

BILL OF MATERIAL*		
ITEM	QTY	DESCRIPTION
1	1	16'-6" (EXT. 35'-10") STRAIGHT SAMSON S.P. (NO TIP)
2	1	16'-6" (EXT. 35'-10") STRAIGHT SAMSON S.P. (WITH TIP)
3	1	16'-2" RBM FROG WITH PLATES
4	2	13'-0" FROG GUARD RAIL WITH PLATES
5	1	39'-0" STRAIGHT STOCK RAIL
6	1	39'-0" BENT STOCK RAIL

NO. 8 TURNOUT SPECIFICATIONS	
FROG NUMBER	8
FROG ANGLE	7°-09'-10"
FROG LENGTH	16'-2"
LENGTH OF SWITCH POINT	16'-6"
ENTRY ANGLE	1°-46'-22"
VERTEX DISTANCE	7 1/16"
ACTUAL LEAD	68'-0"
CENTERLINE RADIUS	456.12'
DEGREE OF CURVE	12°34'

NOTES:  
 NEW INSTALLATION OF TURNOUT REQUIRES A MINIMUM OF 6" OF CLEAN BALLAST UNDER THE TIES.  
 ITEM 4 NOT REQUIRED WITH SMSG FROGS  
 IN CWR APPLICATIONS, ANCHOR EVERY TIE FOR 200' IN EACH DIRECTION.

\* BILL OF MATERIAL SHOWN DOES NOT INCLUDE TIES, PLATES, RODS, AND OTM.

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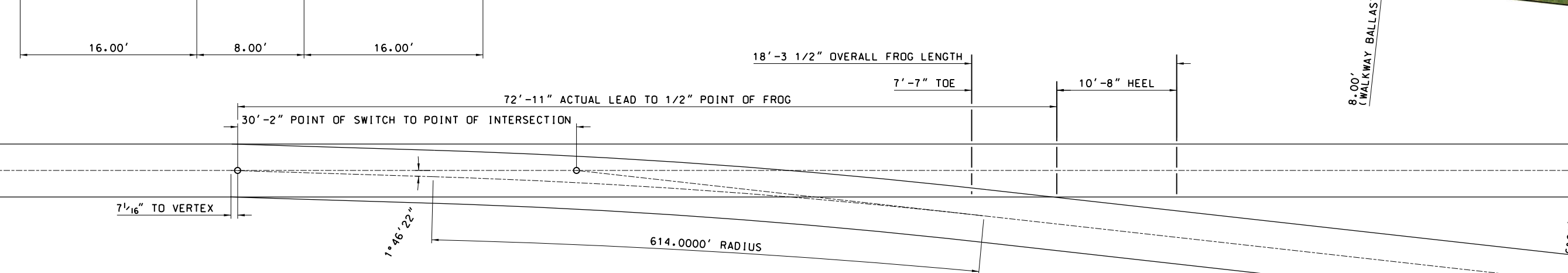
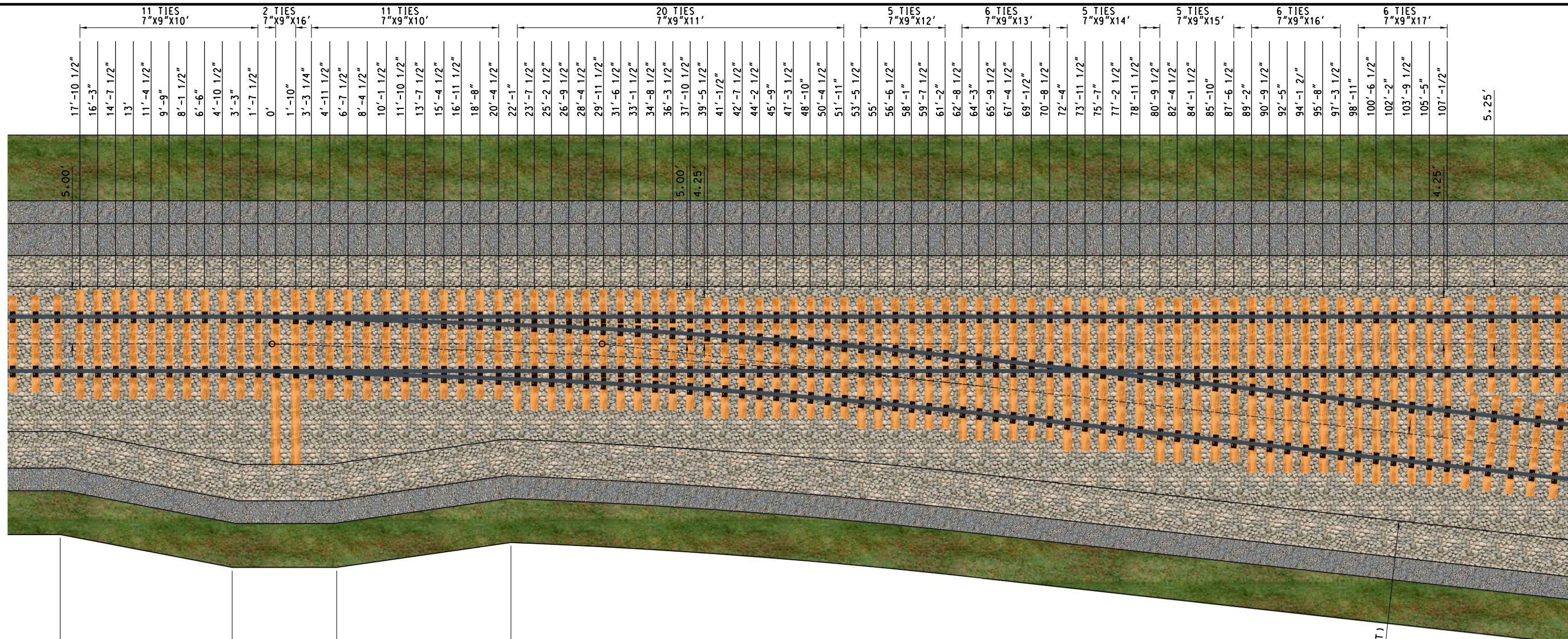
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 ADOPED: 10/22/2020  
 REVISED: 2/17/2021



WATCO  
 ENGINEERING STANDARDS  
 TYPICAL NO. 8 TURNOUT  
 LIGHT TRAFFIC LINES & YARD TURNOUTS

SECTION NO.	5000
STANDARD DRAWING	ENG.5000.105
REVISION	REV-01
SHEET NO.	01 OF 01
SCALE	NTS





BILL OF MATERIAL*		
ITEM	QTY	DESCRIPTION
1	1	16'-6" (EXT. 35'-10") STRAIGHT SAMSON S.P. (NO TIP)
2	1	16'-6" (EXT. 35'-10") STRAIGHT SAMSON S.P. (WITH TIP)
3	1	18'-3 1/2" RBM FROG WITH PLATES
4	2	13'-0" BOLTLESS ADJUSTABLE GUARD BAR
5	1	36'-7" STRAIGHT SAMSON STOCK RAIL
6	1	36'-5" BENT/CURVED SAMSON STOCK RAIL

NO. 8 TURNOUT SPECIFICATIONS	
FROG NUMBER	9
FROG ANGLE	6°-21'-35"
FROG LENGTH	18'-3 1/2"
LENGTH OF SWITCH POINT	16'-6"
ENTRY ANGLE	1°-46'-22"
VERTEX DISTANCE	7 1/16"
ACTUAL LEAD	72'-11"
CENTERLINE RADIUS	614.00'
DEGREE OF CURVE	9°20'31"

NOTES:  
 NEW INSTALLATION OF TURNOUT REQUIRES A MINIMUM OF 6" OF CLEAN BALLAST UNDER THE TIES.  
 ITEM 4 NOT REQUIRED WITH SMSG FROGS  
 IN CWR APPLICATIONS, ANCHOR EVERY TIE FOR 200' IN EACH DIRECTION.

\* BILL OF MATERIAL SHOWN DOES NOT INCLUDE TIES, PLATES, RODS, AND OTM.

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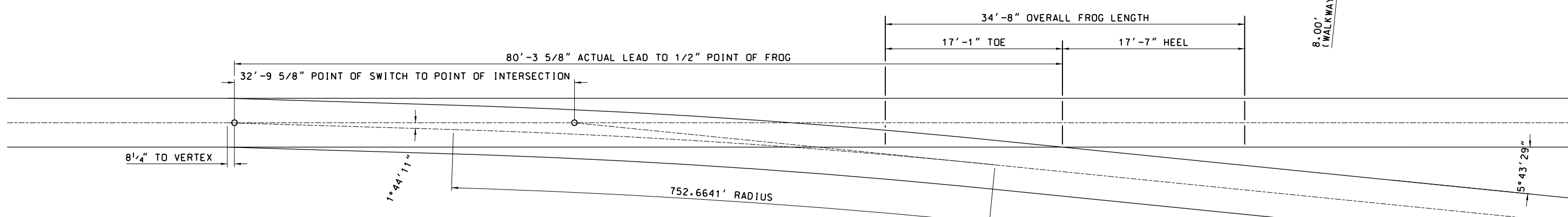
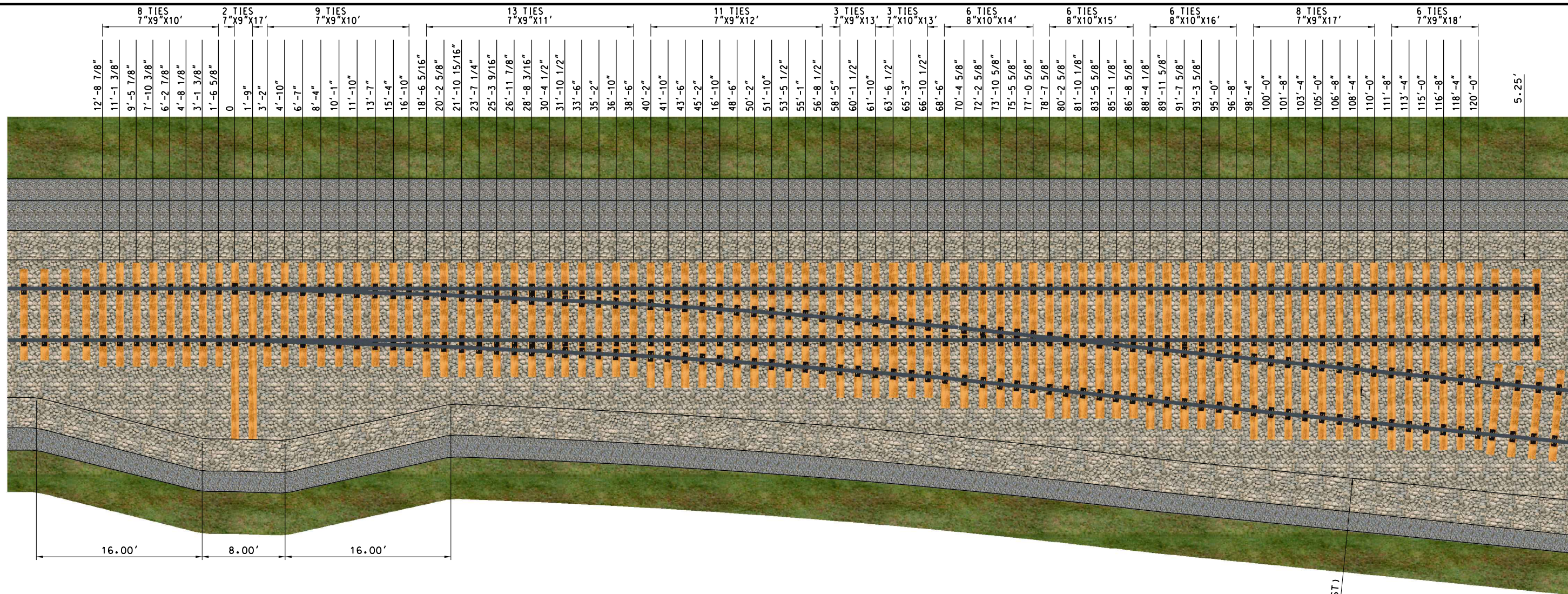
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WATCO  
 ENGINEERING STANDARDS  
 TYPICAL NO. 9 TURNOUT  
 LIGHT TRAFFIC LINES & INDUSTRY TRACKS

SECTION NO.	5000
STANDARD DRAWING	ENG.5000.106
REVISION	REV-01
SHEET NO.	01 OF 01
SCALE	NTS





BILL OF MATERIAL*		
ITEM	QTY	DESCRIPTION
1	1	16'-6" L.H. SWITCH POINT EXTENDED TO 34'-3"
2	1	16'-6" R.H. SWITCH POINT EXTENDED TO 34'-3"
3	1	34'-8" L.H. SPRING FROG
4	1	26'-0" FROG GUARD RAIL
5	1	15'-0" FROG GUARD RAIL
6	1	58'-6" STRAIGHT STOCK RAIL
7	1	39'-6" BENT STOCK RAIL
8	2	39'-0" I-BONDS MITRE CUT

NO. 10 TURNOUT SPECIFICATIONS	
FROG NUMBER	10
FROG ANGLE	5°-43'-29"
FROG LENGTH	28'-0"
LENGTH OF SWITCH POINT	29'-11"
ENTRY ANGLE	1°-44'-11"
VERTEX DISTANCE	8 1/4"
ACTUAL LEAD	80'-3 5/8"
CENTERLINE RADIUS	749.7539'
DEGREE OF CURVE	7°-38'-31"

NOTES:  
 NEW INSTALLATION OF TURNOUT REQUIRES A MINIMUM OF 6" OF CLEAN BALLAST UNDER THE TIES.

FOR SPRING SWITCH INSTALLATIONS, TIE SPACING UNDER POINTS SHOULD BE 21", 17", 19", 18", 19", 4 AT 22.5", AND 9" TO END OF SWITCH POINTS TO AFFORD CLEARANCE REQUIRED FOR SWITCH ROD 3.

IN CWR APPLICATIONS, ANCHOR EVERY TIE FOR 200' IN EACH DIRECTION.

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*John White*

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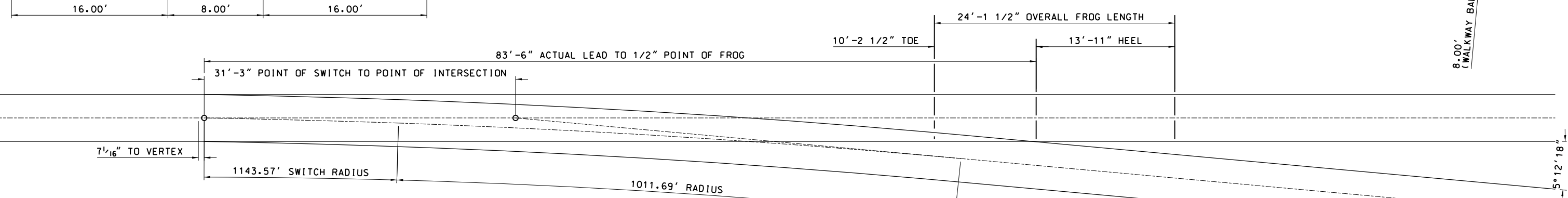
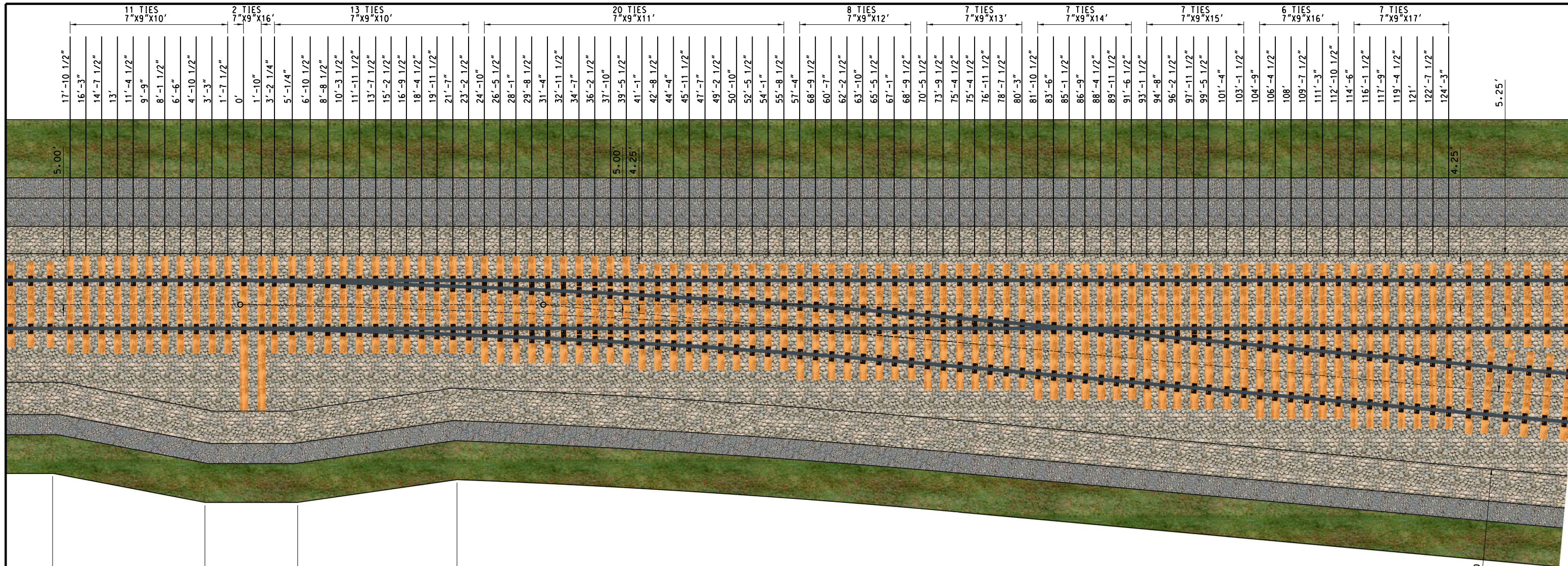
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WATCO  
 ENGINEERING STANDARDS  
 TYPICAL NO. 10 TURNOUT  
 HEAVY TRAFFIC LINES & INDUSTRY LEADS

SECTION NO.	5000
STANDARD DRAWING	ENG. 5000.102
REVISION	REV-01
SHEET NO.	01 OF 02
SCALE	NTS





BILL OF MATERIAL*		
ITEM	QTY	DESCRIPTION
1	1	19'-6" (EXT. 35'-9") STRAIGHT SAMSON S.P. (NO TIP)
2	1	19'-6" (EXT. 35'-9") CURVED SAMSON S.P. (WITH TIP)
3	1	24'-1 1/2" RBM FROG WITH PLATES
4	2	19'-6" BOLTLESS ADJUSTABLE GUARD BAR
5	1	37'-11" STRAIGHT SAMSON STOCK RAIL
6	1	36'-2" BENT/CURVED SAMSON STOCK RAIL

NO. 11 TURNOUT SPECIFICATIONS	
FROG NUMBER	11
FROG ANGLE	5°-12'-18"
FROG LENGTH	24'-1 1/2"
LENGTH OF SWITCH POINT	19'-6"
SWITCH ANGLE	1°-00'-40"
VERTEX DISTANCE	7 1/16"
ACTUAL LEAD	83'-6"
CENTERLINE RADIUS	1011.69'
DEGREE OF CURVE	5°40'44"

NOTES:  
 NEW INSTALLATION OF TURNOUT REQUIRES A MINIMUM OF 6" OF CLEAN BALLAST UNDER THE TIES.  
 ITEM 4 REQUIRED FOR RBM AND SPRING FROGS  
 IN CWR APPLICATIONS, ANCHOR EVERY TIE FOR 200' IN EACH DIRECTION.

\* BILL OF MATERIAL SHOWN DOES NOT INCLUDE TIES, PLATES, RODS, AND OTM.

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WATCO  
 ENGINEERING STANDARDS  
 TYPICAL NO. 11 TURNOUT  
 HEAVY TRAFFIC LINES & INDUSTRY LEADS  
 MANUAL TURNOUT

SECTION NO.	5000
STANDARD DRAWING	ENG.5000.107
REVISION	REV-01
SHEET NO.	01 OF 01
SCALE	NTS

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