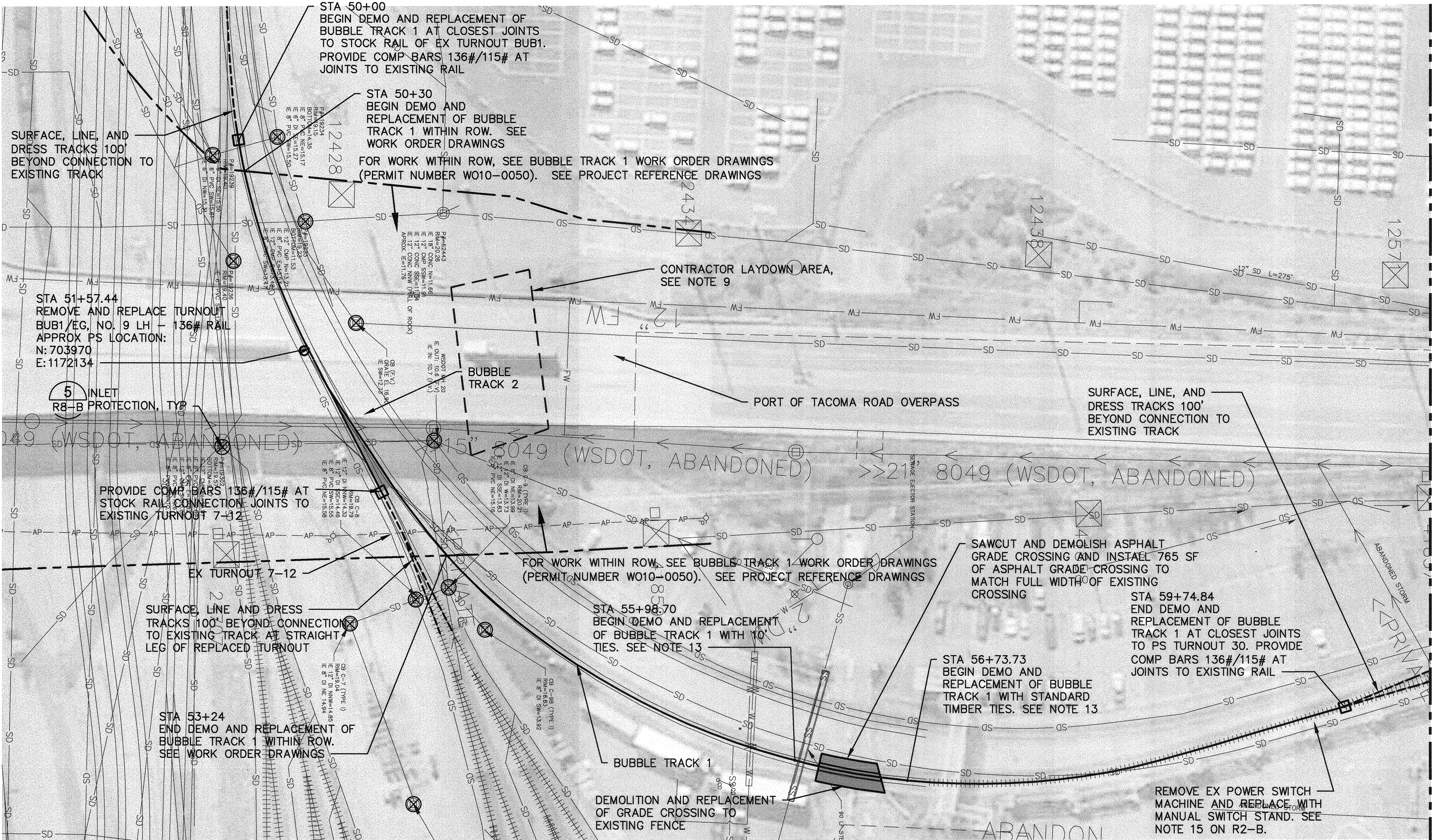


PORT OF TACOMA FILE: N:\2016\1600143 2016 Track Repairs POT\Drawings\Current\Bubble Site Development\2 R01 - BUBBLE TRACK 1 REPLACEMENT

BINDING EDGE

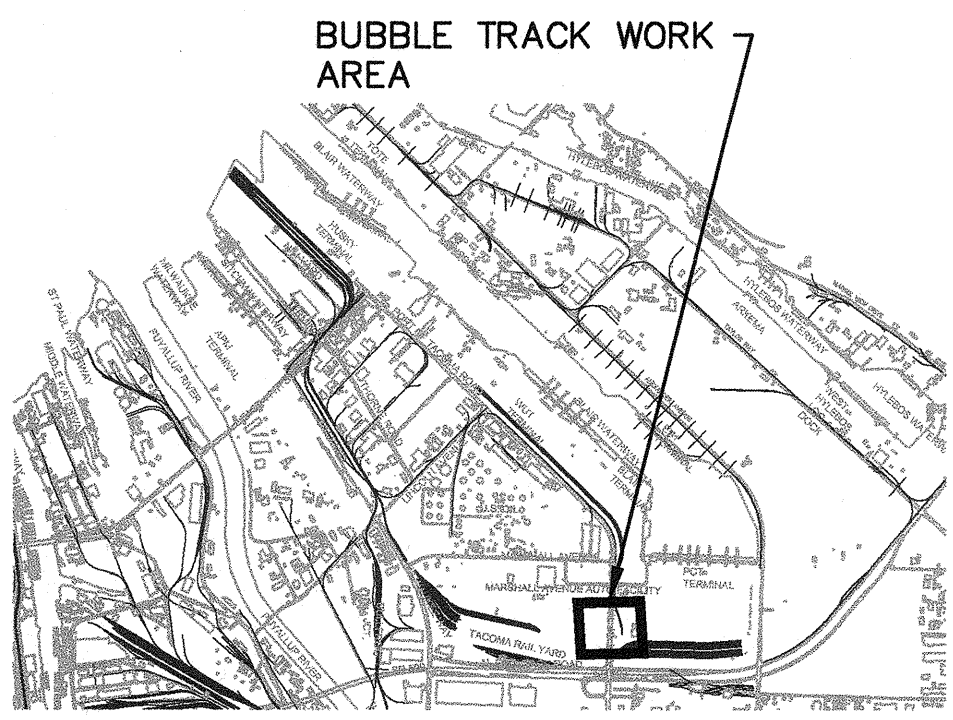


TESC LEGEND :

⊗ INLET PROTECTION (5) R8-B

STRAW WATTLES (4) R8-B SEE NOTE 12

MATCHLINE STA. 60+35 BUBBLE TRACK 1 SEE SHEET R2-B



KEY PLAN

NTS

LEGEND :

===== EXISTING RAIL, TOP OF RAIL

REPLACEMENT OF #9 TURNOUT (1) R4-B

----- SURFACE, LINE, AND DRESS TRACK, SEE SPECIFICATIONS

REMOVE EXISTING TRACK AND INSTALL NEW TRACK, CENTERLINE (1) R7-B

● POINT OF SWITCH (PS)

HMA CROSSING PAVEMENT. FOR TYPICAL SECTIONS AND LIMITS, SEE (A) (1) (2) (3) R8-B R8-B R8-B R8-B

----- CITY ROW LINE

□ COMPROMISE JOINTS

BUBBLE TRACK 1

SCALE: 1"=40'

- NOTES :**
- SEE SHEETS R3-B THROUGH R7-B FOR TRACKWORK DETAILS.
 - SEE SHEETS R4-B & R5-B FOR SPECIAL TRACKWORK DETAILS AND VARIATIONS FROM PROJECT STANDARDS REQUIRED FOR TURNOUT REPLACEMENTS INCLUDING ADDITIONAL RAIL, TIES, COMPROMISE JOINTS NOT INDICATED IN PROJECT STANDARD TURNOUT CONFIGURATION.
 - TURNOUT REPLACEMENTS ARE WITHIN ACTIVE TRACKS AND YARDS. CONTRACTOR SHALL CONFINE OPERATIONS AND STAGING TO THE LAYDOWN AREA SHOWN AND THE LIMITS OF THE TURNOUTS TO BE REPLACED. CONTRACTOR SHALL YIELD TO RAIL TRAFFIC AT ALL TIMES. SEE SHEET G5 FOR SEQUENCING GUIDANCE AND REQUIREMENTS.
 - AT ALL LOCATIONS, CONTRACTOR SHALL DEMOLISH EXISTING TURNOUT AND CONNECTING TRACK TO EXTENT NECESSARY TO INSTALL NEW TURNOUT AND TRACK SHOWN.
 - TYPICAL BALLASTED TRACKBED SECTION SHALL BE APPLIED AT ALL LOCATION OF NEW RAIL, INCLUDING NEW TURNOUT LOCATIONS. FOR TYPICAL BALLASTED TRACKBED SECTION, SEE (1) R7-B
 - ALL NEW RAIL SHALL BE 136 LB JOINTED RAIL, UNO. (1) R7-B
 - ALL NEW TRACK TIES ARE TIMBER, SEE R3-B FOR STANDARD DETAILS.
 - ALL START AND END REPLACEMENT TRACK LOCATIONS, WHICH MATCH INTO EXISTING TRACK, ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD LOCATE NEAREST EXISTING JOINT AT OR BEYOND MATCH POINT INDICATED, VERIFY VERTICAL AND HORIZONTAL ALIGNMENT AND TIE INTO EXISTING TRACK AT EXISTING JOINT.
 - CONTRACTOR LAYDOWN AREA SHOWN AVAILABLE FOR WORK ON BUBBLE TRACK 1 (THIS SHEET), AND BUBBLE TRACK 2 (R2-B). LAYDOWN AREA MUST BE OFFSET MINIMUM 15' FROM CENTERLINE OF ACTIVE TRACKS.
 - ALL LOCATIONS OF EXISTING IMPROVEMENTS SHOWN ARE FROM AVAILABLE GIS RECORDS AND FIELD SURVEY AND SHOULD BE CONSIDERED APPROXIMATE AND NOT NECESSARILY COMPLETE.
 - CONTRACTOR SHALL MAINTAIN AND PROTECT ALL SITE IMPROVEMENTS NOT OTHERWISE NOTED FOR DEMOLITION. CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
 - IF SEDIMENT LADEN WATER IS OBSERVED LEAVING THE SITE, STRAW WATTLES SHALL BE INSTALLED AS NECESSARY TO MINIMIZE THE AMOUNT OF SEDIMENT LEAVING THE SITE THROUGH THE EXISTING STORM WATER COLLECTION AND CONVEYANCE SYSTEM.
 - THE CONTRACTOR SHALL USE A MINIMUM OF (10) 10' TIES TO BUILD TRACK JUST BEYOND ASPHALT CROSSING IN PLACE OF STANDARD TIES

6569 R1-B

SHEET 14 OF 22

CON/CONS: 070531

M. ID: 101081.01

PHASE: BID

REPLACEMENT OF RAILWAY TRACK AND SPECIAL TRACKWORK AT BUBBLE TRACKS

BUBBLE TRACK 1 SITE PLAN

APPROVED: *[Signature]* 6-20-17

RLO CHECKED BY: DATE

SWK 06/14/2017

DIRECTOR ENG. DATE

PRINTED BY: mmedley Jun 20, 2017

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

SECTION: 2, 3

RANGE: 03E

TOWNSHIP: 20N

DAT-HRZ:

PARCEL: MULTIPLE

DRAWING SCALE: AS NOTED

THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION

Port of Tacoma

P.O. BOX 1887 TACOMA, WA 98401 (253) 396-0150

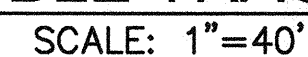
2407 North 24th Street, Suite 100 Tacoma, WA 98407 (253) 396-0150 Fax (253) 396-0162

APPR: DATE:

BY:

REVISION:

MARK:



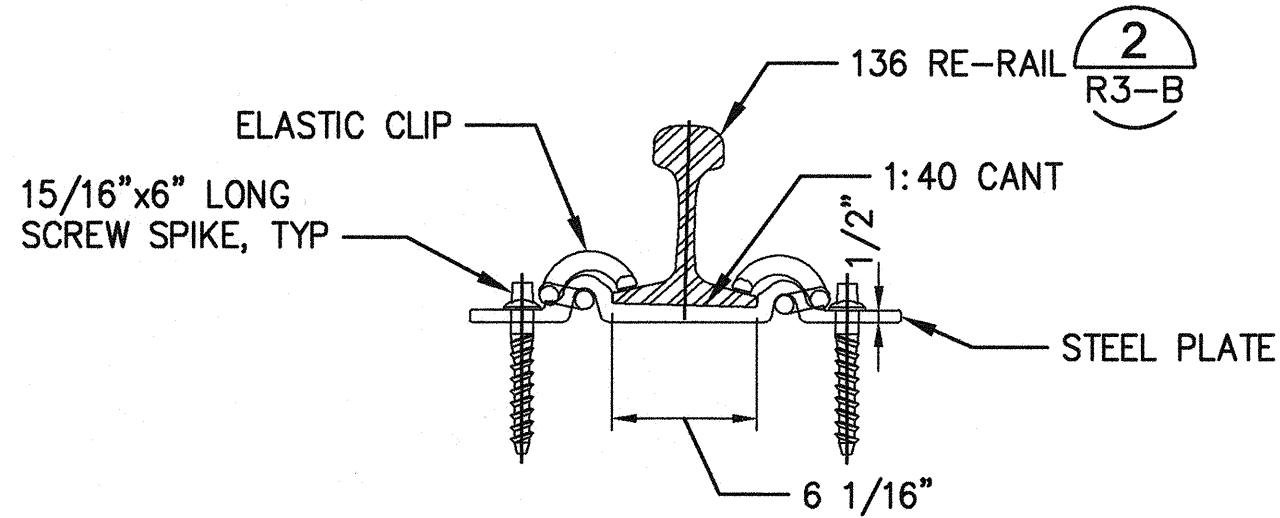
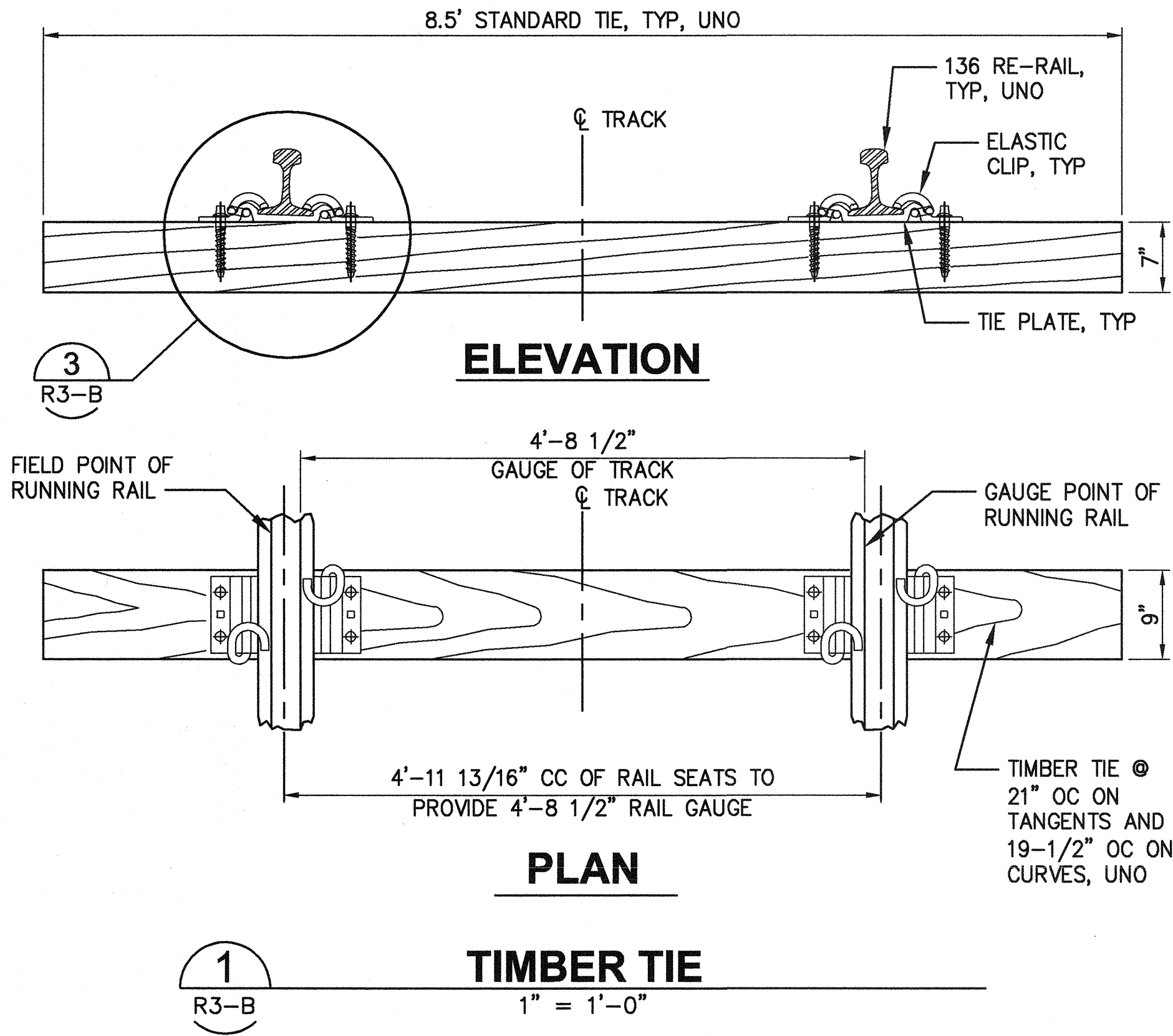
1. SEE SHEETS R3-B THROUGH R7-B FOR TRACKWORK DETAILS.
2. SEE SHEETS R4-B & R5-B FOR SPECIAL TRACKWORK DETAILS AND VARIATIONS FROM PROJECT STANDARDS REQUIRED FOR TURNOUT REPLACEMENTS INCLUDING ADDITIONAL RAIL, TIES, COMPROMISE JOINTS NOT INDICATED IN PROJECT STANDARD TURNOUT CONFIGURATION.
3. TURNOUT REPLACEMENTS ARE WITHIN ACTIVE TRACKS AND YARDS. CONTRACTOR SHALL CONFINE OPERATIONS AND STAGING TO THE LAYDOWN AREA SHOWN AND THE LIMITS OF THE TURNOUTS TO BE REPLACED. CONTRACTOR SHALL YIELD TO RAIL TRAFFIC AT ALL TIMES. SEE G6 FOR SEQUENCING GUIDANCE AND REQUIREMENTS.
4. AT ALL LOCATIONS, CONTRACTOR SHALL DEMOLISH EXISTING TURNOUT AND CONNECTING TRACK TO EXTENT NECESSARY TO INSTALL NEW TURNOUT AND TRACK SHOWN.
5. CONTRACTOR TO REMOVE AND REPLACE POWER SWITCH MACHINES AT TURNOUTS 30, 31, 32 AND 33 WITH MANUAL SWITCH STANDS.
6. TYPICAL BALLASTED TRACKBED SECTION SHALL BE APPLIED AT ALL LOCATIONS OF NEW RAIL, INCLUDING NEW TURNOUT LOCATIONS. FOR TYPICAL BALLASTED TRACKBED SECTION, SEE
7. ALL NEW RAIL SHALL BE 136 LB JOINTED RAIL, UNO.
8. ALL NEW TRACK TIES ARE TIMBER, SEE R3-B FOR STANDARD DETAILS.
11. ALL START AND END REPLACEMENT TRACK LOCATIONS, WHICH MATCH INTO EXISTING TRACK, ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD LOCATE NEAREST EXISTING JOINT AT OR BEYOND MATCH POINT INDICATED, VERIFY VERTICAL AND HORIZONTAL ALIGNMENT AND TIE INTO EXISTING TRACK AT EXISTING JOINT.
12. CONTRACTOR LAYDOWN AREA FOR WORK ON BUBBLE TRACK 2 SHOWN ON SHEET R1-B, UNDER PORT OF TACOMA ROAD OVERPASS. LAYDOWN AREA MUST BE OFFSET MINIMUM 15' FROM CENTERLINE OF ACTIVE TRACKS.

Diagram illustrating the replacement of a #9 crossover track. The diagram shows a cross-section of the track structure with various layers and components labeled.

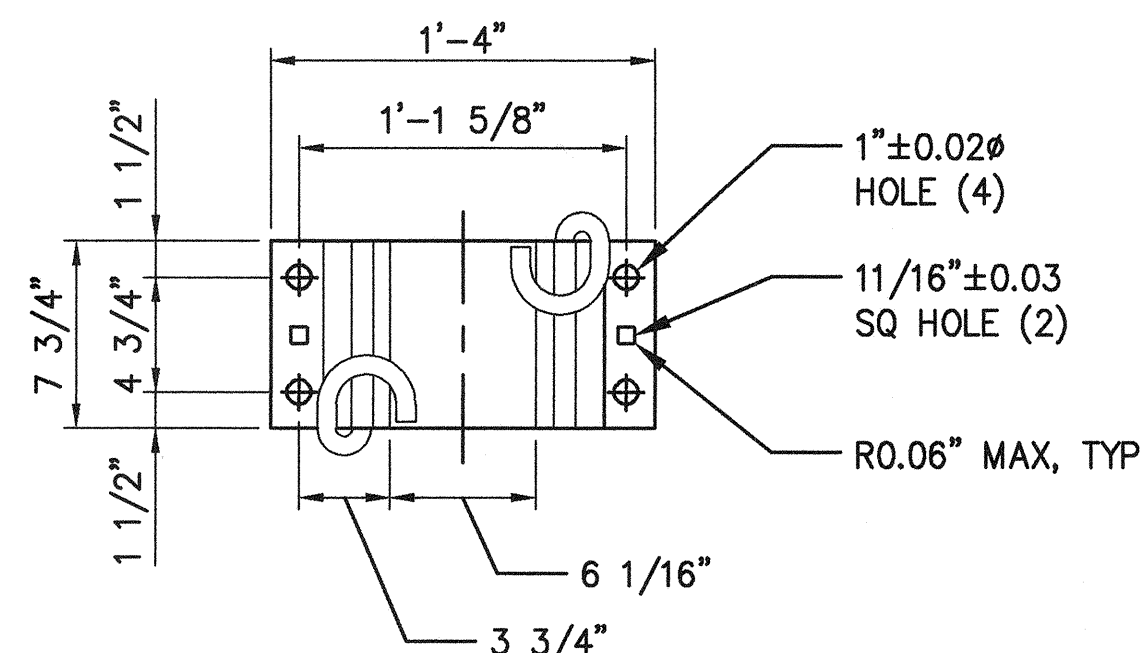
- EXISTING RAIL, TOP OF RAIL
- REPLACEMENT OF #9 CROSSOVER (R6-B)
- SURFACE, LINE, AND DRESS TRACK, SEE SPECIFICATIONS
- REMOVE EXISTING TRACK AND INSTALL NEW TRACK, CENTER
- POINT OF SWITCH (PS)
- COMPROMISE JOINTS

6569
R2-B
SHEET 15 OF 22

THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION



ELASTIC CLIPS ON TIMBER TIES

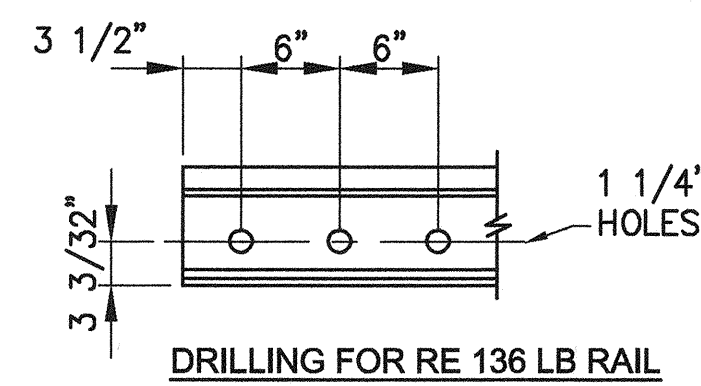
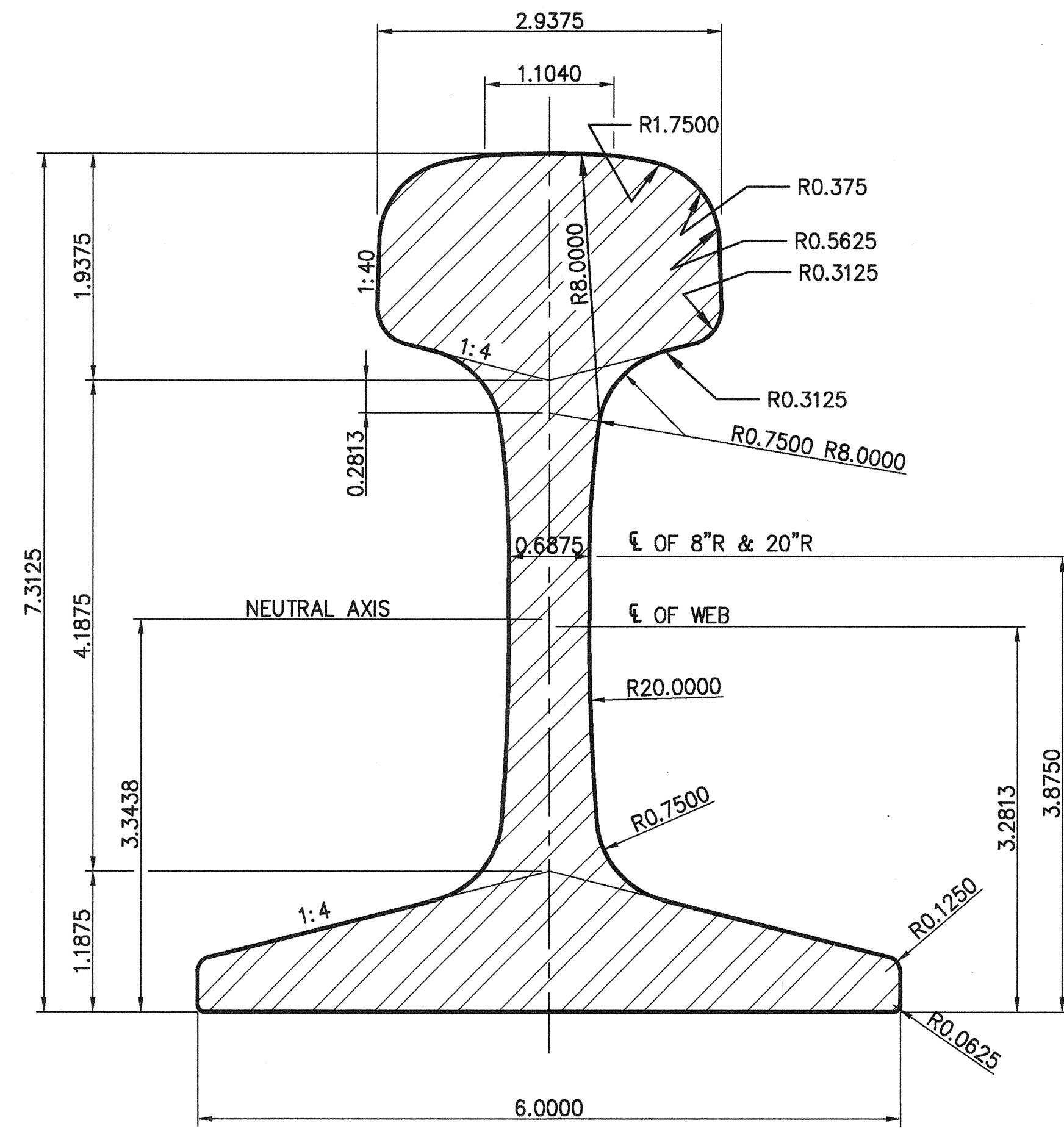


TYPICAL STANDARD PLATE FOR ELASTIC CLIP

3 R3-B

TIMBER TIE FASTENERS W/136# RAIL

1 1/2" = 1'-0"



PROPERTIES		
AREA OF HEAD	4.8187 SQ. IN.	36.2%
AREA OF WEB	3.6375 SQ. IN.	27.3%
AREA OF BASE	4.8702 SQ. IN.	36.5%
TOTAL AREA	13.3263 SQ. IN.	100.0%
MOMENT OF INERTIA	94.20	
SECTION MODULUS, HEAD	23.70	
SECTION MODULUS, BASE	28.20	
WEIGHT	135.8826 LBS PER YARD	

DETAIL - RAIL SECTION 136#

SCALE: 1"=1"

6569

R3-B

SHEET 16 OF 22

CONT/CONS: 070531

M. ID: 101081.01

PHASE: BID

REPLACEMENT OF RAILWAY TRACK AND SPECIAL TRACKWORK AT BUBBLE TRACKS

RAIL DETAILS

TOWNSHIP: 20N

DAT-HRZ:

PARCEL: MULIPLE

RANGE: 03E

VERT:

DRAWING SCALE: AS NOTED

SECTION: 2, 3

PRINTED BY: mmmedley Jun 20, 2017

PORT ADDRESS: ONE SITCUM PLAZA

RLO

CHECKED BY

DATE

SWK

PROJ. ENGR

DATE

APPROVED:

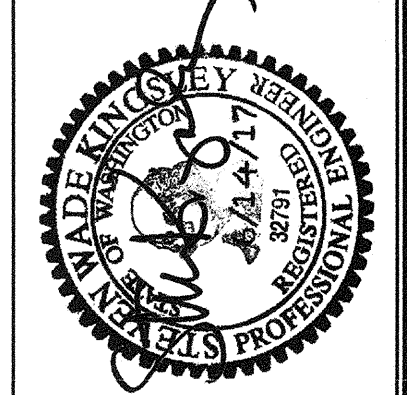
DATE

DATE

DATE

DATE

DATE



kpff

2407 North 31st Street, Suite 100
Tacoma, Washington 98407
(253) 396-0150 Fax (253) 396-0162

Port of Tacoma

P.O. BOX 1897 TACOMA, WA 98401 (253) 396-5841

DATE:

APPR:

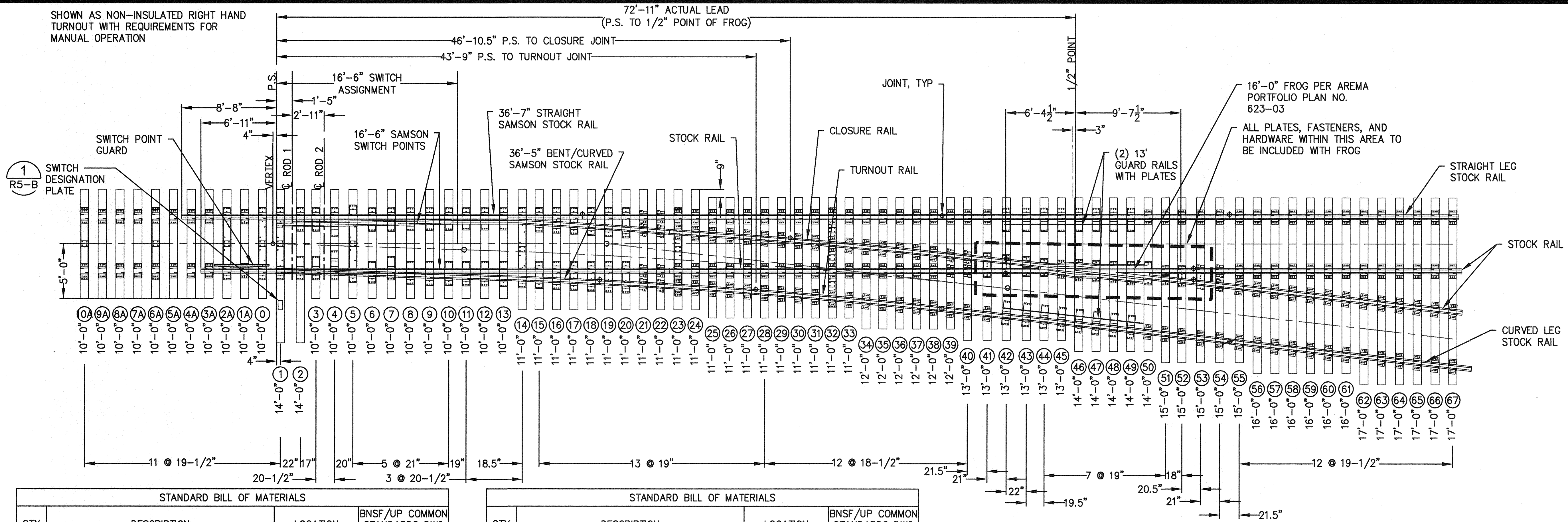
BY:

REVISION:

MARK:

REVISION:

SHOWN AS NON-INSULATED RIGHT HAND
TURNOUT WITH REQUIREMENTS FOR
MANUAL OPERATION



STANDARD BILL OF MATERIALS

QTY	DESCRIPTION	LOCATION	BNSF/UP COMMON STANDARDS DWG NUMBER
2	16'-6" (EXT. 35'-10") STRAIGHT SAMSON SWITCH POINTS		
1	36'-7" STRAIGHT SAMSON STOCK RAIL		
1	36'-5" BENT/CURVED SAMSON STOCK RAIL		
1	SWITCH ROD #1		241600
1	SWITCH ROD #2		241600
2	GAGE PLATE AHEAD OF POINT	TIES 6A & 10A	241304
1	ADJUSTABLE BRACE GAGE PLATE	TIE 1	241300
2	ADJUSTABLE BRACE GAGE PLATE	TIES 5 & 9	241305
6	ADJUSTABLE BRACE SLIDE PLATE	TIES 2, 3, & 7	241306
2	SLIDE PLATE	TIE 6	241306
2	RISER SLIDE PLATE	TIE 8	243309
2	RISER SLIDE PLATE	TIE 10	241306
18	TURNOUT PLATE	TIES 11, 12, 13, 15, 16, 17, 18, 19, & 20	241307
1	GAGE PLATE	TIE 14	241311
1	GAGE PLATE	TIE 23	241312
1	GAGE PLATE	TIE 32	241313
1	CLOSURE INSULATED JOINT RAIL		341001
1	INSULATED JOINT TURNOUT RAIL		341001
A/R	INSULATED JOINT CLIP ASSEMBLY		132800
1	CLOSURE RAIL		341001
1	TURNOUT RAIL		341001

STANDARD BILL OF MATERIALS

QTY	DESCRIPTION	LOCATION	BNSF/UP COMMON STANDARDS DWG NUMBER
A/R	136 RE RAIL		N/A
A/R	ELASTIC CLIP TIE PLATES	SEE NOTE 4	263000
14	MODIFIED ELASTIC CLIP TIE PLATE	TIES 21, 22, 39, 40, & 54	263001
A/R	ELASTIC CLIP E-2055		132500
A/R	15/16" DIA. X 6 1/2" LG. SCREW SPIKES		130800
2	FIXED HEEL BLOCKS		
1	NO. 9 16'-0" AREMA RBM FROG PER AREMA PORTFOLIO PLAN NO. 623-03 WITH SCREW SPIKE PLATES AND ELASTIC FASTENERS		N/A
2	GUARD RAILS PER AREMA PORTFOLIO PLAN NO. 504-03 (13') WITH SCREW PLATES AND ELASTIC FASTENERS		N/A
1	5'-0" RAISED SWITCH POINT GUARD. PROGRESS RAIL MODEL U69, OR APPROVED EQUAL	TIES 0, 1A, & 2A	N/A
1	SWITCH STAND, RACOR MODEL 22-E TRAILABLE, OR APPROVED EQUAL		N/A
20	136RE 36" JOINT BARS		
22	7" X 9" X 10'-0" TIE	TIES 0-10A & 3-13	
20	7" X 9" X 11'-0" TIE	TIES 14-33	
6	7" X 9" X 12'-0" TIE	TIES 34-39	
6	7" X 9" X 13'-0" TIE	TIES 40-45	
7	7" X 9" X 14'-0" TIE	TIES 1-2 & 46-50	
5	7" X 9" X 15'-0" TIE	51-55	
6	7" X 9" X 16'-0" TIE	TIES 56-61	
6	7" X 9" X 17'-0" TIE	TIES 62-67	

DETAIL - STANDARD NO. 9
TURNOUT ASSEMBLY

1
R4-B

SCALE: 1"=5'

NOTES :

- CONTRACTOR SHALL PROVIDE ALL MATERIALS REQUIRED FOR COMPLETION OF WORK.
- ALL SURPLUS TIES TO BE SUPPLIED TO THE PORT.
- IN ADDITION TO RAIL SHOWN WITHIN STANDARD NO. 9 TURNOUT ASSEMBLY AND ALL NEW RAIL SHOWN ON SHEETS R1-B & R2-B, CONTRACTOR SHALL PROVIDE A TOTAL OF (3) ADDITIONAL 136RE 39' RAIL STICKS FOR USE WITHIN THE BUBBLE TRACKS TO BE UTILIZED IF NECESSARY TO JOIN TURNOUTS TO EXISTING TRACK AND MAINTAIN MINIMUM JOINT SPACING AND JOINT STAGGER. ANY SURPLUS RAIL SHALL BE SUPPLIED TO THE PORT FOLLOWING COMPLETION OF WORK.
- ELASTIC CLIP TIE PLATES AND RESILIENT FASTENERS SHALL BE USED AT ALL LOCATIONS UNLESS OTHERWISE NOTED, SEE DETAIL 3 ON SHEET R3-B.
- THE GUARD RAIL IS TO BE 54 5/8" FROM THE GAUGE SIDE OF THE FROG POINT TO THE STRAIGHT GUARDING FACE OF THE GUARD RAIL.
- NO ALLOWANCE HAS BEEN MADE FOR EXPANSION GAPS OR END POST IN COMPUTING RAIL LENGTHS SHOWN.
- FRACTIONAL RAIL LENGTH CUTTINGS SHOWN ARE THEORETICAL AND ARE SUBJECT TO MINOR ADJUSTMENT TO MEET ACTUAL CLOSURE REQUIREMENTS IN THE FIELD.
- SWITCH STANDS SHALL BE INSTALLED IN A LOCATION TO MATCH EXISTING, AS SHOWN ON PLAN.
- CHORD METHOD IS USED TO CALCULATE TURNOUT CURVE DATA AND OFFSETS.
- TURNOUTS SHALL HAVE HORIZONTAL SWITCH RODS.
- FROG SHALL BE HIGH INTEGRITY, EXPLOSION HARDENED, RAIL BOUND MANGANESE STEEL CASTING WITH MITERED HEEL AND EXTENDED HEEL AND WING RAILS.
- ALL SWITCH RODS AND GAUGE PLATES ARE TO BE INSULATED TYPES.

FROG DATA	
ANGLE	6'-21'-35"
TURNOUT DATA	
RADIUS OF CENTERLINE	614'
T =	24.59'
CENTRAL ANGLE - CLOSURE CURVE	4'-35'-13"
DEGREE OF CURVE	9'-20'-31"
DIMENSIONS ALONG TURNOUT	
VERTEX TO P.C.	17'-7 9/32"
P.C. TO P.T.	614'-0" ϕ RADIUS
P.T. TO FROG POINT	6'-4 1/2"

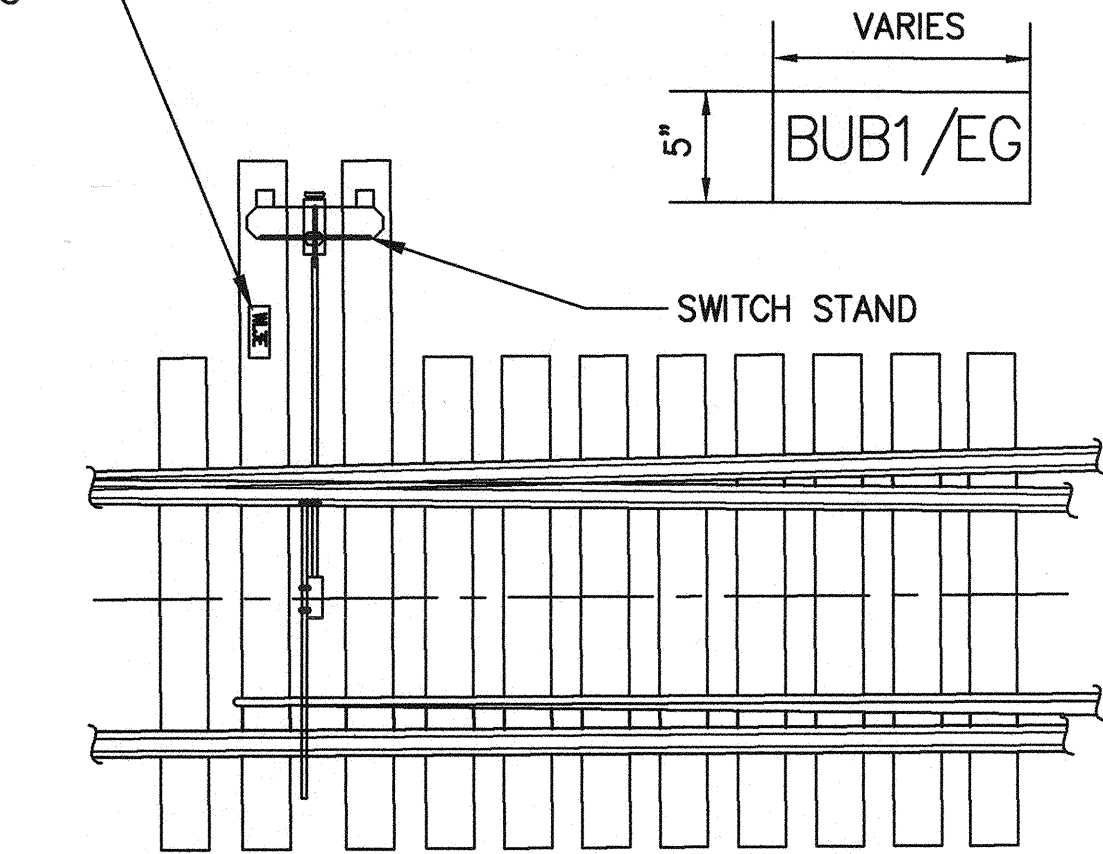
SWITCH DATA		
TURNOUT POINT	SWITCH LENGTH	16'-6"
	HEEL SPREAD	6 1/4"
	HEEL ANGLE	1'-46'-22"
	SWITCH ANGLE	1'-46'-22"
	THROW AT ROD #1	4 3/4"
	THICKNESS AT POINT	0"
TURNOUT POINT	RADIUS (CLOSURE CURVE)	616.3542'
	VERTEX DISTANCE	7 4/16"

LEGEND :

- JOINT, (2) 36" 136RE JOINT BARS

TABLE 1 - LOCATION SPECIFIC VARIATION TO PROJECT STANDARD		
	VARIATION	NOTES
ALL TURNOUTS		
1	ADJUST TIE SPACING, IF NECESSARY, TO INTERLACE BETWEEN ADJACENT TIES	
2	UNLESS OTHERWISE NOTED 36'-7" STRAIGHT SAMSON STOCK RAIL, 36'-5" BENT/CURVED SAMSON STOCK RAIL, AND STOCK RAILS ON TURNOUT LEGS SHALL BE CUT AND DRILLED IN THE FIELD.	MODIFICATION TO ACCOMMODATE EXISTING JOINT LOCATIONS. JOINT LOCATION TO BE MARKED IN THE FIELD AND APPROVED BY PORT PRIOR TO CUTTING RAIL.
TURNOUT BUB1/EG (SHEET R1-B)		
1	REUSE EXISTING TIES AT TIE LOCATIONS 64-67	TIES 64-67 SUPPORT EXISTING TURNOUT.
2	STOCK RAILS ON STRAIGHT LEG OF TURNOUT AND FROG SHALL BE CUT AND DRILLED IN THE FIELD.	MODIFICATION TO ACCOMODATE CLOSE PROXIMITY OF EX TURNOUT 7-12 TO THE EAST. JOINT LOCATION TO BE MARKED IN THE FIELD AND APPROVED BY PORT PRIOR TO CUTTING NEW STOCK RAIL AND DRILLING JOINT.
3	STOCK RAILS ON STRAIGHT LEG OF TURNOUT TO BE JOINED TO 115 RE RAIL. CONTRACTOR TO PROVIDE JOINT COMP BARS,	

PLACE SWITCH DESIGNATION
PLATES AT ALL NEW AND
SALVAGED SWITCHES



1 SWITCH DESIGNATION PLATE
R5-B NTS

6569

R5-B

SHEET 18 OF 22

CONT./CONS: 070531

M. ID:101081.01

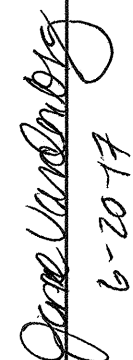
PHASE: BID

REPLACEMENT OF RAILWAY TRACK AND SPECIAL TRACKWORK AT BUBBLE TRACKS

RAILROAD NOTES

TOWNSHIP: 20N RANGE: 03E SECTION: 2, 3

DAT-HRZ: VERT: DRAWING SCALE: AS NOTED

APPROVED:  6-20-17

DIRECTOR ENG. DATE 6-14-2017

PRINTED BY: nmedley Jun 20, 2017

PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837

RLO 06/14/2017

CHECKED BY DATE

SWK 06/14/2017

PROJ. ENGR DATE



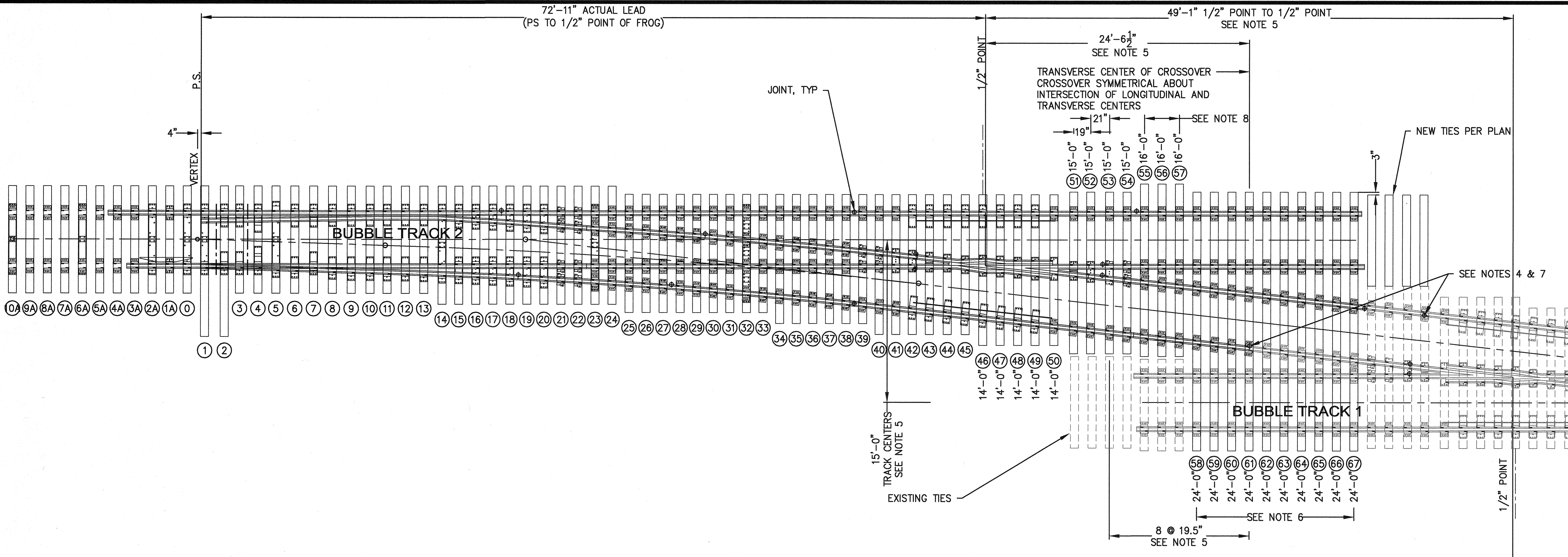

2407 North 31st Street, Suite 100
Tacoma, Washington 98407
(253) 396-0150 Fax (253) 396-0162


P.O. BOX 1887 TACOMA, WA 98401 (253) 885-5841

MARK: REVISION:

BY: APPR: DATE:

THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION



NOTES :

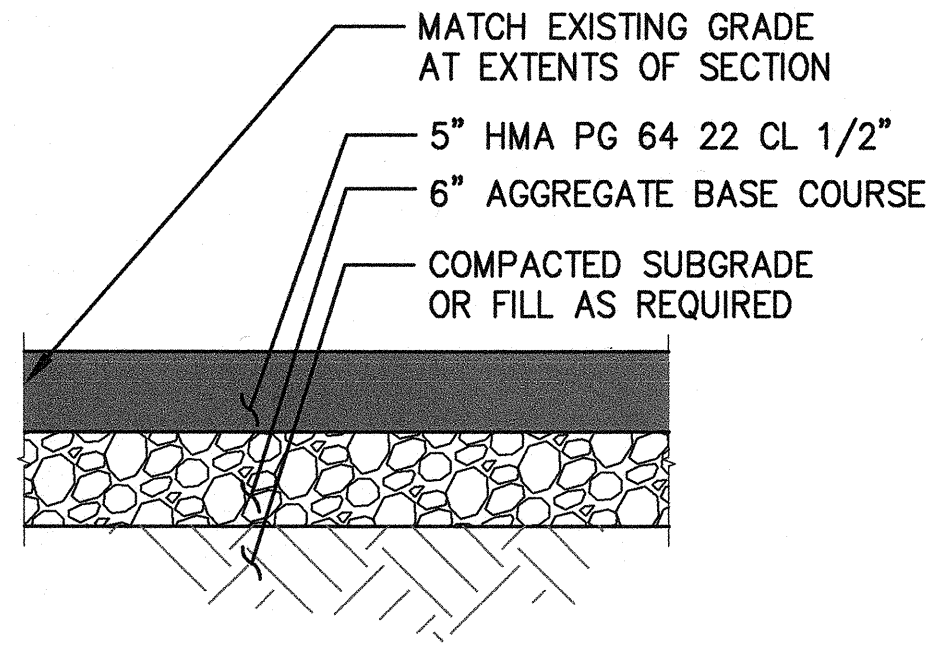
1. RIGHT HAND TO RIGHT HAND TURNOUT IS SHOWN WITH 15'-0" TRACK CENTERS.
2. FOR TURNOUT DATA AND NOTES SEE SHEET R4-B.
3. SEE TURNOUT DETAIL ON SHEET R4-B FOR SIZE AND SPACING OF TIES 10A - 45.
4. STOCK RAIL ON CURVED LEG OF NEW 136 RE TURNOUT TO BE JOINED TO 115 RE RAIL. CONTRACTOR TO PROVIDE JOINT COMP BARS.
5. TIE SPACING AND DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL ADJUST AS NEEDED TO TIE INTO EXISTING TRACK.
6. TIES 58-67 SHALL BE SHARED WITH ADJACENT BUBBLE TRACK 1. EXISTING FASTENERS ON EXISTING BUBBLE TRACK 1 RAIL SHARING TIES WITH NEW TURNOUT TO BE REUSED.
7. EXISTING JOINT LOCATIONS AT CROSSOVER ARE APPROXIMATE. JOINT LOCATION TO BE VERIFIED AND MARKED IN THE FIELD BY CONTRACTOR AND APPROVED BY PORT PRIOR TO CUTTING RAIL.
8. TIES 55-57 SHALL BE 16'-0" TIES TO SUPPORT NEW TURNOUT 32. ADJUST TIE SPACING AND ALIGNMENT AS NECESSARY TO ACCOMMODATE EXISTING TIES SUPPORTING ADJACENT BUBBLE TRACK 1.

1
R6-B
DETAIL - NO. 9 CROSSOVER
SCALE: 1"=5'

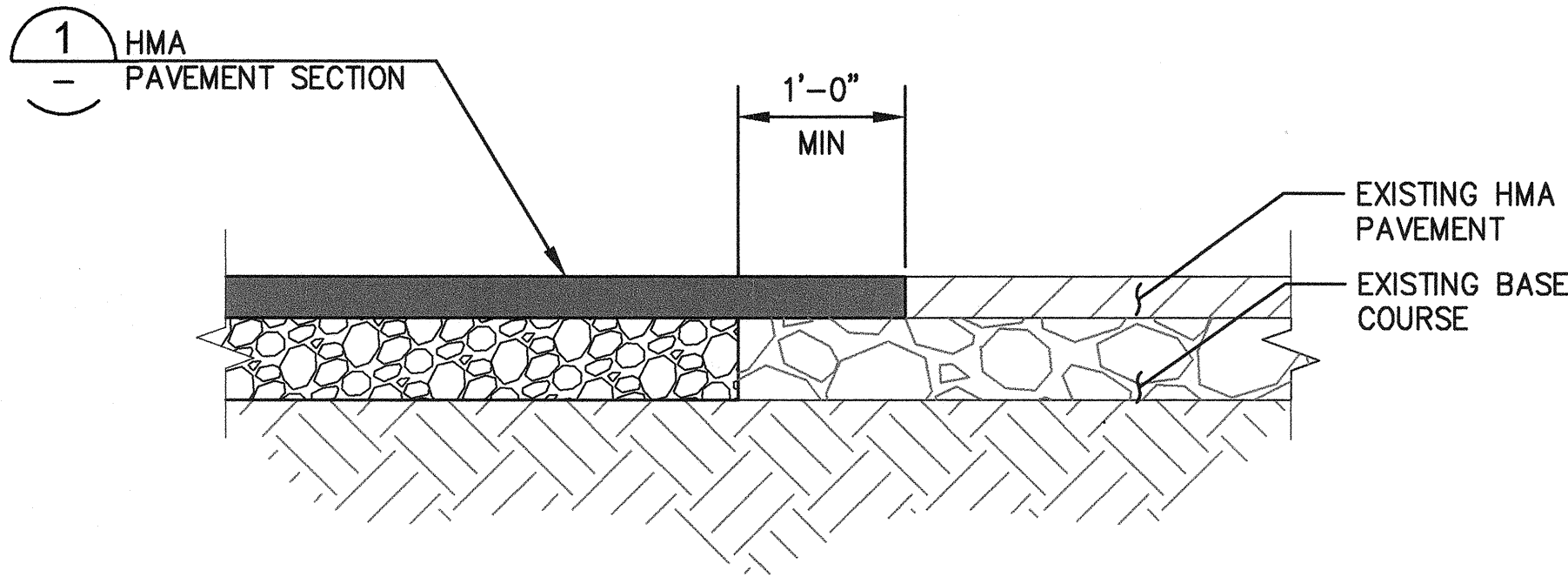
6569 R6-B SHEET 19 OF 22 CONT/CONS: 070531 M. ID: 101081.01 PHASE: BID	REPLACEMENT OF RAILWAY TRACK AND SPECIAL TRACKWORK AT BUBBLE TRACKS NO. 9 CROSSOVER PLAN				RLO 06/14/2017 CHECKED BY: SWK 06/14/2017 DATE
	APPROVED: <i>[Signature]</i> 6-20-17 DIRECTOR ENG. DATE PRINTED BY: nmedley Jun 20, 2017 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837				
	TOWNSHIP: 20N DAT-HRZ:	RANGE: 03E VERT:	SECTION: 2, 3	DRAWING SCALE: AS NOTED	
	PARCEL: MULTIPLE				
Port of Tacoma 2407 North 31st Street, Suite 100 Tacoma, Washington 98407 (253) 396-0150 Fax (253) 396-0162 P.O. BOX 187 TACOMA, WA 98401 (253) 396-5841		kpff MADE IN WASHINGTON PROFESSIONAL 6/14/17 27261		BY: REVISION: APPR: DATE:	



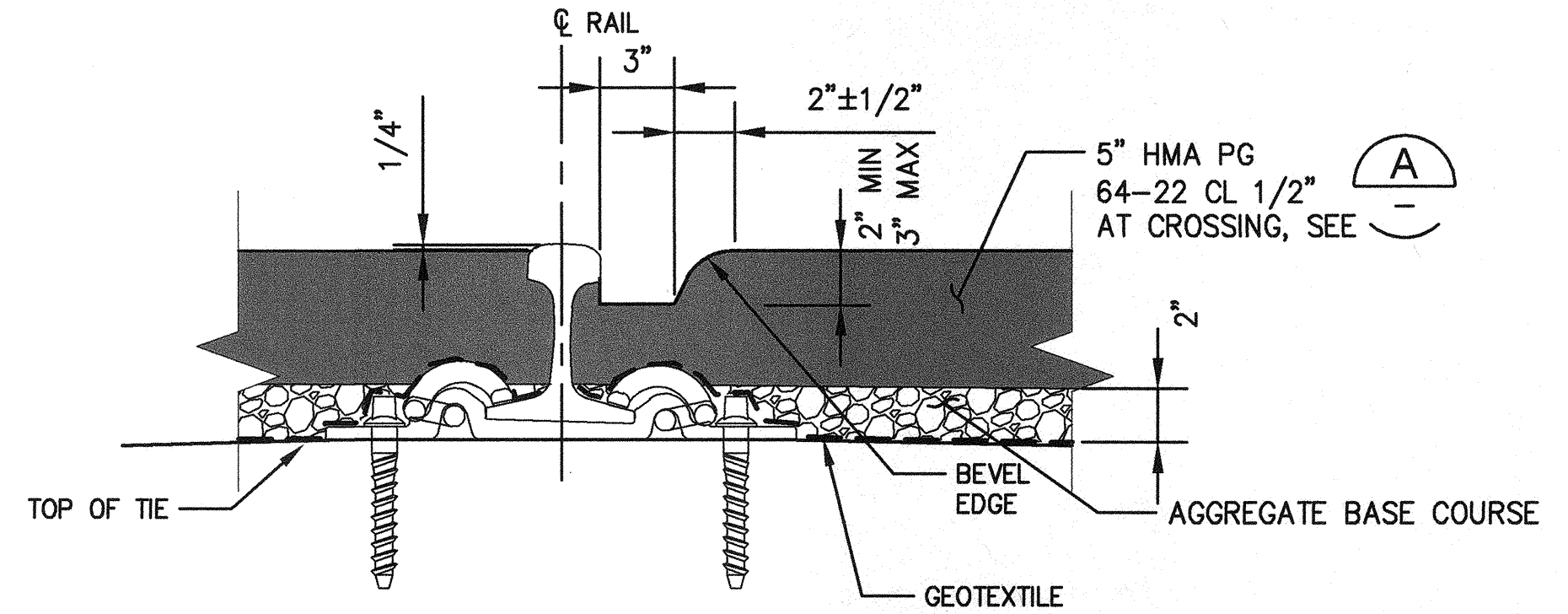
6569 R7-B SHEET 20 OF 22	REPLACEMENT OF RAILWAY TRACK AND SPECIAL TRACKWORK AT BUBBLE TRACKS				APPROVED: <i>Dana Vandenberg</i> 6-20-17		RLO 06/14/2017				2407 North 31st Street, Suite 100 Tacoma, Washington 98407 (253) 396-0150 Fax: (253) 396-0162	Part of Tacoma P.O. BOX 187 TACOMA, WA 98401 (253)985-5941
	RAIL DETAILS						CHECKED BY DATE					
	TOWNSHIP: 20N	RANGE: 03E	SECTION: 2, 3		DIRECTOR ENG. DATE	06/14/2017	SWK	06/14/2017	MARK: REVISION:	BY:	APPR: DATE:	
	DAT-HRZ:	VERT:		PRINTED BY: nmmedley	Jun 20, 2017							
PHASE: BID	PARCEL: MULTIPLE	DRAWING SCALE: AS NOTED		PORT ADDRESS: ONE SITCUM PLAZA		TACOMA, WA 98401-1837						



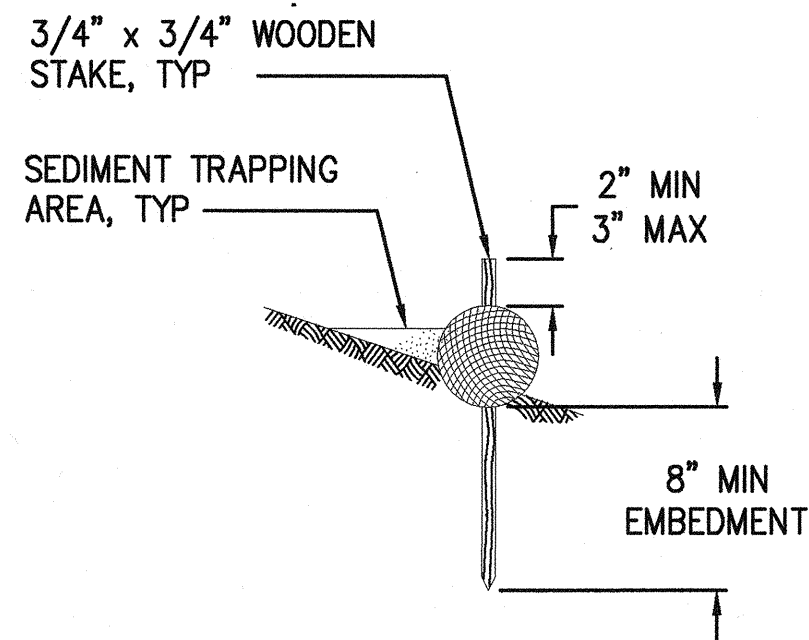
1
HMA PAVEMENT SECTION
R1-B
1" = 1'



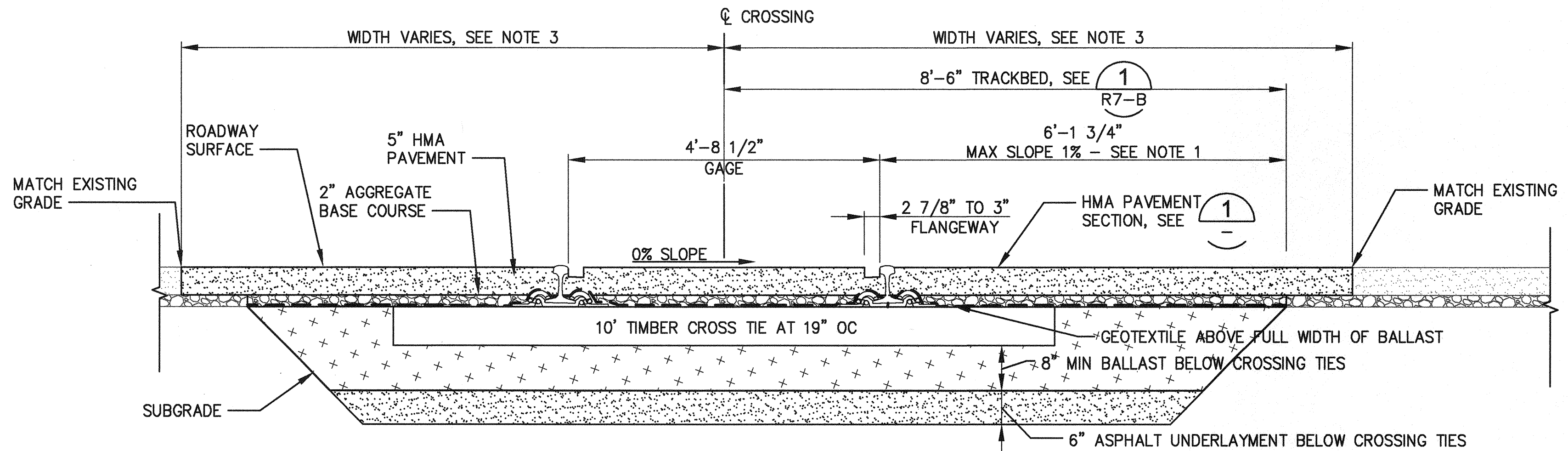
2
MATCH EXISTING PAVEMENT DETAIL
R1-B
1" = 1'



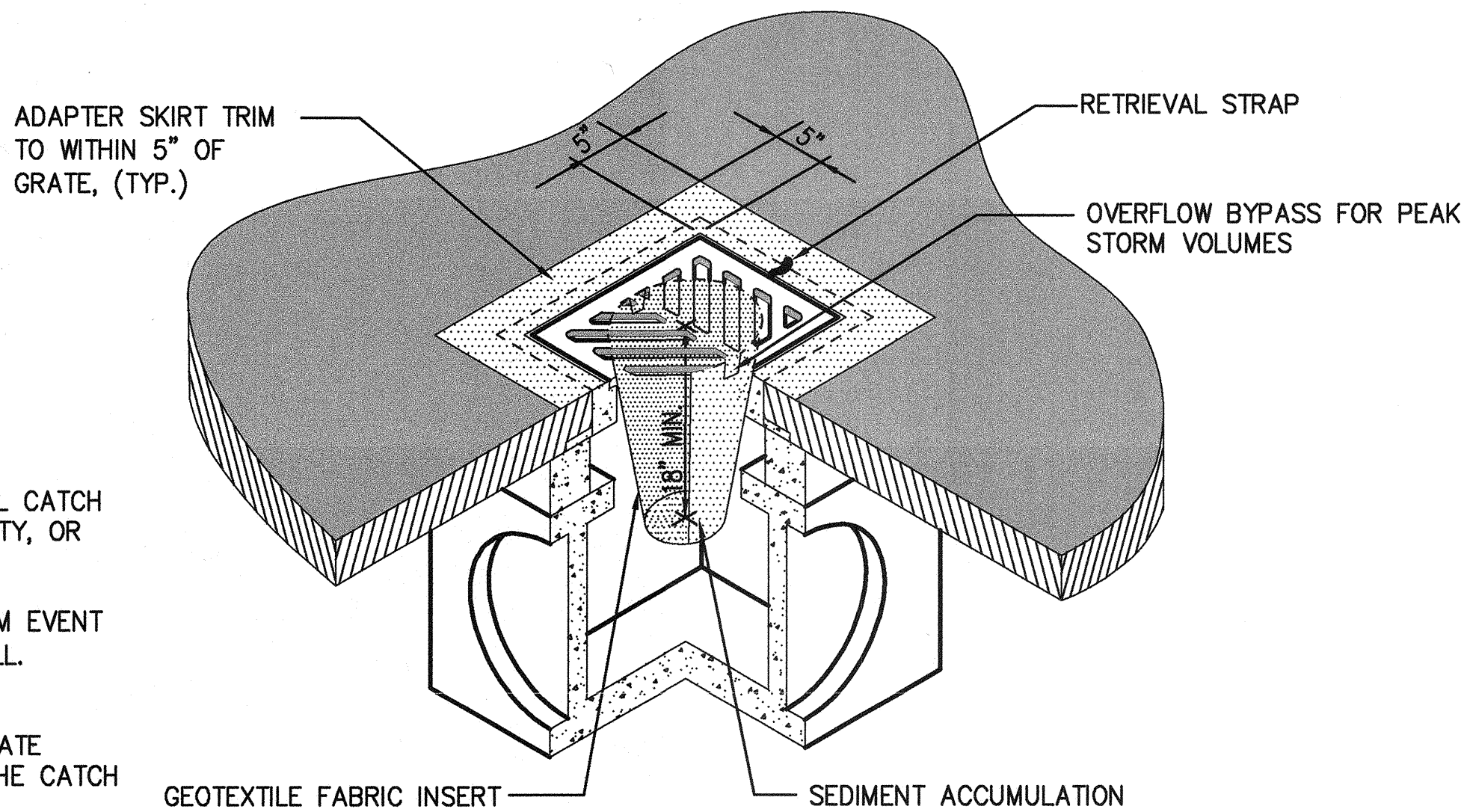
3
HMA CROSSING PAVEMENT AND ASPHALT FLANGEWAY
R1-B
1" = 6"



4
STRAW WATTLE DETAIL
R1-B & R2-B
NTS



5
ASPHALT GRADE CROSSING SECTION
A
3/4" = 1'-0"



6
INLET PROTECTION DETAIL
R1-B & R2-B
NTS

NOTES:

1. INSERT SHALL BE INSTALLED IN ALL OPERATIONAL CATCH BASINS PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
2. FILTERS SHALL BE INSPECTED AFTER EACH STORM EVENT AND CLEANED OR REPLACED WHEN IT IS 1/3 FULL.
3. SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING INTO APPROPRIATE DISPOSAL LOCATION, AND REINSERTING IT INTO THE CATCH BASIN.

NOTES:

1. ACCESS ROAD SURFACE SHALL NOT BE MORE THAN 3/4" HIGHER OR LOWER THAN TOP OF THE NEAR RAIL 8'-6" FROM TRACK CENTERLINE.
2. ALL NEW TIES AT GRADE CROSSINGS ARE TO BE 10' TIMBER TIES.
3. AT THE BUBBLE TRACK CROSSING SHOWN ON R1-B, NEW ASPHALT PAVING SHALL EXTEND APPROXIMATELY 8.5' WEST OF BUBBLE TRACK 1 CL TO THE MIDPOINT BETWEEN BUBBLE TRACK 1 CL AND BUBBLE TRACK 2 CL, AND APPROXIMATELY 10' EAST OF BUBBLE TRACK 1 CL UP TO EXISTING FENCE. DIMENSIONS ARE MEASURED PERPENDICULAR TO TRACK CL.

Port of Tacoma 2407 North 31st Street, Suite 100 Tacoma, Washington 98407 (253) 396-0150 Fax (253) 396-0162	kpff		APPROVED: <i>James W. Van der Berg</i>	RLO: 06/14/2017
			CHECKED BY: <i>nmmedley</i>	DATE: 06/14/2017
6569 R8-B SHEET 21 OF 22	REPLACEMENT OF RAILWAY TRACK AND SPECIAL TRACKWORK AT BUBBLE TRACKS		CIVIL/SITE DETAILS	
	TOWNSHIP: 20N	RANGE: 03E	SECTION: 2, 3	AS NOTED
	DATE: 10/08/2017	DATE: 10/08/2017	DATE: 10/08/2017	DATE: 10/08/2017
	PHASE: BID	PARCEL: MULTIPLE	DRAWING SCALE: AS NOTED	TACOMA, WA 98401-1837
THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION				