

84779PE IGITAL SIGNATU OREGON VIANDA L. JOH

RENEWS: 6/30/2019



1821 SE 14TH AVE. PORTLAND, OR 97214 The Nature Conservancy

DESIGNED I
DESIGNED I
AJJR
AJJR
CHECKED B
CL
APPROVED I
CL/AJ

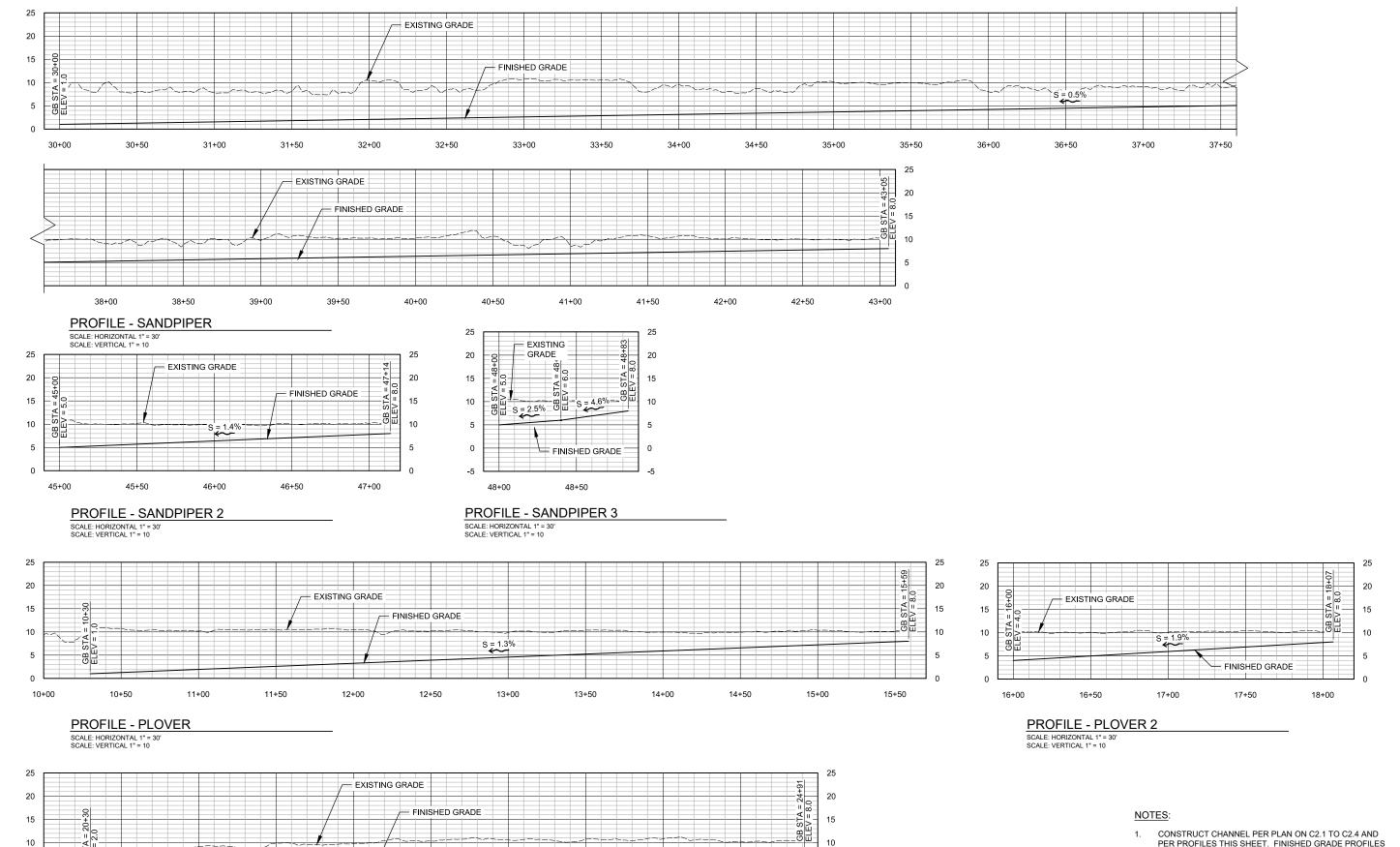
NATURE CONSERVANCY PORTER TRACT

CHANNEL PROFILES 1

JOB NO.

SHEET NO.

C3.1



20+00

20+50

SCALE: HORIZONTAL 1" = 30' SCALE: VERTICAL 1" = 10

PROFILE - HERON

21+00

21+50

22+00

22+50

23+00

23+50

24+00

24+50

- CONSTRUCT CHANNEL PER PLAN ON C2.1 TO C2.4 AND PER PROFILES THIS SHEET. FINISHED GRADE PROFILES REPRESENT CHANNEL BOTTOM ELEVATIONS. EXISTING GRADE IS BASED OFF OF LIDAR AND MAY VARY.
- 2. ELEVATIONS SHOWN ARE RELATIVE TO FEET NAVD88.

NATURE CONSERVANCY PORTER TRACT CHANNEL PROFILES 2

DIGITAL SIGNATU OREGON THAR. 8, 2016 CS

RENEWS: 6/30/2019

WOLF WATER RESOURCES, II 1001 SE WATER AVE, SUITE #1 PORTLAND, OR 97214 503 A07 ARR

1821 SE 14TH AVE. PORTLAND, OR 97214

The Nature Conservancy

DESIGNED E
AJ
DRAWN BY
AJJJR
CHECKED B
CL
CL/AJ

JOB NO. SHEET NO.

C3.2

STA	BOTTOM WIDTH FT	TOP WIDTH FT
	SNIPE	
50+20	8	15
56+00	8	12
56+20	6	10
57+20	6	10
57+40	4	8
58+60	4	8
58+80	2	5
59+50	2	3
	SNIPE CH2	
60+00	4	10
61+40	4	8
61+50	2	8
62+50	2	3
	SNIPE CH3	
64+00	4	9
64+80	4	8
64+80	2	6
65+25	2	3
	SNIPE CH4	
67+00	2	7
68+10	2	3

	1					
STA	BOTTOM WIDTH FT	TOP WIDTH FT				
SANDPIPER						
30+00	12	20				
33+45	12	20				
33+65	10	17				
35+05	10	17				
35+30	8	14				
36+90	8	13				
37+10	6	12				
40+20	6	11				
40+65	4	7				
42+00	4	7				
42+10	2	5				
43+05	2	3				
	SANDPIPER CH2					
45+00	4	10				
46+80	4	7				
46+85	2	5				
47+15	2	3				
	SANDPIPER CH3					
48+10	2	7				
48+83	2	3				
	'					

STA	BOTTOM WIDTH FT	TOP WIDTH FT				
PLOVER						
10+30	8	20				
11+80	8	15				
12+00	6	13				
13+60	6	11				
13+80	4	8				
15+00	4	7				
15+10	2	5				
15+60	2	3				
	PLOVER CH2					
16+00	6	12				
16+60	6	11				
16+70	4	9				
17+50	4	7				
17+60	2	5				
18+10	2	3				

STA	BOTTOM WIDTH FT	TOP WIDTH FT			
HERON					
20+30	6	12			
21+60	6	12			
21+80	4	9			
24+60	4	8			
24+80	2	5			
24+90	2	3			

STA	BOTTOM WIDTH FT	TOP WIDTH FT				
TURNSTONE						
70+00	6	13				
71+40	6	11				
71+60	4	9				
73+50	4	8				
73+60	2	6				
74+50	2	3				

STA	BOTTOM WIDTH FT	TOP WIDTH FT				
DUNLIN						
80+00	8	16				
83+45	8	12				
83+65	6	10				
85+45	6	9				
85+65	4	6				
86+70	4	6				
86+80	2	4				
87+10	2	3				
	DUNLIN CH2					
88+00	6	11				
88+40	6	10				
88+50	4	8				
89+00	4	6				
89+00	2	4				
89+25	2	3				

STA	BOTTOM WIDTH FT	TOP WIDTH FT				
Pe	PORTER CONNECTION CHANNEL					
1+85	12	40				
2+40	12	35				
2+65	12	30				
3+20	12	30				
3+45	12	35				
3+70	12	40				
3+45	12	35				

# NOTES:

- CONSTRUCT CHANNELS PER GEOMETRY ON THIS SHEET AND CROSS SECTION DETAIL ON SHEET 5.1.
- LAYOUT CHANNEL HORIZONTAL ALIGHMENTS ACCORDING TO PLANS ON SHEETS C2.1 AND C2.4 AND PER ELECTRONIC CAD FILE PROVIDED BY CONTRACTOR.
- CHANNEL SIDE SLOPES ARE IN 1H:2V UNLESS OTHERWISE



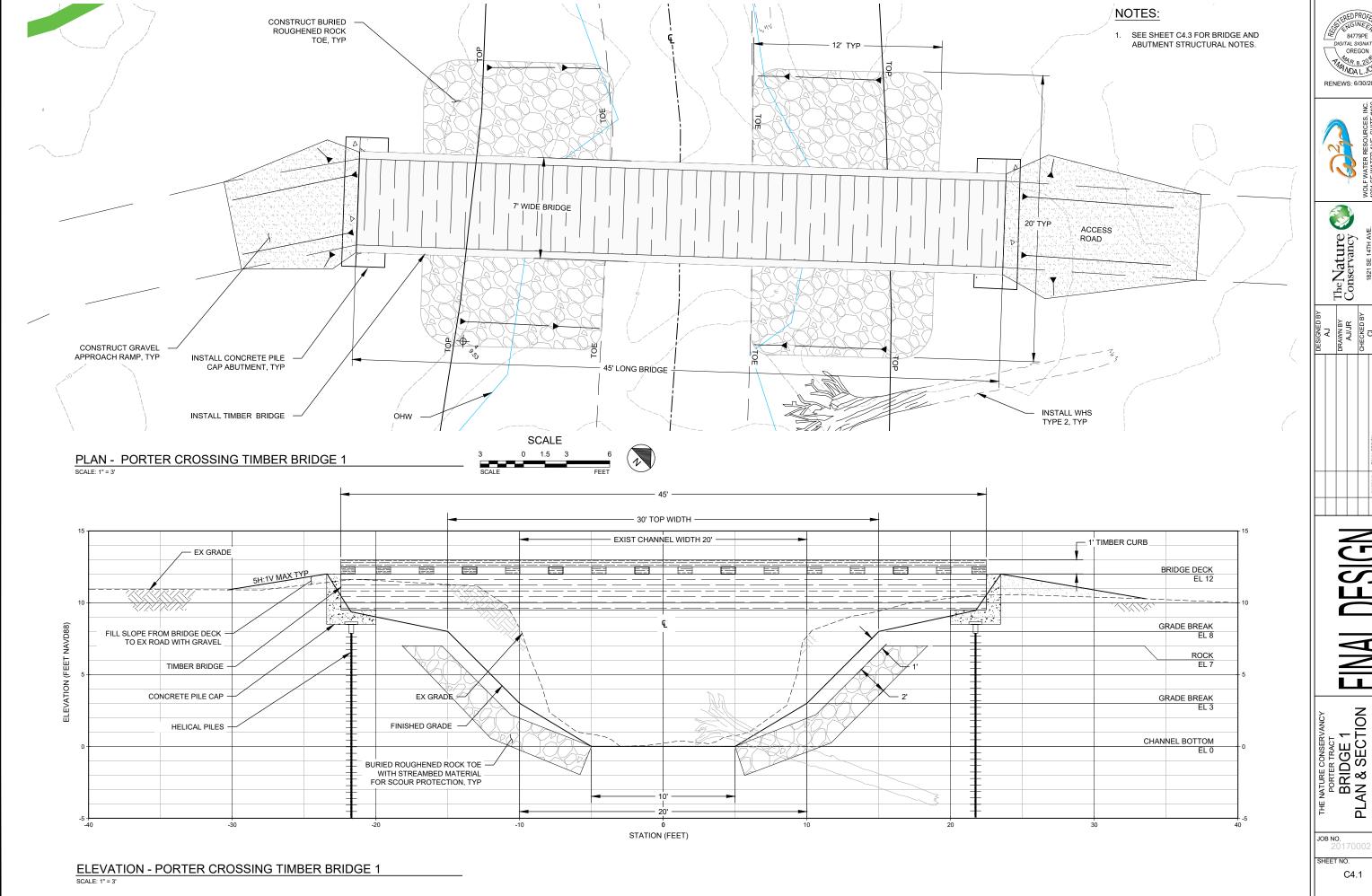


ברסופוגרם הו	Ā	DRAWN BY AJ/JR		CHECKED BY	ಶ	APPROVED BY	CL/AJ
					INAL DESIGN	DESCRIPTION	REVISION

CHANNEL GEOMETRY FINAL DESIGN

JOB NO. 20170002 SHEET NO.

C3.3

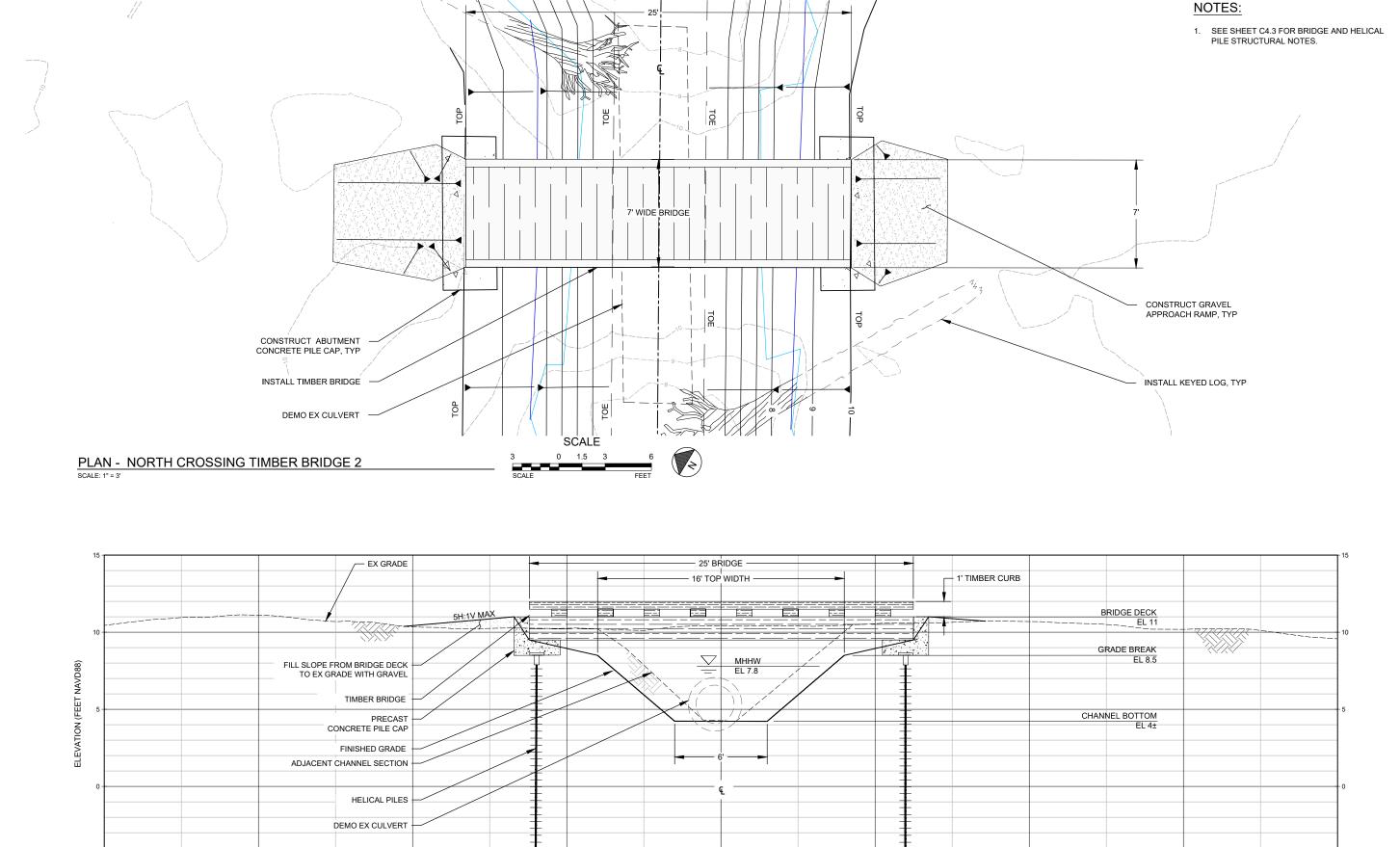


84779PE DIGITAL SIGNATUR OREGON 7/14/R.8.2016 CS

RENEWS: 6/30/2019

1821 SE 14TH AVE. PORTLAND, OR 97214

20170002



STATION (FEET)

84779PE
DIGITAL SIGNATURE
OREGON THANDALJONE

RENEWS: 6/30/2019

The Nature Conservancy 1821 SE 14TH AVE. PORTLAND, OR 97214

THE NATURE CONSERVANCY PORTER TRACT BRIDGE 2 PLAN & SECTION

JOB NO.

SHEET NO. C4.2

**ELEVATION - NORTH CROSSING TIMBER BRIDGE 2** 

## **BRIDGE STRUCTURAL NOTES:**

- 1. BRIDGE AND ABUTMENT SYSTEM SHOWN IS CONCEPTUAL. CONTRACTOR SHALL SUBMIT PREFAB BRIDGE AND ABUTMENT SYSTEM PLAN FOR ENGINEER REVIEW AND APPROVAL. BRIDGES SHALL BE TIMBER (ALASKAN YELLOW CEDAR OR APPROVED EQUIVALENT WITHOUT PRESSURE TREATMENT).
- 2. PERFORMANCE SPECIFICATIONS FOR PREFABRICATED BRIDGE AND ABUTMENT SYSTEM: I FNGTH:

PORTER CROSSING - 45' TOTAL (BRIDGE 1)
NORTH CROSSING - 25' TOTAL (BRIDGE 2)
DTH: APPROX 7' TOTAL

WIDTH:

LIGHT VEHICLES & PEDESTRIAN ACCESS USE:

DECK EL:

PORTER CROSSING - EL 12 FT NAVD88

NORTH CROSSING - EL 11 FT NAVD88

NONE, 6" CURB RAILS ON 6" BLOCKS (12" TOTAL CURB HEIGHT) GUARDRAIL:

LOADING:

LIVE : 90 PSF

STRUCTURE WEIGHT DEAD: LATERAL: 2 FT/S DEBRIS WIND: 85 MPH - EXPOSURE C DECK: ALASKAN YELLOW CEDAR TREATMENT: NO TREATMENT ALLOWED

3. STEEL COMPONENT SPECIFICATIONS:

STEEL SHAPES : ASTM A36

HARDWARE: ASTM A307 (A325 AS NOTED)

HOT DIP GALVANIZE ALL STEEL SHAPES AFTER FABRICATION.

HOT DIP GALVANIZE ALL HARDWARE,

ALL WELDING TO BE PER AWS SPECIFICATIONS CERTIFIED WELDERS. TREAT ALL FIELD MODIFICATIONS W/ COLD GALVANIZING PAINT.

- 4. WOOD SURFACE SEALER SHALL BE APPLIED ACCORDING TO MANUFACTURER SPECIFICATIONS AND SLOPES V REQUIREMENTS.
- BEARING PADS, ANCHOR BOLTS, AND ALL BRIDGE/ABUTMENT CONNECTION HARDWARE SHALL BE SUPPLIED WITH BRIDGE.
- 6. CERTIFIED TEST REPORTS SHALL BE FURNISHED FOR THE STRUCTURAL BRIDGE ELEMENTS, HIGH STRENGTH BOLTS, ELASTOMERIC BEARING PADS, AND ANCHOR BOLTS.
- CAR AND ENGINEER TO VERIFY COORDINATES IN FIELD BEFORE PLACEMENT. BRIDGE COORDINATES AT ENDS (ALONG MIDLINE):

PORTER CONNECTION BRIDGE 2: NORTH: N: 685547.81 F: 7340373 80

> SOUTH: N: 685580.80 E: 7340404.38

NORTHERN BRIDGE 1:

NORTH: N: 686458.01 E: 7340625.06

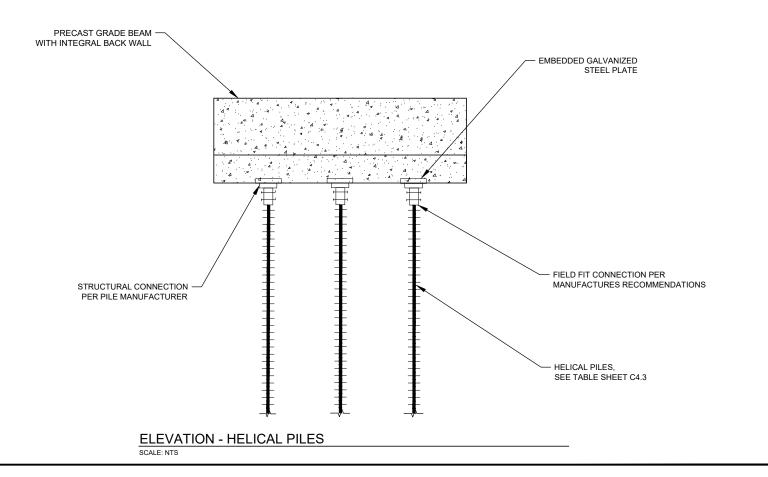
SOUTH: N: 686436.62 E: 7340637.87 REMOVED CULVERTS TO BE TAKEN OFF SITE AND DISPOSED OF IN A MANNER AND LOCATION APPROVED BY CAR.

BRIDGE ABUTMENT SYSTEM SHALL COMPLY WITH REQUIREMENTS OF GEOTECHNICAL ENGINEERING REPORT (GEOTECHNICS LLC) AVAILABLE UPON REQUEST FROM CAR.

- 10. ABUTMENTS SHALL BE PRECAST REINFORCED CONCRETE PILE CAPS SUPPORTED BY HELICAL PILES, AND SHALL BE CONSTRUCTED PER BRIDGE MANUFACTURER SPECIFICATIONS. CAR AND ENGINEER TO APPROVE BRIDGE AND ABUTMENT SYSTEM PRIOR TO MANUFACTURING.
- 11. RECOMMENDED HELIX CONFIGURATIONS OF SINGLE SHAFT, 2-7/8 INCH OUTSIDE DIAMETER ARE SHOWN IN THE TABLE BELOW.
- 12. BRIDGE 2 HELICAL PILE ALTERNATIVES REFER TO THE NUMBER OF PILES (2 OR 3).

HELICAL ANCHOR DESIGN RECOMMENDATIONS								
	# OF H-PILES PER END	HELIX CONFIGURATION	MINIMUM SPACING (FT)	MINIMUM TORQUE (FT-LB)	MINIMUM PILE DEPTH	ESTIMATED PILE DEPTH AT MIN TORQUE		
BRIDGE 1	3	10"/12"	3.0	890	12	15		
BRIDGE 2 - ALT 1	2	10"/12"	3.0	890	14	18	PRECAST GRADE BEAM WITH INTEGRAL BACK WALL	
BRIDGE 2 - ALT 2	3	8"/10"	2.5	560	14	18	INTEGRAL BACK WALL	
EMBEDDED STEEL ®								
							ROUND HSS	
					CNT		STEEL CAP &	
			<u> </u>	<u> PLAN - ABUTM</u>	EINI			

SCALE: NTS



84779PE

OREGON

MANDA L.JON

RENEWS: 6/30/2019

The Nature Conservancy

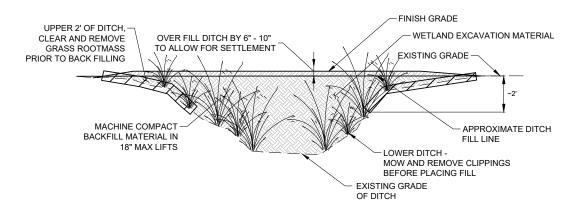
POKIEK INGE BRIDGE STRUCTURAL NOTES

JOB NO. SHEET NO

C4.3

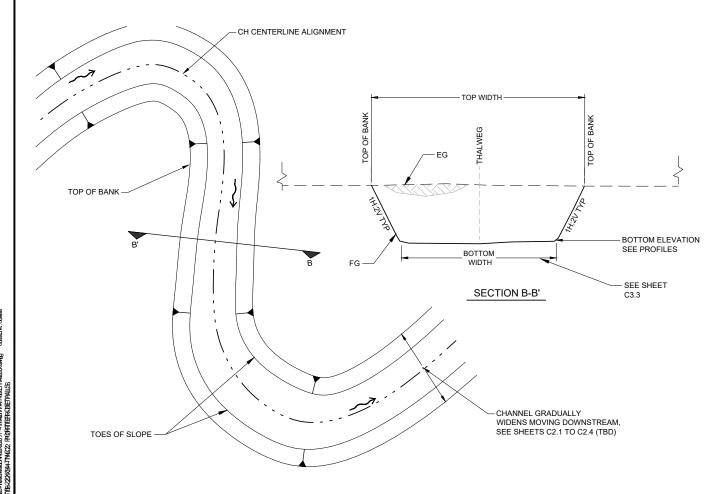


- DEWATER DITCHES COMPLETELY PRIOR TO BACKFILLING IN ACCORDANCE WITH SPECIFICATIONS.
- 2. REMOVE ORGANIC MATERIAL FROM EXCAVATION MATERIAL BEFORE PLACING AS FILL.



DITCH BACKFILL DETAIL

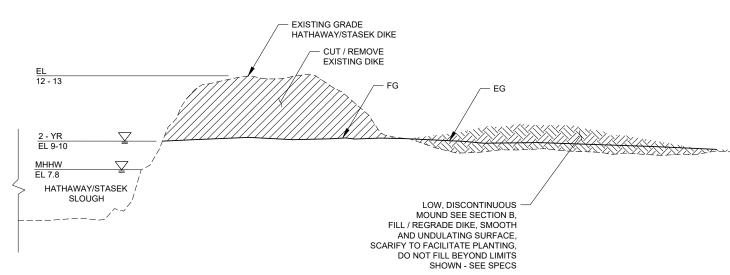
NOT TO SCALE



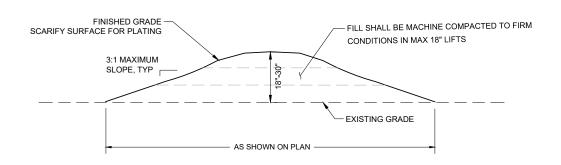
## NOTES:

1. SEE GEOMETRY TABLES FOR BOTTOM ELEVATIONS AND BOTTOM WIDTHS (TBD).

TYPICAL CHANNEL PLAN & SECTION NOT TO SCALE



HATHAWAY AND STASEK SLOUGH DIKE REMOVAL - TYPICAL SECTION NOT TO SCALE



LOW MOUND - TYPICAL SECTION NOT TO SCALE

84779PE GITAL SIGNATU OREGON RENEWS: 6/30/2019

The Nature Conservancy

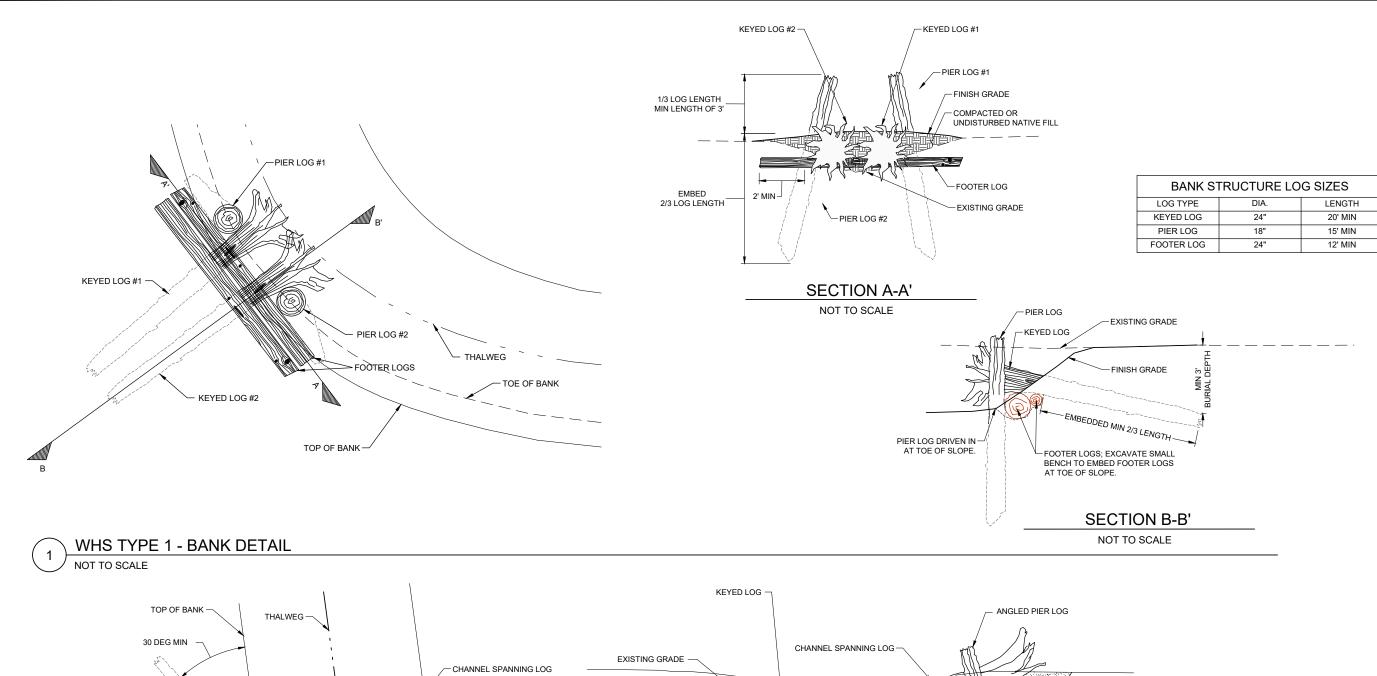
1821 SE 14TH AVE. PORTLAND, OR 97214

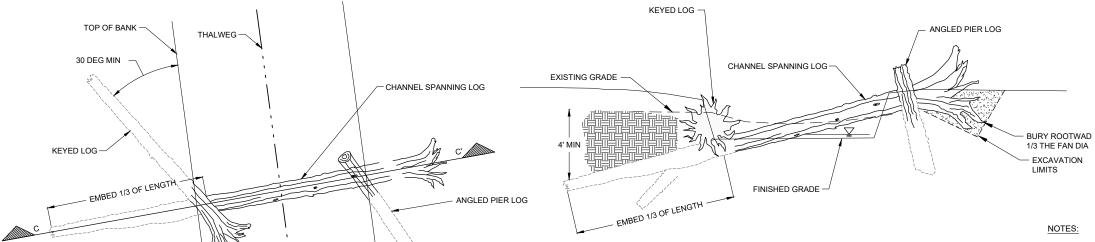
FINAL DESIGN

GRADING DETAILS

JOB NO. 20170002 SHEET NO.

C5.1





30 DEG MIN

**SECTION C-C'** 

NOT TO SCALE

CHANNEL SPANNING STRUCTURE				
LOG SIZES				
LOG TYPE	DIA.	LENGTH		
CH. SPANNING	24"	30' - 40'		
KEYED LOG	16" - 20"	20'		
PIER LOG	12" - 18"	12'		

- 1. SEE INDIVIDUAL LOG DETAILS ON SHT C5.3.
- 2. THE WHS-CHANNEL SPANNING STRUCTURE WILL BE CONSTRUCTED IN TWO DIFFERENT SIZES, PROPORTIONAL TO THE CHANNEL SIZE. REFER TO LOG SIZE TABLES AND SPECIFICATIONS FOR LOG REQUIREMENTS AND NUMBER OF EACH SIZE.
- 3. INSTALL ALL LOGS BY SHARPENING ENDS WITH A CHAINSAW AND DRIVING THE LOG INTO THE GROUND. EXCAVATE ONLY AS NECESSARY

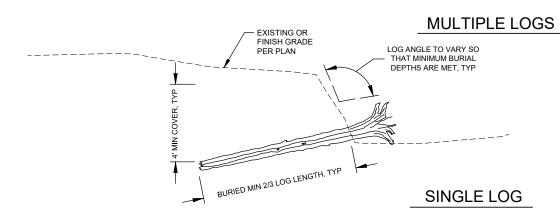
OREGON RENEWS: 6/30/2019

HABITAT DETIALS

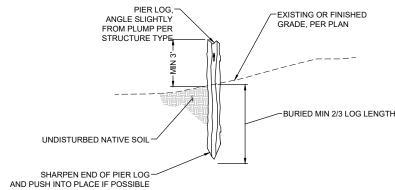
JOB NO.

SHEET NO. C5.2

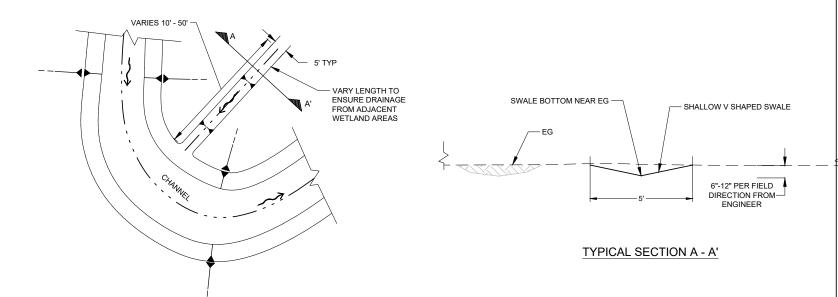
WHS TYPE 2 - CHANNEL SPANNING DETAIL NOT TO SCALE



WHS TYPE 3 - KEYED LOG NOT TO SCALE



PIER LOG NOT TO SCALE



PILOT SWALE DETAIL NOT TO SCALE

TYPICAL PLAN

FINAL DESIGN

84779PE GITAL SIGNATU OREGON

RENEWS: 6/30/2019

1821 SE 14TH AVE. PORTLAND, OR 97214

The Nature Conservancy

HABITAT DETIALS 2

JOB NO.

SHEET NO. C5.3

-BURIED MIN 2/3 LOG LENGTH

1" = 500' (FOR 22" x 34" SHEETS)

## **EROSION CONTROL LEGEND:**

WATTLES

TURBIDITY CURTAIN

84779PE OREGON RENEWS: 6/30/2019

1821 SE 14TH AVE. PORTLAND, OR 97214 The Nature Conservancy

FINAL DESIGN

ESC PLAN

JOB NO.

SHEET NO. ESC1.1

- ENTER SITE AT DESIGNATED ENTRANCE POINT UNLESS APPROVED BY ENGINEER.
- ALL ACCESS ROUTES AND SITE ENTRANCES SHALL BE RESTORED ACCORDING TO SPECIFICATIONS AND SEEDING
- CHANNELS ONE AND TWO SHALL BE GRADED FIRST. KEEP EXISTING DIKES IN PLACE UNTIL GRADING IN THE CENTER OF THE SITE IS FINISHED. DO NOT CONNECT CHANNEL 3 TO THE KILCHIS RIVER AND THE STASEK SLOUGH UNTIL THE CHANNEL GRADING HAS BEEN FINISHED. DEMO CULVERTS AND RECONSTRUCT EARTHEN BERMS AS A LAST STAGE OF CONSTRUCTION. CONSTRUCTION.
- SEE SHEET C2.2 FOR DIKE REMOVAL SUMMARY TABLE.

NOTE: CONSTRUCT WHEEL WASH AT CONSTRUCTION ENTRANCES AS NECESSARY TO PREVENT SEDIMENT FROM LEAVING SITE.

STREAM FLOW

ANCHOR PT.

RADIUS = 25' MIN.

**CONSTRUCTION ENTRANCE** 

DEPTH 8 INCHES MIN.

6" - 4" QUARRY SPALLS

SUBGRADE REINFORCEMENT 
GEOTEXTILE REQUIRED

ABUT ENDS TIGHTLY. PLACE IN SERIES, PARALLEL WITH CONTOURS STRAW WATTLES MADE WITH LOOSE COMPACTION RICE STRAW PLAN VIEW STAKES - STAKE AT 4" OFF CENTER BIODEGRADABLE STRAW WATTLES, PER SPECIFICATIONS

**SECTION** 

FLOW

METER SIZE

SAND BAGS

STRAW WATTLE

METER SIZE VARIES PREPARE BANKS PRIOR TO PLACEMENT SECTION

SECURE WRAP WITH SANDBAG IMPERVIOUS -SYNTHETIC WRAP DEWATERING PUMP METER SIZE FLOW **BULK BAGS** CHANNEL BED-PREPARE CHANNEL BED PRIOR TO PLACEMENT PROFILE

PLAN

- 1. INSTALL TEMPORARY COFFER DAMS AS SHOWN ON PLANS TO ISOLATE THE EXCAVATION AREAS.
- 2. IN ADDITION TO BULK BAGS, USE AN IMPERVIOUS SYNTHETIC LINER TO REDUCE PERMEABILITY OF THE COFFER DAM.
- 3. HEIGHT OF THE COFFER DAMS SHALL BE HIGH ENOUGH TO PREVENT BYPASS FLOWS FROM ENTERING THE ISOLATED WORK AREA. DAM HEIGHTS AND MATERIALS SHALL BE INCLUDED IN THE CONTRACTOR'S WORK CONTAINMENT AND DEWATERING PLAN.

TEMPORARY COFFER DAM

84779PE GITAL SIGNATU OREGON RENEWS: 6/30/2019

1821 SE 14TH AVE. PORTLAND, OR 97214 The Nature Conservancy

FINAL DESIGN

**ESC DETAILS** 

JOB NO. 20170002

SHEET NO. ESC 1.2

2

#### GENERAL NOTES FOR EROSION, SEDIMENT & POLLUTANT CONTROL

- 1. EROSION, SEDIMENT AND POLLUTANT CONTROL IS REQUIRED FOR THIS PROJECT.
- PREPARE AN EROSION, SEDIMENT AND POLLUTANT CONTROL PLAN (ESPCP) BEFORE BEGINNING WORK. KEEP A COPY OF THE ESPCP ON SITE AT ALL TIMES DURING THE PROJECT.
- 3. THE EROSION AND SEDIMENT CONTROL FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE AND SEASONAL CONDITIONS. UPGRADE THESE FACILITIES TO ADDRESS CHANGING WORK OR WEATHER CONDITIONS
- 4. SELECT BEST MANAGEMENT PRACTICES (BMPs) FROM THE FOLLOWING DOCUMENTS: 1) THE CITY OF PORTLAND EROSION AND SEDIMENT CONTROL MANUAL; 2) THE STANDARD CONSTRUCTION SPECIFICATIONS AND 3) THE PROJECT SPECIAL PROVISIONS.
- 5. INSTALL, MONITOR, REPLACE AND UPGRADE ALL FACILITIES AND MEASURES. PERFORM MAINTENANCE TO ENSURE THEIR CONTINUED FUNCTIONING.
- INSPECT AND MAINTAIN ALL FACILITIES AND MEASURES UNTIL WORK AREAS ARE RESURFACED OR STABILIZED.
- COMPLETE AN EROSION CONTROL MONITORING FORM AFTER EACH INSPECTION. INCLUDE THE INSPECTION DATE AND TIME. RETAIN THESE COMPLETED FORMS ON SITE AND PROVIDE THEM UPON REQUIEST.
- 3. NO VISIBLE AND MEASURABLE SEDIMENT OR POLLUTANT SHALL EXIT THE SITE, ENTER A PUBLIC RIGHT-OF-WAY OR BE DEPOSITED INTO ANY WATER BODY OR STORM DRAINAGE SYSTEM.
- FOLLOWING A STORM EVENT, INSPECT AND ADJUST, REPAIR, IMPROVE OR REPLACE ALL DEFICIENT OR FAILING FACILITIES AND MEASURES.
- 10. PROTECT ALL FUNCTIONING STORM WATER INLETS AND CATCH BASINS FROM RECEIVING UNFILTERED SEDIMENT -LADEN RUNOFF.
- 11. REMOVE SEDIMENT AND DEBRIS FROM INLETS AND CATCH BASINS BEFORE PAVING. DO NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- 12. STABILIZE ALL EXPOSED SOIL IMMEDIATELY FOLLOWING GROUND DISTURBING ACTIVITY.
- 13. STABILIZE AND PROTECT STOCKPILED SOIL WITH APPROVED MEASURES.
- 14. REMOVE EROSION AND SEDIMENT CONTROL FACILITIES AFTER THE PROJECT IS COMPLETED AND ACCEPTED.

SITE CONDITION	MINIMUM FREQUENCY
ACTIVE PERIOD	DAILY WHEN STORMWATER RUNOFF, INCLUDING RUNOFF FROM SNOW MELT, IS OCCURRING. AT LEAST ONCE EVERY 14 DAYS, REGARDLESS OF WHETHER STORMWATER RUNOFF IS OCCURRING.
PRIOR TO THE SITE BECOMING INACTIVE OR IN ANTICIPATION OF SITE INACCESSIBILITY	ONCE TO ENSURE THAT EROSION AND SEDIMENT CONTROL MEASURE ARE IN WORKING ORDER. ANY NECESSARY MAINTENANCE AND REPAIR MUST BE MADE PRIOR TO LEAVING THE SITE.
INACTIVE PERIODS GREAT THAN FOURTEEN     (14) CONSECUTIVE CALENDAR DAYS	ONCE EVERY MONTH
PERIODS DURING WHICH THE SITE IS INACCESSIBLE DUE TO INCLEMENT WEATHER	IF PRACTICAL, INSPECTIONS MUST OCCUR DAILY AT A RELEVANT AND ACCESSIBLE DISCHARGE POINT OR DOWNSTREAM LOCATION.
5. PERIODS DURING WHICH DISCHARGE IS UNLIKELY DUE TO FROZEN CONDITIONS	MONTHLY. RESUME MONITORING IMMEDIATELY UPON MELT, OR WHEN WEATHER CONDITIONS MAKE DISCHARGES LIKELY.

#### **ODEQ STANDARD ESCP NOTES:**

- HOLD A PRE-CONSTRUCTION MEETING OF PROJECT CONSTRUCTION PERSONNEL THAT INCLUDES THE INSPECTOR TO DISCUSS EROSION AND SEDIMENT CONTROL MEASURES AND CONSTRUCTION LIMITS. (SCHEDULE A.8.C.I.(3))
- ALL INSPECTIONS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS. (SCHEDULE A.12.B AND SCHEDULE B.1)
- INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS. (SCHEDULE B.1.C AND B.2)
- 4. RETAIN A COPY OF THE ESCP AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY. DURING INACTIVE PERIODS OF GREATER THAN SEVEN (7) CONSECUTIVE CALENDAR DAYS, THE ABOVE RECORDS MUST BE RETAINED BY THE PERMIT REGISTRANT BUT DO NOT NEED TO BE AT THE CONSTRUCTION SITE. (SCHEDULE B.2A.C)
- ALL PERMIT REGISTRANTS MUST IMPLEMENT THE ESCP. FAILURE TO IMPLEMENT ANY OF THE CONTROL MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT. (SCHEDULE A 8.A)
- 6. THE ESCP MUST BE ACCURATE AND REFLECT SITE CONDITIONS. (SCHEDULE A.12.C.I)
- SUBMISSION OF ALL ESCP REVISIONS IS NOT REQUIRED. SUBMITTAL OF THE ESCP REVISIONS IS ONLY UNDER SPECIFIC CONDITIONS. SUBMIT ALL NECESSARY REVISION TO DEQ OR AGENT WITHIN 10 DAYS. (SCHEDULE A.12 C.IV. AND V)
- PHASE CLEARING AND GRADING TO THE MAXIMUM EXTENT PRACTICAL TO PREVENT EXPOSED INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION. (SCHEDULE A.7.A.III)
- IDENTIFY, MARK, AND PROTECT (BY CONSTRUCTION FENCING OR OTHER MEANS) CRITICAL RIPARIAN AREAS AND VEGETATION INCLUDING IMPORTANT TREES AND ASSOCIATED ROOTING ZONES, AND VEGETATION AREAS TO BE PRESERVED. IDENTIFY VEGETATIVE BUFFER ZONES BETWEEN THE SITE AND SENSITIVE AREAS (E.G., WETLANDS), AND OTHER AREAS TO BE PRESERVED, ESPECIALLY IN PERIMETER AREAS. (SCHEDULE A.8.C.I.(1) AND (2))
- PRESERVE EXISTING VEGETATION WHEN PRACTICAL AND RE-VEGETATE OPEN AREAS.
   RE-VEGETATE OPEN AREAS WHEN PRACTICABLE BEFORE AND AFTER GRADING OR
   CONSTRUCTION. IDENTIFY THE TYPE OF VEGETATIVE SEED MIX USED. (SCHEDULE A.7.A.V.)
- 11. MAINTAIN AND DELINEATE ANY EXISTING NATURAL BUFFER WITHIN THE 50-FEET OF WATERS OF THE STATE. (SCHEDULE A.7.B.I.AND (2(A)(B))
- 12. INSTALL PERIMETER SEDIMENT CONTROL, INCLUDING STORM DRAIN INLET PROTECTION AS WELL AS ALL SEDIMENT BASINS, TRAPS, AND BARRIERS PRIOR TO LAND DISTURBANCE. (SCHEDULE A.8.C.I.(5))
- 13. CONTROL BOTH PEAK FLOW RATES AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS AND DOWNSTREAM CHANNELS AND STREAMBANKS. (SCHEDULE A.7.C.)
- 14. CONTROL SEDIMENT AS NEEDED ALONG THE SITE PERIMETER AND AT ALL OPERATIONAL INTERNAL STORM DRAIN INLETS AT ALL TIMES DURING CONSTRUCTION, BOTH INTERNALLY AND AT THE SITE BOUNDARY. (SCHEDULE A.7.D.I)
- 15. ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK. (SCHEDULE A.8.C.I.(6))
- 16. APPLY TEMPORARY AND/OR PERMANENT SOIL STABILIZATION MEASURES IMMEDIATELY ON ALL DISTURBED AREAS AS GRADING PROGRESSES. TEMPORARY OR PERMANENT STABILIZATIONS MEASURES ARE NOT REQUIRED FOR AREAS THAT ARE INTENDED TO BE LEFT UNVEGETATED, SUCH AS DIRT ACCESS ROADS OR UTILITY POLE PADS.(SCHEDULE A.8.C.II.(3))
- 17. ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS. (SCHEDULE A.8.C.I.(7))
- 18. PREVENT TRACKING OF SEDIMENT ONTO PUBLIC OR PRIVATE ROADS USING BMPS SUCH AS: CONSTRUCTION ENTRANCE, GRAVELED (OR PAVED) EXITS AND PARKING AREAS, GRAVEL ALL UNPAVED ROADS LOCATED ONSITE, OR USE AN EXIT TIRE WASH. THESE BMPS MUST BE IN PLACE PRIOR TO LAND- DISTURBING ACTIVITIES. (SCHEDULE A 7.D.II AND A.8.C.I(4))
- 19. WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE. (SCHEDULE A.7.D.II.(5))
- 20. CONTROL PROHIBITED DISCHARGES FROM LEAVING THE CONSTRUCTION SITE, I.E., CONCRETE WASH-OUT, WASTEWATER FROM CLEANOUT OF STUCCO, PAINT AND CURING COMPOUNDS. (SCHEDULE A.6)
- 21. USE BMPS TO PREVENT OR MINIMIZE STORMWATER EXPOSURE TO POLLUTANTS FROM SPILLS; VEHICLE AND EQUIPMENT FUELING, MAINTENANCE, AND STORAGE; OTHER CLEANING AND MAINTENANCE ACTIVITIES; AND WASTE HANDLING ACTIVITIES. THESE POLLUTANTS INCLUDE FUEL, HYDRAULIC FLUID, AND OTHER OILS FROM VEHICLES AND MACHINERY, AS WELL AS DEBRIS, FERTILIZER, PESTICIDES AND HERBICIDES, PAINTS, SOLVENTS, CURING COMPOUNDS AND ADHESIVES FROM CONSTRUCTION OPERATIONS. (SCHEDULE A.7.E.I.(2))
- 22. IMPLEMENT THE FOLLOWING BMPS WHEN APPLICABLE: WRITTEN SPILL PREVENTION AND RESPONSE PROCEDURES, EMPLOYEE TRAINING ON SPILL PREVENTION AND PROPER DISPOSAL PROCEDURES, SPILL KITS IN ALL VEHICLES, REGULAR MAINTENANCE SCHEDULE FOR VEHICLES AND MACHINERY, MATERIAL DELIVERY AND STORAGE CONTROLS, TRAINING AND SIGNAGE, AND COVERED STORAGE AREAS FOR WASTE AND SUPPLIES. (SCHEDULE A.7.E.III.)
- 23. USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL. (SCHEDULE A 7.A.IV)

- 24. THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS TO MINIMIZE NUTRIENT RELEASES TO SURFACE WATERS. EXERCISE CAUTION WHEN USING TIME-RELEASE FERTILIZERS WITHIN ANY WATERWAY RIPARIAN ZONE. (SCHEDULE A.9.B.III)
- 25. IF AN ACTIVE TREATMENT SYSTEM (FOR EXAMPLE, ELECTRO-COAGULATION, FLOCCULATION, FILTRATION, ETC.) FOR SEDIMENT OR OTHER POLLUTANT REMOVAL IS EMPLOYED, SUBMIT AN OPERATION AND MAINTENANCE PLAN (INCLUDING SYSTEM SCHEMATIC, LOCATION OF SYSTEM, LOCATION OF INLET, LOCATION OF DISCHARGE, DISCHARGE DISPERSION DEVICE DESIGN, AND A SAMPLING PLAN AND FREQUENCY) BEFORE OPERATING THE TREATMENT SYSTEM. OBTAIN PLAN APPROVAL BEFORE OPERATING THE TREATMENT SYSTEM. OPERATE AND MAINTAIN THE TREATMENT SYSTEM ACCORDING TO MANUFACTURER'S SPECIFICATIONS. (SCHEDULE A.9.D)
- 26. TEMPORARILY STABILIZE SOILS AT THE END OF THE SHIFT BEFORE HOLIDAYS AND WEEKENDS, IF NEEDED. THE REGISTRANT IS RESPONSIBLE FOR ENSURING THAT SOILS ARE STABLE DURING RAIN EVENTS AT ALL TIMES OF THE YEAR. (SCHEDULE A 7.B)
- 27. AS NEEDED BASED ON WEATHER CONDITIONS, AT THE END OF EACH WORKDAY SOIL STOCKPILES MUST BE STABILIZED OR COVERED, OR OTHER BMPS MUST BE IMPLEMENTED TO PREVENT DISCHARGES TO SURFACE WATERS OR CONVEYANCE SYSTEMS LEADING TO SURFACE WATERS. (SCHEDULE A.7.E.II.(2))
- 28. CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND BARE GROUND ACTIVITIES DURING WET WEATHER. (SCHEDULE A.7.A.I)
- 29. SEDIMENT FENCE: REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND FENCE HEIGHT AND BEFORE FENCE REMOVAL. (SCHEDULE A.9.C.I)
- 30. OTHER SEDIMENT BARRIERS (SUCH AS BIOBAGS): REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT AND BEFORE BMP REMOVAL. (SCHEDULE A.9.C.I)
- 31. CATCH BASINS: CLEAN BEFORE RETENTION CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT. SEDIMENT BASINS AND SEDIMENT TRAPS: REMOVE TRAPPED SEDIMENTS BEFORE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT AND AT COMPLETION OF PROJECT. (SCHEDULE A.9.C.III & IV)
- 32. WITHIN 24 HOURS, SIGNIFICANT SEDIMENT THAT HAS LEFT THE CONSTRUCTION SITE, MUST BE REMEDIATED. INVESTIGATE THE CAUSE OF THE SEDIMENT RELEASE AND IMPLEMENT STEPS TO PREVENT A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN-UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DIVISION OF STATE LANDS REQUIRED TIMEFRAME. (SCHEDULE A.9.B.I)
- 33. THE INTENTIONAL WASHING OF SEDIMENT INTO STORM SEWERS OR DRAINAGE WAYS MUST NOT OCCUR. VACUUMING OR DRY SWEEPING AND MATERIAL PICKUP MUST BE USED TO CLEANUP RELEASED SEDIMENTS. (SCHEDULE A.9.B.II)
- 34. THE ENTIRE SITE MUST BE TEMPORARILY STABILIZED USING VEGETATION OR A HEAVY MULCH LAYER, TEMPORARY SEEDING, OR OTHER METHOD SHOULD ALL CONSTRUCTION ACTIVITIES CEASE FOR 30 DAYS OR MORE. (SCHEDULE A.7.F.I)
- 35. PROVIDE TEMPORARY STABILIZATION FOR THAT PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES CEASE FOR 14 DAYS OR MORE WITH A COVERING OF BLOWN STRAW AND A TACKIFIER, LOOSE STRAW, OR AN ADEQUATE COVERING OF COMPOST MULCH UNTIL WORK RESUMES ON THAT PORTION OF THE SITE. (SCHEDULE A.7.F.II)
- 36. DO NOT REMOVE TEMPORARY SEDIMENT CONTROL PRACTICES UNTIL PERMANENT VEGETATION OR OTHER COVER OF EXPOSED AREAS IS ESTABLISHED. ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, ALL TEMPORARY EROSION CONTROLS AND RETAINED SOILS MUST BE REMOVED AND DISPOSED OF PROPERLY, UNLESS DOING SO CONFLICTS WITH LOCAL REQUIREMENTS. (SCHEDULE A.8.C.III(1) AND D.3.C.II AND III)

B4779PE
DIGITAL SIGNATURE
OREGON
THE B 20 CP





The Nature Conservancy
1821 SE 14TH AVE. PORTLAND, OR 97214

| DESIGNED BY AJUR | DRAWN BY AJUR | CHECKED BY CHECKED BY CHECKED BY CHECKED BY CHECKED BY CHECKED BY CLAJ | CLAJ

JOB NO. 20170002

SHEET NO. ESC1.3



RENEWS: 6/30/2019

APPROX. AREA = 7.5 AC

Pounds of Pure Live Seed (PLS) PER ACRE

MULCH SHALL BE APPLIED WITH A BLOWER OR BY HAND.

SEEDING AREAS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL APPLY SEEDING TO ALL DISTURBED AREAS.

APPLICATION RATE

TON PER ACRE.

1821 SE 14TH AVE. PORTLAND, OR 97214 The Nature Conservancy

DRAW	₹	CHEC	_	APPRO	ರ 
			FINAL DESIGN	DESCRIPTION	REVISION
			2/15/2019	DATE	
		-			1

REVEGETATION PLAN TILLAMOOK, OR

JOB NO. 20170002 SHEET NO.

L1.1

1" = 500' (FOR 22" x 34" SHEETS)