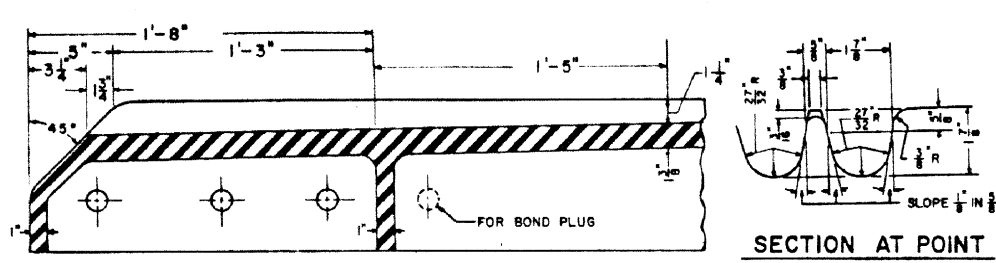
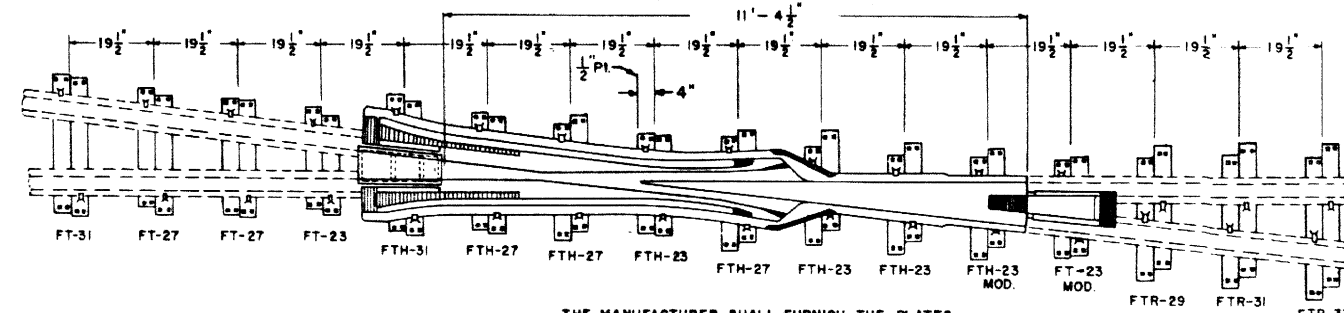


Revised:
8-March 1978



SECTION THRU TOE EXTENSION

SECTION AT POINT



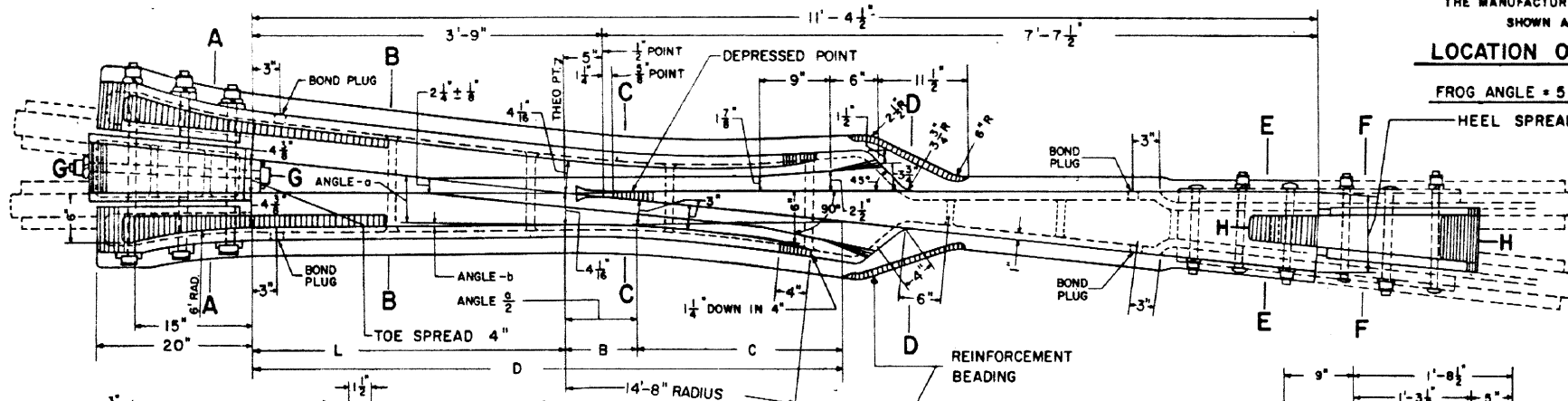
LOCATION OF FROG TIE PLATES

FROG ANGLE = 5°-43'-29"

HEEL SPREAD 9 3/4"

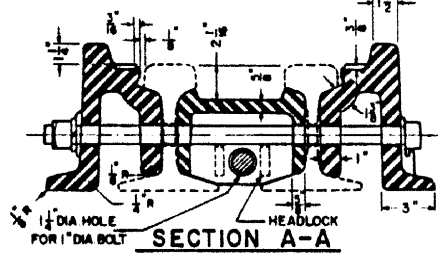
FROG TIE PLATES REQUIRED

- 2 - FT 23 FROG TIE PLATES
- 2 - FT 23 MOD. FROG TIE PLATES
- 4 - FT 27 FROG TIE PLATES
- 2 - FT 31 FROG TIE PLATES
- 6 - FTH 23 FROG TIE PLATES
- 2 - FTH 23 MOD. FROG TIE PLATES
- 6 - FTH 27 FROG TIE PLATES
- 2 - FTH 31 FROG TIE PLATES
- 2 - FTR 29 FROG TIE PLATES
- 2 - FTR 31 FROG TIE PLATES
- 2 - FTR 33 FROG TIE PLATES

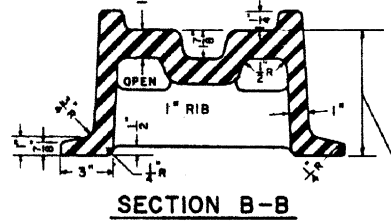


NOTES

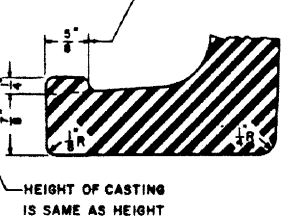
- 1 - THIS PLAN IS FOR USE WITH A.R.E.A. RECOMMENDED STANDARDS FOR 119RE, 132RE, OR 140RE RAIL.
- 2 - WORKMANSHIP AND MATERIALS SHALL BE PER CURRENT A.R.E.A. SPECIFICATIONS.
- 3 - BOND PLUGS TO BE PROVIDED BY THE MANUFACTURER.
- 4 - ALL BOLTS SHALL BE DIPPED IMMEDIATELY BEFORE APPLYING (SO THAT ALL THREADS ARE THOROUGHLY COATED) IN NO-OX-ID "G G" GREASE, MANUFACTURED BY THE DEARBORN CHEMICAL COMPANY.
- 5 - ALL FROG TIE PLATES MUST BE CLEARLY MARKED TO SHOW PLATE DESIGNATION, AS SHOWN ON C.R. Plan 72105-(-).



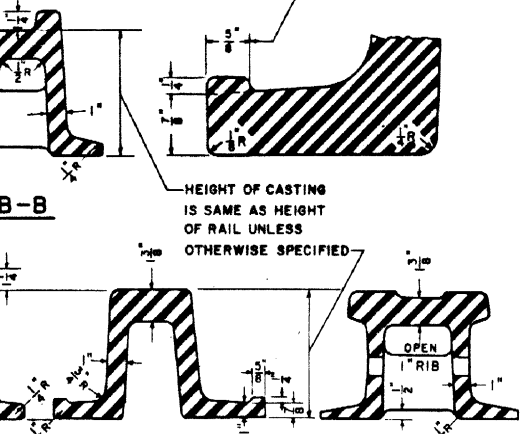
SECTION A-A



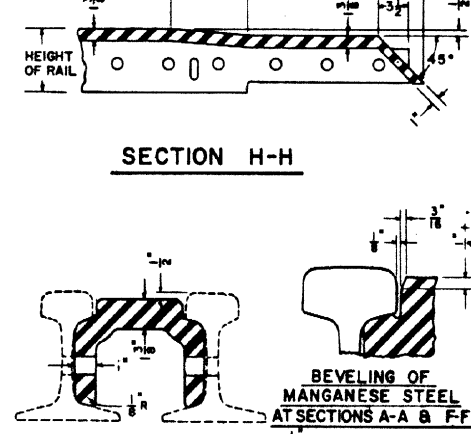
SECTION B-B



SECTION C-C

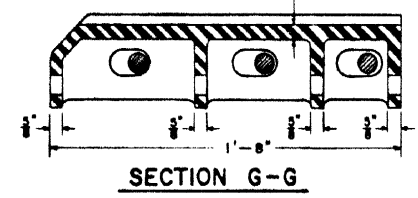


SECTION D-D



SECTION E-E

SECTION F-F

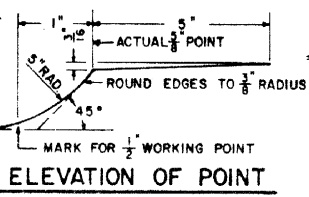


SECTION G-G

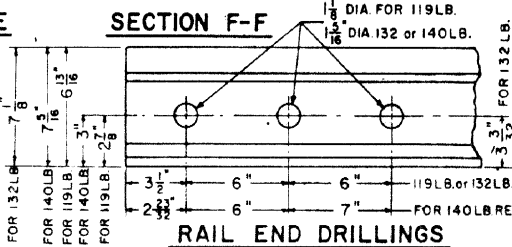
DIMENSIONS OF RAISED GUARDS						
RAIL SEC.	ANGLE-b	ANGLE-o	D	C	L	B
119	0°-26'-50"	6°-10'-19"	6'-5 7/32"	2'-3 89/32"	3'-4"	9 17/32"
132						
140 RE						

FORMULA FOR VARIABLE RADIUS OF RAISED GUARDS

TAN ANGLE = $\frac{B}{D}$
 ANGLE a = ANGLE b + FROG ANGLE
 D = TOE SPREAD + $4 \frac{3}{8}$
 $C = \frac{B}{\tan a}$
 B = D - (L + C)
 RADIUS = $\frac{B}{\tan^2 a}$



ELEVATION OF POINT



RAIL END DRILLINGS

CONRAIL  74159-B

STANDARD
 No. 10 SOLID SELF-GUARDED
 MANGANESE STEEL FROG

119 RE, 132 RE and 140 RE RAIL

JANUARY, 1977

R.H. Smith
 Chief Engineer - Maintenance of Way

A.P. Gardner
 Chief Engineering Officer