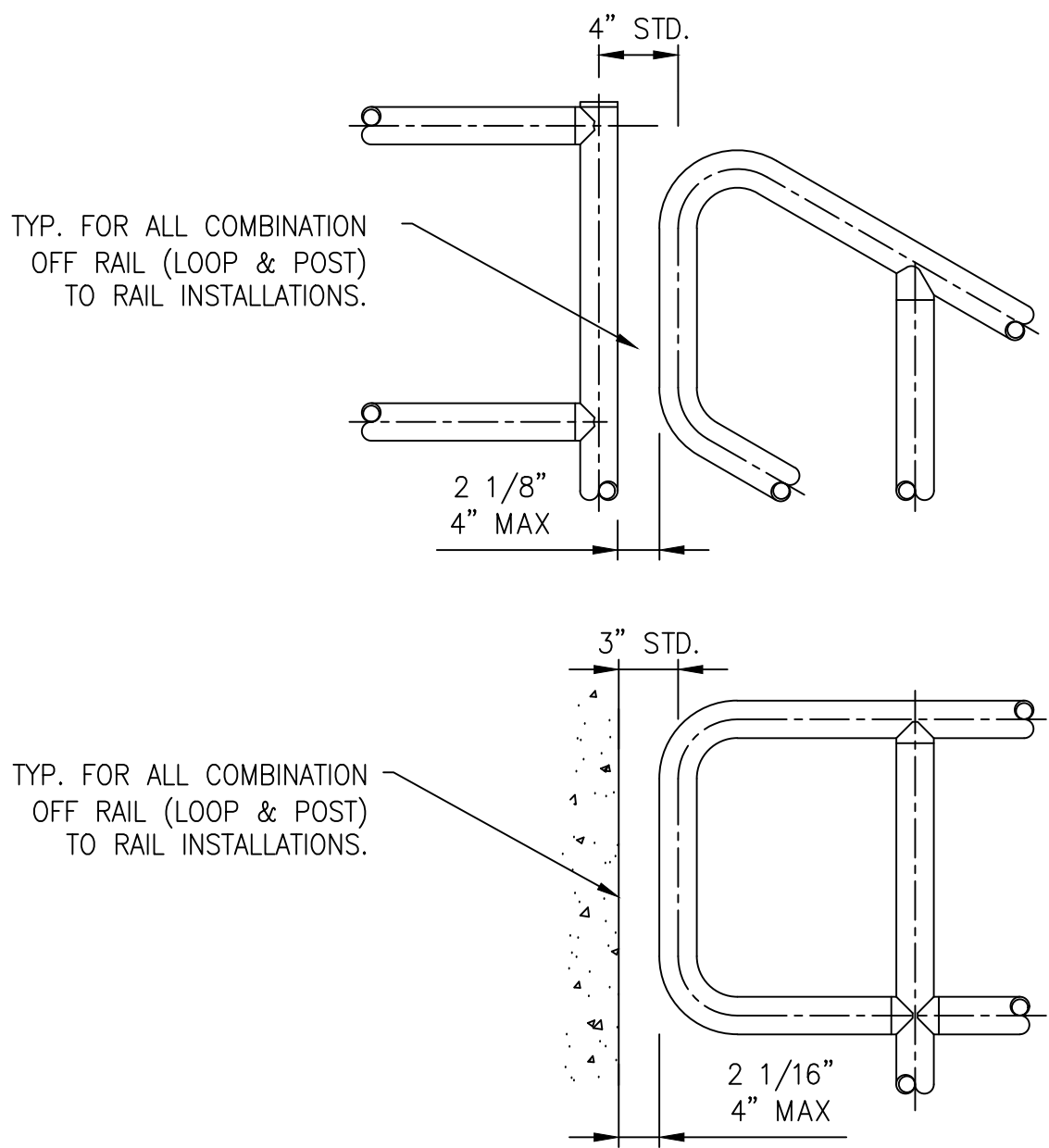


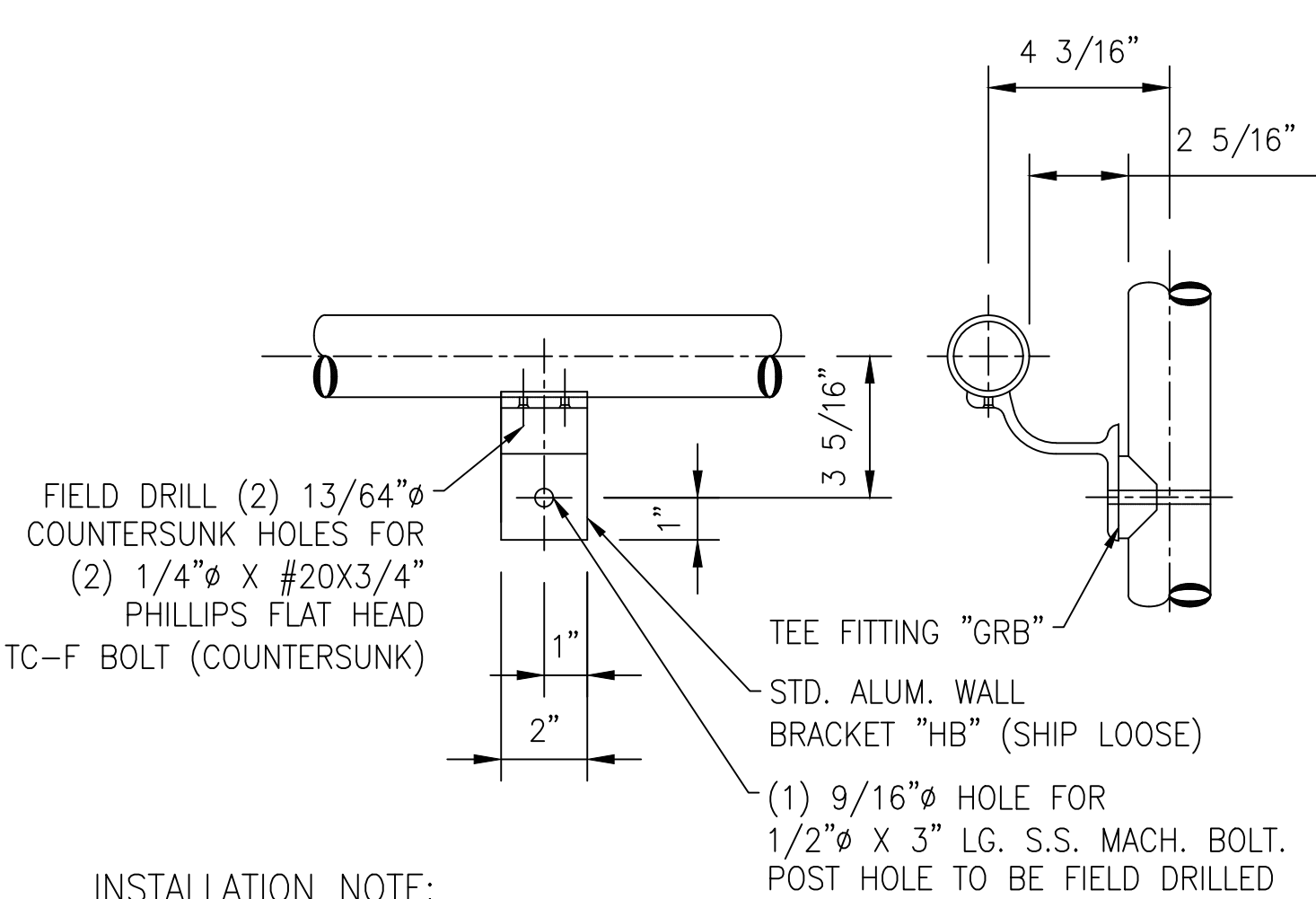
- ### GENERAL NOTES
- ALL RAIL IS TO BE OF MECHANICAL CONSTRUCTION U.N.O.
  - ALL RAILS ARE TO BE FABRICATED FROM 1 1/2"Ø (SCH. 40) ALUMINUM PIPE (6005A-T61 ALLOY) (U.N.O.)
  - ALL POSTS ARE TO BE FABRICATED FROM 1 1/2"Ø (SCH. 40) ALUMINUM PIPE (6005A-T61 ALLOY) (U.N.O.)
  - ALL EXTRUDED COMPONENTS ARE 6005A-T61 ALLOY, CAST COMPONENTS ARE 535 ALLOY
  - ALL FASTENERS (SELF TAPPING SCREWS, MACHINE BOLTS, ADHESIVE ANCHORS, ETC.) TO BE 304 STAINLESS STEEL
  - ALL RAILING SURFACES IN CONTACT WITH CONCRETE OR DISSIMILAR METALS SHALL RECEIVE ONE 1/16" THICK NEOPRENE GASKET (SHIPPED LOOSE FOR FIELD ATTACHMENT)
  - ALL BOLTS, NUTS AND FLAT WASHERS USED TO MOUNT RAILINGS TO FLOORS, WALLS, STEEL, ETC. ARE BY PTP ENGINEERED RAILINGS
  - ALL KICK PLATES ("FKP" OR "SKP") SHALL BE SHIPPED LOOSE IN 24'-0" LG. STOCK LENGTHS OR SMALLER FOR FIELD CUTTING & DRILLING AS NEEDED
  - ALL POSTS ARE TO BE FURNISHED CUT TO LENGTH WITH FITTINGS & MOUNTING PLATES ATTACHED OR SHIPPED LOOSE FOR THEIR SPECIFIC DETAILS
  - PIPE FOR STRAIGHT RAIL IS FURNISHED IN UP TO 24'-0" STOCK LENGTHS FOR CUTTING & DRILLING AS NEEDED
  - PIPE FOR CURVED RAIL IS FURNISHED SUB-ASSEMBLED IN 21'-0" (MAX). ROLLED LENGTHS FOR FIELD CUTTING & DRILLING AS NEEDED  
\*\* ALL RADII MUST BE VERIFIED PRIOR TO FABRICATION \*\*
  - ALL CURVED RAIL SHALL BE FABRICATED USING CURVED TOP AND INTERMEDIATE RAILS
  - PIPE FOR SINGLE LINE RAIL IS FURNISHED & SHIPPED SUB-ASSEMBLED.
  - BENDS WITH A 3" C/L RADIUS ARE FURNISHED AS NEEDED & MUST BE FIELD CUT FOR FIELD CONDITIONS
  - ALL RAIL WHEN PROPERLY INSTALLED SHALL MEET OR EXCEED OSHA REQUIREMENTS.
  - MAX. POST SPACING TO BE 6'-0" C/C
  - ALL RAIL IS TO BE FINISHED IN ACCORDANCE WITH THE ALUMINUM ASSOCIATION'S DESIGNATION M10C22A41 OR M12C22A41
  - PIPE FOR CANTILEVER RAILING WILL SHIP LOOSE IN UP TO 24'-0" STOCK LENGTHS FOR FIELD CUTTING AND DRILLING AS NEEDED
  - ENSURE ALL FIELD CUTS AND FIELD DRILLED HOLES ARE CLEANED UP, FREE OF SHARP EDGES AND BURRS.
  - CONCRETE ANCHOR TYPE IS HILTI HIT-RE 500 V3 ADHESIVE ANCHORS. CONCRETE STRENGTH IS ASSUMED TO BE 4000 PSI, NORMAL WEIGHT CRACKED CONCRETE.
  - ALL DIMENSIONS SHOWN THROUGHOUT THIS SET ARE APPROXIMATE AND SHALL BE FIELD VERIFIED BEFORE FABRICATION AND INSTALLATION  
%% = SEE ERECTION DRAWINGS FOR PART NUMBER



1	SUBMITTAL	9/19/2017
REV	DESCRIPTION	DATE
 3000 YOUNGFIELD ST. SUITE 275 WHEAT RIDGE, CO 80215 Ph: (720)508-3819 FAX: (720)409-3843		NOTICE TO CONTRACTOR AND ERECTOR: BACK CHARGES FOR CORRECTIVE WORK OR REPLACEMENT MATERIALS WILL NOT BE ACCEPTED UNLESS AUTHORIZED BY PEAK TO PEAK ENGINEERED RAILINGS, INC. BEFORE SUCH COSTS ARE INCURRED
STANDARD DETAILS		
CITY, ST		
ALUMINUM HANDRAIL - RIVET SYSTEM - SUB-ASSEMBLED		
DESIGNER	DESIGNER	CUSTOMER
CUSTOMER JOB #	XXXX-XX	PRINT DATE
3/13/2020	ISSUE DATE	3/13/2020
SCALE	NTS	CONTRACT NO
XXX-XXX	DRAWING NO.	SD-1



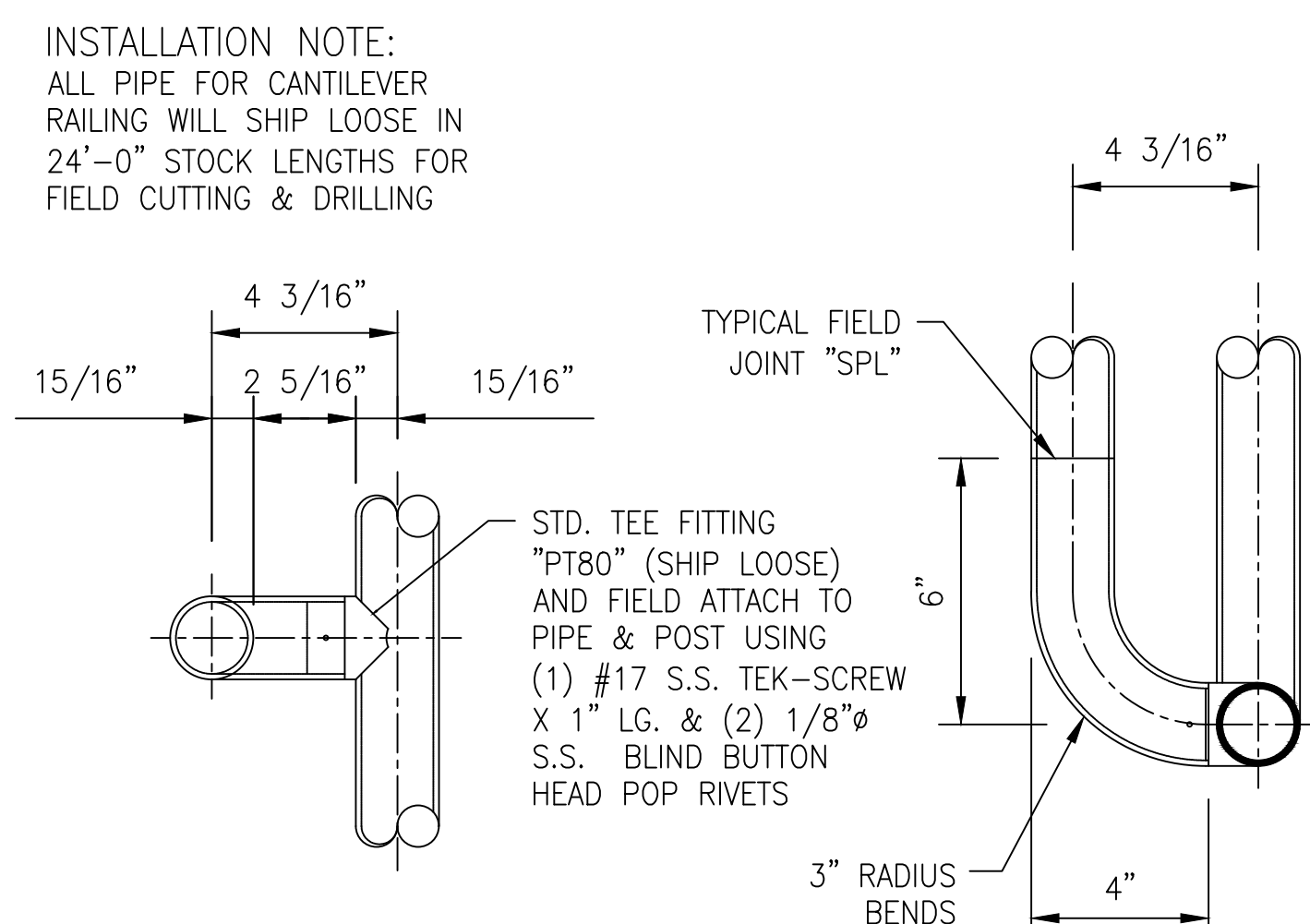
STD. RAILING OFFSETS



INSTALLATION NOTE:  
ALL PIPE FOR CANTILEVER  
RAILING WILL SHIP LOOSE IN  
24'-0" STOCK LENGTHS FOR  
FIELD CUTTING & DRILLING

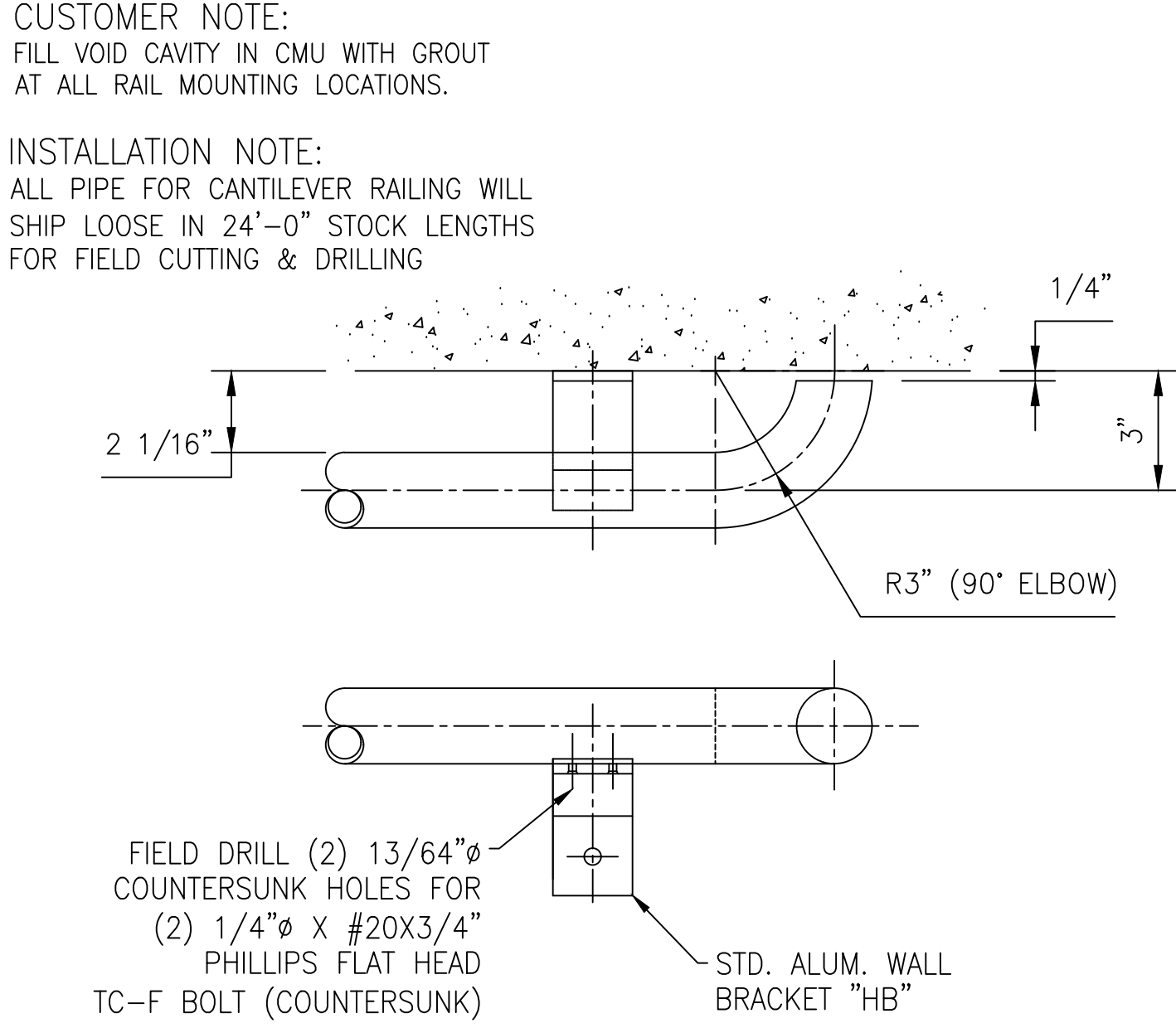
CANTILEVER RAIL BRACKET

GRB

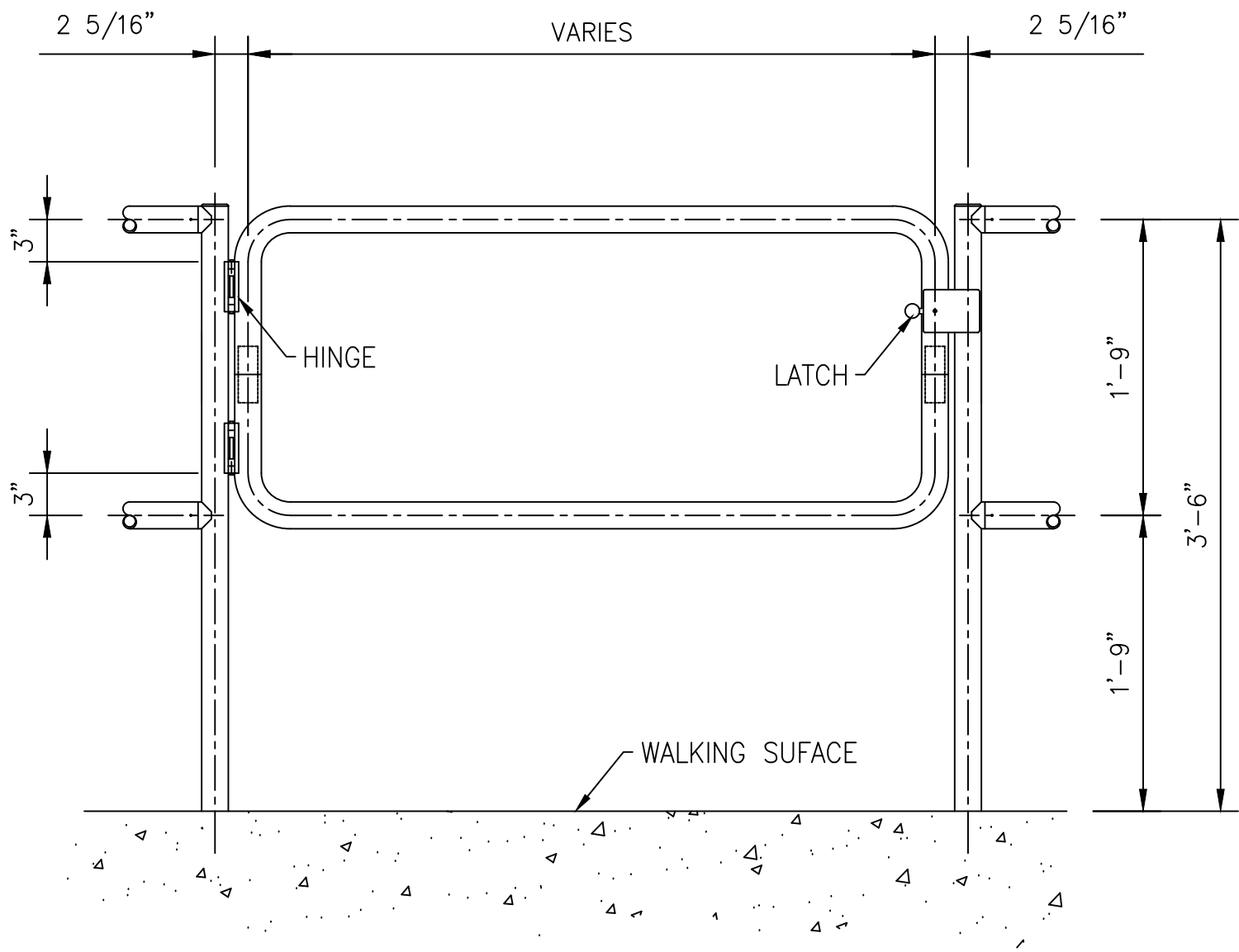


NOTE:  
FIELD DRILLED HOLES:  
#17 TEK-SCREW - 1/4 inch  
1/8 inch RIVET - 1/8 inch

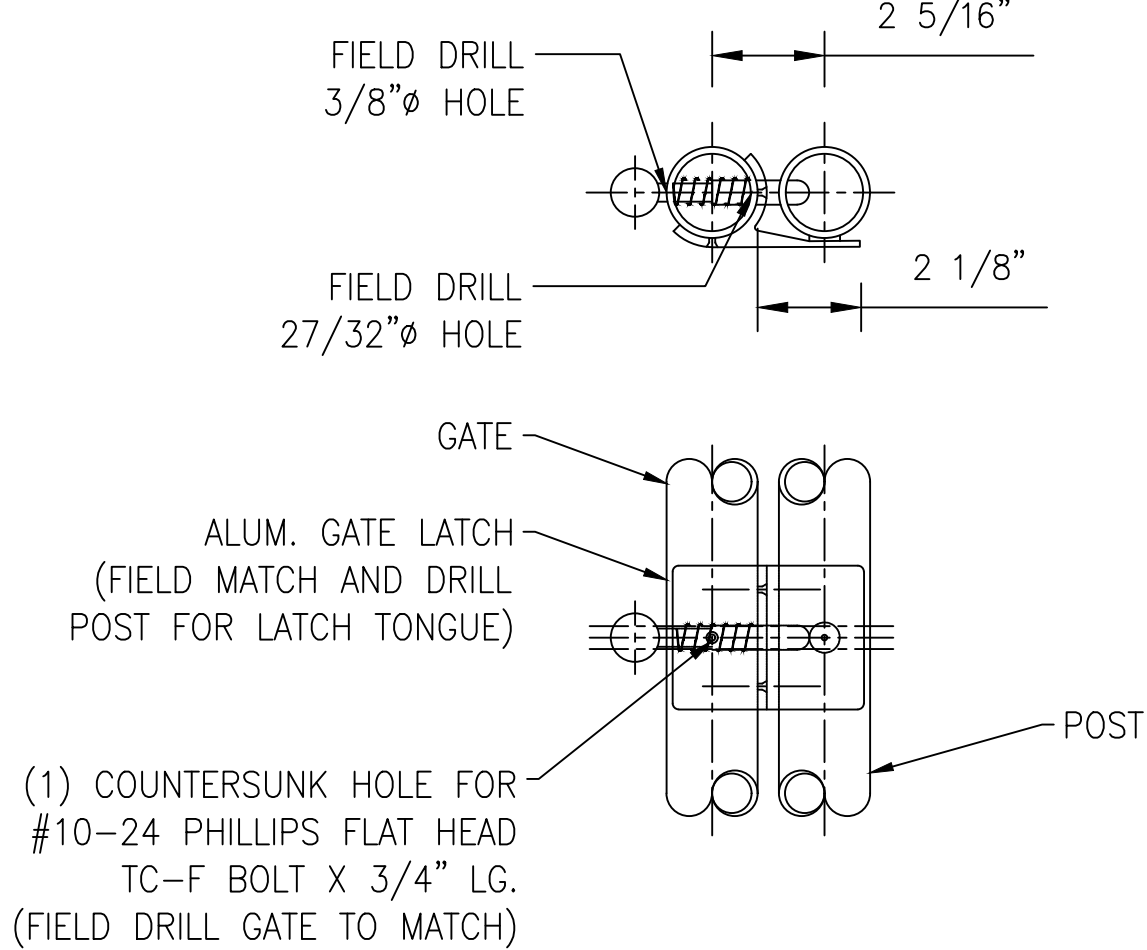
SPECIAL OFFSET RAIL CONNECTON



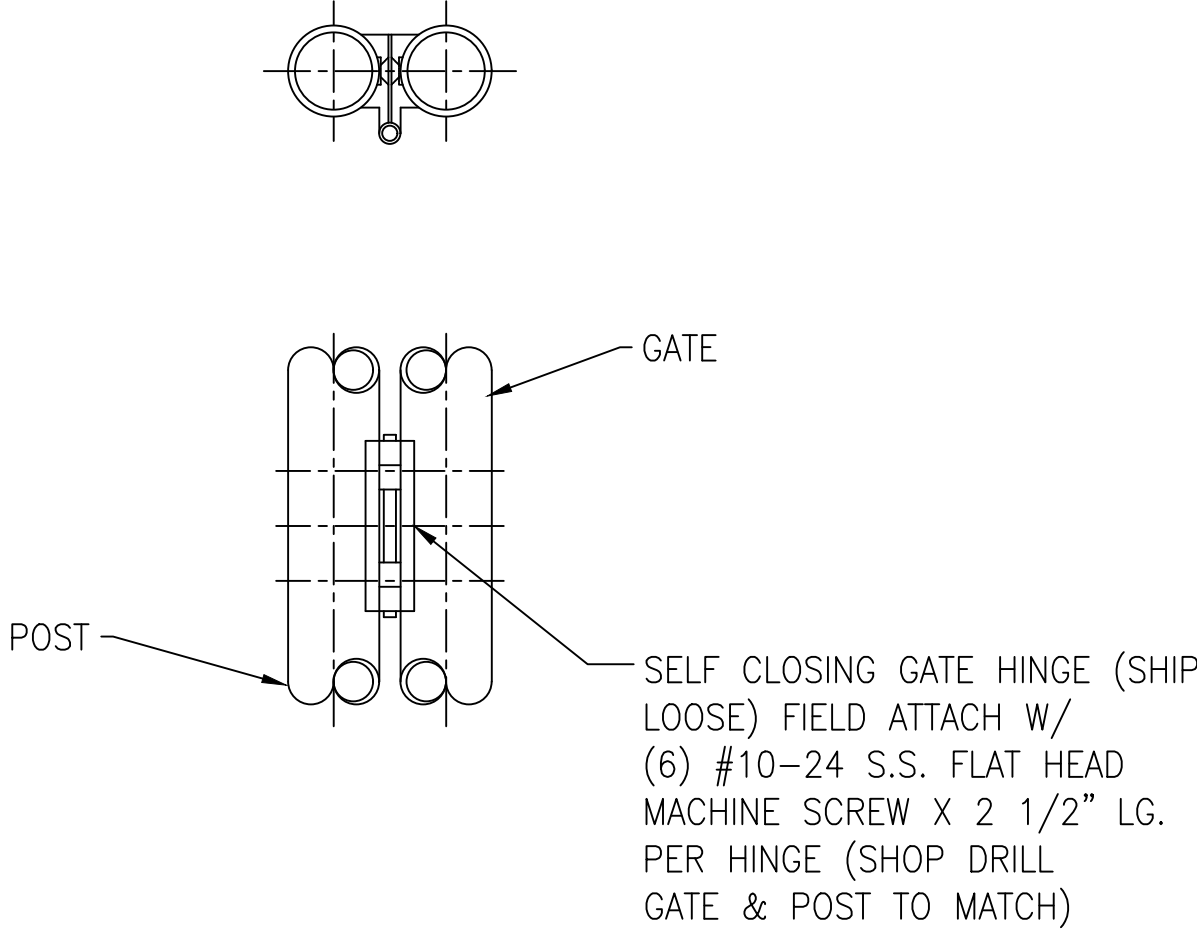
WALL RAIL END RETURN



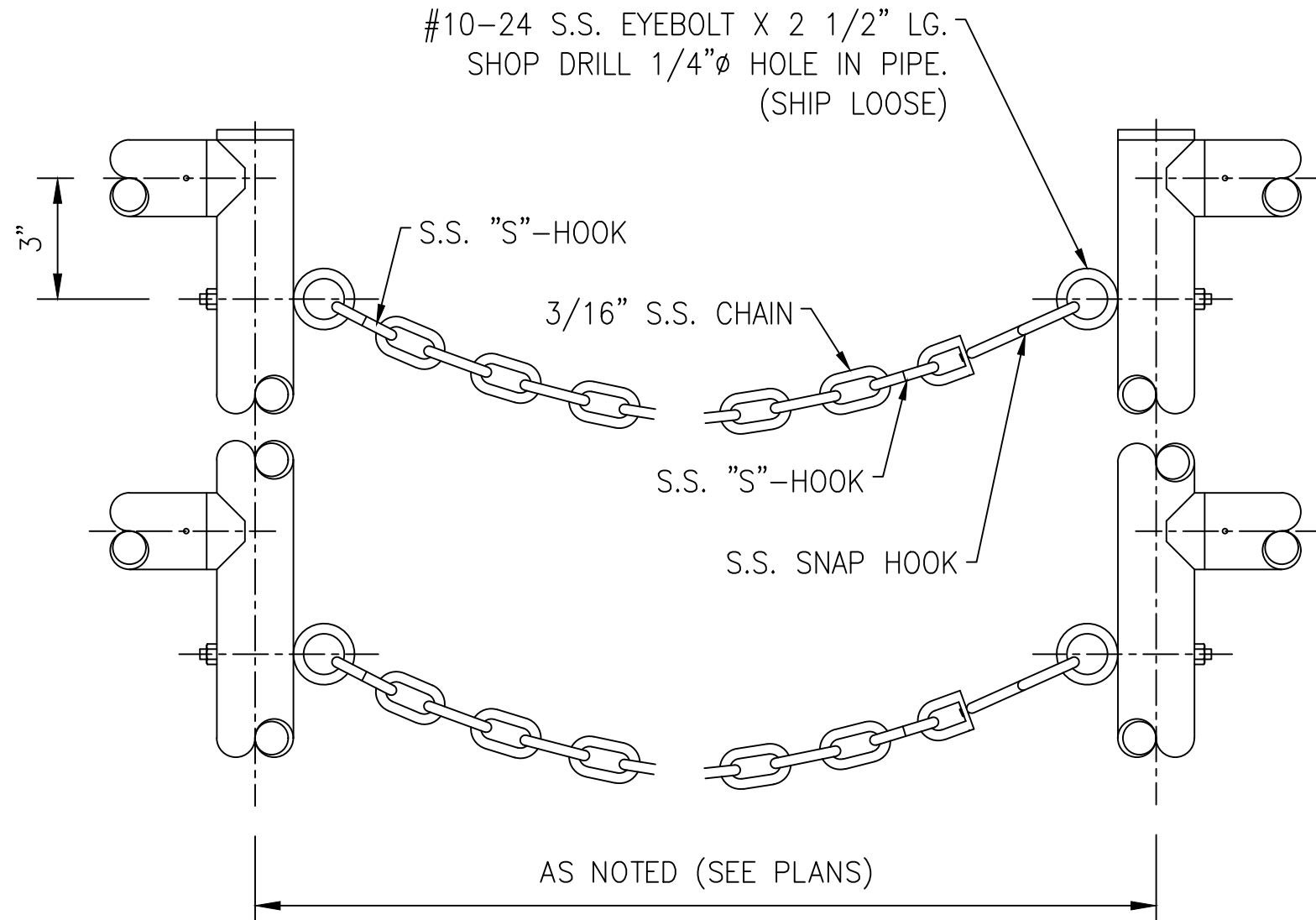
GATE



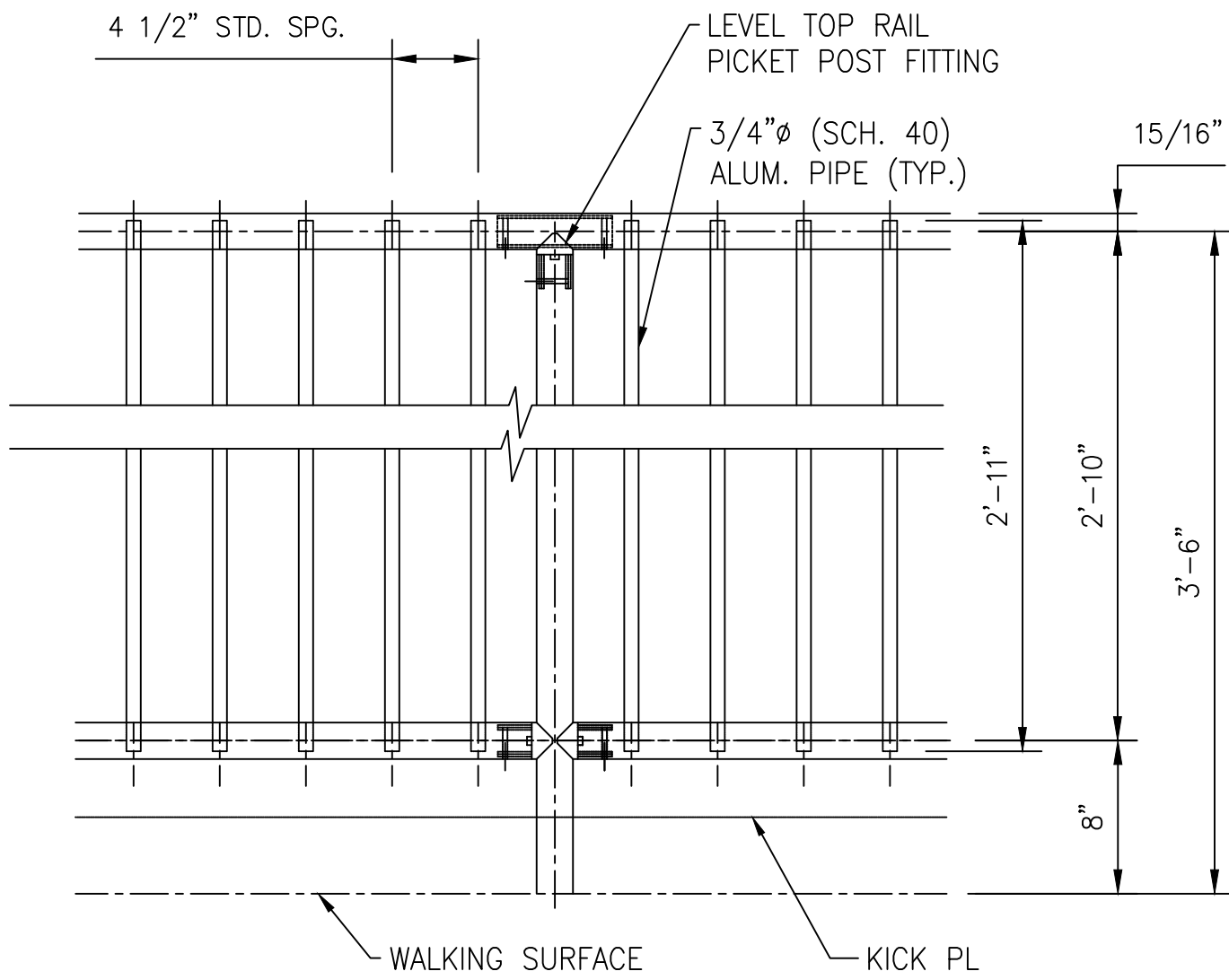
LATCH



HINGE

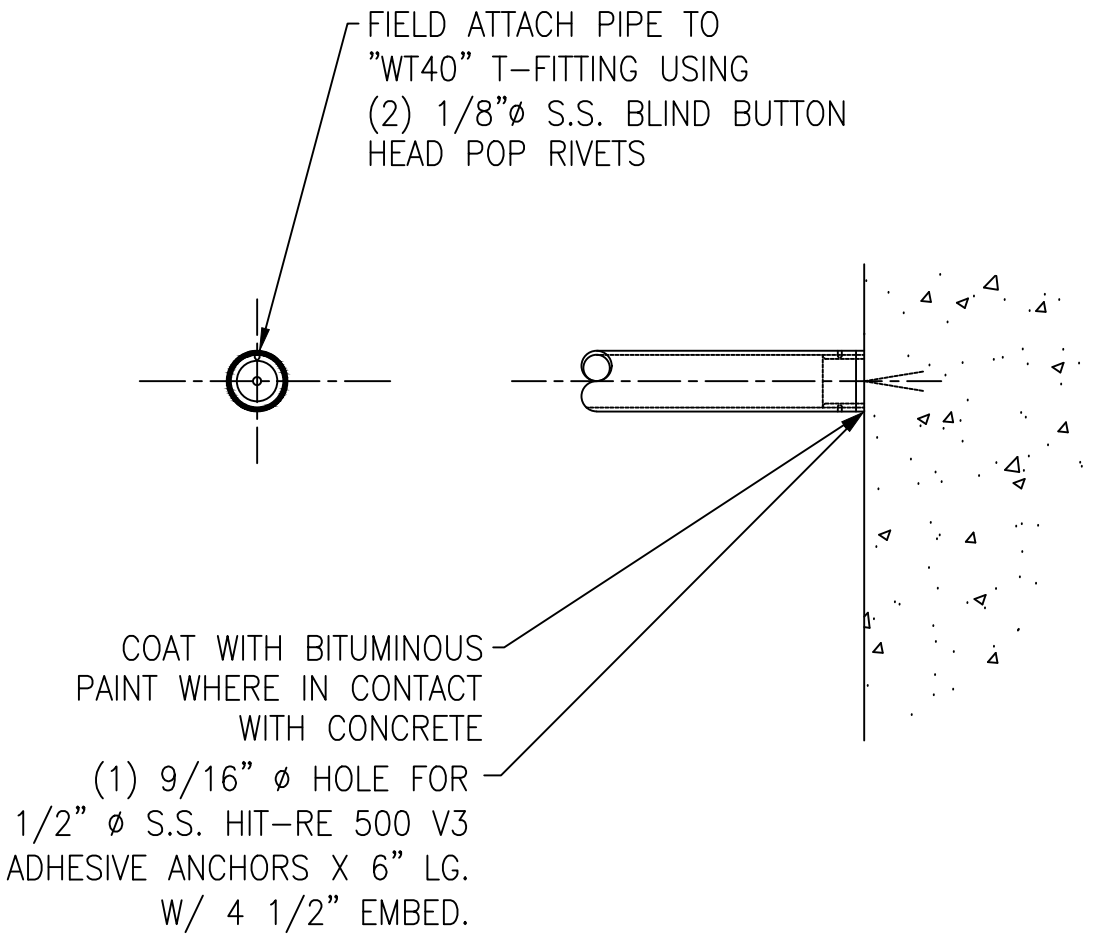


CHAIN OPENING



INSTALLATION NOTE:  
PANELS WITH PICKETS SHALL BE SHIPPED TO SITE WITH  
PICKETS STRAPPED TOGETHER WITH TOP AND BOTTOM  
HORIZONTAL RAILS, TO BE FIELD TRIMMED AND INSTALLED

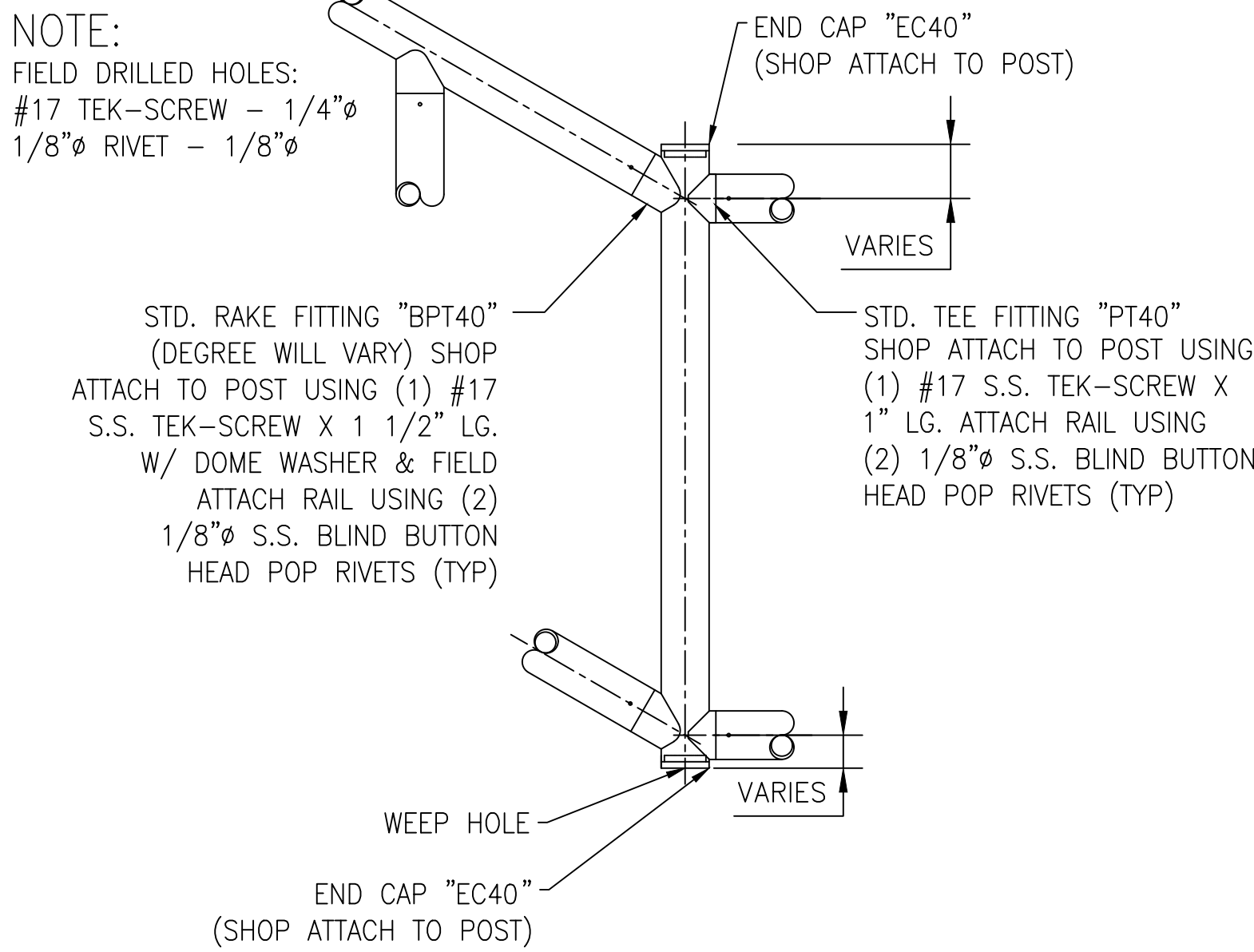
PICKET RAIL HORIZONTAL PANEL



CUSTOMER NOTE:  
FILL VOID CAVITY IN CMU WITH GROUT  
AT ALL RAIL MOUNTING LOCATIONS.

WALL MOUNTED T-FITTING


WT40



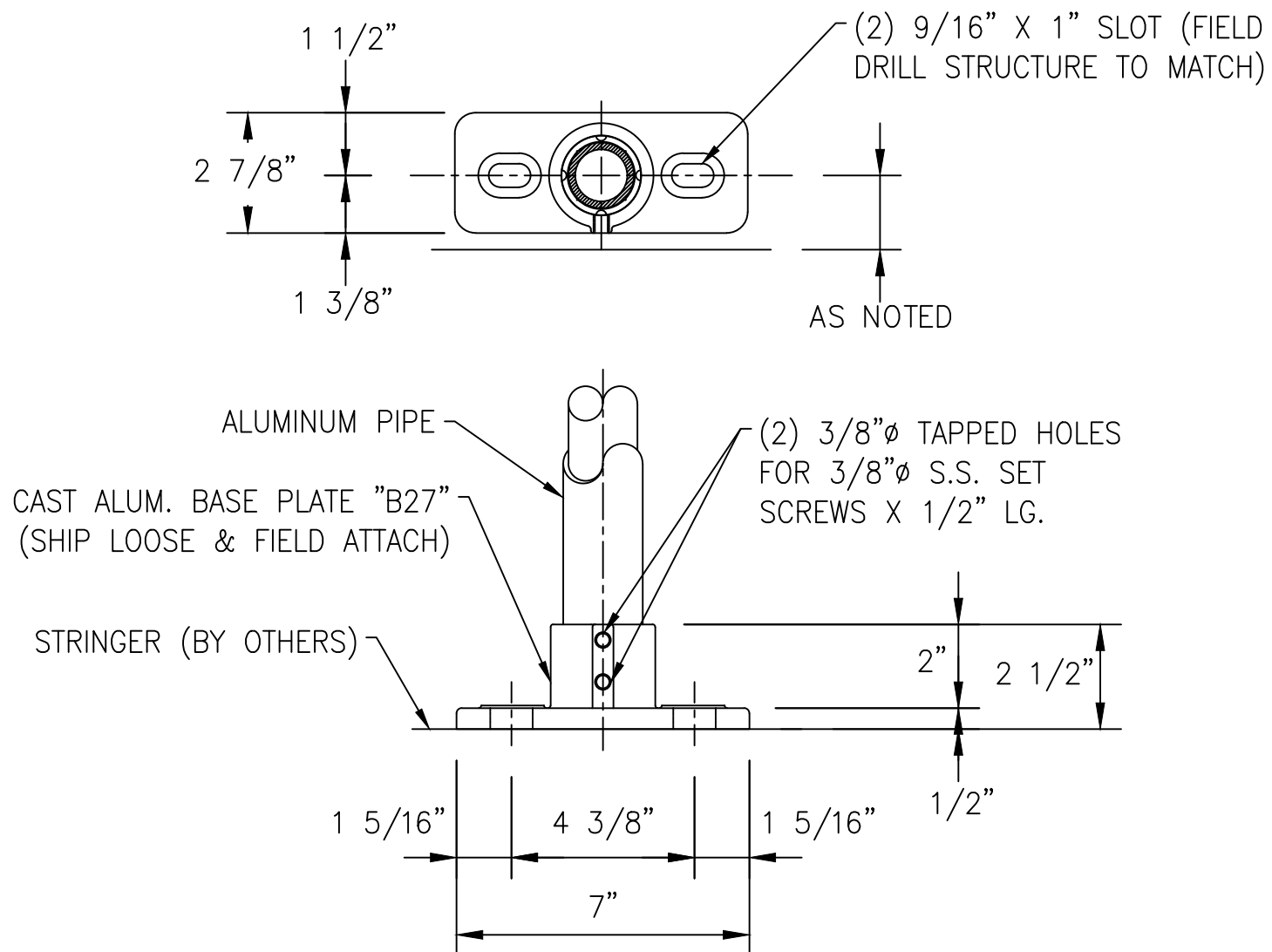
MINI POST

CUSTOMER NOTE:  
FILL VOID CAVITY IN CMU WITH GROUT  
AT ALL RAIL MOUNTING LOCATIONS.

INSTALLATION NOTE:  
ALL PIPE FOR CANTILEVER RAILING WILL  
SHIP LOOSE IN 24'-0" STOCK LENGTHS  
FOR FIELD CUTTING & DRILLING

REV				DESCRIPTION		DATE	
<div><p>3000 YOUNGFIELD ST. SUITE 275 WHEAT RIDGE, CO 80215 Ph. (720)508-3819 FAX (720)409-3843</p></div>						NOTICE TO CONTRACTOR AND ERECTOR: BACK CHARGES FOR CORRECTIVE WORK OR REPLACEMENT MATERIALS WILL NOT BE ACCEPTED UNLESS AUTHORIZED BY PEAK TO PEAK ENGINEERED RAILINGS, INC. BEFORE SUCH COSTS ARE INCURRED	
STANDARD DETAILS							
CITY, ST							
ALUMINUM HANDRAIL - RIVET SYSTEM - SUB-ASSEMBLED							
DESIGNER	DESIGNER	CUSTOMER	CUSTOMER	DWG TITLE		HANDRAIL DETAILS	
CUSTOMER JOB #	XXXX-XX	PRINT DATE	3/13/2020	ISSUE DATE	3/13/2020	CONTRACT NO	DRAWING NO.
DETAILED BY	INT	CHECKER	INT	SCALE	NTS	XXX-XXX	SD-2

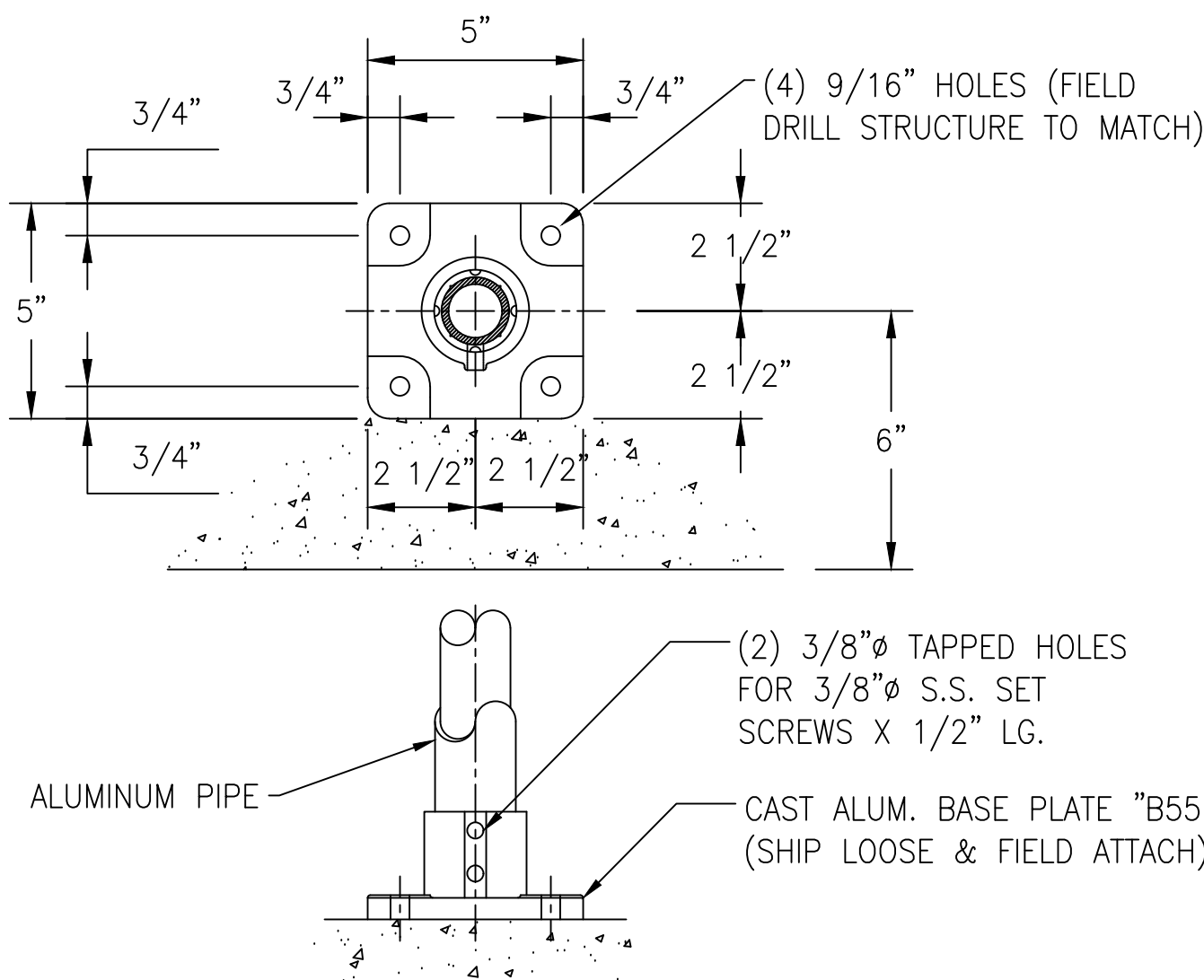
MOUNTING CONDITIONS				
MATERIAL	FASTENER TYPE	FASTENER DIAMETER	FASTENER LENGTH	MINIMUM EMBED DEPTH
STEEL	S.S. MACHINE BOLT	1/2"	2"	N/A
CONCRETE	N/A	-	-	-



LEVEL STL. LINE POST

B27

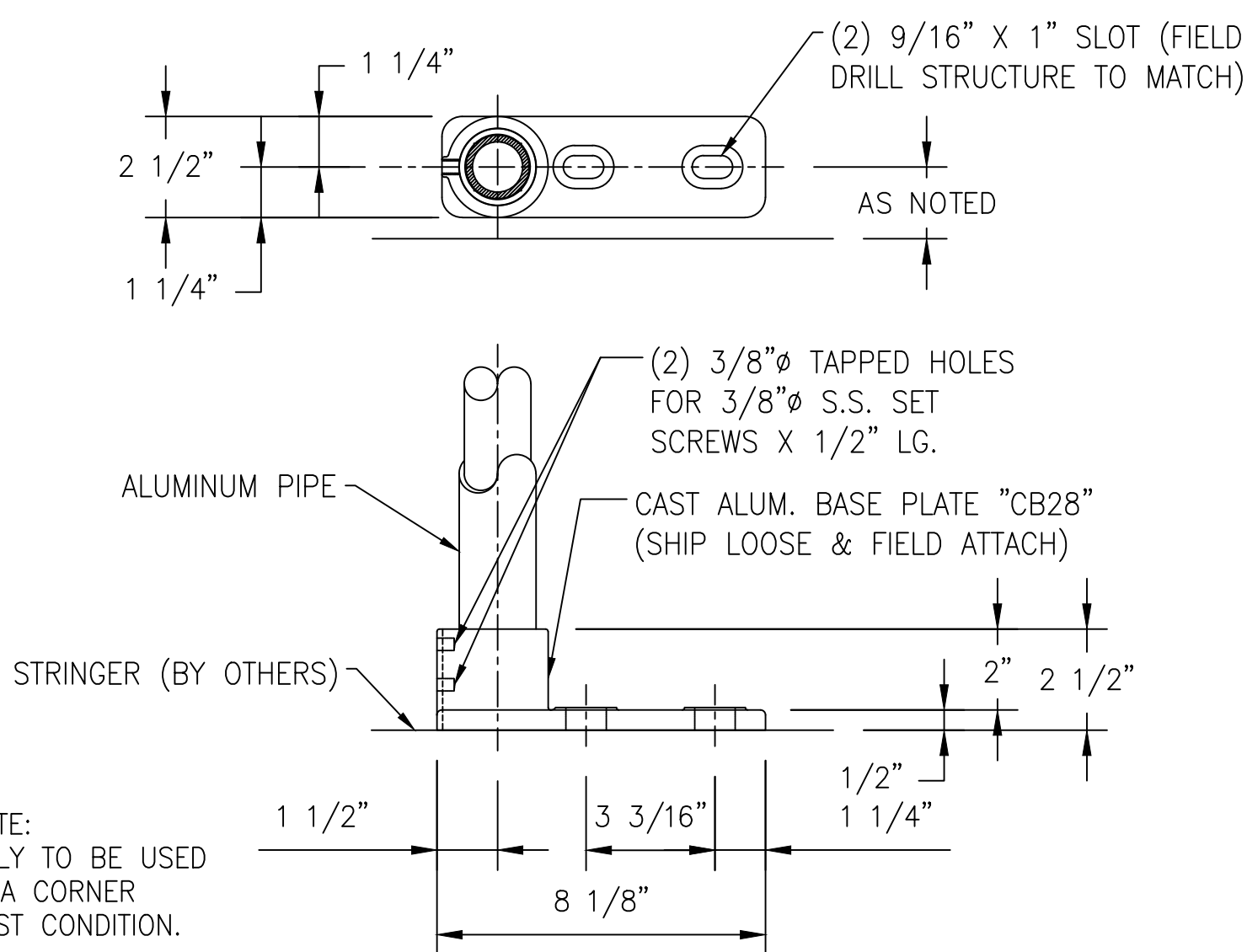
MOUNTING CONDITIONS				
MATERIAL	FASTENER TYPE	FASTENER DIAMETER	FASTENER LENGTH	MINIMUM EMBED DEPTH
STEEL	S.S. MECHANICAL BOLT	1/2"	2"	N/A
CONCRETE	S.S. ADHESIVE ANCHORS	1/2"	6"	4 1/2"



LEVEL CONC. LINE POST

B55

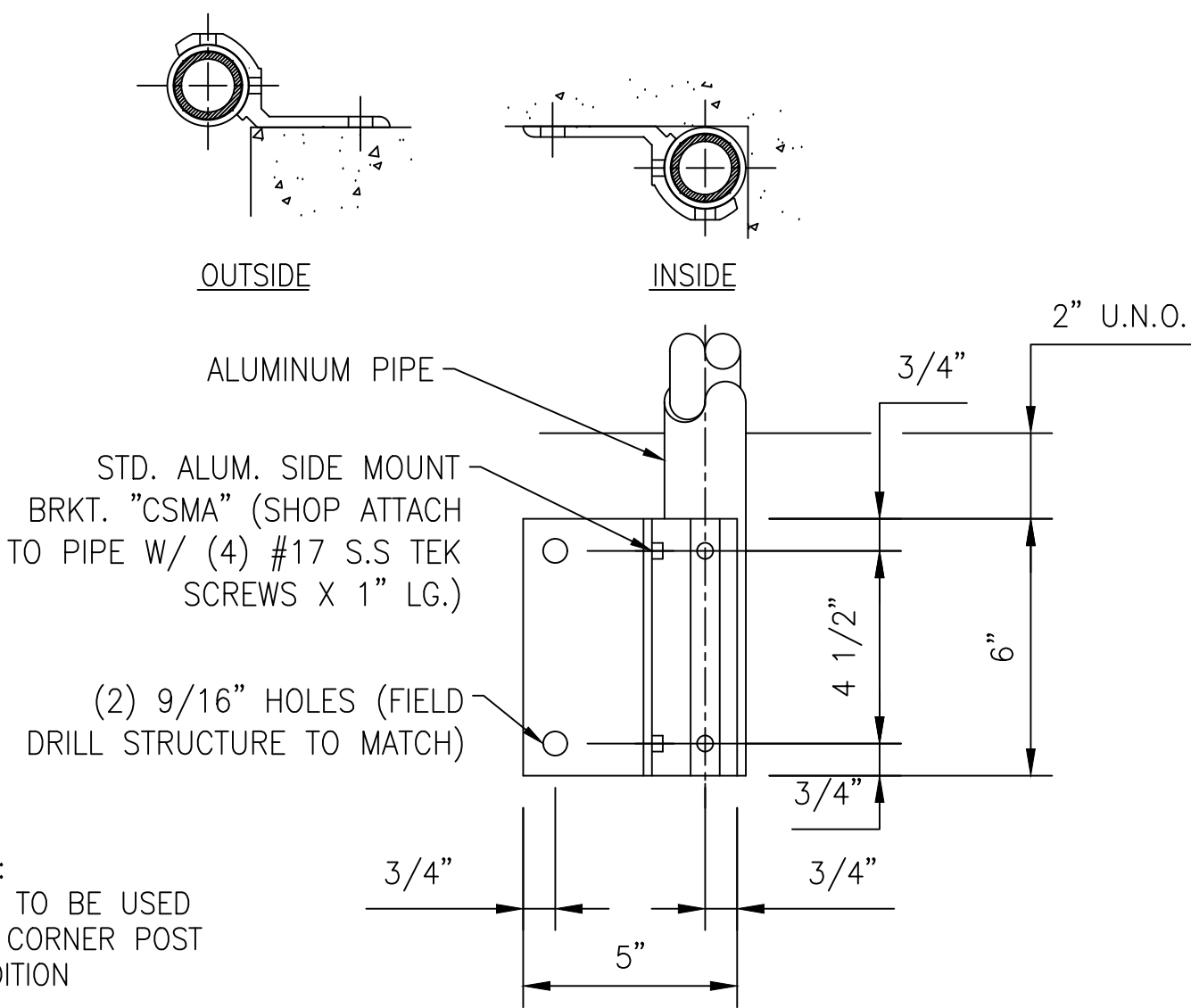
MOUNTING CONDITIONS				
MATERIAL	FASTENER TYPE	FASTENER DIAMETER	FASTENER LENGTH	MINIMUM EMBED DEPTH
STEEL	S.S. MACHINE BOLT	1/2"	2"	N/A
CONCRETE	S.S. ADHESIVE ANCHORS	1/2"	6"	4 1/2"



LEVEL CORNER POST

CB28

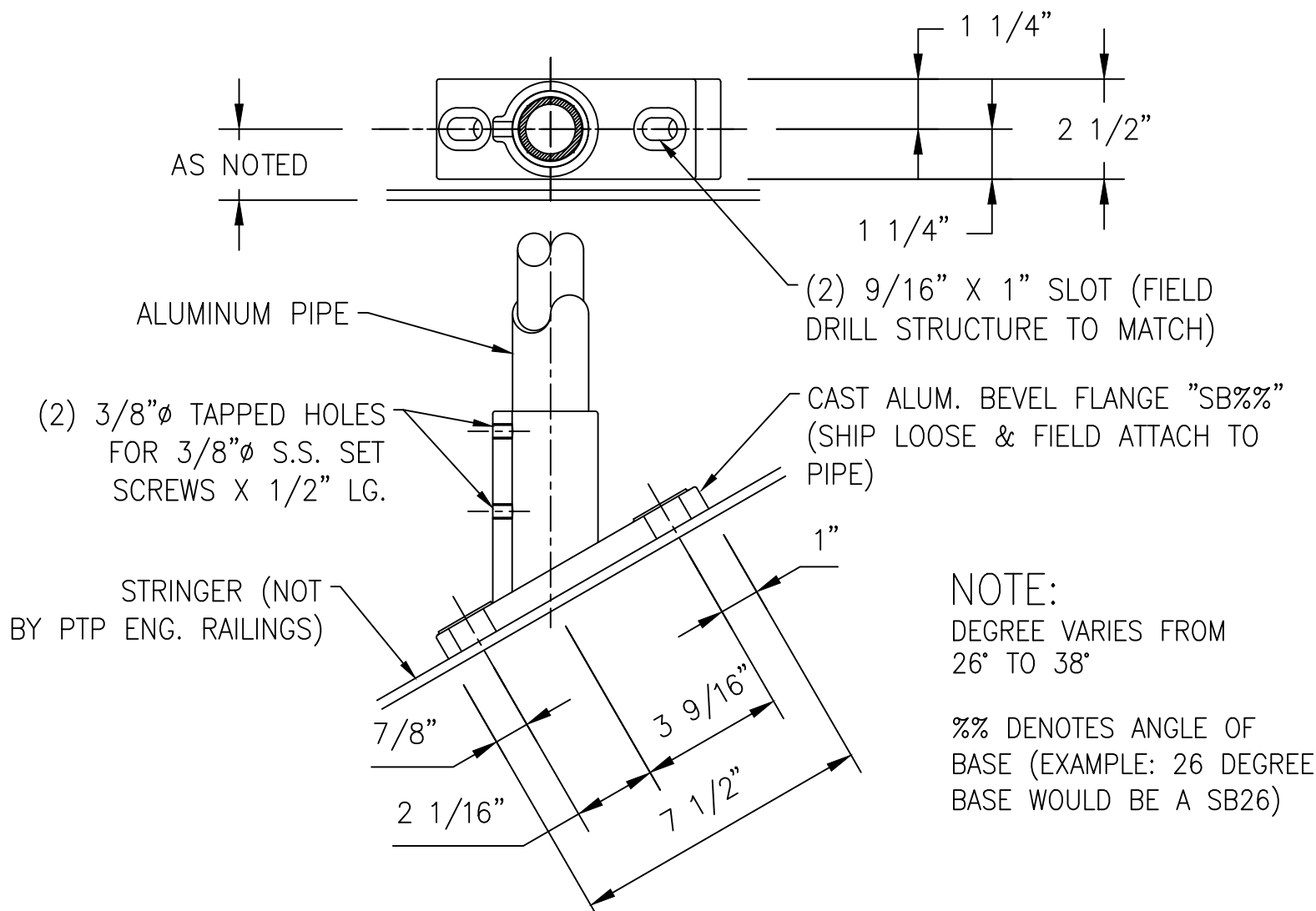
MOUNTING CONDITIONS				
MATERIAL	FASTENER TYPE	FASTENER DIAMETER	FASTENER LENGTH	MINIMUM EMBED DEPTH
STEEL	S.S. MACHINE BOLT	1/2"	2"	N/A
CONCRETE	S.S. ADHESIVE ANCHORS	1/2"	6"	4 1/2"



CONC. CORNER SIDE MOUNT

CSMA

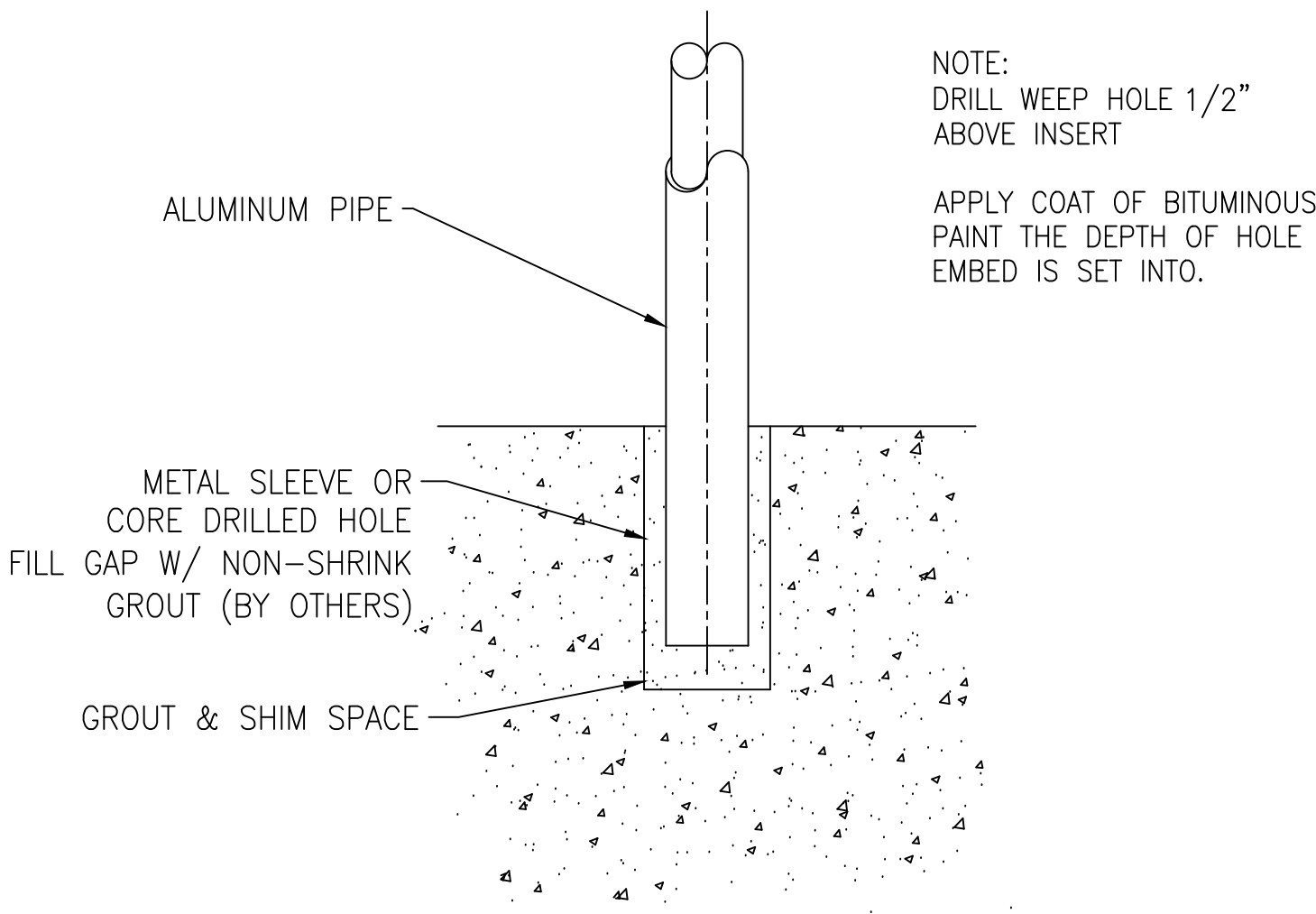
MOUNTING CONDITIONS				
MATERIAL	FASTENER TYPE	FASTENER DIAMETER	FASTENER LENGTH	MINIMUM EMBED DEPTH
STEEL	S.S. MACHINE BOLT	1/2"	2 1/2"	N/A
CONCRETE	N/A	-	-	-



RAKE STL. LINE POST

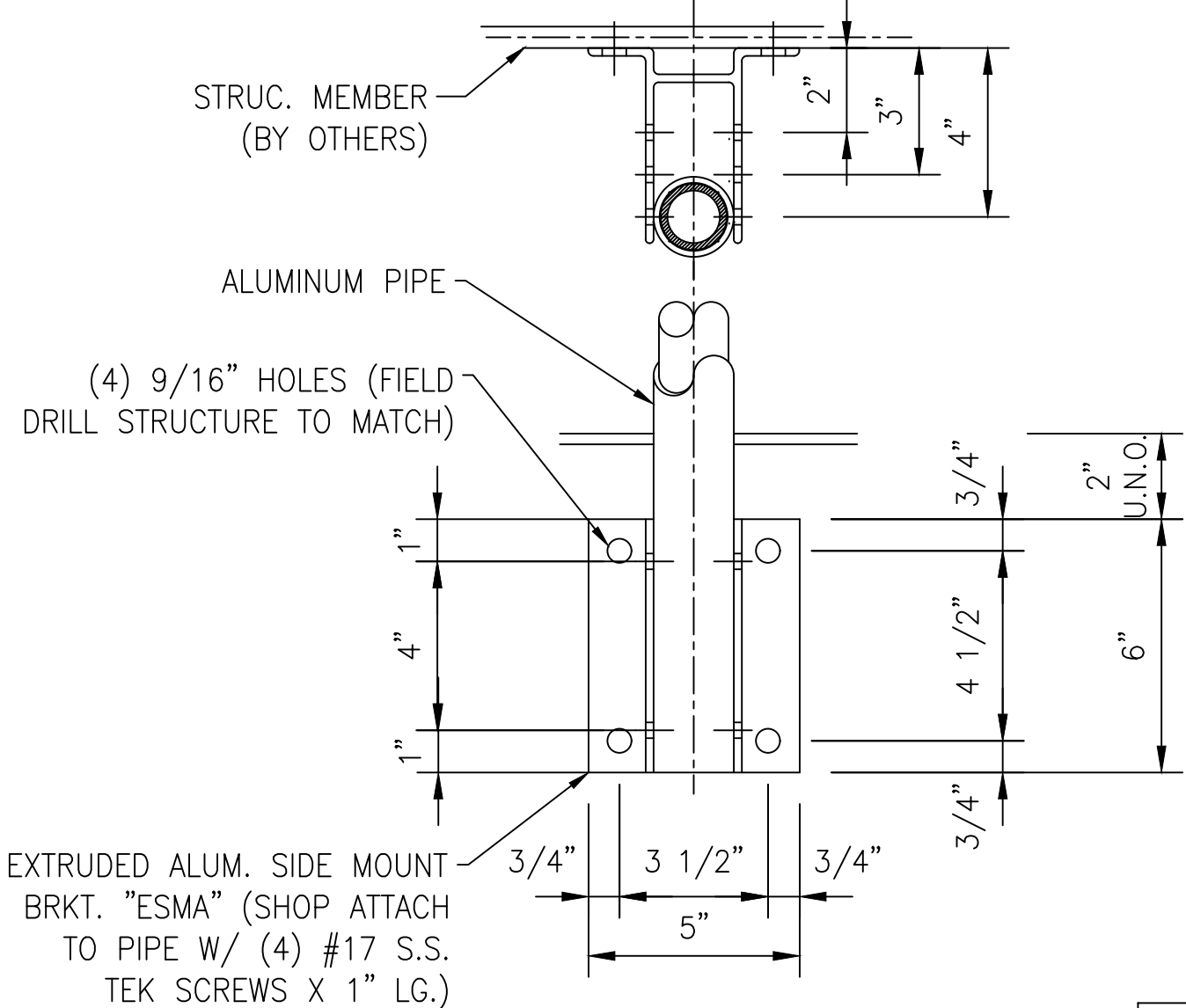
SB%%

MOUNTING CONDITIONS				
MATERIAL	FASTENER TYPE	FASTENER DIAMETER	FASTENER LENGTH	MINIMUM EMBED DEPTH
STEEL	N/A	-	-	-
CONCRETE	N/A	-	-	-



EMBED POST

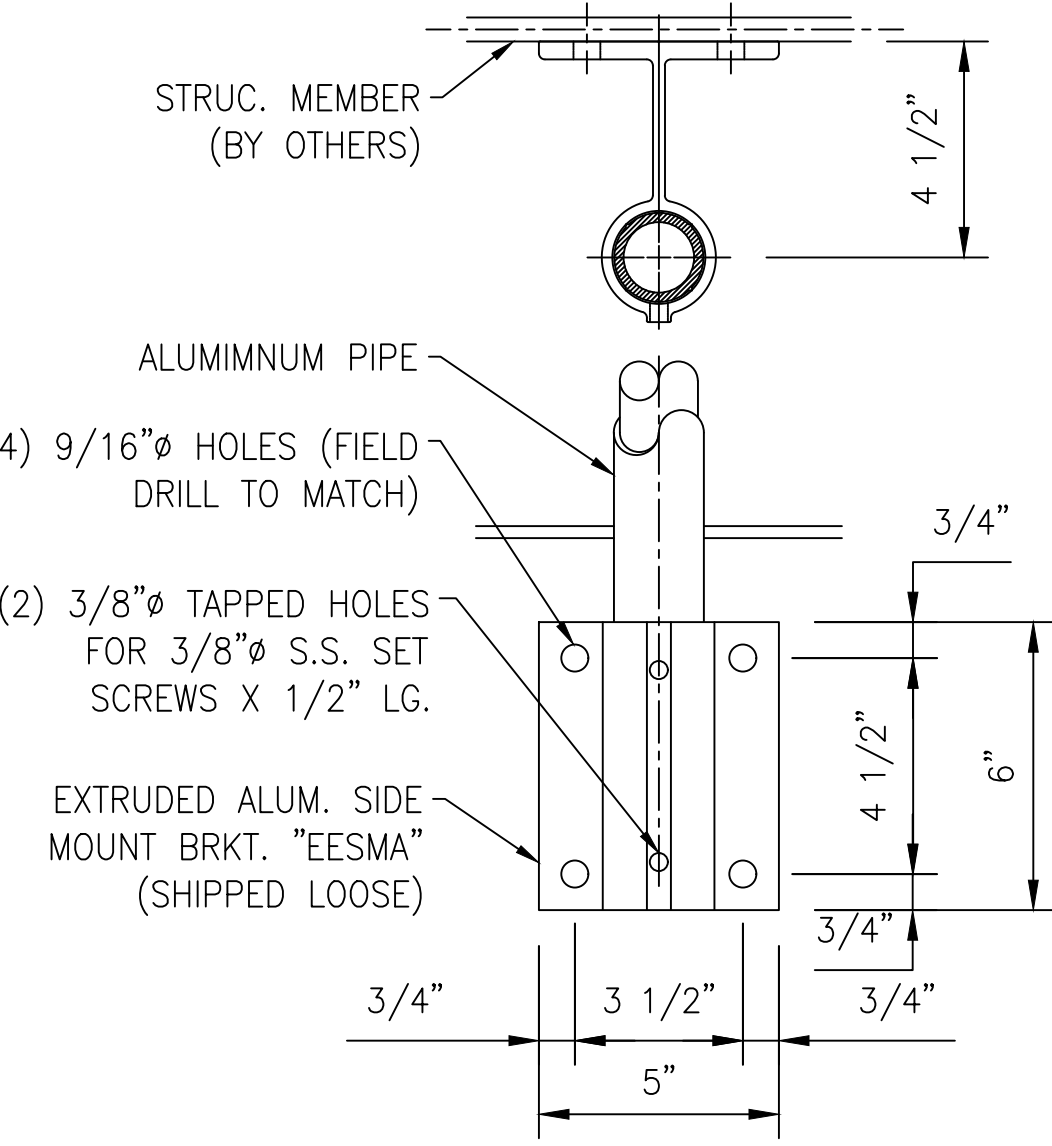
MOUNTING CONDITIONS				
MATERIAL	FASTENER TYPE	FASTENER DIAMETER	FASTENER LENGTH	MINIMUM EMBED DEPTH
STEEL	S.S. MACHINE BOLT	1/2"	2"	N/A
CONCRETE	S.S. ADHESIVE ANCHORS	1/2"	6"	4 1/2"



SIDE MOUNT 4-HOLE

ESMA

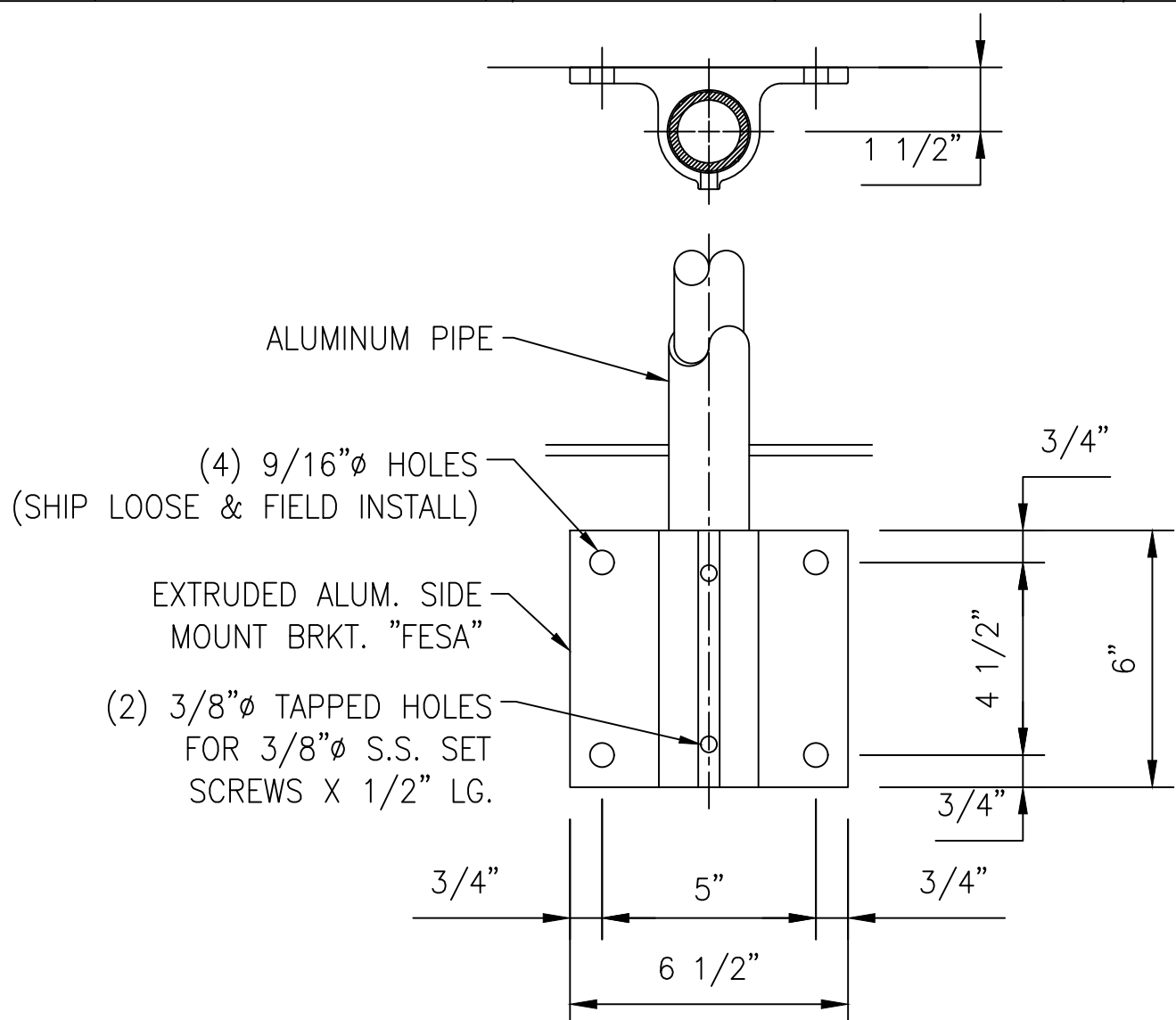
MOUNTING CONDITIONS				
MATERIAL	FASTENER TYPE	FASTENER DIAMETER	FASTENER LENGTH	MINIMUM EMBED DEPTH
STEEL	S.S. MACHINE BOLT	1/2"	2"	N/A
CONCRETE	S.S. ADHESIVE ANCHORS	1/2"	6"	4 1/2"



SIDE MOUNT 4-HOLE

EESMA

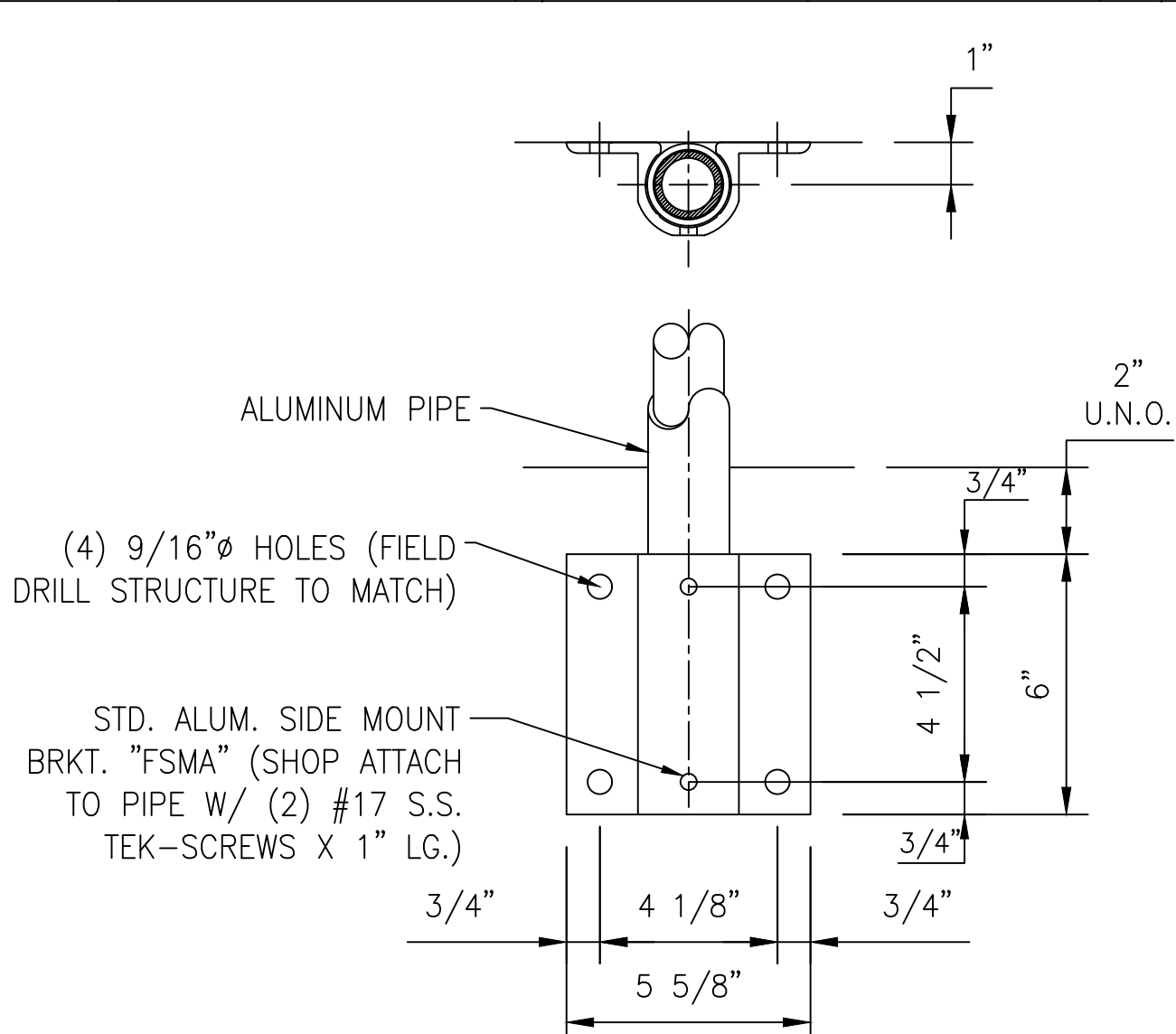
MOUNTING CONDITIONS				
MATERIAL	FASTENER TYPE	FASTENER DIAMETER	FASTENER LENGTH	MINIMUM EMBED DEPTH
STEEL	S.S. MACHINE BOLT	1/2"	2"	N/A
CONCRETE	S.S. ADHESIVE ANCHOR	1/2"	6"	4 1/2"



FLUSHED ENCLOSED SIDE


FESA

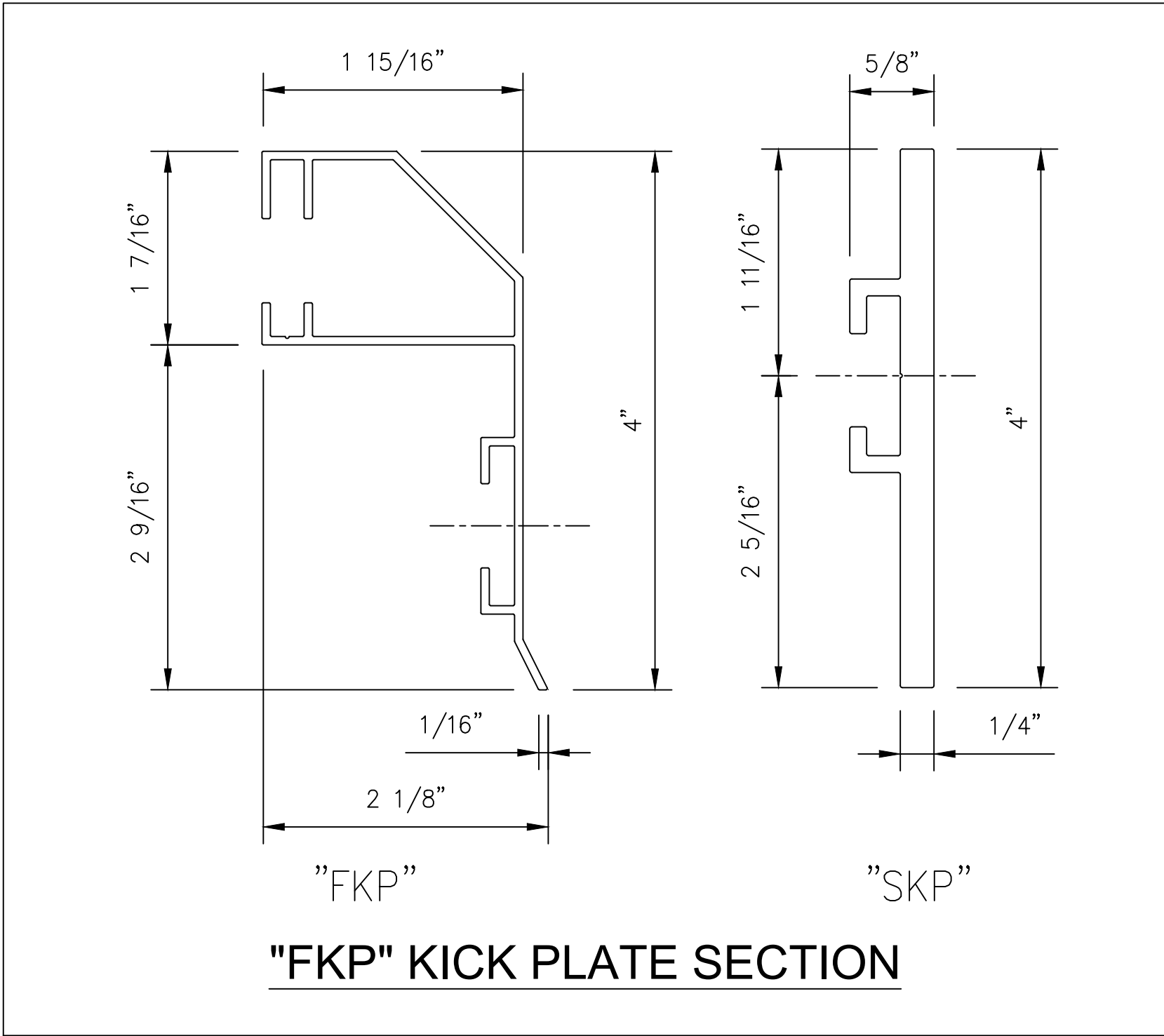
MOUNTING CONDITIONS				
MATERIAL	FASTENER TYPE	FASTENER DIAMETER	FASTENER LENGTH	MINIMUM EMBED DEPTH
STEEL	S.S. MACHINE BOLT	1/2"	2"	N/A
CONCRETE	S.S. ADHESIVE ANCHOR	1/2"	6"	4 1/2"



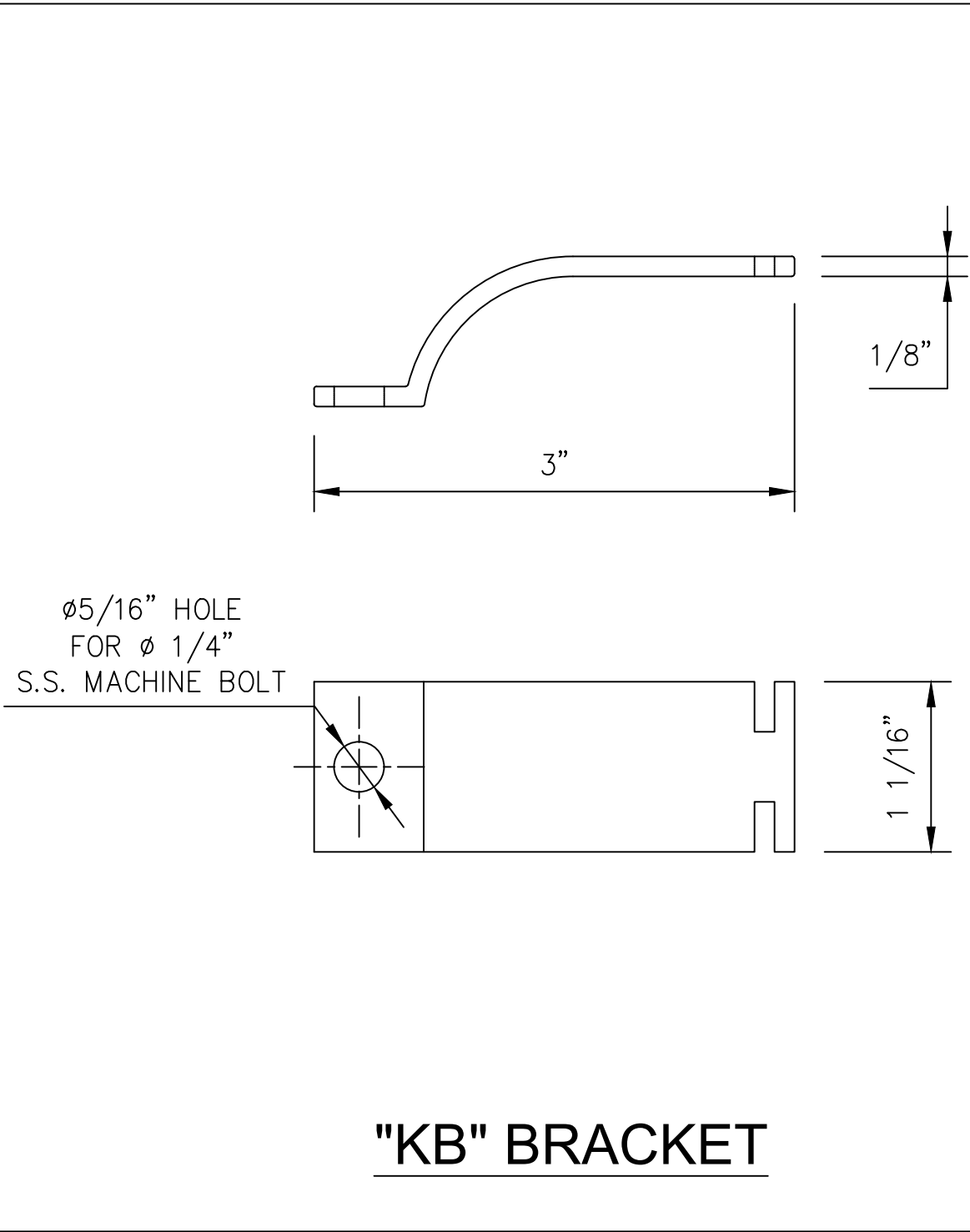
SIDE MOUNT 4-HOLE

FSMA

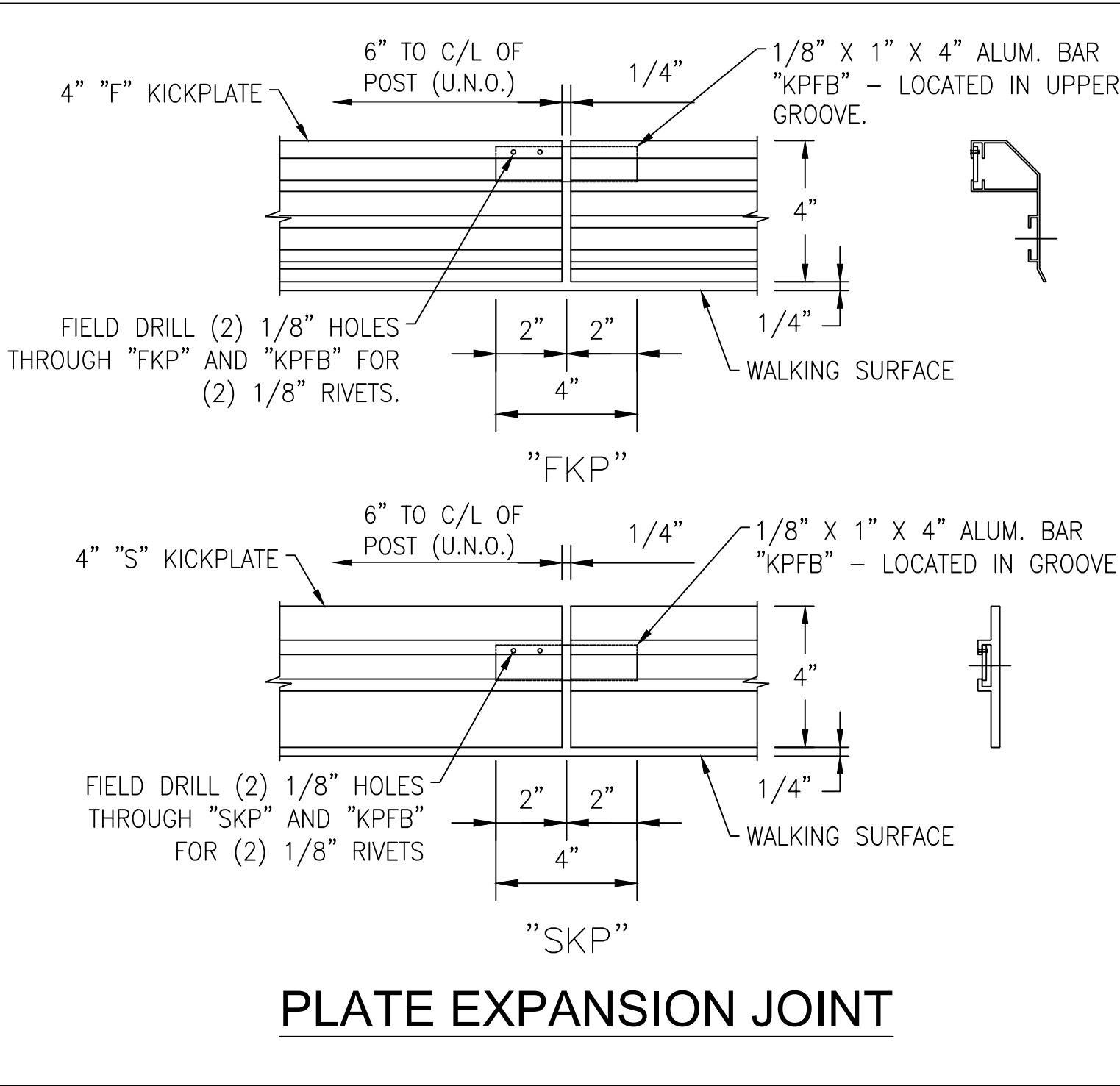
REV   DESCRIPTION					DATE		
<div><p>3000 YOUNGFIELD ST. SUITE 275 WHEAT RIDGE, CO 80215 Ph. (720)508-3819 FAX (720)409-3843</p></div>					NOTICE TO CONTRACTOR AND ERECTOR: BACK CHARGES FOR CORRECTIVE WORK OR REPLACEMENT MATERIALS WILL NOT BE ACCEPTED UNLESS AUTHORIZED BY PEAK TO PEAK ENGINEERED RAILINGS, INC. BEFORE SUCH COSTS ARE INCURRED		
STANDARD DETAILS							
CITY, ST							
ALUMINUM HANDRAIL - RIVET SYSTEM - SUB-ASSEMBLED							
DESIGNER	DESIGNER	CUSTOMER	CUSTOMER	DWG TITLE		HANDRAIL DETAILS	
CUSTOMER JOB #	XXXX-XX	PRINT DATE	3/13/2020	ISSUE DATE	3/13/2020	CONTRACT NO	DRAWING NO.
DETAILED BY	INT	CHECKER	INT	SCALE	NTS	XXX-XXX	SD-3



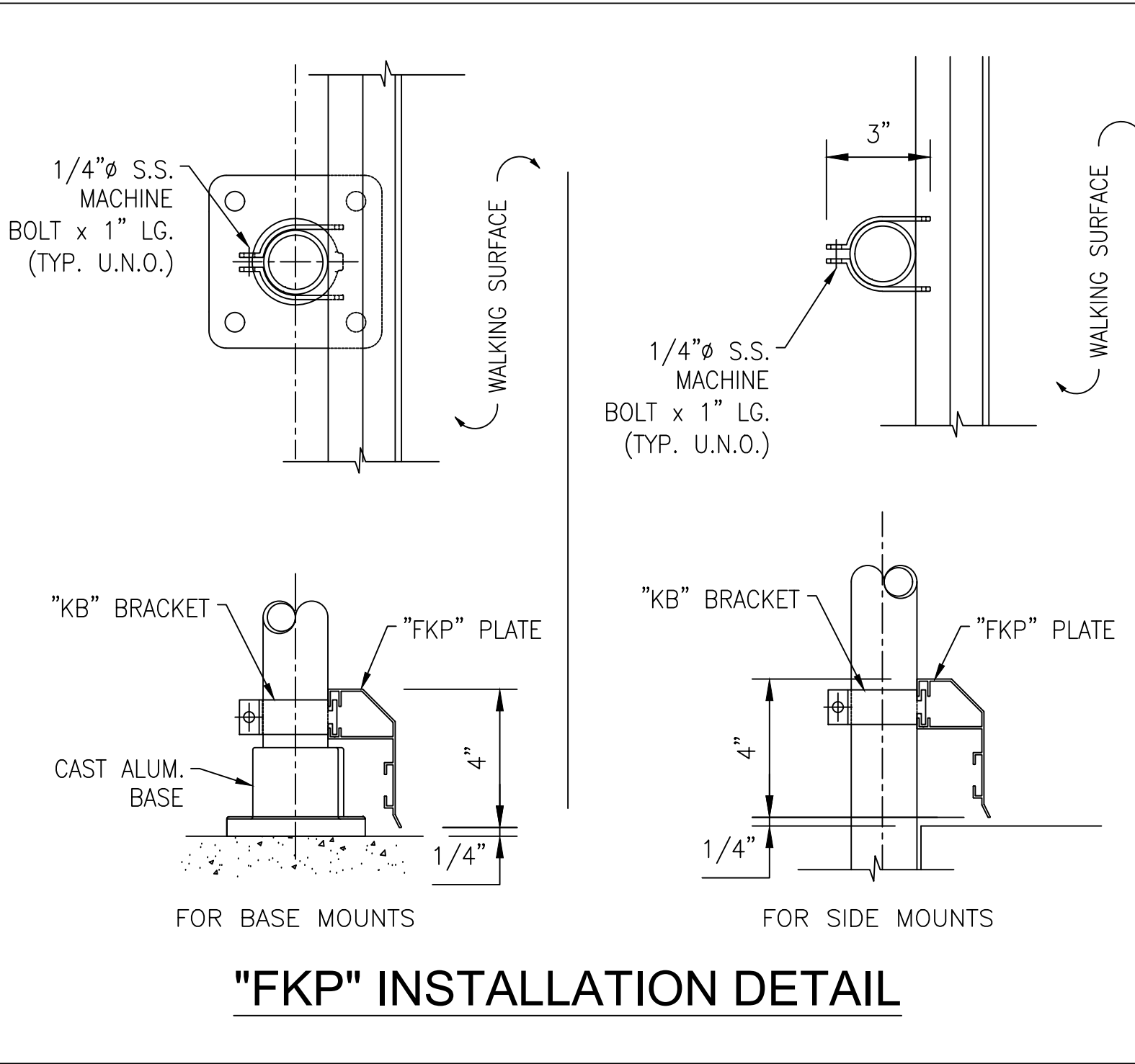
**FKP KICK PLATE SECTION**



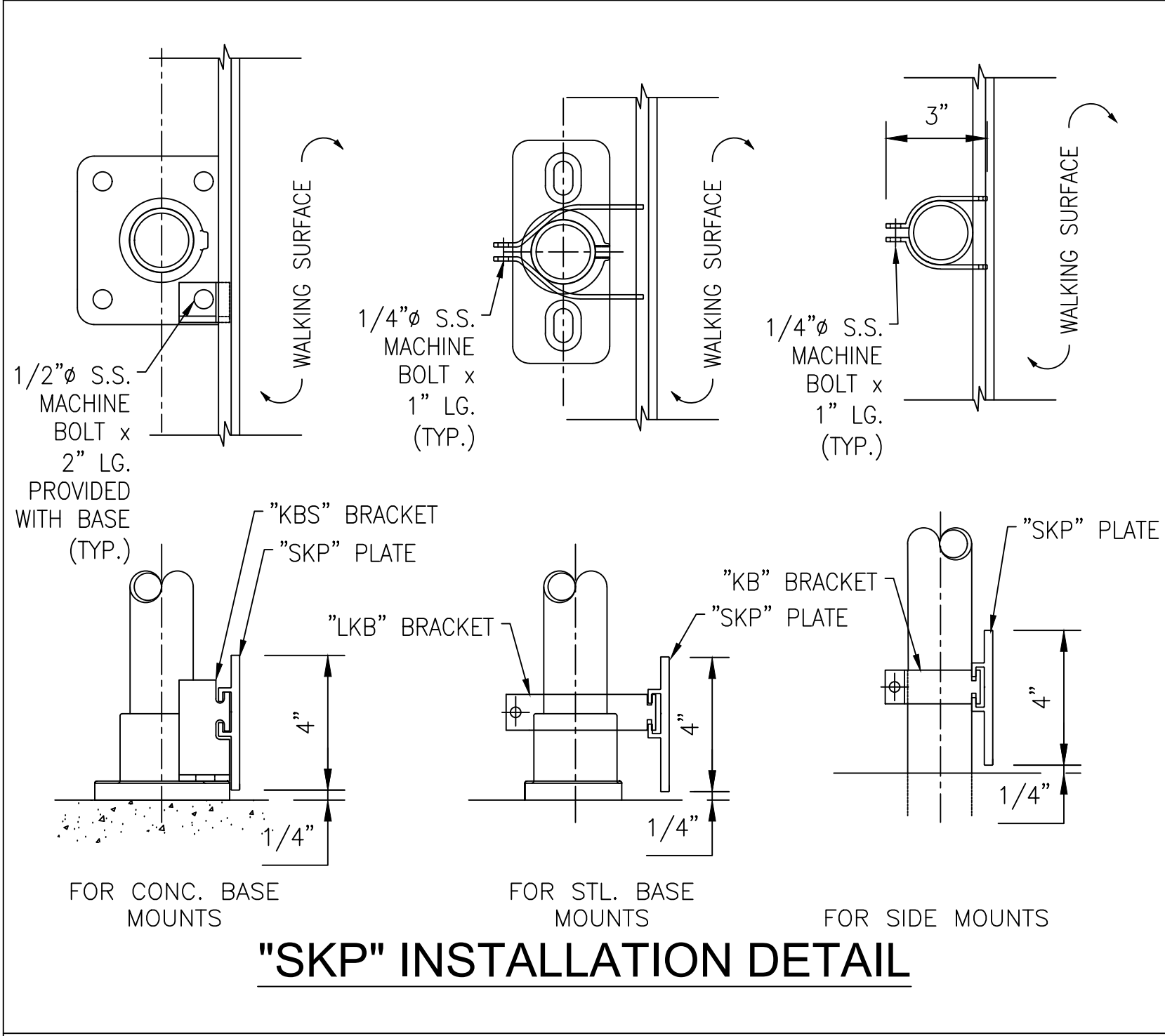
**KB BRACKET**



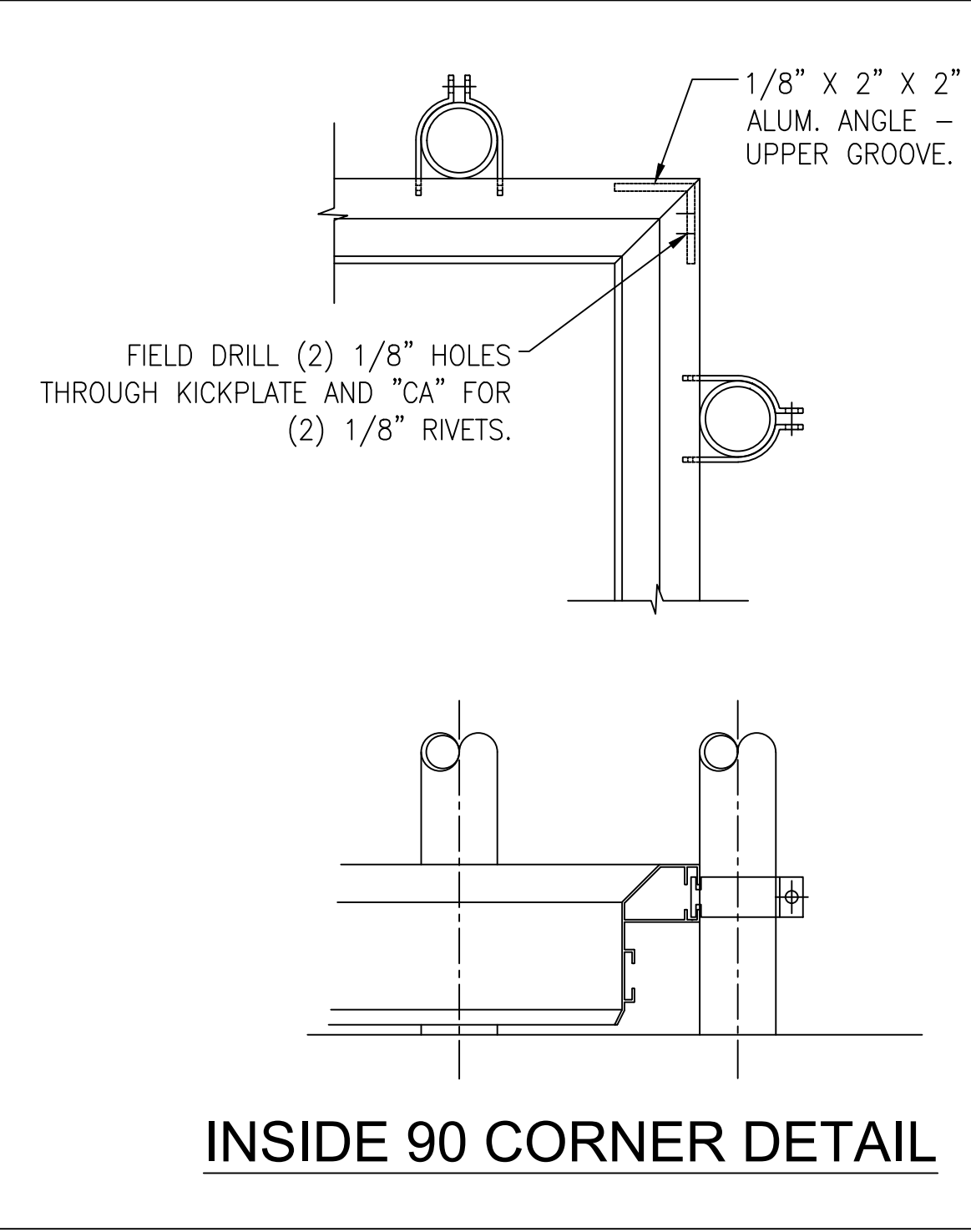
**PLATE EXPANSION JOINT**



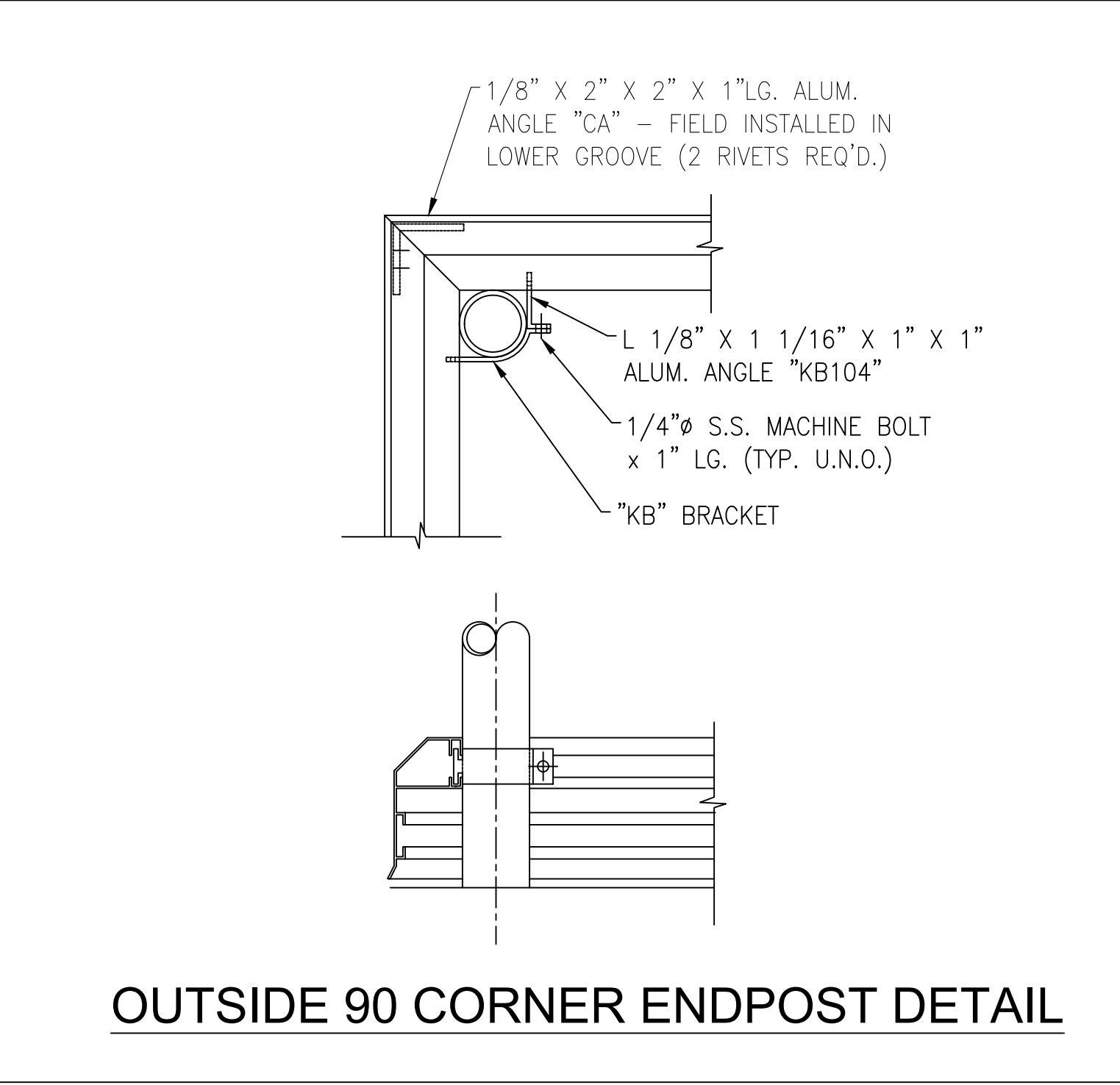
**FKP INSTALLATION DETAIL**



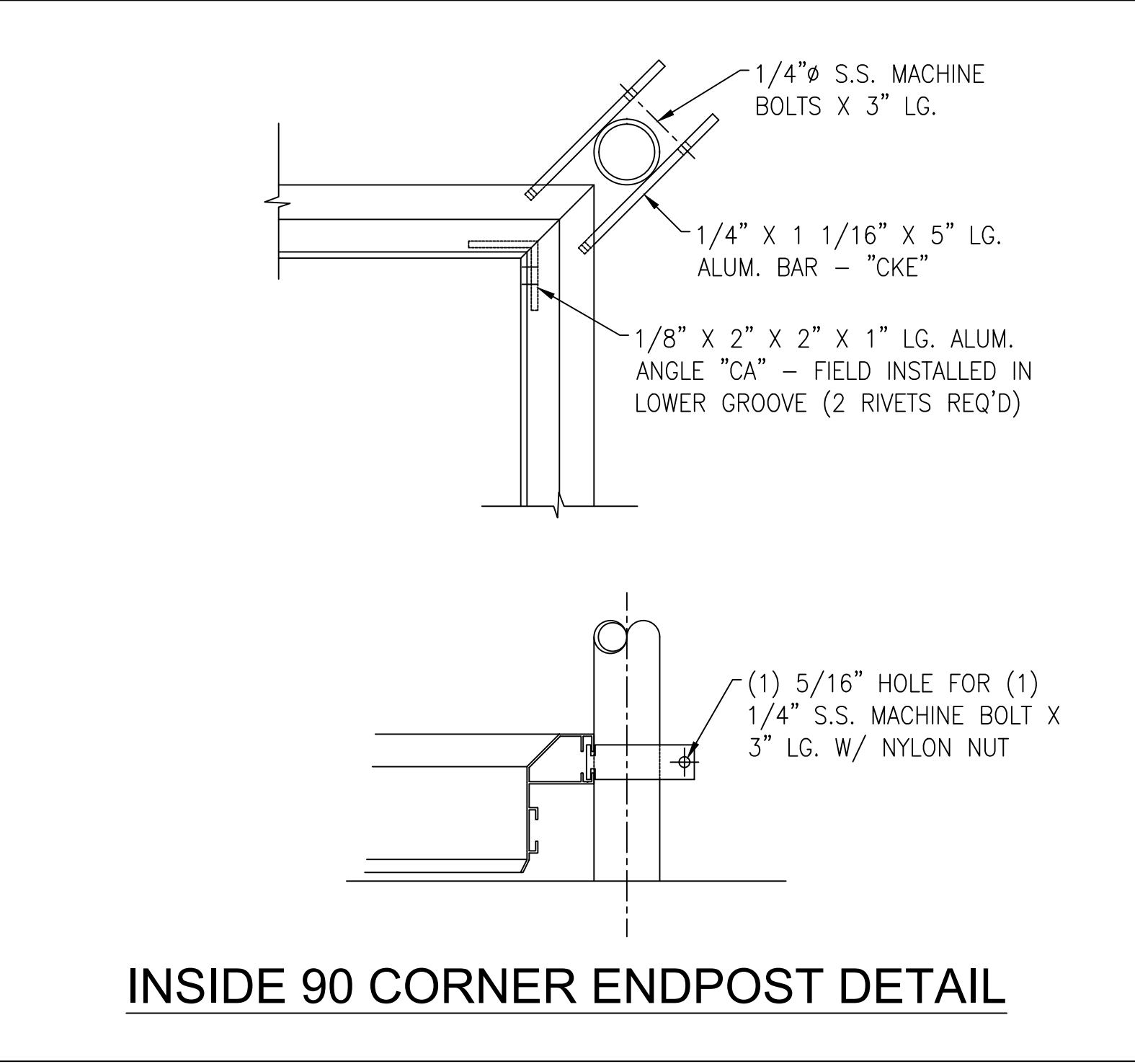
**SKP INSTALLATION DETAIL**



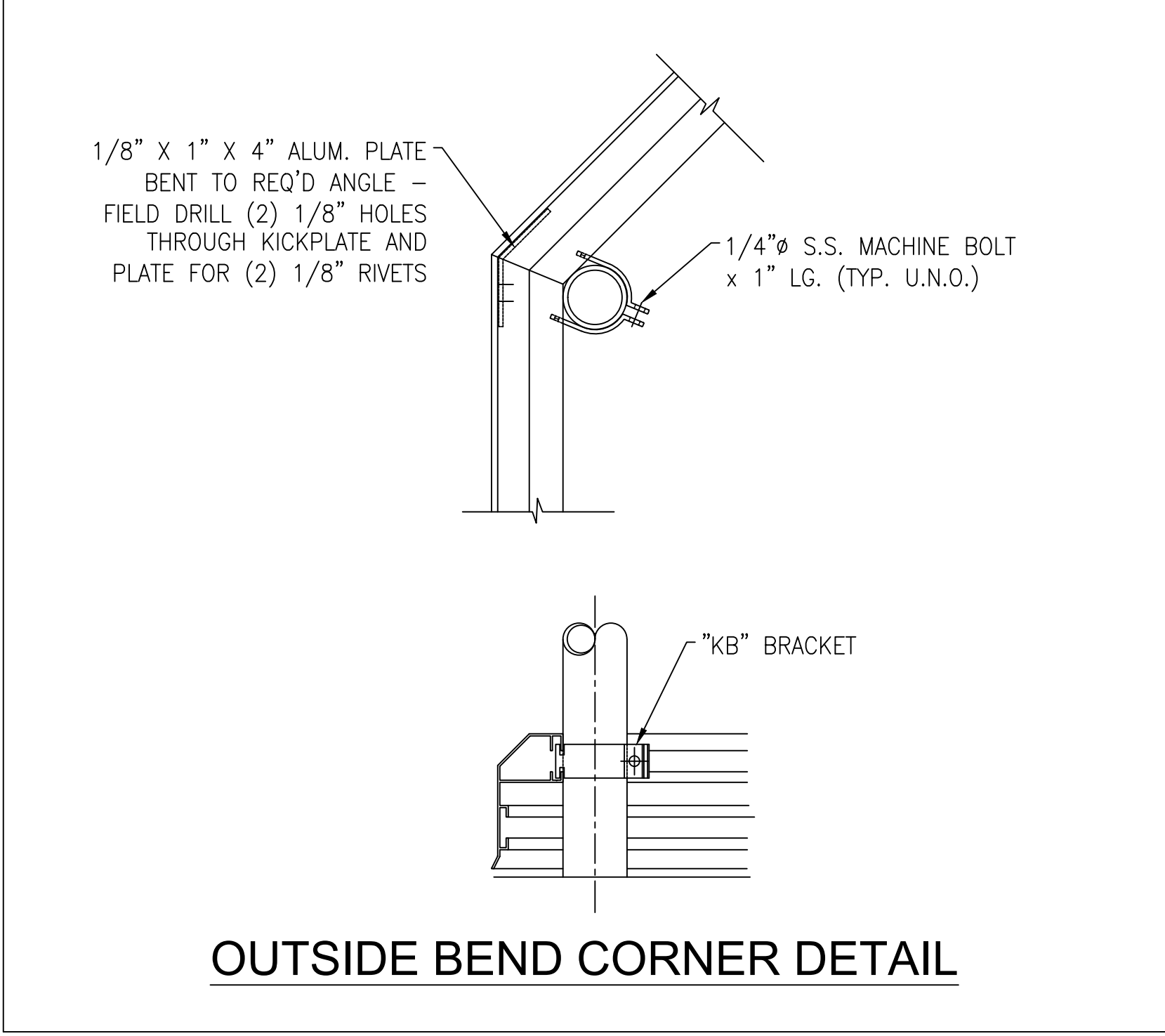
**INSIDE 90 CORNER DETAIL**



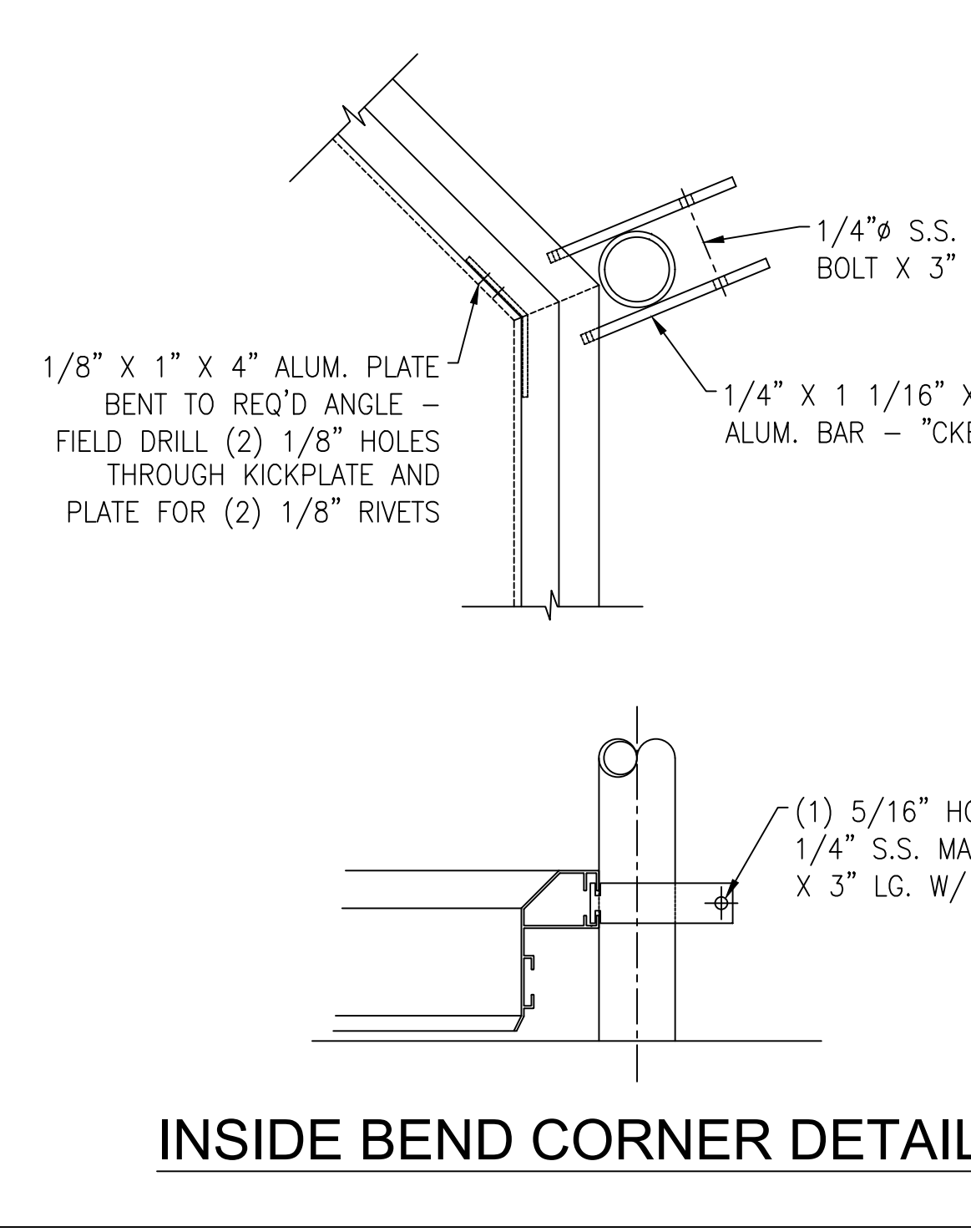
**OUTSIDE 90 CORNER ENDPOST DETAIL**



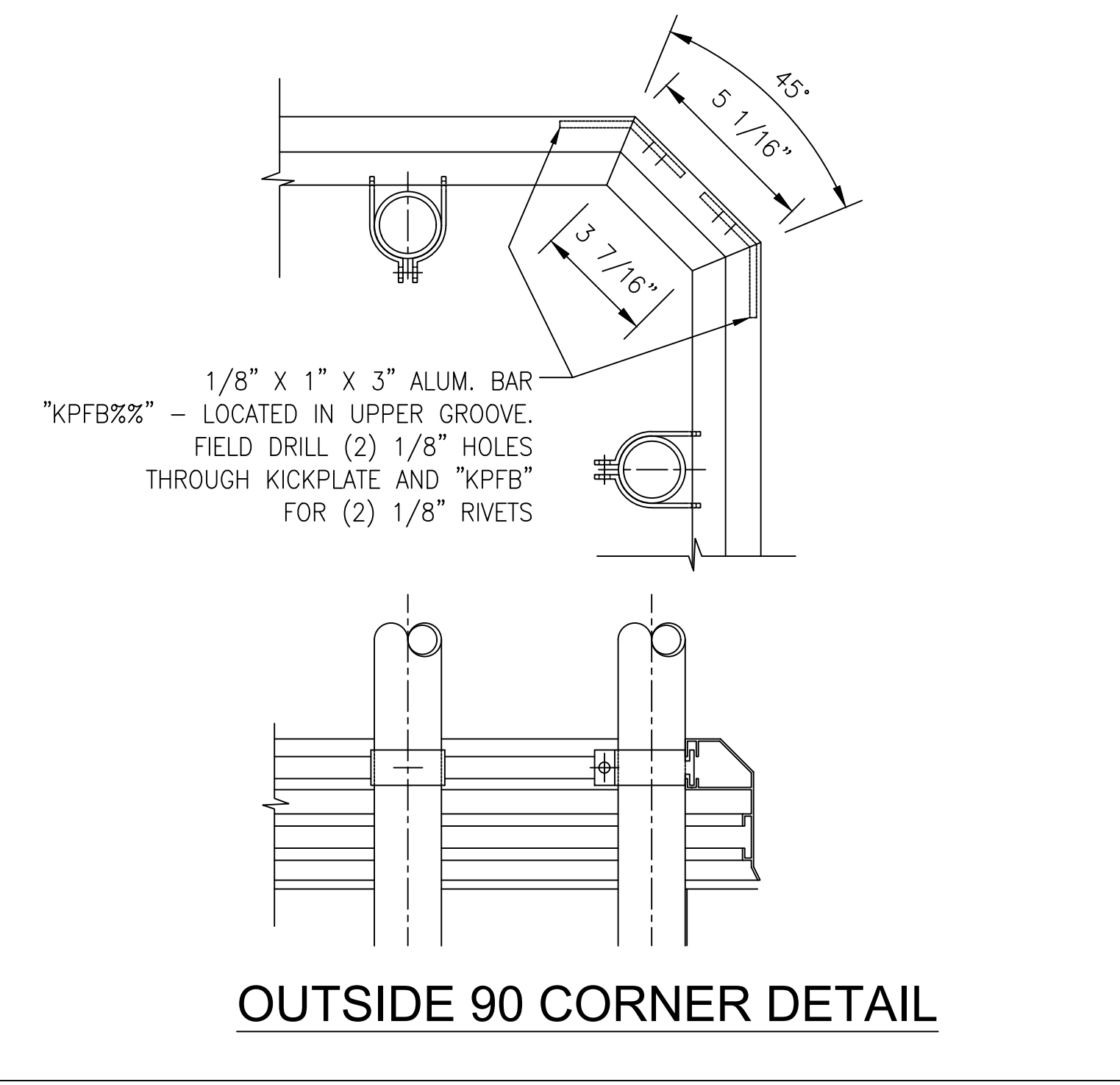
**INSIDE 90 CORNER ENDPOST DETAIL**



**OUTSIDE BEND CORNER DETAIL**




**INSIDE BEND CORNER DETAIL**



**OUTSIDE 90 CORNER DETAIL**

## TYPICAL NOTES:

- 1.) ALL KICK PLATE SHALL BE:
  - a) 4" EXTRUDED ALUMINUM "FKP" OR "SKP" PLATE.
  - b) SHIPPED LOOSE IN 24'-0" STOCK LENGTHS  
FOR FIELD CUTTING AND DRILLING AS REQ'D.
  - c) FIELD ATTACHED TO POSTS.
- 2.) ALL RIVETS ARE TO BE STAINLESS STEEL.
- 3.) INSTALL USING 1/4"Ø S.S. BOLT (U.N.O.)

REV					DESCRIPTION		DATE	
 3000 YOUNGFIELD ST. SUITE 275 WHEAT RIDGE, CO 80215 Ph. (720)508-3819 FAX (720)409-3843					NOTICE TO CONTRACTOR AND ERECTOR: BACK CHARGES FOR CORRECTIVE WORK OR REPLACEMENT MATERIALS WILL NOT BE ACCEPTED UNLESS AUTHORIZED BY PEAK TO PEAK ENGINEERED RAILINGS, INC. BEFORE SUCH COSTS ARE INCURRED			
					STANDARD DETAILS			
					CITY, ST			
					ALUMINUM HANDRAIL - RIVET SYSTEM - SUB-ASSEMBLED			
					DESIGNER	DESIGNER	CUSTOMER	CUSTOMER
CUSTOMER JOB #	XXXX-XX	PRINT DATE	3/13/2020	ISSUE DATE	3/13/2020	CONTRACT NO	DRAWING NO.	
DETAILED BY	INT	CHECKER	INT	SCALE	NTS	XXX-XXX	KP-1	