INDEX

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PLAN REFERENCE NO.

SHEET OF SHEETS

NOTE: ALL SHEET REFERENCES, FIRST NOS. OF STRUCTURE CODE DESIGNATIONS AND MATCH LINE SHEET REFERENCES, ETC., THROUGHOUT THE PLANS, REFER TO THE ENTRY IN THE PLAN REFERENCE NUMBER BOX.

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\010_XL615_SR20 Red Cr_PS_INDEX.dgn
TIME	11:52:53 AM
DATE	12/2/2022
PLOTTED BY	chavejl
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO. ARPA001

JOB NUMBER 22A036

CONTRACT NO. | LOCATION NO.

P.E. STAMP BOX DATE

P.E. STAMP BOX DATE

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

INDEX

Plot 1

PLAN REF. NO. IN1

SHEET 1 OF 79 SHEETS

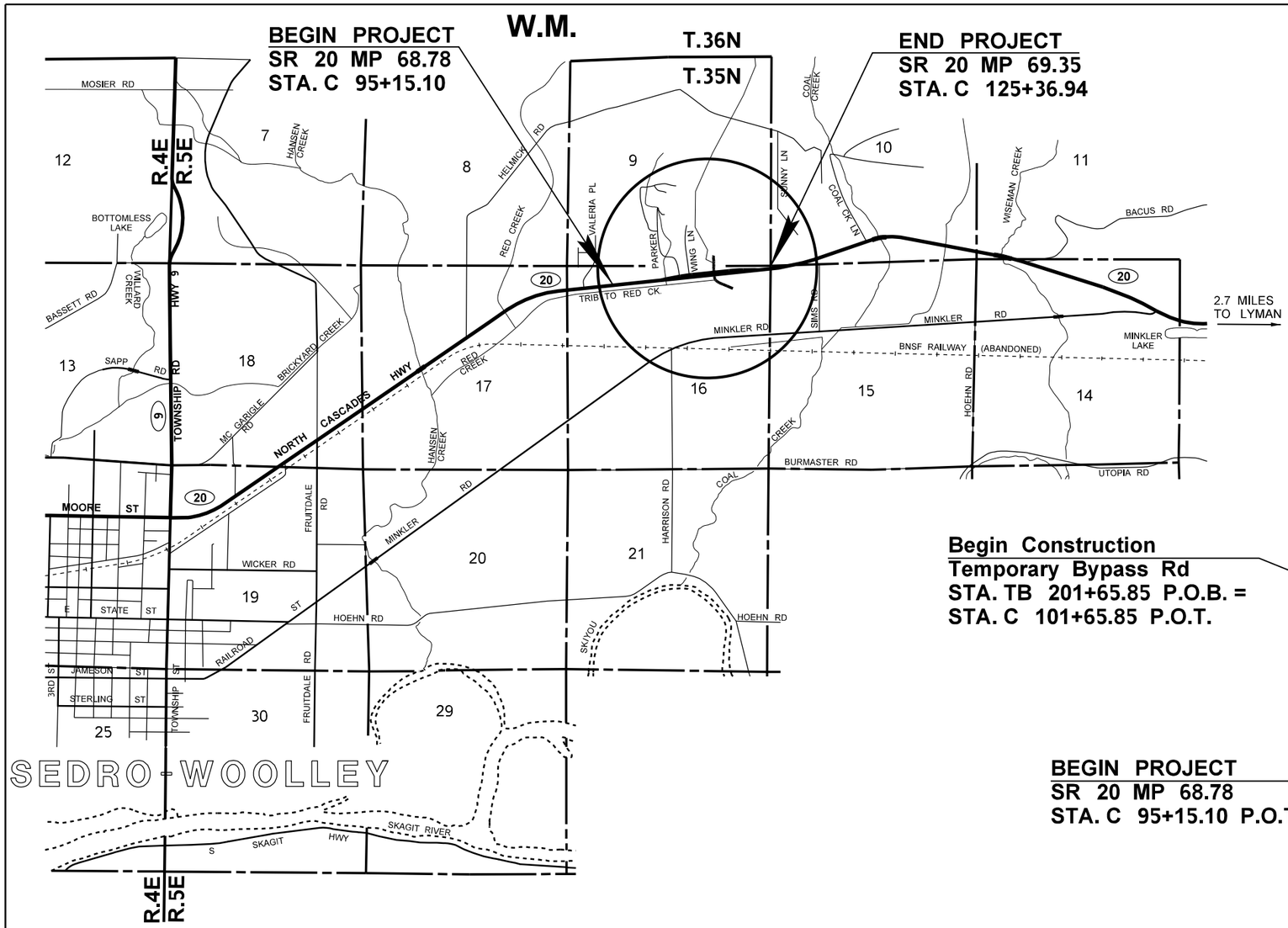
PROJECT LICENSED PROFESSIONAL CERTIFICATES

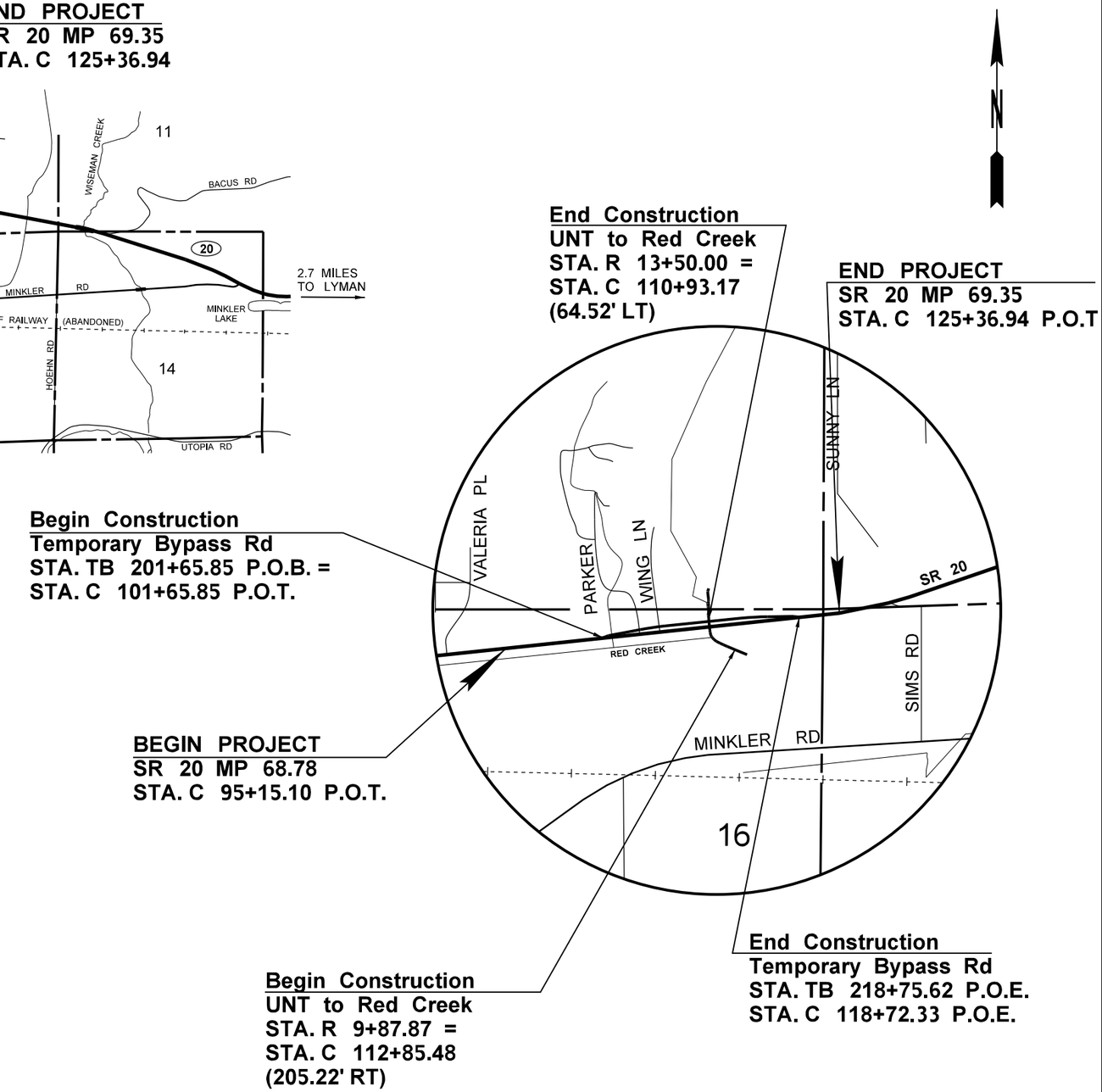
Spencer Beier Dec 19, 2022 AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	Julie Heilman Dec 19, 2022 AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	Duke Do Dec 20, 2022 AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	Ryan Leigh Dec 20, 2022 AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.
Michael Rosa Dec 19, 2022 AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.
AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.

NOTES:

THIS PLAN SET WAS DEVELOPED ELECTRONICALLY UNDER THE DIRECT SUPERVISION OF THE LICENSED PROFESSIONALS THAT HAVE AFFIXED THEIR SIGNATURE TO THIS PAGE.

THIS SHEET SERVES AS THE CERTIFICATION BY THE ABOVE LICENSED PROFESSIONALS OF ALL SHEETS IN THIS PLAN SET WHERE THEIR STAMPS AND SIGNATURES APPEAR.





NOTES:

1. SEE SHEET DP1-DP2 FOR PEDESTRIAN / BICYCLE DETOUR VICINITY.

0 1500 3000
SCALE IN FEET

0 750 1500
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\020_XL6415_SR20 Red Cr_PS_VicMap.dgn					
TIME	11:57:14 AM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	12/2/2022					
PLOTTED BY	chavejl					
DESIGNED BY	A. LEWIS				JOB NUMBER 22A036	
ENTERED BY	A. LEWIS					
CHECKED BY	A. WILLIAMS				CONTRACT NO.	LOCATION NO.
PROJ. ENGR.	S. BEIER					
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY		

P.E. STAMP BOX DATE

P.E. STAMP BOX DATE

Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

VICINITY MAP

Plot 1
PLAN REF NO
VM1
SHEET 3 OF 79 SHEETS

SUMMARY OF QUANTITIES

DOT_RGG900

12/13/2022

ITEM NO	TOTAL QUANTITY	SUB-TOTAL * SECTION I-07.2(1) OF STANDARD SPECS	SUB-TOTAL ** SECTION I-07.2(2) OF STANDARD SPECS	STD. ITEM NO.	UNIT	ITEM	GROUP 1 SR 20 MP 68.78 - 69.35	GROUP 2 THIRD PARTY DAMAGES
						PREPARATION		
1	LUMP SUM		LUMP SUM	0001	L.S.	MOBILIZATION	L.S.	
2	0.16		0.16	0025	ACRE	CLEARING AND GRUBBING	0.16	
3	LUMP SUM		LUMP SUM	0050	L.S.	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	L.S.	
4	2745.00		2745.00	0187	L.F.	REMOVING PAINT LINE	2,745.00	
						GRADING		
5	LUMP SUM		LUMP SUM		L.S.	EARTHWORK	L.S.	
						DRAINAGE		
6	23.15		23.15	1090	TON	STREAMBED SAND	23.15	
7	277.77		277.77	1093	TON	STREAMBED SEDIMENT	277.77	
8	18.18		18.18	0900	TON	STREAMBED COBBLES 4 IN.	18.18	
9	19.60		19.60	917	TON	AQUITARD	19.60	
10	5000.00		5000.00	3077	DOL	FISH EXCLUSION ASSISTANCE	5,000.00	
11	6.00		6.00	0919	EACH	WOODY MATERIAL-LOG WITH ROOTWAD DBH 1.5'	6.00	
12	6.00		6.00	0919	EACH	WOODY MATERIAL-LOG WITH ROOTWAD DBH 1.25'	6.00	
13	LUMP SUM		LUMP SUM	3075	L.S.	TEMPORARY STREAM DIVERSION	L.S.	
14	5000.00		5000.00	7715	DOL	FORCE ACCOUNT ADDITIONAL STREAMBED GRADING	5,000.00	
						STRUCTURE		
15	LUMP SUM		LUMP SUM	4013	L.S.	SHORING OR EXTRA EXCAVATION CL. A FOR CDBS NO. 1	L.S.	
16	LUMP SUM		LUMP SUM	4335	L.S.	CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1	L.S.	
17	80.00		80.00	4410	L.F.	BRIDGE RAILING TYPE BP-10	80.00	
18	60.67		60.67	4455	S.Y.	WATERPROOF MEMBRANE BR. NO. CDBS NO. 1	60.67	
19	80.00		80.00	4119	L.F.	SEW TRAFFIC BARRIER	80.00	
						SURFACING		
20	2388.07		2388.07	5100	TON	CRUSHED SURFACING BASE COURSE	2,388.07	
						HOT MIX ASPHALT		
21	486.00		486.00	5711	S.Y.	PLANING BITUMINOUS PAVEMENT	486.00	
22	2684.22		2684.22	5767	TON	HMA CL. 1/2 IN. PG 58H-22	2,684.22	
23	13420.00		13420.00	5830	DOL	JOB MIX COMPLIANCE PRICE ADJUSTMENT	13,420.00	
24	16104.00		16104.00	5835	DOL	COMPACTION PRICE ADJUSTMENT	16,104.00	
25	2294.10		2294.10	5837	DOL	ASPHALT COST PRICE ADJUSTMENT	2,294.10	
26	858.71		858.71	5875	TON	COMMERCIAL HMA	858.71	
27	120.00		120.00	6511	L.F.	HMA SAWCUT AND SEAL	120.00	
						EROSION CONTROL AND ROADSIDE PLANTING		
28	20.00		20.00	6470	HR	STREET CLEANING	20.00	
29	581.00		581.00	6500	L.F.	COMPOST SOCK	581.00	
30	LUMP SUM		LUMP SUM	6488	L.S.	EROSION CONTROL AND WATER POLLUTION PREVENTION	L.S.	
31	LUMP SUM		LUMP SUM		L.S.	HERBICIDE APPLICATION PRIOR TO CLEARING AND GRUBBING	L.S.	
32	0.47		0.47	6414	ACRE	SEEDING, FERTILIZING, AND MULCHING	0.47	
33	86.00		86.00	6391	S.Y.	TOPSOIL TYPE A	86.00	
34	5232.00		5232.00	6483	S.Y.	FINE COMPOST	5,232.00	
35	5000.00		5000.00	6546	DOL	PROJECT AREA WEED AND PEST CONTROL	5,000.00	

GROUP LEGEND

GROUP NUMBER	SR	CONTROL SECTION	TAX SCHEDULE	FUND PARTICIPANTS
1	020	293230	**	STATE
2	020	293230	**	STATE

DATE	REVISION	BY

REGION	STATE	FEDERAL AID PROJECT. NO.
10	WA	ARPA001

JOB NUMBER 22A036/2

CONTRACT NO 000000

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

SUMMARY OF QUANTITIES

SQ1

SHEET 4 OF 79 SHEETS

SUMMARY OF QUANTITIES

ITEM NO	TOTAL QUANTITY	SUB-TOTAL * SECTION I-07.2(1) OF STANDARD SPECS	SUB-TOTAL ** SECTION I-07.2(2) OF STANDARD SPECS	STD. ITEM NO.	UNIT	ITEM	GROUP 1 SR 20 MP 68.78 - 69.35	GROUP 2 THIRD PARTY DAMAGES
36	1.09		1.09	6529	ACRE	SOIL AMENDMENT	1.09	
37	0.52		0.52		ACRE	SOIL DECOMPACTION	0.52	
38	13.00		13.00	6552	EACH	PSIPE SITKA SPRUCE, 18IN. HT, #2 CONT.	13.00	
39	61.00		61.00	6552	EACH	PSIPE PACIFIC CRABAPPLE #2 CONT.	61.00	
40	88.00		88.00	6552	EACH	PSIPE CASCARA, #2 CONT.	88.00	
41	26.00		26.00	6552	EACH	PSIPE BLACK HAWTHORN, #2 CONT.	26.00	
42	543.00		543.00	6552	EACH	PSIPE SALMONBERRY, #1 CONT.	543.00	
43	886.00		886.00	6552	EACH	PSIPE BLACK TWINBERRY, #1 CONT.	886.00	
44	626.00		626.00	6552	EACH	PSIPE PACIFIC NINEBARK, #1 CONT.	626.00	
45	264.00		264.00	6552	EACH	PSIPE THIMBLEBERRY, #1 CONT.	264.00	
46	383.00		383.00	6552	EACH	PSIPE RED OSIER DOGWOOD, #1 CONT.	383.00	
47	217.00		217.00	6552	EACH	PSIPE PEAFRUIT ROSE, #1 CONT.	217.00	
48	291.00		291.00	6552	EACH	PSIPE LADY FERN, PLUG	291.00	
49	486.00		486.00	6552	EACH	PSIPE SLOUGH SEDGE, PLUG	486.00	
50	378.00		378.00	6552	EACH	PSIPE SITKA WILLOW, LIVE STAKE	378.00	
51	378.00		378.00	6552	EACH	PSIPE RED-OSIER DOGWOOD, LIVE STAKE	378.00	
52	219.00		219.00	6549	L.F.	PSIPE LIVE FASCINE	219.00	
53	219.00		219.00	6549	L.F.	PSIPE LIVE FASCINE	219.00	
54	5424.00		5424.00	6580	S.Y.	BARK OR WOOD CHIP MULCH	5,424.00	
55	84.00		84.00	6630	L.F.	HIGH VISIBILITY FENCE	84.00	
56	3299.00		3299.00	6635	L.F.	HIGH VISIBILITY SILT FENCE	3,299.00	
57	LUMP SUM		LUMP SUM	6404	L.S.	ENVIRONMENTAL COMPLIANCE LEAD	L.S.	
						TRAFFIC		
58	762.50		762.50	6711	L.F.	BEAM GUARDRAIL TYPE 31 - 8 FT. LONG POST	762.50	
59	4.00		4.00	6760	EACH	BEAM GUARDRAIL TRANSITION SECTION TYPE 21	4.00	
60	4.00		4.00	6719	EACH	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL	4.00	
61	2065.00		2065.00	6781	L.F.	TEMPORARY BARRIER	2,065.00	
62	6.00		6.00	7440	EACH	TEMPORARY IMPACT ATTENUATOR	6.00	
63	7.00		7.00	6832	EACH	FLEXIBLE GUIDE POST	7.00	
64	7.00		7.00	6881	EACH	PLASTIC DRAINAGE MARKING	7.00	
65	2748.00		2748.00	6806	L.F.	PAINT LINE	2,748.00	
66	0.17		0.17	6893	MI.	CENTERLINE RUMBLE STRIP	0.17	
67	0.35		0.35	6892	MI.	SHOULDER RUMBLE STRIP TYPE 2	0.35	
68	0.11		0.11	6889	HUND	RECESSED PAVEMENT MARKER	0.11	
69	3400.00		3400.00	6895	L.F.	TEMPORARY PAVEMENT MARKING-SHORT DURATION	3,400.00	
70	LUMP SUM		LUMP SUM	6869	L.S.	PEDESTRIAN TRAFFIC CONTROL	L.S.	
71	LUMP SUM		LUMP SUM	6913	L.S.	PORTABLE TEMPORARY TRAFFIC CONTROL SIGNAL	L.S.	
72	LUMP SUM		LUMP SUM	6971	L.S.	PROJECT TEMPORARY TRAFFIC CONTROL	L.S.	
73	280.50		280.50	6982	S.F.	CONSTRUCTION SIGNS CLASS A	280.50	
						OTHER ITEMS		
74	8000.00		8000.00	7715	DOL	FORCE ACCOUNT ADDITIONAL STREAM CHANNEL RESTORATION	8,000.00	
75	50000.00		50000.00	7715	DOL	FORCE ACCOUNT WORK ZONE SAFETY CONTINGENCY	50,000.00	
76	LUMP SUM		LUMP SUM	7003	L.S.	TYPE B PROGRESS SCHEDULE	L.S.	
77	LUMP SUM		LUMP SUM	7037	L.S.	STRUCTURE SURVEYING	L.S.	
78	LUMP SUM		LUMP SUM	7038	L.S.	ROADWAY SURVEYING	L.S.	
79	5000.00		5000.00	7480	DOL	ROADSIDE CLEANUP	5,000.00	
80	5.00		5.00	7725	DOL	REIMBURSEMENT FOR THIRD PARTY DAMAGE		5.00

GROUP LEGEND

GROUP NUMBER	SR	CONTROL SECTION	TAX SCHEDULE	FUND PARTICIPANTS
1	020	293230	**	STATE
2	020	293230	**	STATE

DATE	REVISION	BY

REGION	STATE	FEDERAL AID PROJECT. NO.
10	WA	ARPA001

JOB NUMBER 22A036/2

CONTRACT NO 000000

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

SUMMARY OF QUANTITIES

SQ2

SUMMARY OF QUANTITIES

ITEM NO	TOTAL QUANTITY	SUB-TOTAL * SECTION I-07.2(1) OF STANDARD SPECS	SUB-TOTAL ** SECTION I-07.2(2) OF STANDARD SPECS	STD. ITEM NO.	UNIT	ITEM	GROUP 1 SR 20 MP 68.78 - 69.35	GROUP 2 THIRD PARTY DAMAGES
81	1.00		1.00	7728	DOL	MINOR CHANGE	1.00	
82	1.00		1.00	7732	DOL	AGGREGATE COMPLIANCE PRICE ADJUSTMENT	1.00	
83	LUMP SUM		LUMP SUM	7736	L.S.	SPCC PLAN	L.S.	
84	3742.44		3742.44	7552	S.Y.	CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION	3,742.44	

GROUP LEGEND

GROUP NUMBER	SR	CONTROL SECTION	TAX SCHEDULE	FUND PARTICIPANTS
1	020	293230	**	STATE
2	020	293230	**	STATE

DATE	REVISION	BY

REGION	STATE	FEDERAL AID PROJECT. NO.
10	WA	ARPA001

JOB NUMBER 22A036/2

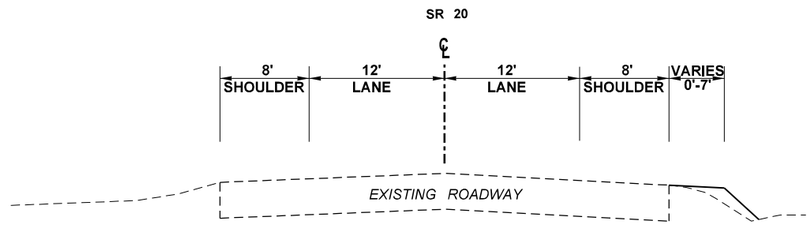
CONTRACT NO 000000

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

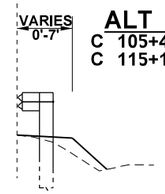
SUMMARY OF QUANTITIES

SQ3



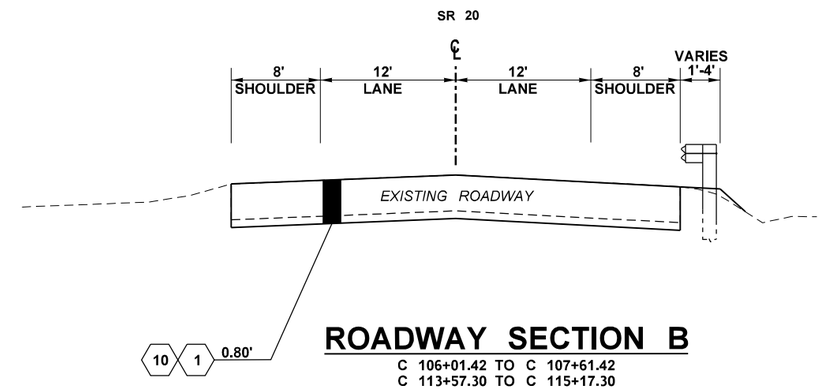
ROADWAY SECTION A

C 104+91.77 TO C 106+01.42
C 115+17.30 TO C 116+39.56
NOT TO SCALE



ALT SHOULDER A1

C 105+44.74 TO C 106+01.42
C 115+17.30 TO C 115+77.27
NOT TO SCALE



ROADWAY SECTION B

C 106+01.42 TO C 107+61.42
C 113+57.30 TO C 115+17.30
NOT TO SCALE

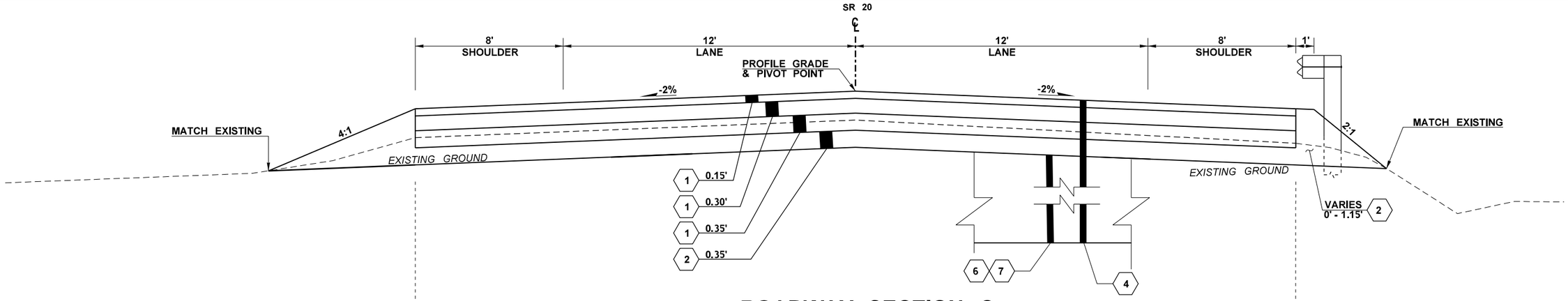
MATERIAL LEGEND

1. HMA CL. 1/2 IN. PG 58H-22
2. CRUSHED SURFACING BASE COURSE
3. GUARDRAIL TYPE 31 (SEE NOTE 4-6)
4. ROADWAY EXCAVATION INCL. HAUL
5. STRUCTURE EXCAVATION CLASS A INCL. HAUL
6. EMBANKMENT COMPACTION
7. SELECT BORROW INCL. HAUL
8. SEW TRAFFIC BARRIER
9. CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION
10. PLANING BITUMINOUS PAVEMENT
11. PERMEABLE BALLAST
12. WATERPROOF MEMBRANE BR. NO. CDBS NO. 1

GENERAL NOTES:

1. ALL SURFACING AND PAVING DEPTHS ARE COMPACTED DEPTHS AND COURSES SHALL NOT EXCEED THE DEPTHS DEFINED IN THE STANDARD SPECIFICATIONS.
2. ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.
3. SEE ROADWAY PROFILE PLANS FOR ROADWAY CROSS SLOPES SHOULDER CROSS SLOPE TO MATCH LANE SLOPES UNLESS OTHERWISE NOTED.
4. SEE PAVING/ PAVEMENT MARKINGS PLAN FOR SHOULDER AND GUARDRAIL PLACEMENT AND EXTENTS.
5. TYPE 31 GUARDRAIL SHALL UTILIZE 8' POSTS AT ALL LOCATIONS WHERE CROSS SLOPE IS STEEPER THAN 10:1 PER STANDARD PLAN C-20.10-07 BEAM GUARDRAIL TYPE 31.
6. BEAM GUARDRAIL TRANSITION SECTION TYPE 21 SHALL BE USED ON EACH SINGLE SLOPE TRAFFIC BARRIER APPROACH.
7. SAW CUT SHOULD PRODUCE A NEAT AND CLEAN VERTICAL EDGE.

NOT TO SCALE

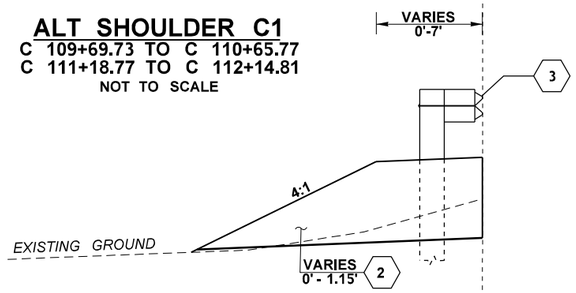


ROADWAY SECTION C

C 107+61.42 TO C 110+65.77
C 111+18.77 TO C 113+57.30
NOT TO SCALE

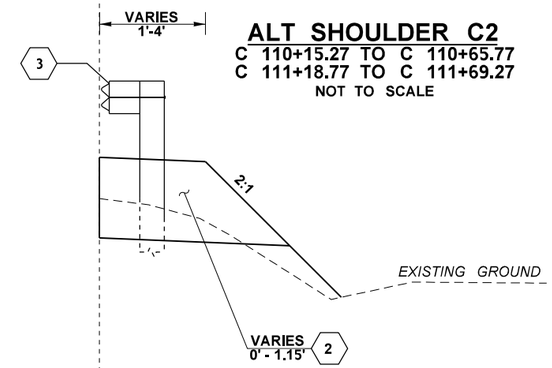
ALT SHOULDER C1

C 109+69.73 TO C 110+65.77
C 111+18.77 TO C 112+14.81
NOT TO SCALE



ALT SHOULDER C2

C 110+15.27 TO C 110+65.77
C 111+18.77 TO C 111+69.27
NOT TO SCALE



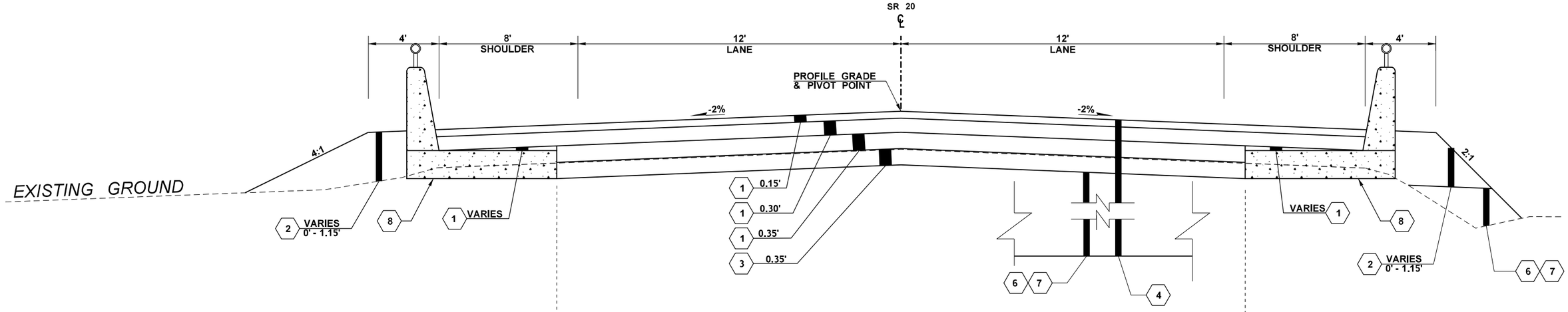
MATERIAL LEGEND

1	HMA CL. 1/2 IN. PG 58H-22
2	CRUSHED SURFACING BASE COURSE
3	GUARDRAIL (SEE PAVING / PAVEMENT MARKING PLANS)
4	ROADWAY EXCAVATION INCL. HAUL
5	STRUCTURE EXCAVATION CLASS A INCL. HAUL
6	EMBANKMENT COMPACTION
7	SELECT BORROW INCL. HAUL
8	SEW TRAFFIC BARRIER
9	CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION
10	PLANING BITUMINOUS PAVEMENT
11	PERMEABLE BALLAST
12	WATERPROOF MEMBRANE BR. NO. CDBS NO. 1

GENERAL NOTES:

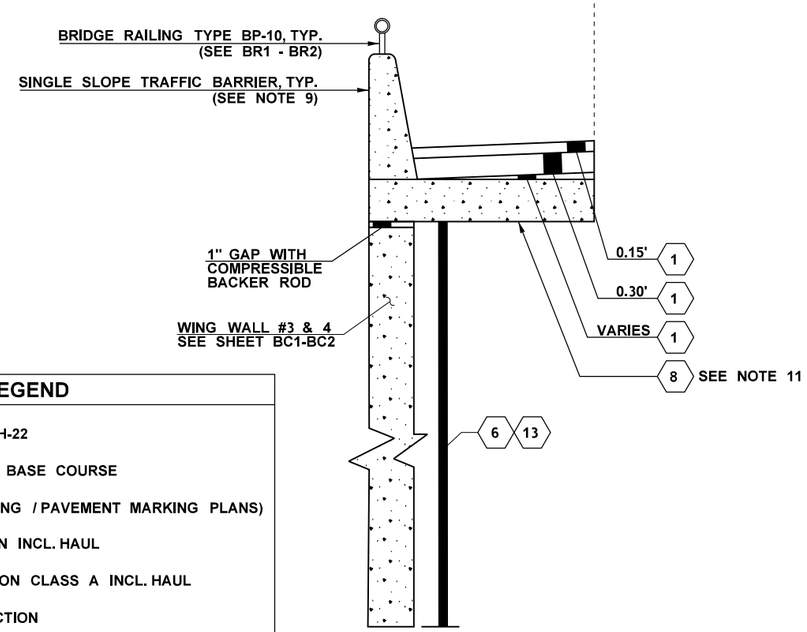
1. ALL SURFACING AND PAVING DEPTHS ARE COMPACTED DEPTHS AND COURSES SHALL NOT EXCEED THE DEPTHS DEFINED IN THE STANDARD SPECIFICATIONS.
2. ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.
3. SEE ROADWAY PROFILE PLANS FOR ROADWAY CROSS SLOPES SHOULDER CROSS SLOPE TO MATCH LANE SLOPES UNLESS OTHERWISE NOTED.
4. SEE PAVING/ PAVEMENT MARKINGS PLAN FOR SHOULDER AND GUARDRAIL PLACEMENT AND EXTENTS.

NOT TO SCALE



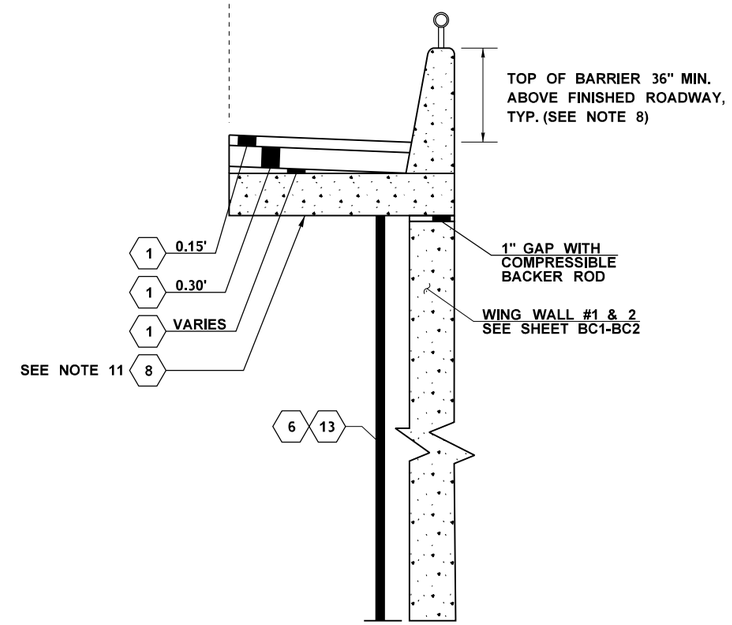
ROADWAY SECTION D

C 110+65.77 TO C 110+85.77
C 110+98.77 TO 111+18.77
NOT TO SCALE



ALT SHOULDER D1

C 110+74.77 TO C 110+85.77
C 110+98.77 TO 111+09.77
NOT TO SCALE



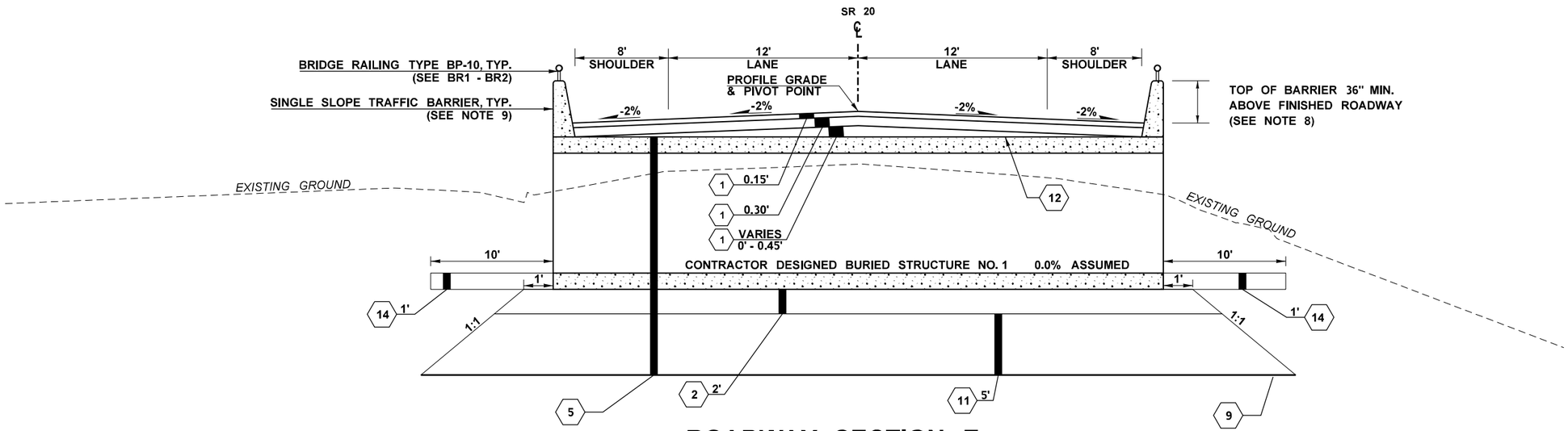
MATERIAL LEGEND

1	HMA CL. 1/2 IN. PG 58H-22
2	CRUSHED SURFACING BASE COURSE
3	GUARDRAIL (SEE PAVING / PAVEMENT MARKING PLANS)
4	ROADWAY EXCAVATION INCL. HAUL
5	STRUCTURE EXCAVATION CLASS A INCL. HAUL
6	EMBANKMENT COMPACTION
7	SELECT BORROW INCL. HAUL
8	SEW TRAFFIC BARRIER
9	CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION
10	PLANING BITUMINOUS PAVEMENT
11	PERMEABLE BALLAST
12	WATERPROOF MEMBRANE BR. NO. CDBS NO. 1
13	GRAVEL BACKFILL FOR WALL

GENERAL NOTES:

1. ALL SURFACING AND PAVING DEPTHS ARE COMPACTED DEPTHS AND COURSES SHALL NOT EXCEED THE DEPTHS DEFINED IN THE STANDARD SPECIFICATIONS.
2. ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.
3. SEE ROADWAY PROFILE PLANS FOR ROADWAY CROSS SLOPES SHOULDER CROSS SLOPE TO MATCH LANE SLOPES UNLESS OTHERWISE NOTED.
8. TRAFFIC BARRIER SHALL BE MIN. 36" IN HEIGHT, MEASURED FROM ADJACENT FINISHED ROADWAY SURFACE. DESIGN OF THE TRAFFIC BARRIER SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH STANDARD SPECIFICATION 6-20.3(1)G, BURIED STRUCTURES.
9. TRAFFIC BARRIER SHALL HAVE A MINIMUM COVER OF 0.3' HMA BELOW FINISHED ROADWAY SURFACE.
10. ALL HEADWALLS AND WING WALLS SHALL BE INCLUDED IN LUMP SUM PRICE OF THE CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1.
11. MOMENT SLABS AND TRAFFIC BARRIER ARE INCLUDED IN BID ITEM FOR SEW TRAFFIC BARRIER.

NOT TO SCALE



ROADWAY SECTION E

C 110+85.77 TO C 110+98.77
NOT TO SCALE

MATERIAL LEGEND

1	HMA CL. 1/2 IN. PG 58H-22
2	CRUSHED SURFACING BASE COURSE
3	GUARDRAIL (SEE PAVING / PAVEMENT MARKING PLANS)
4	ROADWAY EXCAVATION INCL. HAUL
5	STRUCTURE EXCAVATION CLASS A INCL. HAUL
6	EMBANKMENT COMPACTION
7	SELECT BORROW INCL. HAUL
8	SEW TRAFFIC BARRIER
9	CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION
10	PLANING BITUMINOUS PAVEMENT
11	PERMEABLE BALLAST
12	WATERPROOF MEMBRANE BR. NO. CDBS NO. 1
14	AQUITARD

GENERAL NOTES:

1. ALL SURFACING AND PAVING DEPTHS ARE COMPACTED DEPTHS AND COURSES SHALL NOT EXCEED THE DEPTHS DEFINED IN THE STANDARD SPECIFICATIONS.
2. ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.
3. SEE ROADWAY PROFILE PLANS FOR ROADWAY CROSS SLOPES SHOULDER CROSS SLOPE TO MATCH LANE SLOPES UNLESS OTHERWISE NOTED.
8. TRAFFIC BARRIER SHALL BE MIN. 36" IN HEIGHT, MEASURED FROM ADJACENT FINISHED ROADWAY SURFACE. DESIGN OF THE TRAFFIC BARRIER SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH STANDARD SPECIFICATION 6-20.3(1)G, BURIED STRUCTURES.
9. TRAFFIC BARRIER SHALL HAVE A MINIMUM COVER OF 0.3' HMA BELOW FINISHED ROADWAY SURFACE.
10. ALL HEADWALLS AND WING WALLS SHALL BE INCLUDED IN LUMP SUM PRICE OF THE CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1.
11. MOMENT SLABS AND TRAFFIC BARRIER ARE INCLUDED IN BID ITEM FOR SEW TRAFFIC BARRIER.

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DATE	12/4/2022						
PLOTTED BY	LewisA						
DESIGNED BY	A. LEWIS				JOB NUMBER 22A036		
ENTERED BY	A. LEWIS						
CHECKED BY	A. WILLIAMS				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

SPENCER T. BEIER STATE OF WASHINGTON 36005 REGISTERED PROFESSIONAL ENGINEER
SEE CT1
DATE
P.E. STAMP BOX

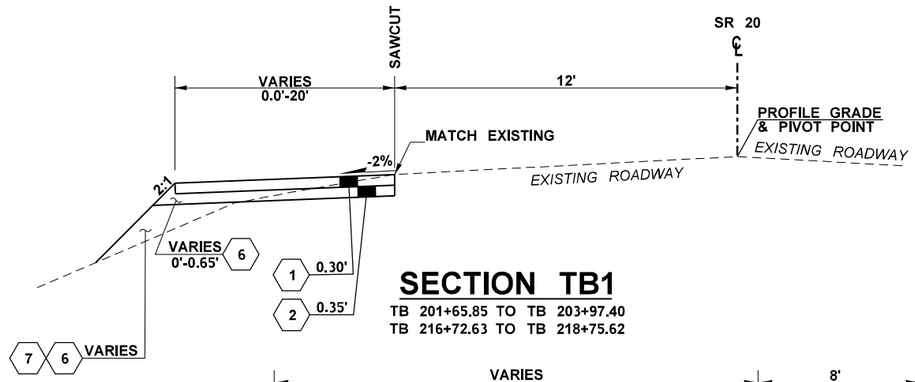
DATE
P.E. STAMP BOX

Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

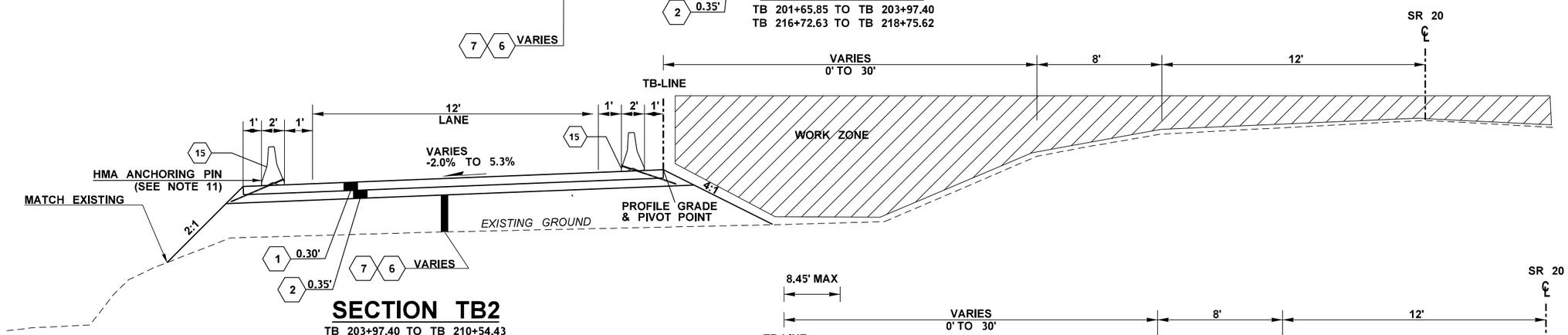
ROADWAY SECTIONS

Plot 5
PLAN REF NO
RS4
SHEET 10 OF 79 SHEETS



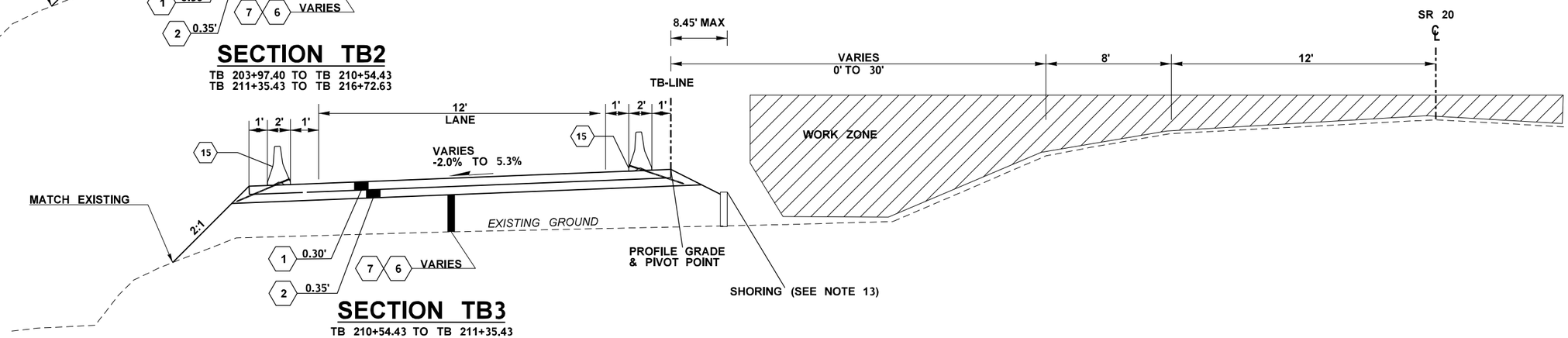
SECTION TB1

TB 201+65.85 TO TB 203+97.40
TB 216+72.63 TO TB 218+75.62



SECTION TB2

TB 203+97.40 TO TB 210+54.43
TB 211+35.43 TO TB 216+72.63



SECTION TB3

TB 210+54.43 TO TB 211+35.43

MATERIAL LEGEND

1	HMA CL. 1/2 IN. PG 58H-22
2	CRUSHED SURFACING BASE COURSE
4	ROADWAY EXCAVATION INCL. HAUL
6	EMBANKMENT COMPACTION
7	SELECT BORROW INCL. HAUL
15	TEMPORARY BARRIER

GENERAL NOTES:

1. ALL SURFACING AND PAVING DEPTHS ARE COMPACTED DEPTHS AND COURSES SHALL NOT EXCEED THE DEPTHS DEFINED IN THE STANDARD SPECIFICATIONS.
2. ALL DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.
12. TEMPORARY BARRIER SHALL BE PINNED (SEE STANDARD PLAN C-60.10-1).
13. REMOVAL OF TEMPORARY BYPASS IS INCLUDED IN THE LUMP SUM BID ITEM EARTHWORK. SEE SPECIAL PROVISIONS.
14. SHORING SHALL BE IMPLEMENTED ON SOUTH SIDE OF TEMPORARY BYPASS FOR THE LENGTH OF CULVERT STUCTURE EXCAVATION CLASS A INCL. HAUL AND SHORING OR EXTRA EXCAVATION CL. A. SHORING SHALL BE WITHIN 8.45' OF THE TEMPORARY BYPASS SOUTH SHOULDER.

NOT TO SCALE

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TIME	11:43:03 PM				
DATE	12/4/2022				
PLOTTED BY	LewisA				
DESIGNED BY	A. LEWIS				
ENTERED BY	A. LEWIS				
CHECKED BY	A. WILLIAMS				
PROJ. ENGR.	S. BEIER				
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY	

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER — STATE OF WASHINGTON — 38600 — REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
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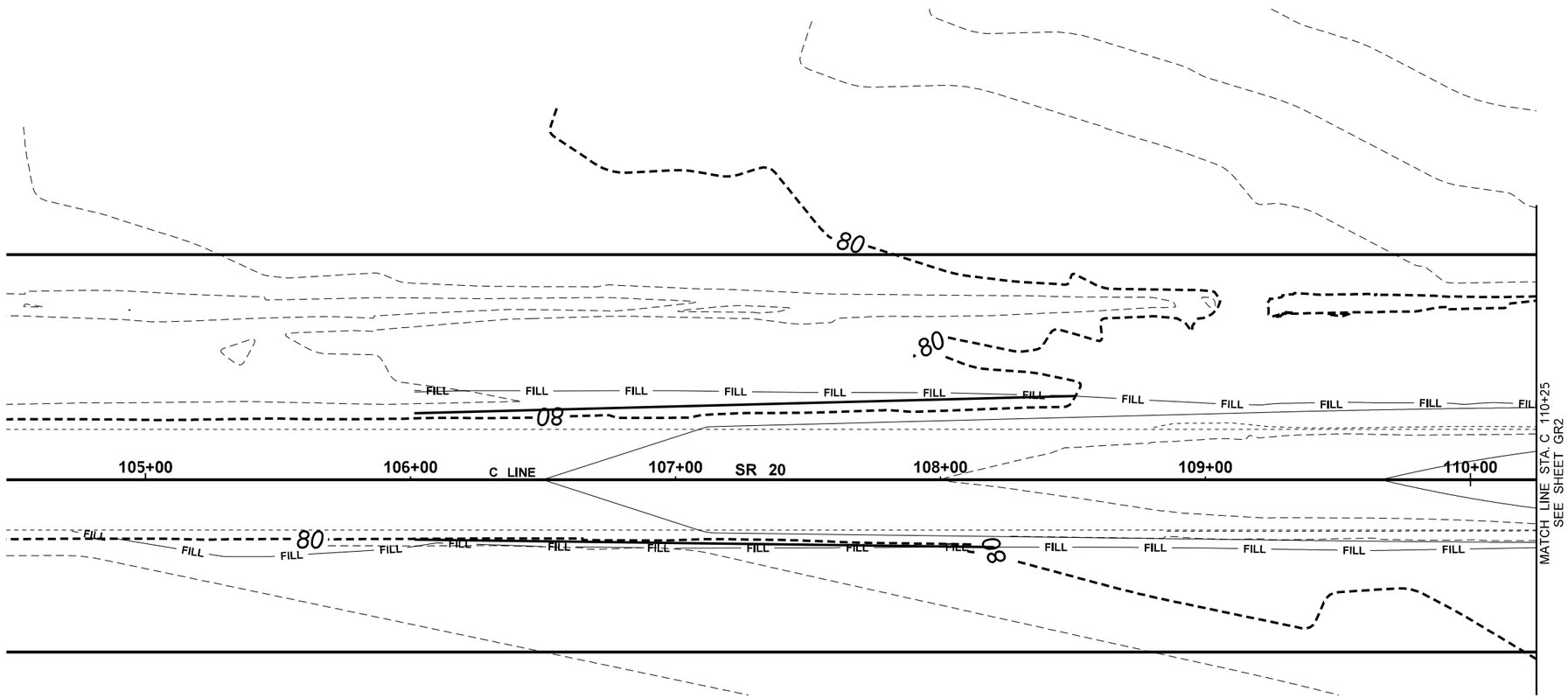
DATE
P.E. STAMP BOX

Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

ROADWAY SECTIONS

Plot 12
PLAN REF NO
RS5
SHEET 11 OF 79 SHEETS



(NAVD) 88

LEGEND

13+00	NEW STREAM / ROADWAY CENTERLINE
53	EXISTING GRADE CONTOUR
53	NEW GRADE CONTOUR
	WSDOT RIGHT OF WAY
	TEMPORARY CONSTRUCTION EASEMENT

NOTES:

1. SEE ALIGNMENT / RIGHT-OF-WAY PLAN, SHEET AL4 FOR STREAM ALIGNMENT DATA AND CONTROL POINT LOCATIONS.

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\055_XL6415_SR20 Red Cr_PS_Grading.dgn
TIME	12:01:27 PM
DATE	12/2/2022
PLOTTED BY	chavejl
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER STATE OF WASHINGTON 36608 REGISTERED PROFESSIONAL ENGINEER

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DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

GRADING PLAN

Plot 1
PLAN REF NO GR1
SHEET 12 OF 79 SHEETS

End Construction
UNT to Red Creek
STA. R 13+50.00 =
STA. C 110+93.17 (64.52' LT)

C 110+92.27 =
R 112+88.96 =

14+00
13+00
12+00
11+00
10+00

111+00 112+00 C LINE 113+00 114+00 SR 20 115+00 116+00

R LINE

MATCH LINE STA. C 108+25
SEE SHEET GR1

CONTRACTOR DESIGNED
BURIED STRUCTURE NO. 1

80 08 80 80 80'

FILL CUT

DATUM
(NAVD) 88

TEMPORARY CONSTRUCTION
EASEMENT

Begin Construction
UNT to Red Creek
STA. R 9+87.87 =
STA. C 112+85.48 (205.22' RT)

N

0 25 50
SCALE IN FEET

NOTES:

1. SEE ALIGNMENT / RIGHT-OF-WAY PLAN, SHEET AL4 FOR STREAM ALIGNMENT DATA AND CONTROL POINT LOCATIONS.

LEGEND

13+00	NEW STREAM / ROADWAY CENTERLINE
53	EXISTING GRADE CONTOUR
53	NEW GRADE CONTOUR
	WSDOT RIGHT OF WAY
	TEMPORARY CONSTRUCTION EASEMENT

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TIME	12:01:37 PM			
DATE	12/2/2022			
PLOTTED BY	chavejl			
DESIGNED BY	A. LEWIS			
ENTERED BY	A. LEWIS			
CHECKED BY	A. WILLIAMS			
PROJ. ENGR.	S. BEIER			
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER STATE OF WASHINGTON 36005 REGISTERED PROFESSIONAL ENGINEER

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DATE
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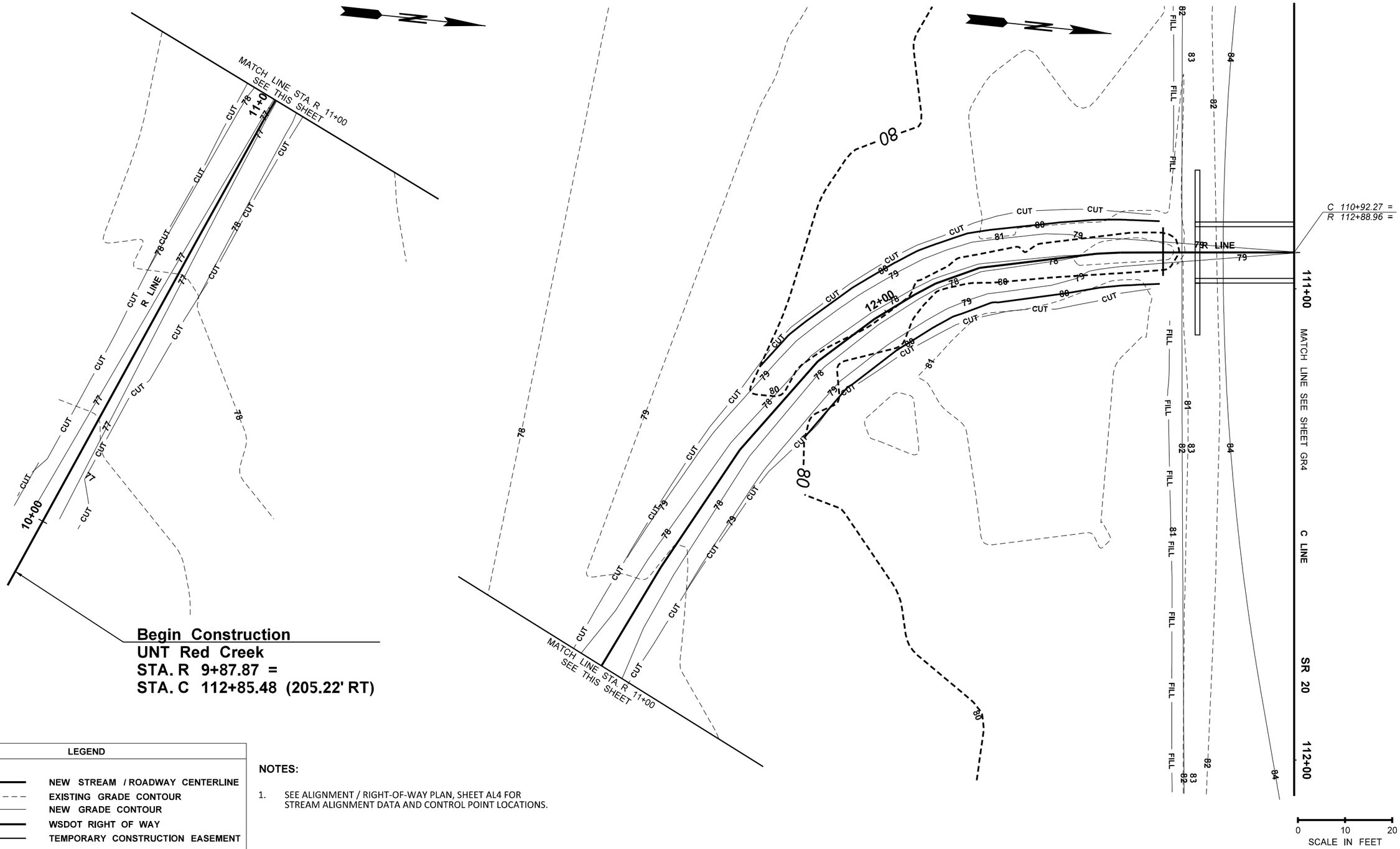
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

GRADING PLAN

Plot 2
PLAN REF NO
GR2
SHEET 13 OF 79 SHEETS



LEGEND	
13+00	NEW STREAM / ROADWAY CENTERLINE
53	EXISTING GRADE CONTOUR
53	NEW GRADE CONTOUR
	WSDOT RIGHT OF WAY
	TEMPORARY CONSTRUCTION EASEMENT

NOTES:

1. SEE ALIGNMENT / RIGHT-OF-WAY PLAN, SHEET AL4 FOR STREAM ALIGNMENT DATA AND CONTROL POINT LOCATIONS.

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PLOTTED BY	chavejl					
DESIGNED BY	A. LEWIS					
ENTERED BY	A. LEWIS					
CHECKED BY	A. WILLIAMS					
PROJ. ENGR.	S. BEIER					
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY		

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER — STATE OF WASHINGTON — 16000 — REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
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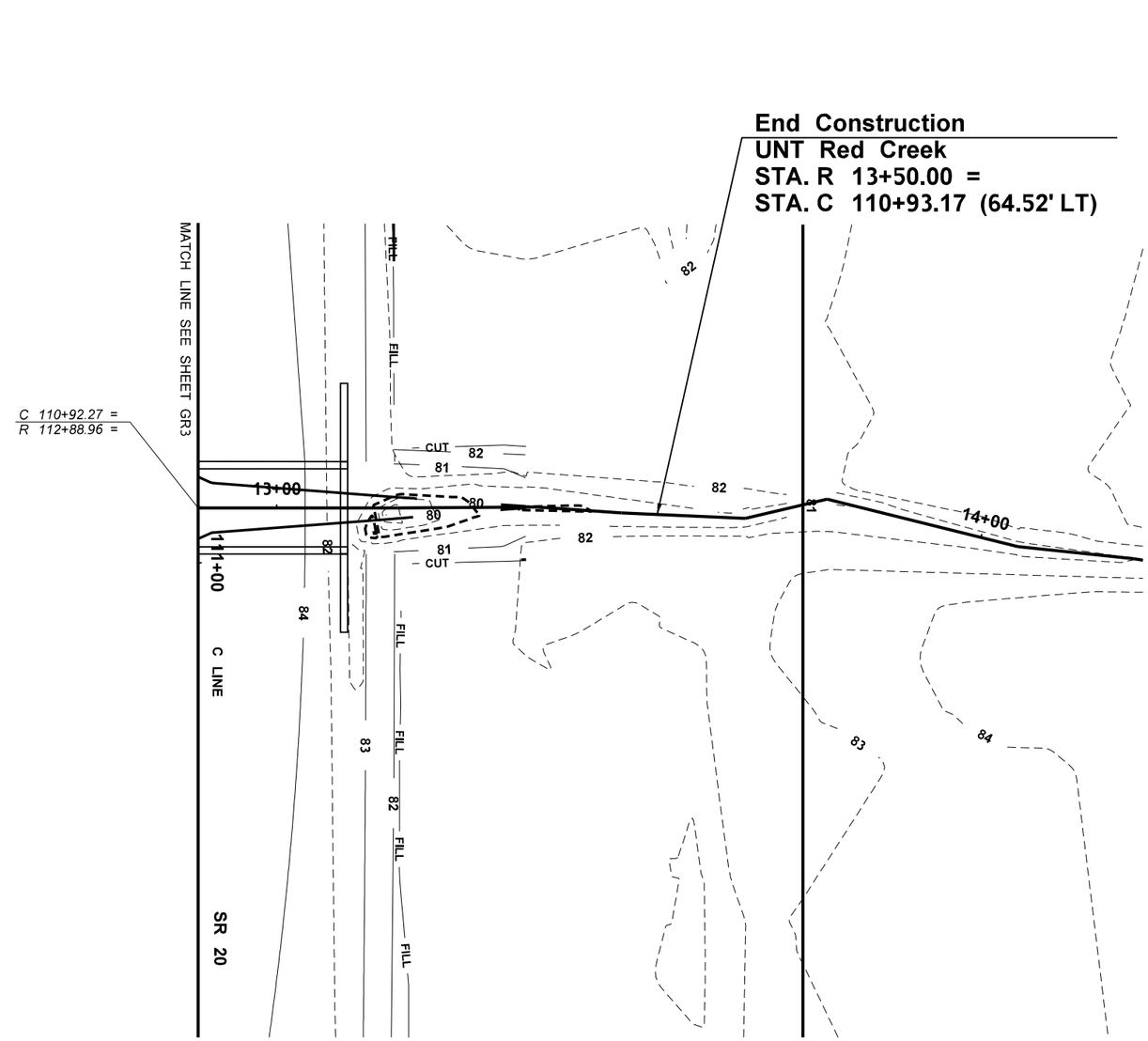
DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

GRADING PLAN

Plot 11
PLAN REF NO GR3
SHEET 14 OF 79 SHEETS



DATUM

(NAVD) 88

LEGEND

13+00	NEW STREAM / ROADWAY CENTERLINE
53	EXISTING GRADE CONTOUR
53	NEW GRADE CONTOUR
	WSDOT RIGHT OF WAY
	TEMPORARY CONSTRUCTION EASEMENT

NOTES:

1. SEE ALIGNMENT / RIGHT-OF-WAY PLAN, SHEET AL4 FOR STREAM ALIGNMENT DATA AND CONTROL POINT LOCATIONS.

0 10 20
SCALE IN FEET

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TIME	12:01:59 PM
DATE	12/2/2022
PLOTTED BY	chavejl
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.

JOB NUMBER 22A036

CONTRACT NO. | LOCATION NO.

SPENCER T. BEIER — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

GRADING PLAN

Plot 12
PLAN REF NO GR4
SHEET 15 OF 79 SHEETS

QUANTITY TABULATION - TEMPORARY BYPASS

NOTE:
THE FIRST NUMBER OF THE "CODE" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE CONSTRUCTION FEATURE.

THE SECOND NUMBER REFERS TO THE CONSTRUCTION FEATURE FOUND ON THAT SHEET.

CODE	LOCATION ↓ \ UNIT OF MEASURE →	TEMPORARY BARRIER	TEMPORARY IMPACT ATTENUATOR	TEMPORARY PAVEMENT MARKING SHORT DURATION													SEE GENERAL NOTES
		L.F.	EACH	L.F.													
TB1-1	C 100+65.9 (0.0' RT) C 100+65.9 (12.0' RT)			12													2
TB1-2	C 101+77.2 (19.0' LT) TO C 106+79.5 (57.4' LT)	502	1														
TB1-3	C 102+11.7 (19.0' LT) TO C 106+79.5 (56.2' LT)			468													1
TB1-4	C 102+66.6 (12.0' LT) TO C 106+79.5 (42.6' LT)			413													1
TB1-5	C 101+65.9 (2.0' LT) TO C 106+79.5 (41.4' LT)	514	1														
TB2-6	C 106+79.5 (57.4' LT) TO C 113+13.7 (58.4' LT)	638	1														
TB2-7	C 106+79.5 (56.2' LT) TO C 114+35.3 (55.0' LT)			738													1
TB2-8	C 106+79.5 (42.6' LT) TO C 114+35.3 (41.4' LT)			738													1
TB2-9	C 106+79.5 (41.4' LT) TO C 114+35.3 (40.2' LT)	738															
TB2-10	C 113+45.3 (69.4' LT) TO 113+57.3 (69.4' LT)			12													2
TB2-11	C 113+96.6 (57.5' LT) TO C 114+35.3 (56.2' LT)	16	1														
TB3-12	C 114+35.3 (56.2' LT) TO C 118+30.5 (22.0' LT)	395	1														
TB3-13	C 114+35.3 (55.0' LT) TO C 118+04.5 (23.1' LT)			369													
TB3-14	C 114+35.3 (41.4' LT) TO C 117+77.1 (13.0' LT)			342													
TB3-15	C 114+35.3 (40.2' LT) TO C 118+67.8 (2.5' LT)	433	1														
TB3-16	C 119+21.0 (0' LT) TO C 119+21.0 (12' LT)			12													2
	SHEET TOTAL	3236	6	3104													
	PROJECT TOTAL	3236	6	3104													

GENERAL NOTES:

1. TEMPORARY PAVEMENT MARKINGS SHALL BE TEMPORARY LANE EDGE LINES.

2. STOP BAR IS INCULDED IN THE UNIT PRICE OF TEMPORARY PAVEMENT MARKING SHORT DURATION.

DESIGNED BY	A. LEWIS				
ENTERED BY	A. LEWIS				
CHECKED BY	A. WILLIAMS				
PROJ. ENGR.	S. BEIER				
REGION ADM.	B. NIELSON				
		DATE	**DATE**	**REVISION**	**BY**

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	

JOB NUMBER 22A036

CONTRACT NO.

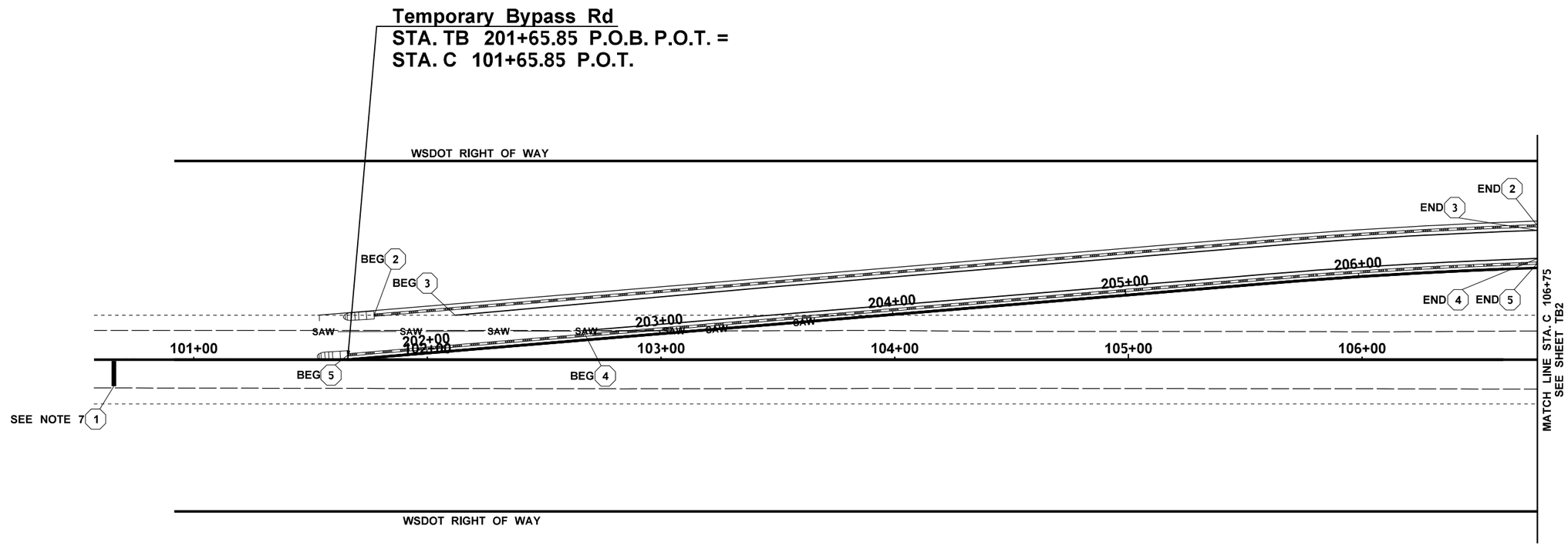
Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

QUANTITY TABULATION - TEMPORARY BYPASS

QTTB1

CURVE DATA					
P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	S
TB 206+56.63	4°43'51.96"	2300'	95.01'	189.92'	+5.30%



LEGEND

- WSDOT RIGHT OF WAY
- 11+00 CONSTRUCTION CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING LANE EDGE
- EDGE OF BYPASS PAVEMENT
- WHITE EDGE LINE
- SAW — SAW SAW CUT NEW
- TEMPORARY TRAFFIC BARRIER
- IMPACT ATTENUATOR
- # QUANTITY TABULATION NOTE

GENERAL NOTES:

1. ALL SURFACING AND PAVING DEPTHS ARE COMPACTED DEPTHS AND COURSES SHALL NOT EXCEED THE DEPTHS DEFINED IN THE STANDARD SPECIFICATIONS.
2. PROVIDE SMOOTH TRANSITION OF PROPOSED SURFACING AT INTERFACE WITH EXISTING SURFACING.
3. SEE TRAFFIC CONTROL PLAN SHEETS FOR MORE INFORMATION RELATED TO THIS TEMPORARY BYPASS ROAD AND BURIED STRUCTURE STAGING.
4. TEMPORARY BARRIER SHALL BE PINNED.
5. SEE SHEET RS5 BYPASS ROAD SECTION DETAILS.
6. PARKER RD. SHALL BE RAISED TO THE TEMPORARY BYPASS GRADE USING HMA.
7. STOP BAR IS INLCUDED IN THE UNIT PRICE OF TEMPORARY PAVEMENT MARKING SHORT DURATION.

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\060_XL6415_SR20 Red Cr_PR_Bypass Plans.dgn			
TIME	12:03:36 PM			
DATE	12/2/2022			
PLOTTED BY	chavejl			
DESIGNED BY	A. LEWIS			
ENTERED BY	A. LEWIS			
CHECKED BY	A. WILLIAMS			
PROJ. ENGR.	S. BEIER			
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER STATE OF WASHINGTON 36600 REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
P.E. STAMP BOX

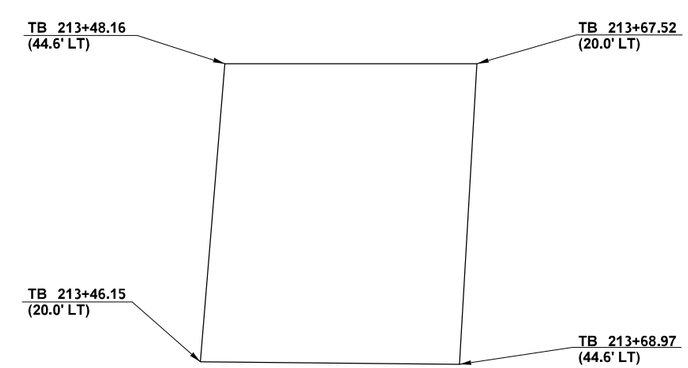
DATE
P.E. STAMP BOX

Washington State Department of Transportation

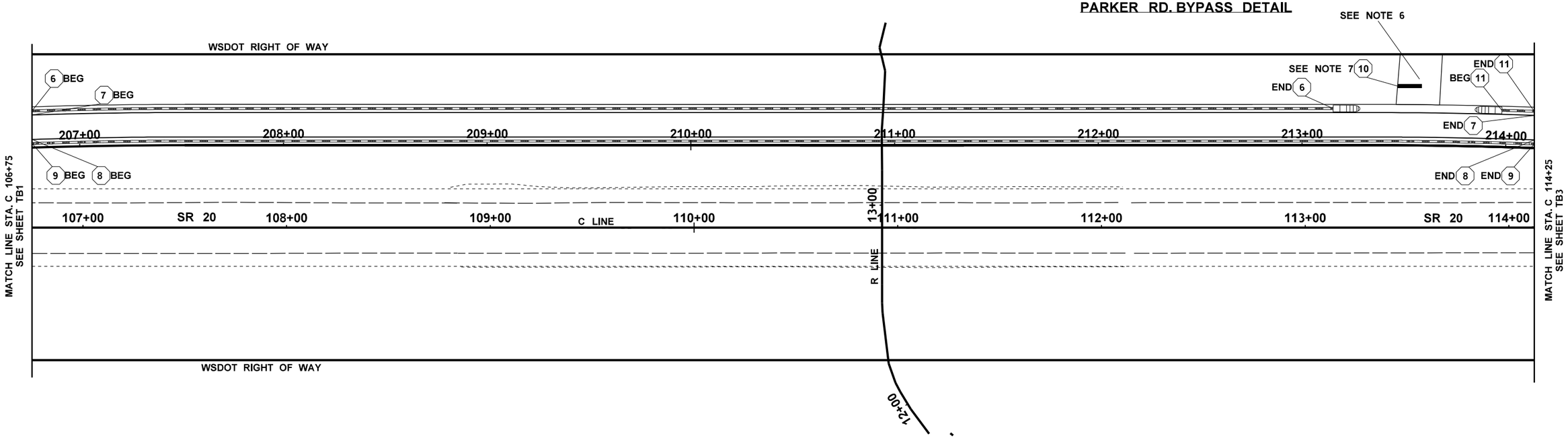
SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

TEMPORARY BYPASS

Plot 1
PLAN REF NO TB1
SHEET 17 OF 79 SHEETS



PARKER RD. BYPASS DETAIL



LEGEND

- 11+00 — WSDOT RIGHT OF WAY
- CONSTRUCTION CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING LANE EDGE
- EDGE OF BYPASS PAVEMENT
- WHITE EDGE LINE
- SAW — SAW — SAW CUT NEW
- TEMPORARY TRAFFIC BARRIER
- SHORING
- IMPACT ATTENUATOR
- # — QUANTITY TABULATION NOTE

GENERAL NOTES:

1. ALL SURFACING AND PAVING DEPTHS ARE COMPACTED DEPTHS AND COURSES SHALL NOT EXCEED THE DEPTHS DEFINED IN THE STANDARD SPECIFICATIONS.
2. PROVIDE SMOOTH TRANSITION OF PROPOSED SURFACING AT INTERFACE WITH EXISTING SURFACING.
3. SEE TRAFFIC CONTROL PLAN SHEETS FOR MORE INFORMATION RELATED TO THIS TEMPORARY BYPASS ROAD AND BURIED STRUCTURE STAGING.
4. TEMPORARY BARRIER SHALL BE PINNED.
5. SEE SHEET RS5 BYPASS ROAD SECTION DETAILS.
6. PARKER RD. SHALL BE RAISED TO THE TEMPORARY BYPASS GRADE USING HMA.
7. STOP BAR IS INLCUDED IN THE UNIT PRICE OF TEMPORARY PAVEMENT MARKING SHORT DURATION.

Type text here

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\060_XL6415_SR20 Red Cr_PR_Bypass Plans.dgn						
TIME	12:03:47 PM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	12/2/2022						
PLOTTED BY	chavejl				JOB NUMBER 22A036		
DESIGNED BY	A. LEWIS						
ENTERED BY	A. LEWIS						
CHECKED BY	A. WILLIAMS				CONTRACT NO.	LOCATION NO.	
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

SPENCER T. BEIER — STATE OF WASHINGTON — 36005 — REGISTERED PROFESSIONAL ENGINEER
SEE CT1
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State
Department of Transportation

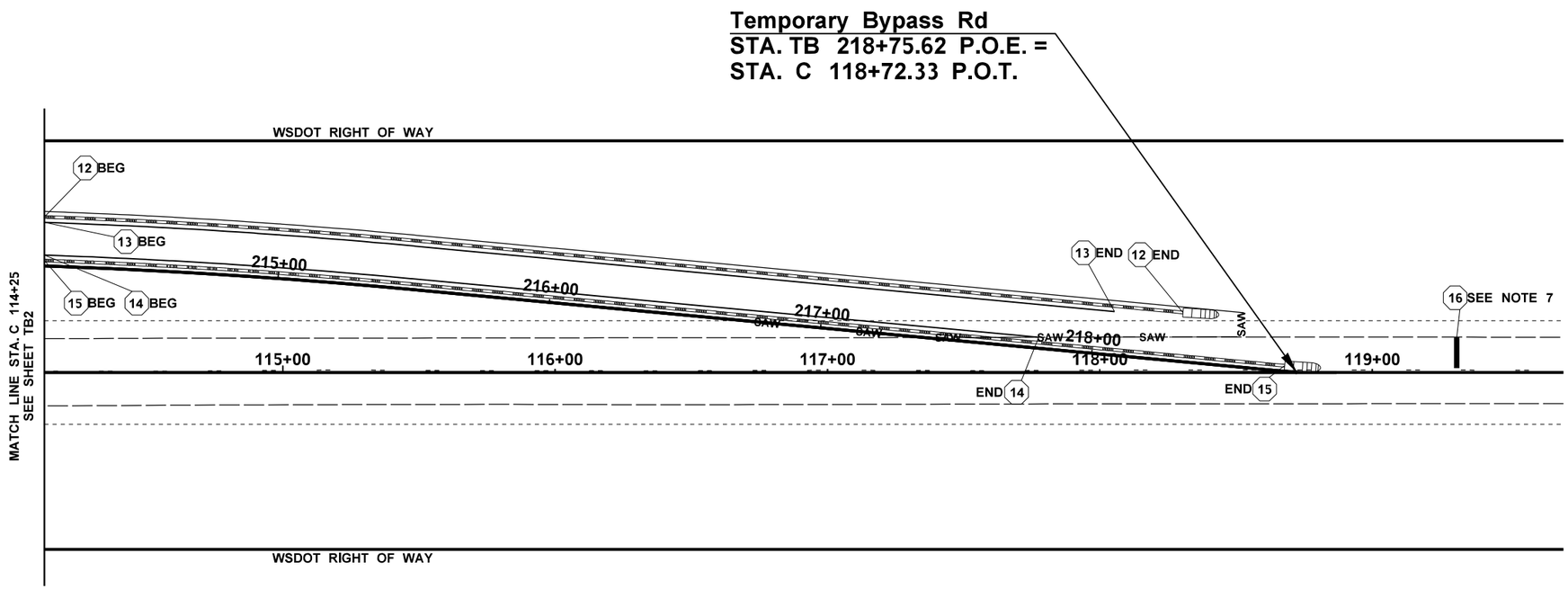
SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

TEMPORARY BYPASS

Plot 2
PLAN REF NO
TB2
SHEET 18 OF 79 SHEETS

CURVE DATA

P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH	S
TB 214+41.48	5°20'23.21"	2300'	107.25'	214.35'	+5.30%



LEGEND

- WSDOT RIGHT OF WAY
- 11+00 CONSTRUCTION CENTERLINE
- EXISTING PAVEMENT EDGE
- EXISTING LANE EDGE
- EDGE OF BYPASS PAVEMENT
- WHITE EDGE LINE
- SAW SAW CUT NEW
- TEMPORARY TRAFFIC BARRIER
- IMPACT ATTENUATOR
- # QUANTITY TABULATION NOTE

GENERAL NOTES:

1. ALL SURFACING AND PAVING DEPTHS ARE COMPACTED DEPTHS AND COURSES SHALL NOT EXCEED THE DEPTHS DEFINED IN THE STANDARD SPECIFICATIONS.
2. PROVIDE SMOOTH TRANSITION OF PROPOSED SURFACING AT INTERFACE WITH EXISTING SURFACING.
3. SEE TRAFFIC CONTROL PLAN SHEETS FOR MORE INFORMATION RELATED TO THIS TEMPORARY BYPASS ROAD AND BURIED STRUCTURE STAGING.
4. TEMPORARY BARRIER SHALL BE PINNED.
5. SEE SHEET RS5 BYPASS ROAD SECTION DETAILS.
6. PARKER RD. SHALL BE RAISED TO THE TEMPORARY BYPASS GRADE USING HMA.
7. STOP BAR IS INLCUDED IN THE UNIT PRICE OF TEMPORARY PAVEMENT MARKING SHORT DURATION.

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\060_XL6415_SR20 Red Cr_PR_Bypass Plans.dgn
TIME	12:04:00 PM
DATE	12/2/2022
PLOTTED BY	chavejl
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.

JOB NUMBER 22A036

CONTRACT NO. | LOCATION NO.

SPENCER T. BEIER, STATE OF WASHINGTON, 36005, REGISTERED PROFESSIONAL ENGINEER

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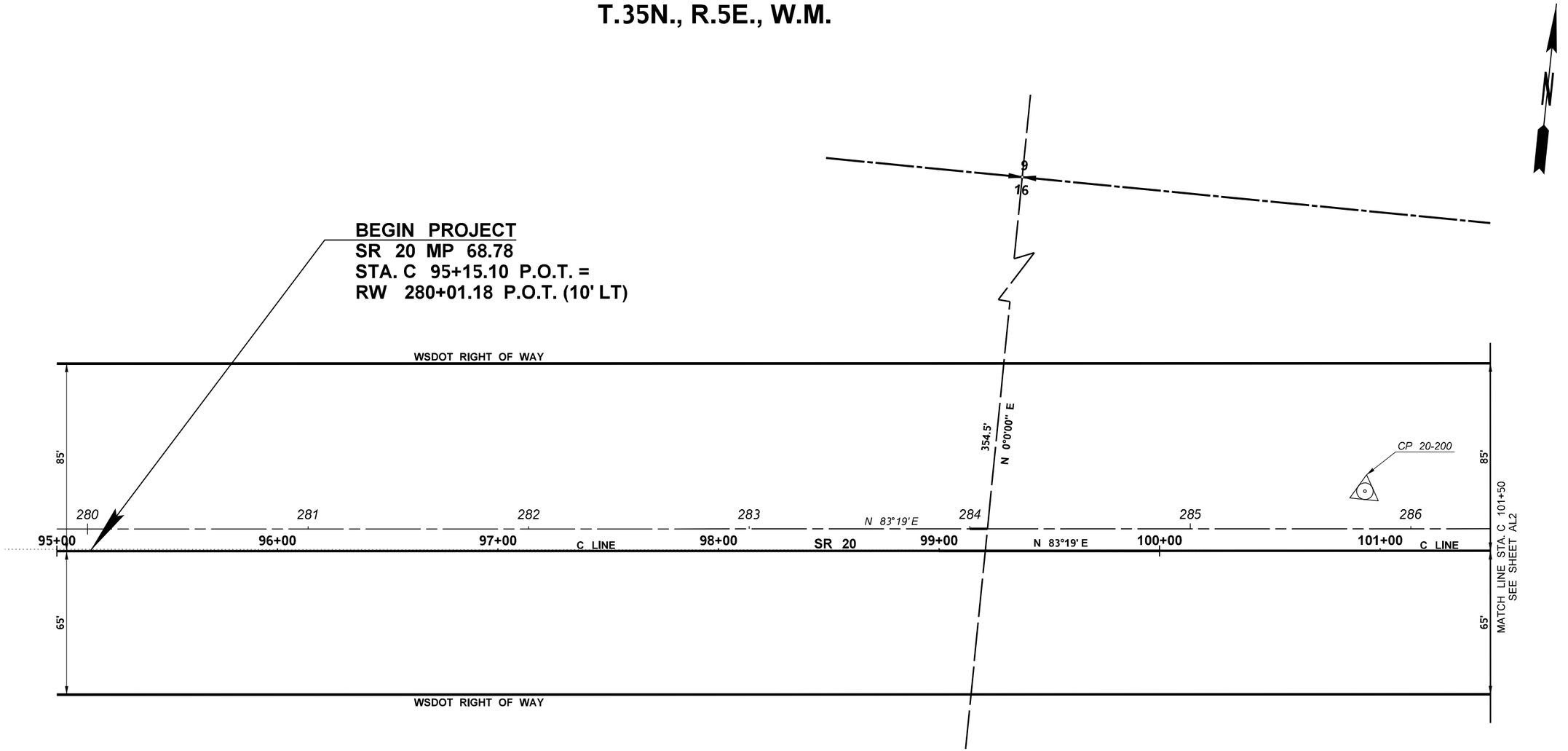
Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

TEMPORARY BYPASS

Plot 3
PLAN REF NO TB3
SHEET 19 OF 79 SHEETS

T.35N., R.5E., W.M.



DATUM

(NAVD) 88

LEGEND

11+00	NEW CONSTRUCTION ALIGNMENT
	WSDOT RIGHT OF WAY
	NEW TEMPORARY CONSTRUCTION EASEMENT
	SECTION LINE
	QUARTER SECTION LINE
	SIXTEENTH SECTION LINE
	PRIMARY CONTROL POINT
17 / 20	QUARTER CORNER FOUND
	NEW CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1

CONTROL POINTS

POINT	PROJECT DATUM NORTH	PROJECT DATUM EAST	NAVD 88 ELEVATION
20-200	560191.3840	1315927.4400	80.420
MON9055	560245.1590	1316531.7300	81.105
20-201	560292.7270	1316914.7090	82.190
MON9056	560329.7360	1317220.3510	81.932
20-005	560373.1770	1317495.9600	82.190

NOTES:

1. SEE SHEET AL3 FOR UNNAMED TRIBUTARY TO RED CREEK ALIGNMENT CHART.

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\080_XL6415_SR20 Red Cr_PS_Alignment RW Plan.dgn
TIME	12:05:13 PM
DATE	12/2/2022
PLOTTED BY	chavejl
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER, STATE OF WASHINGTON, 36000, REGISTERED PROFESSIONAL ENGINEER

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Washington State Department of Transportation

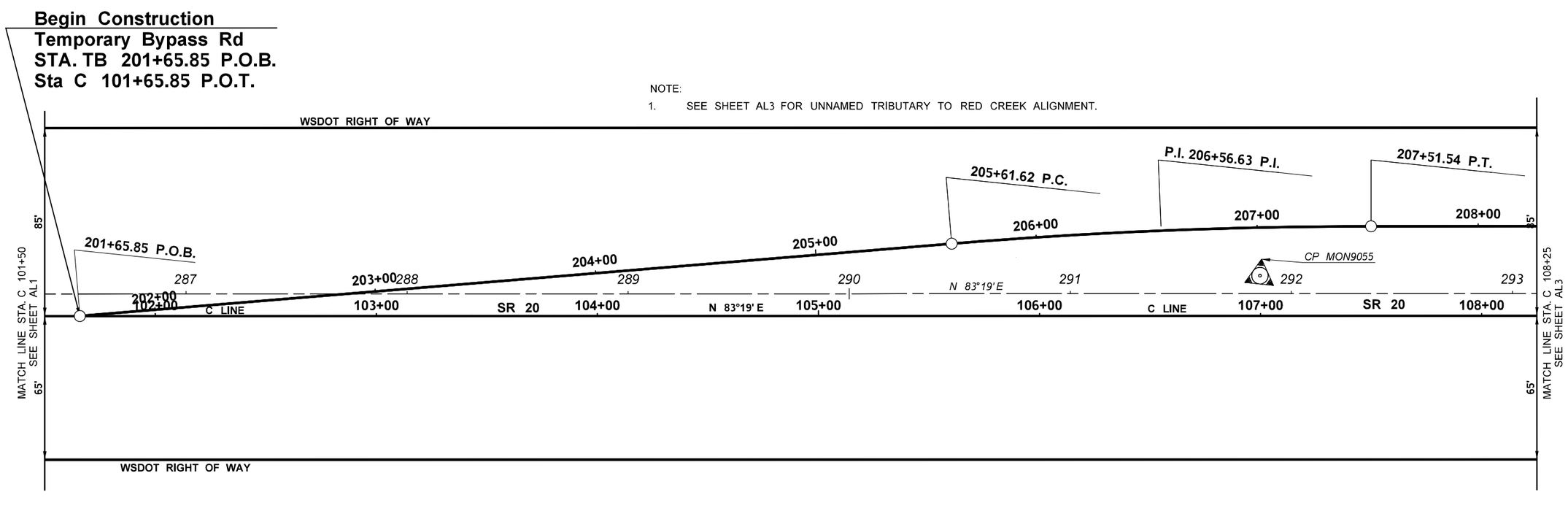
SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

ALIGNMENT / RIGHT OF WAY PLAN

Plot 1
PLAN REF NO
AL1
SHEET 20 OF 79 SHEETS

TEMPORARY BYPASS ROAD CURVE DATA						
P.C. STATION	P.I. STATION	P.T. STATION	DELTA	RADIUS	TANGENT	LENGTH
TB 205+61.62	TB 206+56.63	TB 207+51.54	4°43'51.96" RT	2300'	95.01'	189.91'

T.35N., R.5E., W.M.



NOTE:

1. SEE SHEET AL3 FOR UNNAMED TRIBUTARY TO RED CREEK ALIGNMENT.

LEGEND

- 11+00 — NEW CONSTRUCTION ALIGNMENT
- WSDOT RIGHT OF WAY
- NEW TEMPORARY CONSTRUCTION EASEMENT
- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- PRIMARY CONTROL POINT
- 17 / 20 — QUARTER CORNER FOUND
- NEW CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\080_XL6415_SR20 Red Cr_PS_Alignment RW Plan.dgn				
TIME	12:05:22 PM				
DATE	12/2/2022				
PLOTTED BY	chavejl				
DESIGNED BY	A. LEWIS				
ENTERED BY	A. LEWIS				
CHECKED BY	A. WILLIAMS				
PROJ. ENGR.	S. BEIER				
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY	

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER — STATE OF WASHINGTON — 36005 — REGISTERED PROFESSIONAL ENGINEER

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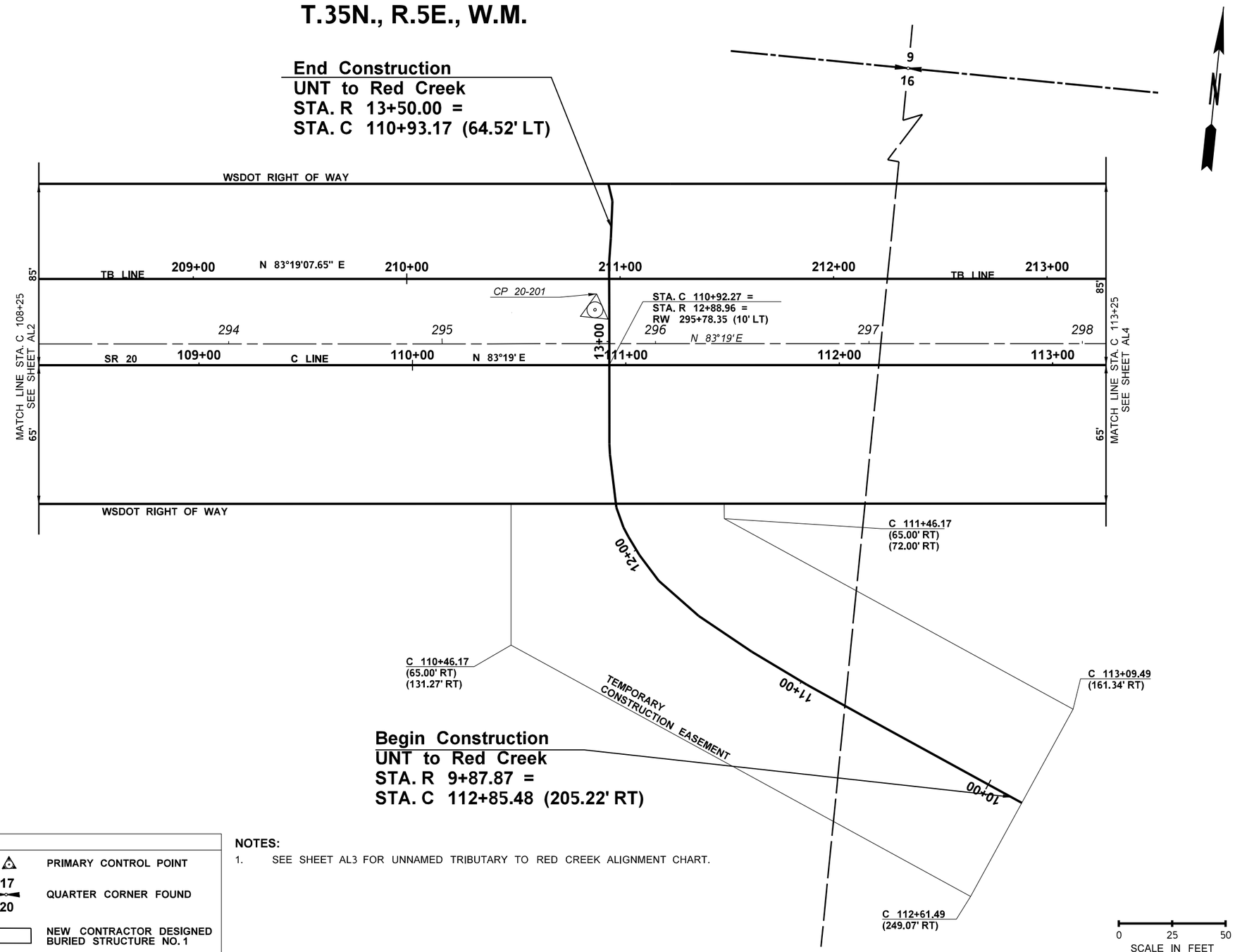
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

ALIGNMENT / RIGHT OF WAY PLAN

Plot 2
PLAN REF NO
AL2
SHEET 21 OF 79 SHEETS

UNNAMED TRIBUTARY TO RED CREEK ALIGNMENT			
POINT TYPE	STATION	DIRECTION	LENGTH (FT)
P.O.B.	R 9+87.87	N 67°10'46.06" W	79.26
AP	R 10+67.13	N 66°54'15.55" W	30
AP	R 10+97.12	N 64°57'16.86" W	29.99
AP	R 11+27.13	N 61°57'02.01" W	29.99
AP	R 11+57.12	N 54°33'26.82" W	24.99
AP	R 11+82.11	N 42°42'02.85" W	15.00
AP	R 11+97.11	N 37°03'12.41" W	10.00
AP	R 12+07.11	N 34°02'31.18" W	5.00
AP	R 12+12.10	N 25°30'09.29" W	9.97
AP	R 12+22.07	N 12°50'25.57" W	25.00
AP	R 12+47.07	N 8°42'44.92" W	5.00
AP	R 12+52.06	N 5°58'23.57" W	8.98
AP	R 12+61.05	N 5°55'33.56" W	56.00
AP	R 13+17.05	N 6°15'30.35" W	19.55
AP	R 13+36.59	N 1°54'34.42" W	11.93
AP	R 13+48.52	N 3°22'46.67" W	1.48
P.O.E.	R 13+50.00		



DATUM

(NAVD) 88

LEGEND

- 11+00 — NEW CONSTRUCTION ALIGNMENT
- WSDOT RIGHT OF WAY
- NEW TEMPORARY CONSTRUCTION EASEMENT
- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- PRIMARY CONTROL POINT
- 17 / 20 — QUARTER CORNER FOUND
- NEW CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1

NOTES:

1. SEE SHEET AL3 FOR UNNAMED TRIBUTARY TO RED CREEK ALIGNMENT CHART.

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\080_XL6415_SR20 Red Cr_PS_Alignment RW Plan.dgn					
TIME	12:05:31 PM					
DATE	12/2/2022					
PLOTTED BY	chavej					
DESIGNED BY	A. LEWIS					
ENTERED BY	A. LEWIS					
CHECKED BY	A. WILLIAMS					
PROJ. ENGR.	S. BEIER					
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY		

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER — STATE OF WASHINGTON — 36005 — REGISTERED PROFESSIONAL ENGINEER

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DATE
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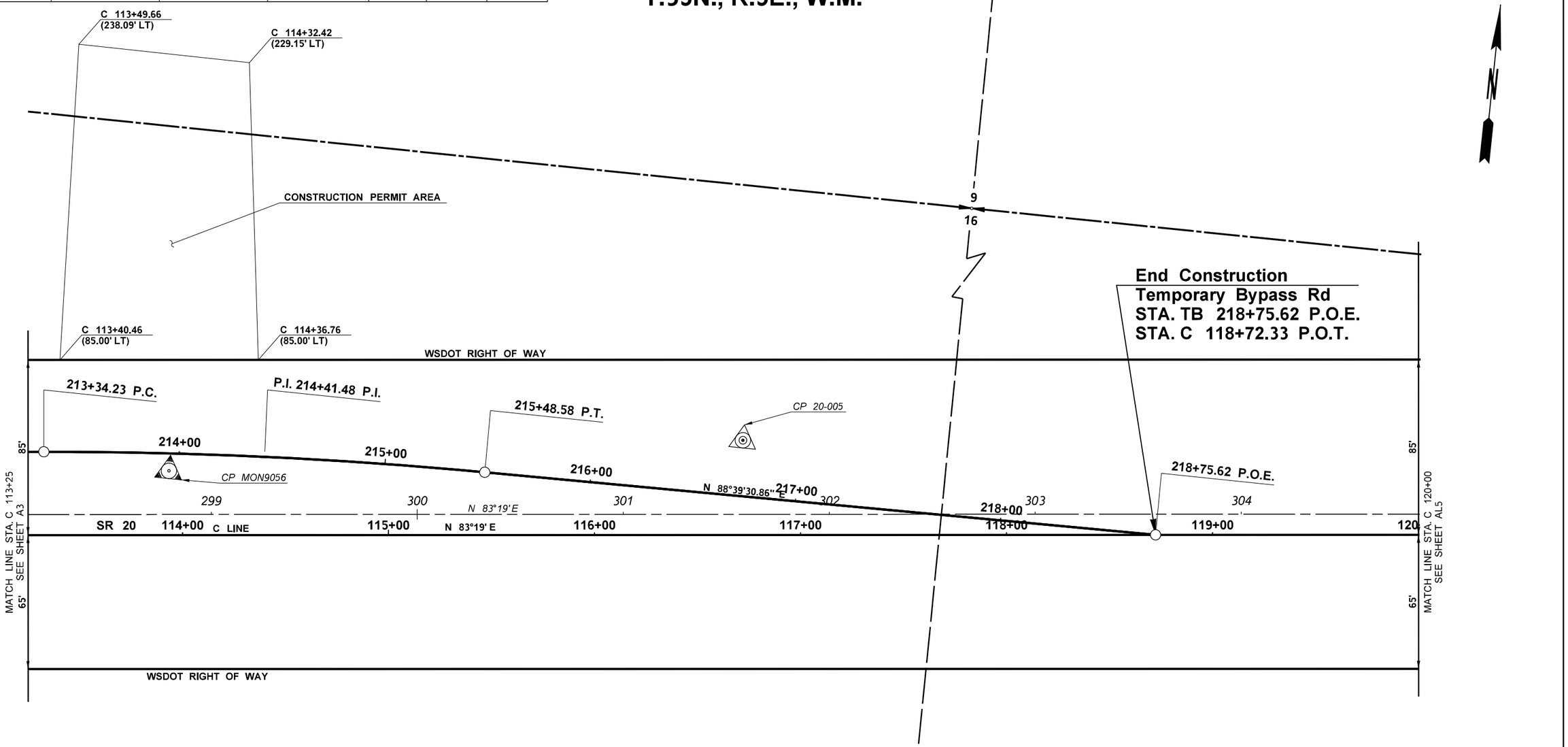
Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

ALIGNMENT / RIGHT OF WAY PLAN

Plot 3
PLAN REF NO
AL3
SHEET 22 OF 79 SHEETS

TEMPORARY BYPASS ROAD CURVE DATA						
P.C. STATION	P.I. STATION	P.T. STATION	DELTA	RADIUS	TANGENT	LENGTH
TB 213+34.23	TB 214+41.48	TB 215+48.58	5°20'23.21" RT	2300'	107.25	214.28



LEGEND

11+00	NEW CONSTRUCTION ALIGNMENT
	WSDOT RIGHT OF WAY
	NEW TEMPORARY CONSTRUCTION EASEMENT
	SECTION LINE
	QUARTER SECTION LINE
	SIXTEENTH SECTION LINE
	PRIMARY CONTROL POINT
17 / 20	QUARTER CORNER FOUND
	NEW CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1

NOTES:

1. SEE SHEET AL3 FOR UNNAMED TRIBUTARY TO RED CREEK ALIGNMENT CHART.

DATUM

(NAVD) 88

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\080_XL6415_SR20 Red Cr_PS_Alignment RW Plan.dgn					
TIME	12:05:40 PM				REGION NO. 10	STATE WASH
DATE	12/2/2022					FED.AID PROJ.NO.
PLOTTED BY	chavejl				JOB NUMBER 22A036	
DESIGNED BY	A. LEWIS					
ENTERED BY	A. LEWIS					
CHECKED BY	A. WILLIAMS				CONTRACT NO.	LOCATION NO.
PROJ. ENGR.	S. BEIER					
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY		

SPENCER T. BEIER — STATE OF WASHINGTON — 46005 — REGISTERED PROFESSIONAL ENGINEER

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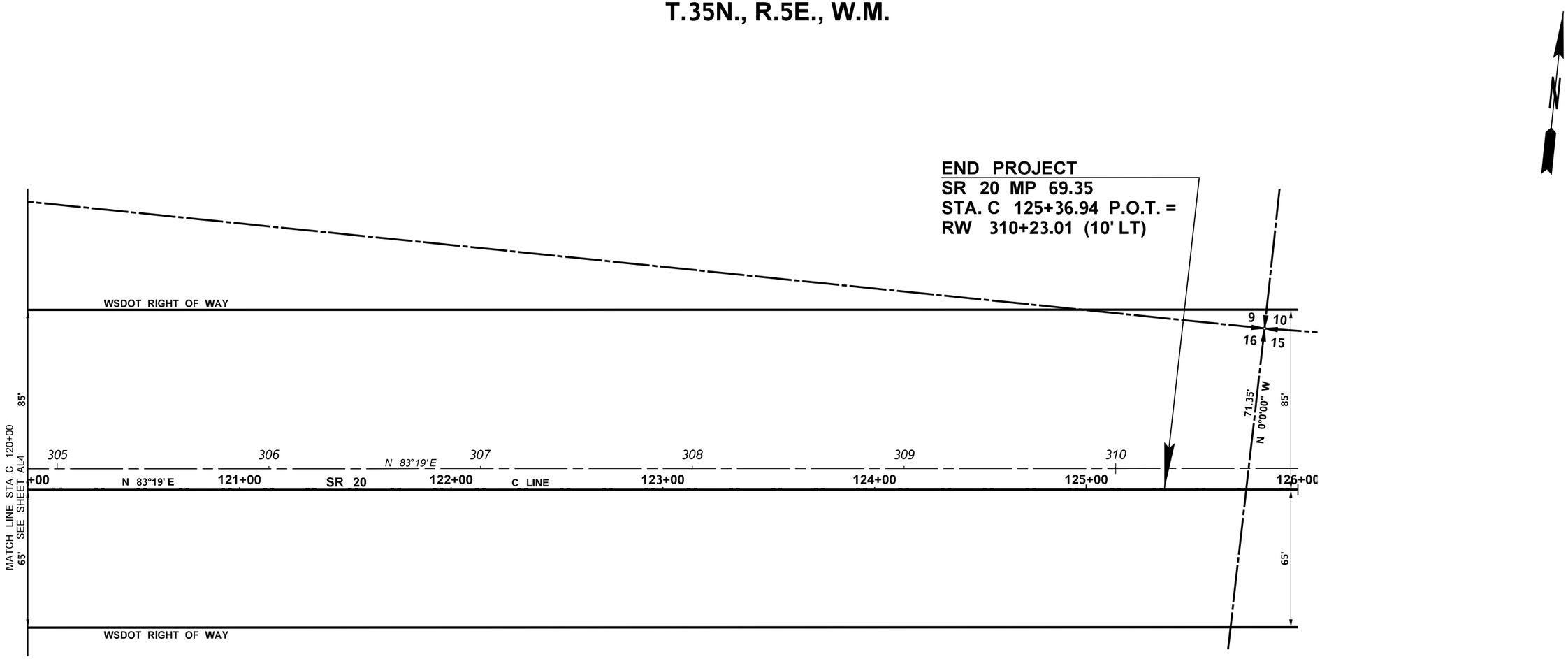
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

ALIGNMENT / RIGHT OF WAY PLAN

Plot 4
PLAN REF NO
AL4
SHEET 23 OF 79 SHEETS

T.35N., R.5E., W.M.



LEGEND

11+00	NEW CONSTRUCTION ALIGNMENT
	WSDOT RIGHT OF WAY
	NEW TEMPORARY CONSTRUCTION EASEMENT
	SECTION LINE
	QUARTER SECTION LINE
	SIXTEENTH SECTION LINE
	PRIMARY CONTROL POINT
17 / 20	QUARTER CORNER FOUND
	NEW CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1

NOTES:

1. SEE SHEET AL3 FOR UNNAMED TRIBUTARY TO RED CREEK ALIGNMENT CHART.

DATUM
(NAVD) 88

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\080_XL6415_SR20 Red Cr_PS_Alignment RW Plan.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	12:05:49 PM				JOB NUMBER 22A036		
DATE	12/2/2022						
PLOTTED BY	chavejl						
DESIGNED BY	A. LEWIS				CONTRACT NO.		LOCATION NO.
ENTERED BY	A. LEWIS						
CHECKED BY	A. WILLIAMS						
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

SPENCER T. BEIER — STATE OF WASHINGTON — 36005 — REGISTERED PROFESSIONAL ENGINEER
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Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

ALIGNMENT / RIGHT OF WAY PLAN

Plot 5
PLAN REF NO
AL5
SHEET 24 OF 79 SHEETS

QUANTITY TABULATION - SITE PREPARATION / TESC

NOTE:
THE FIRST NUMBER OF THE "CODE" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE CONSTRUCTION FEATURE.

THE SECOND NUMBER REFERS TO THE CONSTRUCTION FEATURE FOUND ON THAT SHEET.

CODE	LOCATION ↓ \ UNIT OF MEASURE →	REMOVING PAINT LINE		WATTLE		HIGH VISIBILITY SILT FENCE	HIGH VISIBILITY FENCE										SEE GENERAL NOTES
		L.F.		L.F.		L.F.											
SP1-1	C 101+53 (12.0' LT) TO C 106+50 (70.0' LT)					497											
SP1-2	C 104+72 (24.0' RT) TO C 106+50 (27.0' RT)					178											
SP1-3	C 106+02 (12.0' LT) TO C 106+50 (12.0' LT)	48															
SP1-4	C 106+02 TO C 106+50	48															
SP1-5	C 106+02 (12.0' RT) TO C 106+50 (12.0' RT)	48															
SP2-6	C 106+50 (71.0' LT) TO C 110+79 (85.0 LT)					429											
SP2-7	C 106+50 (30.6' RT) TO C 110+46 (30.4' RT)					396											
SP2-8	C 106+50 (12.0' LT) TO C 113+75 (12.0 LT)	725															
SP2-9	C 106+50 TO C 113+75	725															
SP2-10	C 106+50 (12.0' RT) TO C 113+75 (12.0 RT)	725															
SP2-11	C 111+05 (85.0' LT) TO C 113+45 (45.3 LT)					240											
SP2-12	C 110+46 (30.4' RT) TO C 110+46 (80.1' RT)						50										
SP2-13	C 110+46 (80.1' RT) TO C 111+46 (65.0' RT)					553											
SP2-14	C 110+49 (77.8' RT) TO C 112+74 (212.0 RT)			278													1,2
SP2-15	C 111+46 (65.0' RT) TO C 111+46 (31.3' RT)						34										
SP2-16	C 111+46 (31.3' RT) TO C 113+75 (29.6' RT)					229											
SP3-17	C 113+75 (70.0' LT) TO C 114+13 (68.2 LT)					38											
SP3-18	C 113+75 (29.6' RT) TO C 116+63 (19.0 RT)					288											
SP3-19	C 113+75 (12.0' LT) TO C 115+17 (12.0' LT)	142															
SP3-20	C 113+75 TO C 115+17	142															
SP3-21	C 113+75 (12.0' RT) TO C 115+17 (12.0 RT)	142															
SP3-22	C 114+31 (63.4' LT) TO C 118+53 (21.0' LT)					451											
SP3-23	C 118+72 (21.2' LT) TO C 118+88 (21.2 LT)			52													1,2
	SHEET TOTAL	2745		330		3299	84										
	PROJECT TOTAL	2745		330		3299	84										

GENERAL NOTES:

1. SEE STANDARD PLAN I-30.30 WATTLE INSTALLATION ON SLOPE.

2. WATTLES SHALL BE PAID AS PART OF THE EROSION CONTROL AND WATER POLLUTION PREVENTION LUMP SUM.

DESIGNED BY	A. LEWIS				
ENTERED BY	A. LEWIS				
CHECKED BY	A. WILLIAMS				
PROJ. ENGR.	S. BEIER				
REGION ADM.	B. NIELSEN				
		DATE	**DATE**	**REVISION**	**BY**

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	

JOB NUMBER 22A036

CONTRACT NO.

Washington State Department of Transportation

20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

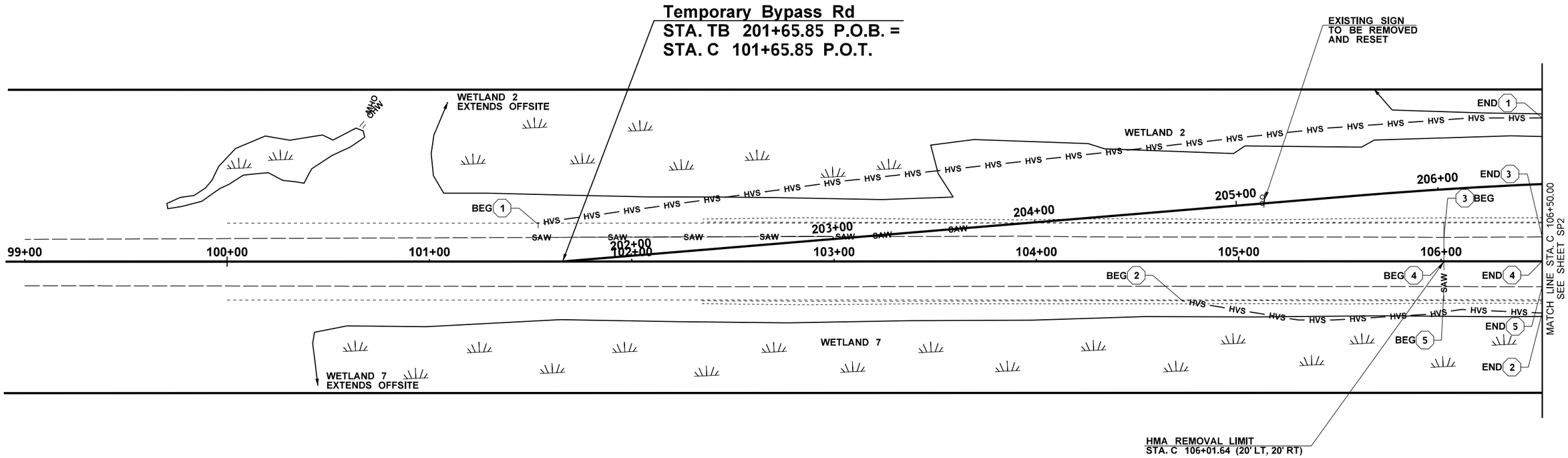
QUANTITY TABULATION - SITE PREPARATION / TESC

QTSP1

SHEET 25 **OF** 79 **SHEETS**

NOTES:

1. SEE SPECIAL PROVISION SECTION 2-03.1 FOR REMOVAL OF STRUCTURES AND OBSTRUCTIONS'.
2. STREET CLEANING SHALL BE DONE AS NEEDED TO PREVENT TRANSPORT OF SEDIMENT OFF SITE.
3. REMOVE AND RESET SIGNS INCLUDED IN THE UNIT PRICE FOR OTHER WORK.
4. SEE SHEETS ECP1 - ECP3 FOR PERMITTED WORK ACTIVITIES.
5. WATTLES AND INLET PROTECTION INLCUDED IN THE UNIT PRICE FOR EROSION CONTROL AND WATER POLUTION PREVENTION.



LEGEND

———	RIGHT OF WAY	- - -	DITCH BOTTOM
———	TEMPORARY CONSTRUCTION EASEMENT		EXISTING HEDGE LINE
- - - - -	EXISTING EDGE OF GRAVEL		EXISTING TREE
- - - - -	EXISTING EDGE OF PAVEMENT		EXISTING SIGN
— — — —	EXISTING WHITE EDGE LINE		EXISTING GUIDE POST
———	EXISTING TOP OF BANK		WATTLE
- - - - -	EXISTING CULVERT		
— CG — CG —	CLEARING AND GRUBBING		
— HVF — HVF —	HIGH VISIBILITY FENCE	#	QUANTITY TABULATION NOTE
— HVS — HVS —	HIGH VISIBILITY SILT FENCE		
———	WETLAND BOUNDARY		
	WETLAND SYMBOL		
— OHW —	EXISTING ORDINARY HIGH WATER		

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\090_XL6415_SR20 Red Cr_PS_SitePrep TESC.dgn					
TIME	12:06:54 PM					
DATE	12/2/2022					
PLOTTED BY	chavejl					
DESIGNED BY	A. LEWIS					
ENTERED BY						
CHECKED BY	A. WILLIAMS					
PROJ. ENGR.	S. BEIER					
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY		

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER STATE OF WASHINGTON 36005 REGISTERED PROFESSIONAL ENGINEER

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DATE
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Washington State
Department of Transportation

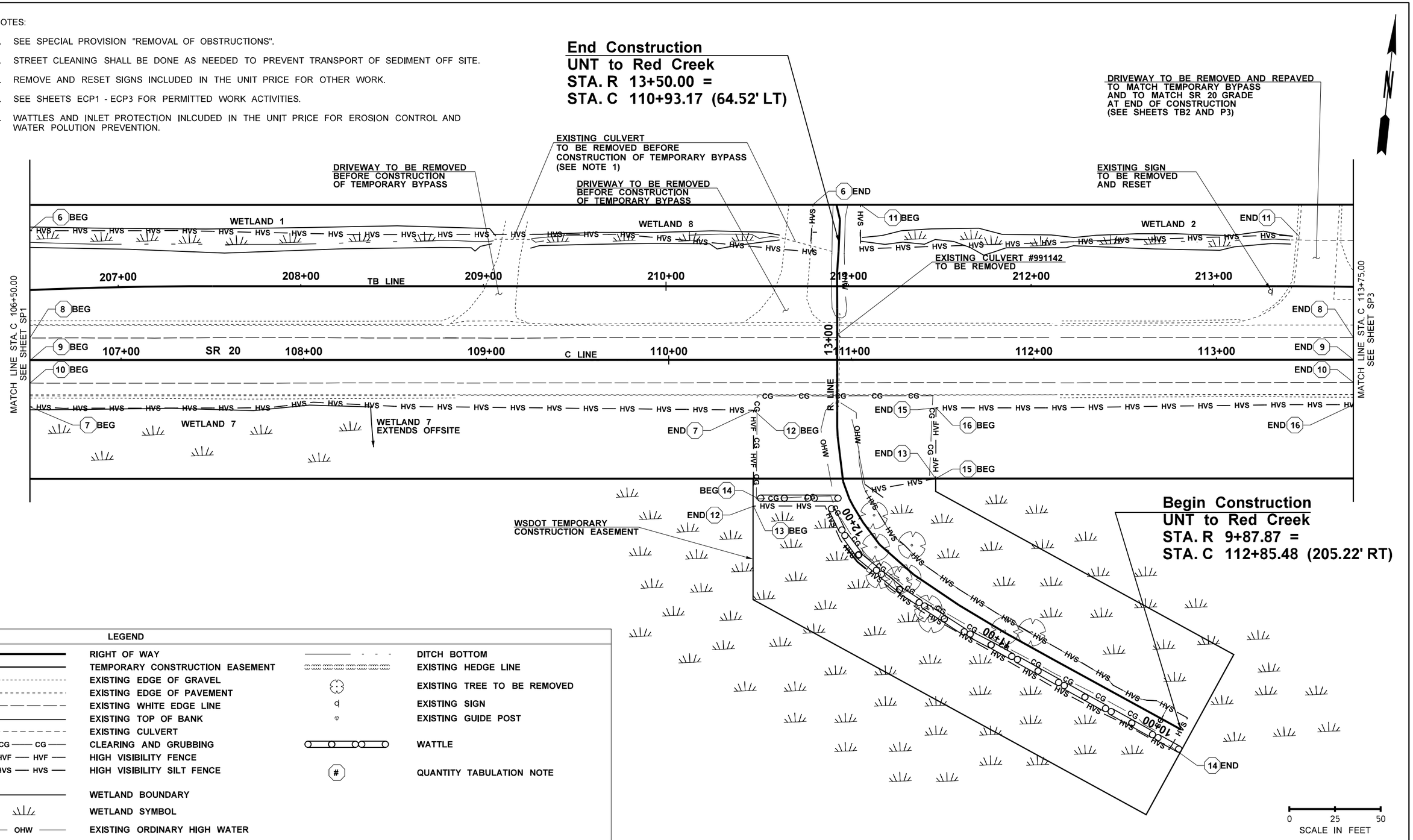
SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

SITE PREPARATION / TESC

Plot 1
PLAN REF NO
SP1
SHEET 26 OF 79 SHEETS

NOTES:

1. SEE SPECIAL PROVISION "REMOVAL OF OBSTRUCTIONS".
2. STREET CLEANING SHALL BE DONE AS NEEDED TO PREVENT TRANSPORT OF SEDIMENT OFF SITE.
3. REMOVE AND RESET SIGNS INCLUDED IN THE UNIT PRICE FOR OTHER WORK.
4. SEE SHEETS ECP1 - ECP3 FOR PERMITTED WORK ACTIVITIES.
5. WATTLES AND INLET PROTECTION INLCUDED IN THE UNIT PRICE FOR EROSION CONTROL AND WATER POLUTION PREVENTION.



LEGEND

———	RIGHT OF WAY	- - -	DITCH BOTTOM
———	TEMPORARY CONSTRUCTION EASEMENT		EXISTING HEDGE LINE
- - - - -	EXISTING EDGE OF GRAVEL		EXISTING TREE TO BE REMOVED
- - - - -	EXISTING EDGE OF PAVEMENT		EXISTING SIGN
— — — —	EXISTING WHITE EDGE LINE		EXISTING GUIDE POST
———	EXISTING TOP OF BANK		
- - - - -	EXISTING CULVERT		
— CG — CG —	CLEARING AND GRUBBING		WATTLE
— HVF — HVF —	HIGH VISIBILITY FENCE		
— HVS — HVS —	HIGH VISIBILITY SILT FENCE	#	QUANTITY TABULATION NOTE
———	WETLAND BOUNDARY		
	WETLAND SYMBOL		
— OHW —	EXISTING ORDINARY HIGH WATER		

FILE NAME	T:\412334\XL6415_SR_20_Trib_to_Red_Creek\CAE\CAD\ContractPlans\090_XL6415_SR20_Red_Cr_PS_SitePrep_TESC.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	12:07:03 PM				JOB NUMBER 22A036		
DATE	12/2/2022				CONTRACT NO.		LOCATION NO.
PLOTTED BY	chavejl						
DESIGNED BY	A. LEWIS						
ENTERED BY							
CHECKED BY	A. WILLIAMS						
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

SPENCER T. BEIER — STATE OF WASHINGTON — 16005 — REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

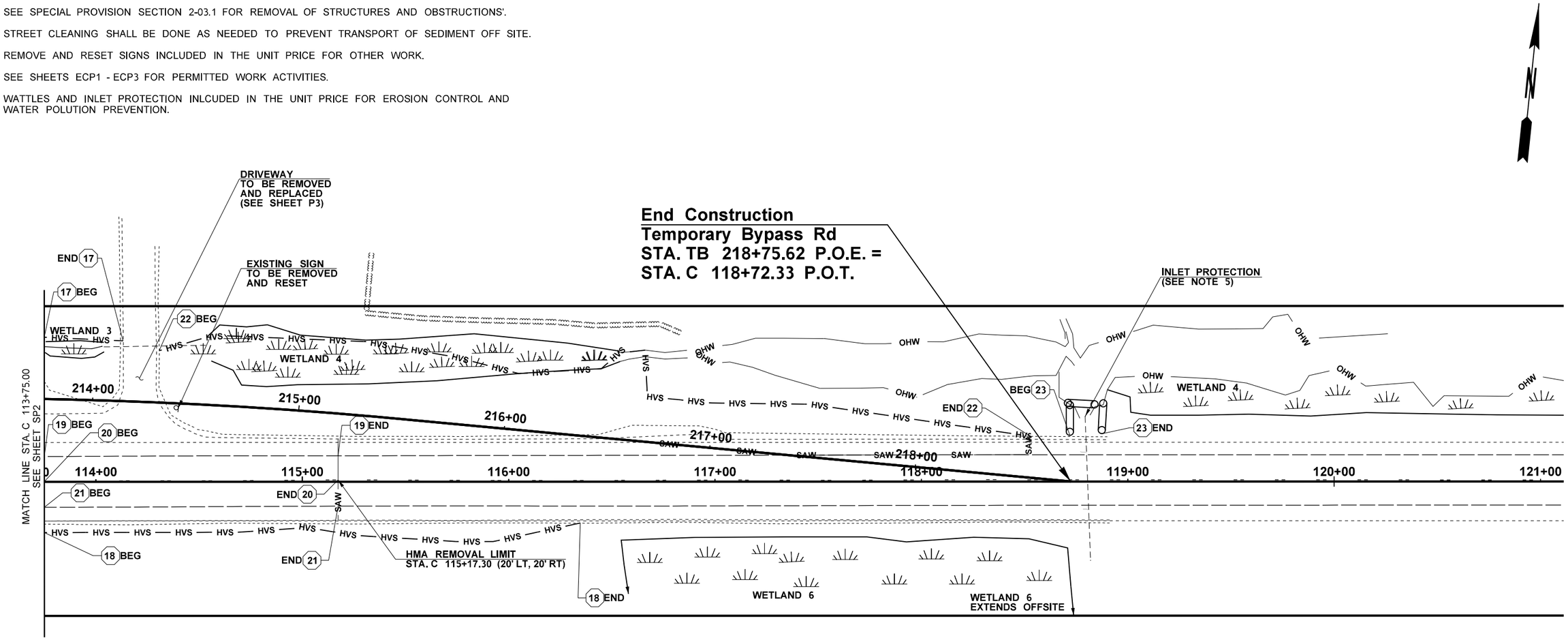
SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

SITE PREPARATION / TESC

Plot 2
PLAN REF NO SP2
SHEET 27 OF 79 SHEETS

NOTES:

1. SEE SPECIAL PROVISION SECTION 2-03.1 FOR REMOVAL OF STRUCTURES AND OBSTRUCTIONS'.
2. STREET CLEANING SHALL BE DONE AS NEEDED TO PREVENT TRANSPORT OF SEDIMENT OFF SITE.
3. REMOVE AND RESET SIGNS INCLUDED IN THE UNIT PRICE FOR OTHER WORK.
4. SEE SHEETS ECP1 - ECP3 FOR PERMITTED WORK ACTIVITIES.
5. WATTLES AND INLET PROTECTION INLCUDED IN THE UNIT PRICE FOR EROSION CONTROL AND WATER POLUTION PREVENTION.



LEGEND			
	RIGHT OF WAY		DITCH BOTTOM
	TEMPORARY CONSTRUCTION EASEMENT		EXISTING HEDGE LINE
	EXISTING EDGE OF GRAVEL		EXISTING TREE
	EXISTING EDGE OF PAVEMENT		EXISTING SIGN
	EXISTING WHITE EDGE LINE		EXISTING GUIDE POST
	EXISTING TOP OF BANK		
	EXISTING CULVERT		
CG CG	CLEARING AND GRUBBING		WATTLE
HVF HVF	HIGH VISIBILITY FENCE		
HVS HVS	HIGH VISIBILITY SILT FENCE	#	QUANTITY TABULATION NOTE
	WETLAND BOUNDARY		
	WETLAND SYMBOL		
OHW	EXISTING ORDINARY HIGH WATER		

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\090_XL6415_SR20 Red Cr_PS_SitePrep TESC.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	10:15:13 AM				JOB NUMBER 22A036		
DATE	12/6/2022				CONTRACT NO.		LOCATION NO.
PLOTTED BY	LewisA						
DESIGNED BY	A. LEWIS						
ENTERED BY							
CHECKED BY	A. WILLIAMS						
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

SPENCER T. BEIER STATE OF WASHINGTON 36005 REGISTERED PROFESSIONAL ENGINEER
SEE CT1
DATE
P.E. STAMP BOX

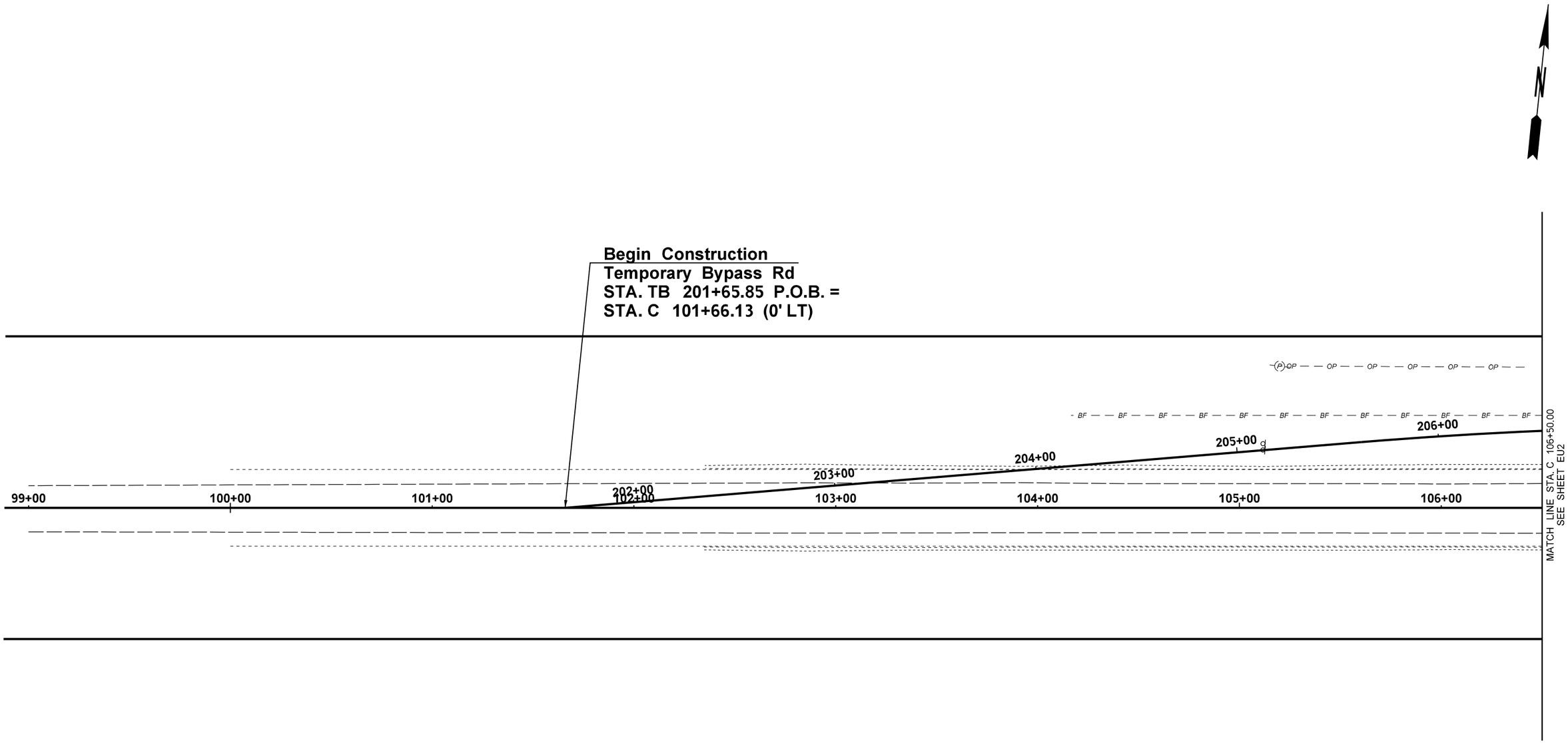
DATE
P.E. STAMP BOX

Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

SITE PREPARATION / TESC

Plot 3
PLAN REF NO
SP3
SHEET 28 OF 79 SHEETS



LEGEND

OP	EXISTING ABOVE GROUND POWER		EXISTING HEDGE LINE
T	EXISTING TELEPHONE BOX		EXISTING TREE
P	EXISTING POWER POLE		EXISTING BUILDING
	DOWN GUY ANCHOR		EXISTING SIGN
TP	TELEPHONE PEDESTAL		EXISTING DOUBLE POST SIGN
BF	BURIED COPPER		

NOTES:

1. UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO EXCAVATION.

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\100_XL6415_SR20 Red Cr_PS_ExUT.dgn
TIME	12:08:49 PM
DATE	12/2/2022
PLOTTED BY	chavejl
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER STATE OF WASHINGTON 36000 REGISTERED PROFESSIONAL ENGINEER
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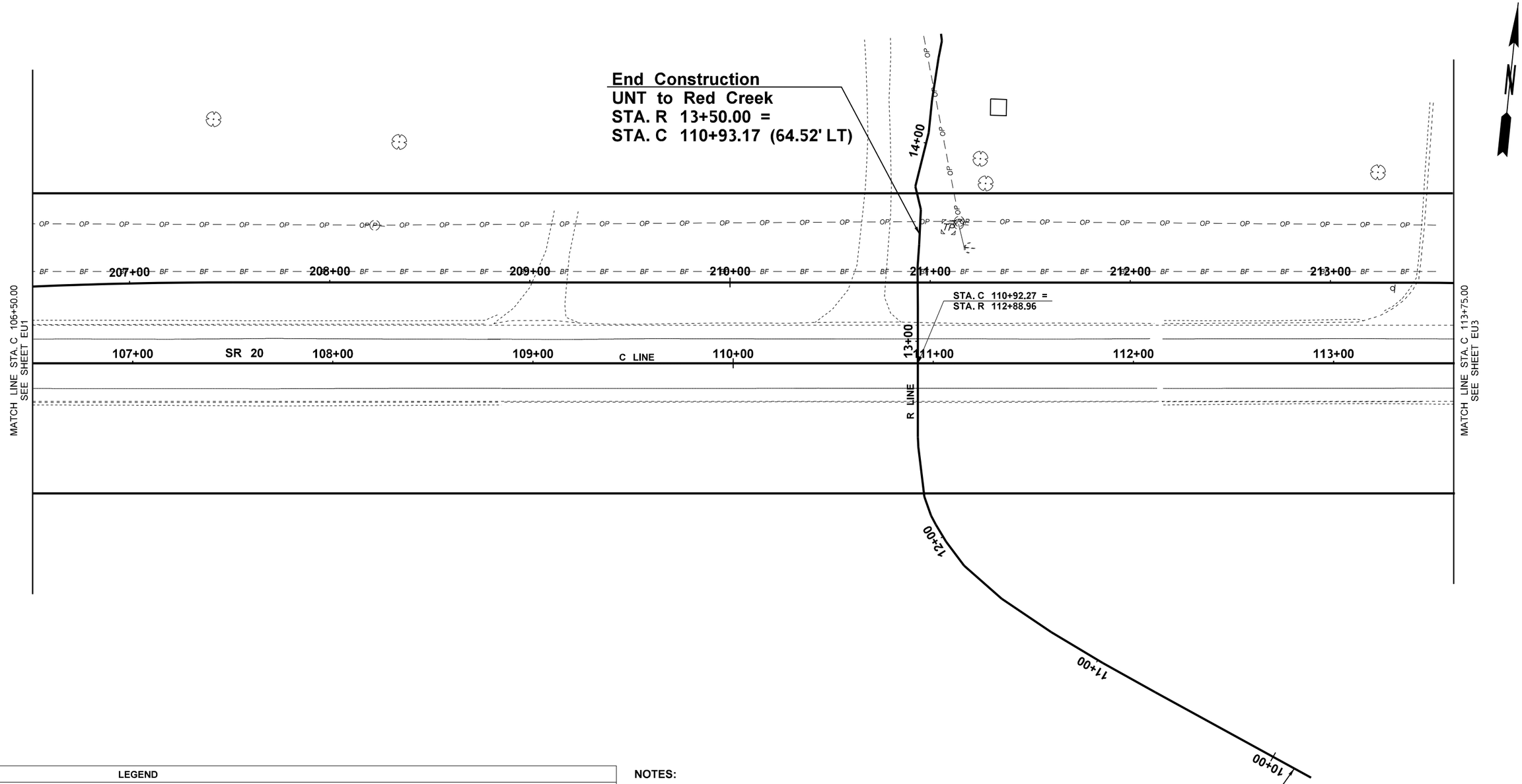
Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

EXISTING UTILITIES PLAN

Plot 1
PLAN REF NO
EU1
SHEET 29 OF 79 SHEETS



LEGEND

EXISTING ABOVE GROUND POWER	EXISTING HEDGE LINE
EXISTING TELEPHONE BOX	EXISTING TREE
EXISTING POWER POLE	EXISTING BUILDING
DOWN GUY ANCHOR	EXISTING SIGN
TELEPHONE PEDESTAL	EXISTING DOUBLE POST SIGN
BURIED COPPER	

NOTES:

1. UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO EXCAVATION.

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TIME	12:08:56 PM
DATE	12/2/2022
PLOTTED BY	chavejl
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.

JOB NUMBER 22A036

CONTRACT NO. | LOCATION NO.

SPENCER T. BEIER — STATE OF WASHINGTON — 16005 — REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
P.E. STAMP BOX

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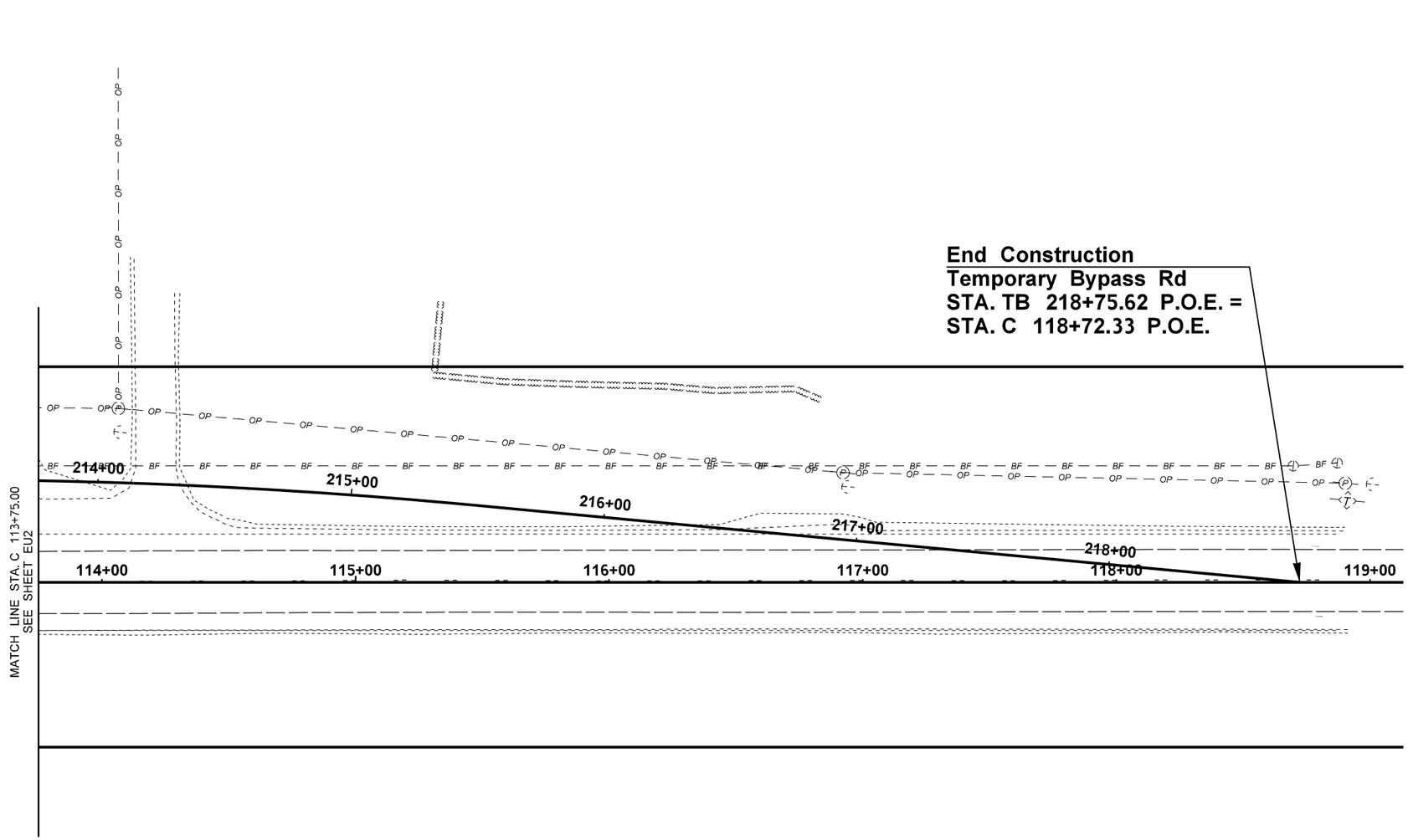
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

EXISTING UTILITIES PLAN

Plot 2
PLAN REF NO
EU2
SHEET 30 OF 79 SHEETS



Type text here

LEGEND			
- OP — — OP — — OP -	EXISTING ABOVE GROUND POWER		EXISTING HEDGE LINE
	EXISTING TELEPHONE BOX		EXISTING TREE
	EXISTING POWER POLE		EXISTING BUILDING
	DOWN GUY ANCHOR		EXISTING SIGN
	TELEPHONE PEDESTAL		EXISTING DOUBLE POST SIGN
- BF — — BF — — BF -	BURIED COPPER		

NOTES:

1. UTILITY LOCATIONS ARE APPROXIMATE. CONTRACTOR TO VERIFY UTILITY LOCATIONS PRIOR TO EXCAVATION.

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\100_XL6415_SR20 Red Cr_PS_ExUT.dgn						
TIME	12:09:06 PM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	12/2/2022						
PLOTTED BY	chavejl				JOB NUMBER 22A036		
DESIGNED BY	A. LEWIS						
ENTERED BY	A. LEWIS						
CHECKED BY	A. WILLIAMS				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

SPENCER T. BEIER — STATE OF WASHINGTON — 46005 — REGISTERED PROFESSIONAL ENGINEER
SEE CT1
DATE
P.E. STAMP BOX

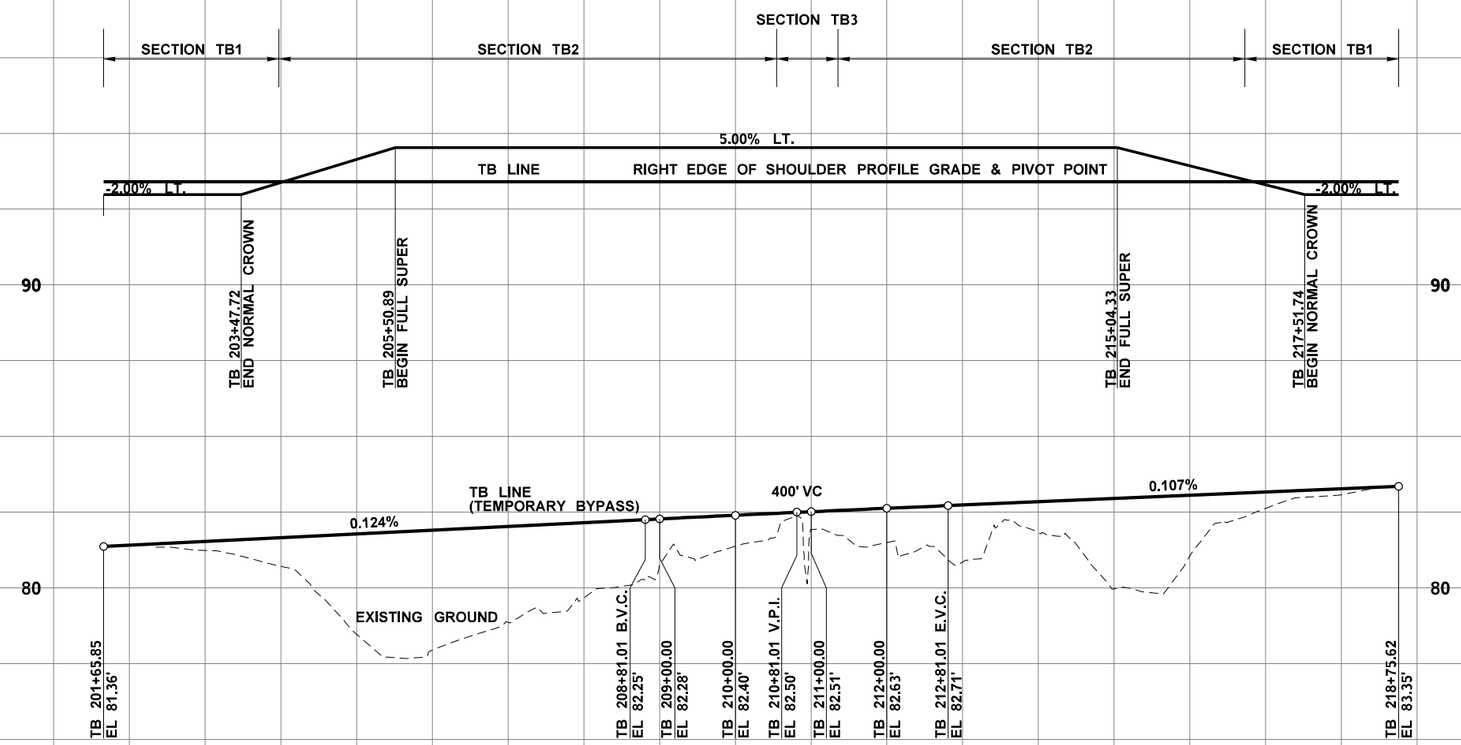
DATE
P.E. STAMP BOX

Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

EXISTING UTILITIES PLAN

Plot 3
PLAN REF NO
EU3
SHEET 31 OF 79 SHEETS



GENERAL NOTES:

1. SEE RS5 FOR ROADWAY SECTIONS.
2. SEE SPECIAL PROVISIONS "EARTHWORK" FOR ADDITIONAL QUANTITIES.

* QUANTITIES SHOWN ARE INFORMATION ONLY.

* SELECT BORROW INCL. HAUL
3309 TONS

* EMBANKMENT COMPACTION
2456 C.Y.

* ROADWAY EXCAVATION INCL. HAUL
827 C.Y.

* CRUSHED SURFACE BASE COARSE
1002 TONS

DATUM

(NAVD) 88

BYPASS PROFILE

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\110_XL6415_SR20 Red Cr_PR_Profile.dgn
TIME	1:59:21 PM
DATE	12/12/2022
PLOTTED BY	LewisA
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.

JOB NUMBER 22A036

CONTRACT NO. | LOCATION NO.

SPENCER T. BEIER — STATE OF WASHINGTON — 36005 — REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
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DATE
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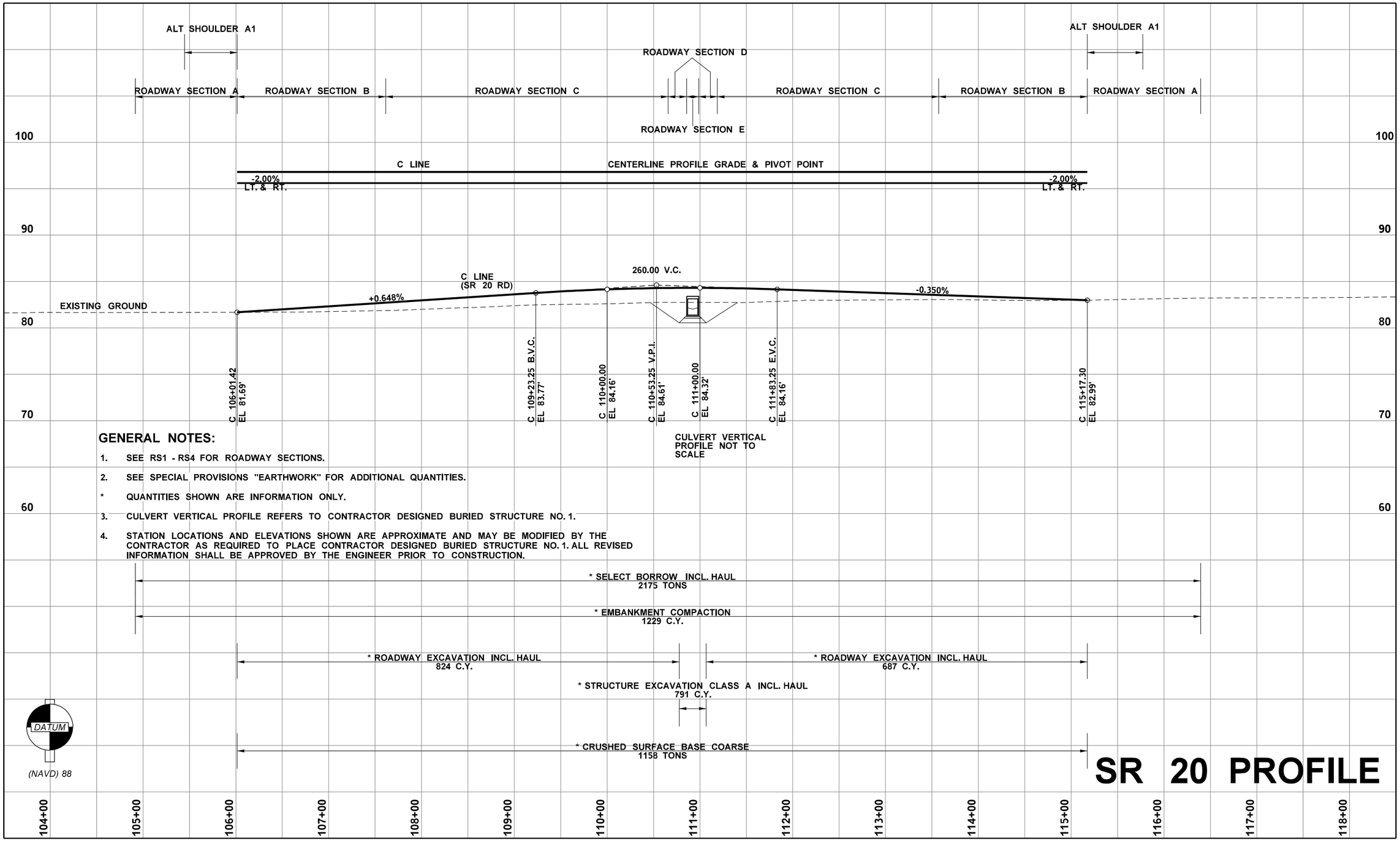
Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

ROADWAY PROFILE

Plot 1
PLAN REF. NO. RP1
SHEET 32 OF 79 SHEETS



GENERAL NOTES:

1. SEE RS1 - RS4 FOR ROADWAY SECTIONS.
2. SEE SPECIAL PROVISIONS "EARTHWORK" FOR ADDITIONAL QUANTITIES.

* QUANTITIES SHOWN ARE INFORMATION ONLY.

3. CULVERT VERTICAL PROFILE REFERS TO CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1.
4. STATION LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE AND MAY BE MODIFIED BY THE CONTRACTOR AS REQUIRED TO PLACE CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1. ALL REVISED INFORMATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

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TIME	1:59:27 PM
DATE	12/12/2022
PLOTTED BY	LewisA
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER STATE OF WASHINGTON 36005 REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
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DATE
P.E. STAMP BOX

Washington State
Department of Transportation

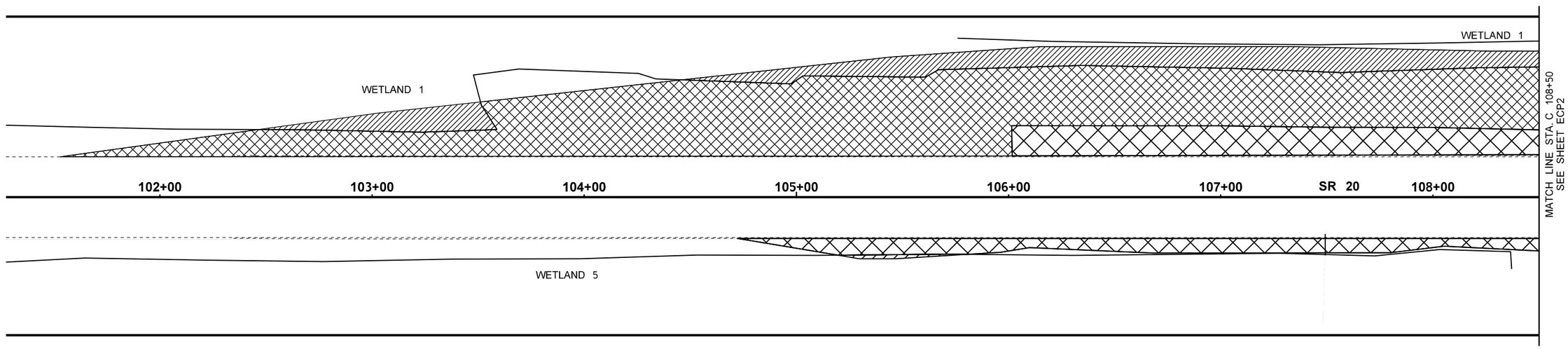
SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

ROADWAY PROFILE

Plot 2
PLAN REF. NO.
RP2
SHEET 33 OF 79 SHEETS

IMPACTS SUMMARY

SENSITIVE AREA	UNNAMED TRIB TO RED CREEK SQ. FT. (ACRES)	WETLAND 1 SQ.FT. (ACRES)	WETLAND 2 SQ.FT. (ACRES)	WETLAND 3 SQ.FT. (ACRES)	WETLAND 4 SQ.FT. (ACRES)	WETLAND 5 SQ.FT. (ACRES)	WETLAND 8 SQ.FT. (ACRES)	WETLAND 9 SQ.FT. (ACRES)	LEGEND
DOE CATEGORY / STREAM TYPE	CAT. F	CAT. II	CAT. III	CAT. IV	CAT. II	CAT. III	CAT. III	CAT. I	
STREAM TEMPORARY IMPACT	133 (0.01)								
STREAM PERMANENT IMPACT	1148 (0.03)								
STREAM BUFFER TEMPORARY IMPACT	1362 (0.03)								
STREAM BUFFER PERMANENT IMPACT	743 (0.02)								
WETLAND IMPACT TEMPORARY		4624 (0.12)	787 (0.02)	208 (0.01)	2248 (0.05)		432 (0.01)	1678 (0.04)	
WETLAND IMPACT PERMANENT						74 (0.01)		3149 (0.07)	
WETLAND BUFFER TEMPORARY IMPACT		19509 (0.45)	7608 (0.17)	939 (0.02)	7868 (0.18)		5054 (0.12)	3409 (0.08)	
WETLAND BUFFER PERMANENT IMPACT		3961 (0.09)	1974 (0.05)		400 (0.01)	1743 (0.04)	1221 (0.03)	5955 (0.14)	



LEGEND

- 15+00 — CONSTRUCTION ALIGNMENT
- RIGHT OF WAY
- EDGE OF SHOULDER
- OHW — EXISTING ORDINARY HIGH WATER LINE
- WETLAND BOUNDARY
- WETLAND SYMBOL
- WETLAND BUFFER
- STREAM BUFFER
- DIRECTION OF FLOW
- EXISTING CULVERT
- NEW CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\120_XL6415_SR20 Red Cr_EC_Environmental Compliance.dgn
TIME	12:11:24 PM
DATE	12/2/2022
PLOTTED BY	chavejl
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.
JOB NUMBER 22A036
CONTRACT NO. | LOCATION NO.

SPENCER T. BEIER STATE OF WASHINGTON 36005 REGISTERED PROFESSIONAL ENGINEER
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DATE
P.E. STAMP BOX

DATE
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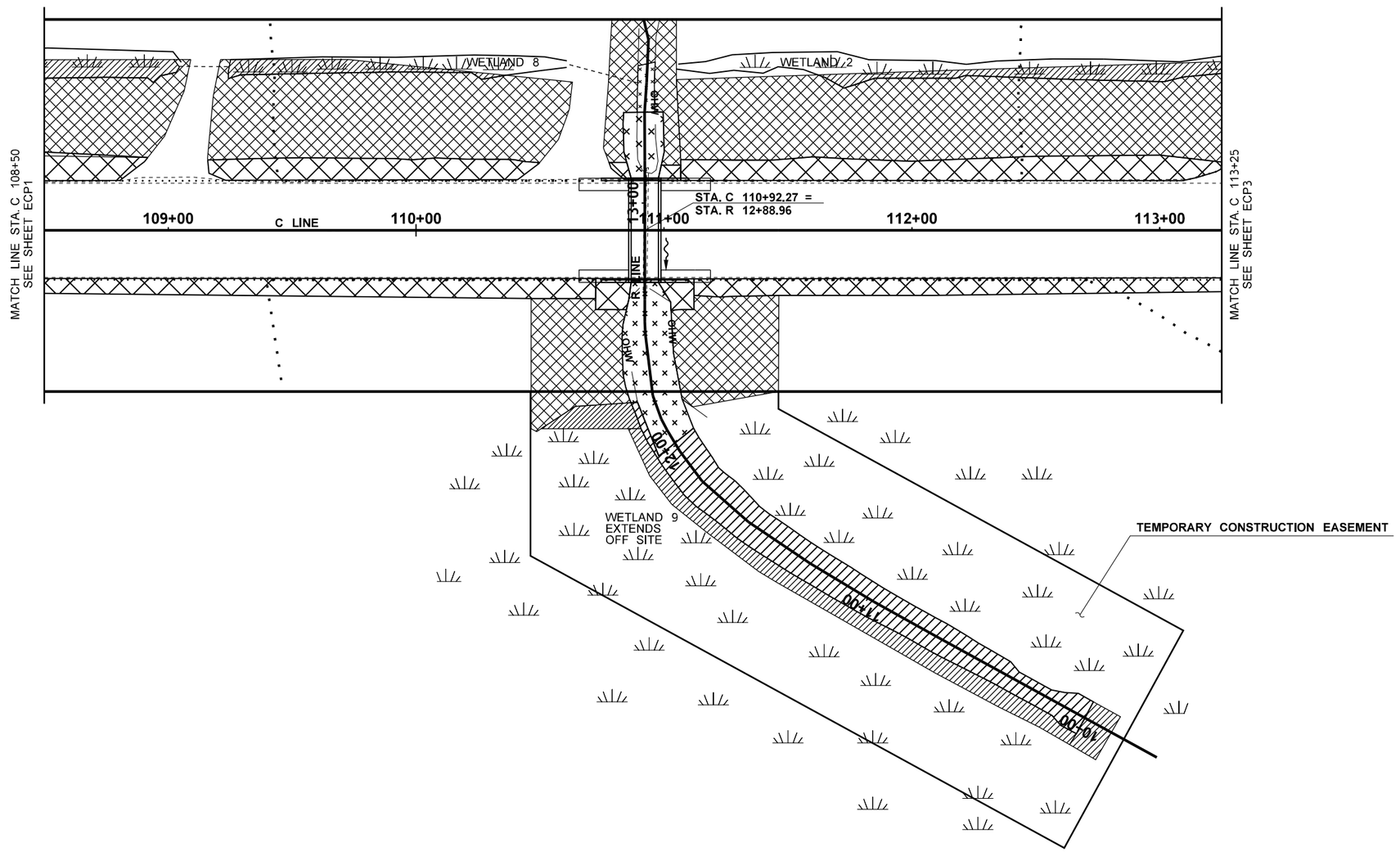
Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

ENVIRONMENTAL COMPLIANCE PLAN

Plot 11
PLAN REF NO ECP1
SHEET 34 OF 79 SHEETS



LEGEND

15+00	CONSTRUCTION ALIGNMENT
	RIGHT OF WAY
	EDGE OF SHOULDER
OHW	EXISTING ORDINARY HIGH WATER LINE
	WETLAND BOUNDARY
	WETLAND SYMBOL
	WETLAND BUFFER
	STREAM BUFFER
	DIRECTION OF FLOW
	EXISTING CULVERT
	NEW CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1

0 25 50
SCALE IN FEET

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TIME	12:11:36 PM			
DATE	12/2/2022			
PLOTTED BY	chavejl			
DESIGNED BY	A. LEWIS			
ENTERED BY	A. LEWIS			
CHECKED BY	A. WILLIAMS			
PROJ. ENGR.	S. BEIER			
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER STATE OF WASHINGTON 36005 REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
P.E. STAMP BOX

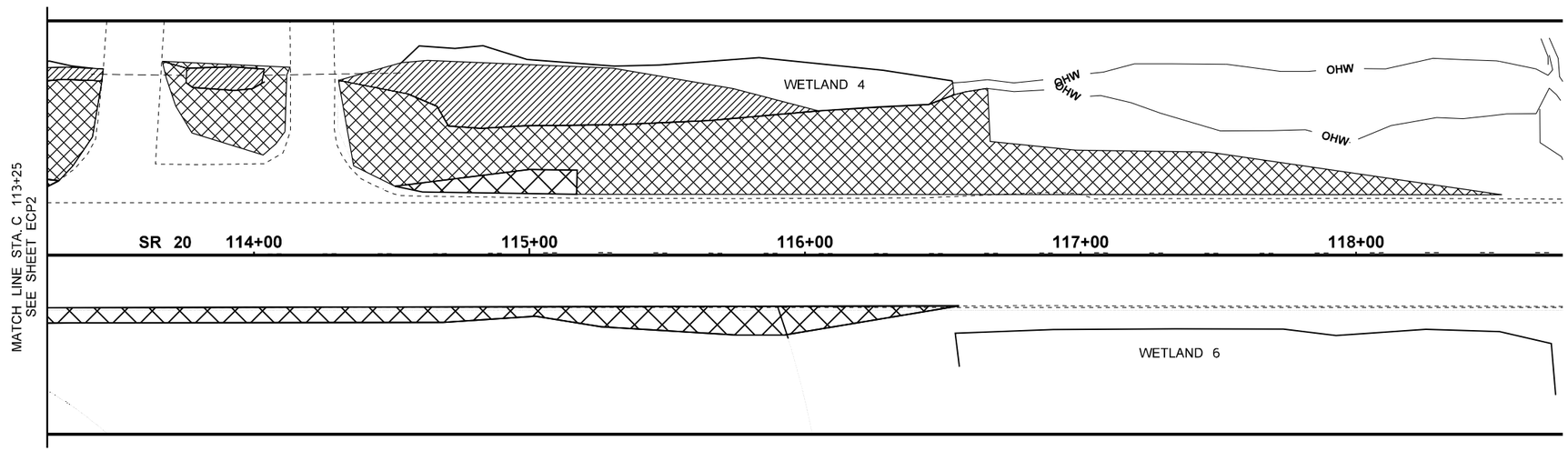
DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

ENVIRONMENTAL COMPLIANCE PLAN

Plot 12
PLAN REF NO
ECP2
SHEET 35 OF 79 SHEETS



LEGEND

15+00	CONSTRUCTION ALIGNMENT
	RIGHT OF WAY
	EDGE OF SHOULDER
OHW	EXISTING ORDINARY HIGH WATER LINE
	WETLAND BOUNDARY
	WETLAND SYMBOL
	WETLAND BUFFER
	STREAM BUFFER
	DIRECTION OF FLOW
	EXISTING CULVERT
	NEW CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\120_XL6415_SR20 Red Cr_EC_Environmental Compliance.dgn						
TIME	12:11:48 PM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	12/2/2022						
PLOTTED BY	chavejl				JOB NUMBER 22A036		
DESIGNED BY	A. LEWIS						
ENTERED BY	A. LEWIS						
CHECKED BY	A. WILLIAMS				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

SPENCER T. BEIER STATE OF WASHINGTON 36005 REGISTERED PROFESSIONAL ENGINEER

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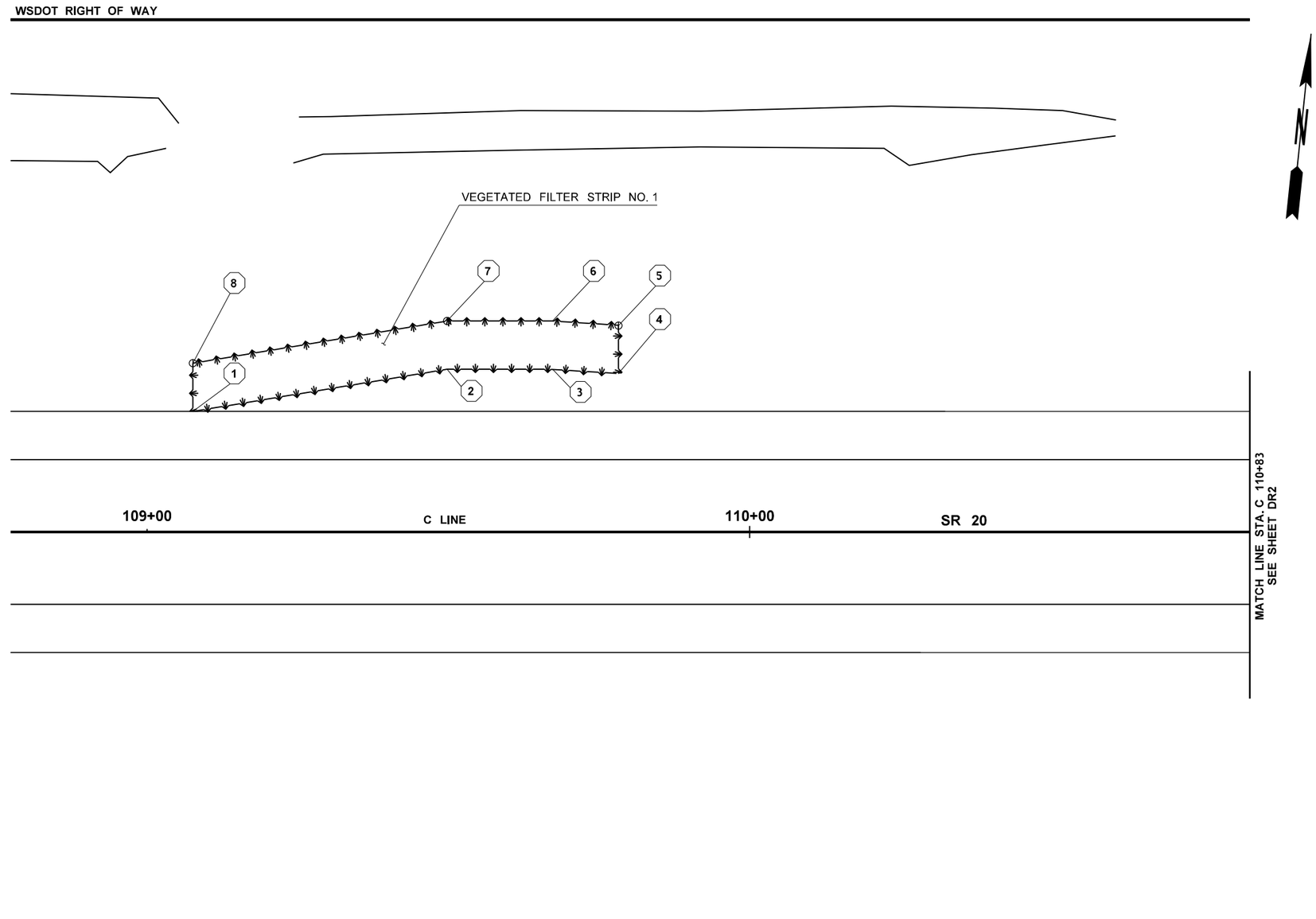
SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

ENVIRONMENTAL COMPLIANCE PLAN

Plot 13
PLAN REF NO
ECP3
SHEET 36 OF 79 SHEETS



VEGETATED FILTER STRIP NO. 1

STATION / OFFSET
AREA (SQ. FT) = 918

1 C 109+07.61 (20.0' LT)	5 C 109+78.23 (34.3' LT)
2 C 109+49.77 (27.0' LT)	6 C 109+66.77 (35.0' LT)
3 C 109+66.77 (27.0' LT)	7 C 109+49.77 (35.0' LT)
4 C 109+78.23 (26.3' LT)	8 C 109+07.61 (28.0' LT)

LEGEND

11+00	NEW CONSTRUCTION ALIGNMENT
	WSDOT RIGHT OF WAY
	EXISTING LANE EDGE
	EXISTING EDGE OF SHOULDER
	NEW VEGETATED FILTER STRIP
	EXISTING WETLAND BOUNDARY
	FLEXIBLE GUIDE POST

GENERAL NOTES

1. SEE DR3 FOR VEGETATED FILTER STRIP DETAIL.
2. SEE LP2 AND LD1 FOR PLANTING INFORMATION.

0 10 20
SCALE IN FEET

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TIME	12:12:37 PM
DATE	12/2/2022
PLOTTED BY	chavejl
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER, STATE OF WASHINGTON, 36005, REGISTERED PROFESSIONAL ENGINEER
SEE CT1
DATE
P.E. STAMP BOX

DATE
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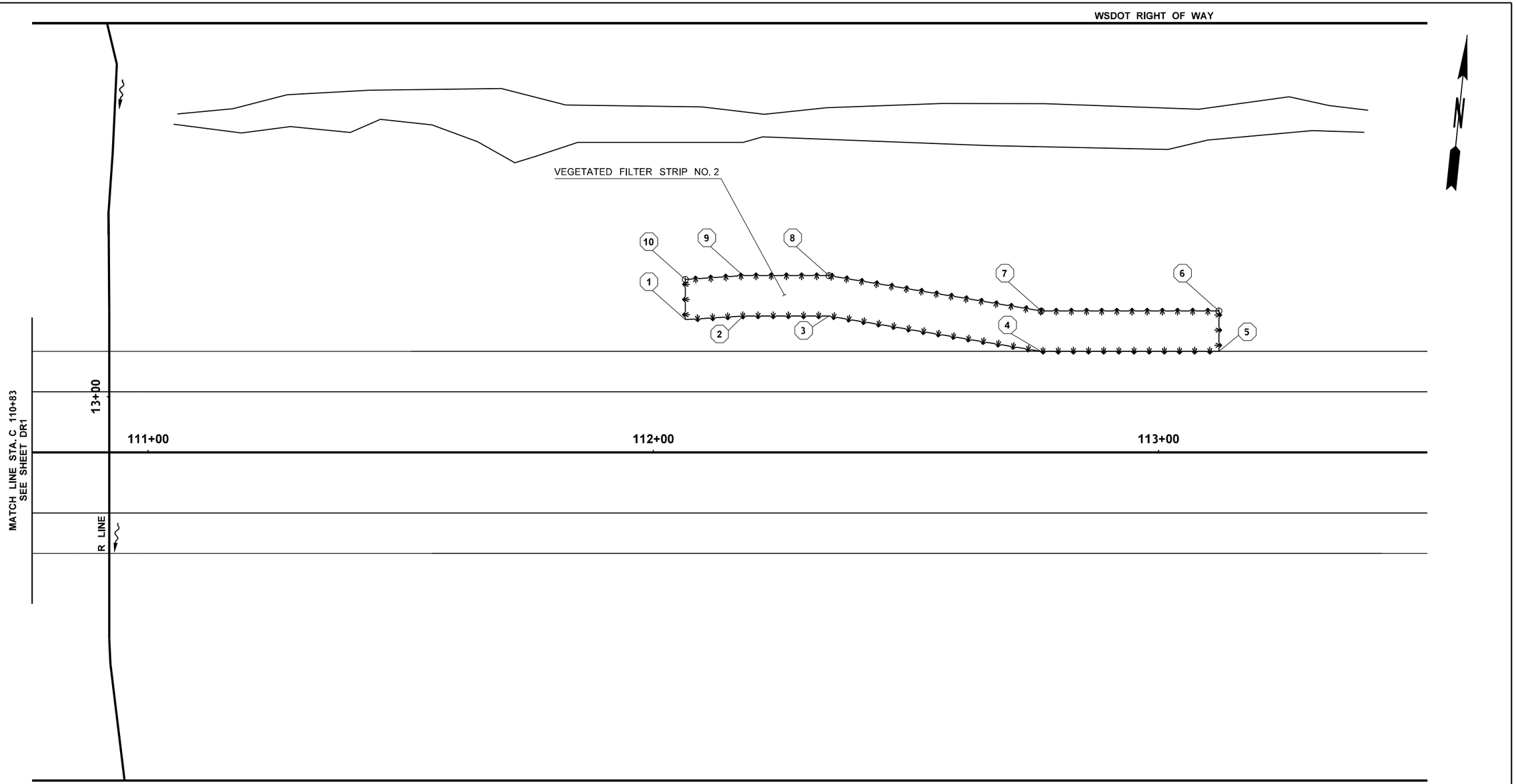
Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

DRAINAGE PLAN

Plot 1
PLAN REF NO DR1
SHEET 37 OF 79 SHEETS



LEGEND

11+00	NEW CONSTRUCTION ALIGNMENT
	WSDOT RIGHT OF WAY
	EXISTING LANE EDGE
	EXISTING EDGE OF SHOULDER
	NEW VEGETATED FILTER STRIP
	EXISTING WETLAND BOUNDARY
	FLEXIBLE GUIDE POST

VEGETATED FILTER STRIP NO. 2

STATION / OFFSET
AREA (SQ. FT) = 1373

1 C 112+06.31 (26.3' LT)	5 C 113+11.95 (20.0' LT)	9 C 112+17.77 (35.0' LT)
2 C 112+17.77 (27.0' LT)	6 C 113+11.95 (28.0' LT)	10 C 112+06.31 (34.3' LT)
3 C 112+34.77 (27.0' LT)	7 C 112+76.77 (28.0' LT)	
4 C 112+76.77 (20.0' LT)	8 C 112+34.77 (35.0' LT)	

GENERAL NOTES

1. SEE DR3 FOR VEGETATED FILTER STRIP DETAIL.
2. SEE LP2 AND LD1 FOR PLANTING INFORMATION.

0 10 20
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\130_XL6415_SR20 Red Cr_DR_Drainage Plan.dgn
TIME	12:12:46 PM
DATE	12/2/2022
PLOTTED BY	chavejl
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER, STATE OF WASHINGTON, 36005, REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
P.E. STAMP BOX

DATE
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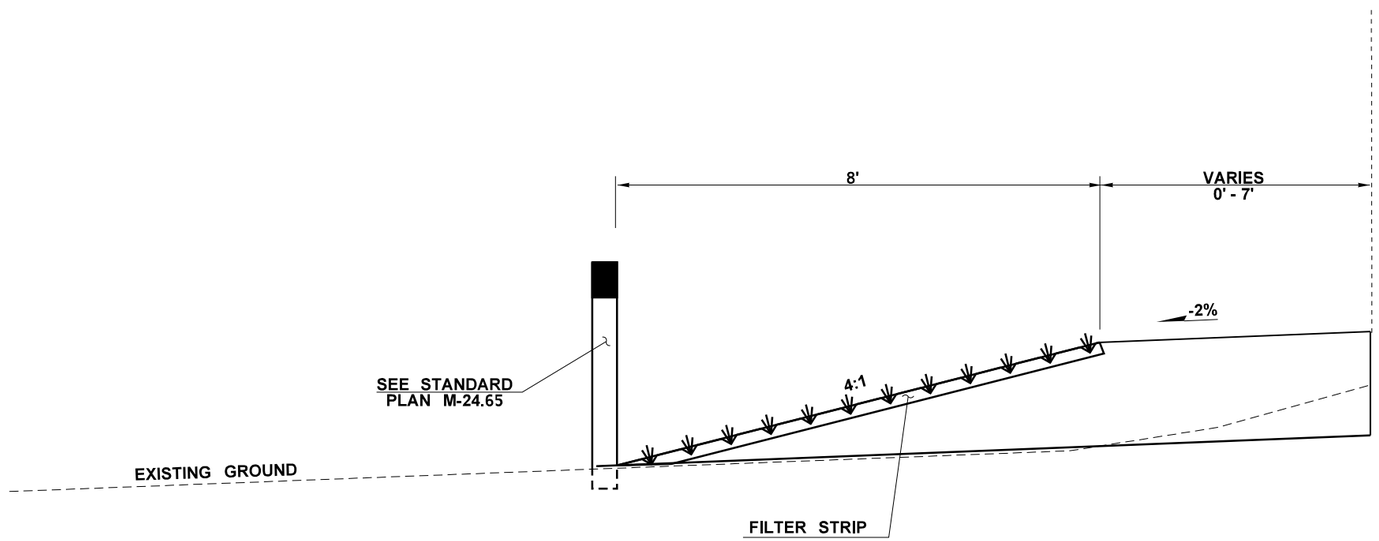
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

DRAINAGE PLAN

Plot 2
PLAN REF NO
DR2
SHEET 38 OF 79 SHEETS



DETAIL VIEW - VEGETATED FILTER STRIP (VFS)

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GENERAL NOTES

1. SEE DR1 - DR2 FOR VEGETATED FILTER STRIP STATIONING.
2. SEE LP2 AND LD1 FOR PLANTING INFORMATION.

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\130_XL6415_SR20 Red Cr_DR_Drainage Plan.dgn						
TIME	12:12:53 PM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	12/2/2022						
PLOTTED BY	chavejl						
DESIGNED BY	A. LEWIS				JOB NUMBER 22A036		
ENTERED BY	A. LEWIS						
CHECKED BY	A. WILLIAMS				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

SPENCER T. BEIER — STATE OF WASHINGTON — 46005 — REGISTERED PROFESSIONAL ENGINEER

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DATE
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DATE
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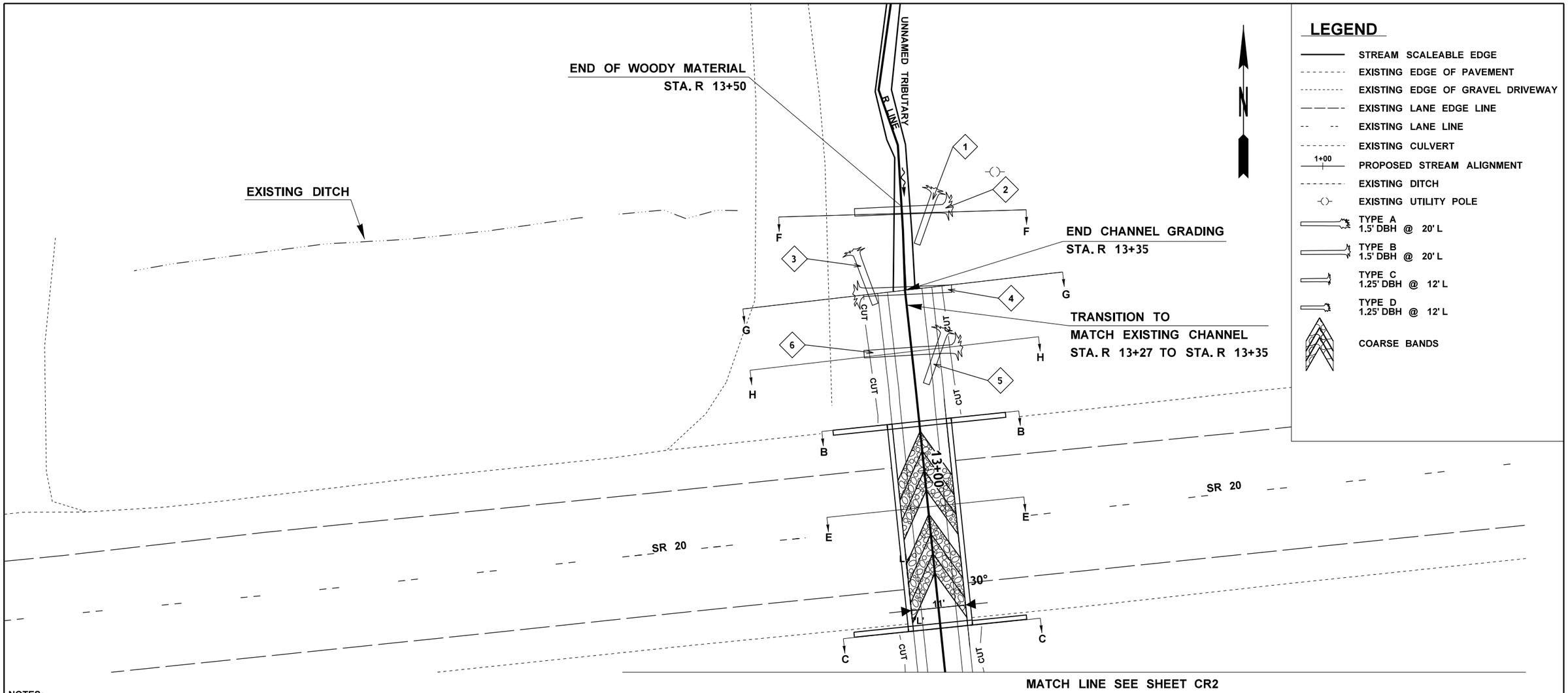
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

DRAINAGE PLAN

Plot 3
PLAN REF NO
DR3
SHEET 39 OF 79 SHEETS



NOTES:
1. SEE SHEETS DE1 - DE5 FOR PLACEMENT AND CROSS SECTION DETAILS.

WOOD MATERIAL (WM) LOCATION TABLE
(WD) TOTALS

WM NO.	TYPE	IN STREAM FEATURE	ROOTWAD (Y/N)	STATION/ OFFSET	ANGLE A (DEG.)	ANGLE B (DEG.)	DISTANCE C (FT)	DISTANCE D (FT)	LOGS TO BE PLACED ABOVE WM NO.
1	C	STEM	Y	13+50 (4.6' LT)	330	92	--	--	–
2	B	SPANNING	Y	13+50	270	93	--	--	1
3	C	STEM	Y	13+35 (6.2' RT)	30	90	--	--	–
4	B	SPANNING	Y	13+35	90	95	--	--	3
5	C	STEM	Y	13+25 (4.8' LT)	330	90	--	--	–
6	B	SPANNING	Y	13+25	270	92	--	--	5

0 10 20
SCALE IN FEET

FILE NAME C:\Users\respinoza\Desktop\Task16 991142 UNT to Red Cr\CAD\FHD\Sheets\991142 UNT to Red Cr Proposed Stream Plan Realignment FHD CR1.dgn

TIME	9:42:00 AM
DATE	12/15/2022
PLOTTED BY	respinoza
DESIGNED BY	R. WALTON
ENTERED BY	R. ESPINOZA
CHECKED BY	J. HEILMAN
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.
JOB NUMBER 22A036
CONTRACT NO. | LOCATION NO.

JULIE HEILMAN STATE OF WASHINGTON 41810 REGISTERED PROFESSIONAL ENGINEER
SEE CT1
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

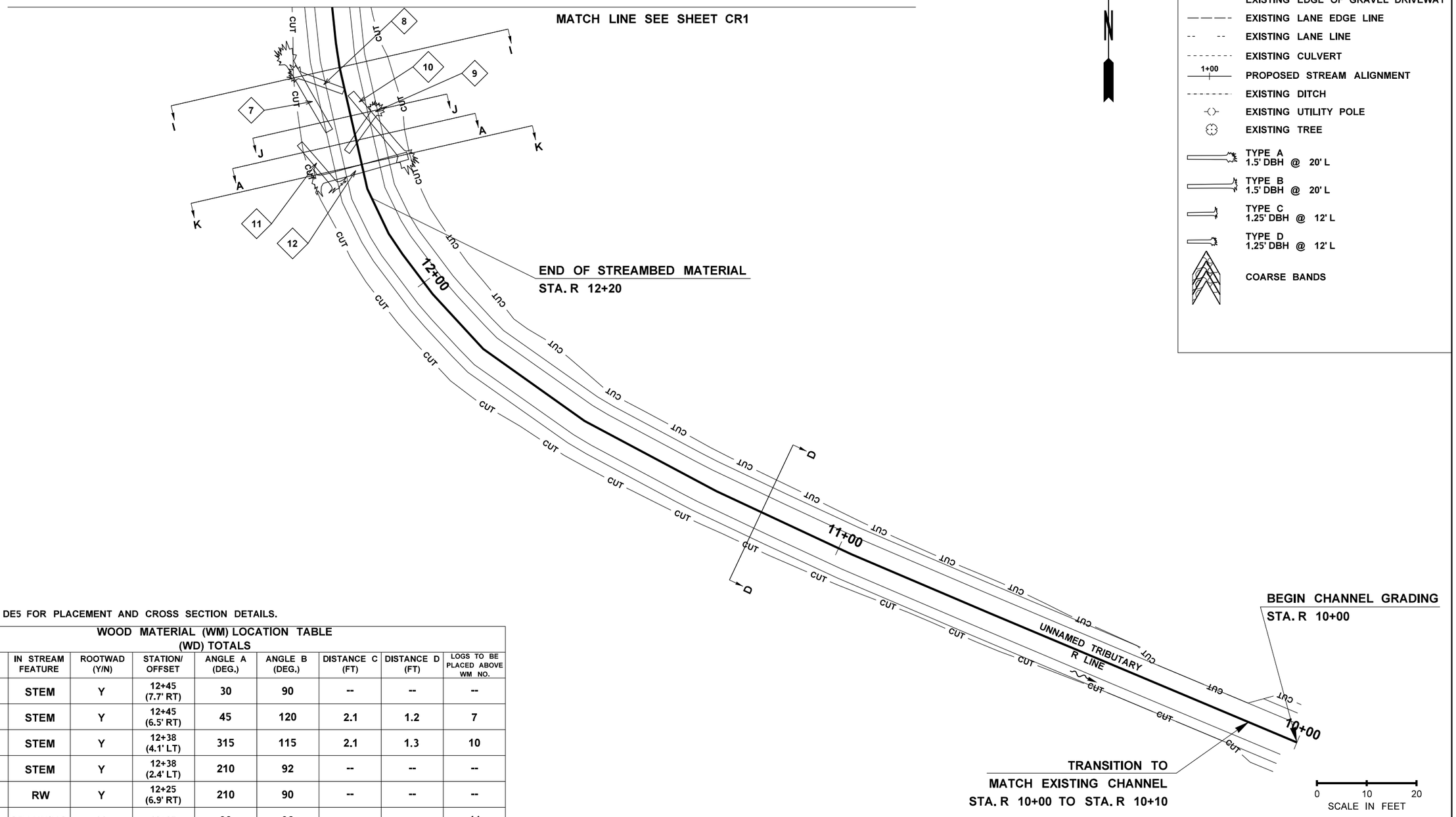
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

STREAM PLAN

PLAN REF NO
CR1

SHEET 40 OF 79 SHEETS



LEGEND

- STREAM SCALEABLE EDGE
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL DRIVEWAY
- EXISTING LANE EDGE LINE
- EXISTING LANE LINE
- EXISTING CULVERT
- 1+00 PROPOSED STREAM ALIGNMENT
- EXISTING DITCH
- EXISTING UTILITY POLE
- EXISTING TREE
- TYPE A 1.5' DBH @ 20' L
- TYPE B 1.5' DBH @ 20' L
- TYPE C 1.25' DBH @ 12' L
- TYPE D 1.25' DBH @ 12' L
- COARSE BANDS

NOTES:
1. SEE SHEETS DE1 - DE5 FOR PLACEMENT AND CROSS SECTION DETAILS.

WOOD MATERIAL (WM) LOCATION TABLE
(WD) TOTALS

WM NO.	TYPE	IN STREAM FEATURE	ROOTWAD (Y/N)	STATION/ OFFSET	ANGLE A (DEG.)	ANGLE B (DEG.)	DISTANCE C (FT)	DISTANCE D (FT)	LOGS TO BE PLACED ABOVE WM NO.
7	A	STEM	Y	12+45 (7.7' RT)	30	90	--	--	--
8	D	STEM	Y	12+45 (6.5' RT)	45	120	2.1	1.2	7
9	D	STEM	Y	12+38 (4.1' LT)	315	115	2.1	1.3	10
10	A	STEM	Y	12+38 (2.4' LT)	210	92	--	--	--
11	C	RW	Y	12+25 (6.9' RT)	210	90	--	--	--
12	B	SPANNING	Y	12+25	90	96	--	--	11

FILE NAME	C:\Users\respinoza\Desktop\Task16 991142 UNT to Red Cr\CAD\FHD\Sheets\991142 UNT to Red Cr Proposed Stream Plan Realignment FHD CR2.dgn
TIME	9:43:16 AM
DATE	12/15/2022
PLOTTED BY	respinoza
DESIGNED BY	R. WALTON
ENTERED BY	R. ESPINOZA
CHECKED BY	J. HEILMAN
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

JULIE HEILMAN STATE OF WASHINGTON 41810 REGISTERED PROFESSIONAL ENGINEER
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Department of Transportation

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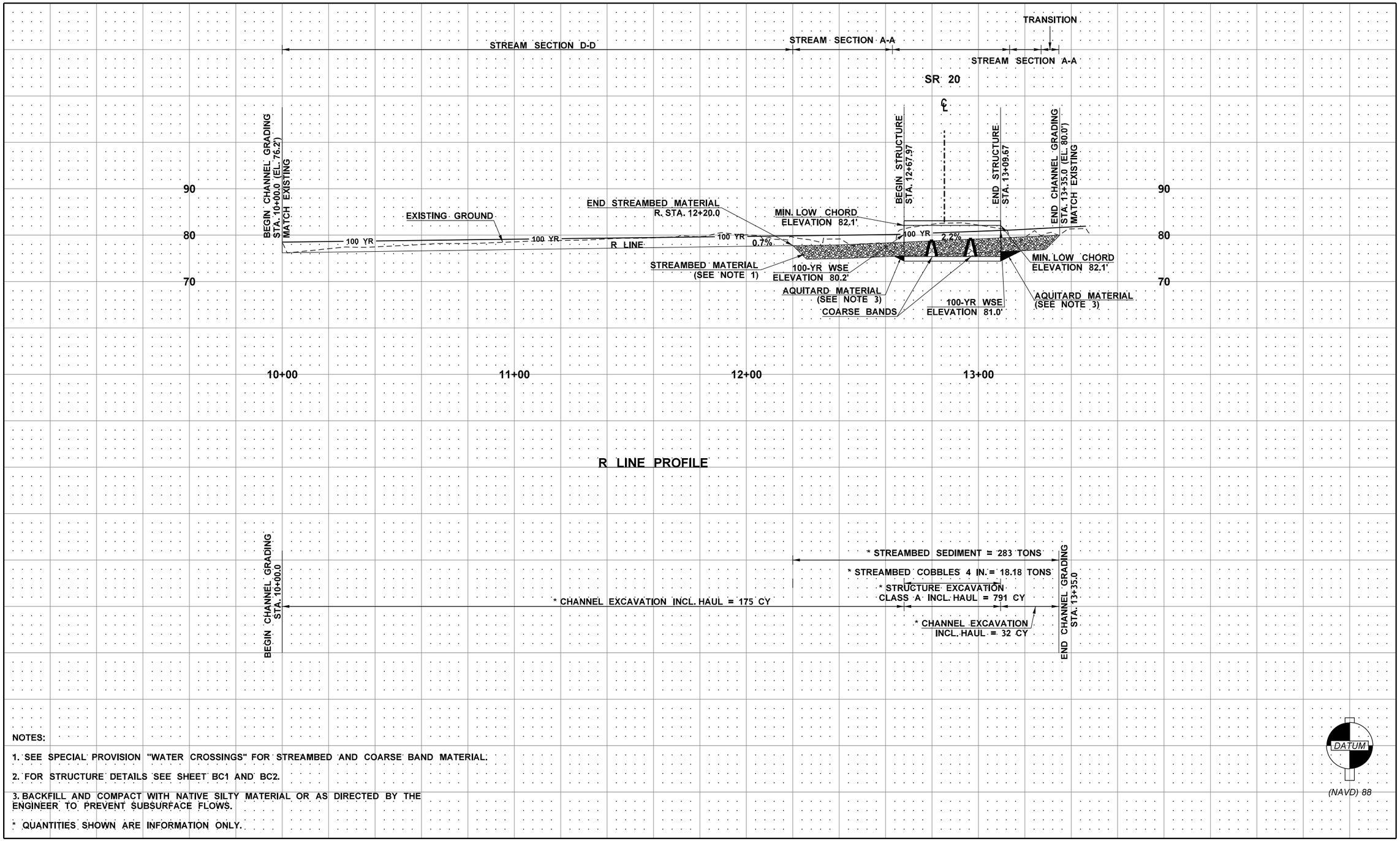
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

STREAM PLAN

PLAN REF NO
CR2

SHEET 41 OF 79 SHEETS



NOTES:

1. SEE SPECIAL PROVISION "WATER CROSSINGS" FOR STREAMBED AND COARSE BAND MATERIAL.
2. FOR STRUCTURE DETAILS SEE SHEET BC1 AND BC2.
3. BACKFILL AND COMPACT WITH NATIVE SILTY MATERIAL OR AS DIRECTED BY THE ENGINEER TO PREVENT SUBSURFACE FLOWS.

* QUANTITIES SHOWN ARE INFORMATION ONLY.

FILE NAME	C:\Users\respinoza\Desktop\Task16 991142 UNT to Red Cr\CAD\FHD\Sheets\991142 UNT to Red Cr Stream Profile FHD STP1.dgn
TIME	9:44:53 AM
DATE	12/15/2022
PLOTTED BY	respinoza
DESIGNED BY	R. WALTON
ENTERED BY	R. ESPINOZA
CHECKED BY	J. HEILMAN
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

JULIE HEILMAN STATE OF WASHINGTON 41810 REGISTERED PROFESSIONAL ENGINEER

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DATE
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DATE
P.E. STAMP BOX

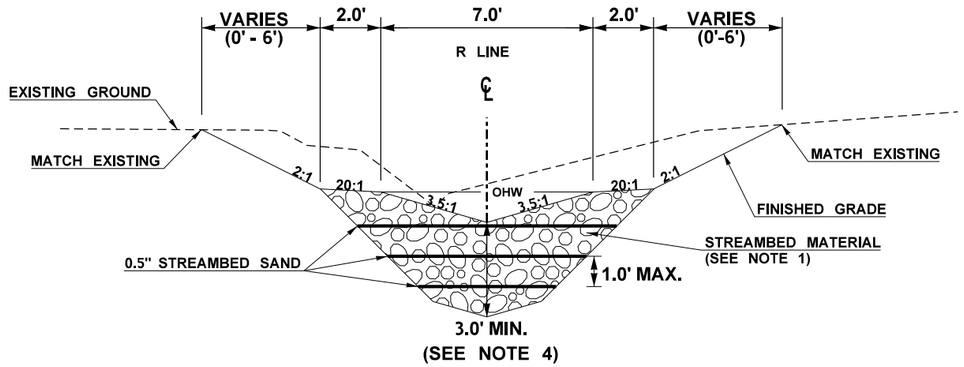
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

STREAM PROFILE

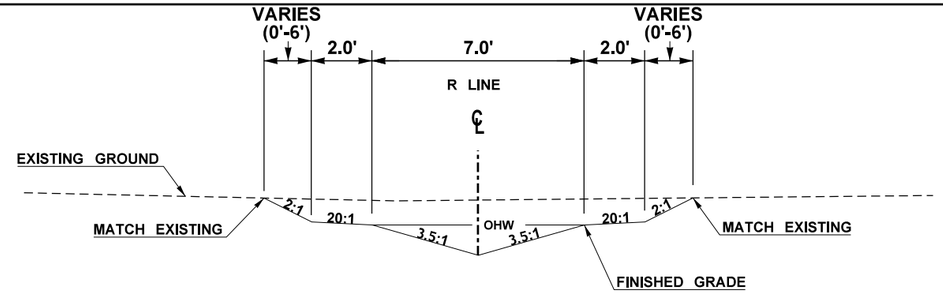
PLAN REF. NO.
STP1

SHEET 42 OF 79 SHEETS



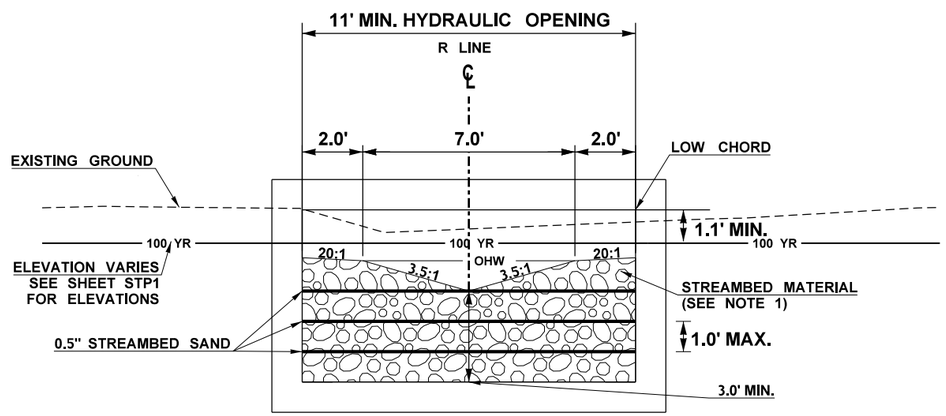
STREAM SECTION A-A

STATION
STA. R 12+20 TO 12+67.97
STA. R 13+09.97 TO 13+27
NOT TO SCALE



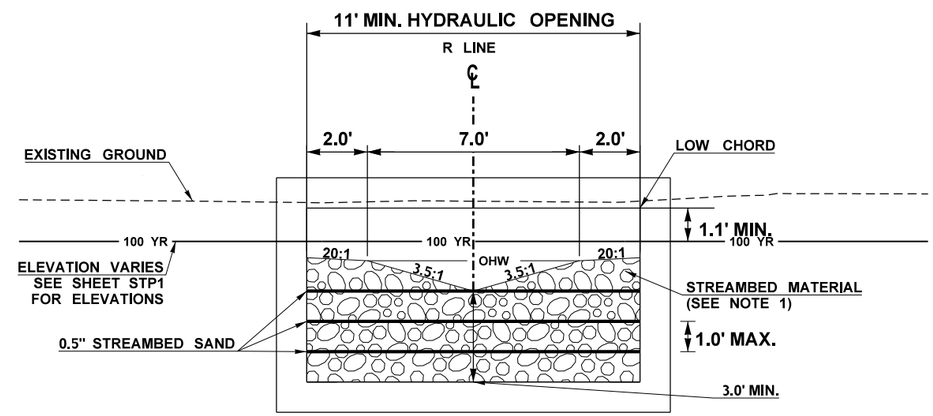
STREAM SECTION D-D

STATION
STA. R 10+10 TO 12+20
NOT TO SCALE



STREAM SECTION B-B

STATION
STA. R 12+67.97 TO 13+09.97
NOT TO SCALE



STREAM SECTION C-C

STATION
STA. R 12+67.97 TO 13+09.97
NOT TO SCALE

NOTES:
1. SEE SPECIAL PROVISION "WATER CROSSINGS" FOR STREAMBED MATERIAL AND MATERIAL LIFTS.
2. FROM 10+00.0 TO 10+10.0, EVENLY TAPER SECTION C TO MATCH EXISTING CHANNEL DOWNSTREAM.
3. FROM 13+27.0 TO 13+35.0, EVENLY TAPER SECTION A TO MATCH EXISITNG CHANNEL DOWNSTREAM.
4. SLOPES SHOWN OUTSIDE OF THE MINIMUM CHANNEL SECTION ARE FOR ILLUSTRATIVE PURPOSES ONLY TO DEPICT ESTIMATED AREA OF POTENTIAL IMPACT.

FILE NAME	C:\Users\respinoza\Desktop\Task16 991142 UNT to Red Cr\CAD\FHD\Sheets\991142 UNT to Red Cr Stream Details FHD DE1.dgn			
TIME	9:46:02 AM			
DATE	12/15/2022			
PLOTTED BY	respinoza			
DESIGNED BY	R. WALTON			
ENTERED BY	R. ESPINOZA			
CHECKED BY	J. HEILMAN			
PROJ. ENGR.	S. BEIER			
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

JULIE HEILMAN STATE OF WASHINGTON 41810 REGISTERED PROFESSIONAL ENGINEER
SEE CT1
DATE
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DATE
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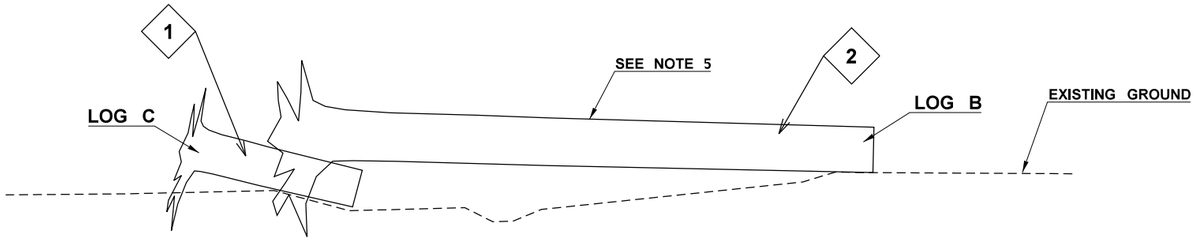
Washington State
Department of Transportation

SR 20 MP
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

STREAM DETAILS

PLAN REF NO
DE1

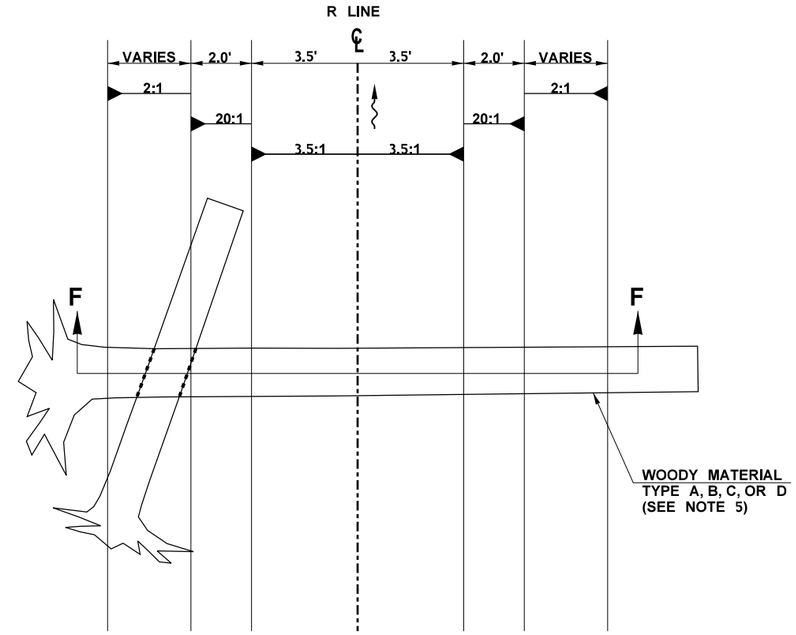
SHEET
43
OF
79
SHEETS



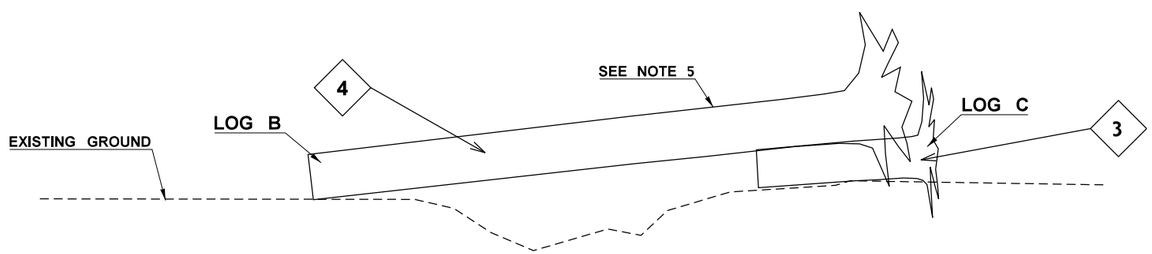
SECTION F-F

STATION
STA. R 13+50

NOT TO SCALE



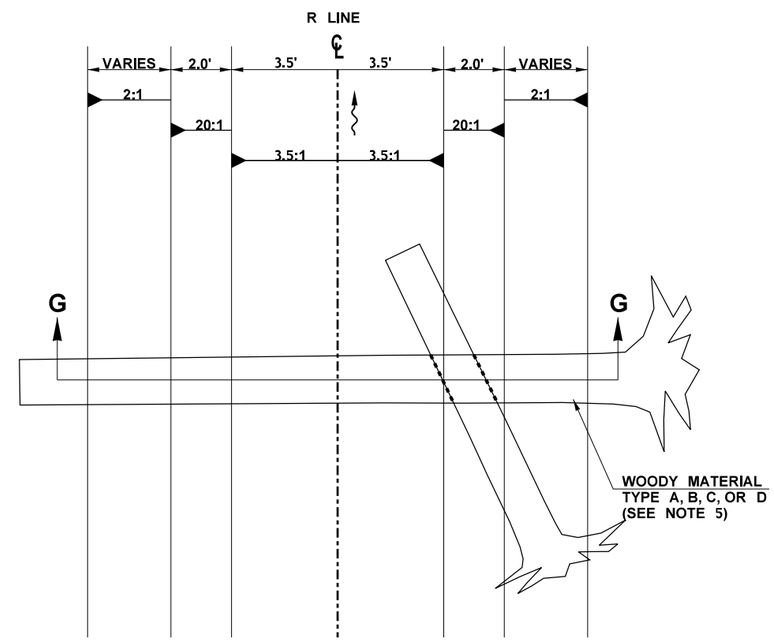
WOODY MATERIAL TYPE A, B, C, OR D



SECTION G-G

STATION
STA. R 13+35

NOT TO SCALE



WOODY MATERIAL TYPE A, B, C, OR D

NOTES:
1. SEE SPECIAL PROVISION "WATER CROSSINGS".

5. SEE WOODY MATERIAL TABLE ON CR SHEETS FOR LOG TYPE, ANGLE A, ANGLE B, DISTANCE C, AND DISTANCE D.

6. FINAL PLACEMENT OF WOOD MATERIAL INSTALLATIONS TO BE DETERMINED BY PROJECT ENGINEER ON SITE

7. BACKFILL WOODY MATERIAL PLACEMENTS WITH NATURAL MATERIAL OUTSIDE OF LIMITS OF STREAMBED MATERIAL PLACEMENT

14. SEE SPECIAL PROVISIONS "WOODY MATERIAL".

FILE NAME	C:\Users\respinoza\Desktop\Task16 991142 UNT to Red Cr\CAD\FHD\Sheets\991142 UNT to Red Cr LWM Details FHD DE2-DE4.dgn					
TIME	9:47:17 AM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	12/15/2022					
PLOTTED BY	respinoza					
DESIGNED BY	R. WALTON				JOB NUMBER 22A036	
ENTERED BY	R. ESPINOZA					
CHECKED BY	J. HEILMAN				CONTRACT NO.	LOCATION NO.
PROJ. ENGR.	S. BEIER					
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY		

JULIE HEILMAN STATE OF WASHINGTON 41810 REGISTERED PROFESSIONAL ENGINEER
SEE CT1
DATE
P.E. STAMP BOX

DATE
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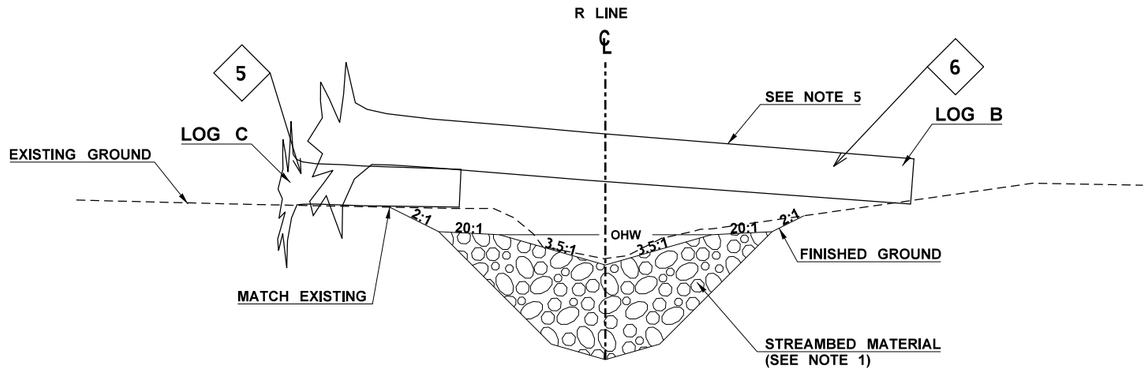
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

STREAM DETAILS

PLAN REF NO
DE2

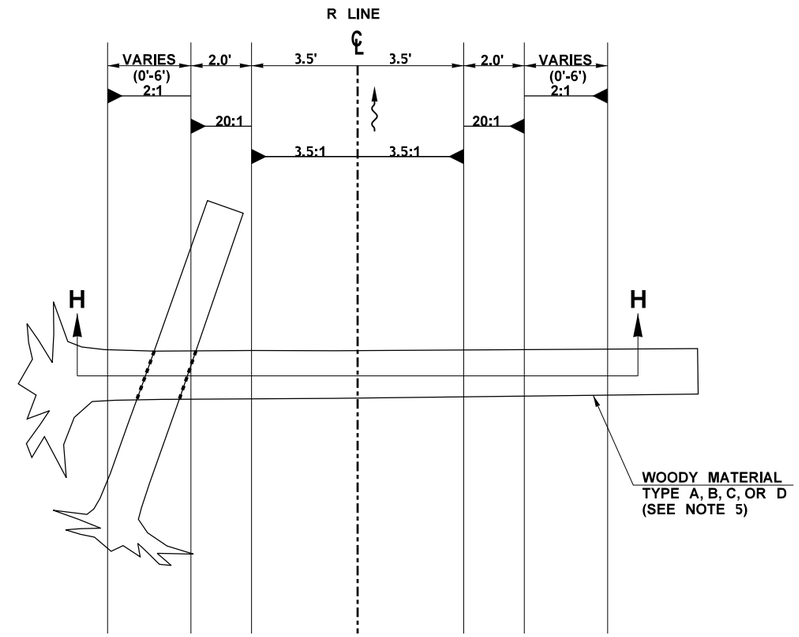
SHEET 44 OF 79 SHEETS



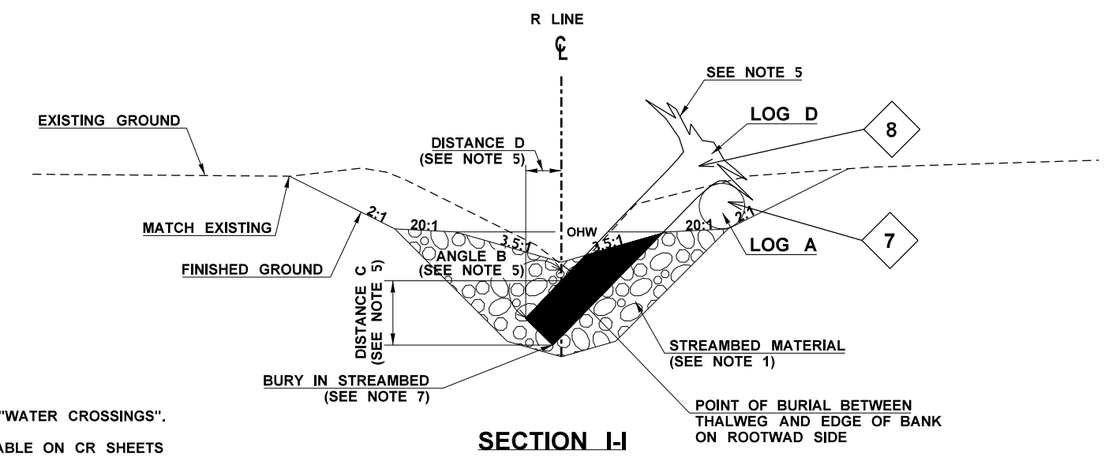
SECTION H-H

STATION
STA. R 13+25

NOT TO SCALE



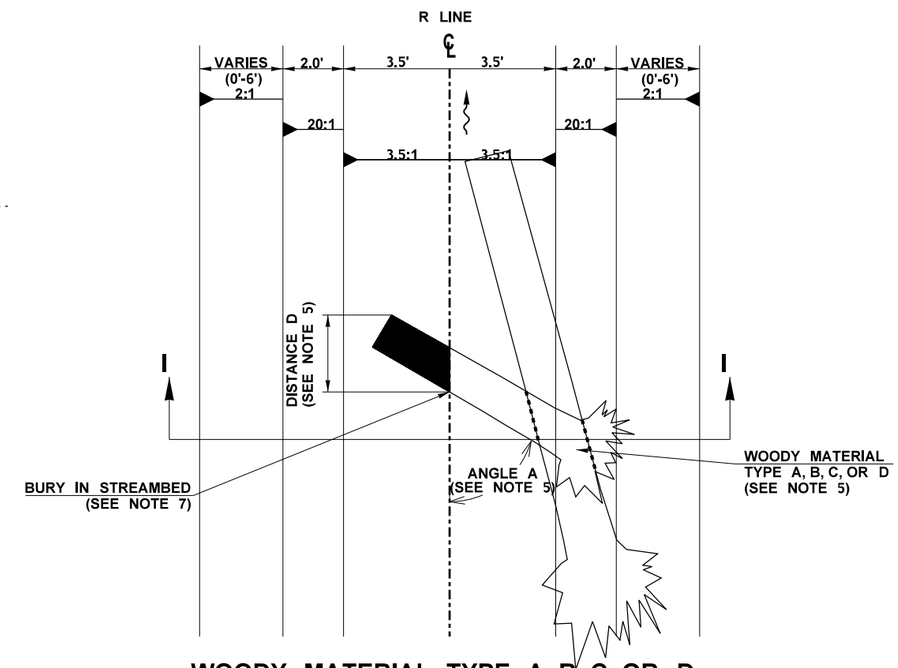
WOODY MATERIAL TYPE A, B, C, OR D



SECTION I-I

STATION
STA. R 12+45

NOT TO SCALE



WOODY MATERIAL TYPE A, B, C, OR D

NOTES:
1. SEE SPECIAL PROVISION "WATER CROSSINGS".

5. SEE WOODY MATERIAL TABLE ON CR SHEETS FOR LOG TYPE, ANGLE A, ANGLE B, DISTANCE C, AND DISTANCE D.

6. FINAL PLACEMENT OF WOOD MATERIAL INSTALLATIONS TO BE DETERMINED BY PROJECT ENGINEER ON SITE

7. BACKFILL WOODY MATERIAL PLACEMENTS WITH NATURAL MATERIAL OUTSIDE OF LIMITS OF STREAMBED MATERIAL PLACEMENT

14. SEE SPECIAL PROVISIONS "WOODY MATERIAL".

FILE NAME	C:\Users\respinoza\Desktop\Task16 991142 UNT to Red Cr\CAD\FHD\Sheets\991142 UNT to Red Cr LWM Details FHD DE2-DE4.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	9:48:03 AM				10	WASH	
DATE	12/15/2022				JOB NUMBER 22A036		
PLOTTED BY	respinoza						
DESIGNED BY	R. WALTON				CONTRACT NO.		LOCATION NO.
ENTERED BY	R. ESPINOZA						
CHECKED BY	J. HEILMAN						
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

JULIE HEILMAN STATE OF WASHINGTON 41910 REGISTERED PROFESSIONAL ENGINEER
SEE CT1
DATE
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DATE
P.E. STAMP BOX

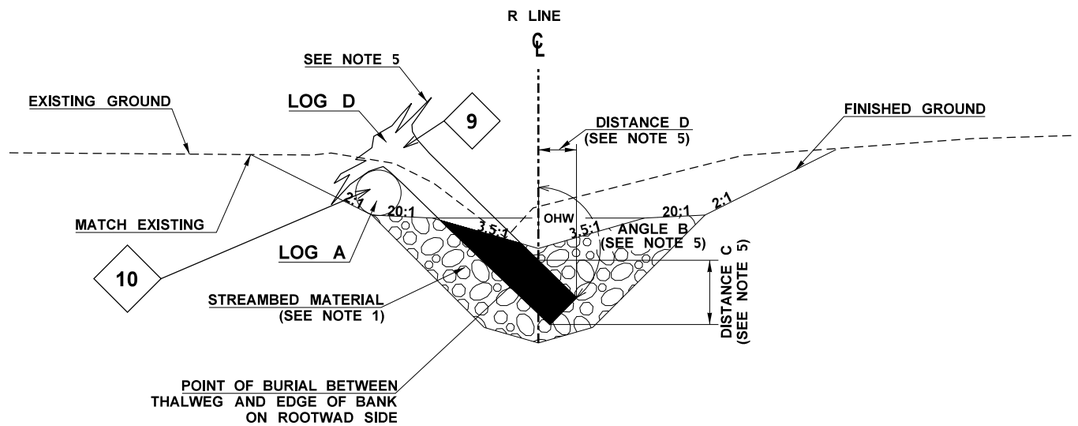
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

STREAM DETAILS

PLAN REF NO
DE3

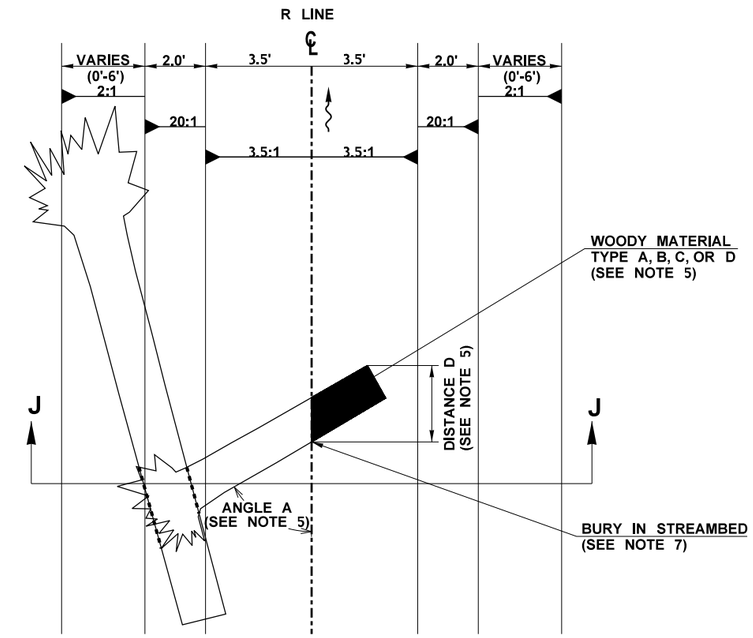
SHEET
45
OF
79
SHEETS



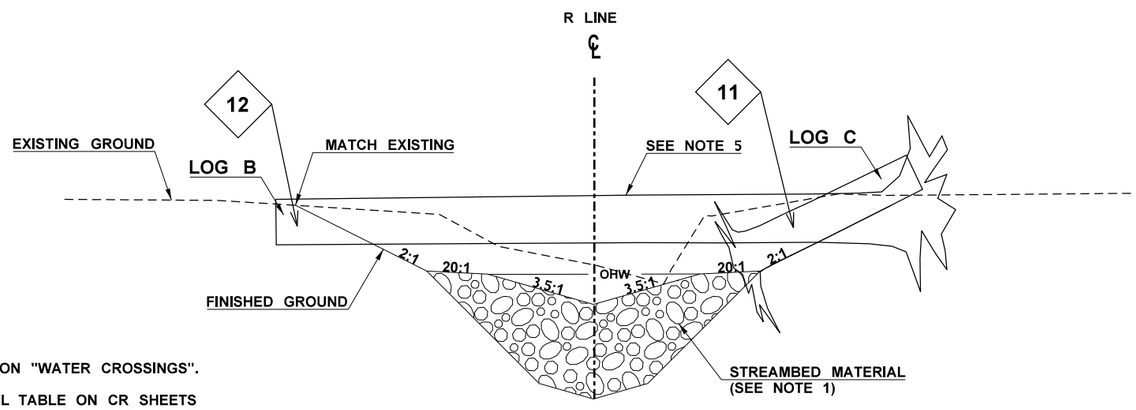
SECTION J-J

STATION
STA. R 12+38

NOT TO SCALE



WOODY MATERIAL TYPE A, B, C, OR D



NOTES:
1. SEE SPECIAL PROVISION "WATER CROSSINGS".

5. SEE WOODY MATERIAL TABLE ON CR SHEETS FOR LOG TYPE, ANGLE A, ANGLE B, DISTANCE C, AND DISTANCE D.

6. FINAL PLACEMENT OF WOOD MATERIAL INSTALLATIONS TO BE DETERMINED BY PROJECT ENGINEER ON SITE

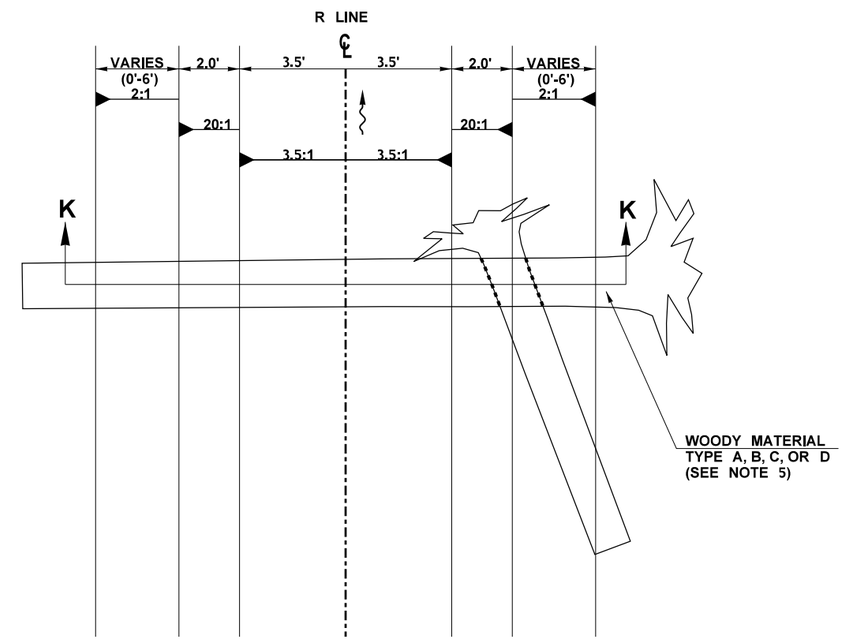
7. BACKFILL WOODY MATERIAL PLACEMENTS WITH NATURAL MATERIAL OUTSIDE OF LIMITS OF STREAMBED MATERIAL PLACEMENT

14. SEE SPECIAL PROVISIONS "WOODY MATERIAL".

SECTION K-K

STATION
STA. R 12+25

NOT TO SCALE



WOODY MATERIAL TYPE A, B, C, OR D

FILE NAME	C:\Users\respinoza\Desktop\Task16 991142 UNT to Red Cr\CAD\FHD\Sheets\991142 UNT to Red Cr LWM Details FHD DE2-DE4.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	9:48:42 AM				JOB NUMBER 22A036		
DATE	12/15/2022						
PLOTTED BY	respinoza						
DESIGNED BY	R. WALTON				CONTRACT NO.		LOCATION NO.
ENTERED BY	R. ESPINOZA						
CHECKED BY	J. HEILMAN						
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

JULIE HEILMAN STATE OF WASHINGTON 43893 REGISTERED PROFESSIONAL ENGINEER
SEE CT1
DATE
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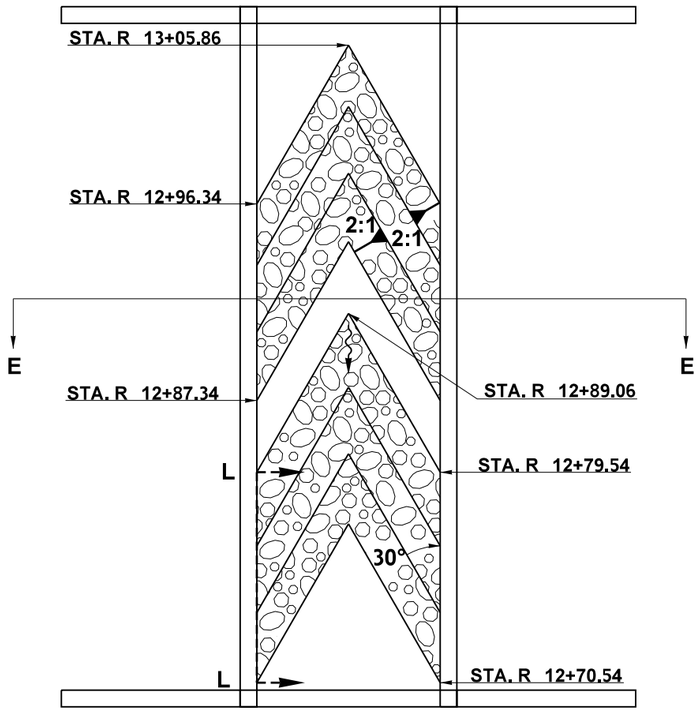
Washington State
Department of Transportation

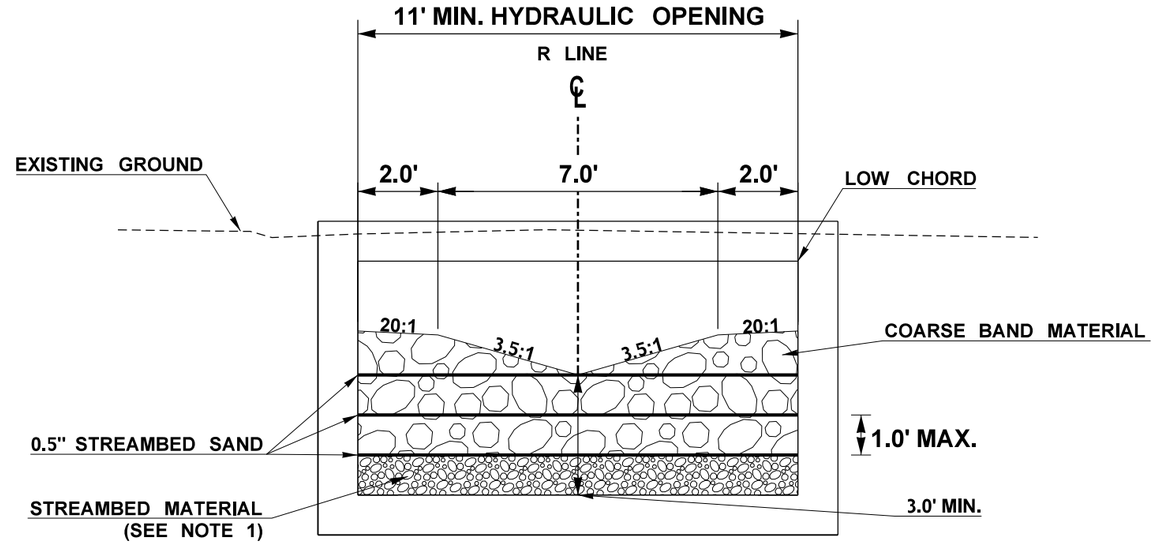
SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

STREAM DETAILS

PLAN REF NO
DE4

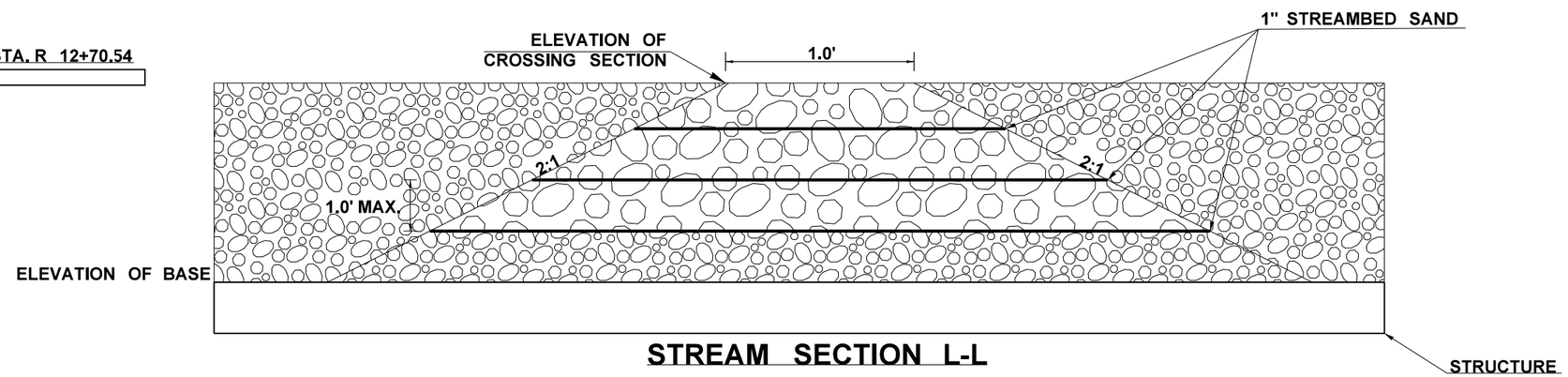
SHEET
46
OF
79
SHEETS





STREAM SECTION E-E

STATION
STA. R 13+00



STREAM SECTION L-L

COARSE BAND DETAILS

NOTES:
1. SEE SPECIAL PROVISION "WATER CROSSINGS" FOR STREAMBED MATERIAL AND MATERIAL LIFTS.

8. TOP OF COARSE BAND ELEVATION TO MATCH STREAMBED MATERIAL ELEVATION AT THE LOCATION OF PLACEMENT -- THE COARSE BAND SHOULD NOT EXTEND ABOVE THE ADJACENT BED ELEVATION.

9. COARSE BANDS SHOULD EXTEND TO STRUCTURE SURFACE AT A SLOPE OF 2:1, TO A MAXIMUM WIDTH OF 1 FT AT THE STRUCTURE SURFACE.

10. SEE SPECIAL PROVISION "WATER CROSSINGS" FOR COARSE BAND MATERIAL MIX..

11. CHANNEL GEOMETRY TO REMAIN CONSISTENT THROUGH CROSSING.

12. COARSE BANDS SYMMETRICAL ACROSS STRUCTURE CENTERLINE.

NOT TO SCALE

FILE NAME	C:\Users\respinoza\Desktop\Task16 991142 UNT to Red Cr\CAD\FHD\Sheets\991142 UNT to Red Cr Stream Details for Structure FHD DE5.dgn						
TIME	9:50:18 AM				REGION NO.	STATE	FED.AID PROJ.NO.
DATE	12/15/2022				10	WASH	
PLOTTED BY	respinoza				JOB NUMBER		
DESIGNED BY	R. WALTON				22A036		
ENTERED BY	R. ESPINOZA						
CHECKED BY	J. HEILMAN				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

JULIE HEILMAN — STATE OF WASHINGTON — 41812 — REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

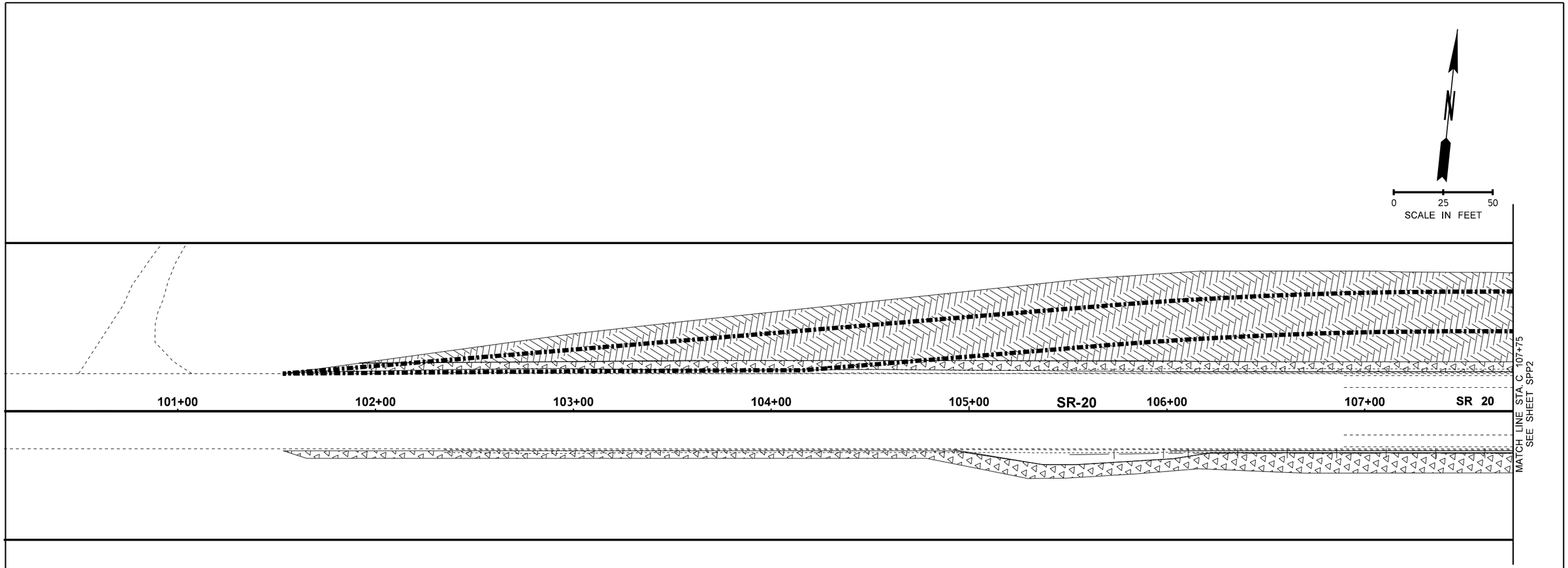
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

STREAM DETAILS

PLAN REF NO
DE5

SHEET
47
OF
79
SHEETS



ALL SOIL PREPARATION DETAILS SEE SHEET LD1

SEEDING AREA SOIL PREPARATION			
SYMBOL	ITEM	QUANTITY	
	2" FINE COMPOST	417	SY
SOIL PREPARATION TYPE B			
SYMBOL	ITEM	QUANTITY	
	SOIL AMENDMENT- 3" DEPTH	1982	SY
	BARK OR WOOD CHIP MULCH- 3" DEPTH	1982	SY
SYMBOL	ITEM	QUANTITY	
	SOIL DECOMPACTION	0.23	AC

LEGEND

- DIRECTION OF STREAM FLOW
- PROPOSED GUARDRAIL
- WB — WETLAND BOUNDARY
- OHW — ORDINARY HIGH WATER LINE
- 2 — CONSTRUCTION ALIGNMENT
- WSDOT ROW
- EXISTING PAVEMENT EDGE

NOTES:

1. PRESERVE AND PROTECT EXISTING DESIRABLE VEGETATION IN ACCORDANCE WITH SECTION 1-07.16(2). NO DISTURBANCE TO ANY VEGETATION ALONG THE PERIMETER OF THE SITE.

2. SEED ALL DISTURBED AREAS NOT OTHERWISE SHOWN AS PLANTED OR SEEDED IN THE PLANTING PLANS, PER SECTION 8-01.3(2).

3. DO NOT INCORPORATE SOIL AMENDMENT UNDER DRIP LINE OF EXISTING TREES.

4. CONTRACTOR SHALL NOTIFY ENGINEER 10 WORKING DAYS PRIOR TO INSTALLING THE ACCESS PATHS. ENGINEER SHALL BE ON SITE TO ENSURE THE ACCESS PATHS ARE PLACED AS FAR AWAY AS POSSIBLE FROM THE DRIPLINES OF EXISTING TREES.

FILE NAME	T:\412006\XL6415 SR 20 Trib to Red Creek\CAD\ContractPlans\XL6415_SR20 Red Cr_PS_Soil Prep.dgn
TIME	9:25:03 AM
DATE	12/2/2022
PLOTTED BY	BrennCo
DESIGNED BY	C. BRENNAN
ENTERED BY	C. BRENNAN
CHECKED BY	L. JUNGBLUTH
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

STATE OF WASHINGTON RYAN C. LEIGH 1198 EXP. 10/29/2024 LICENSED LANDSCAPE ARCHITECT

SEE CT1 DATE

P.E. STAMP BOX

DATE

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Washington State Department of Transportation

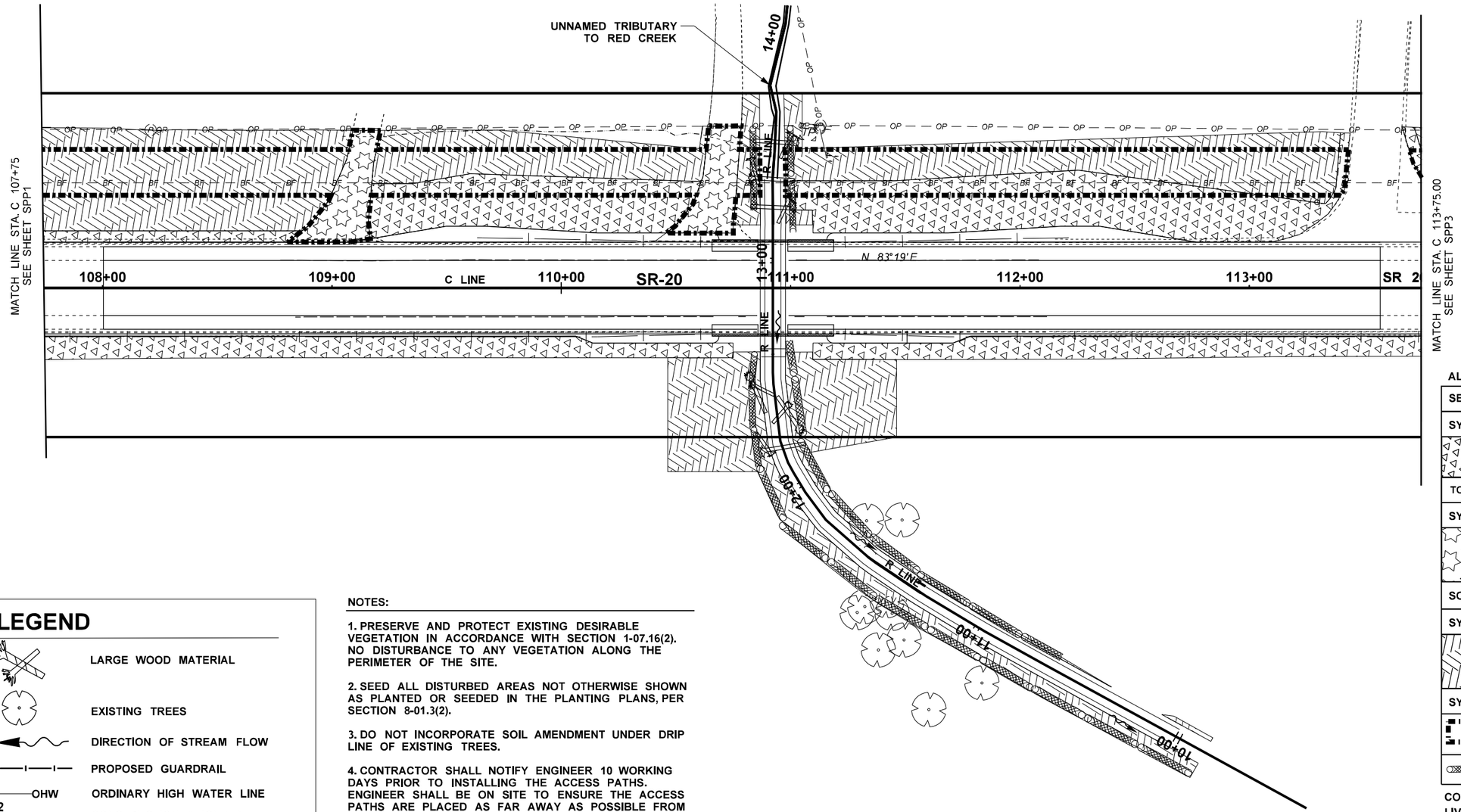
SR 20
UNNAMED TRIB TO RED CREEK
FISH PASSAGE

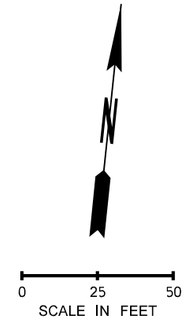
SOIL PREPARATION PLAN

Plot 1

PLAN REF NO SPP1

SHEET 48 OF 79 SHEETS





LEGEND

- LARGE WOOD MATERIAL
- EXISTING TREES
- DIRECTION OF STREAM FLOW
- PROPOSED GUARDRAIL
- OHW — ORDINARY HIGH WATER LINE
- 2 — CONSTRUCTION ALIGNMENT
- WSDOT ROW
- EXISTING PAVEMENT EDGE

NOTES:

1. PRESERVE AND PROTECT EXISTING DESIRABLE VEGETATION IN ACCORDANCE WITH SECTION 1-07.16(2). NO DISTURBANCE TO ANY VEGETATION ALONG THE PERIMETER OF THE SITE.

2. SEED ALL DISTURBED AREAS NOT OTHERWISE SHOWN AS PLANTED OR SEEDED IN THE PLANTING PLANS, PER SECTION 8-01.3(2).

3. DO NOT INCORPORATE SOIL AMENDMENT UNDER DRIP LINE OF EXISTING TREES.

4. CONTRACTOR SHALL NOTIFY ENGINEER 10 WORKING DAYS PRIOR TO INSTALLING THE ACCESS PATHS. ENGINEER SHALL BE ON SITE TO ENSURE THE ACCESS PATHS ARE PLACED AS FAR AWAY AS POSSIBLE FROM THE DRIPLINES OF EXISTING TREES.

ALL SOIL PREPARATION DETAILS SEE SHEET LD1

SEEDING AREA SOIL PREPARATION			
SYMBOL	ITEM	QUANTITY	
	2" FINE COMPOST	1359	SY
TOPSOIL TYPE A PREPARATION IN FORMER PAVED AREA			
SYMBOL	ITEM	QUANTITY	
	TOPSOIL TYPE A 24" DEPTH	192	SY
	BARK OR WOOD CHIP MULCH- 3" DEPTH	192	SY
SOIL PREPARATION TYPE B			
SYMBOL	ITEM	QUANTITY	
	SOIL AMENDMENT- 3" DEPTH	2153	SY
	BARK OR WOOD CHIP MULCH- 3" DEPTH	2153	SY
SYMBOL	ITEM	QUANTITY	
	SOIL DECOMPACTION	0.25	AC
	COMPOST SOCK (PLANTED)	581	LF

COMPOST SOCKS TO BE PLANTED WITH PLUGS AND LIVE STAKES. SEE SHEET LD2 FOR DETAIL.

FILE NAME	T:\412006\XL6415 SR 20 Trib to Red Creek\CAD\ContractPlans\XL6415_SR20 Red Cr_PS_Soil Prep.dgn
TIME	9:25:04 AM
DATE	12/2/2022
PLOTTED BY	BrennCo
DESIGNED BY	C. BRENNAN
ENTERED BY	C. BRENNAN
CHECKED BY	L. JUNGBLUTH
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

STATE OF WASHINGTON — RYAN C. LEIGH — LICENSED LANDSCAPE ARCHITECT — NO. 1198 EXP. 10/20/2022

SEE CT1
DATE
P.E. STAMP BOX

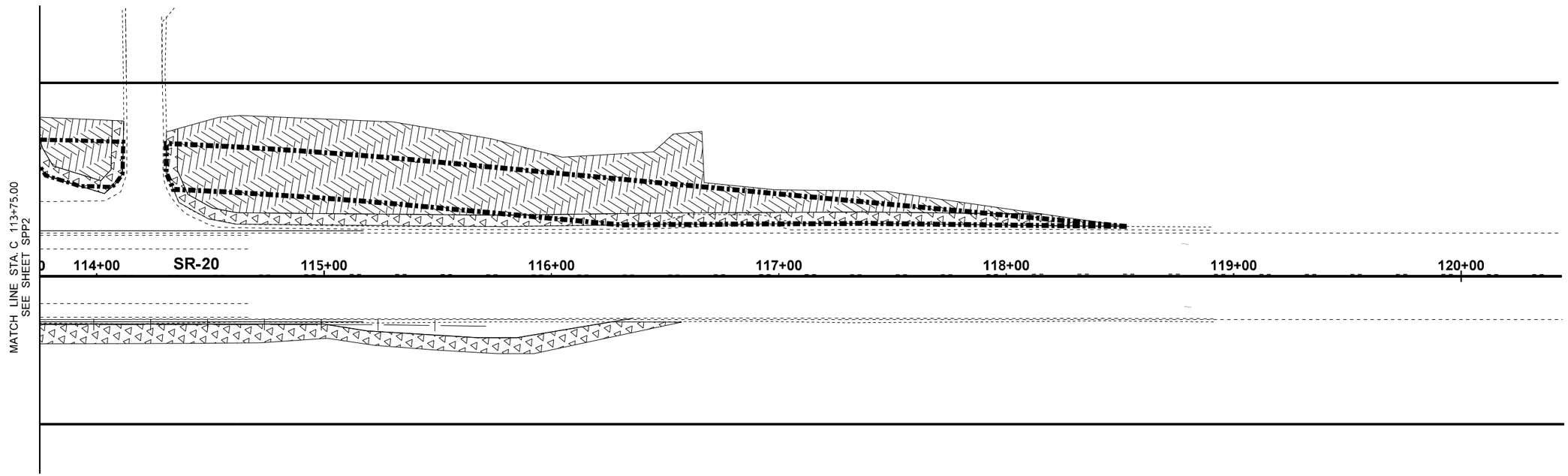
DATE
P.E. STAMP BOX

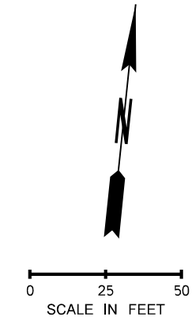
Washington State
Department of Transportation

SR 20
UNNAMED TRIB TO RED CREEK
FISH PASSAGE

SOIL PREPARATION PLAN

Plot 2
PLAN REF NO
SPP2
SHEET 49 OF 79 SHEETS





LEGEND

- DIRECTION OF STREAM FLOW
- PROPOSED GUARDRAIL
- WB — WETLAND BOUNDARY
- OHW — ORDINARY HIGH WATER LINE
- 2 — CONSTRUCTION ALIGNMENT
- WSDOT ROW
- HVS — HVS — HIGH VISIBILITY STAKING
- EXISTING PAVEMENT EDGE

ALL SOIL PREPARATION DETAILS SEE SHEET LD1

SEEDING AREA SOIL PREPARATION			
SYMBOL	ITEM	QUANTITY	
	2" FINE COMPOST	513	SY
SYMBOL	ITEM	QUANTITY	
	SOIL DECOMPACTION	0.16	AC
SOIL PREPARATION TYPE B			
SYMBOL	ITEM	QUANTITY	
	SOIL AMENDMENT- 3" DEPTH	1097	SY
	BARK OR WOOD CHIP MULCH- 3" DEPTH	1097	SY

NOTES:

1. PRESERVE AND PROTECT EXISTING DESIRABLE VEGETATION IN ACCORDANCE WITH SECTION 1-07.16(2). NO DISTURBANCE TO ANY VEGETATION ALONG THE PERIMETER OF THE SITE.

2. SEED ALL DISTURBED AREAS NOT OTHERWISE SHOWN AS PLANTED OR SEEDED IN THE PLANTING PLANS, PER SECTION 8-01.3(2).

3. DO NOT INCORPORATE SOIL AMENDMENT UNDER DRIP LINE OF EXISTING TREES.

4. CONTRACTOR SHALL NOTIFY ENGINEER 10 WORKING DAYS PRIOR TO INSTALLING THE ACCESS PATHS. ENGINEER SHALL BE ON SITE TO ENSURE THE ACCESS PATHS ARE PLACED AS FAR AWAY AS POSSIBLE FROM THE DRIPLINES OF EXISTING TREES.

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ENTERED BY	C. BRENNAN
CHECKED BY	L. JUNGBLUTH
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

STATE OF WASHINGTON
RYAN C. LEIGH
NO. 1198 EXP. 10/28/2023
LICENSED LANDSCAPE ARCHITECT

SEE CT1
DATE
P.E. STAMP BOX

DATE
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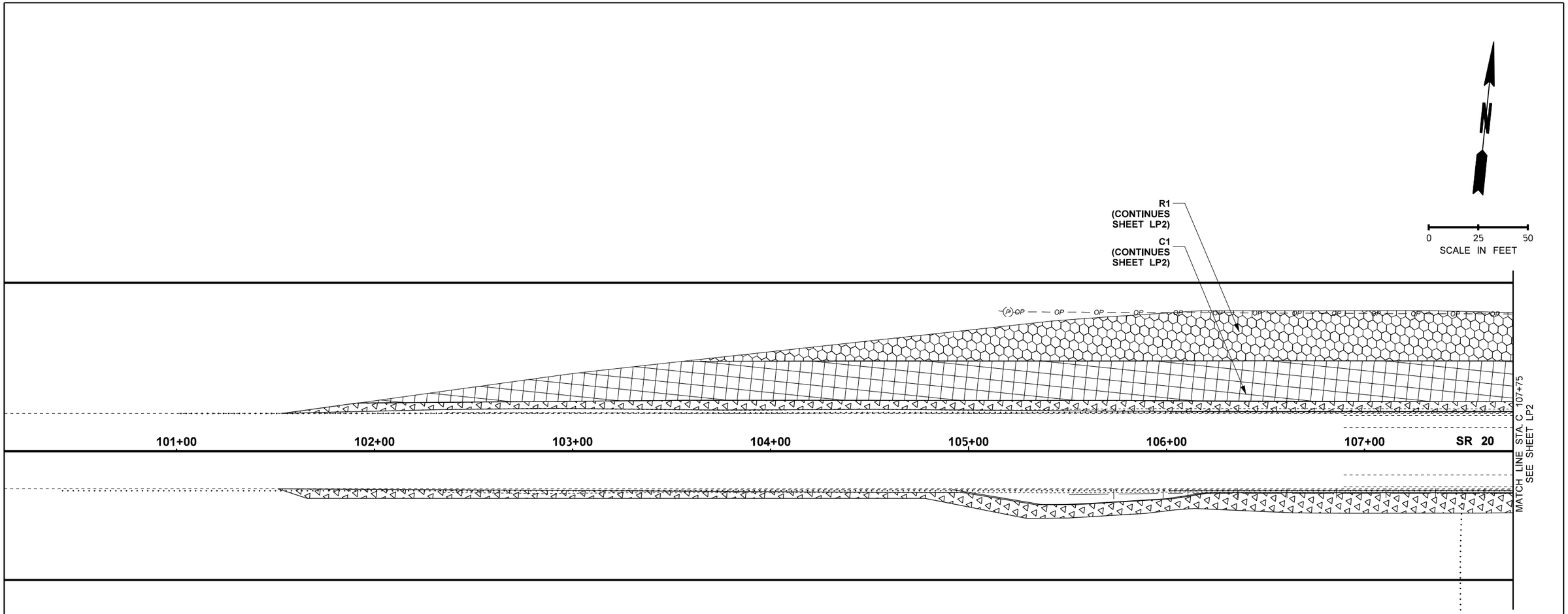
Washington State
Department of Transportation

SR 20
UNNAMED TRIB TO RED CREEK
FISH PASSAGE

SOIL PREPARATION PLAN

Plot 3
PLAN REF NO
SPP3
SHEET 50 OF 79 SHEETS



NOTES:

1. RANDOMLY MIX SPECIES WITHIN PLANTING AREAS. PLANT TREES AND SHRUBS IN GROUPS OF 3-5 BY SPECIES.

2.FOR PLANTING SETBACKS REFER TO SETBACK CHART ON LD2.

3. PLACE PLUGS AT 2' O.C. SPACING.

4. EQUIPMENT IS LIMITED TO ONLY LOW GROUND PRESSURE EQUIPMENT (5 PSI OR LESS) IN WETLAND AREAS.

5. ALL TREES SHALL BE STAKED AND SECURED WITHIN 48 HOURS AFTER PLANTING.

LEGEND

- DIRECTION OF STREAM FLOW
- PROPOSED GUARDRAIL
- OHW — ORDINARY HIGH WATER LINE
- 2 — CONSTRUCTION ALIGNMENT
- WSDOT ROW
- EXISTING PAVEMENT EDGE

RESTORATION PLANTING MIX R

SYMBOL	ITEM	SPACING	R1
	BLACK TWINBERRY	4'-0"	251
	PACIFIC NINEBARK	4'-0"	221
	RED-OSIER DOGWOOD	4'-0"	231
	CASCARA	8'-0"	40
	BLACK HAWTHORN	8'-0"	20
	PACIFIC CRABAPPLE	8'-0"	20
	THIMBLEBERRY	4'-0"	201

NOTE: PLANTING AREAS R1 AND C1 SPAN SHEETS LP1-LP2. QUANTITIES SHOWN ARE FOR ENTIRE PLANTING AREA.

SEEDING, FERTILIZING, AND MULCHING

SYMBOL	ITEM	AC
	EROSION CONTROL SEED	.09

RESTORATION PLANTING MIX C

SYMBOL	ITEM	SPACING	C1
	SALMONBERRY	4'-0"	282
	BLACK TWINBERRY	4'-0"	282
	PACIFIC NINEBARK	4'-0"	188
	PEAFRUIT ROSE	4'-0"	288

FILE NAME	C:\Users\BrennCo\OneDrive - Washington State Department of Transportation\Desktop\XL6415_SR20 Red Cr_PS_Planting_11232022.dgn
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ENTERED BY	C. BRENNAN
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PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.

JOB NUMBER 22A036

CONTRACT NO. | LOCATION NO.

STATE OF WASHINGTON RYAN C. LEIGH NO. 1198 EXP. 10/26/2024 LICENSED LANDSCAPE ARCHITECT

SEE CT1 DATE

P.E. STAMP BOX

DATE

P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIB TO RED CREEK
FISH PASSAGE

PLANTING PLAN

Plot 1

PLAN REF NO LP1

SHEET 51 OF 79 SHEETS

LEGEND

- LARGE WOOD MATERIAL
- EXISTING TREES
- DIRECTION OF STREAM FLOW
- PROPOSED GUARDRAIL
- OHW — ORDINARY HIGH WATER LINE
- 2 — CONSTRUCTION ALIGNMENT
- WSDOT ROW
- EXISTING PAVEMENT EDGE

SEEDING, FERTILIZING, AND MULCHING		
SYMBOL	ITEM	AC
	EROSION CONTROL SEED	.17
	WET NATIVE SEED MIX	.11

RESTORATION PLANTING MIX R				
SYMBOL	ITEM	SPACING	R1	R2
	BLACK TWINBERRY	4'-0"	251	78
	PACIFIC NINEBARK	4'-0"	221	69
	RED-OSIER DOGWOOD	4'-0"	251	78
	CASCARA	8'-0"	40	13
	BLACK HAWTHORN	8'-0"	20	6
	PACIFIC CRABAPPLE	8'-0"	20	6
	THIMBLEBERRY	4'-0"	201	63

NOTE: PLANTING AREAS R1 AND C1 SPAN SHEETS LP1-LP2. QUANTITIES SHOWN ARE FOR ENTIRE PLANTING AREA.

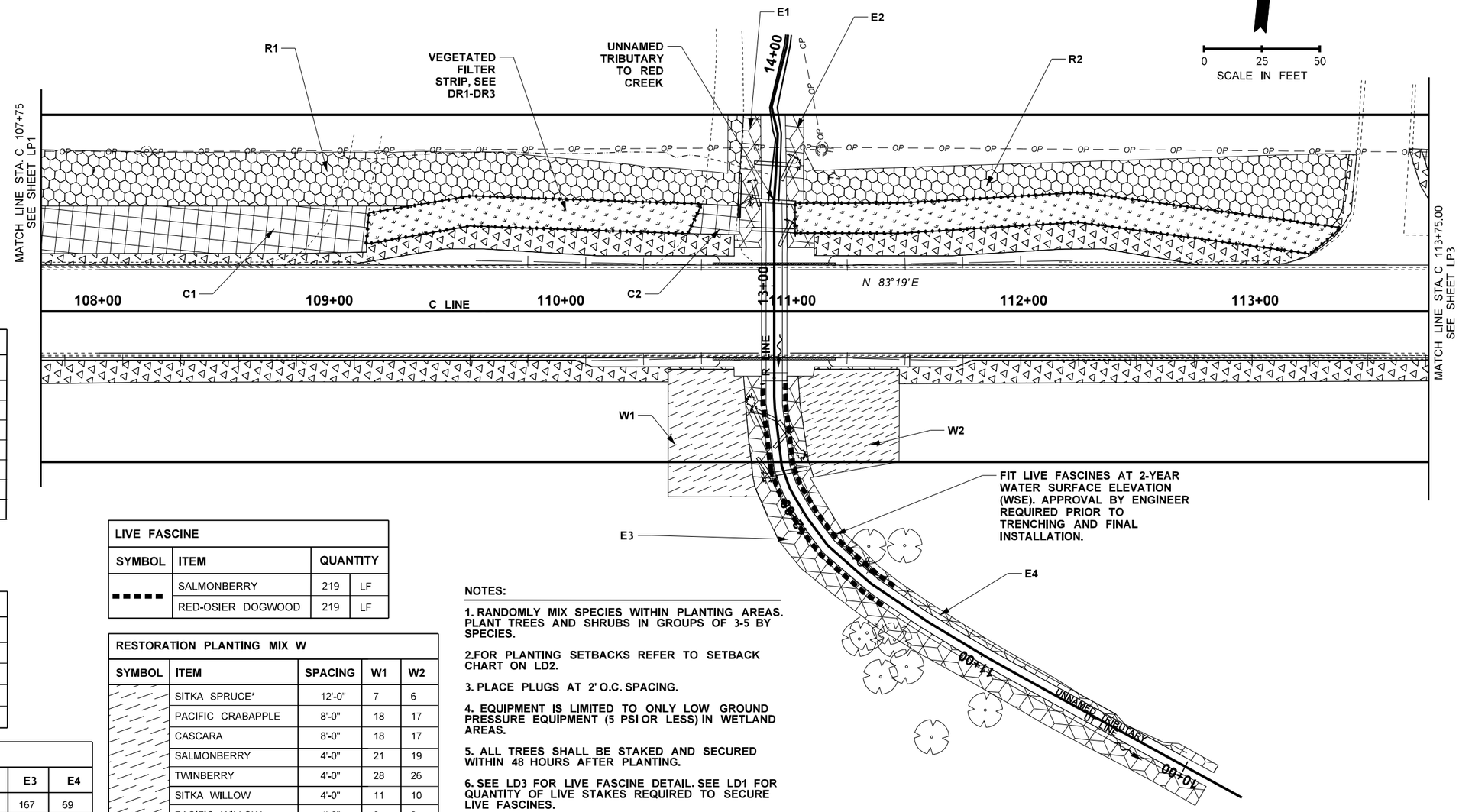
RESTORATION PLANTING MIX C				
SYMBOL	ITEM	SPACING	C1	C2
	SALMONBERRY	4'-0"	282	5
	BLACK TWINBERRY	4'-0"	282	5
	PACIFIC NINEBARK	4'-0"	188	4
	PEAFRUIT ROSE	4'-0"	188	4

RESTORATION PLANTING MIX E						
SYMBOL	ITEM	SPACING	E1	E2	E3	E4
	LADY FERN	2'-0"	31	24	167	69
	SLOUGH SEDGE	2'-0"	52	40	279	115
	SITKA WILLOW	2'-0"	33	25	175	72
	RED OSIER DOGWOOD	2'-0"	33	25	175	72

LIVE FASCINE			
SYMBOL	ITEM	QUANTITY	
	SALMONBERRY	219	LF
	RED-OSIER DOGWOOD	219	LF

RESTORATION PLANTING MIX W				
SYMBOL	ITEM	SPACING	W1	W2
	SITKA SPRUCE*	12'-0"	7	6
	PACIFIC CRABAPPLE	8'-0"	18	17
	CASCARA	8'-0"	18	17
	SALMONBERRY	4'-0"	21	19
	TWINBERRY	4'-0"	28	26
	SITKA WILLOW	4'-0"	11	10
	PACIFIC WILLOW	4'-0"	8	8
	RED-OSIER DOGWOOD	4'-0"	28	26

*LOCATE SITKA SPRUCE AT TOP OF STREAMBANK, OR AT RELATIVE HIGHPOINTS WITHIN PLANTING AREA.



NOTES:

1. RANDOMLY MIX SPECIES WITHIN PLANTING AREAS. PLANT TREES AND SHRUBS IN GROUPS OF 3-5 BY SPECIES.
2. FOR PLANTING SETBACKS REFER TO SETBACK CHART ON LD2.
3. PLACE PLUGS AT 2' O.C. SPACING.
4. EQUIPMENT IS LIMITED TO ONLY LOW GROUND PRESSURE EQUIPMENT (5 PSI OR LESS) IN WETLAND AREAS.
5. ALL TREES SHALL BE STAKED AND SECURED WITHIN 48 HOURS AFTER PLANTING.
6. SEE LD3 FOR LIVE FASCINE DETAIL. SEE LD1 FOR QUANTITY OF LIVE STAKES REQUIRED TO SECURE LIVE FASCINES.

FILE NAME	C:\Users\BrennCo\OneDrive - Washington State Department of Transportation\Desktop\XL6415_SR20 Red Cr_PS_Planting_11232022.dgn
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STATE OF WASHINGTON RYAN C. LEIGH LICENSED LANDSCAPE ARCHITECT NO. 1198 EXP. 10/26/2024

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Washington State Department of Transportation

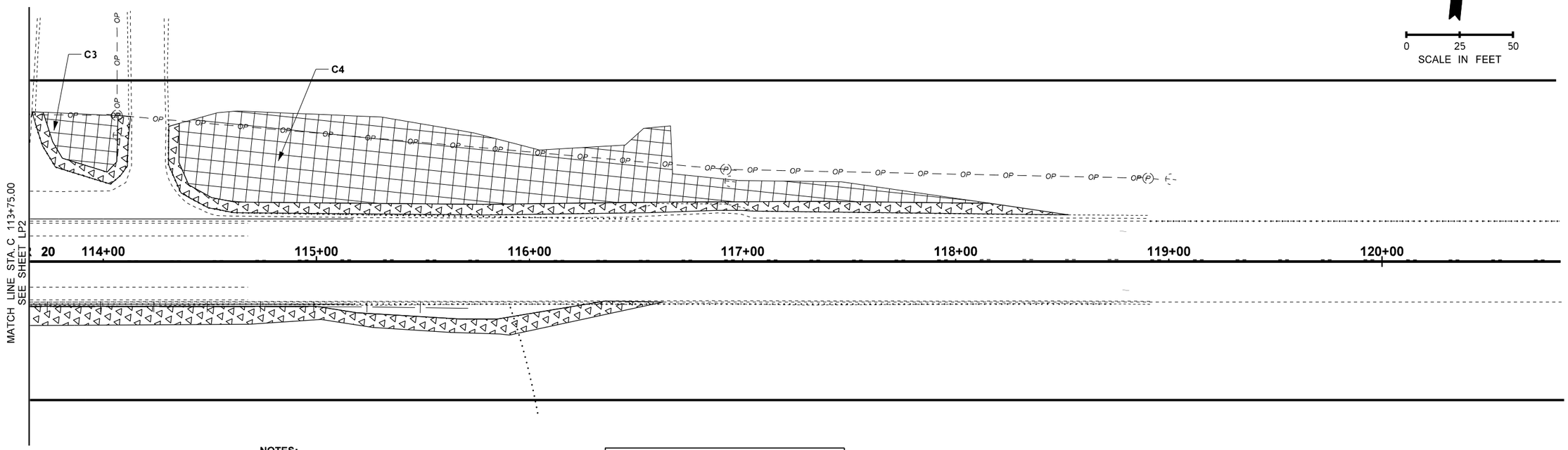
SR 20
UNNAMED TRIB TO RED CREEK
FISH PASSAGE

PLANTING PLAN

Plot 2

PLAN REF NO LP2

SHEET 52 OF 79 SHEETS



NOTES:

1. RANDOMLY MIX SPECIES WITHIN PLANTING AREAS. PLANT TREES AND SHRUBS IN GROUPS OF 3-5 BY SPECIES.

2.FOR PLANTING SETBACKS REFER TO SETBACK CHART ON LD2.

3. PLACE PLUGS AT 2' O.C. SPACING.

4. EQUIPMENT IS LIMITED TO ONLY LOW GROUND PRESSURE EQUIPMENT (5 PSI OR LESS) IN WETLAND AREAS.

5. ALL TREES SHALL BE STAKED AND SECURED WITHIN 48 HOURS AFTER PLANTING.

SEEDING, FERTILIZING, AND MULCHING

SYMBOL	ITEM	AC
	EROSION CONTROL SEED	.11

RESTORATION PLANTING MIX C

SYMBOL	ITEM	SPACING	C3	C4
	SALMONBERRY	4'-0"	16	200
	BLACK TWINBERRY	4'-0"	16	200
	PACIFIC NINEBARK	4'-0"	11	133
	PEAFRUIT ROSE	4'-0"	11	133

LEGEND

- DIRECTION OF STREAM FLOW
- PROPOSED GUARDRAIL
- WB — WETLAND BOUNDARY
- OHW — ORDINARY HIGH WATER LINE
- 2 — CONSTRUCTION ALIGNMENT
- WSDOT ROW
- HIGH VISIBILITY STAKING
- EXISTING PAVEMENT EDGE

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Washington State Department of Transportation

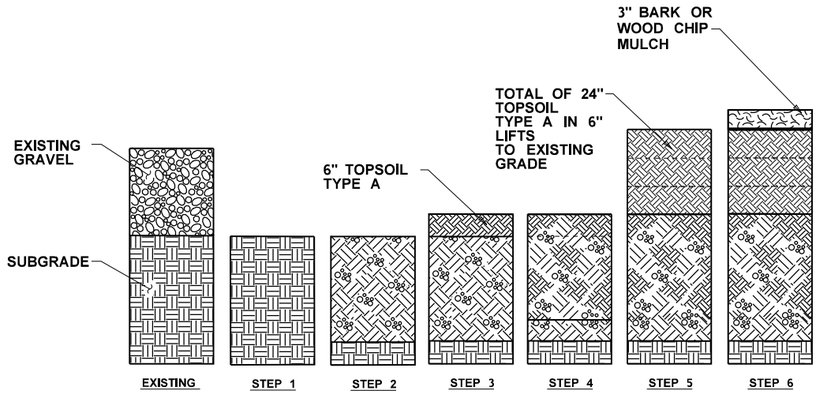
SR 20
UNNAMED TRIB TO RED CREEK
FISH PASSAGE

PLANTING PLAN

Plot 3

PLAN REF NO LP3

SHEET 53 OF 79 SHEETS



STEP 1
EXCAVATE GRAVEL

STEP 2
DECOMPACT SOIL TO 18" DEPTH

STEP 3
ADD 6" TOPSOIL TYPE A

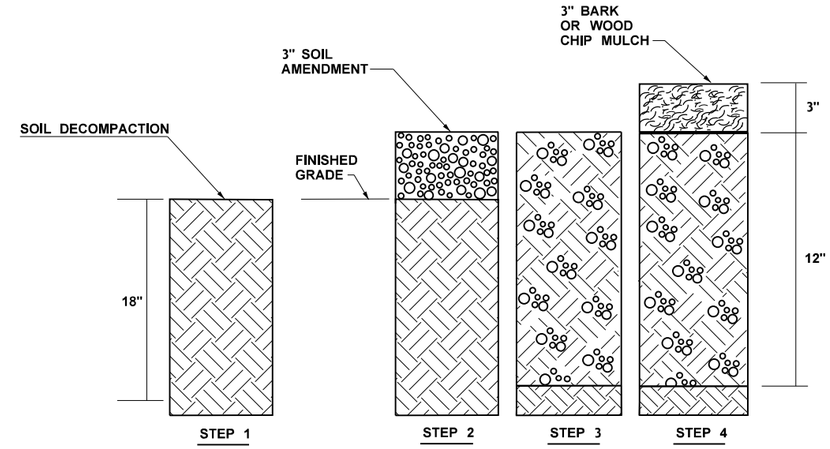
STEP 4
TILL TOPSOIL TYPE A TO DEPTH OF 10"

STEP 5
PLACE SUCCESSIVE 6" LIFTS OF TOPSOIL FOR A TOTAL DEPTH OF 24". COMPACTING EACH LIFT IN ACCORDANCE WITH SECTION 8-02.3(4)

STEP 6
PLACE 3" BARK OR WOOD CHIP MULCH

TOPSOIL TYPE A PREPARATION IN FORMER PAVED AREA

NOT TO SCALE



STEP 1
FOR AREAS DEFINED AS SOIL DECOMPACTION, DECOMPACT SOIL TO 18 INCH DEPTH ACCORDING TO THE SPECIAL PROVISIONS. THIS WORK SHALL BE COMPLETED PRIOR TO SOIL AMENDMENT OPERATIONS.

STEP 2
PLACE 3" SOIL AMENDMENT.

STEP 3
INCORPORATE SOIL AMENDMENT TO 12" DEPTH ACCORDING TO SECTION 8-02.3(5), SOIL AMENDMENT, IN THE SPECIAL PROVISIONS.

STEP 4
INSTALL BARK OR WOOD CHIP MULCH 3" DEEP.

SOIL PREPARATION TYPE B

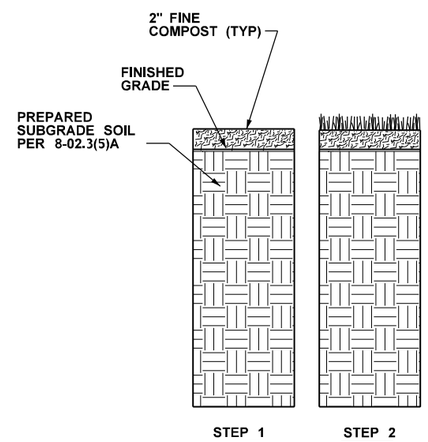
SECTION VIEW

NOT TO SCALE

PLANT MATERIAL LIST

COMMON NAME	BOTANICAL NAME	QUANTITY	SIZE	ROOT CONDITION	REMARKS
DECIDUOUS TREES*					
BLACK HAWTHORN	CRATAEGUS DOUGLASII	26		NO. 2 CONT.	SECTION 9-14.7(2)
PACIFIC CRABAPPLE	MALUS FUSCA	61		NO. 2 CONT.	SECTION 9-14.7(2)
CASCARA	RHAMNUS PURSHIANA	88		NO. 2 CONT.	SECTION 9-14.7(2)
EVERGREEN TREES**					
SITKA SPRUCE	PICEA SITCHENSIS	13	18" HT	NO. 2 CONT.	SECTION 9-14.7(2), SINGLE LEADER
DECIDUOUS SHRUBS					
RED-OSIER DOGWOOD****	CORNUS SERICEA	383		NO. 1 CONT.	SECTION 9-14.7(2), THREE STEM MIN.
BLACK TWINBERRY****	LONICERA INVOLUCRATA	886		NO. 1 CONT.	SECTION 9-14.7(2), THREE STEM MIN.
PEAFRUIT ROSE***	MALUS FUSCA	336		NO. 1 CONT.	SECTION 9-14.7(2), THREE STEM MIN.
PACIFIC NINEBARK****	PHYSOCARPUS CAPITATUS	626		NO. 1 CONT.	SECTION 9-14.7(2), THREE STEM MIN.
THIMBLEBERRY***	RUBUS PARVIFLORUS	264		NO. 1 CONT.	SECTION 9-14.7(2), THREE CANE MIN.
SALMONBERRY***	RUBUS SPECTABILIS	543		NO. 1 CONT.	SECTION 9-14.7(2), THREE CANE MIN.
PACIFIC WILLOW****	SALIX LASIANDRA	16		NO. 1 CONT.	SECTION 9-14.7(2), THREE STEM MIN.
SITKA WILLOW****	SALIX SITCHENSIS	21		NO. 1 CONT.	SECTION 9-14.7(2), THREE STEM MIN.
LIVESTAKES					
RED-OSIER DOGWOOD****	CORNUS STOLONIFERA	378		LIVE STAKE	9-14.7(1), LIVE CUTTING
SITKA WILLOW****	SALIX SITCHENSIS	378		LIVE STAKE	9-14.7(1), LIVE CUTTING
LIVE FASCINES					
RED-OSIER DOGWOOD****	CORNUS SERICEA	219		12" DIAM. FASCINE	SECTION 8-02.3(15)A, 9-14.7(1), LIVE CUTTING
SALMONBERRY****	SALIX LASIANDRA	219		12" DIAM. FASCINE	SECTION 8-02.3(15)A, 9-14.7(1), LIVE CUTTING
GROUNDCOVER *****					
LADY FERN	ATHYRIUM FILIX-FEMINA	291		3-4" DIAM. PLUG	
SLOUGH SEDGE	CAREX OBNUPTA	486		3-4" DIAM. PLUG	

* DECIDUOUS TREE
** EVERGREEN TREE
*** SMALL SHRUB
**** TALL SHRUB
***** GROUNDCOVER
NOTE: SEE SHEET LD3 FOR CORRESPONDING PLANT MATERIAL SETBACK CHART.



SEEDING AREA SOIL PREPARATION PER SPECIAL PROVISION 8-02.3(5)A

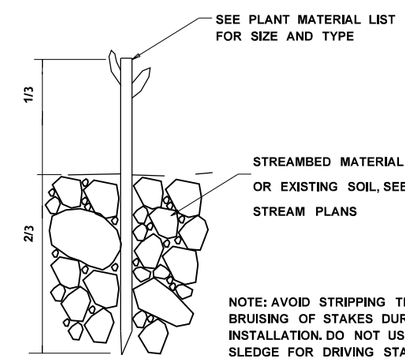
STEP 1
PLACE 2" FINE COMPOST ACCORDING TO THE PLANS.

STEP 2
INSTALL SEEDING AND FERTILIZING ACCORDING TO THE PLANS AND SPECIAL PROVISIONS.

SEEDING AREA SOIL PREPARATION

SECTION VIEW

NOT TO SCALE



NOTE: AVOID STRIPPING THE BARK OR BRUISING OF STAKES DURING INSTALLATION. DO NOT USE AXE OR SLEDGE FOR DRIVING STAKES. IN HARD GROUND USE AN IRON BAR OR STAR DRILL TO PREPARE HOLES FOR THE STAKES.

NOTE:
APPLY IN PLANTING MIX E

PSIPE LIVE STAKE INSTALLATION

NOT TO SCALE

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SEE CT1
DATE
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Washington State Department of Transportation

SR 20
UNNAMED TRIB TO RED CREEK
FISH PASSAGE

PLANTING DETAILS

Plot 13
PLAN REF NO LD1
SHEET 54 OF 79 SHEETS

PLANT MATERIAL SETBACK CHART

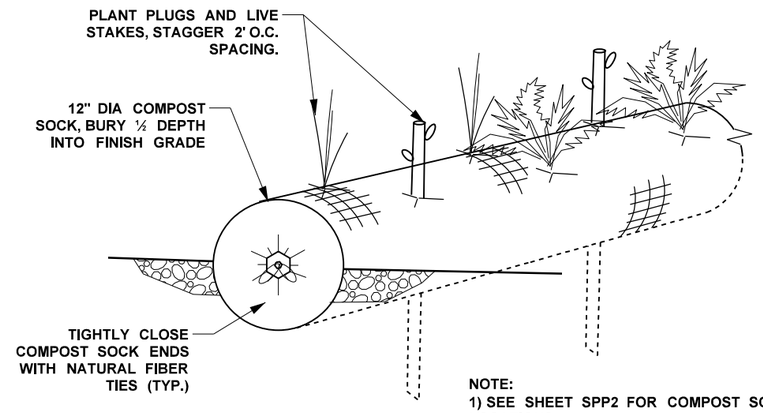
THIS CHART SUPPLEMENTS SECTION 8.02.3(7) OF THE STANDARD SPECIFICATIONS. SETBACKS APPLY UNLESS OTHERWISE ADJUSTED BY ENGINEER DURING PLANT STAKING OR LAYOUT. DISTANCES BELOW ARE TO THE STEM OR TRUNK OF THE PLANT BEING INSTALLED.

	GUARDRAIL BARRIER	EDGE OF ROADWAY	WALL	FENCE	SIGNS	EXISTING TREE TRUNK	EXISTING VEGETATION MASS	OVERHEAD POWER	DRAINAGE STRUCTURE	DRAINAGE ACCESS ROAD	CULVERT WALLS
GROUNDCOVER*****	5'	5'	3'	1.5'	1.5'	5'	5'	-	5'	5'	3'
SMALL SHRUB***	5'	10'	5'	3'	6'	5'	5'	-	5'	5'	5'
TALL SHRUB****	10'	15'	10'	3'	6'	10'	10'	10'	10'	10'	10'
DECIDUOUS TREE*	13'	15'	10'	10'	13'	12'	8'	15'	10'	14'	13'
EVERGREEN TREE**	15'	20'	15'	10'	15'	15'	10'	20'	10'	15'	15'

SEE SHEET LD1 FOR PLANT MATERIAL LIST.

PLANTING NOTES:

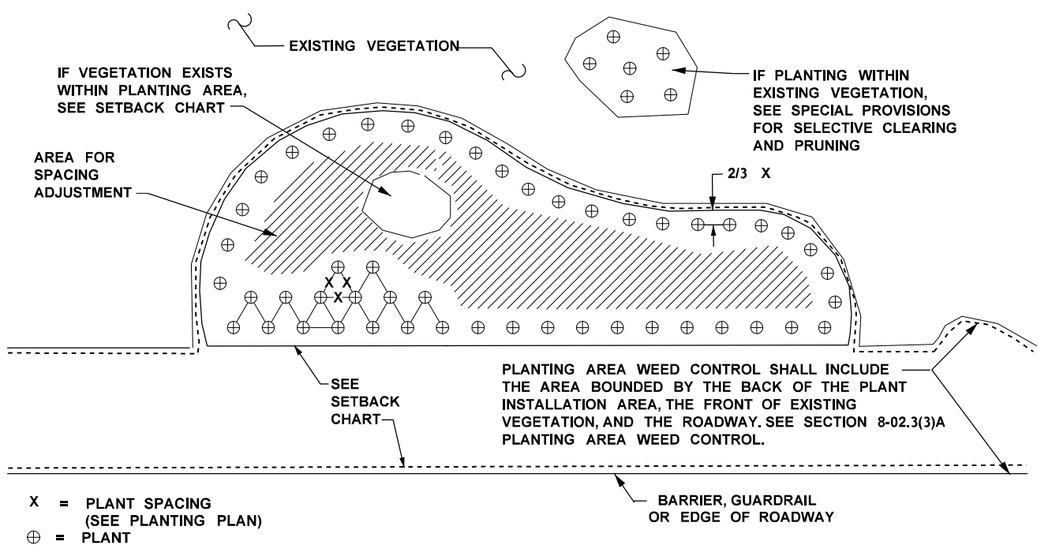
1. IF A CONFLICT OCCURS BETWEEN THE AMERICAN STANDARD FOR NURSERY STOCK AND THESE SPECIFICATIONS THEN THESE SPECIFICATIONS SHALL APPLY.
2. SPECIFICATIONS FOR SIZE AND CONDITION ARE MINIMUM.
3. ALL PLANT MATERIALS SHALL BE NURSERY GROWN STOCK.
4. PLANTS SHALL BE RANDOMLY MIXED THROUGHOUT EACH PLANTING ZONE AS APPROVED BY THE ENGINEER. SEE SCHEDULE FOR MIN. GROUPINGS OF EACH SPECIES.
5. ALL TREES SHALL BE STAKED AND SECURED WITHIN 48 HOURS AFTER PLANTING.



NOTE:
1) SEE SHEET SPP2 FOR COMPOST SOCK LOCATIONS
2) PLANT PLUG SPECIES IN GROUPS OF 5-7, AND LIVE STAKES IN GROUPS OF 3-5.

COMPOST SOCK WITH PLUGS AND LIVE STAKES

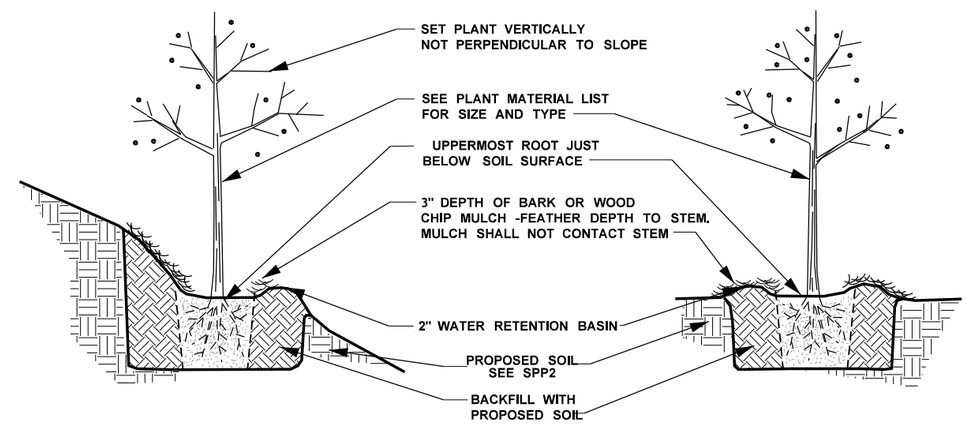
NOT TO SCALE



X = PLANT SPACING (SEE PLANTING PLAN)
⊕ = PLANT

PLANTING AREA LAYOUT, SETBACK, AND WEED CONTROL

NOT TO SCALE



*NOTE: BARK OR WOOD CHIP MULCH SHALL BE PLACED IN 12" RADIUS AROUND EACH PLANT.

TREE & SHRUB PLANTING ON SLOPE

BARE ROOT AND CONTAINER NOT TO SCALE

TREE & SHRUB PLANTING

BARE ROOT AND CONTAINER NOT TO SCALE

FILE NAME	C:\Users\BrennCo\OneDrive - Washington State Department of Transportation\Desktop\XL6415_SR20 Red Cr_PS_Planting_11232022.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	9:21:07 AM				10	WASH	
DATE	12/2/2022				JOB NUMBER		
PLOTTED BY	BrennCo				22A036		
DESIGNED BY	C. BRENNAN				CONTRACT NO.		LOCATION NO.
ENTERED BY	C. BRENNAN						
CHECKED BY	L. JUNGBLUTH						
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

STATE OF WASHINGTON RYAN C. LEIGH NO. 1198 EXP. 10/26/2024 LICENSED LANDSCAPE ARCHITECT
SEE CT1
DATE
P.E. STAMP BOX

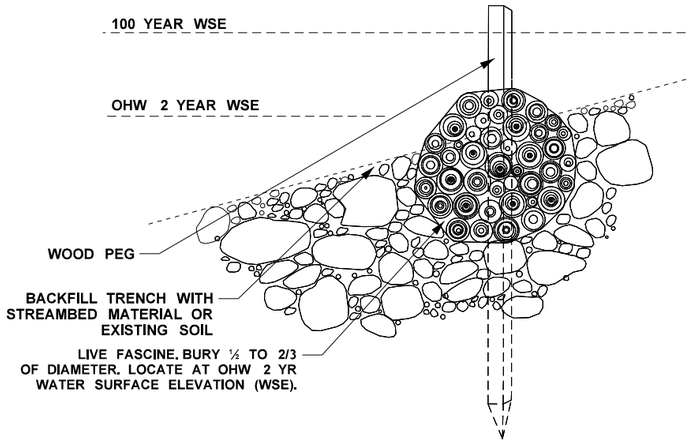
DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIB TO RED CREEK
FISH PASSAGE

PLANTING DETAILS

Plot 14
PLAN REF NO
LD2
SHEET 55 OF 79 SHEETS



FASCINE INSTALLATION - SEQUENCE OF WORK

STEP 1
FROM THE OHW ELEVATION, EXCAVATE TRENCH DEEP ENOUGH TO BURY LIVE FASCINE ½ TO 2/3 OF DIAMETER.

STEP 2
INSTALL FASCINE IN THE BOTTOM OF THE TRENCH.

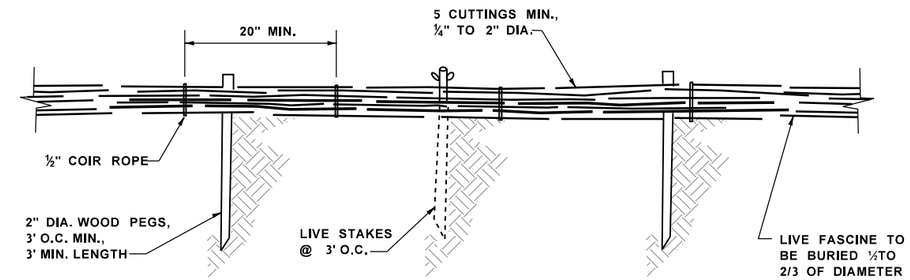
STEP 3
ANCHOR FASCINES WTH 4 FT. LONG, 2"x2" WOOD PEGS, DRIVEN A MINIMUM OF 2 FT. INTO THE GROUND.

STEP 4
BACKFILL TRENCH WITH STREAMBED MATERIAL OR EXISTING SOIL (SEE STREAM PLANS AND SPECIFICATIONS FOR STREAMBED MATERIAL TYPE AND LOCATION)

LIVE FASCINE - INSTALLATION AND SEQUENCE OF WORK

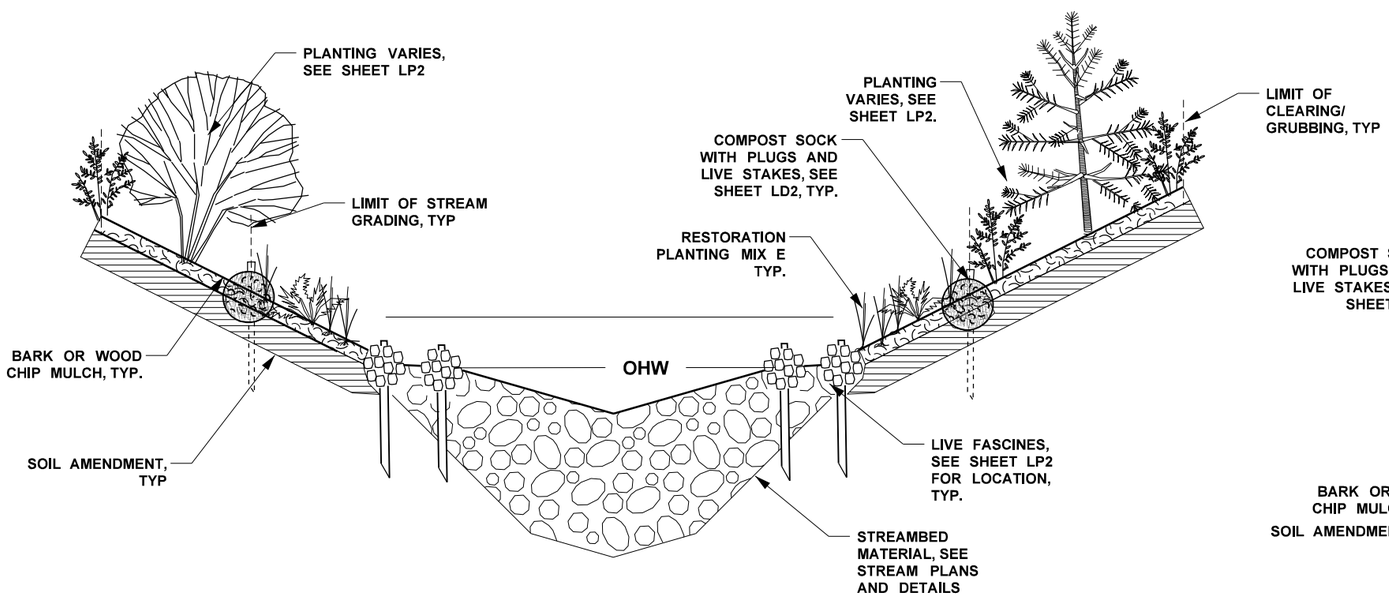
SECTION VIEW

NOT TO SCALE



LIVE FASCINE

NOT TO SCALE

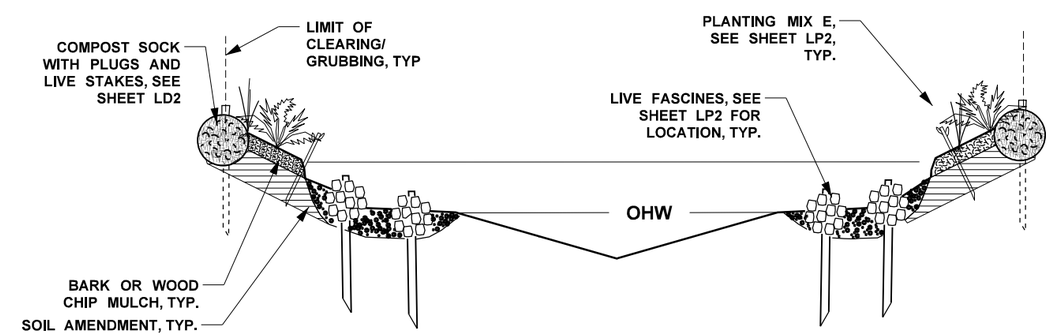


TYPICAL STREAM PLANTING/ BIOENGINEERING- SECTION

STATION

STA R 12+20 TO 12+67.97 AND STA R 13+09.97 TO 13+27

NOT TO SCALE



TYPICAL STREAM PLANTING/ BIOENGINEERING- SECTION

STATION
STA. R 10+10 TO 12+20

NOT TO SCALE

FILE NAME	C:\Users\BrennCo\OneDrive - Washington State Department of Transportation\Desktop\XL6415_SR20 Red Cr_PS_Planting_11232022.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	9:21:09 AM				10	WASH	
DATE	12/2/2022				JOB NUMBER		
PLOTTED BY	BrennCo				22A036		
DESIGNED BY	C. BRENNAN				CONTRACT NO.		LOCATION NO.
ENTERED BY	C. BRENNAN						
CHECKED BY	L. JUNGBLUTH						
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

STATE OF WASHINGTON RYAN C. LEIGH LICENSED LANDSCAPE ARCHITECT NO. 1199 EXP. 10/26/2024

SEE CT1
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIB TO RED CREEK
FISH PASSAGE

PLANTING DETAILS

Plot 15

PLAN REF NO
LD3

SHEET 56 OF 79 SHEETS

QUANTITY TABULATION - PAVING / PAVEMENT MARKING PLAN

NOTE:
THE FIRST NUMBER OF THE "CODE" BELOW REFERS TO THE SHEET NO. OR THE SHEET REFERENCE NO. SHOWING THE CONSTRUCTION FEATURE.

THE SECOND NUMBER REFERS TO THE CONSTRUCTION FEATURE FOUND ON THAT SHEET.

CODE	LOCATION ➢ \ UNIT OF MEASURE ➢		PLANNING BITUMINOUS PAVEMENT		BEAM GUARDRAIL TYPE 31 - 8 FT. LONG POST	BEAM GUARDRAIL TRANSITION SECTION TYPE 21	BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL			PAINT LINE	CENTERLINE RUMBLE STRIP	SHOULDER RUMBLE STRIP TYPE 2					SEE GENERAL NOTES
			S.Y.		L.F.	EACH	EACH			L.F.	MI.	MI.					
P1-1	C 106+01.42 (12.0' LT) TO C 108+50 (12.0' LT)									248		0.05					1,2,4
P1-2	C 106+01.42 TO C 108+50									248	0.05						1,3,5
P1-3	C 106+01.42 (12.0' RT) TO C 108+50 (12.0' RT)									248		0.05					1,2,4
P1-4	C 105+48.25 (21.0' RT) TO C 108+50 (20.0' RT)				246.75		1										6,7
P1-5	C 106+01.42 TO C 106+21.42		89														
P2-6	C 108+50 (12.0' LT) TO C 113+00 (20.0' RT)									450		0.09					1,2,4
P2-7	C 108+50 TO C 113+00									450	0.09						1,3,5
P2-8	C 108+50 (12.0 RT) TO C 113+00 (12.0 LT)									450		0.09					1,2,4
P2-9	C 108+50 (20.0' RT) TO C 110+65.78 (20.0' RT)				165.75	1											6,8,9
P2-10	C 109+60.74 (21.0' LT) TO C 110+65.78 (20.0' LT)					1	1										6,7,8,9
P2-11	C 111+18.8 (20.0' LT) TO C 112+23.88 (21.0' LT)					1	1										6,7,8,9
P2-12	C 111+18.8 (20.0' LT) TO C 113+00.0 (20.0' LT)				131.25	1											6,8,9
P3-13	C 113+00 (12.0' RT) TO C 115+17.20 (12.0' RT)									218		0.04					1,2,4
P3-14	C 113+00 TO C 115+17.20									218	0.03						1,3,5
P3-15	C 113+00 (12.0' LT) TO C 115+17.20 (12.0' LT)									218		0.03					1,2,4
P3-16	C 113+00 (20.0' LT) TO C 115+73.77 (21.0' LT)				218.75		1										6,7
P3-17	C 114+97.2 TO C 115+17.20		89														
P3-18	C113+55.9		173														10
P3-19	C114+21.4		135														10
	SHEET TOTAL		486		762.5	4	4			2748	0.17	0.35					
	PROJECT TOTAL		486		762.5	4	4			2748	0.17	0.35					

GENERAL NOTES:

1. SEE STANDARD PLAN M-20.10 FOR LONGITUDINAL MARKING PATTERNS.

2. EDGE LINE WHITE (PAINT LINE).

3. DASHED YELLOW CENTERLINE (PAINT LINE).

4. SEE STANDARD PLAN M-60.20 FOR SOULDER RUMBLE STRIP TYPES 2,3, AND 4 FOR UNDIVIDED HIGHWAYS.

5. SEE STANDARD PLAN M-65.10 FOR CENTERLINE RUMBLE STRIP.

6. SEE STANDARD PLAN C-20.10 FOR BEAM GUARDRAIL TYPE 31.

7. SEE STANDARD PLAN C-22.40 FOR BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL "ALL POSTED SPEEDS".

8. SEE STANDARD PLAN C-24.10 FOR GUARDRAIL CONNECTION TO BRIDGE RAIL OR CONCRETE BARRIER.

9. SEE STANDARD PLAN C-25.20 FOR BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 21.

10. SEE PAVING DETAILS SHEET FOR PRIVATE ROAD PLANNING EXTENT.

DESIGNED BY	A. LEWIS					
ENTERED BY	A. LEWIS					
CHECKED BY	A. WILLIAMS					
PROJ. ENGR.	S. BEIER					
REGION ADM.	B. NIELSEN					
		DATE	DATE	REVISION	BY	

REGION NO.	STATE	FED. AID PROJ. NO.
10	WASH	

JOB NUMBER
22A036

CONTRACT NO.

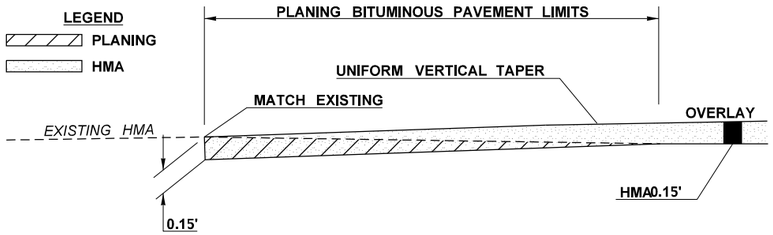
Washington State Department of Transportation

20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

QUANTITY TABULATION - PAVING / PAVEMENT MARKING PLAN

QTP1

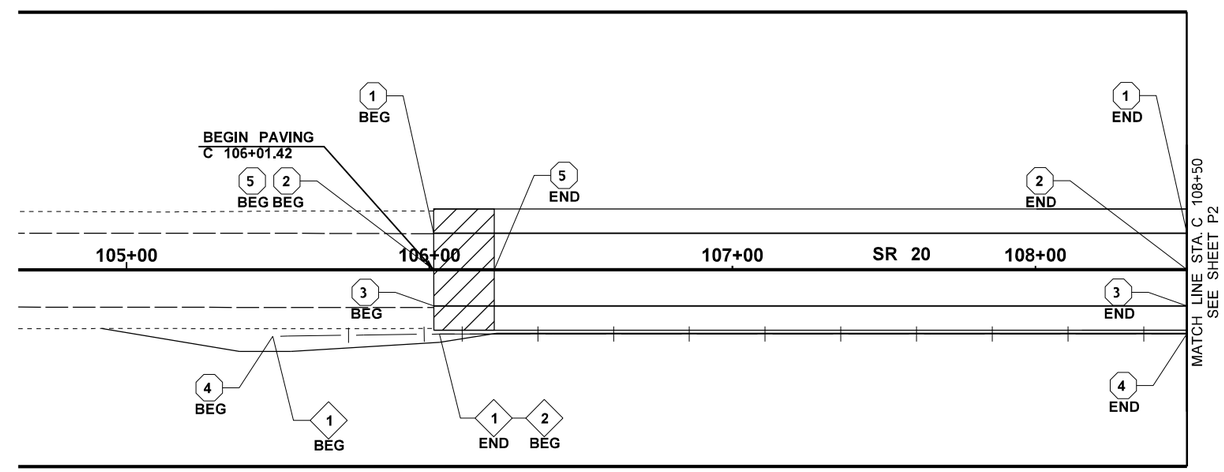
SHEET 57 OF 79 SHEETS



BUTT JOINT DETAIL

C STA 106+01.4 TO C STA 107+61.4
C STA 113+73.6 TO C STA 115+17.3

NOT TO SCALE



CONSTRUCTION NOTES:

1. BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL
2. BEAM GUARDRAIL TYPE 31 - 8 FT. LONG POST
3. BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 21
4. TRAFFIC BARRIER WITH BRIDGE RAILING TYPE BP-10
5. PRECAST MOMENT SLAB (CONTRACTOR DESIGNED)

LEGEND

15+00 CONSTRUCTION ALIGNMENT
EXISTING EDGE OF PAVEMENT
EXISTING EDGE OF EMBANKMENT
EXISTING EDGE LINE WHITE
EXISTING SKIP CENTER LINE YELLOW
EXISTING GUARDRAIL
NEW EDGE LINE WHITE
NEW SKIP CENTER LINE YELLOW
SINGLE SLOPE TRAFFIC BARRIER
NEW EDGE OF WIDENED EMBANKMENT
NEW PAVED EDGE
NEW GUARDRAIL
SAW SAWCUT
NEW CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1
QUANTITY TABULATION NOTE
PLANING AREA

NOTES:

1. TERMINAL EMBANKMENT WIDENDING SHALL FOLLOW STANDARD PLAN C-22.40.
2. BEAM GUARDRAIL TYPE 31 SHALL UTILIZE 8' POSTS AT LOCATIONS WHERE 2.5' OF EMBANKMENT WIDENING IS NOT PROVIDED.
3. SAWCUTS IN THE TRAVELED WAY SHALL BE PERPENDICULAR TO TRAFFIC FLOW WITH A NEAT VERTICAL EDGE.

0 25 50
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\135_XL6415_SR20 Red Cr_PS_Paving.dgn						
TIME	10:42:32 AM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	12/13/2022						
PLOTTED BY	LewisA						
DESIGNED BY	A. LEWIS				JOB NUMBER 22A036		
ENTERED BY	A. LEWIS						
CHECKED BY	A. WILLIAMS				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

SPENCER T. BEIER STATE OF WASHINGTON 36005 REGISTERED PROFESSIONAL ENGINEER
SEE CT1
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

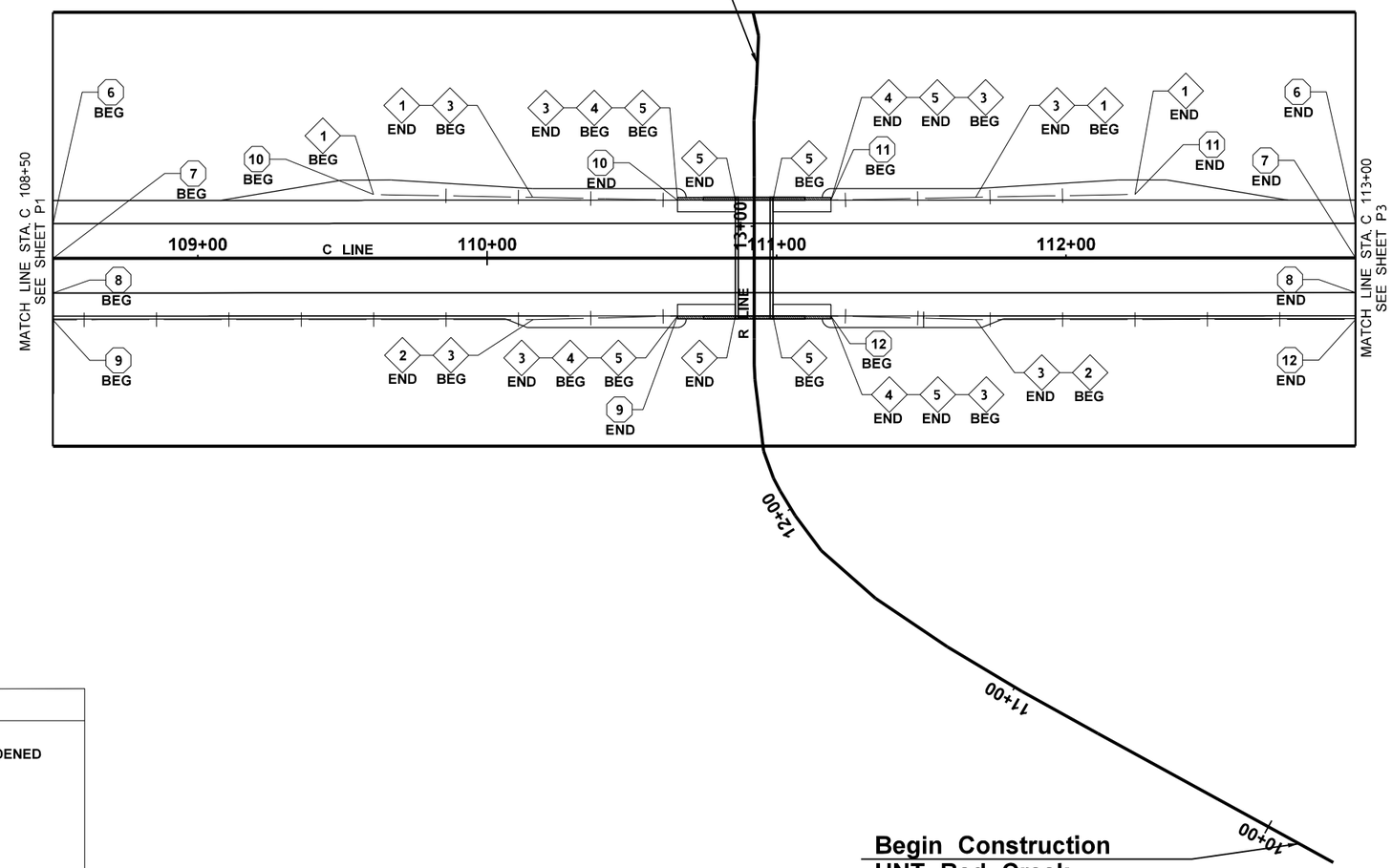
Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

PAVING / PAVEMENT MARKING PLAN

Plot 1
PLAN REF NO P1
SHEET 58 OF 79 SHEETS

End Construction
UNT Red Creek
STA. R 13+50.00 =
STA. C 110+93.17 (64.52' LT)



Begin Construction
UNT Red Creek
STA. R 9+87.87 =
STA. C 112+85.48 (205.22' RT)

CONSTRUCTION NOTES:

1. BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL
2. BEAM GUARDRAIL TYPE 31 - 8 FT. LONG POST
3. BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 21
4. TRAFFIC BARRIER WITH BRIDGE RAILING TYPE BP-10
5. PRECAST MOMENT SLAB (CONTRACTOR DESIGNED)

LEGEND

15+00 CONSTRUCTION ALIGNMENT
EXISTING EDGE OF PAVEMENT
EXISTING EDGE OF EMBANKMENT
EXISTING EDGE LINE WHITE
EXISTING SKIP CENTER LINE YELLOW
EXISTING GUARDRAIL
NEW EDGE LINE WHITE
NEW SKIP CENTER LINE YELLOW
SINGLE SLOPE TRAFFIC BARRIER
NEW EDGE OF WIDENED EMBANKMENT
NEW PAVED EDGE
NEW GUARDRAIL
SAW SAWCUT
NEW CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1
QUANTITY TABULATION NOTE
PLANING AREA

NOTES:
1. TERMINAL EMBANKMENT WIDENING SHALL FOLLOW STANDARD PLAN C-22.40.
2. BEAM GUARDRAIL TYPE 31 SHALL UTILIZE 8' POSTS AT LOCATIONS WHERE 2.5' OF EMBANKMENT WIDENING IS NOT PROVIDED.

0 25 50
SCALE IN FEET

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TIME	10:42:40 AM
DATE	12/13/2022
PLOTTED BY	LewisA
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.
JOB NUMBER 22A036
CONTRACT NO. | LOCATION NO.

SPENCER T. BEIER, STATE OF WASHINGTON, 36005, REGISTERED PROFESSIONAL ENGINEER
SEE CT1
DATE
P.E. STAMP BOX

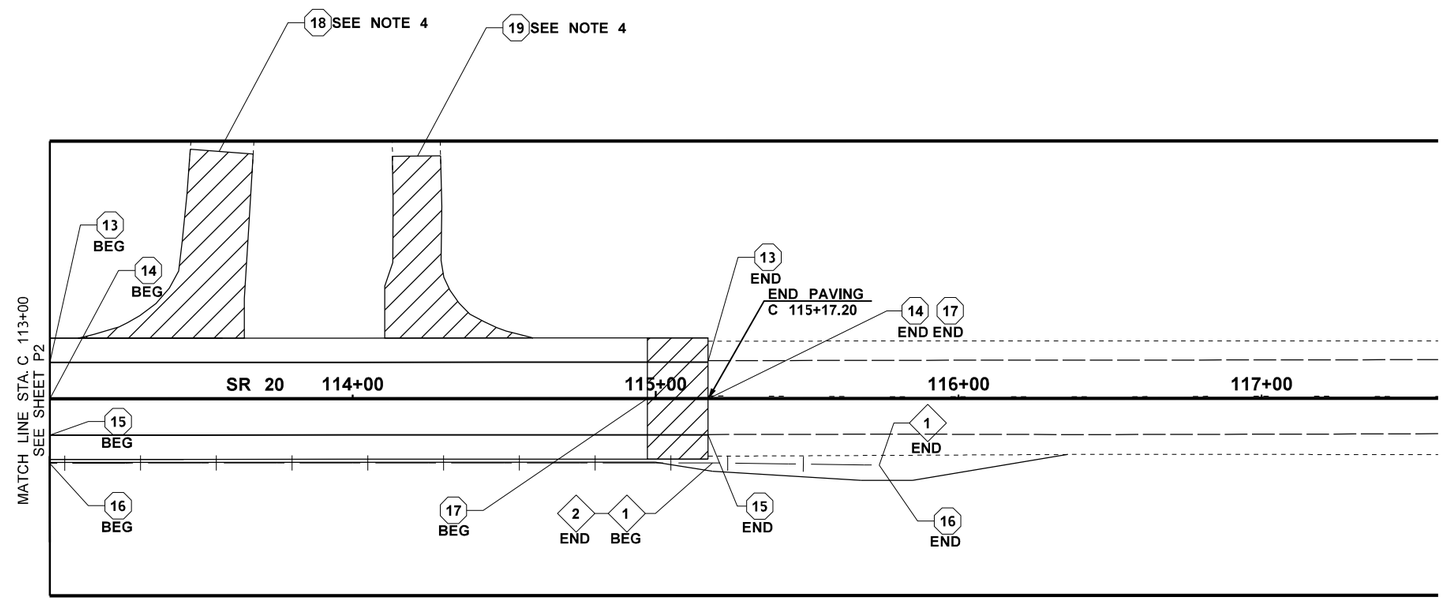
DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

PAVING / PAVEMENT MARKING PLAN

Plot 2
PLAN REF NO P2
SHEET 59 OF 79 SHEETS



CONSTRUCTION NOTES:

1. BEAM GUARDRAIL TYPE 31 NON-FLARED TERMINAL
2. BEAM GUARDRAIL TYPE 31 - 8 FT. LONG POST
3. BEAM GUARDRAIL TYPE 31 TRANSITION SECTION TYPE 21
4. TRAFFIC BARRIER WITH BRIDGE RAILING TYPE BP-10
5. PRECAST MOMENT SLAB (CONTRACTOR DESIGNED)

LEGEND

15+00 CONSTRUCTION ALIGNMENT
EXISTING EDGE OF PAVEMENT
EXISTING EDGE OF EMBANKMENT
EXISTING EDGE LINE WHITE
EXISTING SKIP CENTER LINE YELLOW
EXISTING GUARDRAIL
NEW EDGE LINE WHITE
NEW SKIP CENTER LINE YELLOW
SINGLE SLOPE TRAFFIC BARRIER
NEW EDGE OF WIDENED EMBANKMENT
NEW PAVED EDGE
NEW GUARDRAIL
SAW SAWCUT
NEW CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1
QUANTITY TABULATION NOTE
PLANING AREA

NOTES:

1. TERMINAL EMBANKMENT WIDENDING SHALL FOLLOW STANDARD PLAN C-22.40.
2. BEAM GUARDRAIL TYPE 31 SHALL UTILIZE 8' POSTS AT LOCATIONS WHERE 2.5' OF EMBANKMENT WIDENING IS NOT PROVIDED.
3. SAWCUTS IN THE TRAVELED WAY SHALL BE PERPENDICULAR TO TRAFFIC FLOW WITH A NEAT VERTICAL EDGE.
4. SEE SHEET PD1 FOR TIE-IN DETAIL AND PLANING EXTENTS.

0 25 50
SCALE IN FEET

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TIME	2:18:29 PM			
DATE	12/15/2022			
PLOTTED BY	LewisA			
DESIGNED BY	A. LEWIS			
ENTERED BY	A. LEWIS			
CHECKED BY	A. WILLIAMS			
PROJ. ENGR.	S. BEIER			
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER STATE OF WASHINGTON 36000 REGISTERED PROFESSIONAL ENGINEER
SEE CT1
DATE
P.E. STAMP BOX

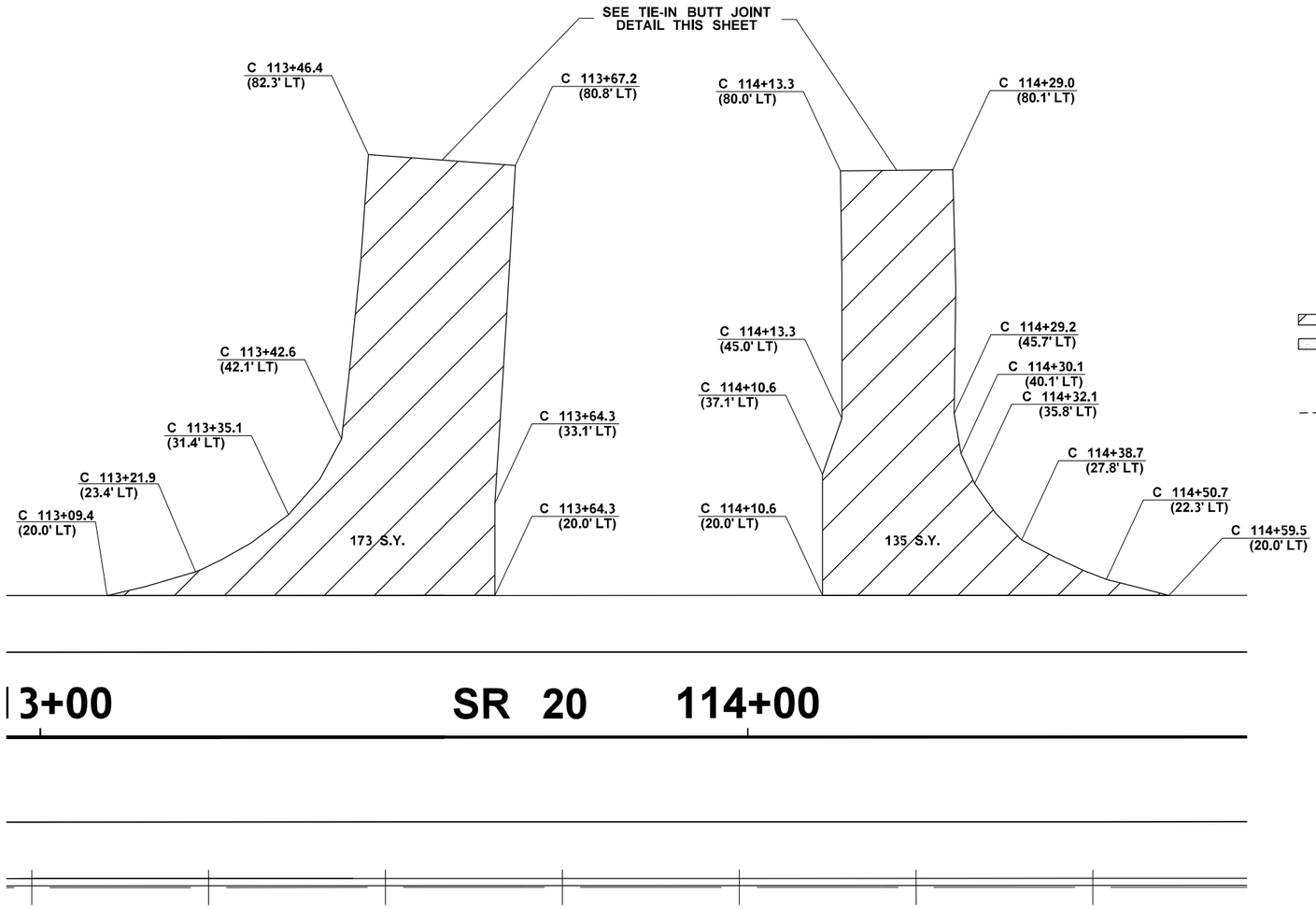
DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

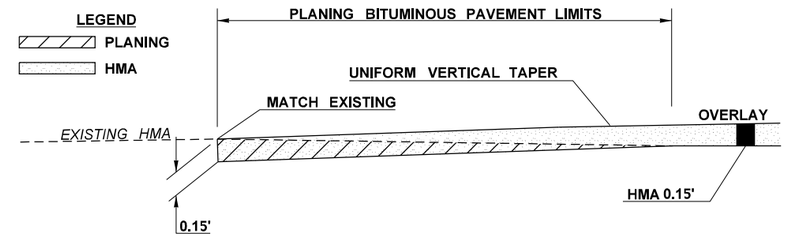
PAVING / PAVEMENT MARKING PLAN

Plot 3
PLAN REF NO P3
SHEET 60 OF 79 SHEETS



PLANING EXTENT DETAIL

0 10 20
SCALE IN FEET



TIE-IN BUTT JOINT DETAIL

NOT TO SCALE

LEGEND

15+00 CONSTRUCTION ALIGNMENT	NEW EDGE OF WIDENED EMBANKMENT
EXISTING EDGE OF PAVEMENT	NEW PAVED EDGE
EXISTING EDGE OF EMBANKMENT	NEW GUARDRAIL
EXISTING EDGE LINE WHITE	NEW EDGE LINE WHITE
EXISTING SKIP CENTER LINE YELLOW	NEW SKIP CENTER LINE YELLOW
EXISTING GUARDRAIL	PLANING AREA

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\135_XL6415_SR20 Red Cr_PS_Paving.dgn					
TIME	10:42:52 AM					
DATE	12/13/2022					
PLOTTED BY	LewisA					
DESIGNED BY	A. LEWIS					
ENTERED BY	A. LEWIS					
CHECKED BY	A. WILLIAMS					
PROJ. ENGR.	S. BEIER					
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY		

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER, STATE OF WASHINGTON, 36005, REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
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DATE
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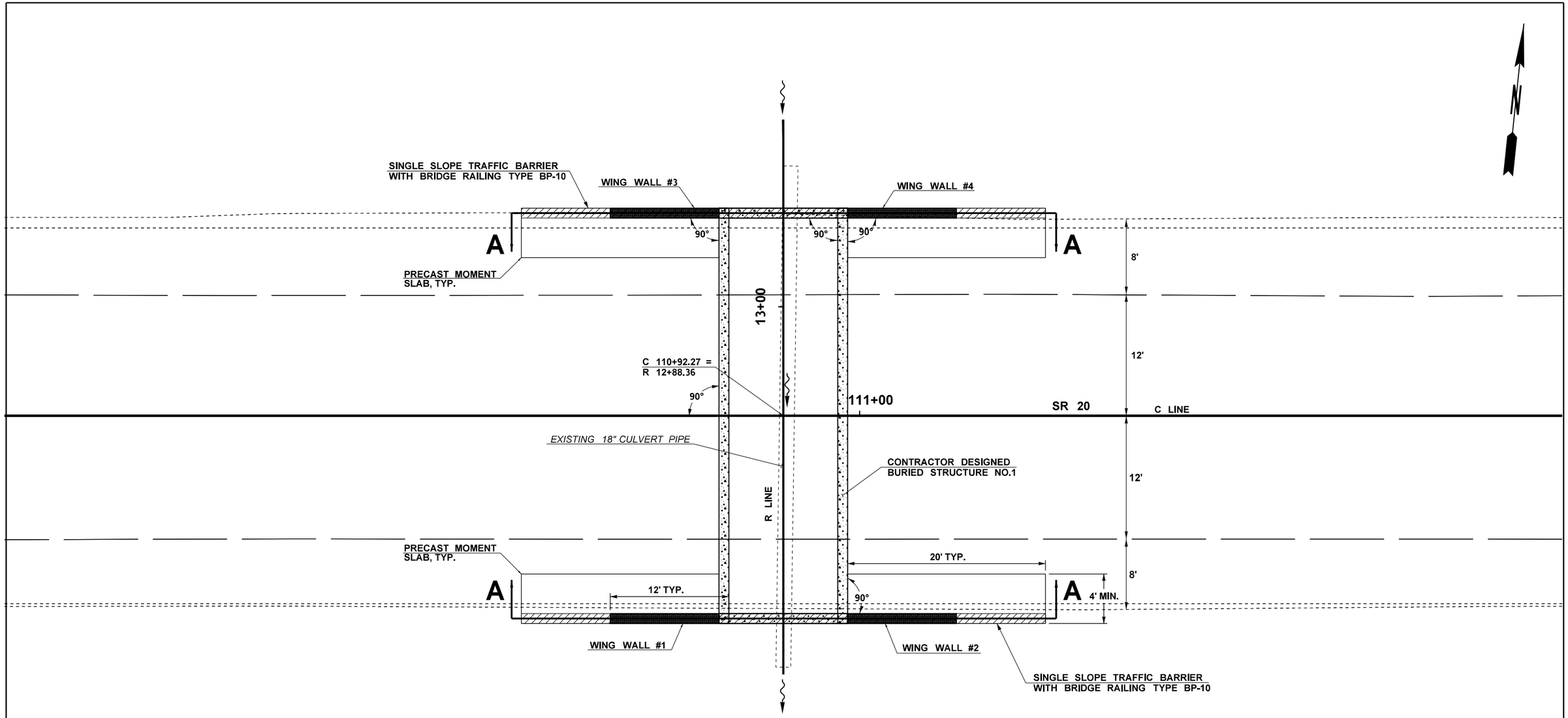
Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

PAVING DETAILS

Plot 4
PLAN REF NO PD1
SHEET 61 OF 79 SHEETS



LEGEND

- NEW CONSTRUCTION ALIGNMENT
- EXISTING LANE EDGE
- EXISTING PAVED SHOULDER EDGE
- FLOW LINE
- PRECAST MOMENT SLAB
- SINGLE SLOPE TRAFFIC BARRIER

NOTES:

1. SEE SHEETS BR1 TO BR2 FOR BRIDGE RAILING TYPE BP-10 DETAILS.
2. REMOVAL OF EXISTING CULVERT PIPE IS INCLUDED IN THE BID ITEM "EARTHWORK".
3. SEE SHEET BC2 FOR STRUCTURE FREE ZONE.
4. STATIONS AND OFFSETS TO INSIDE FACE OF WALLS.
5. DESIGN ASSUMES 12" WALLS, 12" BOTTOM AND 16" TOP. IF DIMENSIONS ARE DIFFERENT, WALL STATIONING AND BOX ELEVATIONS WILL NEED TO BE ADJUSTED.

0 5 10
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\140_XL6415_SR20 Red Cr_PS_Det_Box Culvert.dgn
TIME	10:31:12 AM
DATE	12/13/2022
PLOTTED BY	LewisA
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER, STATE OF WASHINGTON, 36005, REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

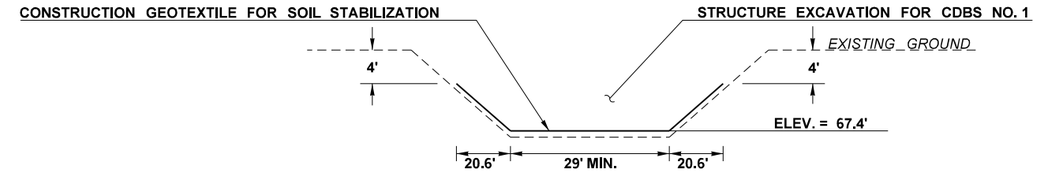
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

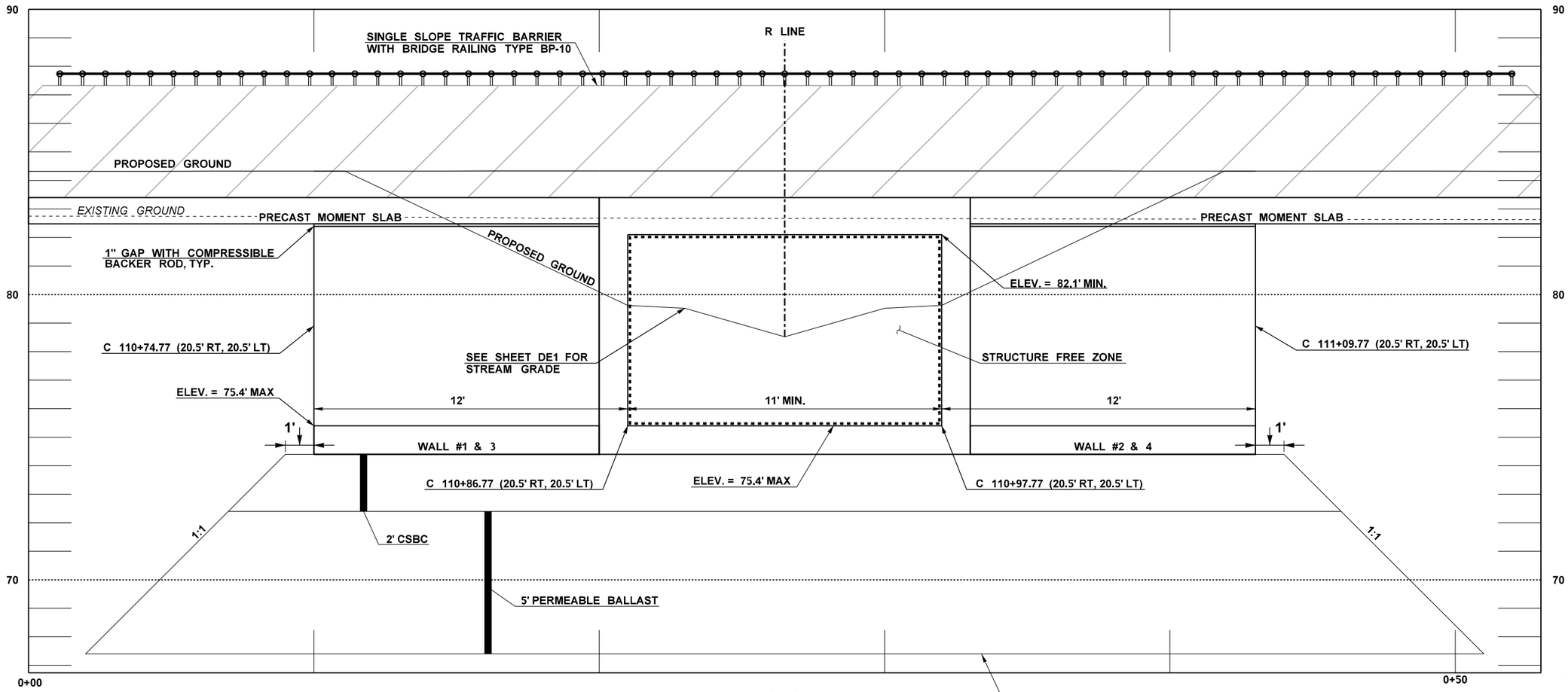
CONTRACTOR DESIGNED BURIED
STRUCTURE NO. 1 DETAILS

PLAN REF NO
BC1

SHEET 62 OF 79 SHEETS



CONSTRUCTION GEOTEXTILE FOR SOIL STABILIZATION DETAIL



A-A

NOTES:

4. STATIONS AND OFFSETS TO INSIDE FACE OF WALLS.
5. STRUCTURAL DESIGN SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. DESIGN ASSUMES 12" WALLS, 12" BOTTOM AND 16" TOP. IF DIMENSIONS ARE DIFFERENT, WALL STATIONING AND BOX ELEVATIONS WILL NEED TO BE ADJUSTED.
6. CHAMFERS OR FILLETS ON THE INSIDE OF THE STRUCTURE SHALL NOT ENCROACH ON THE STRUCTURE FREE ZONE.
7. A MINIMUM HYDRAULIC OPENING OF 11', PERPENDICULAR TO THE INSIDE OF THE STRUCTURE, SHALL BE PROVIDED.
8. ALL HEADWALLS AND WING WALLS ARE INCLUDED IN THE LUMP SUM BID ITEM FOR CONTRACTOR DESIGNED BURIED STRUCTURE NO. 1.
9. MOMENT SLABS AND TRAFFIC BARRIER ARE INCLUDED IN BID ITEM FOR SEW TRAFFIC BARRIER.
10. INSTALL CONDUIT IN TRAFFIC BARRIER. SEE SHEET E1.

STRUCTURE FREE ZONE

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\140_XL6415_SR20 Red Cr_PS_Det_Box Culvert.dgn			
TIME	4:16:42 PM			
DATE	12/14/2022			
PLOTTED BY	LewisA			
DESIGNED BY	A. LEWIS			
ENTERED BY	A. LEWIS			
CHECKED BY	A. WILLIAMS			
PROJ. ENGR.	S. BEIER			
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER, STATE OF WASHINGTON, 36005, REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

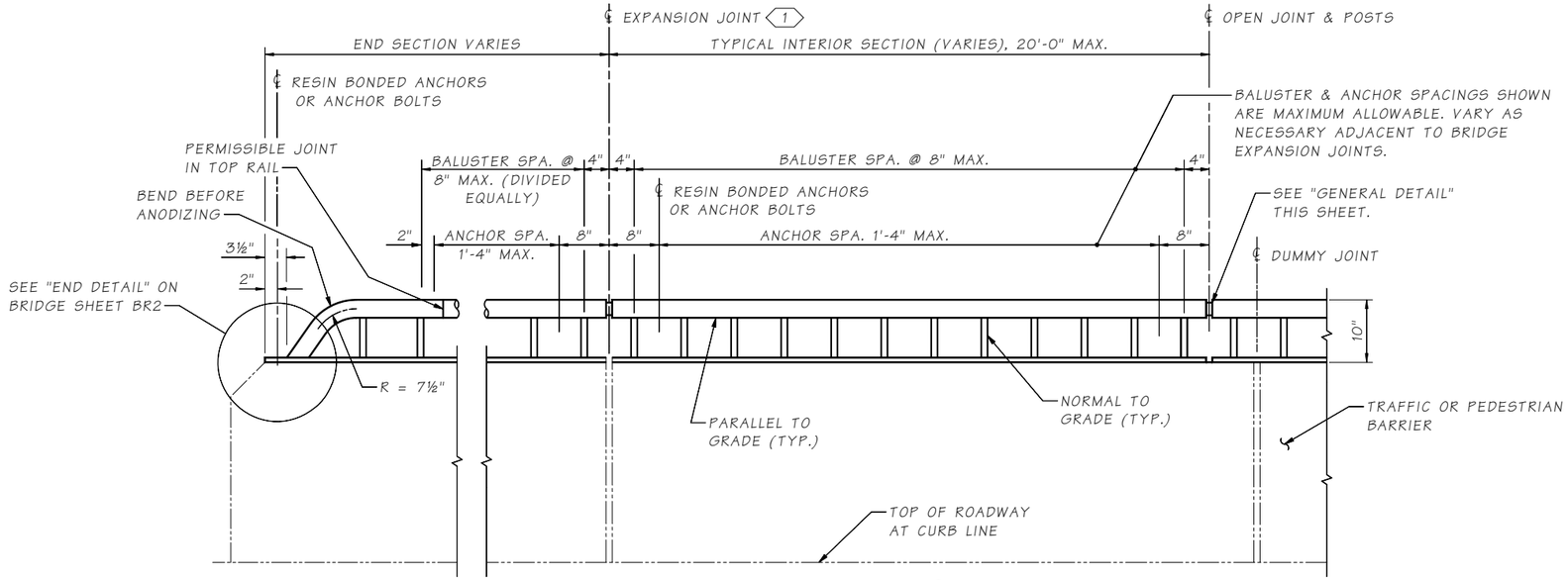
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

CONTRACTOR DESIGNED BURIED
STRUCTURE NO. 1 DETAILS

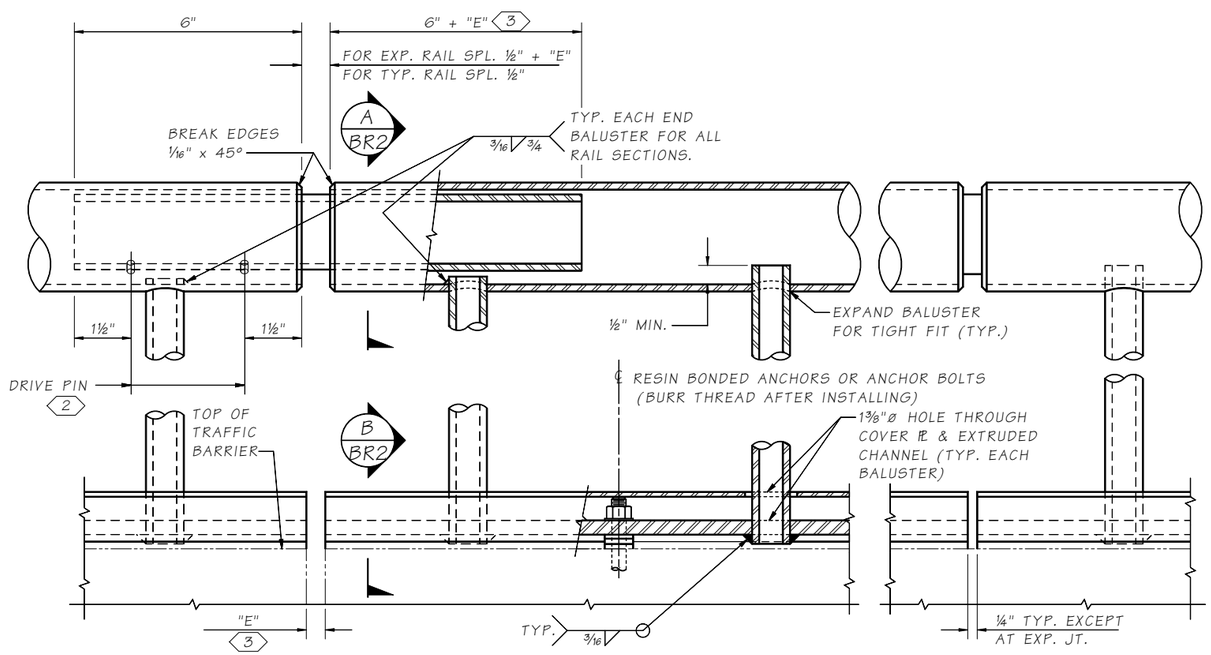
PLAN REF NO
BC2

SHEET 63 OF 79 SHEETS



ELEVATION

BALUSTER AND GUARDRAIL SECTION ATTACHMENT DETAILS NOT SHOWN.



GENERAL DETAIL

NOTES

1. PIPE RAILING, PIPE RAILING SPLICES, COVER PLATES AND BOTTOM EXTRUDED CHANNELS SHALL BE BENT TO THE HORIZONTAL CURVE WHERE THE RADIUS OF CURVATURE IS LESS THAN 200'. THESE ITEMS MAY BE HEATED TO NOT MORE THAN 400°F FOR A PERIOD NOT TO EXCEED 30 MINUTES TO FACILITATE FORMING OR BENDING TO HORIZONTAL CURVATURE.
2. SHOP DRAWINGS OF RAILING SHALL BE SUBMITTED AS A TYPE 2 WORKING DRAWING SHOWING COMPLETE DIMENSIONS AND DETAILS OF FABRICATION AND INCLUDING AN ERECTION DIAGRAM. MATERIAL SPECIFICATIONS SHALL BE PROVIDED IN THE SHOP DRAWINGS FOR ALL COMPONENTS.
3. CUTTING SHALL BE DONE BY SAWING OR MILLING AND ALL CUTS SHALL BE TRUE AND SMOOTH. FLAME CUTTING WILL NOT BE PERMITTED.
4. WELDING OF ALUMINUM SHALL CONFORM TO STD. SPEC. SECTION 9-28.14(3).
5. ALL ALUMINUM PARTS SHALL BE GIVEN A BRONZE ANODIC COATING OF AT LEAST 0.0006" THICK AND SEALED TO MEET THE REQUIREMENTS OF ASTM B 580 WITH A UNIFORM FINISH.
6. PIPE RAILING, PIPE BALUSTERS AND PIPE RAILING SPLICES SHALL BE ADEQUATELY WRAPPED TO INSURE SURFACE PROTECTION DURING HANDLING AND TRANSPORTATION TO THE JOB SITE.

KEY NOTES:

1. PROVIDE EXPANSION RAIL SPLICE AT TRAFFIC BARRIER EXPANSION JOINTS. RAIL SPLICE JOINTS ARE NOT REQUIRED AT TRAFFIC BARRIER DUMMY JOINTS.
2. LOCATE ON OPPOSITE SIDE OF TRAFFIC. DRIVE PINS SHALL BE DRIVEN FLUSH WITH THE OUTSIDE FACE OF THE RAILING.
3. "E" DIMENSION SHALL BE EQUAL TO OPENING OF TRAFFIC BARRIER EXPANSION JOINTS.

Bridge Design Engr.	Khaleghi, B	M:\Y-Team\SR 20 TRIB TO RED CREEK\CABLE FENCE DETAILS 1.MAN				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	
Supervisor	Rosa, M.					10	WASH.				
Designed By	Phillips, D. 08/21					JOB NUMBER 22A036					
Checked By	Rosa, M. 08/21										
Detailed By	Wrenn, M. 08/21					CONTRACT NO.					
Bridge Projects Engr.											
Prelim. Plan By											
Architect/Specialist		DATE	REVISION	BY	APP'D						

Tue Nov 22 14:34:09 2022

P.E. STAMP BOX
MICHAEL A. ROSA — STATE OF WASHINGTON — 43707 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT1
DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX
BIJAN KHALEGHI — STATE OF WASHINGTON — 27695 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER
SEE SHEET CT1
DATE:

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

BP RAIL

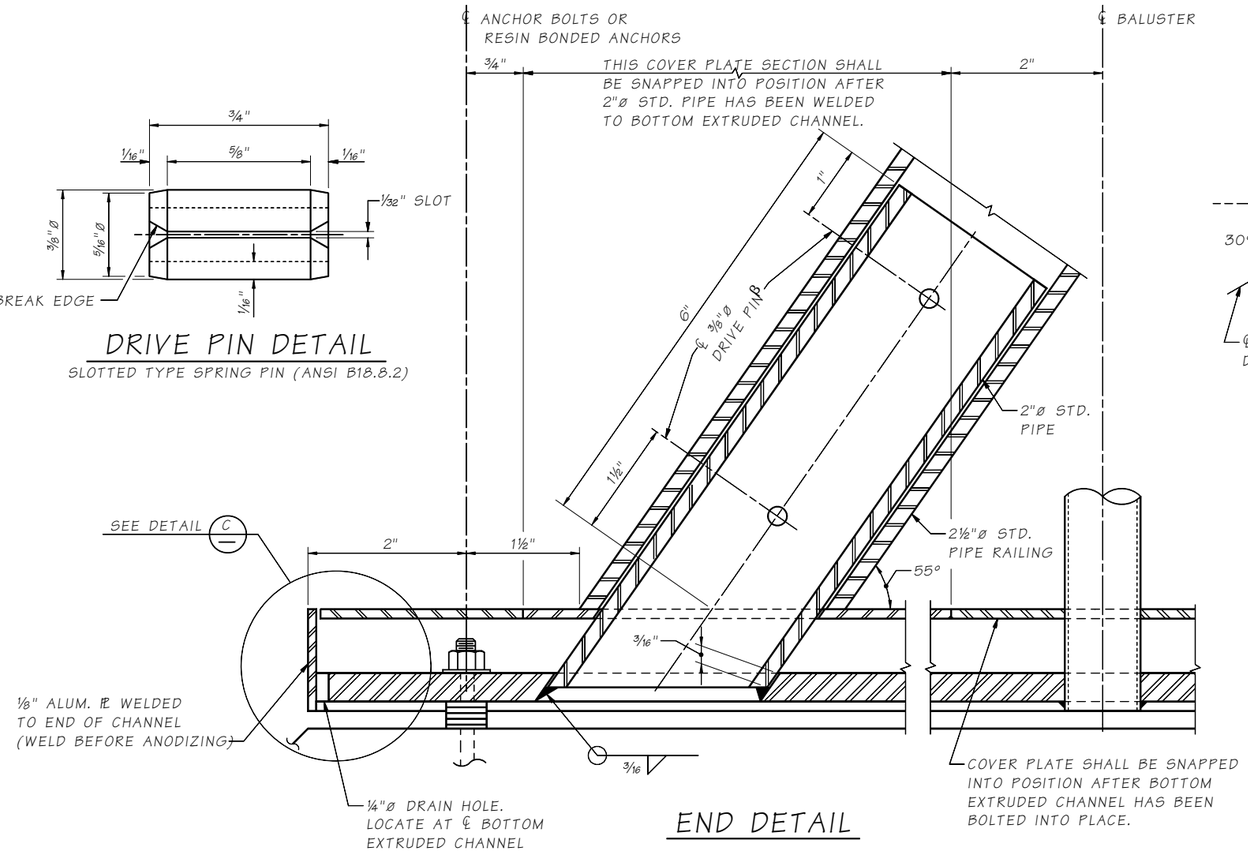
BRIDGE SHEET NO. BR1

SHEET 64 OF 79 SHEETS

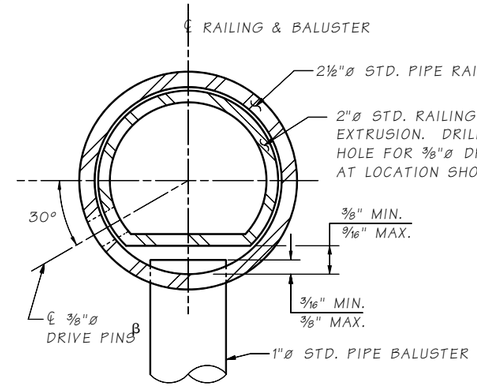
SR 20 FILE NO. Job SHEET 1

DRIVE PIN DETAIL

SLOTTED TYPE SPRING PIN (ANSI B18.8.2)



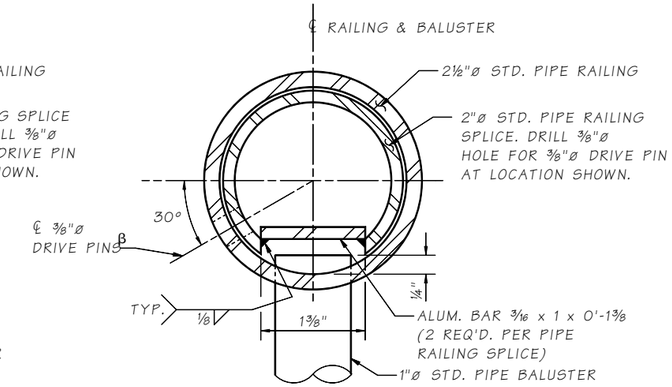
END DETAIL



SECTION A / BR1

OPTION #1

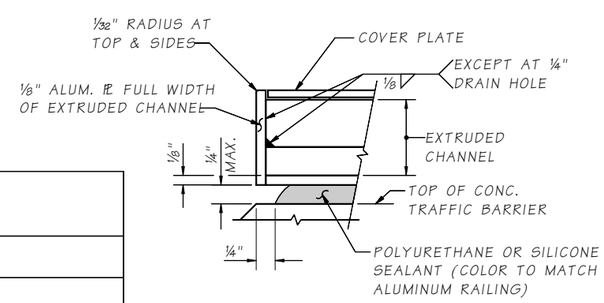
β LOCATE ON OPPOSITE SIDE OF TRAFFIC. DRIVE PINS SHALL BE DRIVEN FLUSH WITH THE OUTSIDE FACE OF THE RAILING.



SECTION A / BR1

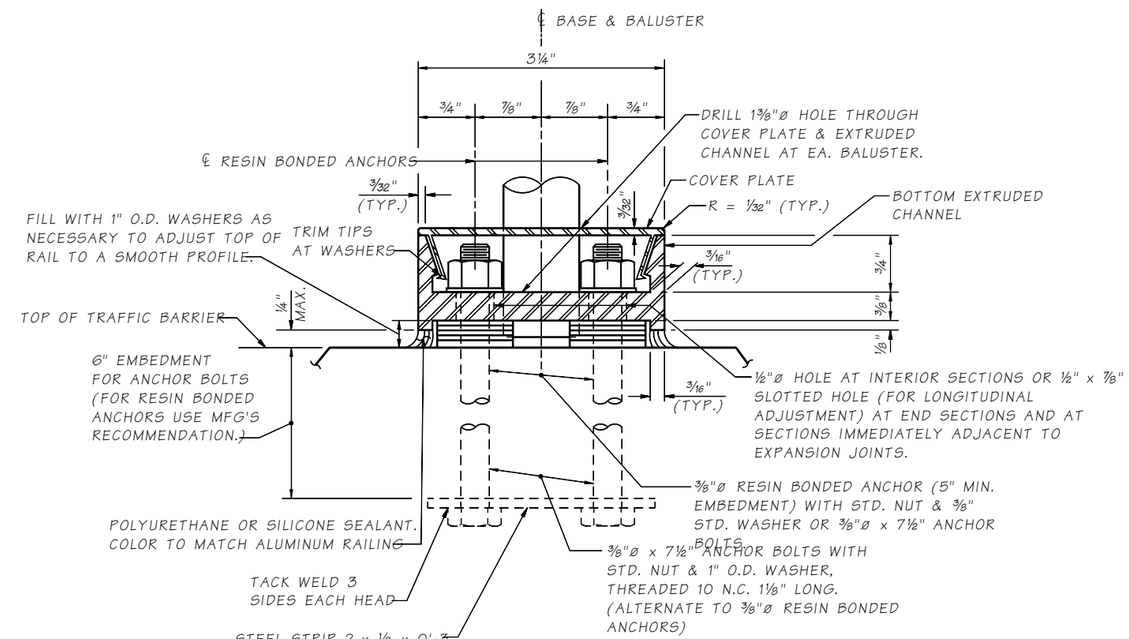
OPTION #2

β LOCATE ON OPPOSITE SIDE OF TRAFFIC. DRIVE PINS SHALL BE DRIVEN FLUSH WITH THE OUTSIDE FACE OF THE RAILING.



DETAIL C

DRAIN HOLES NOT SHOWN



SECTION B / BR1

ANCHOR BOLTS SHALL BE POSITIONED IN A JIG DURING WELDING.

MAT'L	PART	MATERIAL SPECIFICATION
ALUMINUM	RAILS & BALUSTERS	ASTM B221-6005-T5, 6005A-T5 OR ASTM B241-6061-T6
ALUMINUM	EXTRUDED CHANNELS, COVER PLATES & BAR	ASTM B221-6005-T5 OR 6005A-T5
ALUMINUM	STRIP	ASTM B221-6005-T5
STEEL	ANCHOR BOLTS, NUTS & WASHERS	STANDARD SPECIFICATION SECTION 9-06.5(4) GR. 36 (GALVANIZE IN ACCORDANCE WITH AASHTO SPECIFICATION M 232)
STEEL	DRIVE PINS	ASTM A276 OR A240 TYPE 302 STAINLESS STEEL

SR ___ . FILE NO. ___ Job ___ SHEET 1

Bridge Design Engr.	Khaleghi, B	
Supervisor	Rosa, M.	
Designed By	Phillips, D.	08/21
Checked By	Rosa, M.	08/21
Detailed By	Wrenn, M.	08/21
Bridge Projects Engr.		
Prelim. Plan By		
Architect/Specialist		

M:\Y-Team\SR 20 TRIB TO RED CREEK\CABLE FENCE DETAILS 2.MAN

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 22A036				
CONTRACT NO.				

P.E. STAMP BOX — MICHAEL A. ROSA, STATE OF WASHINGTON, 43707, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER — SEE SHEET CT1 — DATE:

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — BIJAN KHALEGHI, STATE OF WASHINGTON, 27685, STRUCTURAL ENGINEER, PROFESSIONAL ENGINEER — SEE SHEET CT1 — DATE:

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

BP RAIL DETAILS

BRIDGE SHEET NO. BR2

SHEET 65 OF 79 SHEETS

Tue Nov 22 14:33:46 2022

CONSTRUCTION NOTES:

1. INSTALL TIMBER POLE WITH SPANWIRE AND SIGNAL EQUIPMENT. SEE SIGNAL STANDARD DETAIL CHART ON SHEET TSG2 - TSG4.
2. INSTALL VIDEO CAMERA ON SIGNAL POLE AND ROUTE VIDEO CABLES TO CONTROLLER.
3. INSTALL VIDEO DETECTION CAMERA EQUIPMENT IN CONTROLLER CABINET.
4. INSTALL SPAN WIRE. MAINTAIN MINIMUM ROADWAY CLEARANCE OF 17 FEET. SEE SHEET TSG5.
5. INSTALL METER BASE ON POLE WITH 10FT RISER, COORDINATE WITH PSE TO CONNECT POWER
6. INSTALL 4 INCH CONDUIT RISER ON UTILITY POLE PER UTILITY COMPANY'S REQUIREMENTS.
7. INSTALL TYPE 332 SIGNAL CONTROLLER CABINET WITH A 2070 CONTROLLER ON TEMPORARY FOUNDATION.
8. INSTALL TYPE A SERVICE CABINET, 120v, 60AMP MAIN BREAKER.
9. PSE TO INSTALL METER ON EX. PSE POLE
10. INSTALL 4" UG CONDUIT FROM EX UTILITY POLE TO SERVICE CABINET CONNECT 3 #2 CONDUCTORS TO METER BASE.

SIGNAL - LEGEND

Existing	New	
		Luminaire
P		Utility Pole
		Video Detection Camera
		Controller Cabinet
		Service Cabinet
		Emergency Vehicle Preemption
		Vehicle Signal Head
		Conduit
		Span Wire
		Aerial Splice Enclosure
		Video Detection Zone

Symbols

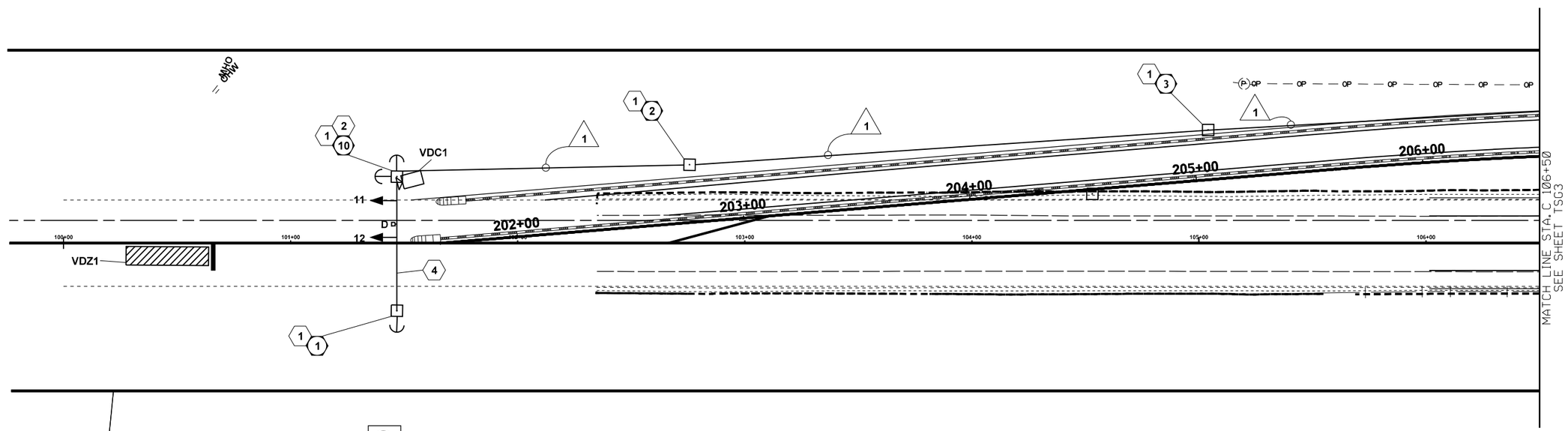
- # Signal Pole Number
- # Wire Note
- # Construction Note

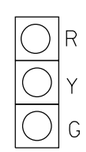
ABBREVIATIONS:

ADA	AMERICANS WITH DISABILITY ACT	ITS	INTELLIGENT TRANSPORTATION SYSTEM	SP	SPARE
APS	ACCESSIBLE PEDESTRIAN SIGNALS	JB	JUNCTION BOX	SR	STATE ROUTE
B	BLACK	MAX	MAXIMUM	ST	STREET
BOS	BLANK-OUT SIGN	MIN	MINIMUM	STD	STANDARD
C	CONDUCTORS	N	NORTH	TB	TERMINAL BLOCK
CAB	CABINET	NTS	NOT TO SCALE	TEMP	TEMPORARY
COMM	COMMUNICATION	O	ORANGE	TYP	TYPICAL
COMC	CITY OF MILL CREEK	PED	PEDESTRIAN	V	VOLT
CS	CONDUCTOR SHIELDED	PLS	PLACES	VDC	VIDEO DETECTION CAMERA
DET	DETECTOR	PPB	PEDESTRIAN PUSHBUTTON	VDZ	VIDEO DETECTION ZONE
DIA	DIAMETER	PS	PEDESTRIAN SIGNAL	VEH	VEHICLE
EVP	EMERGENCY VEHICLE PREEMPTION	PUD	PUBLIC UTILITY DEPARTMENT	W	WHITE
EX	EXISTING	P/V	PEDESTRIAN/ VEHICLE	W/	WITH
G	GREEN	SH	SHIELDED	WB	WHITE/BLACK
GRS	GALVANIZED RIGID STEEL	SIG	SIGNAL	Y	YELLOW
ILL	ILLUMINATION				

GENERAL NOTES:

1. THE LOCATIONS OF FEATURES SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND BE APPROVED BY THE ENGINEER.
2. CONTRACTOR SHALL REMOVE THE TEMPORARY SIGNAL SYSTEM AND ALL ASSOCIATED EQUIPMENT AFTER THE DETOUR IS NO LONGER NEEDED.





VEHICLE SIGNAL HEADS
11, 12

SIGNAL DISPLAY

0 25 50
SCALE IN FEET

FILE NAME	T:\414124\ELECTRICAL\Projects\SR020\XL6415 SR20 trib to red creek\070_XL6415_SR20 Red Cr_PS_electrical.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	7:44:45 AM						
DATE	12/15/2022						
PLOTTED BY	Zacharc				JOB NUMBER 22A036		
DESIGNED BY	C. ZACHARIAS						
ENTERED BY	C. ZACHARIAS				CONTRACT NO.		LOCATION NO.
CHECKED BY	D. DO						
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

DUEK HUU DO — STATE OF WASHINGTON — 31740 — REGISTERED PROFESSIONAL ENGINEER
SEE SHEET CT1
DATE
P.E. STAMP BOX

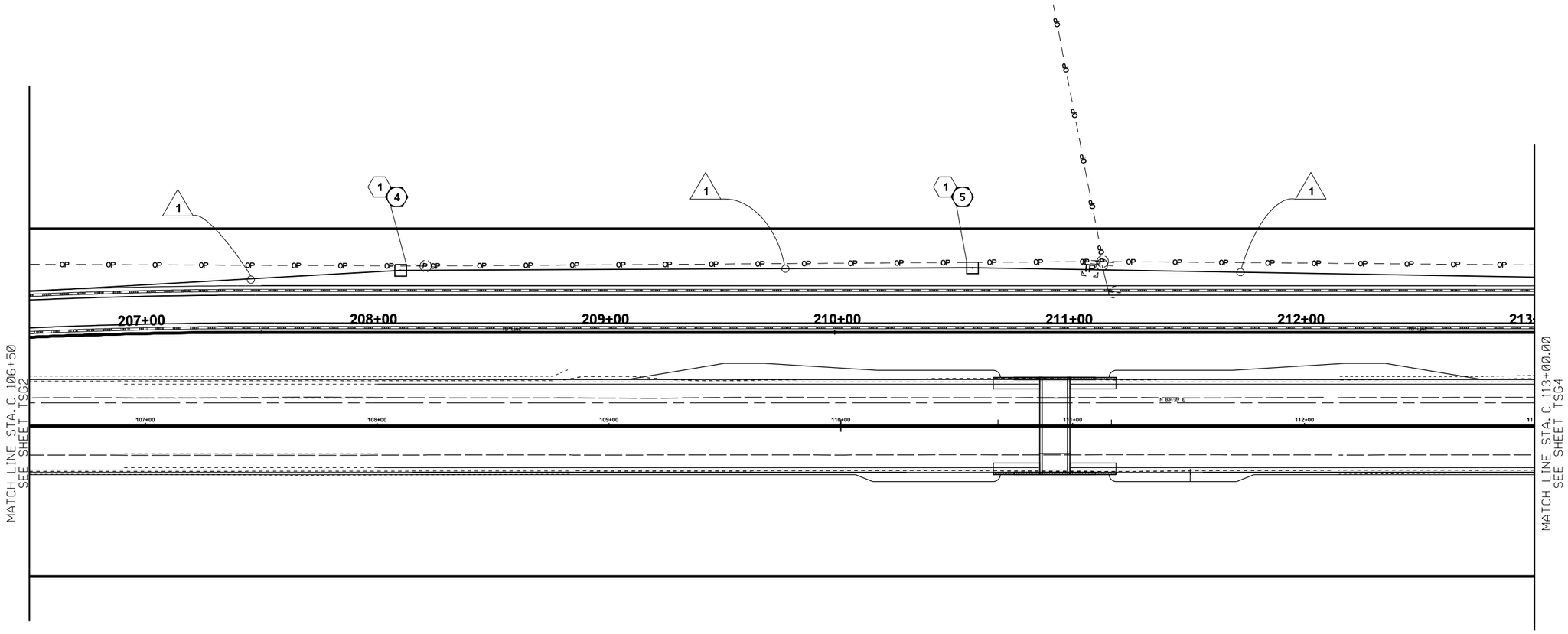
DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

TEMPORARY SIGNAL PLAN

Plot 1
PLAN REF NO
TSG2
SHEET 67 OF 79 SHEETS



0 25 50
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PLOTTED BY	Zacharc						
DESIGNED BY	C. ZACHARIAS						
ENTERED BY	C. ZACHARIAS						
CHECKED BY	D. DO						
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

DUKE HUU DO
STATE OF WASHINGTON
31740
REGISTERED
PROFESSIONAL ENGINEER

SEE SHEET CT1
DATE
P.E. STAMP BOX

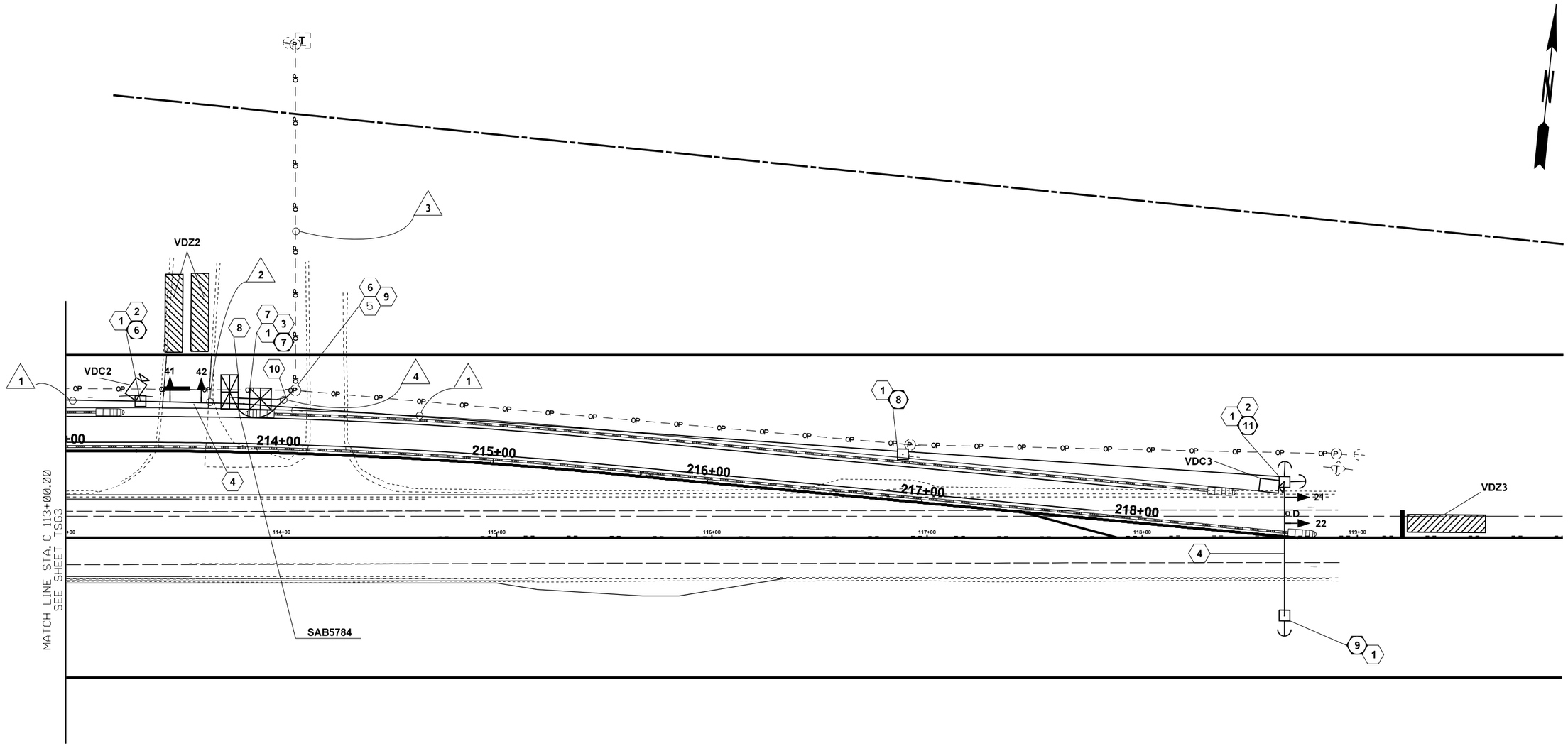
DATE
P.E. STAMP BOX

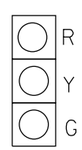
Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

TEMPORARY SIGNAL PLAN

Plot 2
PLAN REF NO
TSG3
SHEET 68 OF 79 SHEETS





VEHICLE SIGNAL HEADS
21,22,41,42

SIGNAL DISPLAY

0 25 50
SCALE IN FEET

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DESIGNED BY	C. ZACHARIAS						
ENTERED BY	C. ZACHARIAS						
CHECKED BY	D. DO						
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

DUEK HUU DO — STATE OF WASHINGTON — 31740 — REGISTERED PROFESSIONAL ENGINEER

SEE SHEET CT1
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

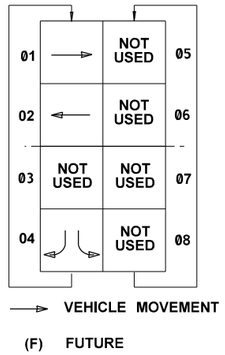
TEMPORARY SIGNAL PLAN

Plot 3
PLAN REF NO
TSG4
SHEET 69 OF 79 SHEETS

GENERAL NOTES:

1. ALL VEHICLE HEADS SHALL HAVE BACK PLATE WITH RETRO-REFLECTIVE TAPE AND 12" LED MODULES.

PHASE DIAGRAM



SIGNAL STANDARD DETAIL CHART

STD. No.	SR No.	SR MILE POST	FIELD LOCATION						POLE TYPE	POLE HEIGH (FT)	REMARKS
			STATION	OFFSET	LT.	RT.	ELEV. ✕	P.O.A.			
1	20	69	TB-LINE STA. 201+46	36'		X		0	IV	50	CLASS IV TIMBER POLE
2	20	69	TB-LINE STA. 202+75	17'	X			0	IV	40	CLASS IV TIMBER POLE
3	20	69	TB-LINE STA. 205+05	16'	X			0	IV	40	CLASS IV TIMBER POLE
4	20	69	TB-LINE STA. 208+13	13'	X			0	IV	40	CLASS IV TIMBER POLE
5	20	69	TB-LINE STA. 210+58	13	X			0	IV	40	CLASS IV TIMBER POLE
6	20	69	TB-LINE STA. 213+37	13'	X			0	IV	40	CLASS IV TIMBER POLE
7	20	69	TB-LINE STA. 213+85	16'	X			0	IV	40	CLASS IV TIMBER POLE
8	20	69	TB-LINE STA. 216+92	16'	X			0	IV	40	CLASS IV TIMBER POLE
9	20	69	TB-LINE STA. 218+64	32'		X		0	IV	50	CLASS IV TIMBER POLE
10	20	69	TB-LINE STA. 201+46	12'	X			0	IV	50	CLASS IV TIMBER POLE
11	20	69	TB-LINE STA. 218+64	20'	X			0	IV	50	CLASS IV TIMBER POLE

WIRING SCHEDULE SERVICE NO. SAB 5784

△ NO.	CONDUIT SIZE	V DETECT 2C(S)	1/0 OH TRIPLEX	E. V. DETECT 3C(S)	P / V HEAD 5C	VIDEO CABLE	SIGNAL/UPS POWER #2	REMARKS
1	SPANWIRE			1	1	1		
2	SPANWIRE			1	4	2		
3	SPANWIRE		1					PSE TO INSTALL
4	4" SCH 80						3	

FILE NAME	T:\414124\ELECTRICAL\Projects\SR020\XL6415 SR20 trib to red creek\070_XL6415_SR20 Red Cr_PS_electrical.dgn
TIME	7:45:12 AM
DATE	12/15/2022
PLOTTED BY	Zacharc
DESIGNED BY	C. ZACHARIAS
ENTERED BY	C. ZACHARIAS
CHECKED BY	D. DO
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.

JOB NUMBER 22A036

CONTRACT NO. | LOCATION NO.

DUKE HUU DO — STATE OF WASHINGTON — 31740 — REGISTERED PROFESSIONAL ENGINEER

SEE SHEET CT1 DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

TEMPORARY SIGNAL PLAN

Plot 5
PLAN REF NO TSG5
SHEET 70 OF 79 SHEETS

NOTES:

1. COORDINATE ELECTRICAL WORK WITH CONTRACTOR STRUCTURE DESIGN

WIRING SCHEDULE

△ NO.	CONDUIT SIZE "NEW"			COMMENTS
1	2" RGS			SPARE "TS"
2	2" RGS			SPARE "LT"

LEGEND

Existing New

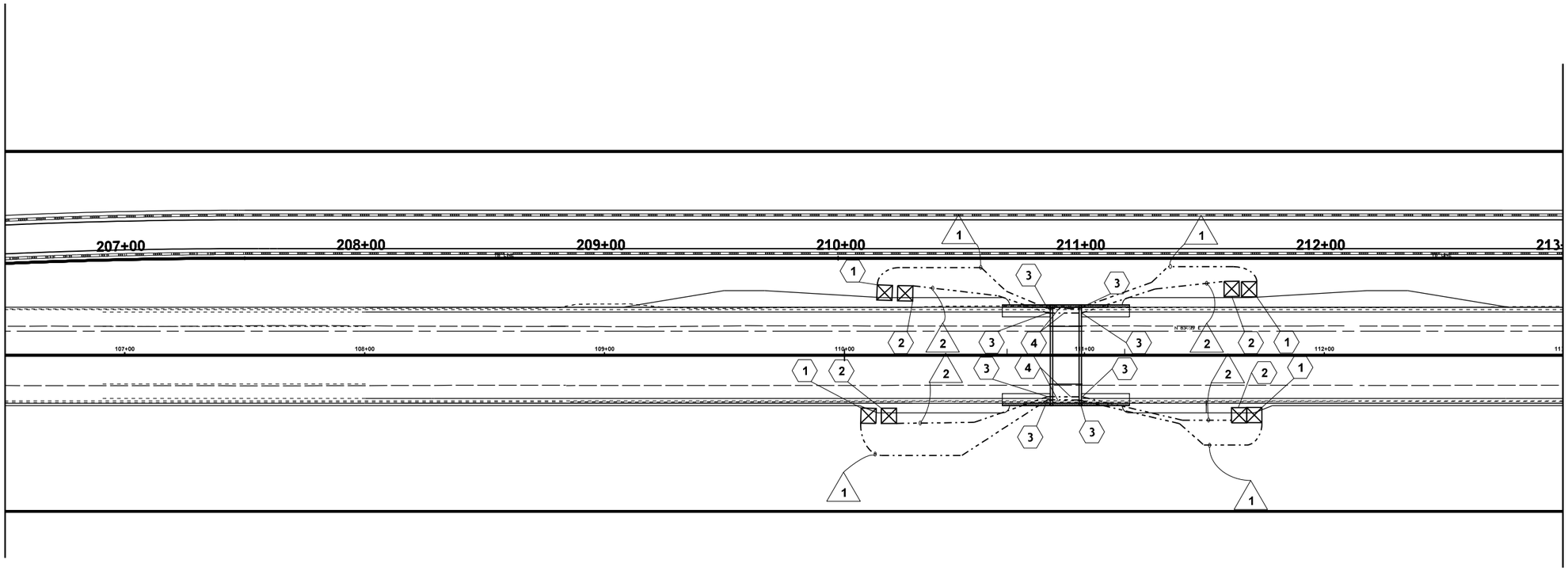
⊠ TYPE 1 JUNCTION BOX

—·—·— CONDUIT

Symbols

△ # Wire Note

⬡ # Construction Note



CONSTRUCTION NOTES

1. INSTALL TYPE ONE JUNCTION BOX LABELED "TS".
INSTALL A ONE FOOT WIDE AND ONE FOOT DEEP RECTANGULAR CONCRETE CEMENT COLLAR AROUND PERIMETER OF JUNCTION BOX.
THE EXPOSED PORTIONS SHALL BE FORMED TO HAVE A NEAT APPEARANCE.
THE OUTSIDE EDGE SHALL HAVE A 3 / 4 INCH CHAMFER, THE CONCRETE MIXED DESIGN SHALL BE COMMERIAL CONCRETE PER STANDARD SPECIFICATION 6-02.3(2)B.

2. INSTALL TYPE ONE JUNCTION BOX LABELED "LT".
INSTALL A ONE FOOT WIDE AND ONE FOOT DEEP RECTANGULAR CONCRETE CEMENT COLLAR AROUND PERIMETER OF JUNCTION BOX.
THE EXPOSED PORTIONS SHALL BE FORMED TO HAVE A NEAT APPEARANCE.
THE OUTSIDE EDGE SHALL HAVE A 3 / 4 INCH CHAMFER, THE CONCRETE MIXED DESIGN SHALL BE COMMERIAL CONCRETE PER STANDARD SPECIFICATION 6-02.3(2)B.

3. INSTALL CONDUIT AND DEFLECTION (DX) FITTING AT TRANSITION FROM BARRIER TO GRADE.

4. INSTALL RGS CONDUITS IN BARRIER OF CONTRACTOR DESIGNED BURIED STRUCTURE.

0 25 50
SCALE IN FEET

FILE NAME	T:\414124\ELECTRICAL\Projects\SR020\XL6415_SR20_trib_to_red_creek\070_XL6415_SR20_Red_Cr_PS_electrical.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	8:22:38 AM						
DATE	12/15/2022						
PLOTTED BY	Zacharc				JOB NUMBER 22A036		
DESIGNED BY	C. ZACHARIAS						
ENTERED BY	C. ZACHARIAS						
CHECKED BY	D. DO				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	S. BEIER						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

DUKE HUU DO — STATE OF WASHINGTON — 51740 — REGISTERED PROFESSIONAL ENGINEER

SEE SHEET CT1
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

ELECTRICAL

Plot 12
PLAN REF NO EL1
SHEET 71 OF 79 SHEETS

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B

SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R

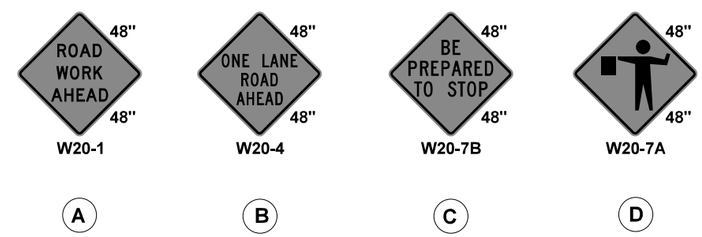
HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.			HOST VEHICLE WEIGHT > 22,000 lbs.		
< 45 MPH	45 - 55 MPH	> 55 MPH	< 45 MPH	45 - 55 MPH	> 55 MPH
100'	123'	172'	74'	100'	150'

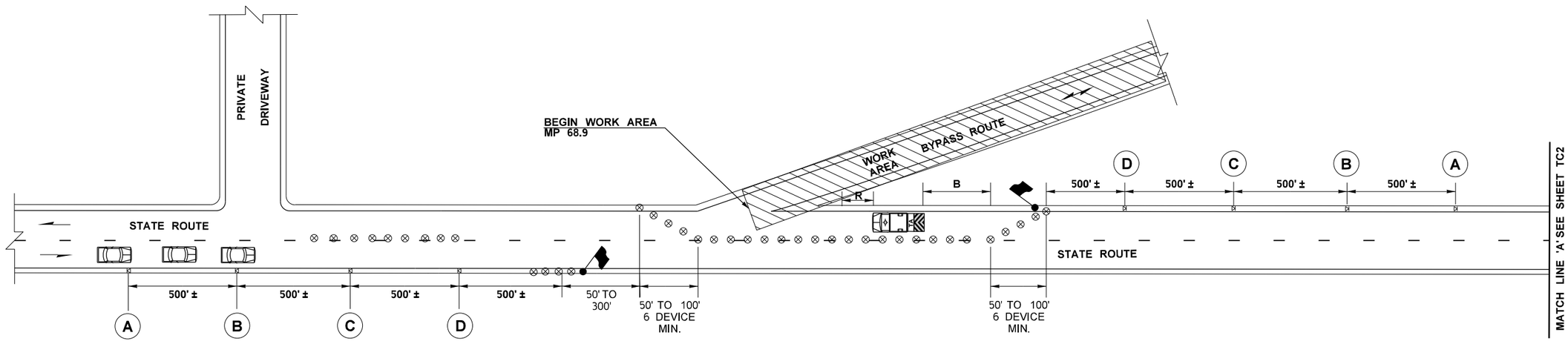
PROTECTIVE VEHICLE (WORK VEHICLE) = R

NO SPECIFIED DISTANCE REQUIRED

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)

MPH	TAPER	TANGENT
50-75	40	80
35-45	30	60
20-30	20	40





LEGEND

- CLASS A SIGN
- CLASS B SIGN
- TRAFFIC SAFETY DRUMS - SEE SPECIAL PROVISIONS
- WORK ZONE
- TEMPORARY BARRIER
- TEMPORARY IMPACT ATTENUATOR
- FLAGGING STATION
- BARRICADE
- TEMPORARY LIGHTING
- TEMPORARY SIGNAL
- TRUCK MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- CREEK

NOTES

1. EXTENDING THE CHANNELIZING DEVICE TAPER ACROSS SHOULDER IS REQUIRED.
2. FLAGGER SHALL DIRECT VEHICLES ACROSS CONSTRUCTION ZONE WHILE BYPASS IS BEING CONSTRUCTED.
3. NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS. SEE THE STANDARD SPECIFICATIONS 1-10.3(1) FOR ADDITIONAL DETAILS.
4. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

BY-PASS ROAD INSTALLATION

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD_BaseFiles\SR20_TCP1_PreBypass
TIME	12:00:00
DATE	02/14/2022
PLOTTED BY	Leesw
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.

JOB NUMBER 22A036

CONTRACT NO. | LOCATION NO.

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

TRAFFIC CONTROL PLAN

Plot 1

PLAN REF NO TC1

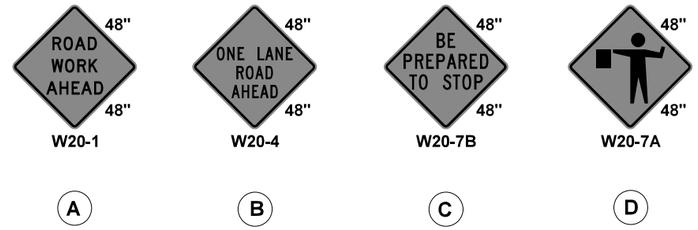
SHEET 72 OF 79 SHEETS

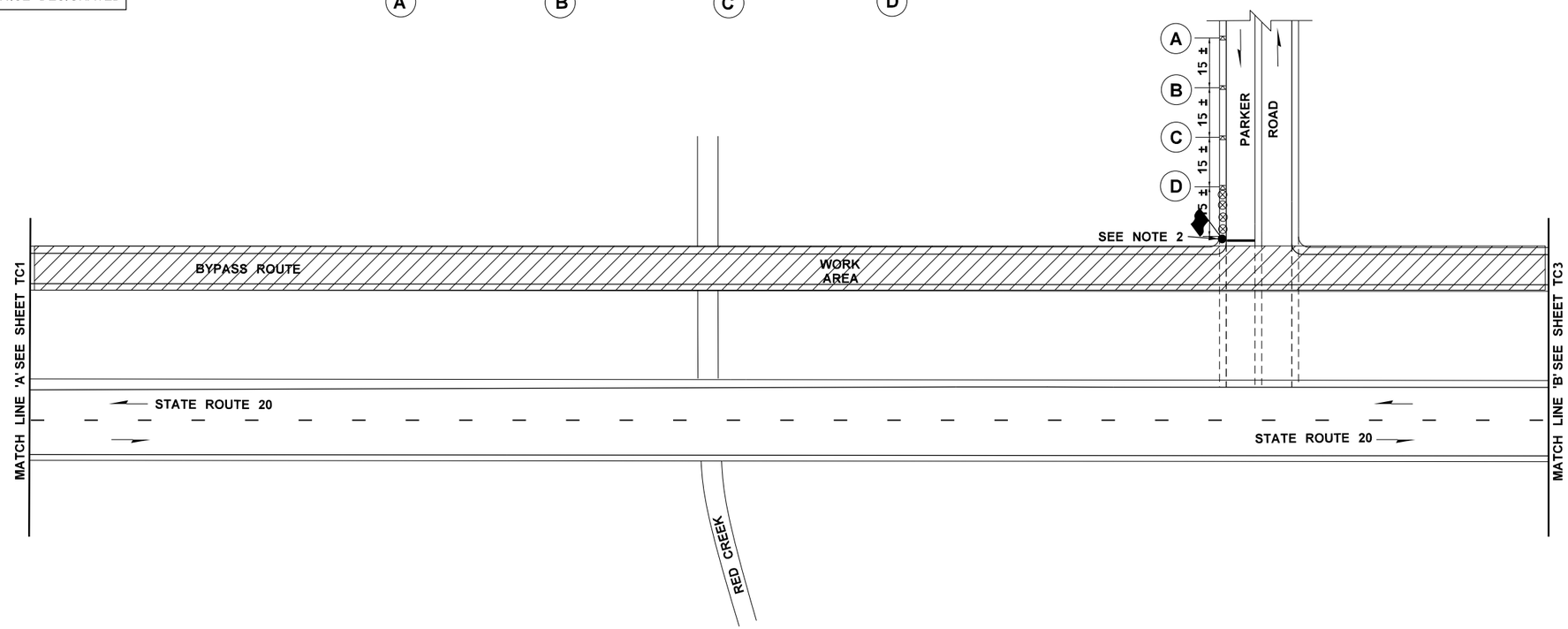
SIGN SPACING = X

RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

ALL SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED





LEGEND

- CLASS A SIGN
- CLASS B SIGN
- TRAFFIC SAFETY DRUMS - SEE SPECIAL PROVISIONS
- WORK ZONE
- TEMPORARY BARRIER
- TEMPORARY IMPACT ATTENUATOR
- FLAGGING STATION
- BARRICADE
- TEMPORARY LIGHTING
- TEMPORARY SIGNAL
- TRUCK MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- CREEK

NOTES

1. EXTENDING THE CHANNELIZING DEVICE TAPER ACROSS SHOULDER IS REQUIRED.
2. FLAGGER SHALL DIRECT VEHICLES ACROSS CONSTRUCTION ZONE WHILE BYPASS IS BEING CONSTRUCTED
3. NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS. SEE THE STANDARD SPECIFICATIONS 1-10.3(1) FOR ADDITIONAL DETAILS.
4. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

0 50 100
SCALE IN FEET

BY-PASS ROAD INSTALLATION

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD_BaseFiles\SR20_TCP1_PreBypass
TIME	12:00:00
DATE	02/14/2022
PLOTTED BY	Leesw
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.
JOB NUMBER 22A036
CONTRACT NO. | LOCATION NO.

P.E. STAMP BOX DATE
P.E. STAMP BOX DATE

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

TRAFFIC CONTROL PLAN

Plot 2
PLAN REF NO TC2
SHEET 73 OF 79 SHEETS

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B

SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

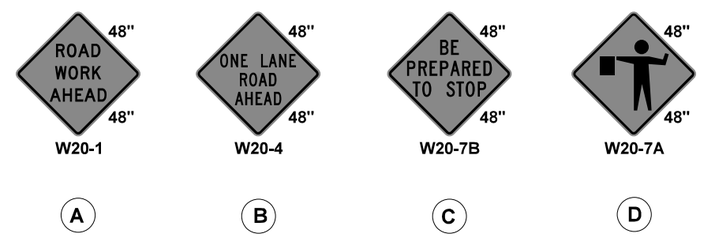
TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R

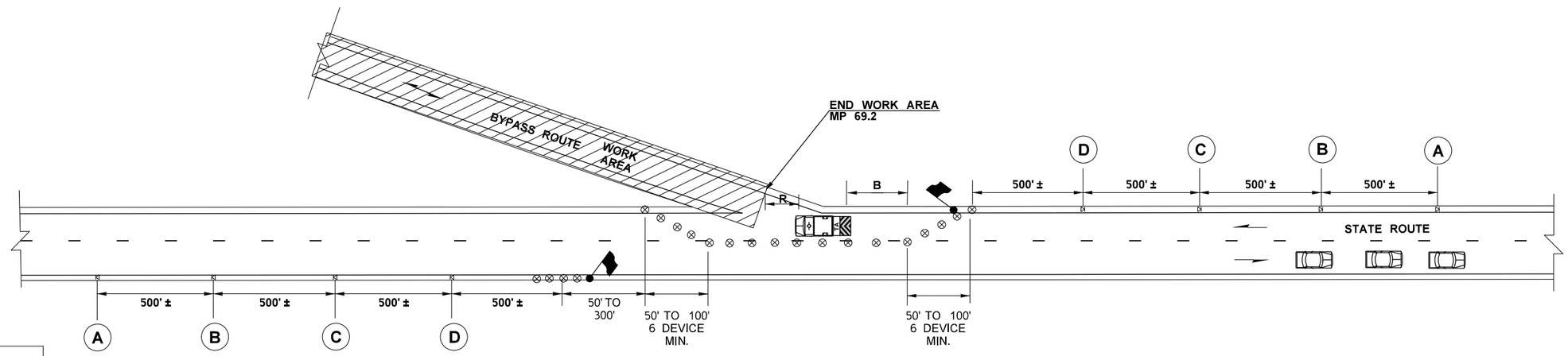
HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.			HOST VEHICLE WEIGHT > 22,000 lbs.		
< 45 MPH	45 - 55 MPH	> 55 MPH	< 45 MPH	45 - 55 MPH	> 55 MPH
100'	123'	172'	74'	100'	150'

PROTECTIVE VEHICLE (WORK VEHICLE) = R

NO SPECIFIED DISTANCE REQUIRED

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50-75	40	80
35-45	30	60
20-30	20	40





LEGEND

- CLASS A SIGN
- CLASS B SIGN
- TRAFFIC SAFETY DRUMS - SEE SPECIAL PROVISIONS
- WORK ZONE
- TEMPORARY BARRIER
- TEMPORARY IMPACT ATTENUATOR
- FLAGGING STATION
- BARRICADE
- TEMPORARY LIGHTING
- TEMPORARY SIGNAL
- TRUCK MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- CREEK

NOTES

1. EXTENDING THE CHANNELIZING DEVICE TAPER ACROSS SHOULDER IS REQUIRED.
2. FLAGGER SHALL DIRECT VEHICLES ACROSS CONSTRUCTION ZONE WHILE BYPASS IS BEING CONSTRUCTED.
3. NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS. SEE THE STANDARD SPECIFICATIONS 1-10.3(1) FOR ADDITIONAL DETAILS.
4. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

BY-PASS ROAD INSTALLATION

0 50 100
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD_BaseFiles\SR20_TCP1_PreBypass				
TIME	12:00:00				
DATE	02/14/2022				
PLOTTED BY	Leesw				
DESIGNED BY	A. LEWIS				
ENTERED BY	A. LEWIS				
CHECKED BY	A. WILLIAMS				
PROJ. ENGR.	S. BEIER				
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY	

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

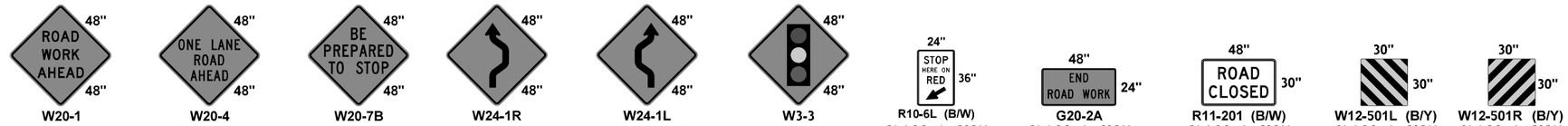
SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

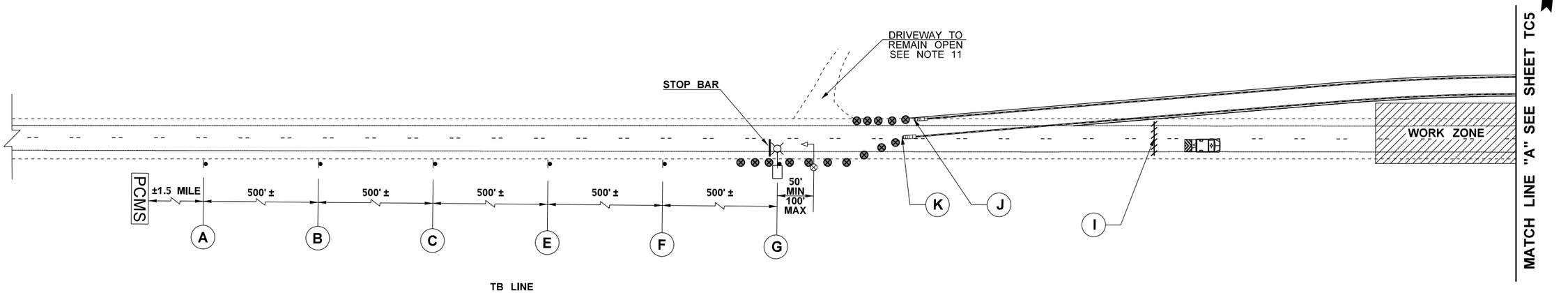
TRAFFIC CONTROL PLAN

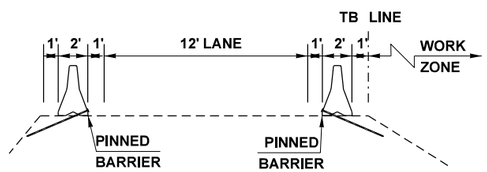
Plot 4

PLAN REF NO TC3

SHEET 74 OF 79 SHEETS







TEMPORARY BYPASS SECTION A-A
NTS (SEE NOTE 12)

SINGLE LANE BYPASS
ALTERNATING ONE-WAY SIGNAL
NOT TO SCALE

LEGEND

- CLASS A SIGN
- CLASS B SIGN
- TRAFFIC SAFETY DRUMS - SEE SPECIAL PROVISIONS
- WORK ZONE
- TEMPORARY BARRIER
- TEMPORARY IMPACT ATTENUATOR
- FLAGGING STATION
- BARRICADE
- TEMPORARY LIGHTING
- TEMPORARY SIGNAL
- TRUCK MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- CREEK

GENERAL NOTES:

1. MAINTAIN ACCESS FOR BUSINESSES AND RESIDENCES WITHIN WORK AREA.
2. ROAD ACCESS POINTS TO BE FLAGGED 24 HOURS PER DAY OR BE DIRECTED BY SIGNAL
3. TRANSPORTABLE ATTENUATOR (TA) IS REQUIRED
4. NIGHT WORK REQUIRES ADDITIONAL LIGHTING AT FLAGGING STATIONS. SEE STANDARD SPECIFICATIONS 1-10.3(1) FOR ADDITIONAL DETAILS.
5. SIGNS "BE PREPARED TO STOP" AND "FLAGGER AHEAD" SHOULD ONLY BE POSTED WHEN FLAGGERS ARE PRESENT.
6. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
7. PEDESTRIAN TRAFFIC SHALL BE ACCOMMODATED AT ALL TIMES, WHICH MAY INCLUDE ESCORTING PEDESTRIANS THROUGH THE WORK AREA AS NEEDED.
8. PCMS SHALL NOT BE MORE THAN 3 MILES FROM THE ACTUAL WORK OPERATION.
9. STOP BAR IS INLCUDED IN THE UNIT PRICE FOR TEMPORARY PAVEMENT MARKING SHORT DURATION.
10. DRIVEWAY MUST BE FLAGGED OR USE A DRIVE ASSISTANT DEVICE 24 / 7 DURING BYPASS AND ANY SINGLE LANE CLOSURE HOURS.
11. SEE SHEETS TB1 - TB3 FOR STRIPING AND ALIGNMENT INFORMATION.

5 CALENDAR DAYS BEFORE CONSTRUCTION BEGINS

PCMS MESSAGE #1	
PHASE 1	PHASE 2
LANE CLOSED W SIGNAL	BEGINS MONDAY XX / XX
2.0 SEC	2.0 SEC

FIELD LOCATE 1.5 MILE (+/-) IN ADVANCE OF LANE CLOSURE

DURING CONSTRUCTION

PCMS MESSAGE #2	
PHASE 1	PHASE 2
LANE CLOSURE W SIGNAL	1.5 MILES AHEAD
2.0 SEC	2.0 SEC

FIELD LOCATE 1.5 MILE (+/-) IN ADVANCE OF LANE CLOSURE

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)

MPH	TAPER	TANGENT
50-75	40	80
35-45	30	60
20-30	20	40

TL-3 APPROVED TEMPORARY IMPACT ATTENUATOR LIST

ASBORB 350 (9 ELEMENTS)	TRACC*
ASBORB-M (3 ELEMENTS)	QUEST*
SLED (4 MODULES)	QUADGUARD* (6 BAY)
ACZ-350 (4 SECTIONS)	
TRITON CET (6 SECTIONS)	

* ATTENUATOR IS WIDER THAN 2.0'.
TL-3 ATTENUATORS APPROVED FOR ALL SPEEDS.

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B

SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R

HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.			HOST VEHICLE WEIGHT > 22,000 lbs.		
< 45 MPH	45 - 55 MPH	> 55 MPH	< 45 MPH	45 - 55 MPH	> 55 MPH
100'	123'	172'	74'	100'	150'

PROTECTIVE VEHICLE (WORK VEHICLE) = R

NO SPECIFIED DISTANCE REQUIRED

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\410_XL6415_SR20_TCP2_BypassInstalled.dgn
TIME	12:16:26 PM
DATE	12/2/2022
PLOTTED BY	chavejl
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION | DATE | BY

REGION NO. 10 | STATE WASH | FED.AID PROJ.NO.

JOB NUMBER 22A036

CONTRACT NO. | LOCATION NO.

P.E. STAMP BOX DATE

P.E. STAMP BOX DATE

Washington State Department of Transportation

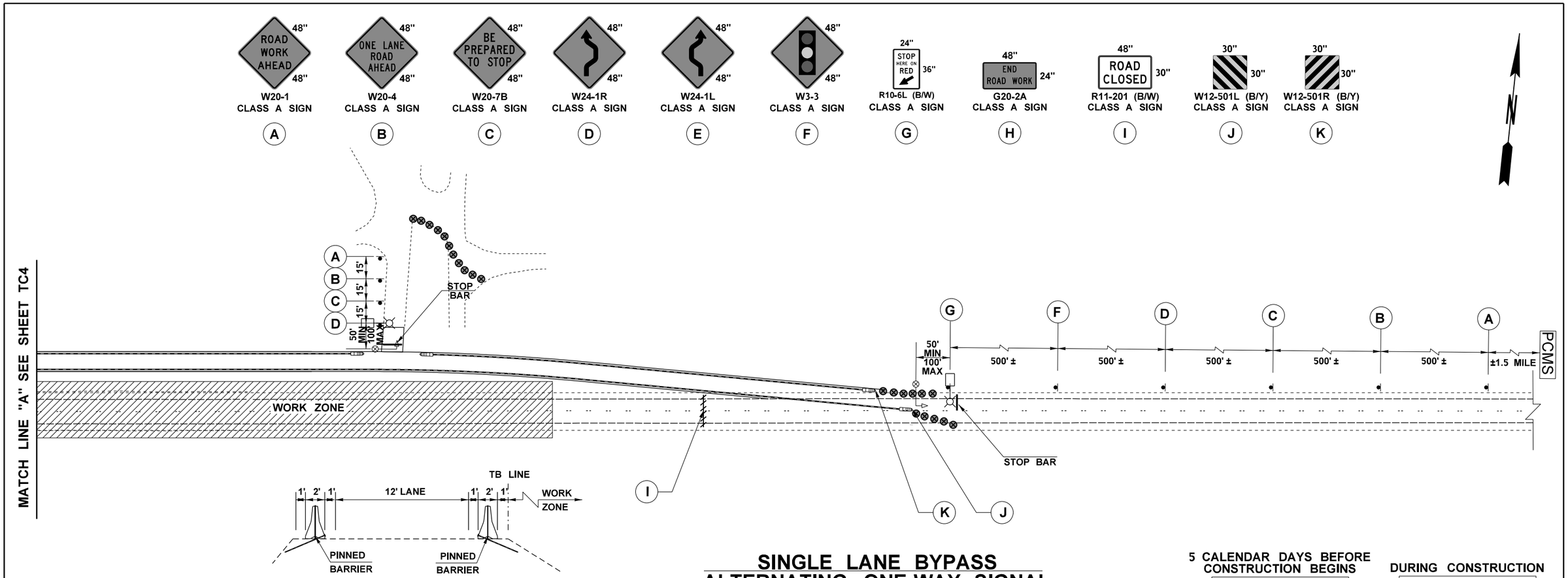
SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

TRAFFIC CONTROL PLAN

Plot 12

PLAN REF NO TC4

SHEET 75 OF 79 SHEETS



TEMPORARY BYPASS SECTION A-A
NTS (SEE NOTE 12)

SINGLE LANE BYPASS
ALTERNATING ONE-WAY SIGNAL
NOT TO SCALE

LEGEND

- CLASS A SIGN
- CLASS B SIGN
- TRAFFIC SAFETY DRUMS - SEE SPECIAL PROVISIONS
- WORK ZONE
- TEMPORARY BARRIER
- TEMPORARY IMPACT ATTENUATOR
- FLAGGING STATION
- BARRICADE
- TEMPORARY LIGHTING
- TEMPORARY SIGNAL
- TRUCK MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- CREEK

GENERAL NOTES:

1. MAINTAIN ACCESS FOR BUSINESSES AND RESIDENCES WITHIN WORK AREA.
2. ROAD ACCESS POINTS TO BE FLAGGED 24 HOURS PER DAY OR BE DIRECTED BY SIGNAL
3. TRANSPORTABLE ATTENUATOR (TA) IS REQUIRED
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5. SIGNS "BE PREPARED TO STOP" AND "FLAGGER AHEAD" SHOULD ONLY BE POSTED WHEN FLAGGERS ARE PRESENT.
6. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
7. PEDESTRIAN TRAFFIC SHALL BE ACCOMMODATED AT ALL TIMES, WHICH MAY INCLUDE ESCORTING PEDESTRIANS THROUGH THE WORK AREA AS NEEDED.
8. PCMS SHALL NOT BE MORE THAN 3 MILES FROM THE ACTUAL WORK OPERATION.
9. STOP BAR IS INLCUDED IN THE UNIT PRICE FOR TEMPORARY PAVEMENT MARKING SHORT DURATION.
10. DRIVEWAY MUST BE FLAGGED OR USE A DRIVE ASSISTANT DEVICE 24 / 7 DURING BYPASS AND ANY SINGLE LANE CLOSURE HOURS.
11. SEE SHEETS TB1 - TB3 FOR STRIPING AND ALIGNMENT INFORMATION.

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50-75	40	80
35-45	30	60
20-30	20	40

TL-3 APPROVED TEMPORARY IMPACT ATTENUATOR LIST	
ASBORB 350 (9 ELEMENTS)	TRACC*
ASBORB-M (3 ELEMENTS)	QUEST*
SLED (4 MODULES)	QUADGUARD* (6 BAY)
ACZ-350 (4 SECTIONS)	
TRITON CET (6 SECTIONS)	

* ATTENUATOR IS WIDER THAN 2.0'.
TL-3 ATTENUATORS APPROVED FOR ALL SPEEDS.

5 CALENDAR DAYS BEFORE CONSTRUCTION BEGINS

PCMS MESSAGE #1	
PHASE 1	PHASE 2
LANE CLOSED W SIGNAL	BEGINS MONDAY XX / XX
2.0 SEC	2.0 SEC

FIELD LOCATE 1.5 MILE (+/-) IN ADVANCE OF LANE CLOSURE

DURING CONSTRUCTION

PCMS MESSAGE #2	
PHASE 1	PHASE 2
LANE CLOSURE W SIGNAL	1.5 MILES AHEAD
2.0 SEC	2.0 SEC

FIELD LOCATE 1.5 MILE (+/-) IN ADVANCE OF LANE CLOSURE

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B

SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R

HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.			HOST VEHICLE WEIGHT > 22,000 lbs.		
< 45 MPH	45 - 55 MPH	> 55 MPH	< 45 MPH	45 - 55 MPH	> 55 MPH
100'	123'	172'	74'	100'	150'

PROTECTIVE VEHICLE (WORK VEHICLE) = R

NO SPECIFIED DISTANCE REQUIRED

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\410_XL6415_SR20_TCP2_BypassInstalled.dgn					
TIME	12:17:09 PM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	12/2/2022					
PLOTTED BY	chavejl				JOB NUMBER 22A036	
DESIGNED BY	A. LEWIS					
ENTERED BY	A. LEWIS					
CHECKED BY	A. WILLIAMS				CONTRACT NO.	LOCATION NO.
PROJ. ENGR.	S. BEIER					
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY		

DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

TRAFFIC CONTROL PLAN

Plot 13
PLAN REF NO TC5
SHEET 76 OF 79 SHEETS

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B

SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

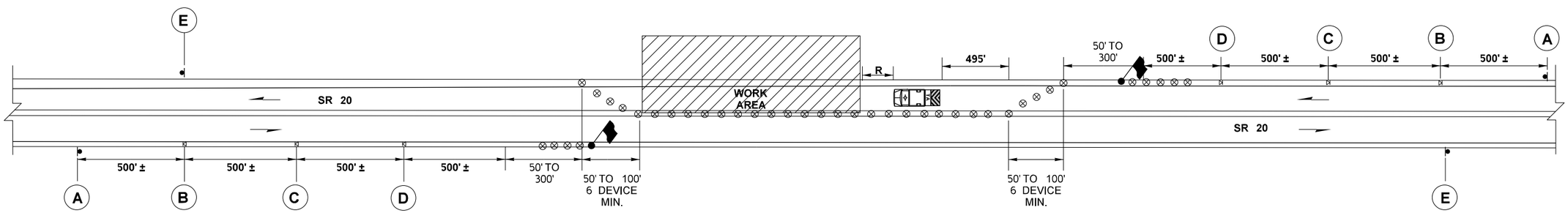
TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R

HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.			HOST VEHICLE WEIGHT > 22,000 lbs.		
< 45 MPH	45 - 55 MPH	> 55 MPH	< 45 MPH	45 - 55 MPH	> 55 MPH
100'	123'	172'	74'	100'	150'

PROTECTIVE VEHICLE (WORK VEHICLE) = R

NO SPECIFIED DISTANCE REQUIRED

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50-75	40	80
35-45	30	60
20-30	20	40



SINGLE LANE CLOSURE
AFTER BYPASS IS REMOVED

LEGEND

- CLASS A SIGN
- CLASS B SIGN
- TRAFFIC SAFETY DRUMS - SEE SPECIAL PROVISIONS
- WORK ZONE
- TEMPORARY BARRIER
- TEMPORARY IMPACT ATTENUATOR
- FLAGGING STATION
- BARRICADE
- TEMPORARY LIGHTING
- TEMPORARY SIGNAL
- TRUCK MOUNTED ATTENUATOR
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- CREEK

NOTES

1. EXTENDING THE CHANNELIZING DEVICE TAPER ACROSS SHOULDER IS REQUIRED.
3. NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS. SEE THE STANDARD SPECIFICATIONS 1-10.3(1) FOR ADDITIONAL DETAILS.
4. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD_BaseFiles\SR20_TCP3_BypassRemoval			
TIME	12:00:00			
DATE	02/14/2022			
PLOTTED BY	Leesw			
DESIGNED BY	A. LEWIS			
ENTERED BY	A. LEWIS			
CHECKED BY	A. WILLIAMS			
PROJ. ENGR.	S. BEIER			
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

TRAFFIC CONTROL PLAN

Plot 2

PLAN REF NO TC6

SHEET 77 OF 79 SHEETS

LEGEND

- ? SIGN FLAG
- CLASS A SIGN LOCATION
- DETOUR ROUTE

GENERAL NOTES:

1. ALL SIGNS SHALL BE BLACK ON ORANGE UNLESS OTHERWISE SPECIFIED.
2. THE DETOUR UTILIZES US BIKE ROUTE 10.
3. SIGNS MUST BE KEPT OUTSIDE BNSF RIGHT OF WAY. NO TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE PLACED WITHIN 25 FEET OF RAILROAD TRACKS.

PEDESTRIAN / BICYCLE DETOUR

0 1000 2000
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\450_XL6415_SR20_PS_Bicyle Detour Plan.dgn			
TIME	4:38:27 AM			
DATE	12/5/2022			
PLOTTED BY	LewisA			
DESIGNED BY	A. LEWIS			
ENTERED BY	A. LEWIS			
CHECKED BY	A. WILLIAMS			
PROJ. ENGR.	S. BEIER			
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER — STATE OF WASHINGTON — 36004 — REGISTERED PROFESSIONAL ENGINEER

SEE CT1
DATE
P.E. STAMP BOX

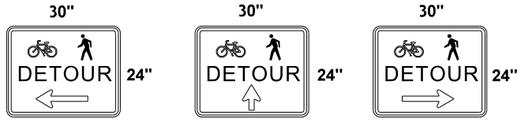
DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

DETOUR PLAN

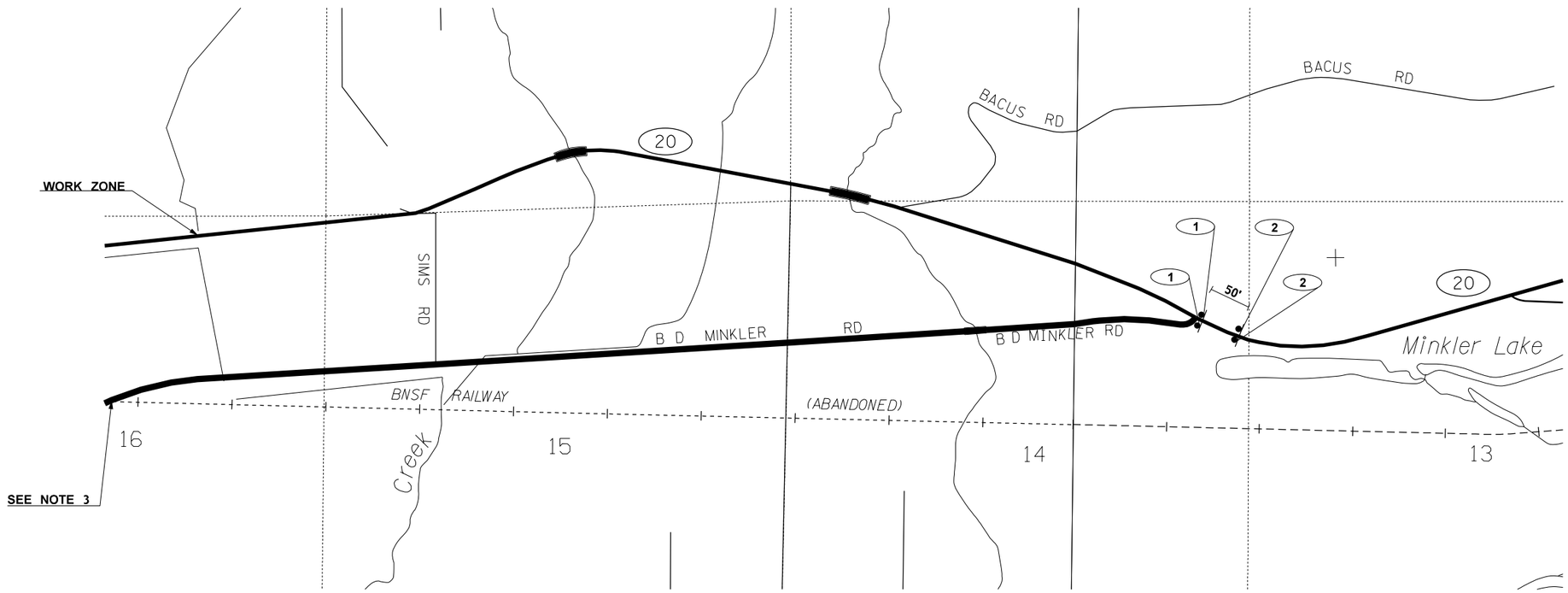
Plot 21
PLAN REF NO DP1
SHEET 78 OF 79 SHEETS



M4-9A(L)
CLASS A
1

M4-9A MOD
CLASS A
2

M4-9A(R)
CLASS A
3



LEGEND

- SIGN FLAG
- CLASS A SIGN LOCATION
- DETOUR ROUTE

GENERAL NOTES:

1. ALL SIGNS SHALL BE BLACK ON ORANGE UNLESS OTHERWISE SPECIFIED.
2. THE DETOUR UTILIZES US BIKE ROUTE 10.
3. SIGNS MUST BE KEPT OUTSIDE BNSF RIGHT OF WAY. NO TRAFFIC CONTROL DEVICES AND SIGNS SHALL BE PLACED WITHIN 25 FEET OF RAILROAD TRACKS.

PEDESTRIAN / BICYCLE DETOUR

0 1000 2000
SCALE IN FEET

FILE NAME	T:\412334\XL6415 SR 20 Trib to Red Creek\CAE\CAD\ContractPlans\450_XL6415_SR20_PS_Bicyle Detour Plan.dgn
TIME	4:38:35 AM
DATE	12/5/2022
PLOTTED BY	LewisA
DESIGNED BY	A. LEWIS
ENTERED BY	A. LEWIS
CHECKED BY	A. WILLIAMS
PROJ. ENGR.	S. BEIER
REGIONAL ADM.	B. NIELSEN

REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A036		
CONTRACT NO.		LOCATION NO.

SPENCER T. BEIER
STATE OF WASHINGTON
36005
REGISTERED
PROFESSIONAL ENGINEER

SEE CT1
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State
Department of Transportation

SR 20
UNNAMED TRIBUTARY TO RED CREEK
FISH PASSAGE

DETOUR PLAN

Plot 22
PLAN REF NO
DP2
SHEET 79 OF 79 SHEETS