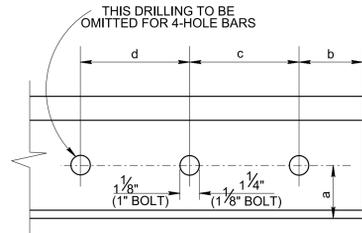
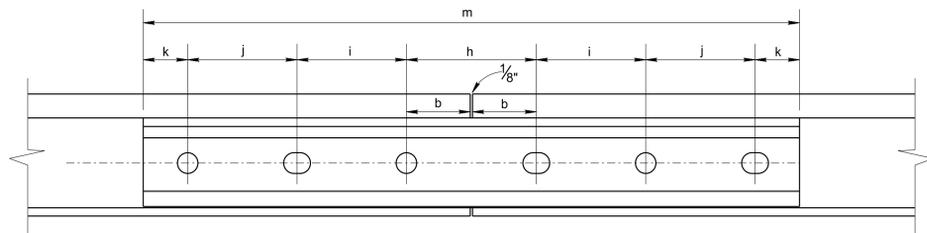


ELEVATION OF 4 HOLE BAR



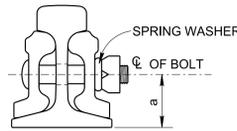
RAIL DRILLING



ELEVATION OF 6 HOLE BAR

RAIL DRILLINGS AND BAR PUNCHINGS

NO SCALE



SECTION

RAIL DRILLINGS, BAR PUNCHINGS AND BOLTS	DIMENSIONS IN INCHES		
	115 RE	133 RE	132 RE AND 136 RE
RAIL DRILLINGS			
a	2 7/8	3	3 3/32
b	3 1/2	3 1/2	3 1/2
c	6	6	6
d*	6	6	6
BAR PUNCHINGS 24-IN. 4-HOLE BAR			
e	7 1/8	7 1/8	7 1/8
f	6	6	6
g	2 1/16	2 1/16	2 1/16
BAR PUNCHINGS 6-HOLE BAR			
h	7 1/8	7 1/8	7 1/8
i	6	6	6
j	6	6	6
k	2 1/16	3 1/16	2 1/16
m	36	38	36
TRACK BOLT			
D	1	1	1 1/8
L	6	6	6
I	2 1/4	2 1/4	2 1/4

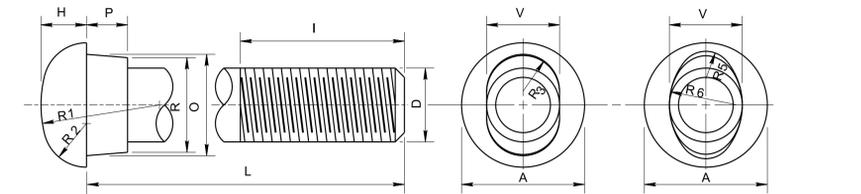
* THIS DRILLING TO BE OMITTED FOR 4-HOLE BARS

OVAL NECK TRACK BOLTS												
D	A	H	R ₁	R ₂	O	R	P	R ₃	V	L	I	THREADS PER INCH
NOMINAL DIA OVER THREAD (NOTE 2)												
1	1 1/16	5/8	5/8	19/32	3/8	1 1/32	9/16	ONE-HALF BODY DIAMETER OF BOLT	SAME AS BODY DIAMETER OF BOLT	FROM 7" TO 10" BY STEPS OF 1/2"	2 1/4	8
1 1/8	1 5/16	45/64	1 55/64	43/64	1 17/32	1 1/2	5/8				2 1/2	7

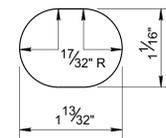
ELLIPTICAL NECK TRACK BOLTS													
D	A	H	R ₁	R ₂	O	R	P	R ₅	R ₆	V	L	THREADS PER INCH	
NOMINAL DIA OVER THREAD (NOTE 2)													
1	1 1/16	5/8	5/8	19/32	3/8	1 1/32	9/16	3/8	19/16	SAME AS BODY DIAMETER OF BOLT	FROM 7" TO 10" BY STEPS OF 1/2"	2 1/4	8
1 1/8	1 5/16	45/64	1 55/64	43/64	1 17/32	1 1/2	5/8	7/16	1			2 1/2	7

NOTES:

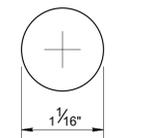
- ALL DIMENSIONS GIVEN IN INCHES. TOLERANCES: LENGTH (L) ± 1/8" NECK (O AND R) ± 1/32" HEAD (A AND H) ± 1/16" SCREW THREADS: THE SCREW THREADS ON TRACK BOLTS SHALL CONFORM TO THE AMERICAN STANDARD COARSE THREAD SERIES WITH FIT AS SPECIFIED. THEY MAY BE FORMED BY CUTTING OR ROLLING.
- IN ORDERING BOLTS SPECIFY THE NOMINAL DIAMETER "D", OVER THE THREADS AND NOT THE BODY DIAMETER.



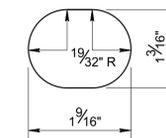
OVAL NECK TRACK BOLT DETAIL
ELLIPTICAL NECK TRACK BOLT DETAIL
NO SCALE



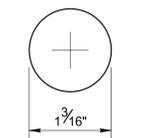
OVAL HOLE



ROUND HOLE



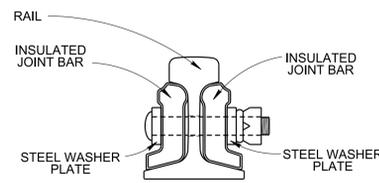
OVAL HOLE



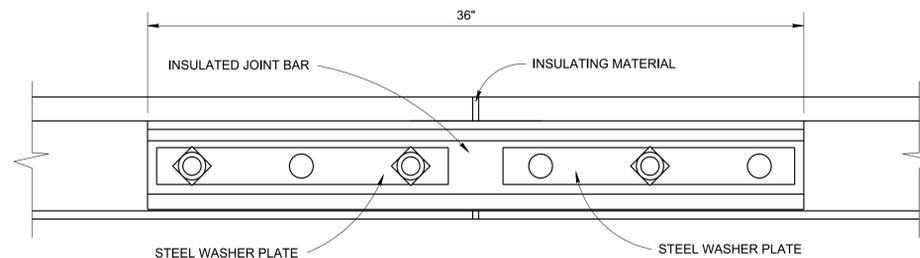
ROUND HOLE

ALL BAR PUNCHINGS (1-INCH TRACK BOLTS)

ALL BAR PUNCHINGS (1 1/8-INCH TRACK BOLTS)



SECTION



ELEVATION

INSULATED RAIL JOINT DETAIL

NO SCALE

\$\$ - THINK VALUE ENGINEERING - \$\$

Revisions			
Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by:	X	X
Drawn by:	X	X
Checked by:	X	
Reviewed by:	X	
Submitted by:		
Chief:	X	Section

JOINT BAR DETAILS

Plot Scale Ratio:	1:3	Date:	DECEMBER 1997	Sheet reference number:	
Design File:	C104.DGN	Contract No.:	DACA 45	Drawing Code:	X
Spec. No.:	DACA 45	Contract No.:	DACA 45		

C1.04

COMPUTER AIDED DESIGN & DRAFTING