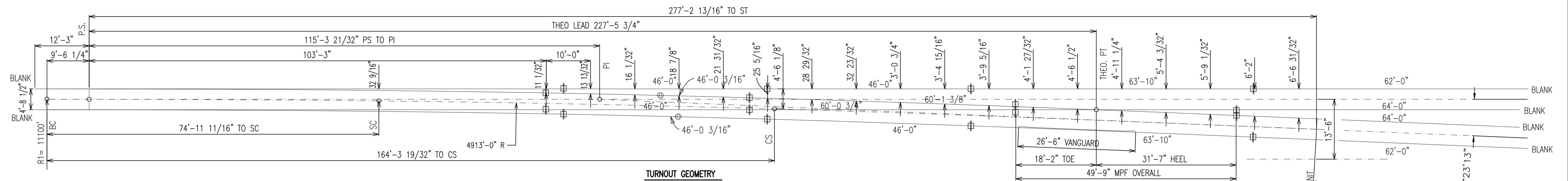
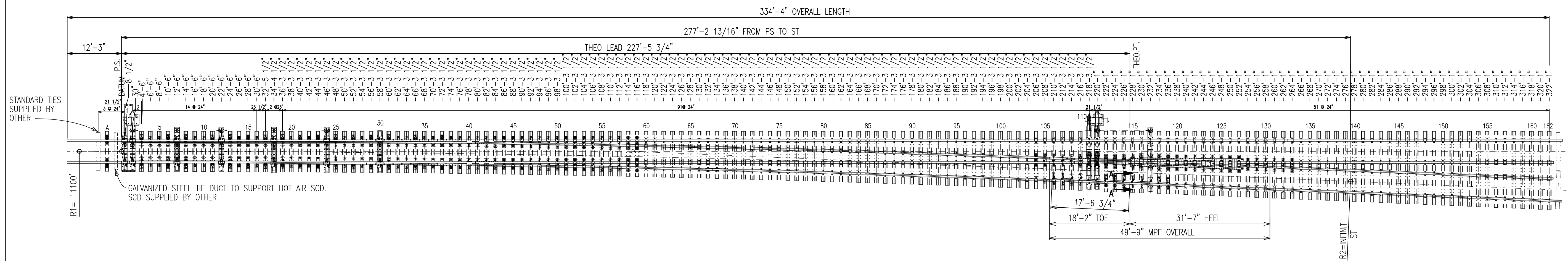


BILL OF MATERIAL			BILL OF MATERIAL		
ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY
1	SWITCH PACK, No.24 MPF, RH	1	9	RAIL, DRILLED, 2 HOLES, 136RE, 62'-0" LONG	2
2	MPF PACK, No.24 MPF, RH	1	10	RAIL, DRILLED, 2 HOLES, 136RE, 63'-10" LONG	2
3	CONCRETE TIE SET, No.24 MPF, RH, c/w ALL RUBBER PADS	1	11	RAIL, DRILLED, 2 HOLES, 136RE, 64'-0" LONG	2
4	VANGUARD PACK, No.24 MPF, RH, DIVERGING SIDE	1	12	CLIP, E-2055, RH, PANDROL	966
5	BONDED INSULATED JOINT RAIL ASSY, 46'-0 3/16" LONG	2	13	CLIP, E-2063A, RH, PANDROL, FOR USE AT INSULATED JOINTS	8
6	RAIL, DRILLED, 2 HOLES, 136RE, 46'-0" LONG	4	14	INSULATOR, HD-10, PANDROL	674
7	RAIL, DRILLED, 2 HOLES, 136RE, 60'-0 3/4" LONG	1	15	INSULATOR, NYLON (6790) FOR USE AT INSULATED JOINTS	8
8	RAIL, DRILLED, 2 HOLES, 136RE, 60'-1 3/8" LONG	1	16	MPF HST SET, RH FOR MACHINE ON MAINLINE SIDE	1
			17	JOINT KIT, 136RE, FOR TEMP USE AT WELDED JOINTS	16



⊕ WELDED JOINT (0" GAP) DRILL 9 1/2" X 6", 1 5/16" DIA, 3 3/32" A.B.
 ⊕ INSULATED JOINT (3/16" GAP) DRILL 3 1/2" X 6" X 6", 1 5/16" DIA, 3 3/32" A.B.
 (SEE NOTE 5 FOR INSULATED JOINT LOCATIONS)

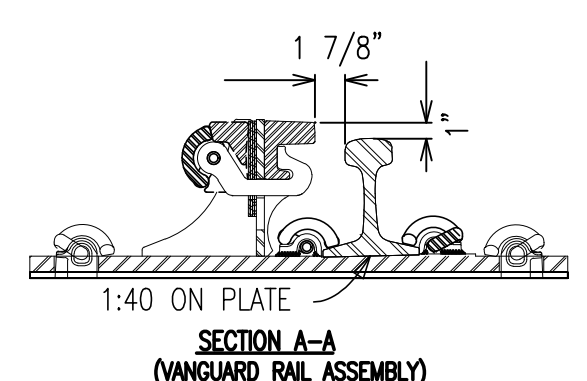


NOTES

- RAIL: SWITCH POINTS AND MPF LONG POINT AND PARTIAL WING RAILS USE 136 THICK WEB RAIL, ALL OTHERS USE 136RE RAIL.
- ALL RAILS TO BE WITH 1:40 CANT FOR WHEEL CONTACTING SURFACE EXCEPT TRANSITION AREA.
- ALL RAILS SHALL BE END DRILLED UNLESS OTHERWISE SPECIFIED.
- RUBBER PADS UNDER PLATES SHALL BE 9mm THICK. RAIL SEAT PADS ON CONCRETE TO BE 3/8"(10mm) THICK, EVA OR APPROVED EQUAL.
- FINAL INSULATED JOINT LOCATIONS TO BE DETERMINED ACCORDING TO METROLINX TURNOUT INSULATED JOINT CRITERIA.
- HD-10 RAIL INSULATORS ARE TO BE USED AT ALL LOCATIONS EXCEPT HST AND INSULATED JOINT LOCATIONS; PANDROL INSULATOR NYLON 6790 TO BE USED AT INSULATED JOINTS (8 PIECES).
- PANDROL E2063 CLIPS ARE TO BE USED AT INSULATED JOINT LOCATIONS. USE PANDROL E2055 FOR OTHERS.
- SCHWIBAG ROLLERS TO BE INSTALLED AND ADJUSTED IN THE FIELD.
- USE AN INDELIBLE PAINT MARKER TO MARK ALL TIE CENTER LINE LOCATIONS ON THE FIELD SIDE OF RAIL BASES.
- ALL MATERIAL MAY BE INSPECTED BY METROLINX PERSONNEL PRIOR TO SHIPPING.
- ALL RAIL JOINTS SHALL BE MATCH MARKED.
- TEMPORARY JOINT KITS TO BE SUPPLIED FOR ALL WELDED JOINTS.
- SWITCH MACHINES SUPPLIED BY OTHER.
- SNOW CLEARING DEVICES (SCD) FOR SWITCH POINTS AND MPF TO BE DETAILED AND SUPPLIED BY OTHERS.
- TURNOUT TO BE PRE-PLATED.

TURNOUT DATA

- DESIGN SPEED (DIVERGING ROUTE) = 70 MPH (INITIAL OPERATING SPEED AS 60MPH)
 RADIUS OF CURVE CENTERLINE = 11100'-4913'-AT INFINIT ST (CLOTHOID)
 TURNOUT THEO. LEAD = 227'-5 3/4"
 FROG ANGLE (DEGREES) = 2'23'13"
 LENGTH OF SWITCH POINT = 103'-3"
 OVERALL FROG LENGTH = 49'-9"
 FROG TOE LENGTH = 18'-2"
 FROG HEEL LENGTH = 31'-7"
 THROW AT @ OF SWITCH ROD #1 = 4 3/4"
 THROW AT MPF THROWING ROD = 4 9/32"



METRIC CONVERSION: 1 inch=25.4mm, 1 foot=304.8mm

1	22/08/30	SECTION A-A CORRECTLY ORIENTED
0	20/12/09	INITIAL VERSION ESTABLISHED

No. _____ Date _____ Revision _____ By Approved _____
Standard / NO. 24 - 136RE MPF TURNOUT RH
CONCRETE TIE, HST
DESIGN DIVERGING SPEED 70 MPH
(INITIAL OPERATING SPEED 60 MPH)

Drawn JB Checked JE Approved *Jay Pittman* Chief Engineer

