

ADDENDUM NO. 1
North Bank Lane Tidal Floodplain Restoration Project – Phase 2

December 28, 2022

Owner: Coos County Soil and Water Conservation District (Coos SWCD)

Engineer: Waterways Consulting, Inc., 1020 SW Taylor St., Suite 380, Portland, Oregon, 97205

This Addendum forms a part of the Contract documents and modifies the original. Bidders shall acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the bidder to disqualification. The **Bid due date and time has been adjusted to 5:00 PM local time on January 8, 2023. The opening and review of bids and award of any contracts shall be finalized on Jan. 26th, 2023, at the regularly January Meeting** of the Board of Directors of the Coos SWCD. The Addendum consists of text and attachments listed. The mandatory pre-bid conference sign-in sheet is attached. Last day to submit questions has been extended to Dec 30th 2022.

Prepared by: Jake Hofeld, P.E. and Caley Sowers, District Manager

1. BID FORM

Replace the Bid Form dated 11/17/2022 with the attached bid form dated 12/22/2022.

2. 015713 TEMPORARY EROSION CONTROL AND BMPS

Depending on where you downloaded the original RFB, some file versions were found to have omitted the original Erosion and Sediment Control Plan. The original ESCP is included here. Please Note the following revisions: **On page 1, delete Paragraph 1.1.B. in its entirety and replace with the following:**

- B. Attention is directed to the Erosion and Sediment Control Plan. The Owner will serve as the Certified Erosion and Sediment Control Lead for the DEQ 1200-C Construction Stormwater Permit during construction. As part of the ESCP submittal process, the Contractor shall submit on any proposed revisions to the applicable Project Plan sheets for Temporary Erosion Control and the Dewatering and/or Diversion operations. Do not start work until the SWPPP, applicable plan sheets, schedules, and methods of operation for temporary pollution control are reviewed and accepted by the Engineer. During project construction, cooperate with the Owner and Engineer and other regulatory officials and take immediate action as directed to protect water bodies and sensitive areas and provide for erosion or other pollution control.

6. DRAWING C11

Replace this sheet with the attached sheet C11 showing changes to the ESM Channel dimensions.

7. COMMENTS AND QUESTIONS

The following summarizes responses to comments and questions received by the Engineer and Owner during the pre-bid meeting and from correspondence with Bidders:

1. The 19.0 acres of Seeding listed under Task 18 in the attached Bid Sheet include 2.9 acres of Berm Seeding and 16.1 acres of Pasture Seeding. ++ END OF TEXT OF ADDENDUM 1 ++



**NORTH BANK LANE TIDAL FLOODPLAIN RESTORATION PROJECT
BID SHEET**

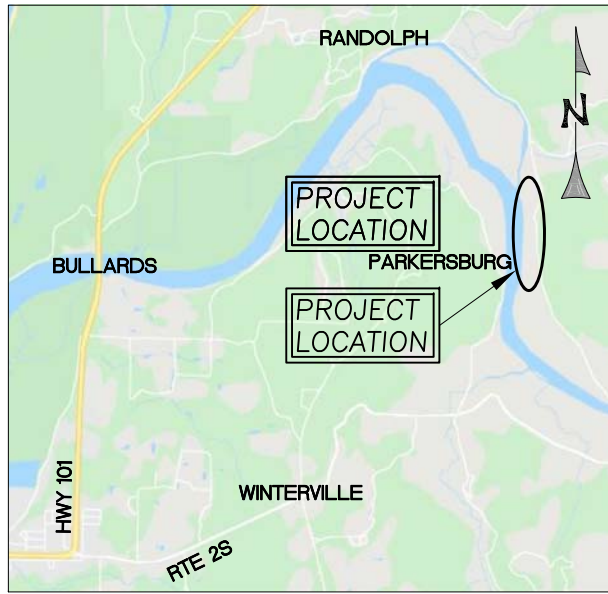
Job No: 18-055

12/22/2022

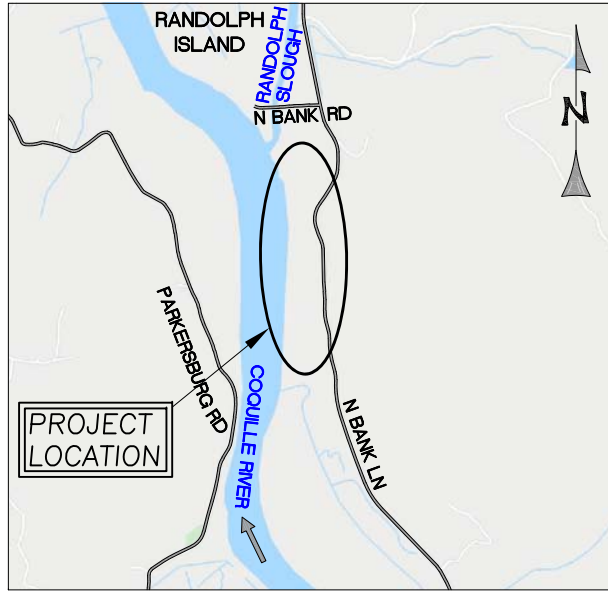
ITEM NO.	SPECIFICATION	ITEM	ESTIMATED QUANTITY	UNIT	UNIT COST	TOTAL
1	015000	MOBILIZATION AND DEMOBILIZATION	1	LS		
2	015713	TEMPORARY EROSION CONTROL AND BMP'S	1	LS		
3	015626	CLEARING AND GRUBBING	1	LS		
4	312319	DEWATERING	1	LS		
5	312316	PRECONSTRUCTION POTHOLING	1	LS		
6	312316	UNCLASSIFIED EXCAVATION	13,110	CY		
7	312316	SUPPLEMENTAL EARTHWORK	20	HR		
8	312323	ENGINEERED FILL	5,891	CY		
9	334213	60 INCH DIAMETER HDPE PIPE	1	EA		
10	334213	48 INCH DIAMETER HDPE PIPE	1	EA		
11	334213	36 INCH DIAMETER HDPE PIPE	2	EA		
12	321123	AGGREGATE BASE	700	CY		
13	354237	CLASS 50 RIPRAP	79	CY		
13	354237	CLASS 200 RIPRAP	78	CY		
14	354237	ENGINEERED STREAMBED MATERIAL	130	CY(F)		
15	313519.16	SLOPE PROTECTION FABRIC	8,458	SY		
16	354200	SALVAGE AND INSTALL LOG STRUCTURES	27	EA		
17	323126	LIVESTOCK FENCE	7,687	LF		
18	329000	SEEDING	19.0	AC		
19	329300	LIVE STAKE PLANTING	5,000	EA		
TOTAL						

NORTH BANK LANE TIDAL FLOODPLAIN RESTORATION PROJECT

EROSION AND SEDIMENT CONTROL PLAN (ESCP)



REGIONAL MAP
N.T.S. (GOOGLE)



VICINITY MAP
N.T.S. (GOOGLE)

SHEET INDEX

- EC1 ESCP COVER SHEET
- EC2 ESCP EXISTING CONDITIONS
- EC3 ESCP DEMO, CLEARING AND EXCAVATION PLAN
- EC4 ESCP PHASE 1 – INTERIOR CONSTRUCTION
- EC5 ESCP PHASE 2 – BERM CONSTRUCTION

PERMITTEE'S SITE INSPECTOR:

INSPECTOR: DEANNA HUTCHINSON, P.E., CESCL
 COMPANY/AGENCY: WATERWAYS CONSULTING, INC.
 PHONE: 503-227-5979
 FAX: 888-819-6847
 E-MAIL: DEANNA@WATWAYS.COM
 DESCRIPTION OF EXPERIENCE: CESCL CERTIFIED WITH CONSTRUCTION AND EROSION CONTROL MEASURE INSPECTION FOR SEVERAL RESTORATION PROJECTS WITHIN OREGON.

SECTION AND DETAIL CONVENTION

SECTION OR DETAIL IDENTIFICATION (NUMBER OR LETTER) 5 C3 SHEET REFERENCE

DEVELOPER

COMPANY: COOS SOIL AND WATER CONSERVATION DISTRICT
 CONTACT: CALEY SOWERS
 379 N ADAMS STE
 COQUILLE, OR 97423
 PHONE: 541-824-0356

ENGINEERING FIRM

WATERWAYS CONSULTING, INC.
 CONTACT: JAKE D. HOFELD, P.E.
 1020 SW TAYLOR ST, SUITE 380
 PORTLAND, OR 97205
 PHONE: 503-227-5979
 EMAIL: JAKEH@WATWAYS.COM

PROJECT LOCATION:

85411 N BANK LN
 COQUILLE, OR 97423
 LATITUDE = 43.153471 LONGITUDE = -124.337886

PROPERTY DESCRIPTION:

TAX LOTS: LOCATED IN THE NE QUARTER AND NE QUARTER OF SECTION 15, TOWNSHIP 28 S, RANGE 14 W, COOS COUNTY COUNTY, OREGON (43.43 ACRES)
 TAX LOT 95000 100 = 14.76 ACRES
 TAX LOT 95001 104 = 13.78 ACRES
 TAX LOT 95002 105 = 14.89 ACRES

NARRATIVE DESCRIPTIONS

EXISTING SITE CONDITIONS

THE THREE LOTS ARE PASTURE LAND SEPARATED FROM THE COQUILLE RIVER WITH A BERM AND A CULVERT WITH A FAILING TIDE GATE.

DEVELOPED CONDITIONS

LARGER HDPE CULVERT WITH A SIDE MOUNTED TIDE GATE AND MUTED TIDAL REGULATOR TO REPLACE EXISTING CULVERT AND TIDE GATE, NEW TIDAL CHANNELS, STABILIZATION AND REINFORCEMENT OF EXISTING BERMS, INSTALLATION OF HABITAT LOG STRUCTURES, LIVESTOCK EXCLUSION FENCING, CULVERT CROSSINGS OVER THE NEW TIDAL CHANNELS, AND A LOW-ELEVATION ENHANCEMENT AREA.

NATURE OF CONSTRUCTION ACTIVITY AND ESTIMATED TIME TABLE

CLEARING AND GRUBBING: JULY 1, 2022
 MASS GRADING: JULY 1-SEPTEMBER 15, 2022
 CULVERT INSTALLATION: AUGUST 1-SEPTEMBER 15, 2022
 FINAL STABILIZATION: SEPTEMBER 1-OCTOBER 1, 2022
 DEMOBILIZATION: OCTOBER 15, 2022

TOTAL DISTURBED AREA

869,891 SF (19.97 ACRES)

SITE SOIL CLASSIFICATION:

34 – LANGLOIS SILTY CLAY LOAM (92%)
 63 – ETELKA SILT LOAM (8%)

RECEIVING WATER BODIES:

NEAREST WATER BODY: COQUILLE RIVER (RM 7.5) 303(d)
 IMPAIRMENT LISTED FOR CHLOROPHYLL A (CAT 5), E. COLI (CAT 5), AND FECAL COLIFORM (CAT 5)

ATTENTION EXCAVATORS:

OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THESE RULES FROM THE CENTER BY CALLING 503-232-1987. IF YOU HAVE ANY QUESTIONS ABOUT THE RULES, YOU MAY CONTACT THE CENTER. YOU MUST NOTIFY THE CENTER AT LEAST TWO BUSINESS DAYS, BEFORE COMMENCING AN EXCAVATION. CALL 503-246-6699.

RATIONALE STATEMENT

A COMPREHENSIVE LIST OF AVAILABLE BEST MANAGEMENT PRACTICES (BMP) OPTIONS BASED ON DEQ'S GUIDANCE MANUAL HAS BEEN REVIEWED TO COMPLETE THIS EROSION AND SEDIMENT CONTROL PLAN. SOME OF THE ABOVE LISTED BMP'S WERE NOT CHOSEN BECAUSE THEY WERE DETERMINED TO NOT EFFECTIVELY MANAGE EROSION PREVENTION AND SEDIMENT CONTROL FOR THIS PROJECT BASED ON SPECIFIC SITE CONDITIONS, INCLUDING SOIL CONDITIONS TOPOGRAPHIC CONSTRAINTS, ACCESSIBILITY TO THE SITE, AND OTHER RELATED CONDITIONS, AS THE PROJECT PROGRESSES AND THERE IS A NEED TO REVISE THE ESC PLAN, AN ACTION PLAN WILL BE SUBMITTED.

STANDARD EROSION AND SEDIMENT CONTROL PLAN DRAWING NOTES:

- ONCE KNOWN, INCLUDE A LIST OF ALL CONTRACTORS THAT WILL ENGAGE IN CONSTRUCTION ACTIVITIES ON SITE, AND THE AREAS OF THE SITE WHERE THE CONTRACTOR(S) WILL ENGAGE IN CONSTRUCTION ACTIVITIES. REVISE THE LIST AS APPROPRIATE UNTIL PERMIT COVERAGE IS TERMINATED (SECTION 4.4.C.I). IN ADDITION, INCLUDE A LIST OF ALL PERSONNEL (BY NAME AND POSITION) THAT ARE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND MAINTENANCE OF STORMWATER CONTROL MEASURES (E.G. ESCP DEVELOPER, BMP INSTALLER (SEE SECTION 4.10), AS WELL AS THEIR INDIVIDUAL RESPONSIBILITIES. (SECTION 4.4.C.II)
- VISUAL MONITORING INSPECTION REPORTS MUST BE MADE IN ACCORDANCE WITH DEQ 1200-C PERMIT REQUIREMENTS. (SECTION 6.5)
- INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS. (SECTION 6.5.Q)
- RETAIN A COPY OF THE ESCP AND ALL REVISIONS ON SITE AND MAKE IT AVAILABLE ON REQUEST TO DEQ, AGENT, OR THE LOCAL MUNICIPALITY. (SECTION 4.7)
- THE PERMIT REGISTRANT MUST IMPLEMENT THE ESCP. FAILURE TO IMPLEMENT ANY OF THE CONTROL MEASURES OR PRACTICES DESCRIBED IN THE ESCP IS A VIOLATION OF THE PERMIT. (SECTIONS 4 AND 4.11)
- THE ESCP MUST BE ACCURATE AND REFLECT SITE CONDITIONS. (SECTION 4.8)
- 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. (SECTION 4.9)
- SEQUENCE CLEARING AND GRADING TO THE MAXIMUM EXTENT PRACTICAL TO PREVENT EXPOSED INACTIVE AREAS FROM BECOMING A SOURCE OF EROSION. (SECTION 2.2.2)
- CREATE SMOOTH SURFACES BETWEEN SOIL SURFACE AND EROSION AND SEDIMENT CONTROLS TO PREVENT STORMWATER FROM BYPASSING CONTROLS AND PONDING. (SECTION 2.2.3)
- 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. (SECTION 2.2.1)
- 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. (SECTION 2.2.5)
- MAINTAIN AND DELINEATE ANY EXISTING NATURAL BUFFER WITHIN THE 50-FEET OF WATERS OF THE STATE. (SECTION 2.2.4)
- INSTALL PERIMETER SEDIMENT CONTROL, INCLUDING STORM DRAIN INLET PROTECTION AS WELL AS ALL SEDIMENT BASINS, TRAPS, AND BARRIERS PRIOR TO LAND DISTURBANCE. (SECTIONS 2.1.3)
- CONTROL BOTH PEAK FLOW RATES AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS AND DOWNSTREAM CHANNELS AND STREAMBANKS. (SECTIONS 2.1.1, AND 2.2.16)
- 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. (SECTIONS 2.2.6 AND 2.2.13)
- ESTABLISH CONCRETE TRUCK AND OTHER CONCRETE EQUIPMENT WASHOUT AREAS BEFORE BEGINNING CONCRETE WORK. (SECTION 2.2.14)
- 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.(SECTIONS 2.2.20 AND 2.2.21)
- ESTABLISH MATERIAL AND WASTE STORAGE AREAS, AND OTHER NON-STORMWATER CONTROLS. (SECTION 2.3.7)
- KEEP WASTE CONTAINER LIDS CLOSED WHEN NOT IN USE AND CLOSE LIDS AT THE END OF THE BUSINESS DAY FOR THOSE CONTAINERS THAT ARE ACTIVELY USED THROUGHOUT THE DAY. FOR WASTE CONTAINERS THAT DO NOT HAVE LIDS, PROVIDE EITHER (1) COVER (E.G., A TARP, PLASTIC SHEETING, TEMPORARY ROOF) TO PREVENT EXPOSURE OF WASTES TO PRECIPITATION, OR (2) A SIMILARLY EFFECTIVE MEANS DESIGNED TO PREVENT THE DISCHARGE OF POLLUTANTS (E.G., SECONDARY CONTAINMENT). (SECTION 2.3.7)
- 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. (SECTION 2.2.7)
- WHEN TRUCKING SATURATED SOILS FROM THE SITE, EITHER USE WATER-TIGHT TRUCKS OR DRAIN LOADS ON SITE. (SECTION 2.2.7.F)
- CONTROL PROHIBITED DISCHARGES FROM LEAVING THE CONSTRUCTION SITE, I.E., CONCRETE WASH-OUT, WASTEWATER FROM GLEANOUT OF STUCCO, PAINT AND CURING COMPOUNDS. (SECTIONS 1.5 AND 2.3.9)
- ENSURE THAT STEEP SLOPE AREAS WHERE CONSTRUCTION ACTIVITIES ARE NOT OCCURRING ARE NOT DISTURBED.
- (SECTION 2.2.10)
- PREVENT SOIL COMPACTION IN AREAS WHERE POST-CONSTRUCTION INFILTRATION FACILITIES ARE TO BE INSTALLED. (SECTION 2.2.12)
- 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. (SECTIONS 2.2.15 AND 2.3)
- PROVIDE PLANS FOR SEDIMENTATION BASINS THAT HAVE BEEN DESIGNED PER SECTION 2.2.17 AND STAMPED BY AN OREGON PROFESSIONAL ENGINEER. (SEE SECTION 2.2.17.A)
- IF ENGINEERED SOILS ARE USED ON SITE, A SEDIMENTATION BASIN/IMPOUNDMENT MUST BE INSTALLED. (SEE SECTIONS 2.2.17 AND 2.2.18)
- PROVIDE A DEWATERING PLAN FOR ACCUMULATED WATER FROM PRECIPITATION AND UNCONTAMINATED GROUNDWATER SEEPAGE DUE TO SHALLOW EXCAVATION ACTIVITIES. (SEE SECTION 2.4)
- 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. (SECTION 2.3)
- USE WATER, SOIL-BINDING AGENT OR OTHER DUST CONTROL TECHNIQUE AS NEEDED TO AVOID WIND-BLOWN SOIL. (SECTION 2.2.9)
- 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. (SECTION 2.3.5)
- 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 ENVIRONMENTAL MANAGEMENT PLAN APPROVAL FROM DEQ BEFORE OPERATING THE TREATMENT SYSTEM. OPERATE AND MAINTAIN THE TREATMENT SYSTEM ACCORDING TO MANUFACTURER'S SPECIFICATIONS. (SECTION 1.2.9)
- 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. (SECTION 2.2)
- 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. (SECTION 2.2.8)
- SEDIMENT FENCE: REMOVE TRAPPED SEDIMENT BEFORE IT REACHES ONE THIRD OF THE ABOVE GROUND FENCE HEIGHT AND BEFORE FENCE REMOVAL. (SECTION 2.1.5.B)
- OTHER SEDIMENT BARRIERS (SUCH AS BIOBAGS): REMOVE SEDIMENT BEFORE IT REACHES TWO INCHES DEPTH ABOVE GROUND HEIGHT AND BEFORE BMP REMOVAL. (SECTION 2.1.5.C)
- 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. (SECTION 2.1.5.D)
- 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 REOCCURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN-UP OF SEDIMENT SHALL BE PERFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIMEFRAME. (SECTION 2.2.19.A)
- THE INTENTIONAL WASHING OF SEDIMENT INTO STORM SEWERS OR DRAINAGE WEAYS MUST NOT OCCUR. VACUUMING OR DRY SWEEPING AND MATERIAL PICKUP MUST BE USED TO CLEANUP RELEASED SEDIMENTS. (SECTION 2.2.19)
- DOCUMENT ANY PORTION(S) OF THE SITE WHERE LAND DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED OR WILL BE TEMPORARILY INACTIVE FOR 14 OR MORE CALENDAR DAYS. (SECTION 6.5.F.)
- 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. (SECTION 2.2.20)
- 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 NEEDED FOR LONG TERM USE FOLLOWING TERMINATION OF PERMIT COVERAGE. (SECTION 2.2.21)

BMP MATRIX FOR CONSTRUCTION PHASE

YEAR	2022				
	CLEARING	INTERIOR GRADING	BERM GRADING	CULVERT AND TIDE GATE INSTALLATION	FINAL STABILIZATION
EROSION PREVENTION					
GROUND COVER	X	X	X		
PLASTIC SHEETING	X	X	X		
DUST CONTROL	X	X	X		
TEMPORARY STABILIZATION (STRAW MULCH/HYDROSEED)		X	X	X	
PERMANENT STABILIZATION					X
BUFFER ZONE (FROM OHW)					
SEDIMENT CONTROL					
STRAW WATTLES	X	X	X	X	
DEWATERING		X	X	X	
TURBIDITY CURTAIN	X	X	X	X	
RUNOFF CONTROL					
CONSTRUCTION ENTRANCE	X	X	X	X	
DECOMMISSION AND PLUG EXISTING CULVERT	X				
ISOLATE PROPOSED CULVERT AND TIDE GATE AREA				X	
POLLUTION PREVENTION					
HAZARD WASTE MANAGEMENT	X	X	X	X	
SPILL KIT ONSIDE	X	X	X	X	

INSPECTION FREQUENCY

SITE CONDITION	MINIMUM FREQUENCY
1. ACTIVE PERIOD.	ON INITIAL DATE THAT LAND DISTURBANCE ACTIVITIES COMMENCE. WITHIN 24 HOURS OF ANY STORM EVENT, INCLUDING RUNOFF FROM SNOW MELT, THAT RESULTS IN DISCHARGE FROM THE SITE. AT LEAST ONCE EVERY 14 DAYS, REGARDLESS OF WHETHER STORMWATER RUNOFF IS OCCURRING.
2. INACTIVE PERIODS GREATER THAN FOURTEEN (14) CONSECUTIVE CALENDAR DAYS.	THE INSPECTOR MAY REDUCE THE FREQUENCY OF INSPECTIONS IN ANY AREA OF THE SITE WHERE THE STABILIZATION STEPS IN SECTION 2.2.20 HAVE BEEN COMPLETED TO TWICE PER MONTH FOR THE FIRST MONTH, NO LESS THAN 14 CALENDAR DAYS APART, THEN ONCE PER MONTH.
3. PERIODS DURING WHICH THE SITE IS INACCESSIBLE DUE TO INCLEMENT WEATHER.	IF SAFE, ACCESSIBLE AND PRACTICAL, INSPECTIONS MUST OCCUR DAILY AT A RELEVANT DISCHARGE POINT OR DOWNSTREAM LOCATION OF THE RECEIVING WATERBODY.
4. PERIODS DURING WHICH CONSTRUCTION ACTIVITIES ARE SUSPENDED AND RUNOFF IS UNLIKELY DUE TO FROZEN CONDITIONS.	VISUAL MONITORING INSPECTIONS MAY BE TEMPORARILY SUSPENDED. IMMEDIATELY RESUME MONITORING UPON THAWING, OR WHEN WEATHER CONDITIONS MAKE DISCHARGES LIKELY.
5. PERIODS DURING WHICH CONSTRUCTION ACTIVITIES ARE CONDUCTED AND RUNOFF IS UNLIKELY DURING FROZEN CONDITIONS.	VISUAL MONITORING INSPECTIONS MAY BE REDUCED TO ONCE A MONTH. IMMEDIATELY RESUME MONITORING UPON THAWING, OR WHEN WEATHER CONDITIONS MAKE DISCHARGES LIKELY.

- * 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.
- * INSPECTION LOGS MUST BE KEPT IN ACCORDANCE WITH DEQ'S 1200-C PERMIT REQUIREMENTS.
- * 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, RETAIN THE ESCP AT THE CONSTRUCTION SITE OR AT ANOTHER LOCATION. (Schedule B.2.g)



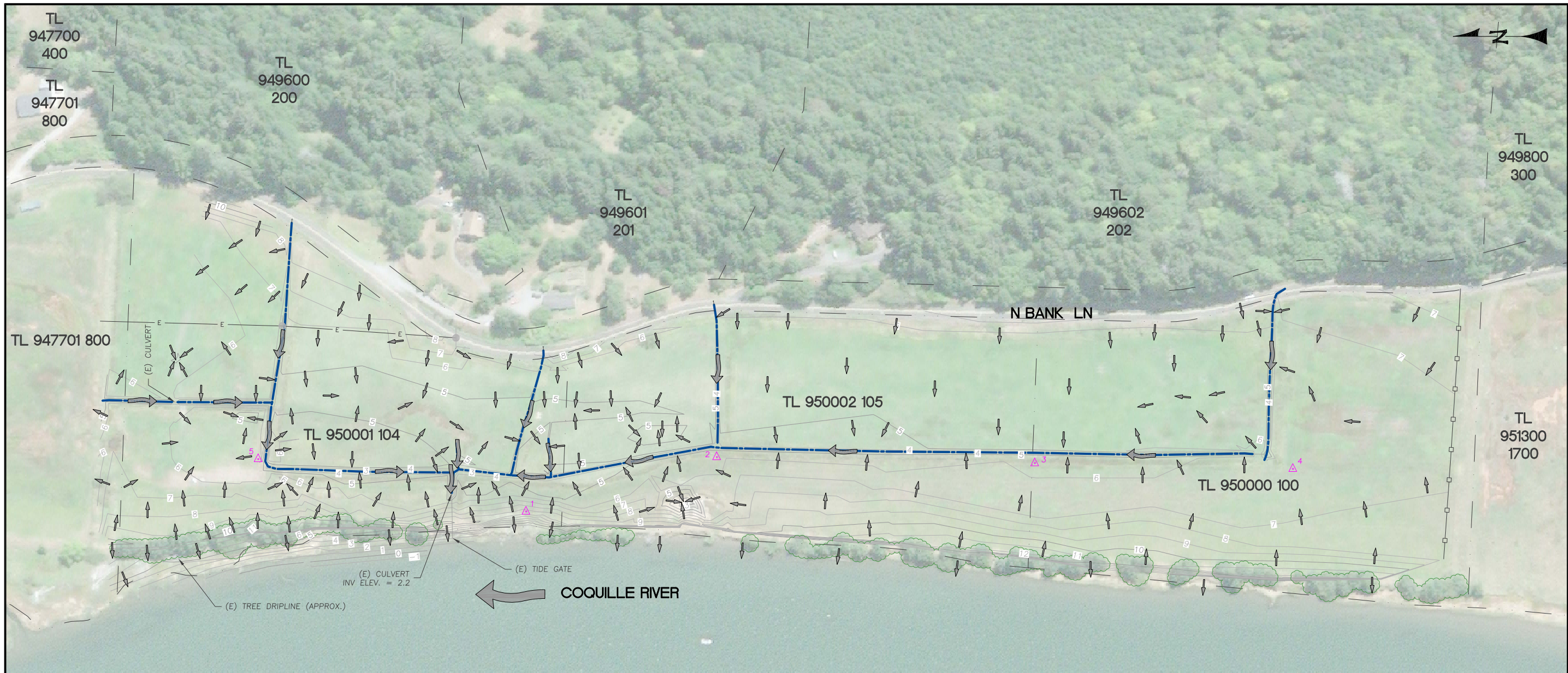
DRAFT
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
COOS SOIL AND WATER CONSERVATION DISTRICT

ESCP COVER SHEET

NORTH BANK LANE TIDAL FLOODPLAIN RESTORATION 90% DESIGN

DESIGNED BY: J.H.
 DRAWN BY: D.H.
 CHECKED BY: J.H.
 DATE: 5/24/2022
 JOB NO.: 18-055
 BAR IS ONE INCH ON ORIGINAL DRAWING. ADJUST SCALES FOR REDUCED PLOTS.
 EC1 OF 21



ESCP EXISTING CONDITIONS
SCALE: 1" = 100'

LEGEND

- EXISTING CONTOURS
- EXISTING FLOW LINE
- EXISTING POWER LINE
- EXISTING PIPE
- PARCEL LINE (APPROXIMATE)
- EXISTING FENCE
- EXISTING TREE DRIPLINE (APPROX)
- EXISTING POWER POLE
- CONTROL POINT
- OVERLAND DRAINAGE FLOW ARROW
- CONCENTRATED FLOW ARROW (DITCHES, CREEK, AND RIVER)

STREAM/WETLAND CONSTRUCTION BEST MANAGEMENT PRACTICES

1. ALL WORK WITHIN THE WETTED CHANNEL SHALL BE COMPLETED WITHIN THE IN-WATER WORK WINDOW AS LISTED IN THE PERMITS.
2. FISH RELOCATION
 - 2.1. SHALL BE PERFORMED BY THE CONTRACTOR (UNLESS STATED OTHERWISE IN THE CONTRACT DOCUMENTS) PRIOR TO PERFORMING ANY CONSTRUCTION WITHIN THE WETTED CHANNEL. ALL FISH RELOCATION WORK SHALL BE SUPERVISED BY A QUALIFIED FISHERIES BIOLOGIST WITH EXPERIENCE IN WORK AREA ISOLATION, AND A VALID ODFW SCIENTIFIC TAKE PERMIT. PERFORM THE FOLLOWING STEPS IN THE ORDER LISTED FOR FISH RELOCATION:
 - 2.2. CONDUCT FISH RELOCATION ACTIVITIES DURING PERIODS OF THE DAY WITH THE COOLEST AIR AND WATER TEMPERATURES POSSIBLE.
 - 2.3. ISOLATE THE WETTED STREAM CHANNEL AT THE UPSTREAM END OF THE LIMITS OF DISTURBANCE WITH BLOCK NETS. CLOSELY MONITOR ALL BLOCK NETS THROUGHOUT CONSTRUCTION TO ENSURE THEY STAY SECURED TO THE BANKS AND FREE OF ORGANIC ACCUMULATION.
 - 2.4. CONDUCT AN INITIAL SWEEP OF THE WETTED CHANNEL WITH SEIN NETS WITHIN THE WORK ZONE FROM UPSTREAM TO DOWNSTREAM.
 - 2.5. ISOLATE THE DOWNSTREAM END OF THE WETTED CHANNEL WITH BLOCK NETS.
 - 2.6. INSTALL DEWATERING EQUIPMENT AND BEGIN SLOWLY DEWATERING WHILE CONTINUING FISH RELOCATION ACTIVITIES.
 - 2.7. ELECTROFISHING SHALL FOLLOW NMFS (2000) GUIDELINES
 - 2.8. FISH TRANSPORT
 - 2.8.1. MINIMIZE THE TIME FISH ARE IN TRANSPORT CONTAINERS.
 - 2.8.2. KEEP TRANSPORT CONTAINERS IN SHADED AREA.
 - 2.8.3. LIMIT THE NUMBER OF FISH WITHIN CONTAINERS AND ONLY KEEP FISH OF RELATIVELY COMPARABLE SIZE WITHIN A GIVEN CONTAINER.
 - 2.8.4. USE AERATORS OR REPLACE THE WATER IN THE CONTAINERS AT LEAST EVERY 15 MINUTES WITH COLD CLEAR WATER.
 - 2.8.5. RELEASE FISH IN AN AREA UPSTREAM OF THE CONSTRUCTION AREA WITH ADEQUATE COVER AND FLOW REFUGE. DOWNSTREAM IS ACCEPTABLE PROVIDED THE RELEASE SITE IS BELOW THE INFLUENCE OF CONSTRUCTION.
 - 2.8.6. MONITOR AND RECORD FISH PRESENCE, HANDLING, AND INJURY/MORTALITY DURING ALL PHASES OF FISH RELOCATION AND SUBMIT A FISH SALVAGE REPORT AS REQUIRED BY PERMITS WITHIN 60 DAYS.
3. DEWATERING/BYPASS FLOWS
 - 3.1. PUMPS: WHENEVER A PUMP IS USED TO DEWATER THE ISOLATION AREA AND ESA-LISTED FISH MAY BE PRESENT, A FISH SCREEN WILL BE USED THAT MEETS THE MOST CURRENT VERSION OF NMFS'S FISH SCREEN CRITERIA (NMFS 2011A). NMFS APPROVAL IS REQUIRED FOR PUMPING AT A RATE THAT EXCEEDS 3 CFS.
 - 3.2. TREAT ALL DISCHARGE WATER FROM DEWATERING ACTIVITIES WITHIN THE CONSTRUCTION AREA USING BEST MANAGEMENT PRACTICES TO REMOVE DEBRIS, SEDIMENT, PETROLEUM PRODUCTS, AND ANY OTHER POLLUTANTS LIKELY TO BE PRESENT. DEWATER THE SHORTEST LINEAR EXTENT OF WORK AREA PRACTICABLE.
 - 3.3. FLOW BYPASS SHALL BE PERFORMED AS SHOWN ON THE DRAWINGS, OR AS DIRECTED BY THE ENGINEER IN THE FIELD.
 - 3.4. RE-WATERING OF THE WORK AREA FOLLOWING CONSTRUCTION SHALL BE PERFORMED SLOWLY TO PREVENT LOSS OF SURFACE FLOW DOWNSTREAM AND ANY SUDDEN INCREASE IN STREAM TURBIDITY.
4. TEMPORARY STREAM CROSSINGS
 - 4.1. MINIMIZE THE NUMBER OF STREAM CROSSINGS TO MAXIMUM EXTENT PRACTICABLE.
 - 4.2. NO STREAM CROSSINGS SHALL BE ALLOWED IN ACTIVE SPAWNING SITES, WHEN HOLDING ADULT LISTED FISH ARE PRESENT, OR WHEN EGGS OR ALEVINS ARE IN THE GRAVEL.
 - 4.3. TEMPORARY CROSSINGS SHALL NOT OCCUR IN AREA THAT MAY INCREASE THE RISK OF CHANNEL RE-ROUTING OR AVULSION, OR IN POTENTIAL SPAWNING HABITAT.
 - 4.4. CONSTRUCTION EQUIPMENT AND VEHICLES SHALL CROSS STREAMS AT RIGHT ANGLES TO THE MAIN CHANNEL.
 - 4.5. CONSTRUCTION EQUIPMENT AND VEHICLES SHALL ONLY BE ALLOWED TO CROSS STREAMS IN THE WET WHERE THE STREAMBED IS BEDROCK, OR WHERE MATS OR OFF-SITE LOGS ARE PLACED IN THE STREAM AND USED AS A CROSSING.
 - 4.6. DECOMMISSION ALL TEMPORARY STREAM CROSSINGS IMMEDIATELY FOLLOWING CONSTRUCTION AND RETURN AREA TO PRECONSTRUCTION CONDITIONS.

DRAFT
NOT FOR CONSTRUCTION

PREPARED AT THE REQUEST OF:
COOS SOIL AND WATER
CONSERVATION DISTRICT

ESCP EXISTING
CONDITIONS

**NORTH BANK LANE
TIDAL FLOODPLAIN
RESTORATION
90% DESIGN**

DESIGNED BY: J.H.
DRAWN BY: D.H.
CHECKED BY: J.H.
DATE: 5/24/2022
JOB NO.: 18-055

BAR IS ONE INCH ON
ORIGINAL DRAWING,
ADJUST SCALES FOR
REDUCED PLOTS

TL 947701 800
TL 949600 200

NATURAL BUFFER ZONE NOTES

1. THE SITE IS A NATURAL BUFFER ZONE. FOLLOW DEQ REQUIREMENTS FOR PROJECTS WITH NATURAL BUFFER ZONES.
2. TURBIDITY CURTAINS, FIBER ROLLS, AND COFFER DAMS HAVE BEEN CHOSEN TO CONTROL TURBIDITY. ADDITIONAL EROSION AND TURBIDITY CONTROL MAY BE REQUIRED TO ACHIEVE THE SEDIMENT REMOVAL EFFICIENCY OF A NATURAL BUFFER ZONE.

ACCESS AND STAGING AREA NOTES

1. USE ONLY THE APPROVED ACCESS POINTS, AS SHOWN ON THE DRAWINGS. STOCKPILE MATERIALS WITHIN AN EXISTING FLAT AND PREVIOUSLY DISTURBED AREA.
2. THE ACCESS PLAN SHOWN ON THE DRAWINGS IS SCHEMATIC. SUBMIT A SITE ACCESS PLAN FOR APPROVAL BY THE ENGINEER, PRIOR TO MOBILIZATION.
3. MAINTAIN A MINIMUM OF 20 FT UNDISTURBED VEGETATED BUFFER AROUND DOWNSLOPE PERIMETER OF STAGING/STOCKPILING AREAS.
4. CONTAIN THE DOWNSLOPE PERIMETER OF STAGING OR STOCKPILE AREAS WITH STRAW WATTLES.
5. STORE, MAINTAIN AND REFUEL ALL EQUIPMENT AND MATERIALS IN A DESIGNATED PORTION OF THE STAGING AREA.

TL 949800 300
TL 949601 201
TL 949602 202

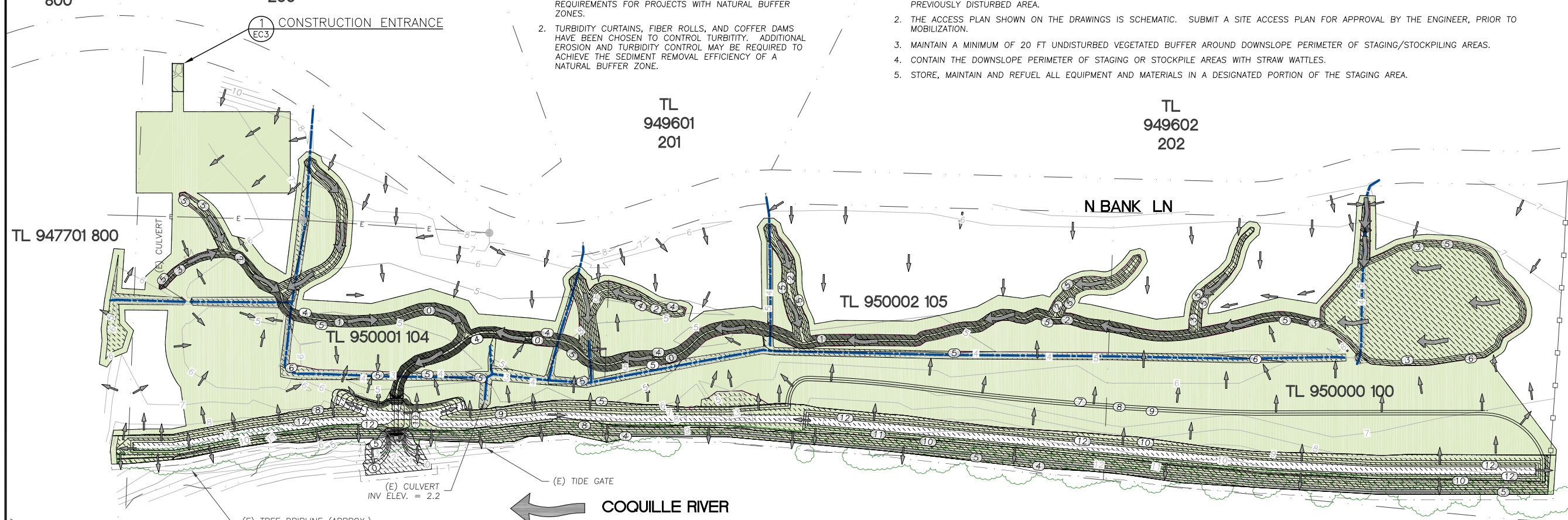
TL 947701 800

TL 950001 104

TL 950002 105

TL 950000 100

TL 951300 1700



ESCP DEMO, CLEARING AND EXCAVATION PLAN

SCALE: 1" = 100'

LEGEND

- 10' ——— EXISTING CONTOURS
- EXISTING FLOW LINE
- E ——— EXISTING POWER LINE
- EXISTING PIPE
- PARCEL LINE (APPROXIMATE)
- ——— EXISTING FENCE
- EXISTING TREE DRIPLINE (APPROX)
- ▨ AREA OF FILL
- ▩ AREA OF CUT
- SEEDING FOR FINAL STABILIZATION
- WILLOW STAKES AND SLOPE PROTECTION FABRIC FOR FINAL STABILIZATION, SEE DETAIL 3/EC5
- EXISTING POWER POLE
- ← OVERLAND DRAINAGE FLOW ARROW
- ← CONCENTRATED FLOW ARROW (DITCHES, CREEK, AND RIVER)

SEEDING NOTES

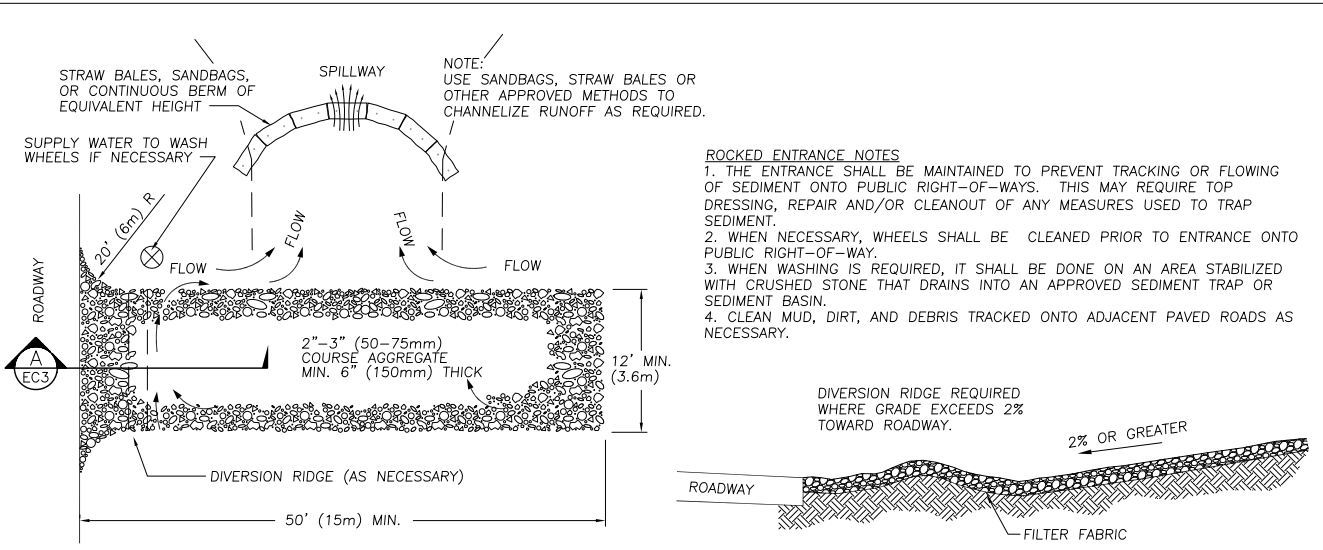
1. SEEDING MAY BE VIA HYDROSEEDING OR BROADCAST SEEDING AT THE CONTRACTOR'S OPTION.
2. SEEDING SHALL NOT BE REQUIRED FOR AREAS WHERE SOIL IS SPREAD TO A DEPTH EQUAL TO OR LESS THAN 3" OVER EXISTING VEGETATED SURFACES.
3. NO SEEDING SHALL BE PLACED ON THE BASE OF PRIMARY CHANNELS. ALL EXPOSED SOILS ASSOCIATED WITH EXCAVATION OF SECONDARY CHANNELS AND THE LEEA SHALL BE SEEDED AND MULCHED.
4. SEEDING SHALL BE APPLIED AT A RATE OF 180 LBS/ACRE.
5. SEEDING MIXES AND PLACEMENT METHODS SHALL BE BASED ON 2 ZONES SUMMARIZED AS FOLLOWS:
 - 5.1. BERM STABILIZATION AND BERM REINFORCEMENT ZONES - SEEDING SHALL BE PERFORMED ON ALL EXCAVATED AND FILL SLOPES ALONG THE LEVEE (TABLE 3, THIS SHEET).
 - 5.1.1. APPLY SEEDING BEFORE INSTALLING MATTING. INSTALL MATTING WITHIN 2 DAYS OF SEEDING.
 - 5.1.2. WHERE MATTING IS NOT INSTALLED, SEED AND COVER SEED WITH MULCH.
 - 5.2. CHANNEL ZONE - SEEDING SHALL BE PERFORMED ON ALL EXCAVATED SLOPES FOR PRIMARY CHANNELS, AND SECONDARY CHANNELS, AND THE ENTIRE LEEA EXCAVATION (TABLE 4, THIS SHEET).
 - 5.3. PASTURE ZONE - SEED PER TABLE 4, THIS SHEET.

TABLE 3: BERM SEED MIX

BOTANICAL NAME	COMMON NAME	% MIX BY PLS (PURE LIVE SEED)
POA PRATENSIS	KENTUCKY BLUEGRASS	20%
AGROSTIS STOLONIFERA	CREeping BENTGRASS	20%
FESTYCA ARYNDUNACEA	TALL FESCUE	20%
LOLIUM MULTIFLORUM	ANNUAL RYE	20%
DISTICHLIS SPICATA	SALTGRASS	20%
TOTAL		100%

TABLE 4: PASTURE SEED MIX

BOTANICAL NAME	COMMON NAME	% MIX BY PLS (PURE LIVE SEED)
AGROSTIS STOLONIFERA	CREeping BENTGRASS	50%
LOLIUM MULTIFLORUM	ANNUAL RYE	50%
TOTAL		100%



CONSTRUCTION ENTRANCE PLAN

SCALE: NOT TO SCALE

CONSTRUCTION ENTRANCE SECTION

SCALE: NOT TO SCALE

CONSTRUCTION ENTRANCE

SCALE: NOT TO SCALE

DRAFT
NOT FOR CONSTRUCTION

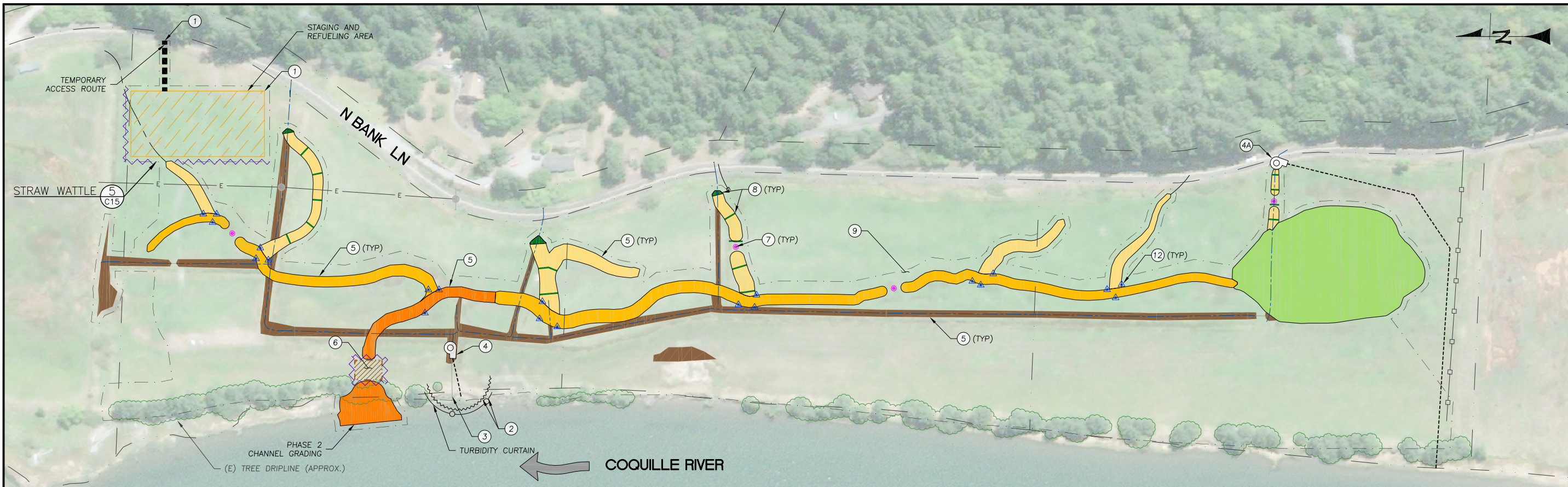
PREPARED AT THE REQUEST OF:
COOS SOIL AND WATER
CONSERVATION DISTRICT

ESCP DEMO,
CLEARING AND
EXCAVATION
PLAN

**NORTH BANK LANE
TIDAL FLOODPLAIN
RESTORATION
90% DESIGN**

DESIGNED BY: J.H.
DRAWN BY: D.H.
CHECKED BY: J.H.
DATE: 5/24/2022
JOB NO.: 18-055

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS



ESCP PHASE 1 - INTERIOR CONSTRUCTION
SCALE: 1" = 100'

LEGEND

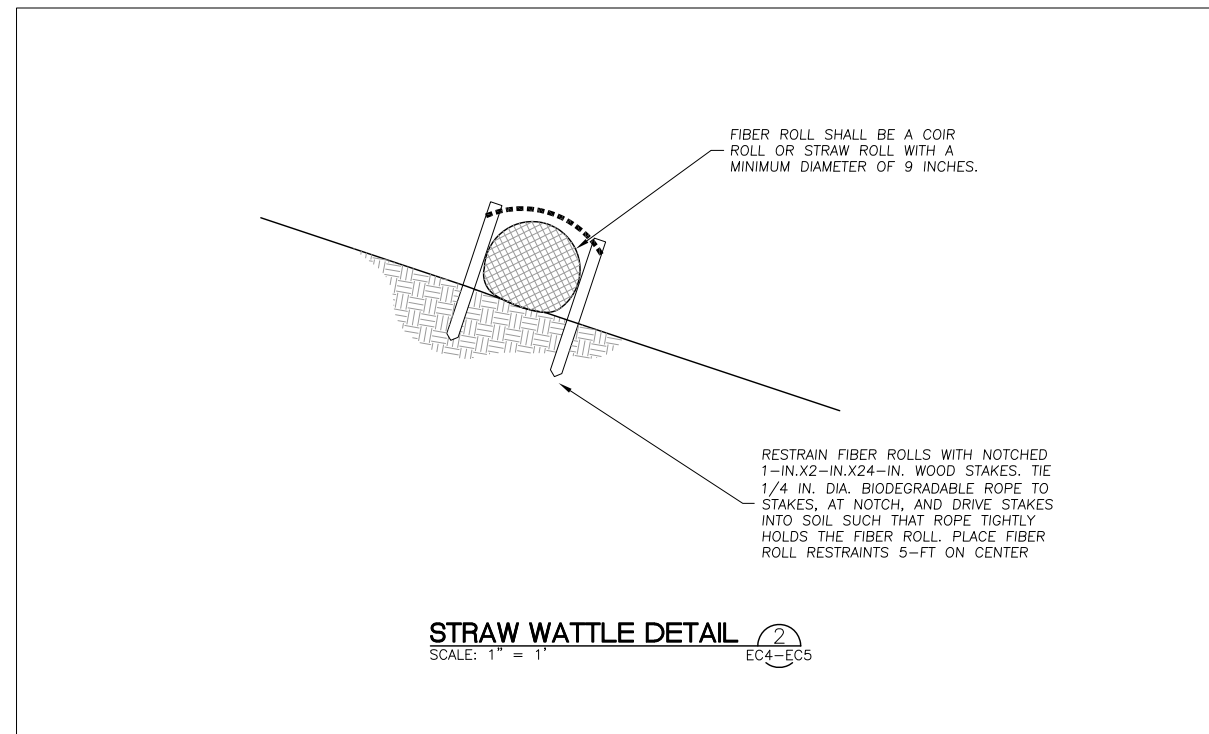
- EXISTING FLOW LINE
- EXISTING POWER LINE
- EXISTING PIPE TO REMAIN
- PARCEL LINE (APPROXIMATE)
- EXISTING FENCE
- EXISTING TREE DRIPLINE (APPROX.)
- LIMITS OF DISTURBANCE
- NEW EDGE OF GRAVEL ROAD
- TEMPORARY TURBIDITY CURTAIN
- TEMPORARY DIVERSION/DEWATERING HOSE
- TEMPORARY COFFERDAM
- TEMPORARY FISH BLOCK NET
- FILL EXISTING DITCH/DEPRESSION
- NEW ESM
- NEW PRIMARY CHANNEL EXCAVATION
- NEW PRIMARY CHANNEL EXCAVATION
- NEW SECONDARY CHANNEL EXCAVATION
- NEW LOW ELEVATION ENHANCEMENT AREA
- TEMPORARY STAGING AND REFUELING AREA
- TEMPORARY STOCKPILE AREA
- EXISTING POWER POLE
- NEW CULVERT AND LIVESTOCK CROSSING
- NEW LOG STRUCTURE
- NEW ESM SILL
- NEW CULVERT AND TIDE GATE
- TEMPORARY STAGING/STOCKPILING AREA
- KEYNOTE CALLOUT

CONSTRUCTION PHASING PLAN KEY NOTES

- THE FOLLOWING NOTES DETAIL THE RECOMMENDED SEQUENCE OF CONSTRUCTION TO CONTROL EROSION AND SEDIMENT FROM LEAVING THE PROJECT AREA DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT THE ANTICIPATED CONSTRUCTION SEQUENCING STRATEGY WITH THE CONSTRUCTION SCHEDULE FOR REVIEW BY THE ENGINEER.
1. ESTABLISH TRAFFIC CONTROL SIGNS, AND FLAG EXTENTS OF ALL CONSTRUCTION ACCESS ROADS, AND STAGING AND STORAGE AREAS.
 2. INSTALL A BLOCK NET AND TURBIDITY CURTAIN AT THE EXISTING TIDE GATE/COQUILLE RIVER CONFLUENCE AND PERFORM FISH SALVAGE OPERATIONS WITHIN THE DRAINAGE AREA AS NECESSARY.
 3. DURING LOW TIDE, ALLOW THE DITCH NETWORK TO DRAIN, THEN DEMOLISH AND PLUG EXISTING TIDE GATE.
 - 4A. DIVERT CREEK FLOW TO THE RIVER VIA PUMP.
 4. PUMP WATER OUT OF SITE. INSTALL ADDITIONAL BMPS AS NECESSARY TO REDUCE TURBIDITY TO PERMITTED LEVELS.
 5. CONSTRUCT INTERIOR WORK FIRST: CUT CHANNELS, CUT LEEA, AND FILL DITCHES.
 6. STOCKPILE EXCESS MATERIALS AT NEW TIDE GATE LOCATION TO PRELOAD SOIL.
 7. INSTALL LIVESTOCK CULVERTS AND RIPRAP.
 8. INSTALL ESM AND ESM SILLS.
 9. SEED WETLAND.

NOTES

1. SEE SEEDING NOTES AND TABLES ON SHEET EC3.
2. SEED AND MULCH ALL EXPOSED SURFACES EXCEPT:
 - 2.1. BEDS OF PRIMARY CHANNELS
 - 2.2. RIPRAP
 - 2.3. ROAD
 - 2.4. BELOW ELEVATION 4.0



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NOT FOR CONSTRUCTION

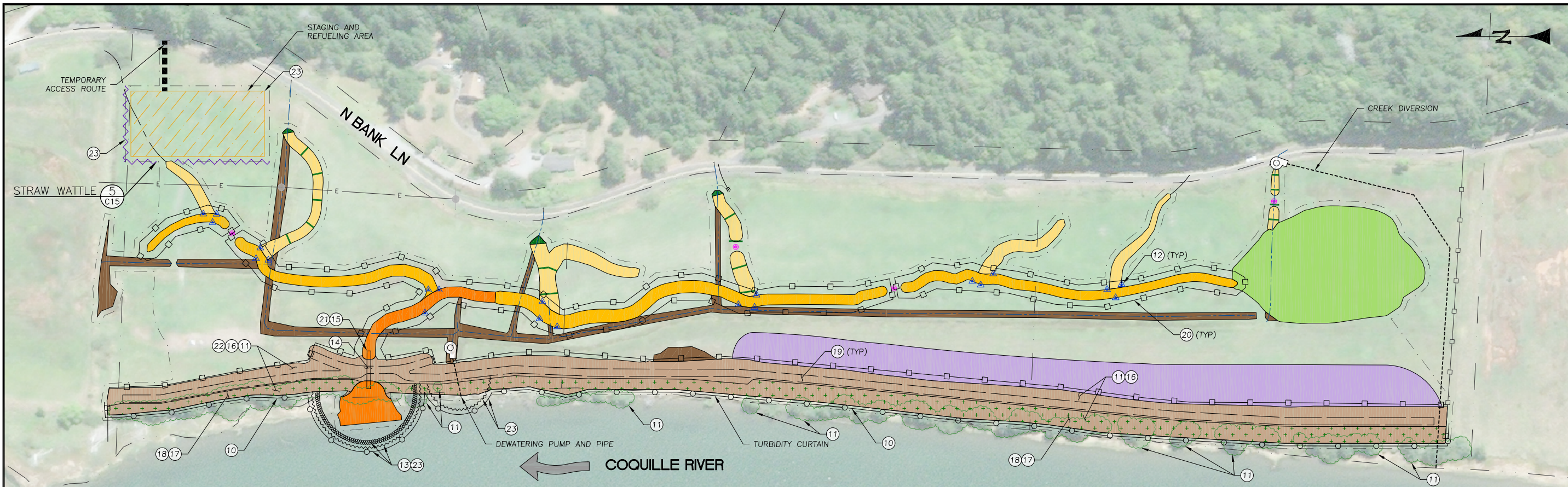
PREPARED AT THE REQUEST OF:
COOS SOIL AND WATER
CONSERVATION DISTRICT

ESCP PHASE 1 -
INTERIOR
CONSTRUCTION

NORTH BANK LANE
TIDAL FLOODPLAIN
RESTORATION
90% DESIGN

DESIGNED BY: J.H.
DRAWN BY: D.H.
CHECKED BY: J.H.
DATE: 5/24/2022
JOB NO.: 18-055

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS



ESCP PHASE 2 - BERM CONSTRUCTION
SCALE: 1" = 100'

LEGEND

- EXISTING FLOW LINE
- EXISTING POWER LINE
- EXISTING PIPE TO REMAIN
- PARCEL LINE (APPROXIMATE)
- EXISTING FENCE
- EXISTING TREE DRIPLINE (APPROX.)
- LIMITS OF DISTURBANCE
- NEW EDGE OF GRAVEL ROAD
- TEMPORARY TURBIDITY CURTAIN
- TEMPORARY DIVERSION/DEWATERING HOSE
- TEMPORARY COFFERDAM
- TEMPORARY FISH BLOCK NET
- FILL EXISTING DITCH/DEPRESSION
- NEW BERM STABILIZATION AREA
- NEW BERM REINFORCEMENT AREA
- NEW ESM
- NEW PRIMARY CHANNEL EXCAVATION
- NEW PRIMARY CHANNEL EXCAVATION
- NEW SECONDARY CHANNEL EXCAVATION
- NEW LOW ELEVATION ENHANCEMENT AREA
- SLOPE PROTECTION FABRIC AND LIVE WILLOW STAKE ZONE, SEE DETAIL 3/EC5 (1.6 ACRES)
- EXISTING POWER POLE
- NEW CULVERT AND LIVESTOCK CROSSING
- NEW LOG STRUCTURE
- NEW ESM SILL
- NEW CULVERT AND TIDE GATE
- TEMPORARY STAGING/STOCKPILING AREA
- KEYNOTE CALLOUT

CONSTRUCTION PHASING PLAN KEY NOTES

THE FOLLOWING NOTES DETAIL THE RECOMMENDED SEQUENCE OF CONSTRUCTION TO CONTROL EROSION AND SEDIMENT FROM LEAVING THE PROJECT AREA DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT THE ANTICIPATED CONSTRUCTION SEQUENCING STRATEGY WITH THE CONSTRUCTION SCHEDULE FOR REVIEW BY THE ENGINEER.

10. INSTALL ISOLATION MEASURES ALONG COQUILLE RIVER.
11. START BERM GRADING OUTSIDE OF PROPOSED TIDE GATE LOCATION AND SALVAGE TREES DURING OPERATIONS.
12. INSTALL LARGE WOOD STRUCTURES.
13. INSTALL 9.5-FT TOP ELEVATION COFFERDAM TO ISOLATE THE TIDE GATE CULVERT WORK AREA FROM COQUILLE RIVER.
14. INSTALL CULVERT, BACKFILL CULVERT, AND INSTALL BALLAST AND RIPRAP PROTECTION.
15. INSTALL TIDE GATE AND MUTED TIDAL REGULATOR.

16. SEED BANKS.
17. INSTALL SLOPE PROTECTION FABRIC.
18. STAKE WILLOWS OVER SLOPE PROTECTION FABRIC.
19. INSTALL ROAD.
20. INSTALL LIVESTOCK FENCE.
21. CONNECT TIDE GATE TO MUTED TIDAL REGULATOR.
22. SEED AND MULCH BARE SOILS CREATED BY CONSTRUCTION ACTIVITIES.
23. REMOVE ALL REMAINING FISH BLOCK NETS, TURBIDITY CURTAINS, PUMPS, AND OTHER DEWATERING/DIVERSION EQUIPMENT FROM DRAINAGE AREA.

NOTES

1. SEE SEEDING NOTES AND TABLES ON SHEET EC3.
2. SEED AND MULCH ALL EXPOSED SURFACES EXCEPT:
 - 2.1. BEDS OF PRIMARY CHANNELS
 - 2.2. RIPRAP
 - 2.3. ROAD
 - 2.4. BELOW ELEVATION 4.0
3. PLANT LIVE STAKES 4-FT O.C. IN LIVE WILLOW STAKE ZONE, SEE DETAIL 3/EC5.

LIVE STAKE NOTES

LIVE STAKES SHALL CONSIST OF LOCALLY-OBTAINED, NATIVE WILLOW SPECIES.

PREPARATION

1. CUT LIVE STAKE CUTTINGS WITH SHARP PRUNING SHEARS OR WITH A SHARP SAW BLADE, WITHOUT CAUSING INJURY TO THE BARK OR SPLITTING OF THE ENDS. ANGLE THE BUTT END OF THE CUTTING AND KEEP THE TOP END SQUARE. REMOVE ALL SIDE BRANCHES WITH SHARP PRUNING SHEARS. CUT FLUSH WITH STAKE, WITHOUT CAUSING INJURY.

2. CUT WILLOW STAKES IN LENGTHS FROM 4 TO 6 FEET AND 0.75 TO 2.5 INCHES IN DIAMETER. CUT WILLOW POLES IN LENGTHS FROM 6 TO 8 FEET AND 2.5 TO 4 INCHES IN DIAMETER.

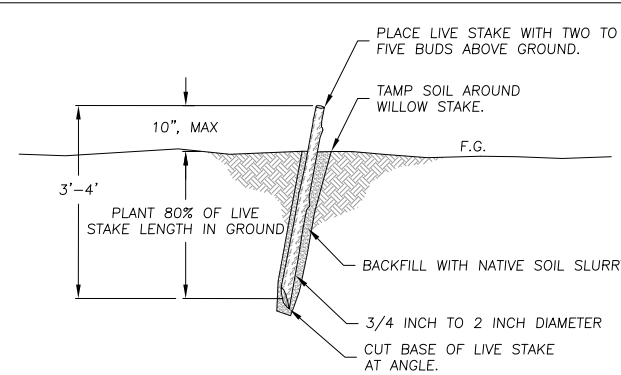
INSTALLATION

1. INSTALL LIVE STAKES WITHIN 6 HOURS OF BEING CUT OR SUBMERGE THEM IN CLEAN FRESH WATER FOR 24 HOURS, MIN. PRIOR TO INSTALLATION. DO NOT SOAK LIVE STAKES FOR MORE THAN 5 DAYS PRIOR TO INSTALLATION.

2. INSTALL LIVE STAKES WITH AT LEAST 2 BUDS AND/OR BUD SCARS ABOVE THE GROUND AFTER PLANTING.

3. INSTALL LIVE STAKES AS DEEP AS POSSIBLE INTO THE SOIL, PREFERABLY WITH 80% OF ITS LENGTH IN CONTACT WITH NATIVE SOIL. USE OF A POWER AUGER OR PILOT BAR MAY HELP WITH INSTALLATION.

4. DO NOT DAMAGE THE BUDS, SPLIT STAKE ENDS, OR STRIP THE BARK DURING INSTALLATION.



LIVE WILLOW STAKE DETAIL 3
SCALE: N.T.S. EC3, EC5

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NOT FOR CONSTRUCTION

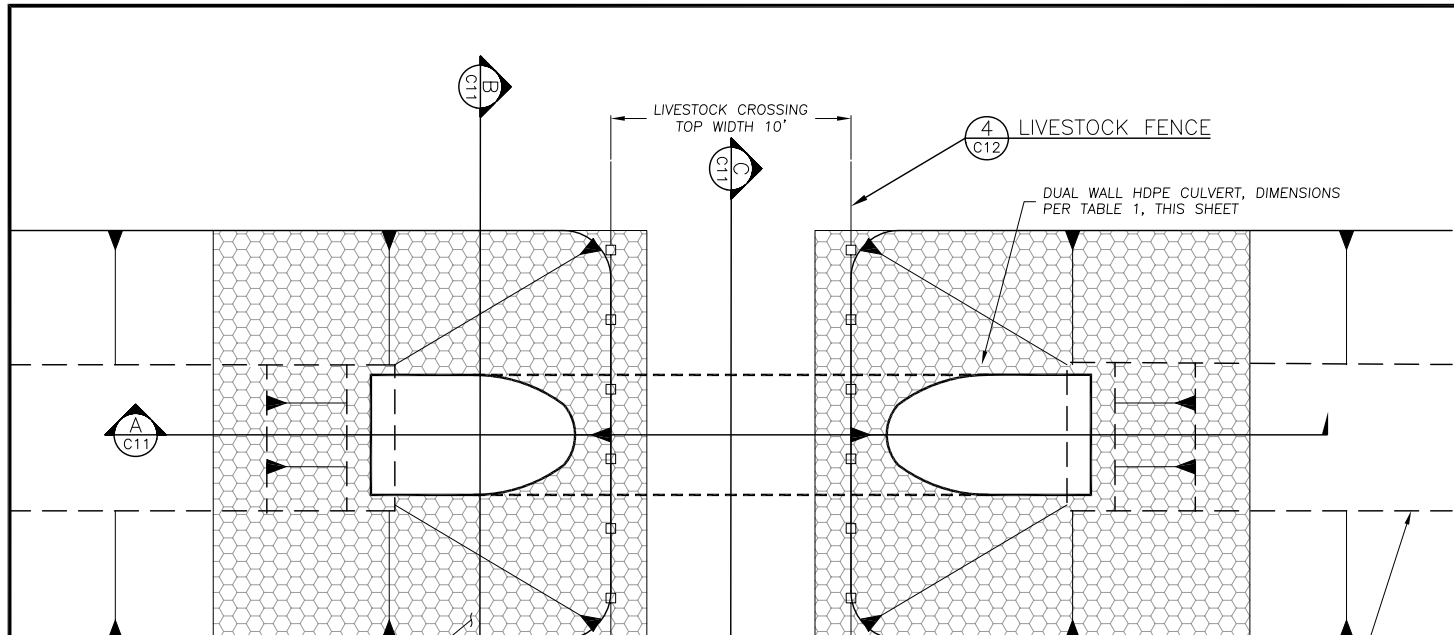
PREPARED AT THE REQUEST OF:
COOS SOIL AND WATER
CONSERVATION DISTRICT

ESCP PHASE 2 -
BERM
CONSTRUCTION

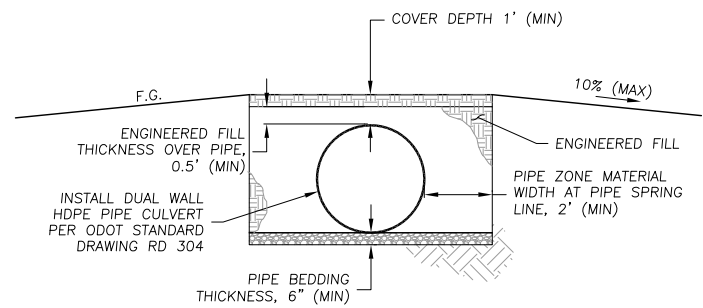
NORTH BANK LANE
TIDAL FLOODPLAIN
RESTORATION
90% DESIGN

DESIGNED BY: J.H.
DRAWN BY: D.H.
CHECKED BY: J.H.
DATE: 5/24/2022
JOB NO.: 18-055

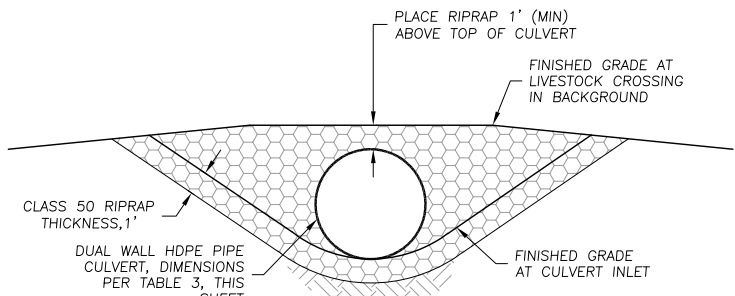
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ORIGINAL DRAWING,
ADJUST SCALES FOR
REDUCED PLOTS



TYPICAL PLAN
SCALE: 1" = 4'

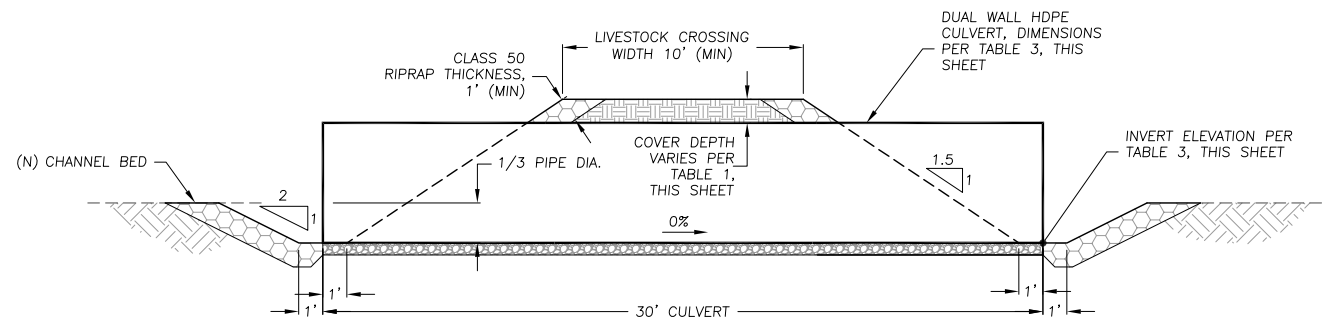


TYPICAL SECTION C-C11
SCALE: 1" = 4'



TYPICAL OUTLET SECTION B-B1
SCALE: 1" = 4'

NOTE:
1. SEE GEOTECHNICAL REPORT BY PALI CONSULTING DATED JANUARY 28, 2019 FOR MATERIAL SPECIFICATIONS AND CULVERT CONSTRUCTION.

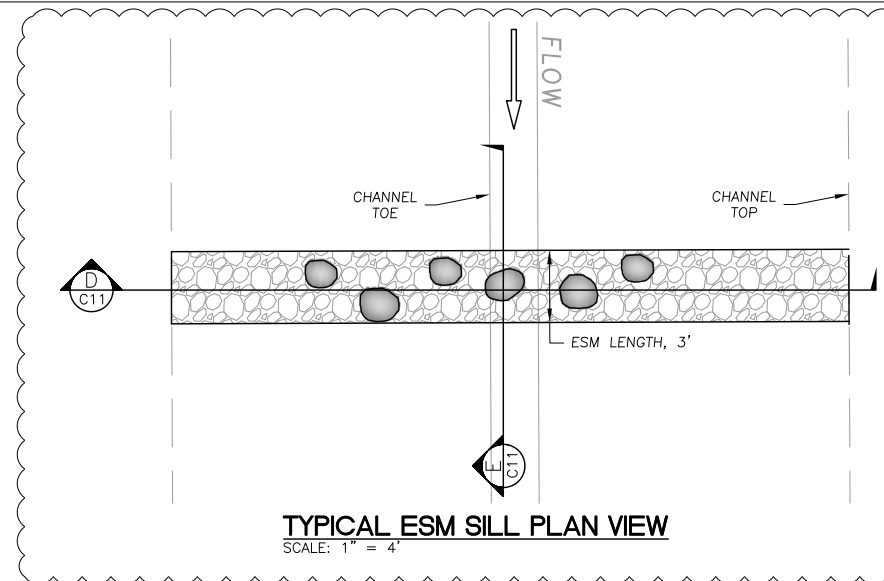


TYPICAL PROFILE A-A1
SCALE: 1" = 4'

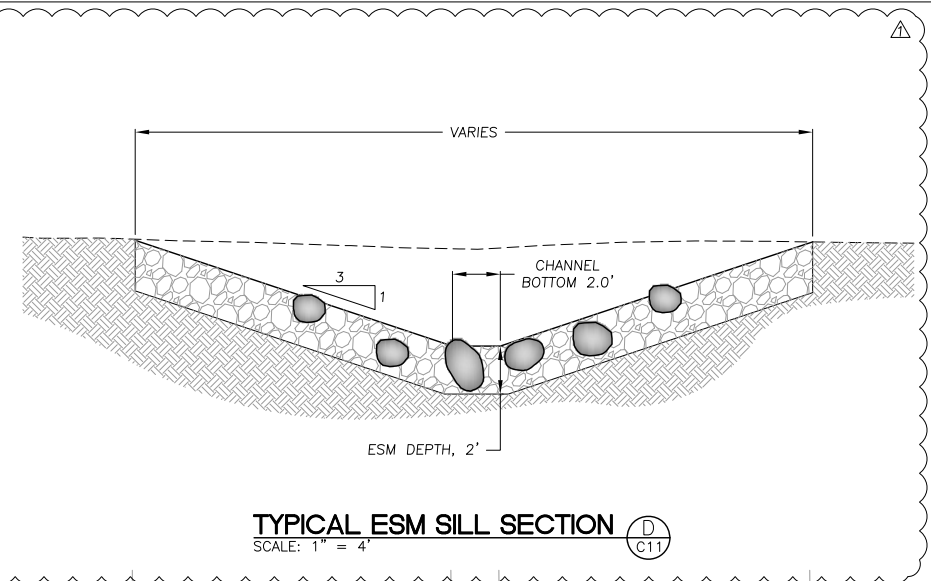
TABLE 3: CULVERT SIZE AND INVERT ELEVATIONS

CULVERT/ALIGNMENT ID	ALIGNMENT STATION	DIAMETER (IN)	CULVERT LENGTH (FT)	INVERT ELEV (FT)
A	12+40	60	30	-0.8
B	4+70	48	30	0.4
G	1+10	36	30	0.2
J	2+30	36	30	2.5

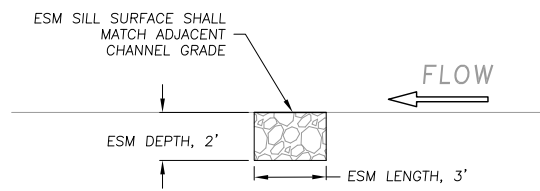
LIVESTOCK CROSSING CULVERT DETAIL 1
SCALE: 1" = 4'



TYPICAL ESM SILL PLAN VIEW
SCALE: 1" = 4'

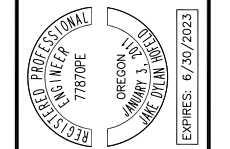


TYPICAL ESM SILL SECTION D-C11
SCALE: 1" = 4'



TYPICAL ESM PROFILE E-C11
SCALE: 1" = 4'

ESM SILL DETAIL 2
SCALE: 1" = 4'



PREPARED AT THE REQUEST OF:
COOS SOIL AND WATER CONSERVATION DISTRICT

LIVESTOCK CROSSING CULVERT AND ESM SILL DETAILS

NORTH BANK LANE TIDAL FLOODPLAIN RESTORATION - PHASE 2 100% DESIGN

DESIGNED BY: J.H.
DRAWN BY: D.H.
CHECKED BY: J.H.
DATE: 11/17/2022
JOB NO.: 18-055

BAR IS ONE INCH ON ORIGINAL DRAWING, ADJUST SCALES FOR REDUCED PLOTS

REV.	DATE	DESCRIPTION	BY
Δ	12/22/22	ESM CHANNEL REVISIONS	J.H.