



CITY OF TACOMA
Public Works Engineering

ADDENDUM NO. 1

DATE: 5/7/2024

REVISIONS TO:
Request for Bids Specification No. TR24-0066F
Annie 1&2 Track Upgrades

NOTICE TO ALL BIDDERS:

This addendum is issued to clarify, revise, add to or delete from, the original specification documents for the above project. This addendum, as integrated with the original specification documents, shall form the specification documents. The noted revisions shall take precedence over previously issued specification documents and shall become part of this contract.

REVISIONS TO THE SUBMITTAL DEADLINE:

The submittal deadline remains unchanged.

REVISIONS TO THE SPECIAL PROVISIONS:

Change #1

8-31.1 Description

Revise the "Remove and Reinstall Rail" section on page 86 as follows:

Remove and Reinstall Rail

The contractor shall remove the existing jointed rail, install new Pandrol style plates, and replace the existing rail onto the new plates in the sections shown on the plans within the project limits. For purposes of this specification, Remove and Reinstall Rail shall include removing existing rail and associated OTM and then placing back the existing rail and OTM except all OTM within the areas designated on the plans with "Install Pandrol Plates" and switch construction.

Within the Remove and Reinstall Rail section of this project, excavation, ballast, tie replacement, relocation of track, and raise, surface, line and dress are separate pay items.

REVISIONS TO THE PLANS:

Change #1

ADD Tacoma Rail Standard Plan No. RAIL-02, RAIL-03, & RAIL-04

ANSWERS TO QUESTIONS RECIEVED:

Question #1

Specification TR24-0066F Annie 1&2 Track Upgrades
Addendum #1

Referencing the project specifications, on page 89, starting on line 36:
Section 8-31 8-31.2(9) Turnouts

8-31.2(9) Turnouts

Provide complete new domestic, 115RE, insulated #7 and #9 turnouts as shown in plans. All rail, switch points (excluding tip), frogs, and guard rails shall be DOMESTIC, all other OTM may be foreign or domestic.

We are requesting that an exclusion also be granted for the domestic material requirements for the manganese inserts in the frog.

Answer #1

Tacoma Rail will allow foreign frog inserts.

Question #2

Request for Information: Pandrol Plates

Referencing the project specifications, on page 86, starting on line 25:
Section 8-31.1 RAILROAD TRACK IMPROVEMENTS

Remove and Reinstall Rail:

The contractor shall remove the existing jointed rail, install new Pandrol style plates, and replace the existing rail onto the new plates in the curves within the project limits. For purposes of this specification, Remove and Reinstall Rail shall include removing existing rail and associated OTM and then placing back the existing rail and OTM except all OTM within the curves and switch construction shall include Pandrol style materials.

Within the Remove and Reinstall Rail section of this project, excavation, ballast, tie replacement, relocation of track, and raise, surface, line and dress are separate pay items.

The part we would like to have clarified is *"then placing back the existing rail and OTM except all OTM within the curves and switch construction shall include Pandrol style materials."*

This indicates that the rail in tangent areas can be reinstalled re-using all of the existing components, including tie plates and spikes.

In the areas shown on the drawings as "Remove and Reinstall Rail" there are 3 different areas that contain tangent track, for a total of approximately 75 track feet. The specifications indicate that those areas do not require new Pandrol Plates. The drawings show "Install Pandrol Plates" This would seem to indicate that the intent was for all of the Remove and Reinstall Rail item to include installing Pandrol Plates. However, the specifications clearly exclude track that isn't in a curve, and in the case of a conflict, the specifications would prevail.

Please review this conflict and advise if the tangent track areas also require Pandrol Plates. Even though the track footage is fairly small, there is a significant cost difference between being able to reinstall the existing materials and needing to buy new plates and related OTM.

Answer #2

Any area marked on the plans with "Install Pandrol Plates" shall have Pandrol plates installed as part of the work. Pandrol plates will also be installed with new switches.

Question #3

Referencing the project specifications, on page 90

8-31.2(9) Turnouts

Starting on line 1:

Switch shall be in accordance with Tacoma Rail 1 Standard Plans No. 2 through 4.

and also on line 19:

Frogs shall be in accordance with Tacoma Rail Standard plans and be either a No. 7 or No. 9 Rail Bound Manganese Steel Frog for 115RE HH Rail with screw spike plates, screw spikes and elastic fasteners. Frogs shall be drilled for three (3) bolts to match the specified rail.

Please provide copies of the applicable Tacoma Rail Standard Plans.

Our turnout supplier is requesting them for additional information, such as the AREMA reference for the frogs.

Answer #3

Plans provided in this addendum.

Question #4

Referencing the project specifications, on page 89

8-31.2(9) Turnouts

Provide complete new domestic, 115RE, insulated #7 and #9 turnouts as shown in plans.

We were not able to find any notations on the drawings identifying which turnouts are to be insulated. Are there certain specific turnouts in signalized areas that are to be insulated, or is it the intent that all of the turnouts on the project are to be insulated?

For the turnouts that are to be insulated, does that requirement also include insulated joints, or is it only the gauge plate and connecting rods that are to be insulated?

Related to the insulated joints:

starting on line 16:

... Insulated Turnouts shall include all necessary insulated 6-hole joint bars.

Please provide a drawing showing the number and location of insulated joints that Tacoma Rail requires for the turnouts.

Answer #4

All turnouts need the insulated rods and gauge plates but only Z3V will require insulated joints. They will need to be placed on the right turnout side.

Question #5

Referencing the project specifications, on page 91

8-31.2(9) Turnouts

The table on page 91 indicates that Turnout Z3V is to be an equilateral turnout. Our turnout supplier is asking if we have any additional information on that turnout.

We are requesting that Tacoma Rail provide a drawing for this turnout showing additional details such as the frog number, lead, geometry, tie layout etc.

Answer #5

The frog as shown on sheet C-10 is a #9. No specific geometry will be provided. The contractor will need to field fit a left hand #9 switch into this location that has a slight right-hand curve.

Question #6

Referencing the project specifications, on page 91

8-31.2(9) Turnouts

The table on page 91 only shows the track spacing for the crossovers. There is no additional information such as the frog to frog distance or the tie layout etc.

Our turnout supplier is asking if we have any additional information on the crossovers.

We are requesting that Tacoma Rail provide a layout drawing for the crossovers with additional details.

Answer #6

Please refer to our standard crossover plan supplied in this addendum. This will require the supplier to adjust the layout based on track centers given as in past projects. The standard plan also shows two shorter ties where 22' ties would go. We prefer all long wood in those locations.

Question #7

Subject: Request for Information: Long Switch Ties

Our tie supplier, Gemini Forest Products, has advised us that that cannot obtain hardwood creosoted switch ties in the 21' and 23' lengths.

They are proposing to use New Doug Fir ties treated with Copper naphthenate as an alternative.

Please advise if this would be acceptable for ties 21' and longer.

All of the other ties will conform to the project specifications and be mixed hardwoods with standard creosote treatment.

Answer #7

The alternative is approved.

Question #8

Is a laydown area provided?

Answer #8

No laydown area is provided.

Question #9

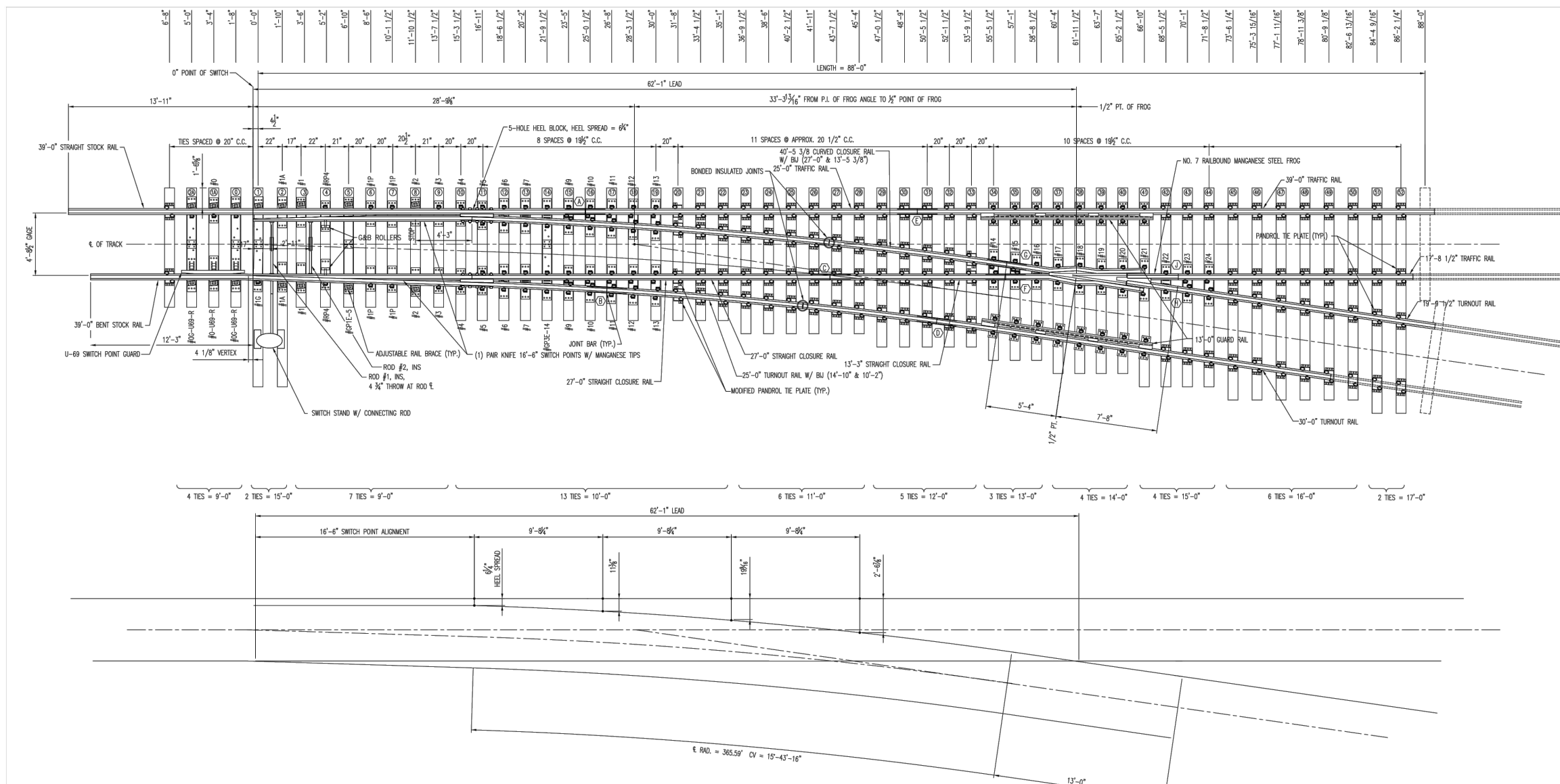
Is access to the site from Pacific Rail (SIM Yard) available?

Answer #9

Any access through this area will need to be negotiated by the contractor.

NOTE: Acknowledge receipt of this addendum by initialing the corresponding space as indicated on the signature page. Vendors who have already submitted their bid/proposal may contact the Purchasing Division at 253-502-8468 and request return of their bid/proposal for acknowledgment and re-submittal. Or, a letter acknowledging receipt of this addendum may be submitted in an envelope marked Request for Bids Specification No. TR24-0066F Addendum No. 1. The City reserves the right to reject any and all bids, including, in certain circumstances, for failure to appropriately acknowledge this addendum.

cc: Chris Storey / Public Works Engineering



#7 TURNOUT MATERIAL AND FASTENERS	
QTY	DESCRIPTION
1 PR	16'-6" D/R KNIFE SW. PT. W/MANGANESE TIPS, TRANSIT CLIPS & STOPS, 115RE WITH G&B ROLLERS ON TIE 4
1 SET	SWITCH RODS INCLUDE: (1EA. #1, #2) INS.
1	#0 SLIDE PLATE PANDROL WITH ADJ. BRACE
1	#0-U69-L SLIDE PLATE PANDROL WITH ADJ. BRACE
2	#0-U69-L GAGE PLATE PANDROL WITH ADJ. BRACE, INS.
1	#10 GAGE PLATE PANDROL WITH ADJ. BRACE, INS.
2	#1A SLIDE PLATE PANDROL WITH ADJ. BRACE
6	#1P SLIDE PLATE PANDROL
2	#R4 ROLLER PLATE PANDROL
1	#GP1E-5 GAGE PLATE PANDROL WITH ADJ. BRACE, INS.
2	#1 SLIDE PLATE PANDROL WITH ADJ. BRACE
2	#2 SLIDE PLATE PANDROL WITH ADJ. BRACE
2	#3 FLAT PLATE PANDROL
2	#4 HEEL PLATE PANDROL
2	#5 HEEL PLATE PANDROL
1 SET	TURNOUT PLATES PANDROL (2 EA. #6 - #7, #9-#13)
1	#GP3E-14 GAGE PLATE PANDROL, INS.
1	U69 SWITCH POINT GUARD WITH HARDWARE
1 PR	5-HOLE HEEL BLOCK ASSEMBLY, 115RE
1 SET	NEW 115RE #7 RAILBOUND FROG 13'-0"
1 SET	FROG PLATES PANDROL (1 EACH #14 - 24)
98	PANDROL TIE PLATE, 115RE
6	MODIFIED PANDROL TIE PLATES, 115RE

#7 TURNOUT MATERIAL AND FASTENERS (CONTINUED)	
QTY	DESCRIPTION
36	PANDROL J-CLIPS
326	PANDROL E-CLIPS
8	MODIFIED PANDROL E-CLIPS
644	15/16" x 6" SCREW SPIKES
9 PR.	JOINT BARS 6 HOLE 36" WITH FASTENERS
1 PR.	13'-0" AREMA GUARD RAIL WITH PLATES, BLOCKS AND FASTENERS
1 SET	115RE RAILS (SEE RAIL SCHEDULE)
1 SET	SWITCH TIES (SEE TIE SCHEDULE)
1	SWITCH STAND W/ CONNECTING ROD

NOTE: 1. RAIL IN TURNOUT IS HEAD HARDENED.
2. DOTTED LINES INDICATE MATERIAL SUPPLIED BY OTHERS.

#7 TURNOUT DATA	
THROW OF SWITCH @ HEAD ROD	4 3/4"
LENGTH OF SWITCH	16'-6"
HEEL SPREAD OF SWITCH	6 1/4"
SWITCH ANGLE	1°-46'-22"
NUMBER	#7
ANGLE	8°-10'-16"
FROG LENGTH	13'-0"
TURNOUT LEAD ACTUAL	62'-1"
CENTERLINE RADIUS	365.59'
DEGREE OF CURVE	15°-43'-16"

TIE SCHEDULE	
LENGTH	QTY
9'-0"	8**
10'-0"	13**
11'-0"	6**
12'-0"	5**
13'-0"	3**
14'-0"	4**
15'-0"	6**
16'-0"	6**
17'-0"	2**
TOTAL	53**

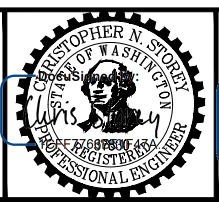
** = (2) 15'-0" TIES ARE HEAD BLOCK TIES
** = TIES SUPPLIED BY OTHERS

RAIL SCHEDULE		
RAIL ID	RAIL DESCRIPTION	LENGTH
A	LEFT HAND STRAIGHT STOCK RAIL (STAGGER 13'-11")	39'-0"
B	RIGHT HAND BENT STOCK RAIL (STAGGER 12'-3")	39'-0"
C	STRAIGHT CLOSURE RAIL	27'-0"
A-E	TRAFFIC RAIL	25'-0"
B-D	TURNOUT RAIL W/ BU (14'-10" & 10'-2")	25'-0"
C-F	STRAIGHT CLOSURE RAIL	13'-3"
G	CURVED CLOSURE RAIL W/ BU (27'-0" & 13'-5 3/8")	40'-5 3/8"
E	TRAFFIC RAIL	39'-0"
D	TURNOUT RAIL	30'-0"
H	TURNOUT RAIL	17'-8 1/2"
J	TRAFFIC RAIL	19'-9 1/2"

UNLESS OTHERWISE NOTED, RAIL IN DRAWING DRILLED PER BELOW, EXCEPT SW PTS DRILLED 3 1/2" x 6"
3 1/2" x 6" x 6" DRILLING
2 7/8" ABOVE BASE OF RAIL
1 1/8" DIA. HOLES

PLANS REFERENCED:	
AREMA 112-03	
AREMA 112-09	
AREMA 622-22	
COMMON STANDARD 341000	

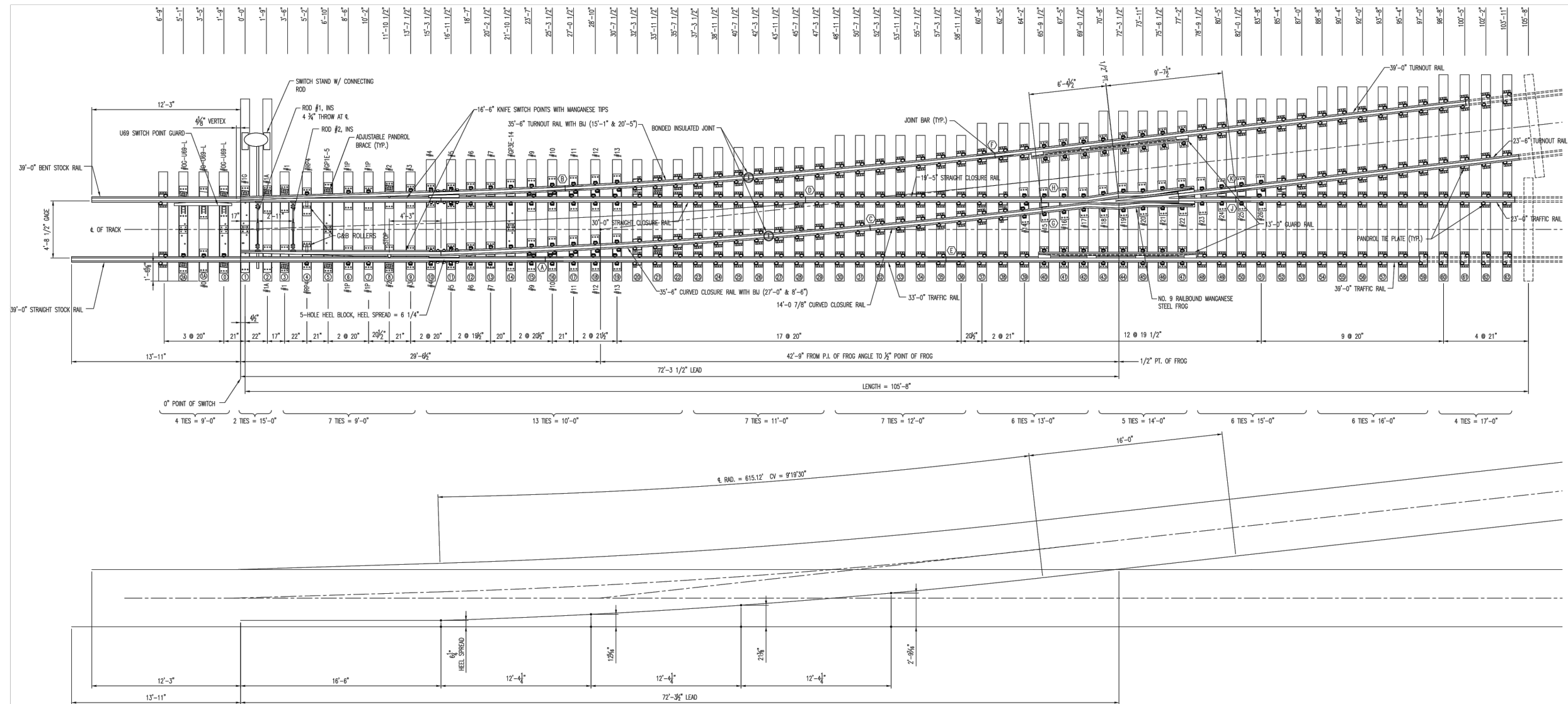
REVIEWED BY
Kyle Kellern
TACOMA RAIL



APPROVED FOR PUBLICATION
DocuSigned by:
Chris Storey
03/20/2024
PRINCIPAL ENGINEER

TACOMA RAIL
#7 RH PANDROL TURNOUT
STANDARD PLAN NO. RAIL-02

03/20/2024



TURNOUT GEOMETRY

#9 TURNOUT MATERIAL AND FASTENERS	
QTY	DESCRIPTION
1 PR	16'-6" D/R KNIFE SW. PT. W/MANGANESE TIPS, TRANSIT CLIPS & STOPS, 115RE WITH G&B ROLLERS ON TIE 4
1 SET	SWITCH RODS INCLUDE: (1EA. #1, #2) INS.
1	#0 SLIDE PLATE PANDROL WITH ADJ. BRACE
1	#0-U69-L SLIDE PLATE PANDROL WITH ADJ. BRACE
2	#0G-U69-L GAGE PLATE PANDROL WITH ADJ. BRACE, INS.
1	#1G GAGE PLATE PANDROL WITH ADJ. BRACE, INS.
2	#1A SLIDE PLATE PANDROL WITH ADJ. BRACE
4	#1P SLIDE PLATE PANDROL
2	#RP4 ROLLER PLATE PANDROL
1	#GP1E-5 GAGE PLATE PANDROL WITH ADJ. BRACE, INS.
2	#1 SLIDE PLATE PANDROL WITH ADJ. BRACE
2	#2 SLIDE PLATE PANDROL WITH ADJ. BRACE
2	#3 FLAT PLATE PANDROL
2	#4 HEEL PLATE PANDROL
2	#5 HEEL PLATE PANDROL
1 SET	TURNOUT PLATES PANDROL (2 EA. #6 - #7, #9-#13)
1	#GP3E-14 GAGE PLATE PANDROL, INS.
1	U69 SWITCH POINT GUARD WITH HARDWARE
1	#9 RAILBOUND FROG 15'-0", 115RE
1 SET	FROG PLATES PANDROL (1 EACH 14-20)
8	MODIFIED PANDROL TIE PLATE, 115RE
130	PANDROL TIE PLATE, 115RE
820	15/16" x 6" SCREW SPIKES

#9 TURNOUT MATERIAL AND FASTENERS (CONTINUED)	
QTY	DESCRIPTION
1 PR	5-HOLE HEEL BLOCK ASSEMBLY, 115RE
10 PR	JOINT BARS 6 HOLE 36" WITH FASTENERS
40	PANDROL J-CLIPS
400	PANDROL E-CLIPS
8	MODIFIED PANDROL E-CLIPS FOR BU
1 PR	13'-0" AREMA GUARD RAIL WITH PANDROL PLATES, BLOCKS AND FASTENERS
1 SET	115RE RAIL (SEE RAIL SCHEDULE)
1 SET	SWITCH TIES (SEE TIE SCHEDULE)
1	SWITCH STAND W/ CONNECTING ROD

NOTE: 1. DOTTED LINES INDICATE MATERIAL SUPPLIED BY OTHERS

#9 TURNOUT DATA	
THROW OF SWITCH @ 1/2 OF #1 ROD	4 3/4"
HEEL SPREAD OF SWITCH	6 1/4"
SWITCH ANGLE	1'-46"-22"
VERTICE	4 1/8"
SWITCH POINT LENGTH	16'-6"
SWITCH ALIGNMENT	16'-6"
NUMBER	#9
ANGLE	6'-21"-35"
FROG LENGTH	16'-0"
ACTUAL LEAD	72'-3 1/2"
CENTERLINE RADIUS	615.12'
DEGREE OF CURVE	9'-19'-29"

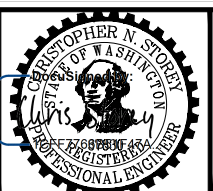
TIE SCHEDULE	
LENGTH	QTY
9'-0"	11**
10'-0"	13**
11'-0"	7**
12'-0"	7**
13'-0"	6**
14'-0"	5**
15'-0"	8**
16'-0"	6**
17'-0"	4**
TOTAL	67**

RAIL SCHEDULE		
RAIL ID	RAIL DESCRIPTION	LENGTH
A	LEFT HAND STRAIGHT STOCK RAIL (STAGGER 12'-3")	39'-0"
B	RIGHT HAND BENT STOCK RAIL (STAGGER 13'-11")	39'-0"
A-E	TRAFFIC RAIL	33'-0"
B-F	TURNOUT RAIL WITH BU (15'-1" & 20'-5")	35'-6"
C	CURVED CLOSURE RAIL (27'-0" & 8'-6")	35'-6"
D	STRAIGHT CLOSURE RAIL	30'-0"
C-G	CURVED CLOSURE RAIL	14'-0 7/8"
D-H	STRAIGHT CLOSURE RAIL	19'-5"
E	TRAFFIC RAIL	39'-0"
F	TURNOUT RAIL	39'-0"
J	TRAFFIC RAIL	23'-0"
K	TURNOUT RAIL	23'-6"

** = (2) 15'-0" TIES ARE HEAD BLOCK TIES
 ** = TIES ARE SUPPLIED BY OTHERS
 UNLESS NOTED, ALL RAIL ENDS DRILLED AS BELOW EXCEPT SWITCH POINT DRILLED 3 1/2" X 6":
 3 1/2" x 6" x 6" DRILLING
 1 1/8" DIA. HOLES
 2 7/8" ABOVE BASE OF RAIL

PLANS REFERENCED:	
AREMA 112-03	
AREMA 112-09	
AREMA 623-03	
BNF COMMON STANDARD 341000	

REVIEWED BY
Kyle Kellam
 TACOMA RAIL

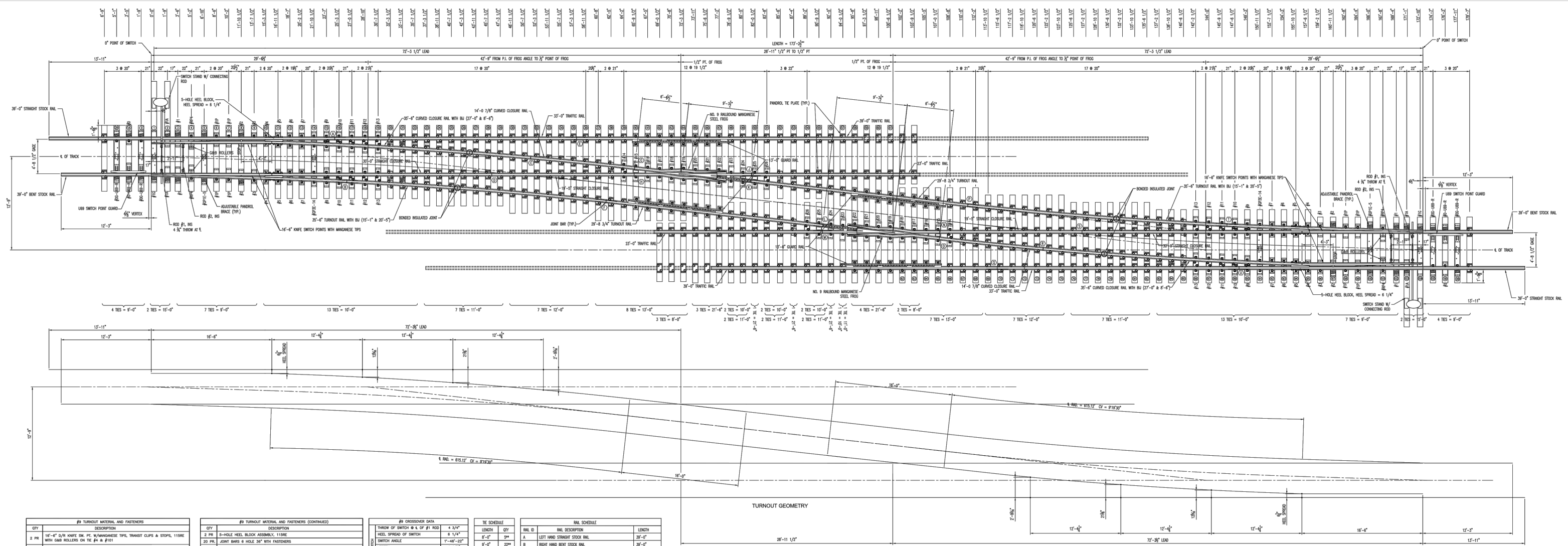


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 03/20/2024
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TACOMA RAIL
 #9 LH PANDROL TURNOUT
 STANDARD PLAN NO. RAIL-03

03/20/2024

DATE



QTY	#9 TURNOUT MATERIAL AND FASTENERS
2 PR	16'-0" O/R KNIFE SW. FT. W/MANGANESE TIPS, TRANSIT CLIPS & STOPS, 115RE WITH CAB ROLLERS ON THE #1 & #2
2 SET	SWITCH RODS INCLUDE: (1EA. #1, #2) INL.
2	#0 SLIDE PLATE PANDROL WITH ADJ. BRACE
2	#0-100-R SLIDE PLATE PANDROL WITH ADJ. BRACE
4	#20-100-R GAGE PLATE PANDROL WITH ADJ. BRACE, INL.
2	#10 GAGE PLATE PANDROL WITH ADJ. BRACE, INL.
4	#1A SLIDE PLATE PANDROL WITH ADJ. BRACE
12	#1P SLIDE PLATE PANDROL
4	#1R ROLLER PLATE PANDROL
4	#2P1E-5 GAGE PLATE PANDROL WITH ADJ. BRACE, INL.
4	#1 SLIDE PLATE PANDROL WITH ADJ. BRACE
4	#2 SLIDE PLATE PANDROL WITH ADJ. BRACE
4	#3 FLAT PLATE PANDROL
4	#4 HEEL PLATE PANDROL
4	#5 HEEL PLATE PANDROL
2 SET	TURNOUT PLATES PANDROL (2 EA. #6 - #7, #9-#13)
2	#20P3E-14 GAGE PLATE PANDROL, INL.
2	USP SWITCH POINT GUARD WITH HANGNAME
2	#2 HALLBOUND FROG 16'-0", 115RE
2 SET	FROG PLATES PANDROL (1 EACH 14-26)
16	MODIFIED PANDROL TE. PLATE, 115RE
212	PANDROL TE. PLATE, 115RE
1470	15/16" x 4" SERRW SPICES

QTY	#9 TURNOUT MATERIAL AND FASTENERS (CONTINUED)
2 PR	5-HOLE HEEL BLOCK ASSEMBLY, 115RE
20 PRL	JOINT BARS & HOLE 3/8" WITH FASTENERS
58	PANDROL J-CUPS
682	PANDROL E-CLIPS
16	MODIFIED PANDROL E-CLIPS FOR BU
2 PR	15'-0" STEAM CURVED RAIL WITH PANDROL PLATES, BLOCKS AND FASTENERS
1 SET	115RE RAIL (SEE RAIL SCHEDULE)
1 SET	SWITCH TIES (SEE TE SCHEDULE)
2	SWITCH STAND W/ CONNECTING ROD

#9 CROSSOVER DATA	
THROW OF SWITCH @ 4' OF #1 ROD	4 3/4"
HEEL SPREAD OF SWITCH	6 1/4"
SWITCH ANGLE	1°-46'-22"
VERTICAL	4 1/8"
SWITCH POINT LENGTH	16'-4"
SWITCH ALIGNMENT	16'-8"
NUMBER	#9
ANGLE	8°-21'-35"
FROG LENGTH	16'-0"
ACTUAL LEAD	72'-3 1/2"
CENTRAL RADIUS	618.12'
DEGREE OF CURVE	9°-19'-29"
1/2" PT. TO 1/2" PT. (STRAIGHT)	28'-11 1/2"
1/2" PT. TO 1/2" PT. (CROSSOVER)	28'-7 3/4"
TRACK CENTER	12'-9"

TE SCHEDULE	
LENGTH	QTY
8'-0"	5**
10'-0"	33**
11'-0"	21**
12'-0"	14**
13'-0"	10**
* 15'-0"	6**
21'-4"	10**
TOTAL	124**

RAIL SCHEDULE		
RAIL ID	RAIL DESCRIPTION	LENGTH
A	LEFT HAND STRAIGHT STOCK RAIL	38'-0"
B	RIGHT HAND BENT STOCK RAIL	38'-0"
A-E	TRAFFIC RAIL	35'-0"
B-F	TURNOUT RAIL WITH BU (15'-1" & 20'-5")	35'-4"
C	CURVED CLOSURE RAIL (27'-0" & 8'-4")	35'-4"
D	STRAIGHT CLOSURE RAIL	35'-0"
C-G	CURVED CLOSURE RAIL	14'-0 7/8"
D-H	STRAIGHT CLOSURE RAIL	19'-5"
E	TRAFFIC RAIL	38'-0"
F-L	TURNOUT RAIL	29'-8 3/4"
J	TRAFFIC RAIL	23'-0"
W	LEFT HAND STRAIGHT STOCK RAIL	38'-0"
T	RIGHT HAND BENT STOCK RAIL	38'-0"
Q-U	TRAFFIC RAIL	35'-0"
P-T	TURNOUT RAIL WITH BU (15'-1" & 20'-5")	35'-4"
R	CURVED CLOSURE RAIL WITH BU (27'-0" & 8'-4")	35'-4"
S	STRAIGHT CLOSURE RAIL	35'-0"
D-H	CURVED CLOSURE RAIL	14'-0 7/8"
H-S	STRAIGHT CLOSURE RAIL	19'-5"
O	TRAFFIC RAIL	35'-0"
K-P	TURNOUT RAIL	29'-8 3/4"
M	TRAFFIC RAIL	23'-0"

PLANS REFERENCED:
AREMA 112-03
AREMA 112-09
AREMA 623-03
BNSF COMMON STANDARD 341000

REVIEWED BY

Kyle Kellam
TACOMA RAIL



APPROVED FOR PUBLICATION

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PRINCIPAL ENGINEER

03/20/2024

DATE

TACOMA RAIL

#9 RH PANDROL CROSSOVER

STANDARD PLAN NO. RAIL-04

03/20/2024