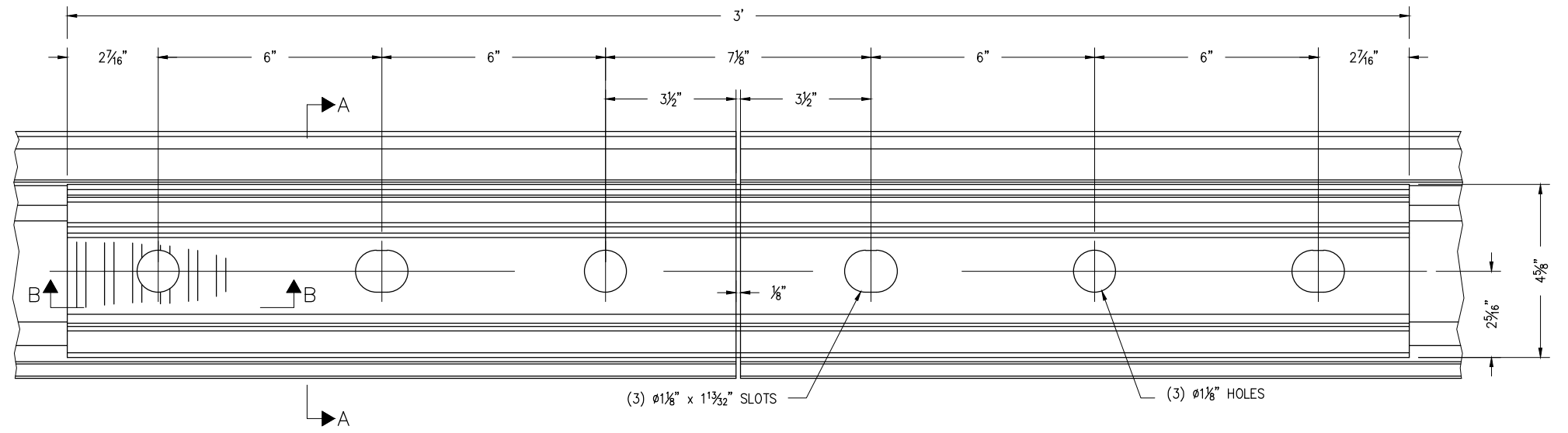
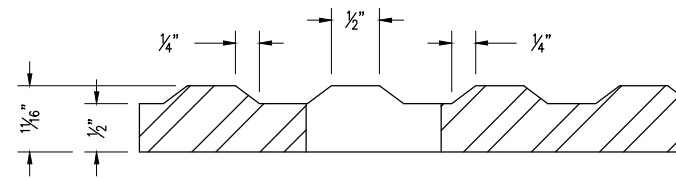


**SECTION A-A**  
HALF SCALE




**JOINT FASTENER ASSEMBLY - ELEVATION**  
SCALE: 3" = 1'-0"



**SECTION B-B**  
HALF SCALE

MATHEMATICAL PROPERTIES	
JOINT (TWO BARS)	
MOMENT OF INERTIA	= 23.0
SECT. MODULUS - TOE	= 10.5
SECT. MODULUS - BTM	= 9.6
EACH BAR	
GROSS WEIGHT - LBS.	= 53.65
MAX. AREA - SQ. IN.	= 5.45
MIN. AREA - SQ. IN.	= 5.07
AVG. AREA - SQ. IN.	= 5.26

	<b>ALASKA RAILROAD CORPORATION</b> OFFICE OF THE CHIEF ENGINEER P.O. BOX 107500, ANCHORAGE, ALASKA 99510-7500 (907) 265-2456	
	STANDARD <b>36" HEAD FREE JOINT BAR</b> <b>FOR 115 LB. RE RAIL</b>	
APPROVED:	DATE:	
DESIGNED BY: ARRC	SCALE: AS NOTED	FILE: a5-12.04.dwg
DRAWN BY: BBF		
CHECKED BY: REH		
APPROVED BY: TEB	DATE: 1/13/2004	5.12-04