Siuslaw Watershed Council
P.O. Box 422 ▪ Mapleton, OR 97453
Community ▪ Economy ▪ Environment
www.siuslaw.org
541-268-3044
watershed@siuslaw.org

Request for Proposal (RFP)

Date of issue: 3/24/2025

The Siuslaw Watershed Council (SWC) is seeking a qualified Contractor to review the attached Culvert Designs, Plans and Specifications and submit a proposal for the replacement of two (2) Aquatic Organism Passage (AOP) culverts on Lane County owned and maintained High Pass Road (Exhibits A and B) right-of-way. The land ownership surrounding High Pass Rd is under the jurisdiction of the Bureau of Land Management. The Contractor will be responsible for the removal and disposal of the existing structures and installation of two (2) new road-stream crossings detailed in Exhibit C, subject to the requirements detailed in FP-24 The Standard Specifications for the Construction of Roads and Bridges on Federal Highway Projects, Special Contract Requirements (Exhibit D) and all applicable environmental and timing restrictions.

Submittals are due by 5:00 PM on April 11th, 2025

Mandatory site visit to the Swartz Creek road-stream crossing replacement and habitat improvement project site will be held on
April 2nd, 2025 at 1pm

Contact information:

Project Manager:
Caleb Mentzer, Siuslaw Watershed Council
Phone: 541-269-3044 (office), 541-513-2604 (cell)
E-mail: projects@siuslaw.org

Request for Proposal
Siuslaw Aquatic Organism Passage (AOP) replacement for 2 road-stream crossing sites and associated site and stream rehabilitation in the Siuslaw River Watershed: Swartz Creek and Unnamed Tributary

Introduction

The Siuslaw Watershed Council (SWC) is seeking a qualified Contractor to review the attached Culvert Designs, Plans (Exhibit C) and Special Contract Requirements (Exhibit D) and submit a proposal for the replacement of 2 Aquatic Organism Passage (AOP) culverts in the Swartz Creek basin on High Pass Road (Exhibits A & B). The contractor will be responsible for the removal of the existing structures and installation of two (2) new road-stream crossings subject to the requirements detailed in FP-24 The Standard Specifications for the Construction of Roads and Bridges on Federal Highway Projects, Special Contract Requirements (Exhibit D) and all applicable environmental and timing restrictions.

The goal of this project is to enhance fish passage through 2 undersized, perched and failing road-stream crossing culverts on Swartz Creek mainstem and a nearby Unnamed Tributary to Swartz Creek in the Swartz Creek sub-basin of the Triangle Lake-Lake Creek 6th field HUC 171002060602. Note: the mainstem Swartz Creek road-stream crossings is a double-barrel side by side culvert so there are 3 culverts to be removed on two road-stream crossings locations. The failing road-stream crossing on mainstem Swartz Creek was identified as a high priority by BLM fisheries biologists and included as a priority project in the 2019 Siuslaw Strategic Action Plan for Coho Recovery. Replacing the nearby culvert on the Unnamed Tributary was determined through a site restoration Alternative Analysis and will provide habitat uplift for a variety of aquatic organisms. The replacement of the undersized culverts with structures that allow for natural stream simulation enhances natural aquatic and terrestrial species passage, natural transport of debris, and restores a more natural hydrologic connection. A key component of each road-stream crossing replacement is the stream simulation design that will mimic a natural stream conditions for migrating salmonids and other aquatic organisms.

The Siuslaw Watershed Council (also listed as the SWC, Council, or Agency) invites qualified firms (referred to as Contractor) with experience in Aquatic Organism Passage (AOP) construction to provide a proposal for the enclosed Tasks.

Background

Historic land use practices, including the building of roads, negatively impacted the quality and quantity of habitat supporting the Oregon Coast Coho population in the Siuslaw Watershed. Roads were built to access the landscape for agricultural, recreation and timber harvest

purposes, and those roads often crossed streams without providing adequate passage under the roads to facilitate the natural stream processes that existed prior to road construction. The mainstem Swartz Creek/High Pass Road road-stream crossing and Unnamed Tributary/High Pass Road road-stream crossing are both currently restricting coho salmon and other aquatic organism passage and replacing these structures with newly installed structures designed to AOP standards will increase the overall habitat availability for coho salmon and other native species.

General Information

Construction Specifications: Construction specifications shall be Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-24, with Special Contracting Requirements for the project (Exhibit D). Plans and Special Contract Requirements shall be in English units.

Build America, Buy America: Contractor required to retain and present to the SWC the Manufacturer Certificate of Origins for all of the iron, steel, manufactured products and constructions materials utilized in the project to ensure they were produced in the United States of America.

In connection with their activities under this Agreement, the Parties shall comply with all applicable federal, state and local laws and regulations. This includes, but is not limited to, the Infrastructure Investment and Jobs Act ("IIJA"), Pub. L. No. 117-58, which includes the Build America, Buy America Act ("the Act"). Pub. L. No. 117-58, §§ 70901-52. These requirements include but are not limited to the following.

i. All iron and steel items used in projects must be produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

ii. All manufactured products used in projects must be produced in the United States. This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product.

iii. All construction materials used in projects must be manufactured in the United States. This means that all manufacturing processes for the construction material occurred in the United States.

Project Description

The following are project tasks associated with this project. A final Scope of Work (SOW) will be developed between the Siuslaw Watershed Council and the awarded Contractor based upon the submitted proposal.

The technical Scope of Work includes all tasks necessary to install 2 (two) AOP structures on High Pass Road (Exhibit A & B) in accordance with the Plans in Exhibit C and Special Contract Requirements in Exhibit D.

Work on this project will be subject to In-Water Work Period and Marbled Murrelet Restrictions. As such, the use of power tools and/ or heavy equipment is restricted until after August 6th and any in-stream work to the dates August 6th-September 15th. During the August 6th- September 15th work period, operations may not begin until two hours after sunrise and must end two hours before sunset. Any work performed outside of this time window must be discussed with SWC and BLM Project Managers and receive written approval from SWC Project Management.

The work descriptions given below are not comprehensive and give a cursory description of work items for bidding purposes only; however, the total bid shall be for all ancillary items to complete the tasks. The Contractor must include adequate provisions in each bid item to account for incidentals required to complete the project.

Scope of work

Task 1. Management: Provide overall management for the technical work and coordination and communication with the Project Managers for Siuslaw Watershed Council and Bureau of Land Management.

Task 2. Install two (2) Aquatic Organism Passage road-stream crossings: Provide all construction material, culverts and equipment and install two (2) road-stream crossings in accordance with the Plans in Exhibit C and Special Contract Requirements (SCR's) in Exhibit D. Construction costs should reflect delivery of the corrugated metal pipe, concrete box culvert and all materials required for installation.

1. Contractor shall complete the proper installation of two (2) AOP road-stream crossings at the location in Exhibit A & B, according to Plans in Exhibit C and Special Contract Requirements in Exhibit D.
    a. Contractor must submit pre-cast box culvert and pre-cast top slab segment design to SWC PM for approval by BLM Engineering prior to delivery to project site.
    b. Contractor is responsible for the removal and disposal of the existing CMP culverts as part of the cost of installation bid item.
    c. Non-hazardous material waste sites will be identified by BLM staff and provided to the Contractor
2. Contractor shall submit a dewatering and stream isolation plan (stream bypass) to SWC Project Manager prior to beginning construction.
3. Contractor shall notify SWC Project Manager 14 days prior to when fish capture and relocation work is necessary. BLM to coordinate fish relocation activities.

4. Contractor must coordinate timing of key project elements with SWC Project Manager such that an BLM Engineer or approved representative can be on site during the following activities:
    a. Upon completion of site survey
    b. During installation of footing and bedding material
    c. De-watering and re-watering
        i. Coordinate with BLM fish salvage efforts
    d. During compaction activities
    e. Sub-grade approval
    f. Final approval

Task 3. Install Large Wood Debris structures: Contractor shall notify the SWC Project Manager seven (7) days prior to beginning tree tipping activities and shall ensure that a SWC or USFS representative is on-site during all LWD placement.

1. Tip and stage plantation trees with rootwads attached in preparation for transport to select locations in Swartz Creek.
2. Install large wood debris structures into Swartz Creek as defined by BLM Fisheries Biologists.

Public Safety

The Contractor shall exercise due caution and care when operating to prevent undue conflict with public users of roads, trails and project sites. The Contractor shall post signs and barricades blocking access at both ends of the project on High Pass Road throughout the duration of the project. See Traffic Control Sheets TC1 and TC2 in the Plan set for details. Assume the road can be closed throughout the duration of the project for construction purposes.

Reasonably Implied Work and Incidental Items

Any part of the work that is not mentioned in the above scope of work, or the contract developed with the selected Contractor, which is necessary or normally required as a part of such work, shall be performed by the Contractor as incidental work without extra cost to the SWC.

Table 1. Project Timeline

Task	Timeframe
Mandatory site visit and meeting	April 2nd, 2025
Proposals due to Council	April 11th, 2025
Contractor selected, develop contract	April 18th, 2025
Initiation of work	April 25th, 2025

Marbled Murrelet timing window begins (with daily restrictions until September 15th)	August 6th, 2025
In-Water Work Period window closes	September 15th, 2025
Work completed/ invoices submitted	October 1st, 2025

Site Visit

A mandatory site visit will be conducted on April 2nd, with contractors interested in submitting proposals to the Council. Please contact the SWC Office (541-268-3044) or the SWC Project Manager (projects@siuslaw.org) by 5 PM on March 31st if you would like to attend the site visit. The meeting will provide an opportunity for contractors to view the site and to ask any questions they may have. The SWC, BLM and Lane County Public Works Project Managers and/or Engineers will be present to answer questions. We will meet at the Project site, which can be found here: 44.229103, -123.456001. Travel and access directions will be provided upon receiving a contractor's RSVP.

If you can't attend the 4/2 site visit but are interested in submitting a bid, please contact the SWC Project Manager at projects @siuslaw.org prior to March 31st.

Bidding Process

Interested contractors will present the Council with a proposal by 5 PM on April 11th. The proposal should include a complete bid packet (Items I-IV), and the budget amount for Item II Task 2 should reflect the amount calculated from the Schedule of Items in Exhibit E. Bidders may present additional information that they feel will better explain their skill set, as applicable to the project at hand. Bidders should send a completed RFP bid packet either via email to projects@siuslaw.org or via mail to Siuslaw Watershed Council, 10868 East Mapleton Road, Mapleton Oregon 97453.

Beginning April 12th, SWC, BLM and LCPW project staff and review team will review and score proposals. Following evaluation and scoring of applications, the selection committee may choose to interview up to three bidders before making a final decision. Interviews, should they take place, will be via Zoom or at the Siuslaw Watershed Council office in Mapleton, Oregon. The SWC may propose modifications to the selected contractor's proposal before finalizing contract. The SWC will award the contract based on the qualifications, experience, and price offered in the contractors' proposals. The SWC reserves the right to ask for clarifications on bid items, and offers contractors the opportunity to clarify and refine their bid items.

The SWC shall enter into a contract with the contractor whose proposal/bid appears to best serve the interest of the Project, BLM, and SWC in terms of qualifications, services to be provided, timeliness and cost. Bidders will be notified of selection results within seven (7) business days of submittal, on or before April 18th. A project kick-off meeting will be held with

the successful bidder within a week of the award, at which time contract documents will be signed and notice to proceed will be given to the contracted firm.

Insurance

Contractor shall purchase and maintain insurance coverage for not less than the following:

- The Contractor, its sub-contractors, if any, and all employers working under this Contract are subject employers under the Oregon Worker's Compensation Law and shall comply with ORS 656.017 which requires them to provide workers' compensation coverage for all their subject workers, applicable in connection with the death, disability or injury of Contractor's officers, agents, servants or employees arising directly or indirectly out of the performance of this contract; or shall provide documentation to SWC establishing to their satisfaction that Contractor is exempt from Workers' Compensation coverage pursuant to ORS Chapter 656. Each policy required by this section shall be endorsed to provide a waiver of subrogation in favor of SWC. The additional insured endorsement must include products and completed operations; ISO cg 20 10 or its equivalent and ISO cg 20 37 or its equivalent.
- Commercial General Liability Insurance with Limits of not less than One Million Dollars ($1,000,000) each incident and not less than Two Million Dollars ($2,000,000) general aggregate. In addition, insurance policies shall include Five Thousand Dollars ($5,000) of medical expenses for employees. Commercial general liability policy must be endorsed to include loggers broad form property damage with limits of One Million Dollars ($1,000,000). Each policy required by this section shall be endorsed to provide a waiver of subrogation in favor of SWC.
- Automobile Liability Insurance with a combined single limit of not less than One Million Dollars ($1,000,000) each occurrence for injury to or death of persons and damage to or loss or destruction of property and not less than Two Million Dollars ($2,000,000) aggregate. Said policy or policies shall be endorsed to name SWC as well as their divisions, directors, officers and employees as additional insured's and shall include a "severability of interests" provision. Each policy required by this section shall be endorsed to provide a waiver of subrogation in favor of SWC.
- Contractor shall furnish certificates of insurance to SWC's Project Manager, Caleb Mentzer, certifying the existence of such insurance. Contractor shall require all subcontractors who are not covered by the insurance carried by Contractor to maintain the insurance coverage described in this Section. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled, or reduced in coverage or not renewed without 30 days advanced written notice to SWC.
- Proof of Insurance as described above shall be required before a bid is awarded and shall be subsequently provided to SWC upon request throughout the term of the Project. Contractor shall fill out and sign Item V below, attesting to adequate insurance coverage.

The insurance coverage required herein shall in no way limit the Contractor's liability under this Contract.

Indemnity

Contractor shall indemnify**,** defend, save and hold harmless the Indemnified Parties (defined below) from and against any and all liability, demands, claims, losses, costs (including but not limited to attorneys' fees and, in the case of item (b) below, royalty payments) and expenses arising from or in connection with:

- claims for personal injury (including death) and/or property loss or damage to whomsoever or whatsoever occurring or arising in any manner out of or in connection with: the Work, this Contract, or any act or omission of Contractor, its directors, officers, agents or employees, or the presence of Contractor, its directors**,** its officers, agents or employees upon or about the property, premises or right-of-way of the USFS, whether or not negligence on the part of any Indemnified Party may have caused or contributed to such injury, death, loss or damage; provided, however, that if, under the law applicable to enforcement of this Contract, an agreement to indemnify against the indemnitee's own negligence is invalid, then in that event Contractor's obligation to indemnity the Council under this section shall be reduced in proportion to the negligence of the Council, if any, which proximately contributed to such injury, death, loss or damage;
- any claim of infringement of patent rights arising from the use of any of the articles, materials, equipment or designs furnished in connection with the Work or named in this Contract; and any claims, fines, penalties or other charge or loss arising from any alleged violation of any statute, code, or ordinance or regulation of the United States or of any state, county or municipal government that results in whole or in part, directly or indirectly, from the activities of Contractor's officers, agents, employees or subcontractors related in any way to this Contract, or from any act or omission of Contractor, its officers, agents, employees or subcontractors contributing to such violation, regardless of whether such activities, acts or omissions are intentional or negligent, and regardless of any specification by the Council without actual knowledge that it might violate any such statute, code, ordinance or regulation (these laws, ordinances and regulations, include, without limitation, all laws, ordinances and regulations relating to air, water, noise, solid waste and other forms of environmental protection, contamination or pollution, as well as all laws, ordinances and regulations relating to discrimination on the basis of disability).

As used in this RFP, the terms "Indemnified Parties" and "Indemnified Party" shall mean and include, collectively and singularly, (i) The Siuslaw Watershed Council, Inc (hereinafter SWC), (ii) any direct or indirect subsidiary SWC (iii) any officer, director, Commissioner, employee, shareholder or agent of the USFS or of any of their direct or indirect subsidiaries, (iv) any officer, director, Commissioner, employee, shareholder or agent of SWC or of any of their direct or indirect subsidiaries

Payments

The Contractor may invoice the Council for the agreed upon bid amount once work is complete. The total amount charged for this project will not exceed available funding for the project. All invoices must be submitted no later than October 1st, 2025. Payments will be made within 45 days of the invoice receipt from Contractor, pending SWC receipt of payment from funder/s. **This agreement constitutes a subcontract whereby payment to Contractor may be contingent upon reimbursement of invoiced amounts from funder/s**.

A Complete Bid Packet Shall Include the Following:

Items I-IV OR equivalent information in alternate format

Documents provided to Potential Bidders:

Bid Packet (includes Items I-IV)

Proposal Elements Considered by RFP Reviewers

Project Approach (35%)

Describe how the firm's approach to projects of this type qualifies the firm to perform the required tasks in the specified timeline.

Qualifications of the Applicant (35%)

Provide detailed descriptions of relevant work experience the firm has engaged in over the past five years, with an emphasis on Aquatic Organism Passage. The applicant should fully address the applicant's experience in working with the complexities of steep coastal drainages and flashy hydrology associated with rivers such as the Siuslaw. Highlight any work in which the protection of adjacent lands and/or infrastructure were significant components. Identify any built projects and/or designed projects slated for construction in the near term. Overall, applicants are encouraged to present projects which bear overall resemblance to the North Fork Indian Creek Fish Passage Enhancement Project.

Key Staff to be Involved (10%)

Identify key project staff and what their roles will be. Who will manage the project on the contractor's side and serve as the primary liaison with the SWC? Submit resumes of key project staff to be involved, not to exceed one page in length each. For staff involved, include details of certifications and professional credentials which lend support for their projected work on the project.

Cost estimate (20%)

Applicants should submit a detailed cost proposal which lays out anticipated costs for all project elements, including key project staff and their hourly billing rates, and including all anticipated expenses.

Other proposal requirements

Supply proof of insurance. This insurance must be of type and amount sufficient to meet the requirements for this type of activity, and are listed under Item IV in the enclosed Bid Packet.

Under the contractor's liability insurance, we request that The Siuslaw Watershed Council be named as additionally insured. Contract will not be valid until proof of insurance is provided.

Contact Person:
Caleb Mentzer
Restoration Projects Manager
Siuslaw Watershed Council
projects@siuslaw.org
Phone: 541.268.3044 (office)
541.513.2604 (cell)

Issued By:
Siuslaw Watershed Council
PO Box 422
Mapleton, OR 97453
(Mailing address)

Physical Address Location:
Siuslaw Watershed Council
Mapleton School District Campus
10868 East Mapleton Road
Mapleton, OR 97453 (Not Mailing address)

This project is made available through funding from the Oregon Watershed Enhancement Board, BLM Resource Advisory Committee and the Infrastructure, Investment and Jobs Act

"In accordance with Federal law and U.S. Department of Interior, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability. (Not all prohibited bases apply to all programs.) SWC is an equal opportunity provider and employer."

Bid Packet

Item I. Bidder Information

BIDDER FIRM: _____

BIDDER CONTACT PERSON: _____

ADDRESS: _____

PHONE: _____ E-Mail: _____

The undersigned, hereinafter called the Bidder, declares that the only person(s) interested in this Bid are those named herein; that the Bid is in all respects fair and without fraud; and, that it is made without any connection or collusion with any other person making a bid on this project.

The Bidder further declares that they have carefully examined the Request for Proposal Documents, hereinafter referred to as the Document; is satisfied as to the scope of work, and understands that the description of the work in the RFP is brief and is intended only to indicate the general nature of the work.

The Bidder agrees that if this Bid is accepted they will within five (5) working days, not including Saturdays, Sundays and legal holidays, after notification of acceptance execute a Contract with the Siuslaw Watershed Council.

The Bidder further agrees, to the extent of this Bid, to furnish all means of completion of work and do the work in the manner, in the time, and according to the methods as specified in the Document.

The Bidder further agrees to begin work on a date mutually agreed upon by SWC and the Contractor, in accordance with all permit and environmental regulations and shall complete all tasks by October 1st, 2025. Work will not be allowed to commence until a signed Contract is received by the Siuslaw Watershed Council.

The Bidder further agrees to accept as payment for the work proposed under this project, as herein specified and under the provisions included in the Document, the task prices included on the Bid Form. The Bidder further represents a true measure of the labor required to perform the work including all allowances for overhead and profit for each type of work called for.

_____

SIGNATURE OF AUTHORIZED REPRESENTATIVE DATE

Item II. Schedule of Tasks

	North Fork Indian Creek AOP Design				
Task	**DESCRIPTION**	**Product**	**Comments**	**TOTAL AMOUNT**	**Proposed Completion Date**
1	Project Management	Project Management			
2	Installation of two (2) Aquatic Organism Passage structures: from Exhibit E	Schedule of Items: culvert installation/s			
3	Install Large Wood Debris Structures: Total amount should include **hourly rate** for one excavator (with operator) of a size class that is capable of placing 18'dbh logs that are 40' in length	LWD structures			

Total Cost of Work: $_____

Item III. Bidder AOP Fish Passage Design Project History and References

Bidders with experience performing similar work on AOP fish passage design restoration projects will be favored when proposals are evaluated. Please fill out the following table with your most relevant work or attach a resume/work history with references.

Name of Client, Project Location	Description of Work Completed	Contact Name/Phone Number

Item IV: Bidder Certification

The name of the Bidder submitting this Bid Proposal is:

_____

Doing business at _____
Which is the address to which all communications concerned with the Bid and the Contract shall be sent.

(If Corporation)
In witness whereof the undersigned Corporation had caused this instrument to be executed and its seal affixed by its duly authorized officer's this_____ day of _____

_____
Name of Corporation

By: _____

Title: _____

Attest: _____

(If Partnership)
In witness whereof the undersigned Partnership had caused this instrument to be executed and its seal affixed by its duly authorized officer's this_____ day of _____

_____
Name of Partnership

By: _____

Title: _____

Attest_____

(If Sole Proprietor)
In witness whereof the undersigned has set his hand and caused this instrument to be executed this_____ day of _____

_____
Name of Business

Signature of Bidder: _____

Attest: _____

Item V: Insurance Requirements for Contractor

_____ ("CONTRACTOR") agrees to carry insurance equal to or greater than that listed below and name Siuslaw Watershed Council.

COMMERCIAL GENERAL LIABILITY AND AUTO LIABILITY
$1,000,000. Each occurrence
$2,000,000. General aggregate
$5,000 Medical expense

- Siuslaw Watershed Council and United States Forest Service must be named as an additional insured. This insurance is required to be primary and non-contributory and include a waiver of subrogation.
- Commercial general liability must be endorsed to include loggers broad form property damage with limits of $1,000,000
- The additional insured endorsement must include products and completed operations; ISO cg 20 10 or its equivalent ISO cg 20 37 or its equivalent. Please attach a copy of the endorsement to the certificate of insurance.
- Insurance must be maintained continuously
- Contractor must provide a 30-day notice of cancellation

WORKERS COMPENSATION
$500,000 employer liability
Complies with all applicable workers' compensation laws of the state of Oregon
Certificate of insurance only

- Workers compensation must contain a waiver of subrogation

AUTO LIABILITY
$1,000,000 combined single limit for all owned, non-owned or hired vehicles

- Siuslaw Watershed Council and United States Forest Service must be named as an additional insured. This insurance is required to be primary and non-contributory and include a waiver of subrogation.

_____ _____
SIGNATURE OF AUTHORIZED REPRESENTATIVE DATE

_____
PRINTED NAME

Exhibit A: Swartz Creek Habitat Restoration 2025 Project location

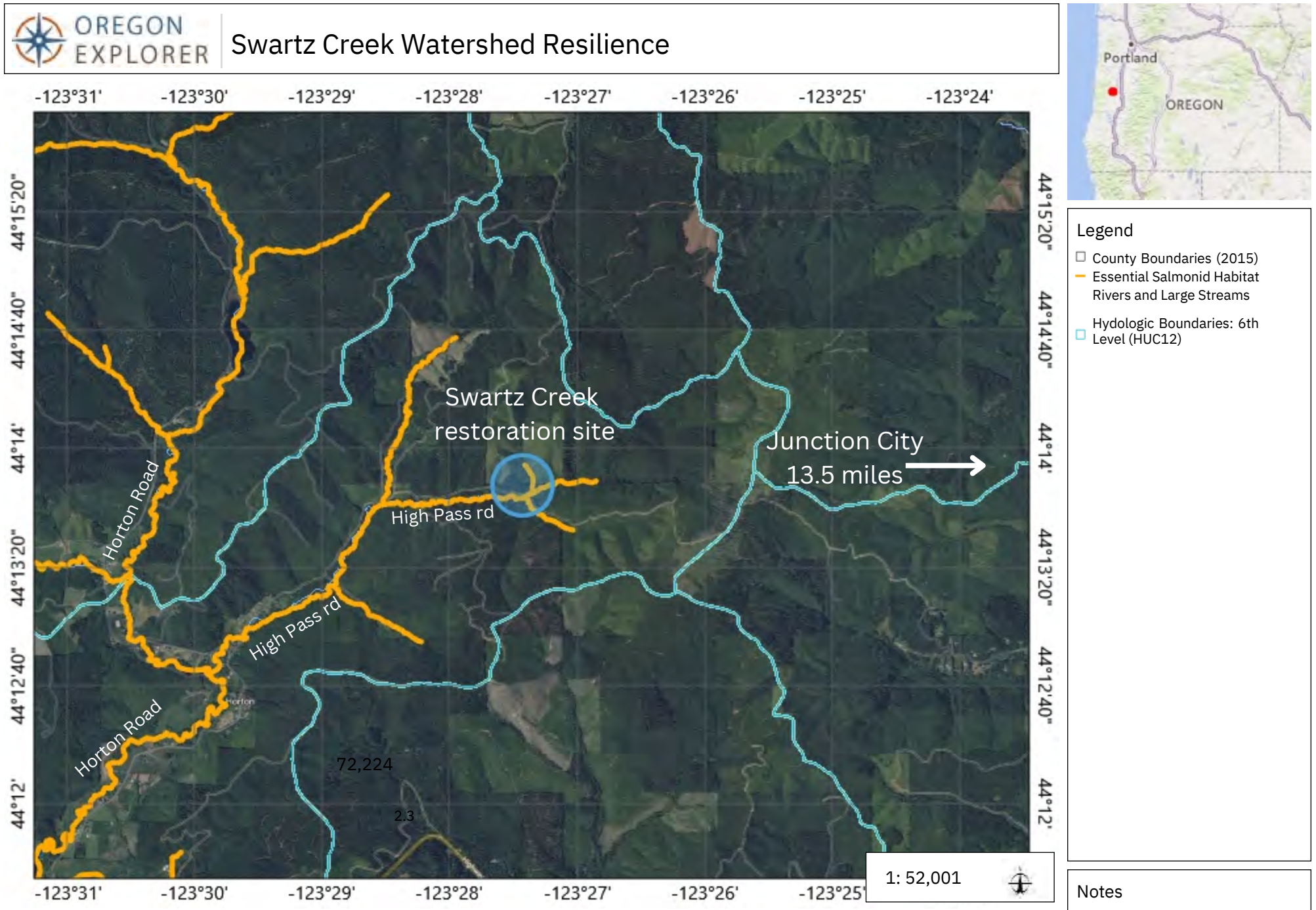
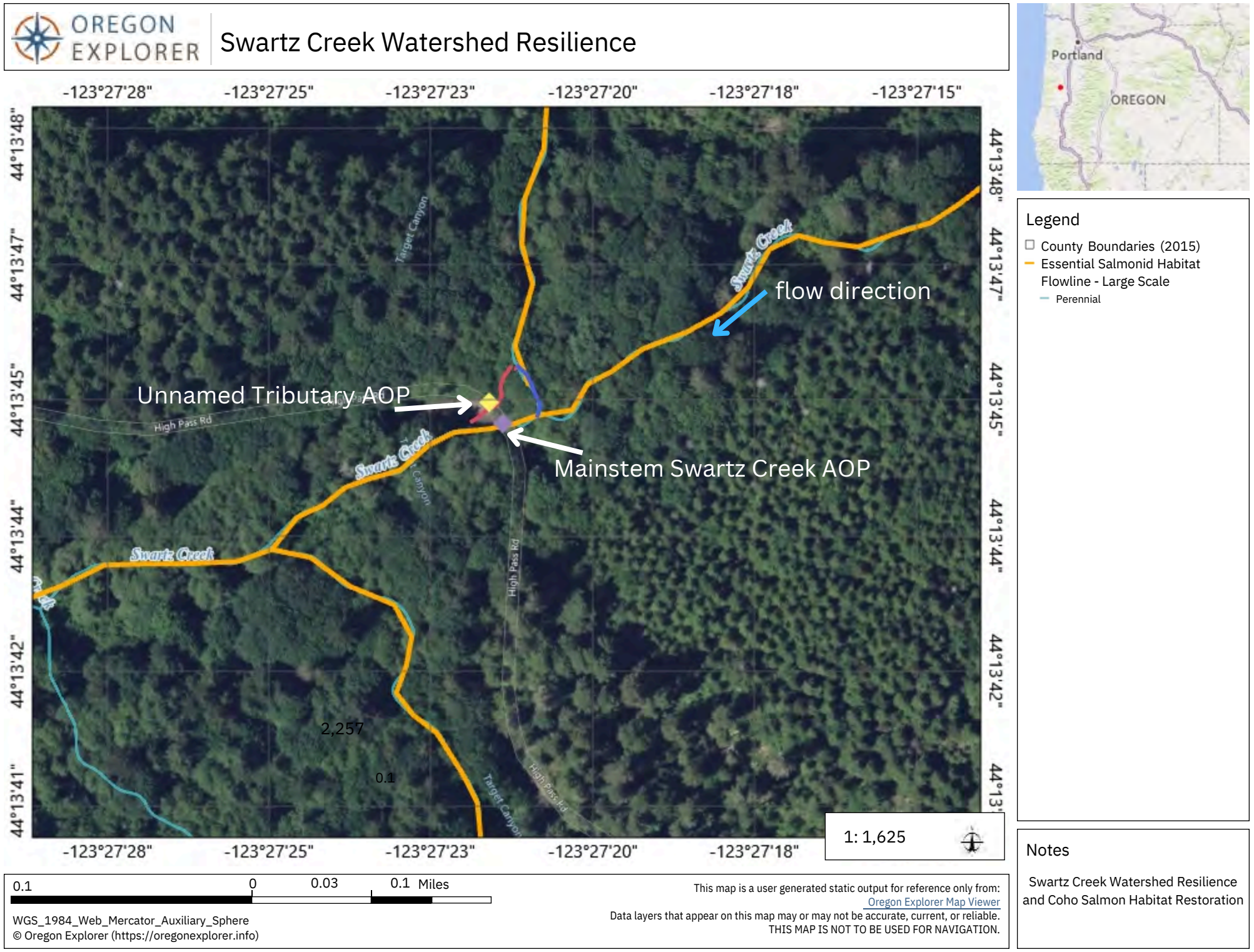


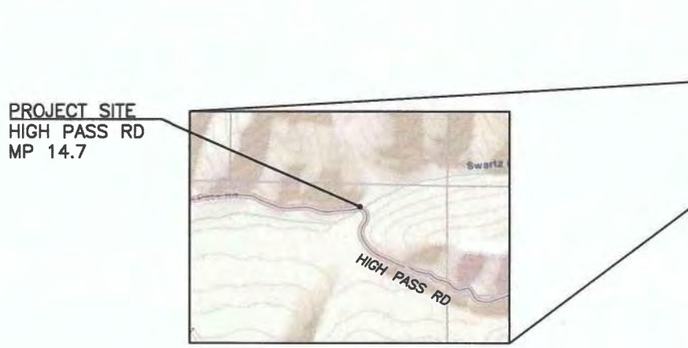
Exhibit B: site map with general location of road-stream crossings



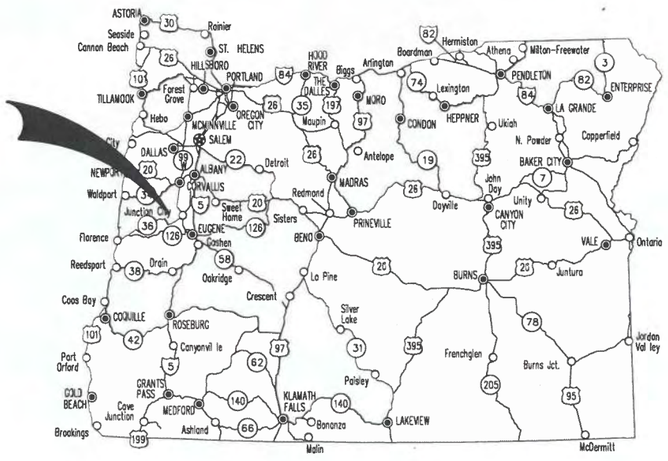
LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING & CONSTRUCTION SERVICES DIVISION
PLANS FOR PROPOSED PROJECT
GRADING, DRAINAGE, & STRUCTURES

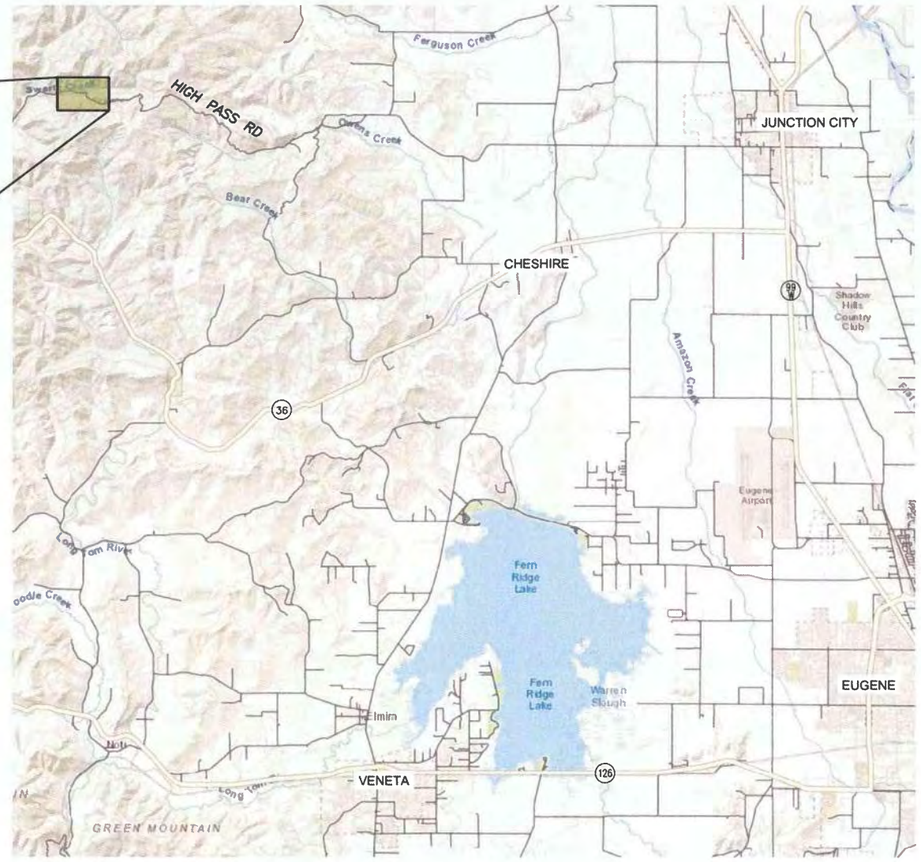
HIGH PASS RD - SWARTZ CR CULVERTS

M.P. 14.7
LANE COUNTY, OREGON
FEBRUARY 2025



ENLARGED PROJECT AREA
SCALE: 1" = 2,500'





VICINITY MAP
SCALE: 1" = 20,000'

IN PARTNERSHIP WITH

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

SIUSLAW WATERSHED COUNCIL

SPECIFICATION:

STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAYS PROJECTS, FP-24

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

ATTENTION

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 THE RULES FROM THE CENTER. THE TELEPHONE NUMBER FOR THE UTILITY NOTIFICATION CENTER IS 811 OR 1-800-332-2344

THESE PLANS WERE DEVELOPED USING AASHTO DESIGN STANDARDS. EXCEPTIONS TO THESE STANDARDS, IF ANY, HAVE BEEN SUBMITTED AND APPROVED BY THE COUNTY ENGINEER

REGISTERED PROFESSIONAL ENGINEER
52862PE
OREGON
JANUARY 9, 2007
RYAN W SISSON

Ryan Sisson 2/21/25

RENEWS: 06-30-2026

APPROVED FOR CONSTRUCTION: Sasha Vartanian

SASHA VARTANIAN
ECS DIVISION MANAGER
DAN HURLEY
PUBLIC WORKS DIRECTOR

LANE COUNTY OREGON

LANE COUNTY COMMISSIONERS

RYAN CENIGA
PAT FARR
LAURIE TRIEGER
DAVID LOVEALL
HEATHER BUCH

PROJECT FILE No: 367345510

INDEX OF SHEETS

SHEET NO.	SHEET TITLE
COV	COVER SHEET
LGN	SHEET INDEX, LEGENDS & ABBREVIATIONS
EROSION CONTROL	
EC1	EROSION & SEDIMENT CONTROL PLAN
TSD1	TEMPORARY STREAM DIVERSION PLAN
TSD2	TEMPORARY STREAM DIVERSION PLAN (UNT)
SITE PREPARATION	
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CONSTRUCTION PLAN & PROFILE	
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C3	HIGH PASS RD – STA 10+30 TO STA 11+11
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D5	STREAMBED CONSTRUCTION DETAILS 1
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S2	CULVERT PLAN AND SECTION
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TC1	TRAFFIC CONTROL PLAN 1
TC2	TRAFFIC CONTROL PLAN 2
TRIBUTARY CULVERT	
TR1	UNT PIPE ARCH PLAN, PROFILE AND SECTION
TR2	UNT PIPE ARCH DETAILS
TR3	STREAMBED DETAILS
TR4	HABITAT DETAILS

ABBREVIATIONS

APPROX	APPROXIMATE
C/L	CENTERLINE
CONST	CONSTRUCT/CONSTRUCTION
CP	CONTROL POINT
CY	CUBIC YARD
DIA	DIAMETER
EA	EACH
ELEV/EL	ELEVATION
EXIST/EX	EXISTING
FG	FINISH GRADE
FL	FLOWLINE
FT	FOOT
GB	GRADE BREAK
IE	INVERT ELEVATION
INV	INVERT
LF	LINEAL FEET
LT	LEFT
MIN	MINIMUM
MP	MILEPOST
NO	NUMBER
OHW	ORDINARY HIGH WATER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PVMT	PAVEMENT
PROP/PR	PROPOSED
R/W	RIGHT-OF-WAY
RT	RIGHT
S	SLOPE (FT/FT)
SF	SQUARE FOOT
SHT	SHEET
STA	STATION
TN	TON
TSD	TEMPORARY STREAM DIVERSION
TYP	TYPICAL
UNT	UNNAMED TRIBUTARY
W/	WITH

GENERAL LINETYPES

LINETYPE EXISTING	LINETYPE PROPOSED	DESCRIPTION
	SB SB	SEDIMENT WATTLE/ FIBER ROLL
		CULVERT
	SD	DIVERSION PIPE
		CENTER LINE
		EDGE OF GRAVEL
999	999	CONTOURS
OHW		ORDINARY HIGH WATER
		CHANNEL C/L
		ROAD C/L

SYMBOLS

SYMBOLS EXIST.	SYMBOLS PROP.	DESCRIPTION
		DECIDUOUS TREE
		CONIFEROUS TREE
		SHRUB
		SIGN
		CONTROL POINT

OREGON STANDARD DRAWINGS

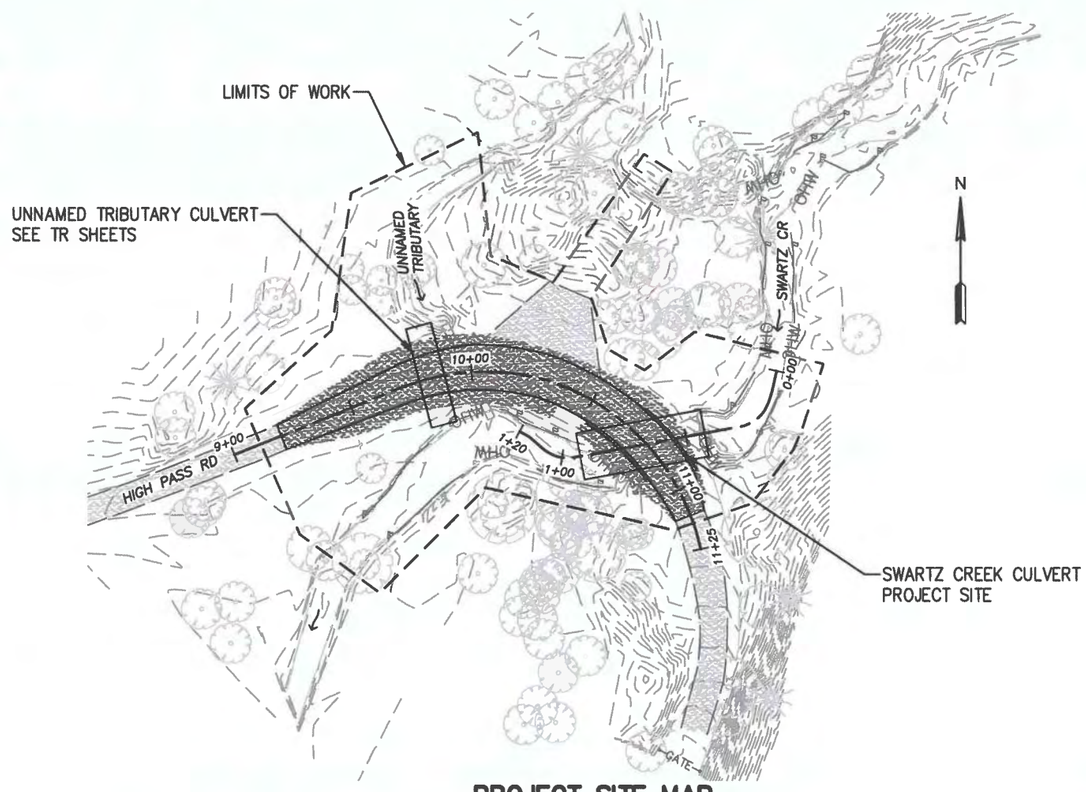
(REQUIRED FOR PROJECT COMPLETION)

TM687	PERFORATED STEEL SQUARE TUBE (PSST) ANCHOR FOUNDATION
TM800	TABLES, ABRUPT EDGE AND PCMS DETAILS
TM820	TEMPORARY BARRICADES
TM821	TEMPORARY SIGN SUPPORTS
TM822	TEMPORARY SIGN SUPPORTS
TM840	CLOSURE DETAILS
TM850	2-LANE, 2-WAY ROADWAYS

FHWA FP-24 STANDARD DRAWINGS

(REQUIRED FOR PROJECT COMPLETION)

W157-21	FIBER ROLL



PROJECT SITE MAP

SCALE: 1" = 60'

PROJECT MANAGER	DRAFTER
AARON FISHER	PATRICK REINING

REGISTERED PROFESSIONAL ENGINEER
52862PE
OREGON
JAN. 9, 2007
RYAN W. SISSON
Ryan Sisson 12/31/25

RENEWS: 06-30-2026

LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DANIEL M. HURLEY
PUBLIC WORKS DIRECTOR

SASHA VARTANIAN
ECS DIVISION MANAGER

REVISION	DATE	APPR'D

HIGH PASS RD - SWARTZ CR CULVERTS

SHEET INDEX, LEGENDS & ABBREVIATIONS

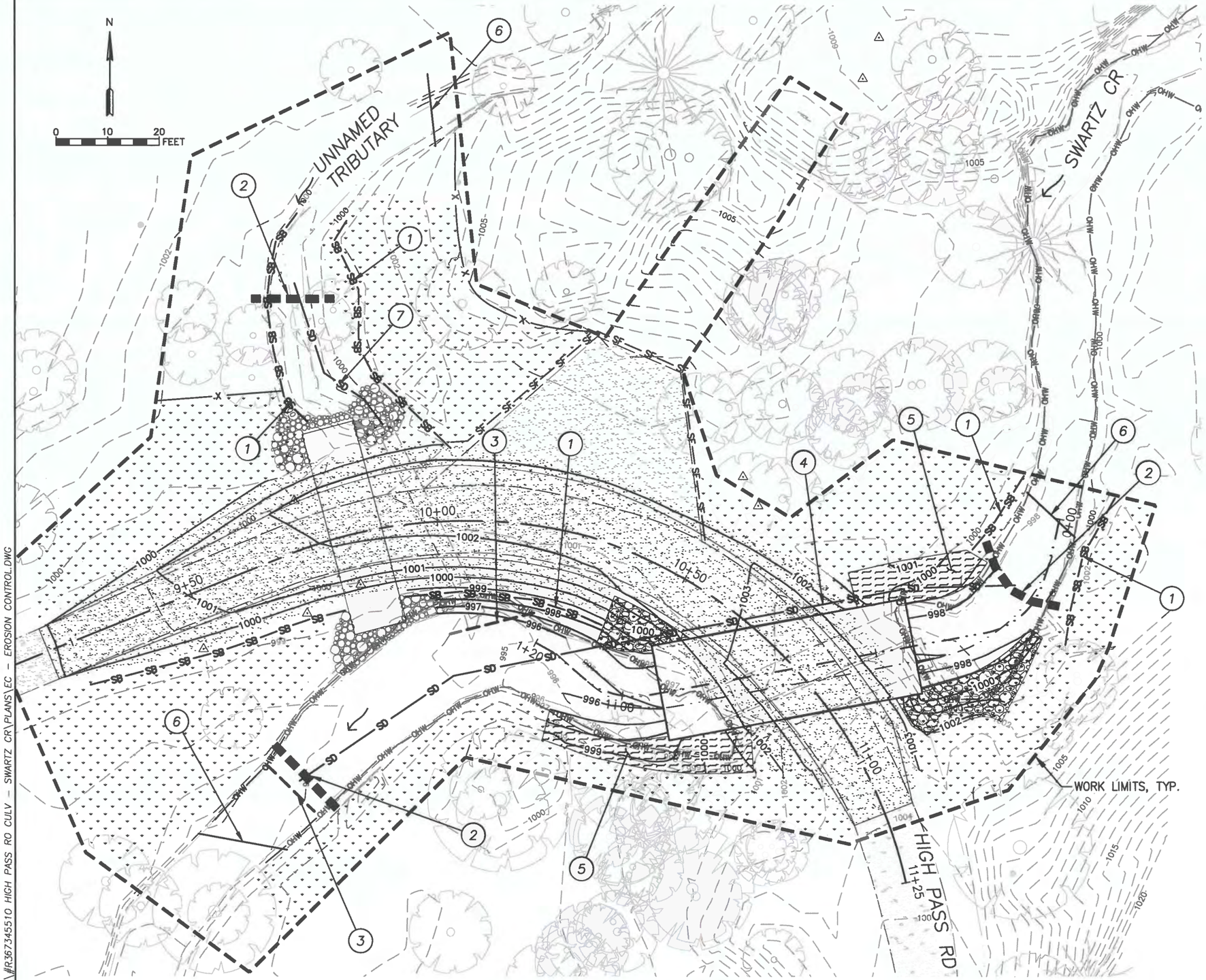
ROAD NO. 345500

PROJECT NO. 387345510

DATE 12/4/24

SHEET NO.
LGN

H:\PROJECTS\#R387345510 HIGH PASS RD CULV - SWARTZ CR\PLANS\COVER-LEGEND.DWG



CONSTRUCTION NOTES

1. INSTALL SEDIMENT WATTLE/STRAW FIBER ROLL, PER FHWA FP-24 WFL STD DTL W157-20 – 236'
2. INSTALL SANDBAG DAM PER SHEET TSD1
3. INSTALL TEMPORARY ENERGY DISSIPATOR PER SHEET TSD1
4. INSTALL DIVERSION PIPE PER SHEET TSD1
5. INSTALL ROLLED EROSION CONTROL PRODUCT, TYPE 2.D PER DETAIL 1, SHEET TSD1 – 50 SQYD USE WOOD STAKES
6. INSTALL BLOCK NET PER SHEET TSD1
7. INSTALL DIVERSION PIPE PER SHEET TSD2

SHEET NOTES

MAINTAIN EROSION CONTROL BMPS PER CONTRACT. INSTALL ADDITIONAL SEDIMENT BARRIER WHERE NECESSARY TO PROTECT CHANNEL AFTER TEMPORARY STREAM DIVERSION WORK IS REMOVED.

LEGEND

- SD — DIVERSION PIPE
- SF — SF — SEDIMENT FENCE
- SB — SB — SEDIMENT WATTLE/FIBER ROLL
- SANDBAG DAM
- ENERGY DISSIPATOR
- x — EXCLUSION ZONE FENCE
- VEGETATED CLASS 2 RIPRAP, SEE DETAIL 2, SHEET D5
- ROLLED EROSION CONTROL PRODUCT OVER CONSERVED TOPSOIL. SEE DETAIL SHEETS.
- PERMANENT SEEDING OF ALL DISTURBED AREAS

EROSION CONTROL PLAN

SCALE: 1" = 20'

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DECEMBER 21, 2011
MAURIA J. PAPPAGALLO

RENEWS: 12-31-26

LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DANIEL M. HURLEY
PUBLIC WORKS DIRECTOR

SASHA VARTANIAN
ECS DIVISION MANAGER

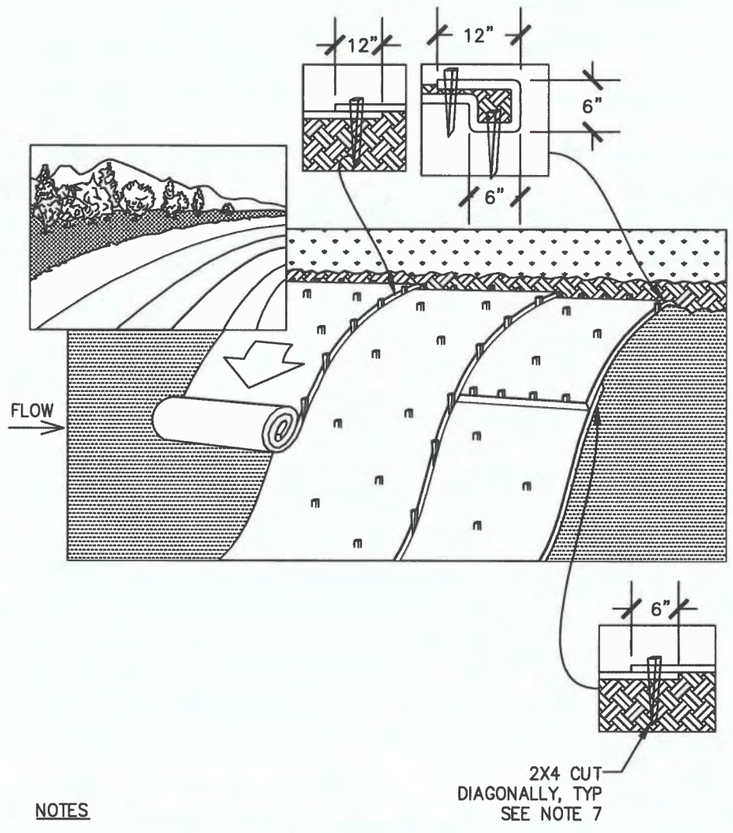
REVISION	DATE	APPRVD

HIGH PASS RD - SWARTZ CR CULVERTS
EROSION CONTROL
EROSION & SEDIMENT CONTROL PLAN

ROAD NO. 345500
PROJECT NO. 367345510
DATE 12/4/24

SHEET NO.
EC1

H:\PROJECTS\#R367345510 HIGH PASS RD CULV - SWARTZ CR\PLANS\EC - EROSION CONTROL.DWG

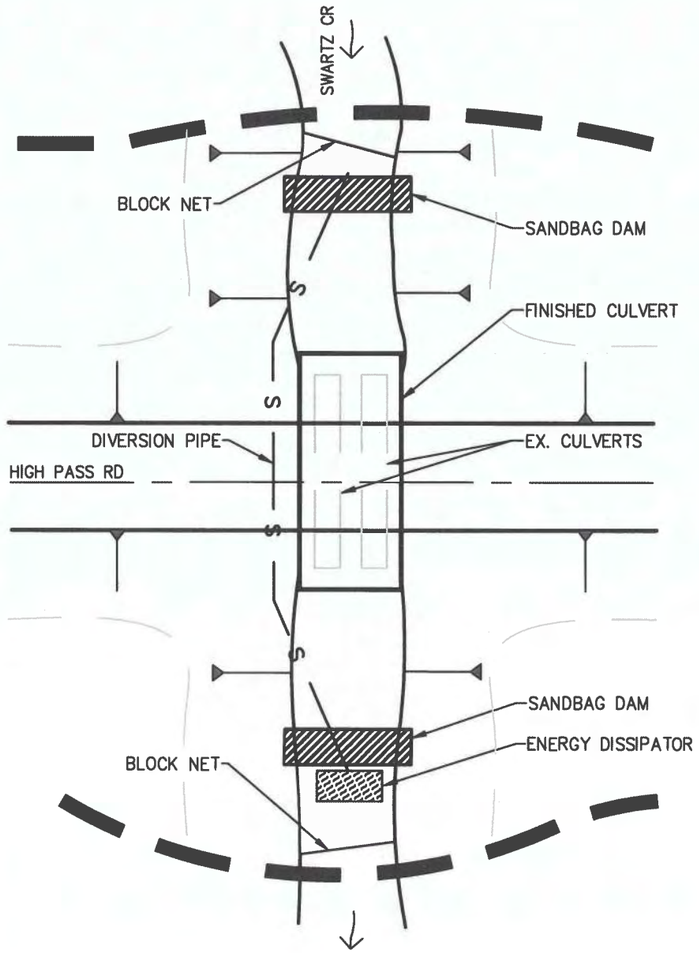


NOTES

1. PREPARE SOIL BEFDRE INSTALLING FABRIC.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE ROLLED EROSION CONTROL PRODUCT IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF FABRIC EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE ROLLED EROSION CONTROL PRDDUCT WITH A ROW OF WOOD STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAKING. APPLY SEED TO COMPACTED SOIL ANO FOLD REMAINING 12" PORTION OF FABRIC BACK OVER SEED AND COMPACTED SOIL. SECURE FABRIC OVER COMPACTED SOIL WITH A ROW OF STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE FABRIC.
3. ROLL THE FABRIC DOWN THE SLOPE. ALL FABRIC MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAKES A MINIMUM OF 3' ON CENTER IN A GRIO PATTERN AS SHOWN.
4. THE EDGES OF PARALLEL FABRIC PIECES MUST BE STAKED WITH MINIMUM 1' OVERLAP. STAKE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE FABRIC LENGTH.
5. CONSECUTIVE FABRIC PIECES SPLICED DOWN THE SLOPE MUST BE PLACED ENO OVER END (SHINGLE STYLE) WITH MINIMUM 1' OVERLAP. STAKE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE FABRIC WIDTH.
6. AT THE BOTTOM OF THE SLOPE ANCHOR THE ROLLED EROSION CONTROL PRODUCT IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF FABRIC EXTENDED BEYOND THE DOWN-SLOPE PORTION OF THE TRENCH. ANCHOR THE ROLLED EROSION CONTROL PRODUCT WITH A ROW OF WODD STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. AFTER PLACING STAKES, BACKFILL AND COMPACT THE TRENCH. SECURE FABRIC OVER COMPACTED SOIL WITH A ROW OF STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE FABRIC.
7. ALL STAKES TO BE 12" LONG 2X4 CUT DIAGONALLY OR APPROVED EQUIVALENT.

1 ROLLED EROSION CONTROL PRODUCT, TYPE 2.D

SCALE: NTS

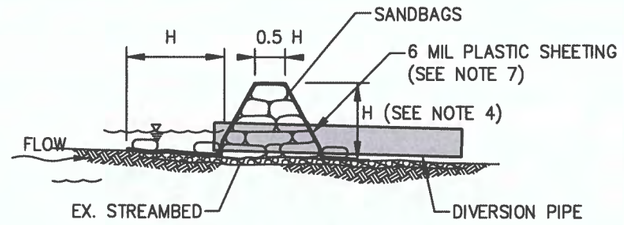


2 TEMPORARY STREAM DIVERSION PLAN

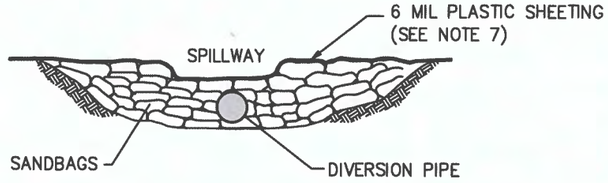
SCALE: NTS

SWARTZ CREEK	
2 YEAR PEAK FLOW	MIN. TSD FLOW
110 ft^3/s	20 ft^3/s

SOURCE: STREAMSTATS



3 SANDBAG DAM ELEVATION



4 SANDBAG DAM SECTION

NOTES

1. THIS PLAN REPRESENTS A POTENTIAL TEMPORARY STREAM DIVERSION PLAN THAT IS TO BE ADJUSTED PER SITE CONDITIONS. PRIOR TO CONSTRUCTION, A TEMPORARY STREAM DIVERSION PLAN SHALL BE SUBMITTED PER SPECIFICATIONS. CHANGES TO THE PLAN SHALL BE COORDINATED WITH ENGINEER FOR REVIEW.
2. CONTRACTOR SHALL NOT WORK IN STREAM WITH ANY WATER PRESENT WITHOUT THE USE OF A TEMPORARY STREAM OIVERSION FACILITY (TSD) INSTALLED.
3. ALL TSD BMP'S SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ANY NEEDED REPAIRS SHALL BE MADE AS SOON AS PRACTICABLE.
4. TSD DAM HEIGHT TO BE DETERMINED BY THE CONTRACTOR AND ADJUSTED IN PREPARATION FOR INCLEMENT WEATHER PER SPECIFICATION. DOWNSTREAM SANDBAGS SHALL TAKE INTO ACCOUNT SWARTZ CREEK ELEVATIONS.
5. TEMPORARY BYPASS PIPE SHALL PROVIOE ADEQUATE FLOW PER SPECIFICATION. ANY DEWATERING PUMPS SHALL BE SCREENED PER SPECIFICATION ANO SEDIMENT LADEN WATER SHALL BE OISCHARGED TO A VEGETATED AREA OR BMP THAT ALLOWS FOR SEDIMENT REMOVAL ANO INFILTRATION INTO SOILS WITHOUT SEDIMENT LADEN SURFACE WATER DISCHARGE BACK INTO THE WATERWAY.
6. STREAM BYPASS WATER SHALL NOT CAUSE EROSION AT THE DISCHARGE SITE, ADEQUATE ENERGY OISSIPATION STRUCTURE IS REQUIRED.
7. INSTALL PLASTIC SHEETING SUCH THAT ISOLATION DAM IS WATERTIGHT.
8. SEDIMENT LADEN WATER FROM ISDLATION AREA SHALL HAVE SEDIMENT REMOVED AND DISCHARGED PER SPECIFICATIONS.
9. THE CONTRACTOR MUST COORDINATE WITH THE CO AT LEAST TWO WEEKS IN ADVANCE TO ARRANGE FOR BLM FISHERIES BIOLOGISTS TO CONDUCT FISH SALVAGE OPERATIONS.

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2/24/25

RENEWS: 12-31-26

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DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DANIEL M. HURLEY
PUBLIC WORKS DIRECTOR

SASHA VARTANIAN
ECS DIVISION MANAGER

APPRVD

REVISION

DATE

HIGH PASS RD - SWARTZ CR CULVERTS
EROSION CONTROL
TEMPORARY STREAM DIVERSION PLAN

RDAD NO. 345500
PROJECT NO. 367345510
DATE 12/4/24

SHEET NO.
TSD1

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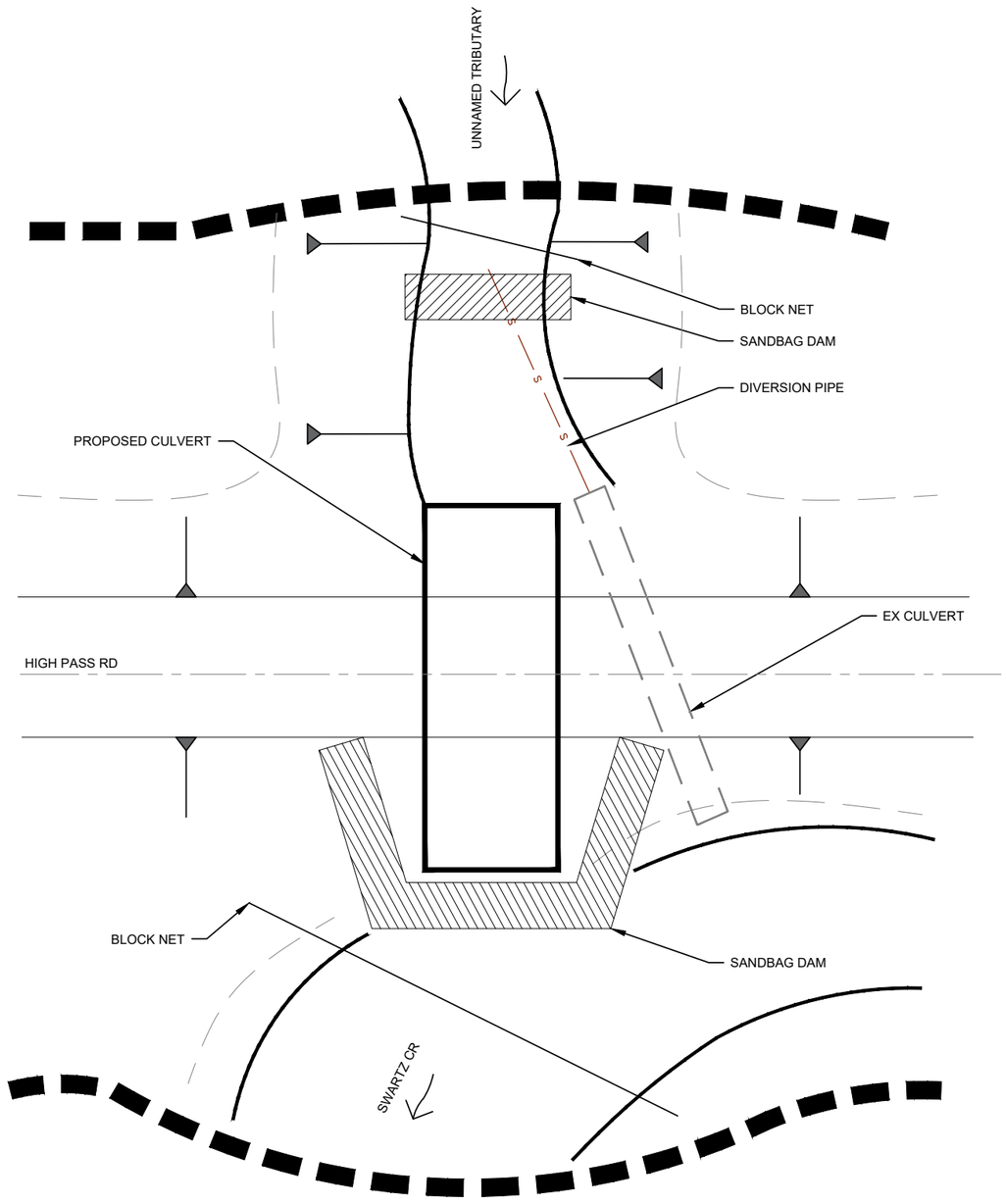
FINAL DESIGN
FEBRUARY 2025



UNT TEMPORARY STREAM DIVERSION PLAN
NTS

TEMPORARY STREAM DIVERSION NOTES:

1. THIS PLAN REPRESENTS A POTENTIAL TEMPORARY STREAM DIVERSION (TSD) PLAN THAT IS TO BE ADJUSTED PER SITE CONDITIONS. PRIOR TO CONSTRUCTION, A TSD PLAN SHALL BE SUBMITTED PER SPECIFICATIONS. CHANGES TO THE PLAN SHALL BE COORDINATED WITH ENGINEER FOR REVIEW.
2. CONTRACTOR SHALL NOT WORK IN STREAM WITH ANY WATER PRESENT WITHOUT THE USE OF A TEMPORARY STREAM DIVERSION FACILITY INSTALLED.
3. ALL TSD BMP'S SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ANY NEEDED REPAIRS SHALL BE MADE AS SOON AS PRACTICABLE.
4. TSD DAM HEIGHT TO BE DETERMINED BY THE CONTRACTOR AND ADJUSTED IN PREPARATION FOR INCLEMENT WEATHER PER SPECIFICATION. DOWNSTREAM SANDBAGS SHALL TAKE INTO ACCOUNT UNNAMED TRIBUTARY AND SWARTZ CREEK ELEVATIONS.
5. TEMPORARY BYPASS PIPE SHALL PROVIDE ADEQUATE FLOW PER SPECIFICATION. ANY DEWATERING PUMPS SHALL BE SCREENED PER SPECIFICATION AND SEDIMENT LADEN WATER SHALL BE DISCHARGED TO A VEGETATED AREA OR BMP THAT ALLOWS FOR SEDIMENT REMOVAL AND INFILTRATION INTO SOILS WITHOUT SEDIMENT LADEN SURFACE WATER DISCHARGE BACK INTO THE WATERWAY.
6. STREAM BYPASS WATER SHALL NOT CAUSE EROSION AT THE DISCHARGE SITE, ADEQUATE ENERGY DISSIPATION STRUCTURE IS REQUIRED.
7. SEE SHEET TSD1 FOR SAND BAG DETAILS. SAND BAG DAM (OR EQUIVALENT ISOLATION DAM) SHALL BE WATERTIGHT. USE PLASTIC SHEETING IF NEEDED.
8. SEDIMENT LADEN WATER FROM ISOLATION AREA SHALL HAVE SEDIMENT REMOVED AND DISCHARGED PER SPECIFICATIONS.

2 YEAR PEAK FLOW	MIN. TWMP FLOW
22 CFS	5 CFS

SOURCE: STREAMSTATS

REGISTERED PROFESSIONAL ENGINEER
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DIGITALLY SIGNED
OREGON
MAR 09, 2021
ALEXANDER K. MORTON
RENEWS: 12/31/2026

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SIUSLAW WATERSHED COUNCIL
10868 EAST MAPLETON ROAD
MAPLETON, OR 97453
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SIUSLAW WATERSHED COUNCIL
HIGH PASS RD - SWARTZ CR CULVERTS
LANE COUNTY, OREGON

TEMPORARY STREAM DIVERSION PLAN (UNT)

REVISION NUMBER

No.	Date	Revision

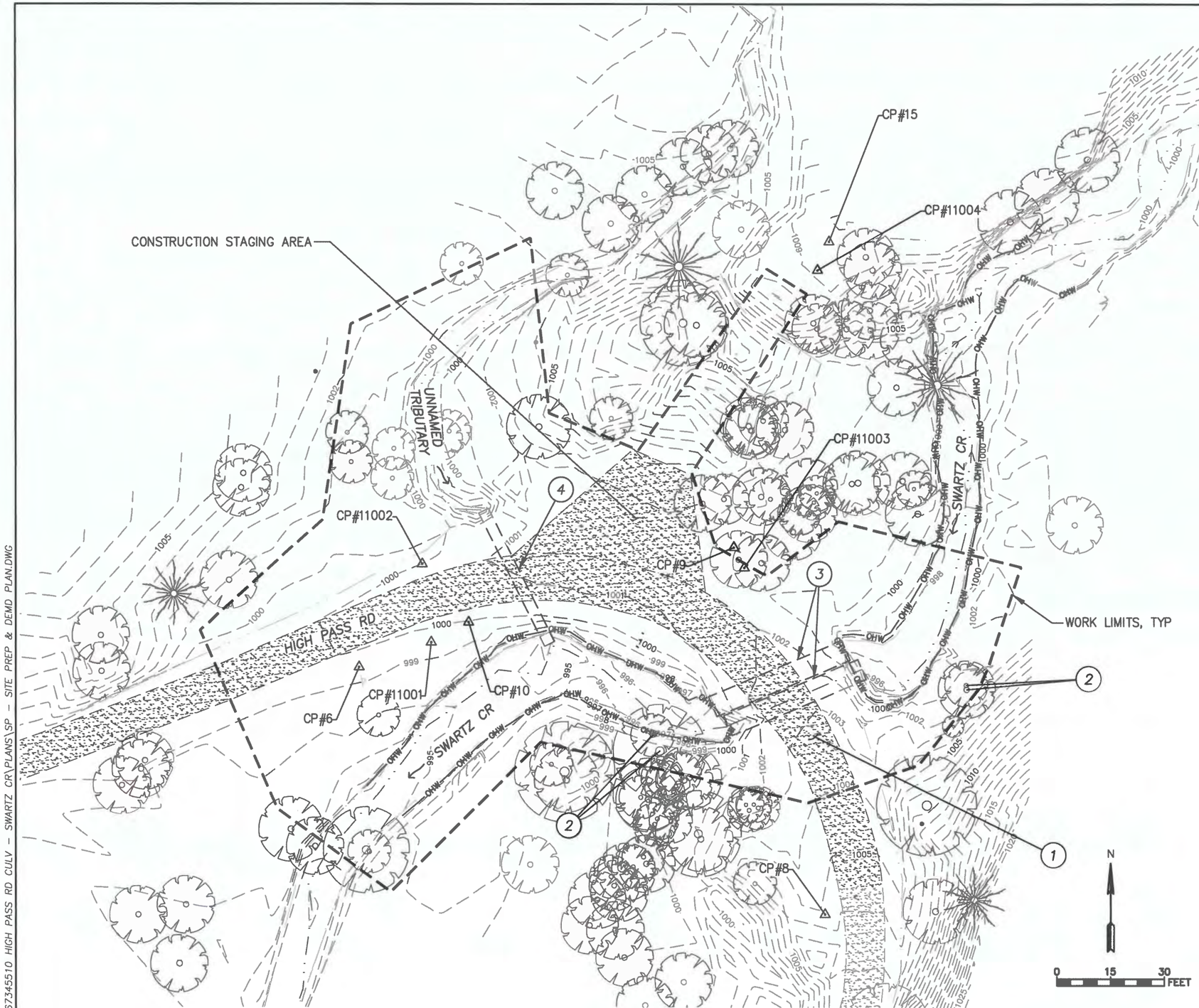
Date 2/25/2025 | Designed By AM
Drawn By DK | Checked By CL

SCALE 0 1"

JOB NO. 20230024

SHEET NO. TSD2
OF

DWG: Z:\Shared\W2r\CAD\20230024- Swartz Creek\DWG\SHEETS\SC-C2.0.dwg USER: dkelley
DATE: Feb 25, 2025 1:28pm XREFS:SC-XR-TB-22x34 SC-XR-EG SC-XR-LEGEND SC-XR-MAP



SITE CONTROL AND DEMO PLAN

SCALE: 1"=30'

CONSTRUCTION NOTES

1. REMOVE EX. GRAVEL ROADWAY TO MINIMUM EXTENT POSSIBLE TO CONSTRUCT CULVERT
2. REMOVE EX. TREE – 4 EA
3. REMOVE (2) EX. 72" CORRUGATED METAL PIPE CULVERTS – 80 FT
4. SEE SHEET TR1 FOR TRIBUTARY PIPE REMOVAL

LEGEND

EXISTING GRAVEL ROADWAY

GENERAL NOTES

1. PROTECT ALL EXISTING TREES WITHIN WORK AREA, UNLESS CALLED OUT FOR REMOVAL.

CONTROL POINT TABLE (LOCAL DATUM PLANE)

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP#6	4987.50	9969.49	999.34	SET GUARDRAIL BOLT
CP#7	4869.42	10097.55	1010.34	SET GUARDRAIL BOLT
CP#8	4918.80	10099.46	1005.08	SET HUB & TACK
CP#9	5020.99	10074.12	1001.16	SET HUB & TACK
CP#10	5000.00	10000.00	1000.00	SET HUB & TACK
CP#15	5106.21	10100.60	1009.66	SET 60D NAIL
CP#20	4872.03	9648.40	999.48	SET HUB & TACK
CP#11001	4994.43	9989.58	999.47	1/2" IR YPC BM01 (SET BY OTHERS)
CP#11002	5016.25	9987.06	1000.40	1/2" IR YPC BM02 (SET BY OTHERS)
CP#11003	5015.35	10077.07	1001.29	1/2" IR BM03 (SET BY OTHERS)
CP#11004	5098.24	10097.41	1009.46	1/2" IR BM04 (SET BY OTHERS)

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JAN. 9, 2007
RYAN W. SISSON
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RENEWS: 06-30-2026

LANE COUNTY
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ENGINEERING DIVISION

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SASHA VARTANIAN
ECS DIVISION MANAGER

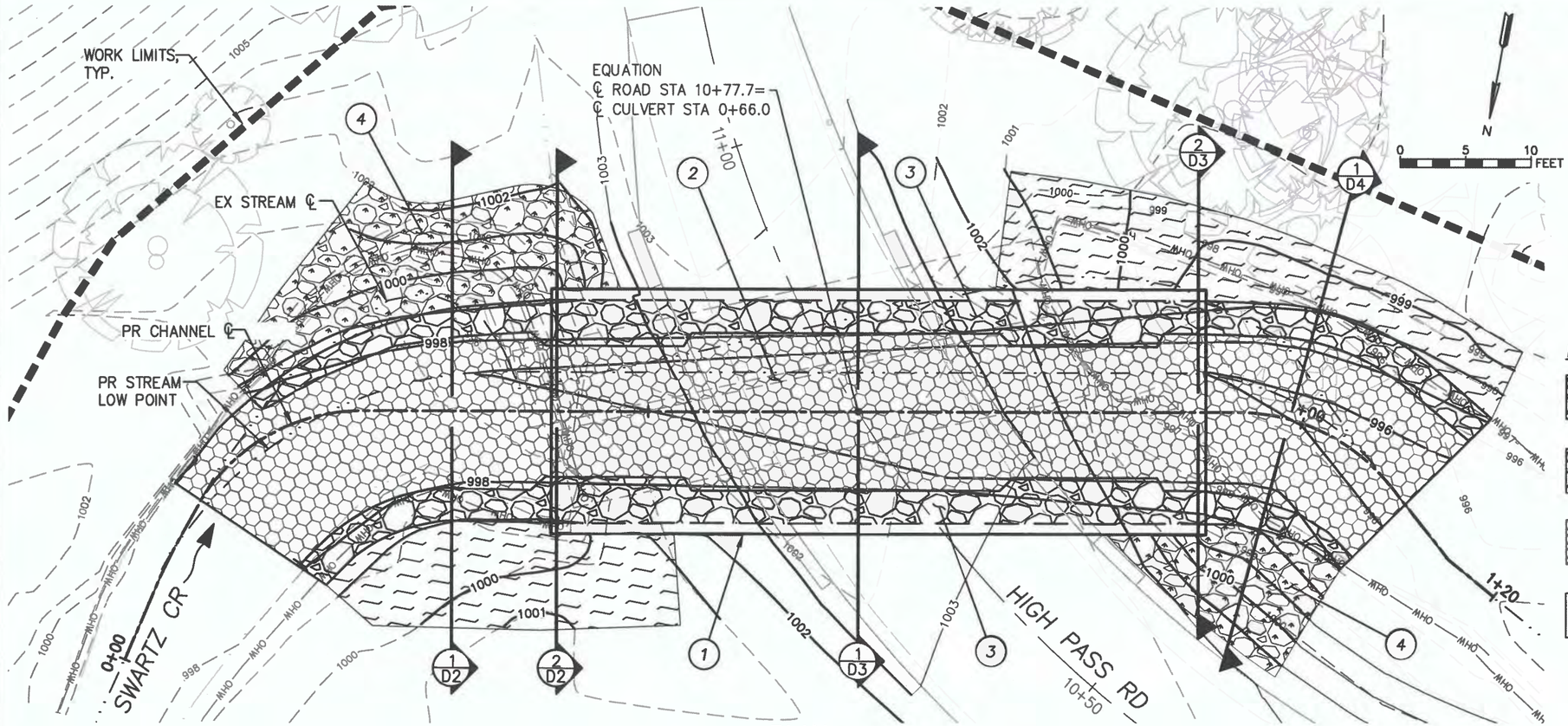
REVISION	DATE	APPRD

HIGH PASS RD - SWARTZ CR CULVERTS
SITE PREPARATION
SITE CONTROL AND DEMO PLAN

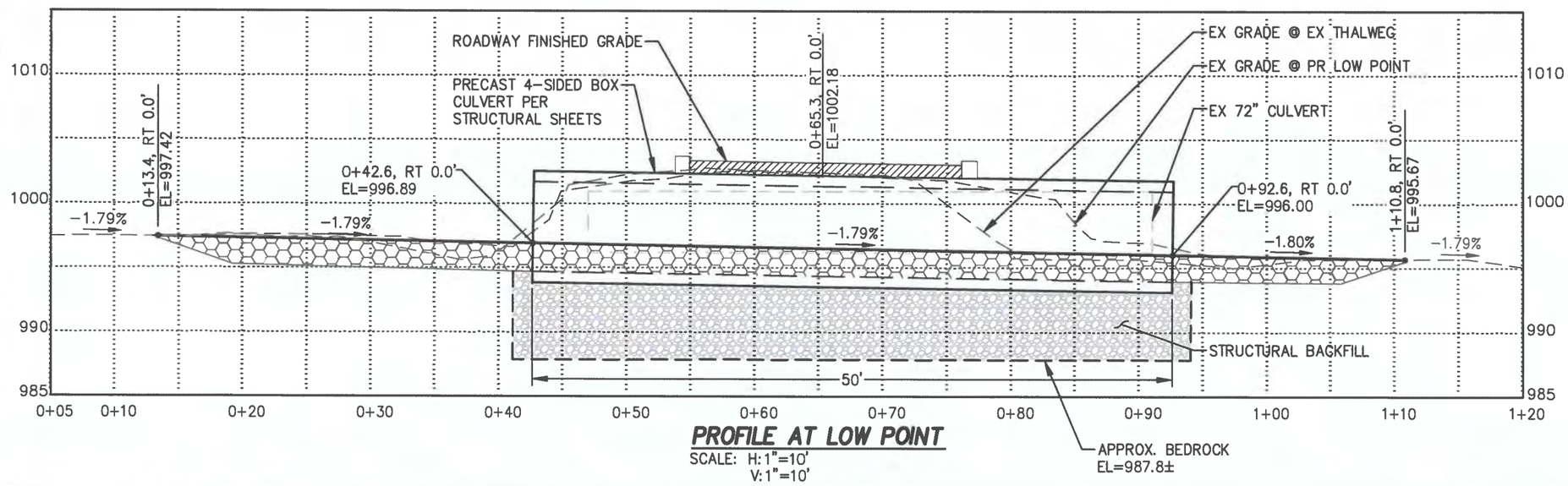
ROAD NO. 345500
PROJECT NO. 367345510
DATE 12/4/24

SHEET NO.
SP1

H:\PROJECTS\#R367345510 HIGH PASS RD CULV - SWARTZ CR\PLANS\SP - SITE PREP & DEMD PLAN.DWG



PLAN
SCALE: 1"=10'



PROFILE AT LOW POINT
SCALE: H:1"=10'
V:1"=10'

CONSTRUCTION NOTES

1. EXCAVATE FOR CULVERT PER SHEET D3, CONSTRUCT CULVERT AS SHOWN IN DETAIL AND STRUCTURAL SHEETS
2. CONSTRUCT STREAMBED SIMULATION MATERIAL
3. CONSTRUCT BANK ROCK, CLASS 2 RIPRAP
4. CONSTRUCT VEGETATED CLASS 2 RIPRAP

LEGEND

- BANK ROCK, CLASS 2 RIPRAP – 180 TN SEE SHEET D2 TO SHEET D5
- VEGETATED CLASS 2 RIPRAP – 45 TN. SEE SHEETS D2 TO D6
- STREAMBED SIMULATION MATERIAL, 2' THICK – 53 CY SEE SHEET D5
- ROLLED EROSION CONTROL PRODUCT, TYPE 2.D – SEE SHEET EC1

LANE COUNTY
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MAURIA J. PAPPAGALLO
RENEWS: 12-31-26

APPRD | REVISION | DATE

HIGH PASS RD - SWARTZ CR CULVERTS
CONSTRUCTION PLAN & PROFILE
SWARTZ CREEK - STA 0+00 TO STA 1+20

ROAD NO. 345500
PROJECT NO. 367345510
DATE 12/4/24

SHEET NO. C1

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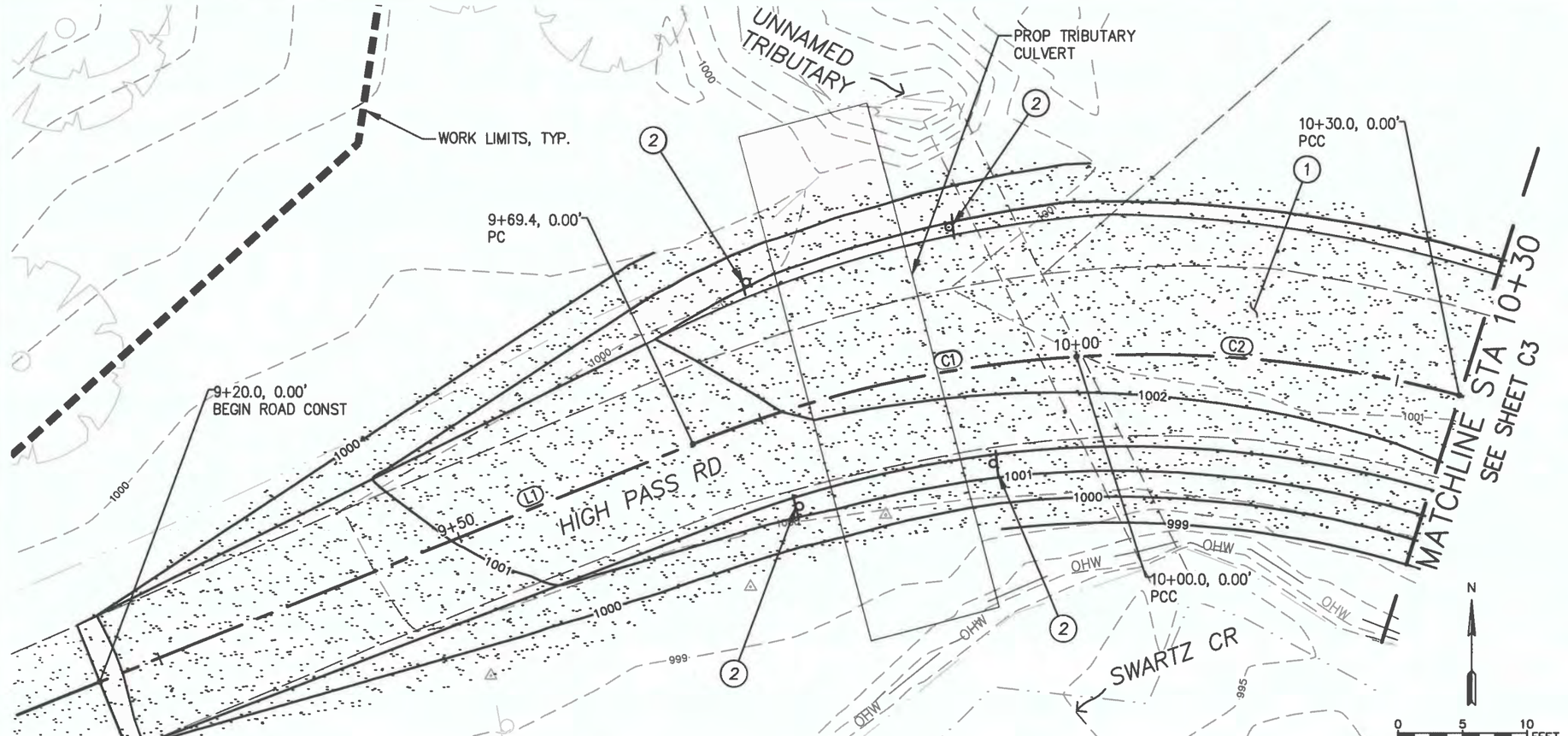
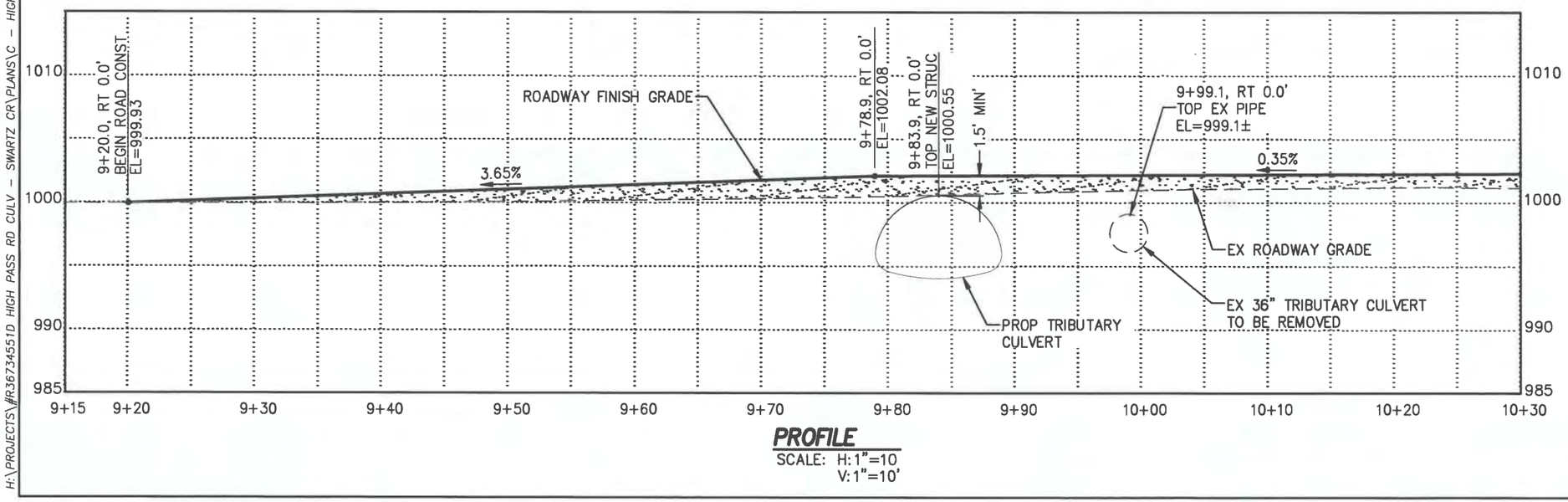


PLAN
SCALE: 1"=10



PROFILE
SCALE: H:1"=10
V:1"=10'

CONSTRUCTION NOTES

1. AGGREGATE ROADWAY – 75 TN SEE TYPICAL SECTIONS
2. INSTALL OM3–L AND OM3–R (12"X36") OBJECT MARKERS ON PSST ANCHORED SIGN SUPPORTS AND FOOTINGS. SEE OREGON STANDARD DRAWING TM687, 2" ANCHOR DETAIL. – 4 EA.

LEGEND

AGGREGATE ROADWAY

LINE TABLE: ALIGNMENTS		
LINE #	LENGTH	DIRECTION
L1	69.41	N68° 01' 49.14"E

CURVE TABLE: ALIGNMENTS				
CURVE #	RADIUS	LENGTH	CHORD	Δ ANGLE
C1	93.22	30.59	N77° 06' 46.13"E	18°48'16"
C2	93.22	29.96	S84° 16' 38.55"E	18°24'54"

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RYAN W. SISSON
2/2/25
RENEWS: 06–30–2026

LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
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APPRO

REVISION

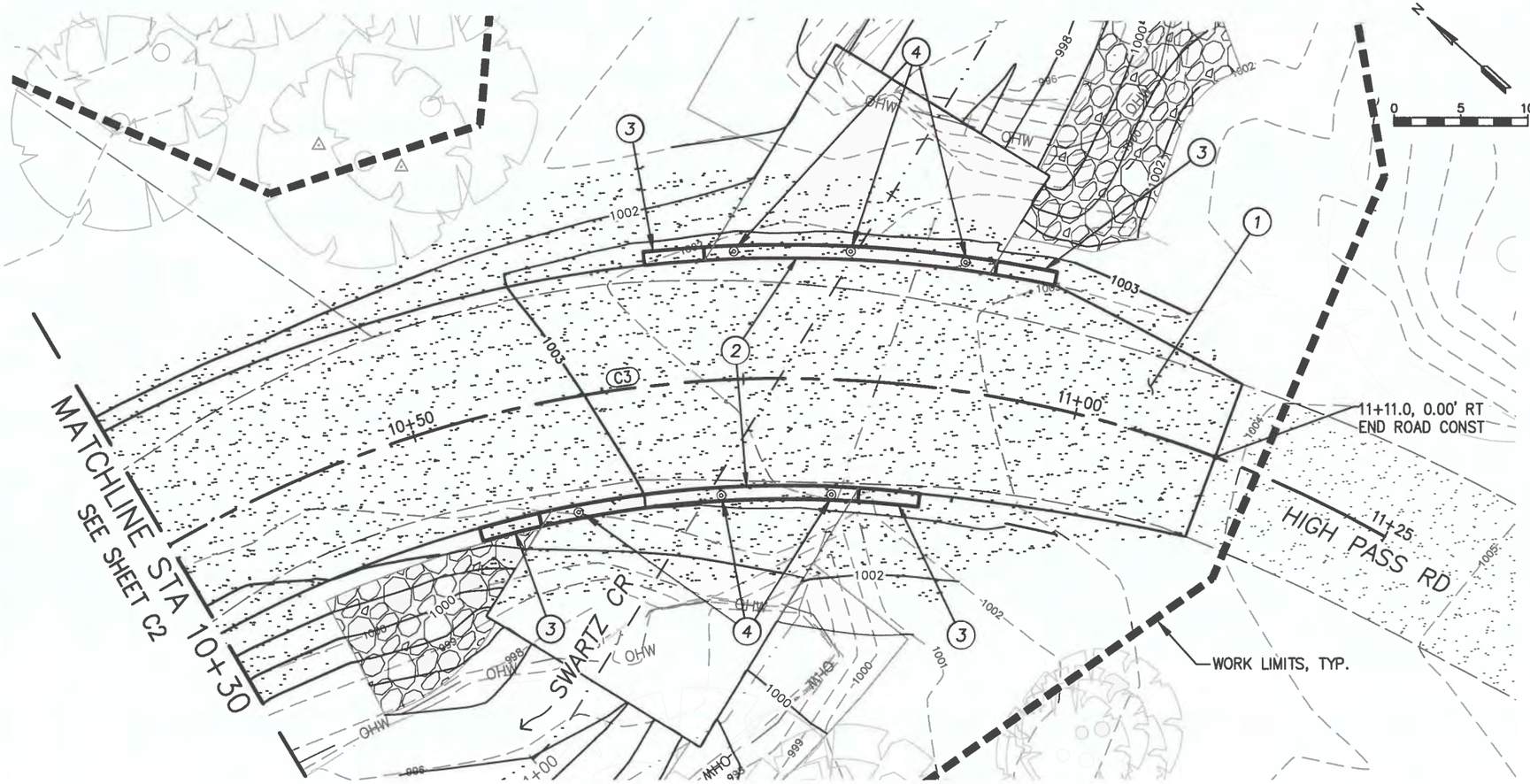
DATE

HIGH PASS RD - SWARTZ CR CULVERTS
CONSTRUCTION PLAN & PROFILE
HIGH PASS RD - STA 9+20 TO STA 10+30

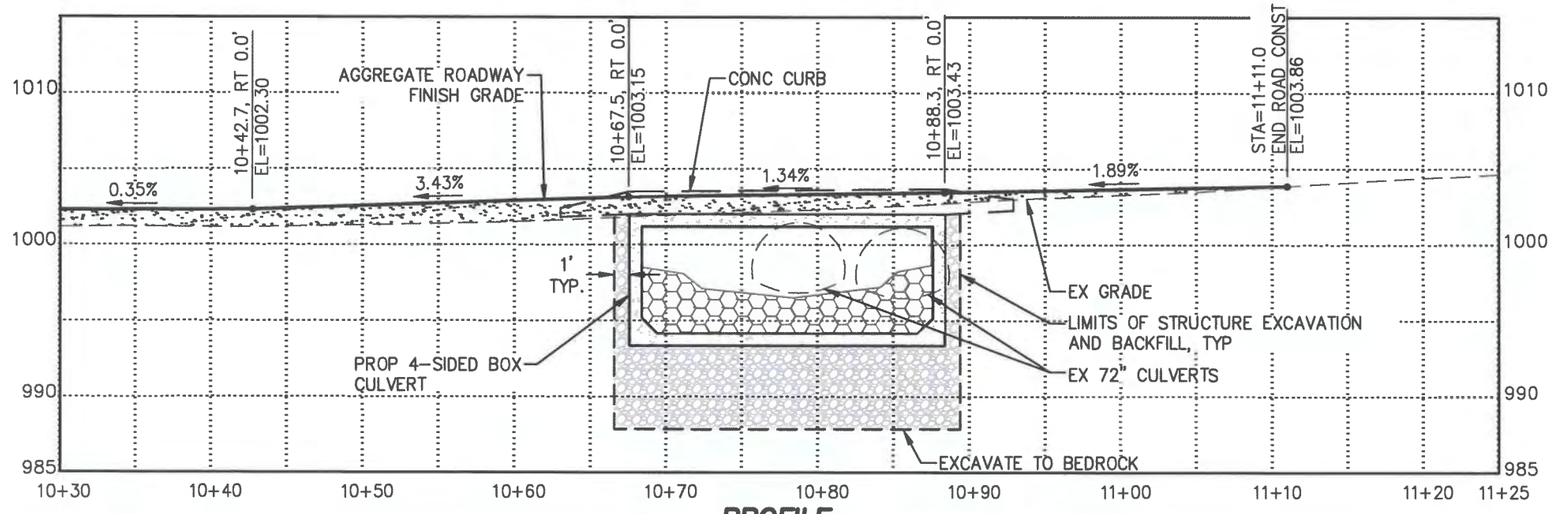
DATE	PROJECT NO.	ROAD NO.
12/4/24	367345510	345500

SHEET NO.
C2

H:\PROJECTS\#R367345510 HIGH PASS RD CULV – SWARTZ CR\PLANS\C – HIGH PASS PLAN–PROFILE.DWG



PLAN
SCALE: 1"=10'



PROFILE
SCALE: H:1"=10
V:1"=10'

CONSTRUCTION NOTES

1. AGGREGATE ROADWAY – 75 TN
   SEE TYPICAL SECTIONS
2. CONST 16" DEPTH CONCRETE CURB
   10+72 – 10+93 LT
   10+58 – 10+84 RT
   – 64'. SEE SHEET D7 FOR DETAILS.
3. CURB ENDING. SEE DETAIL 2, SHEET D7.
4. DELINEATOR, TYPE FLEXIBLE – 6 EA

LEGEND

AGGREGATE ROADWAY

CURVE TABLE: ALIGNMENTS				
CURVE #	RADIUS	LENGTH	CHORD	Δ ANGLE
C3	90.83	95.04	S42° 26' 15.04"E	59°56'58"

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Ryan Sisson 2/27/25
RENEWS: 06-30-2026

LANE COUNTY
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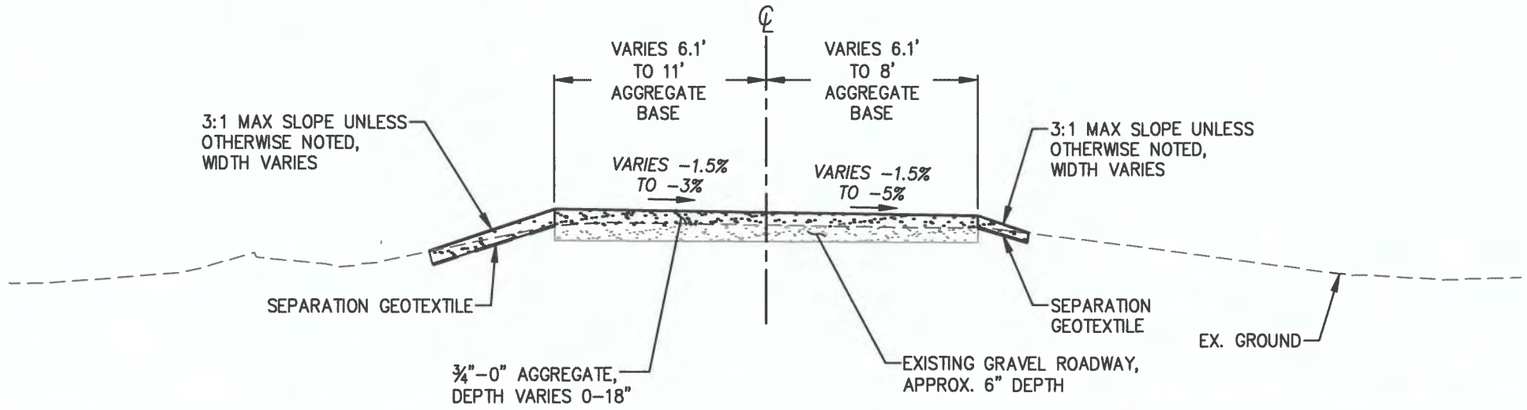
APPRD
REVISION
DATE

HIGH PASS RD - SWARTZ CR CULVERTS
CONSTRUCTION PLAN & PROFILE
HIGH PASS RD - STA 10+30 TO STA 11+11

ROAD NO. 345500
PROJECT NO. 367345519
DATE 12/4/24

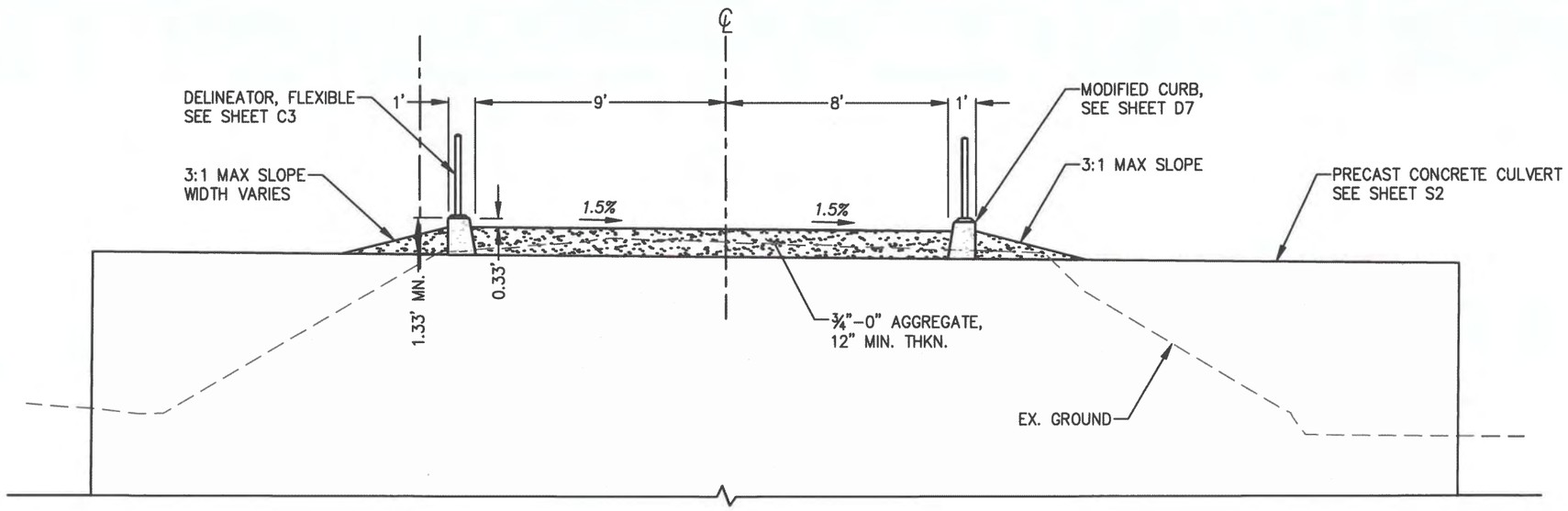
SHEET NO.
C3

H:\PROJECTS\#R367345510 HIGH PASS RD CULV - SWARTZ CR\PLANS\C - HIGH PASS PLAN-PROFILE.DWG



HIGH PASS RD – SECTION 1

STA 9+20 TO STA 10+58
STA 10+93 TO STA 11+12
SCALE: 1" = 5'



HIGH PASS RD – SECTION 2

STA 10+58 TO STA 10+93
SCALE: 1" = 5'

PROJECT MANAGER	DRAFTER
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52862PE
Ryan Sisson
OREGON 2/27/25
JAN. 9, 2007
RYAN W. SISSON

RENEWS: 06–30–2026

LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DANIEL M. HURLEY
PUBLIC WORKS DIRECTOR

SASHA VARTANIAN
ECS DIVISION MANAGER

REVISION	DATE	APPR'D

HIGH PASS RD - SWARTZ CR CULVERTS
DETAILS & SECTIONS
TYPICAL SECTIONS

ROAD NO. 345500
PROJECT NO. 3673455510
DATE 12/4/24

SHEET NO. D1

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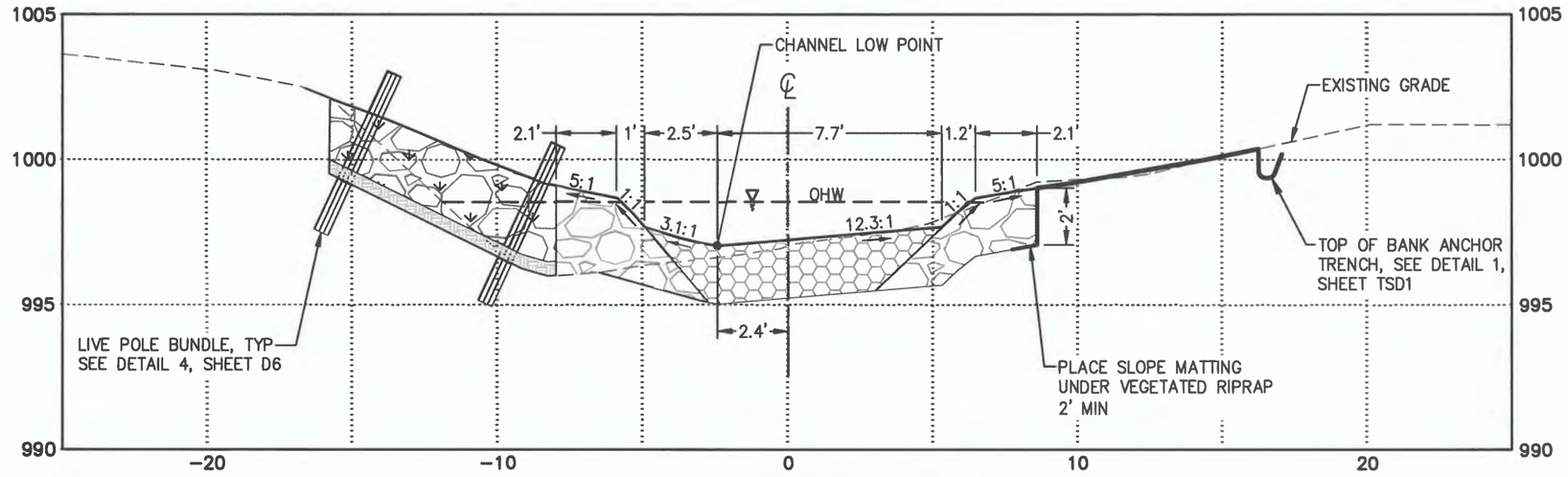
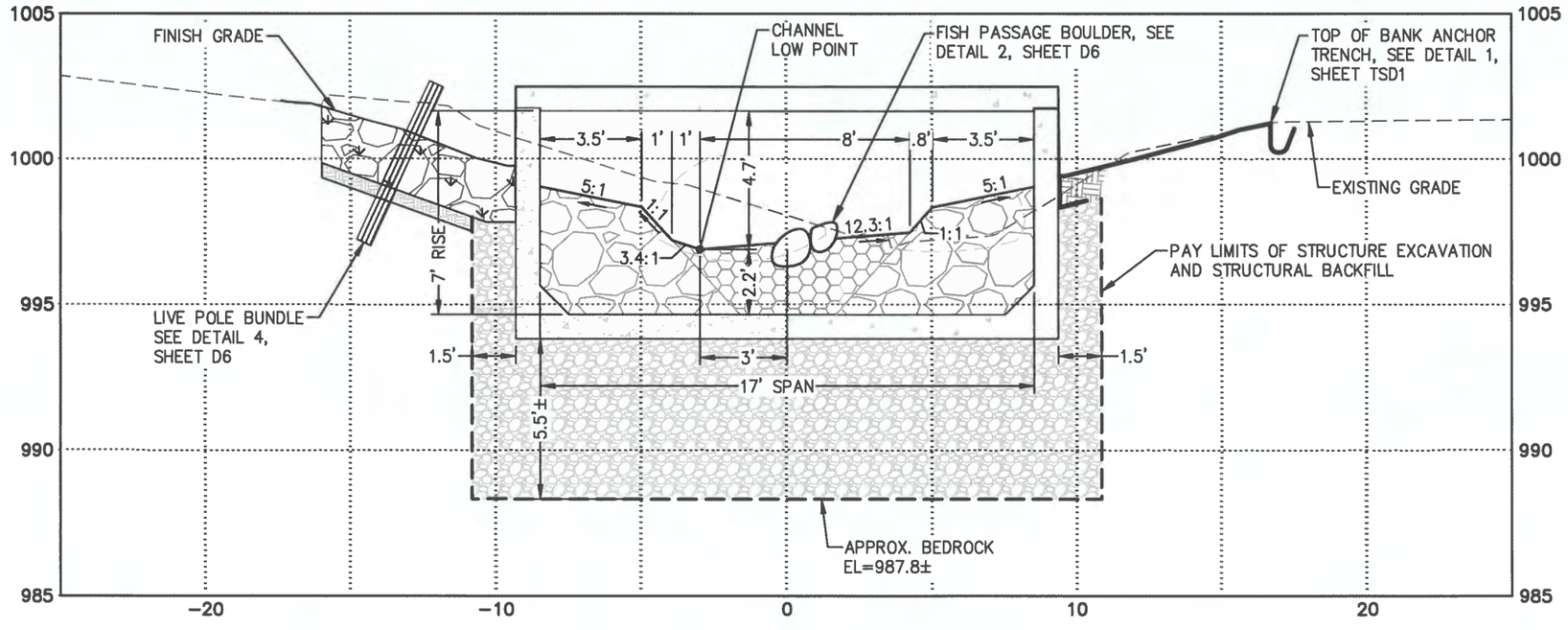


① STREAM SECTION – STATION 0+35

SCALE: H:1"=5'
V:1"=5'



② STREAM SECTION – STATION 0+43

SCALE: H:1"=5'
V:1"=5'

LEGEND

- STREAMBED SIMULATION MATERIAL, 2.0' THICK – SEE SHEET D5
- 4" FILTER BLANKET 6" NOM. THKN.
- CLASS 2 RIPRAP BANK ROCK
- CLASS 2 RIPRAP, VEGETATED 2.0' MIN THKN.
- CONSERVED TOPSOIL
- STRUCTURAL BACKFILL

LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DANIEL M. HURLEY
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MAURIA J. PAPPAGALLO

RENEWS: 12-31-26

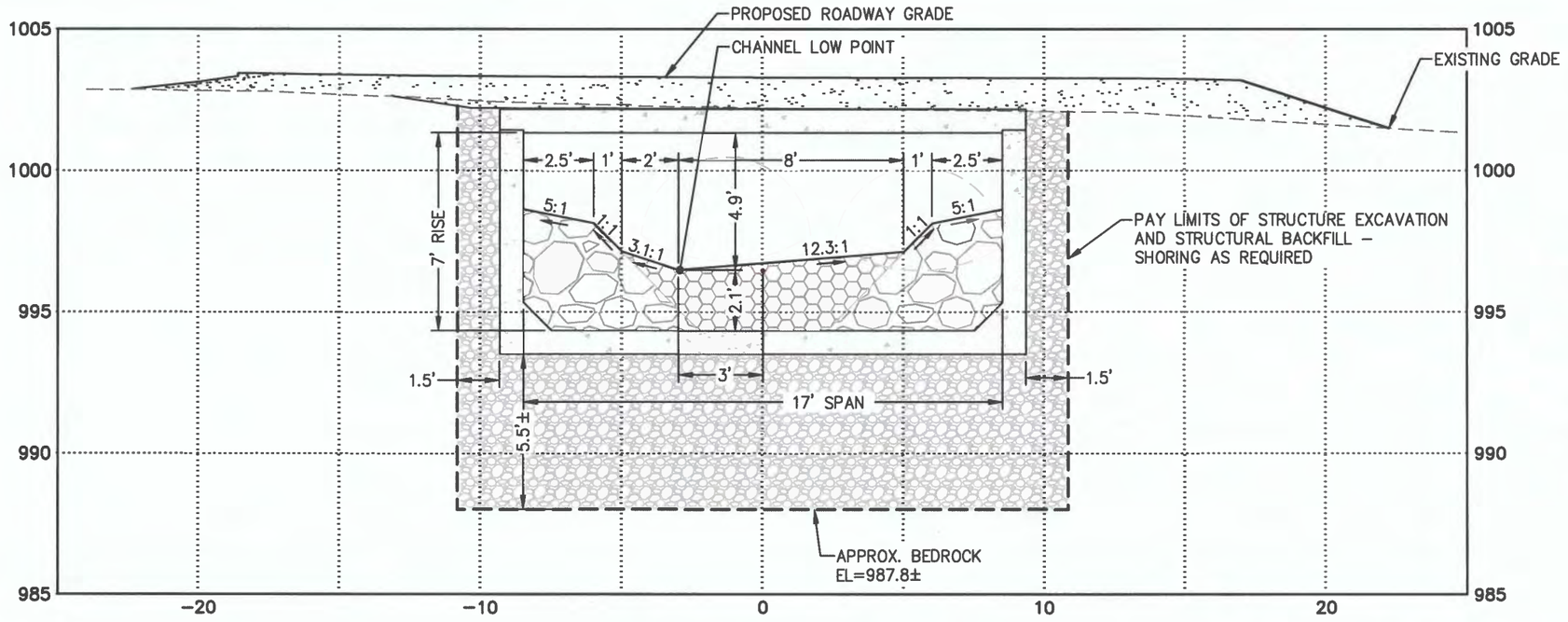
REVISION	DATE	APPRD

HIGH PASS RD - SWARTZ CR CULVERTS
DETAILS & SECTIONS
STREAM SECTIONS 1

ROAD NO. 345500
PROJECT NO. 367345510
DATE 12/4/24

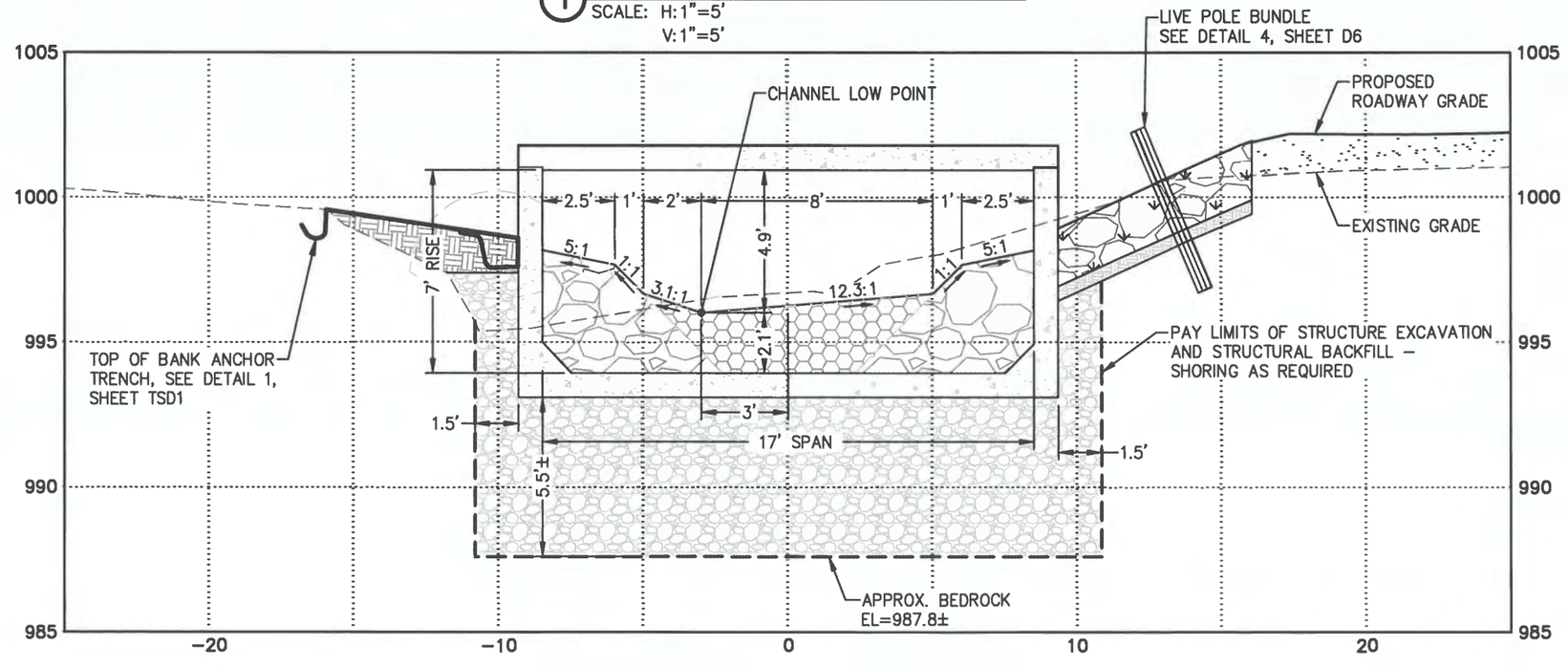
SHEET NO.
D2

H:\PROJECTS\#R367345510 HIGH PASS RO CULV - SWARTZ CR\PLANS\D - DETAILS.DWG



① STREAM SECTION – STATION 0+66

SCALE: H:1"=5'
V:1"=5'



② STREAM SECTION – STATION 0+93

SCALE: H:1"=5'
V:1"=5'

LEGEND

- STREAMBED SIMULATION MATERIAL, 2.0' THICK – SEE SHEET D5
- 4" FILTER BLANKET 6" NOM. THKN.
- CLASS 2 RIPRAP BANK ROCK
- CLASS 2 RIPRAP, VEGETATED 2.0' MIN THKN.
- CONSERVED TOPSOIL
- STRUCTURAL BACKFILL

LANE COUNTY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION

DANIEL M. HURLEY, PUBLIC WORKS DIRECTOR
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RENEWS: 12-31-26

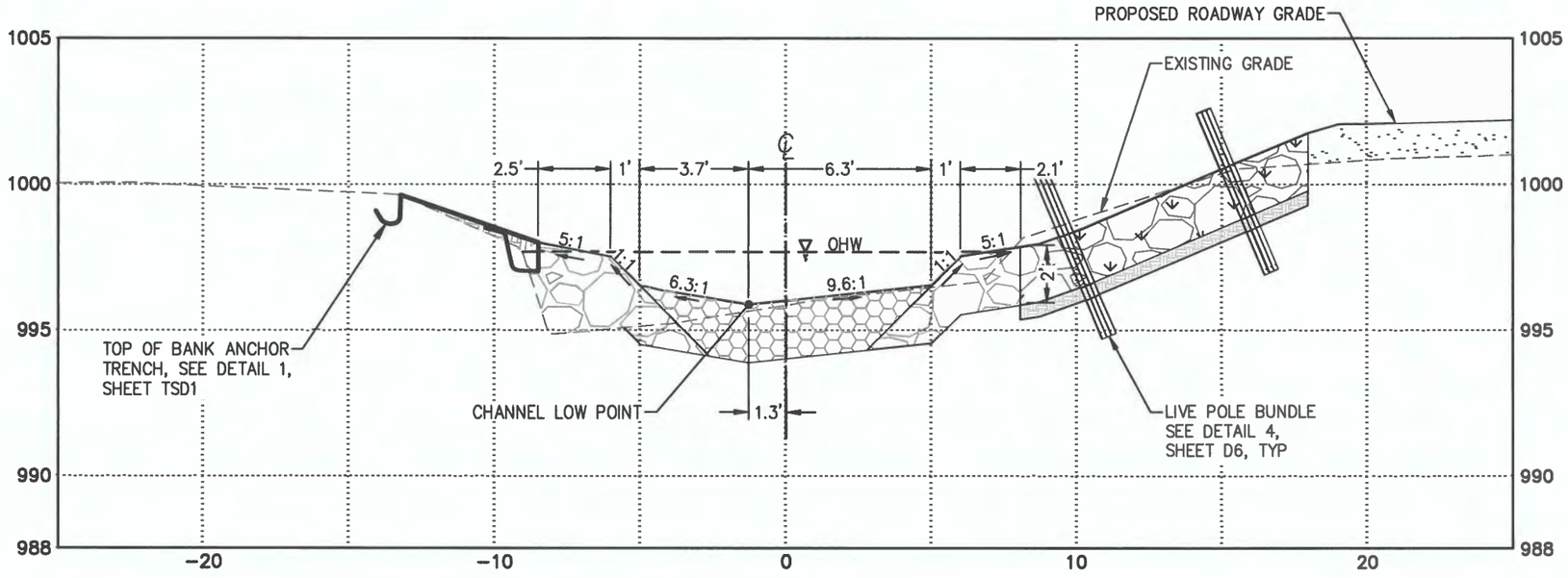
REVISION	DATE	APPRD

HIGH PASS RD - SWARTZ CR CULVERTS
DETAILS & SECTIONS
STREAM SECTIONS 2

ROAD NO. 345600
PROJECT NO. 367345510
DATE 12/4/24

SHEET NO. D3

H:\PROJECTS\#R367345510 HIGH PASS RD CULV - SWARTZ CR\PLANS\D - DETAILS.DWG



1 STREAM SECTION – STATION 0+99

SCALE: H:1"=5'
V:1"=5'

LEGEND

- STREAMBED SIMULATION MATERIAL, 2.0' THICK – SEE SHEET D5
- 4" FILTER BLANKET, 6" NOM. THKN.
- CLASS 2 RIPRAP BANK ROCK
- CLASS 2 RIPRAP, VEGETATED 2.0' MIN THKN.
- CONSERVED TOPSOIL

REMOVAL-FILL QUANTITIES BY PROJECT ELEMENT - SWARTZ CREEK ONLY, FOR PERMIT PURPOSES

PROJECT ELEMENT	LOCATION	REMOVAL (CY)	FILL (CY)	NOTES
CHANNEL EXCAVATION	BELOW OHW	38	0	STREAMBED EXCAVATION FOR CROSSING AND PROFILE ADJUSTMENT
CULVERT EXCAVATION AND OVEREXCAVTION	BELOW OHW ABOVE OHW	67 444	0 0	EXCAVATION TO REMOVE CULVERTS AND PREPARE FOUNDATION FOR NEW STRUCTURE
SIMULATED STREAMBED (INCLUDING BOULDERS)	BELOW OHW	0	53	ASSUMES 2' THICK FOR ENTIRE STREAMBED GRADING AREA
ROAD FILL AND SURFACING	ABOVE OHW	0	320	GENERAL BACKFILL AND GRAVEL SURFACING FOR ROAD
SELECT STRUCTURAL BACKFILL	BELOW OHW ABOVE OHW	0 0	29 246	STRUCTURAL BACKFILL FOR CONCRETE BOX CULVERT
VEGETATED RIPRAP	ABOVE OHW	0	25	ROCK ARMORING AT BOX CULVERT / ROAD SLOPE INTERFACE
BANK ROCK	BELOW OHW	0	99	ROCK USED TO CREATE BANKS ADJACENT TO STREAMBED
FILTER ROCK	ABOVE OHW	0	6	A LAYER OF GRADED GRANULAR MATERIAL PLACED BETWEEN THE AREA PREPARED FOR IT AND THE RIPRAP
REMOVE-FILL TOTALS				
TOTAL	BELOW OHW	94	181	TOTAL FILL AND REMOVAL BELOW OHW
TOTAL	ABOVE OHW	444	597	TOTAL FILL AND REMOVAL ABOVE OHW

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RENEWS: 12–31–26

LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DANIEL M. HURLEY, PUBLIC WORKS DIRECTOR
SASHA VARTANIAN, ECS DIVISION MANAGER

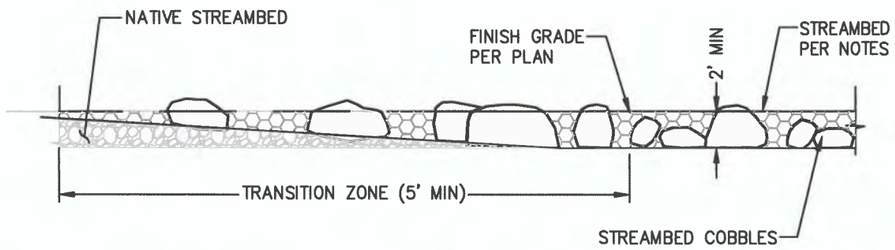
REVISION	APPRD	DATE

HIGH PASS RD - SWARTZ CR CULVERTS
DETAILS & SECTIONS
STREAM SECTIONS 3

ROAD NO. 345500
PROJECT NO. 367345510
DATE 12/4/24

SHEET NO. D4

H:\PROJECTS\#R367345510 HIGH PASS RD CULV – SWARTZ CR\PLANS\D – DETAILS.DWG

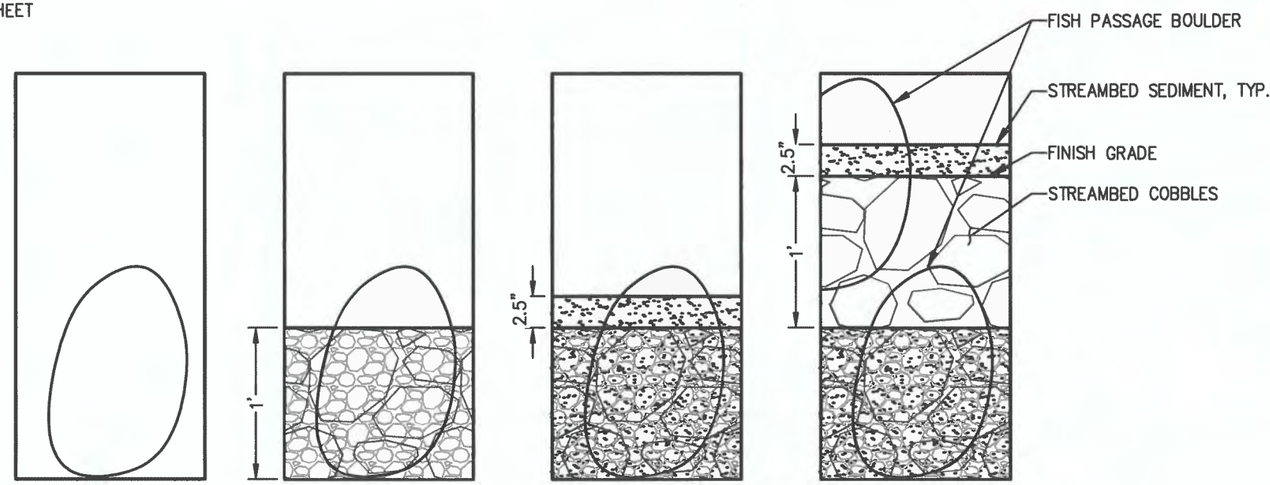


NOTE:

TRANSITION LINE EXTENDS FROM THE PROPOSED GRADE OF STREAMBED CONSTRUCTION TO NATIVE GROUND OVER TRANSITION LENGTH PER PLAN. TRANSITIONS CAN ALSO OCCUR FROM CUT SECTIONS TO NATIVE.

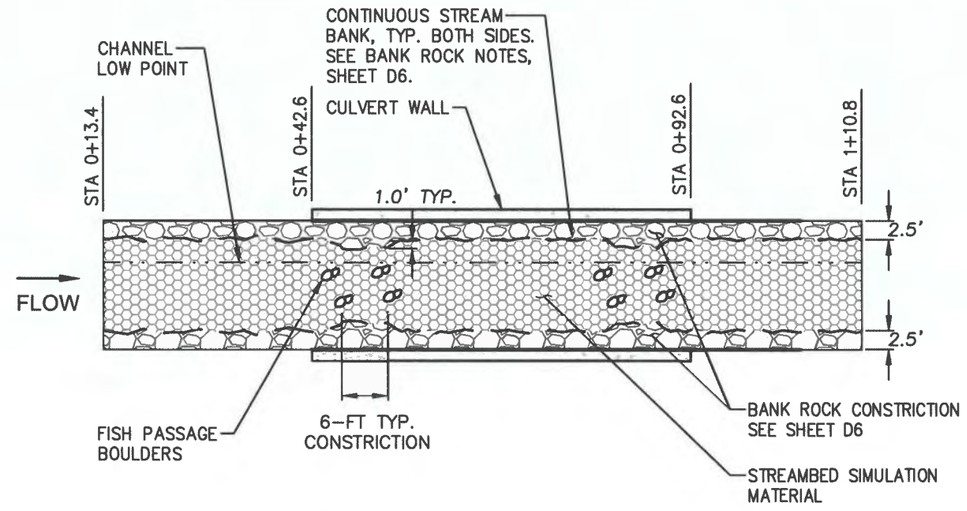
① CONSTRUCTED STREAMBED TRANSITION DETAIL

SCALE: 1"=6'



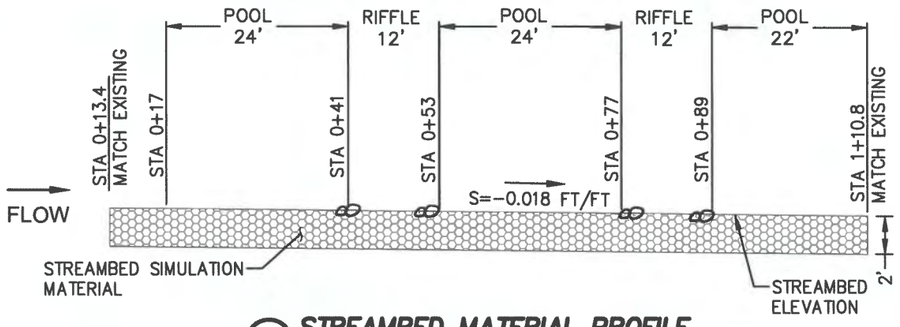
④ TYPICAL STREAMBED PREPARATION

SCALE: NTS



② STREAMBED MATERIAL PLAN

SCALE: NTS



③ STREAMBED MATERIAL PROFILE

SCALE: NTS

STREAMBED SIMULATION MATERIAL AND FISH PASSAGE BOULDER NOTES:

A. PLACE STREAMBED SIMULATION MATERIAL IN THE STREAM CHANNEL AS SHOWN OR DIRECTED. PLACE THE STREAMBED MATERIAL IN LIFTS NO THICKER THAN 12-INCHES. PROVIDE STREAMBED MATERIAL IN ITS FINAL LOCATION WITH A WELL GRADED MIX OF STREAMBED SEDIMENTS AND STREAMBED COBBLES. CONSTRUCT IN THE FOLLOWING STEPS:

STEPS:

1. PLACE FISH PASSAGE BOULDER IN THE BOTTOM OF THE STREAM CHANNEL IN A NON-UNIFORM FORMATION, AT A DENSITY OF 3 STONES PER 12 LINEAL FEET OF STREAM.
2. PLACE A MAXIMUM OF 12-INCH THICK LAYER OF STREAMBED COBBLES.
3. FILL IN ANY HOLES OR GAPS WITH STREAMBED SEDIMENT AND WASH INTO GAPS IN ROCK WITH A HIGH-PRESSURE HOSE TO FILL IN VOID SPACES AND FORM A SEAL. MULTIPLE LAYERS OF STREAMBED SEDIMENT MAY BE NEEDED TO FORM A SEAL. A SEAL HAS BEEN FORMED WHEN A LAYER OF STANDING WATER FORMS WHEN WASHING IN STREAMBED SEDIMENT.
4. REPEAT STEPS 1 TO 3 UNTIL FINISH GRADE IS REACHED. TOP LIFT SHALL HAVE FISH PASSAGE BOULDERS STICKING UP PER DETAIL 2, SHEET D6 IN RIFFLE SECTIONS.

B. UPON MEETING FINISH GRADE OF THE CHANNEL APPLY WATER TO THE STREAM CHANNEL FOR VISUAL ACCEPTANCE BY THE ENGINEER.

C. THE STREAMBED MATERIAL TRANSITION ZONE SHALL FOLLOW THE SAME PROCESS AS INDICATED ABOVE EXCEPT WITH A MINIMUM LAYER THICKNESS OF 6-INCHES. CONSTRUCT THE TRANSITION ZONE AREA AS SHOWN ON THIS SHEET.

SWARTZ STREAMBED SIMULATION MATERIAL

STREAMBED SEDIMENT	20% BY VOLUME
4" COBBLES	70% BY VOLUME
12" COBBLES	10% BY VOLUME

FISH PASSAGE BOULDERS

ROCK DIA[1]	ROCK MASS (LBS)
20 - 24	400 - 800

[1] THE INTERMEDIATE DIMENSION IS THE LONGEST STRAIGHT-LINE DISTANCE ACROSS THE ROCK THAT IS PERPENDICULAR TO THE ROCK'S LONGEST AXIS ON THE ROCK FACE WITH THE LARGEST PROJECTION PLANE

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REGISTERED PROFESSIONAL ENGINEER 83788PE OREGON DECEMBER 21, 2011 MAURIA J. PAPPAGALLO

2/24/25

RENEWS: 12-31-26

LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DANIEL M. HURLEY, PUBLIC WORKS DIRECTOR
SASHA VARTANIAN, ECS DIVISION MANAGER

REVISION	DATE	APPRD

HIGH PASS RD - SWARTZ CR CULVERTS

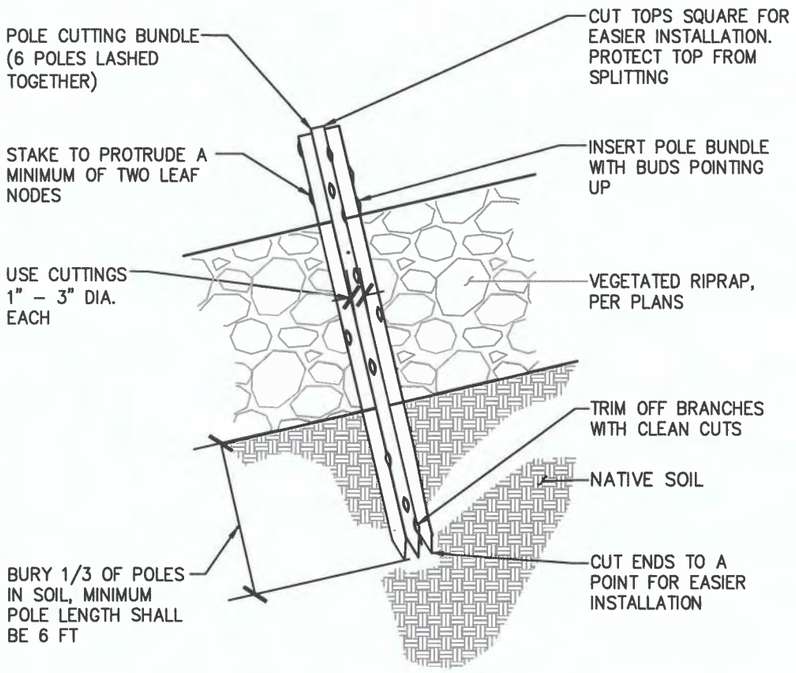
DETAILS & SECTIONS

STREAMBED CONSTRUCTION DETAILS 1

ROAD NO. 345500
PROJECT NO. 367345510
DATE 12/4/24

SHEET NO. D5

H:\PROJECTS\#R367345510 HIGH PASS RD CULV - SWARTZ CR\PLANS\D - DETAILS.DWG



NOTES:

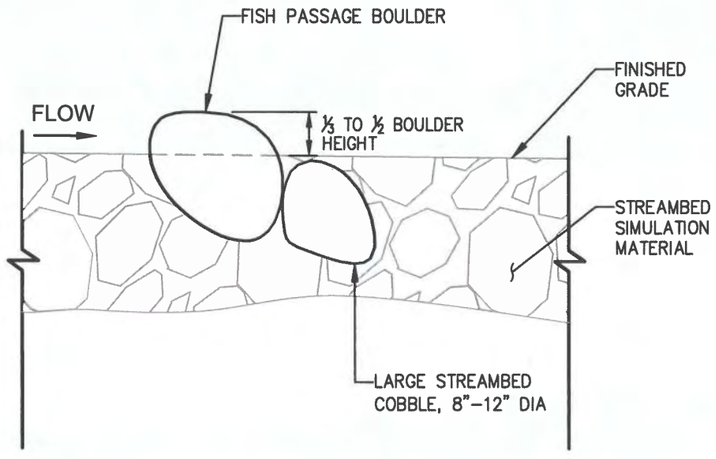
1. EACH BUNDLE OF POLES SHALL CONTAIN 6 INDIVIDUAL POLES BUNDLED TOGETHER TO PROTECT THE CENTER POLE FROM DAMAGE DURING ROCK INSTALLATION.
2. INSTALL BUNDLES 6 FEET ON CENTER.
3. POLE CUTTINGS TO BE RED OSIER DOGWOOD (CORNUS SERICEA) OR WILLOW (SALIX SCOULERIANA OR SALIX SITCHENSIS).
4. INSTALL POLE BUNDLES AND CAREFULLY PLACE RIPRAP AROUND IT. REPLACE ANY BROKEN POLE BUNDLES DURING PLACEMENT.

① VEGETATED RIPRAP – LIVE POLE BUNDLE

SCALE: NTS

BANK ROCK & VEGETATED RIPRAP INSTALLATION NOTES:

1. EXCAVATE THE FOUNDATION FOR STREAMBED MATERIALS TO THE ELEVATIONS AND GRADES AS SHOWN.
2. ROCK SHALL BE PLACED IN SUCH A MANNER THAT ALL RELATIVELY LARGE STONES SHALL BE ESSENTIALLY IN CONTACT WITH EACH OTHER AND ALL VOIDS FILLED WITH STREAMBED SEDIMENT TO PROVIDE A WELL GRADED COMPACT MASS.
3. ROCK PLACEMENT SHALL BE STARTED AT THE TOE OF THE SLOPE OR IN THE STREAM CHANNEL AND PLACED IN HORIZONTAL LAYERS USING THE FOLLOWING STEPS:
   a. PLACE A MAXIMUM OF 12" THICK LAYER OF THE LARGEST STONES. PLACING RIPRAP IN LAYERS PARALLEL TO THE SLOPE WILL NOT BE PERMITTED.
   b. FILL IN ANY HOLES OR GAPS WITH SMALLER ROCK MATERIAL.
   c. THOROUGHLY TAMP DOWN ROCK OR DRIVE INTO PLACE SO THAT BOULDERS ARE SECURE.
   d. PLACE A THIN (4") LAYER OF STREAMBED SAND AND WASH INTO GAPS IN ROCK WITH A HIGH PRESSURE HOSE TO FILL IN VOID SPACES AND FORM A SEAL. MULTIPLE LAYERS OF STREAMBED SAND MAY BE NEEDED TO FORM A SEAL. A SEAL HAS BEEN FORMED WHEN A LAYER OF STANDING WATER FORMS WHEN WASHING IN THE STREAMBED SAND.
   e. IN VEGETATED RIPRAP AREAS, LIVE POLE BUNDLES SHALL BE PLACED WITHIN THE ROCK BETWEEN STEPS D AND F. LIVE POLE BUNDLES SHALL BE PLACED AS SHOWN ON DETAIL 1 USING METHODS THAT MINIMIZE THE AMOUNT OF EXCAVATION IN ORDER TO EMBED THEM INTO THE SOIL PAST THE SUBGRADE ELEVATION FOR THE ROCK. WHEN PLACING ROCK, CARE SHALL BE USED TO AVOID DISTURBING THE UNDERLYING MATERIAL.
   f. REPEAT STEPS A THROUGH E UNTIL GRADES AND ELEVATIONS SHOWN IN PLAN ARE MET.



② FISH PASSAGE BOULDER PLACEMENT – RIFFLE

SCALE: NTS

LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

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MAURIA J. PAPPAGALLO
12/31/25

RENEWS: 12-31-26

REVISION	APPRD
DATE	

HIGH PASS RD - SWARTZ CR CULVERTS

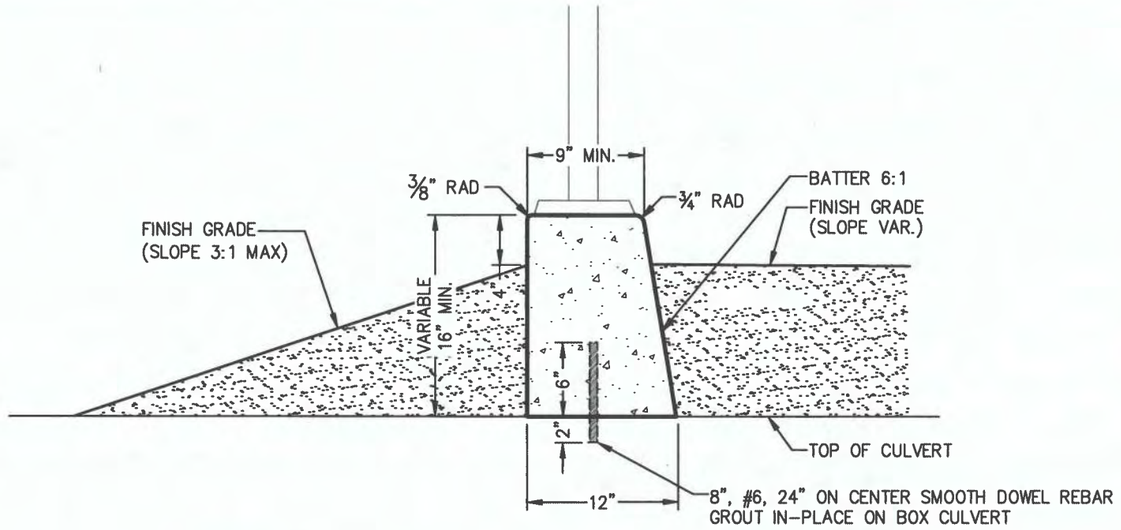
DETAILS & SECTIONS

STREAMBED CONSTRUCTION DETAILS 2

DATE	PROJECT NO.	ROAD NO.
12/4/24	367345510	345500

SHEET NO. D6

H:\PROJECTS\#R367345510 HIGH PASS RD CULV - SWARTZ CR\PLANS\D - DETAILS.DWG

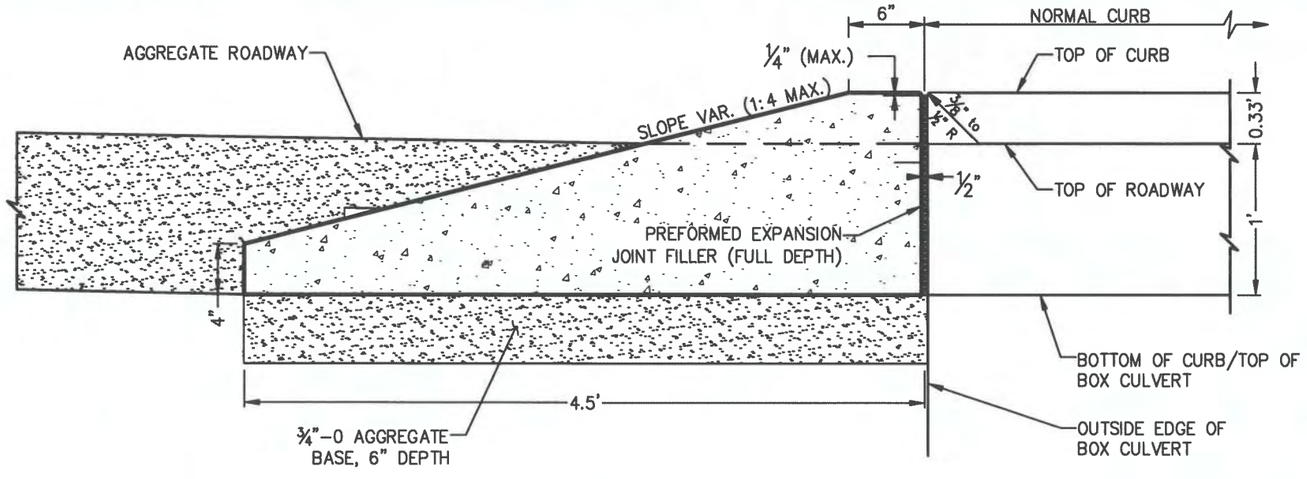


NOTE:

1. CONCRETE COMPRESSIVE STRENGTH TO BE 3,300 PSI MIN.

① 16" HEIGHT CONCRETE CURB DETAIL

SCALE: 1"=1'



NOTE:

1. CONCRETE COMPRESSIVE STRENGTH TO BE 3,300 PSI MIN.

② CURB ENDING DETAIL

SCALE: 1"=1'

LANE COUNTY
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JAN. 9, 2007
RYAN W. SISSON

RENEWS: 06-30-2026

APPRD	REVISION	DATE

HIGH PASS RD - SWARTZ CR CULVERTS

DETAILS & SECTIONS

CURB DETAILS

ROAD NO. 345500

PROJECT NO. 367345510

DATE 12/4/24

SHEET NO. D7

H:\PROJECTS\#R36734551D HIGH PASS RD CULV - SWARTZ CR\PLANS\D - DETAILS.DWG

STRUCTURAL GENERAL NOTES
PROVIDE ALL MATERIALS AND PERFORM ALL WORK ACCORDING TO THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS FP-24.

DESIGN CRITERIA
PRECAST CONCRETE CULVERT TO BE DESIGNED BY THE PRECAST MANUFACTURER ACCORDING TO THE GEOMETRIC REQUIREMENTS PROVIDED IN THESE PLANS AND ACCORDING TO THE FOLLOWING REFERENCE CODES, LOADS, AND CRITERIA:

DESIGN REFERENCE CODE:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION 2020, SECTION 12.
ODOT BRIDGE DESIGN MANUAL.
SECTION 602 OF THE FP-24.

VERTICAL LOADS:
DEAD LOADS:
- CULVERT SELF-WT.
- STREAMBED MATERIALS INSIDE CULVERT @ 125 PCF
- FILL AND PAVEMENT ABOVE TOP OF CULVERT @ 130 PCF
- FUTURE ASPHALT OVERLAY @ 40 PSF
- WATER @ 62.4 PCF MODELED WITH CULVERT COMPLETELY FULL AND COMPLETELY EMPTY

LIVE LOADS:
HL-93

LATERAL LOADS:
AT-REST LATERAL EARTH PRESSURE, UNDRAINED = 90 PCF
AT=REST LATERAL EARTH PRESSURE, DRAINED = 55 PCF
VEHICULAR LIVE LOAD: EQUIVALENT TO 2'-0" OF ADDITIONAL SOIL

MATERIALS
CONCRETE STRENGTH - CULVERT: PER PRECASTER DESIGN (4,000 PSI MINIMUM)

REINFORCEMENT:
BAR REINFORCING MATERIAL (NON-WELDED): ASTM A615 GRADE 60
BAR REINFORCEMENT MATERIAL (WELDED): ASTM ASTM A706
SIZE AND LAYOUT (CULVERT): PER PRECAST MANUFACTURER.

JOINT SEALS: PER FP-24 SECTION 602.

DESIGN SUBMITTALS:
CALCULATIONS AND WORKING DRAWINGS PER FP-24 SECTION 602.

ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS
ACP	ASPHALTIC CONCRETE PAVEMENT
C/L	CENTERLINE
EX.	EXISTING
FP-24	STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS
I/S	INSIDE
MIN.	MINIMUM
MAX.	MAXIMUM
ODOT	OREGON DEPARTMENT OF TRANSPORTATION
PCF	POUNDS PER CUBIC FOOT
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
REINF.	STEEL REINFORCEMENT
w/	WITH

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STRUCTURAL
REGISTERED PROFESSIONAL ENGINEER
19608PE
DIGITALLY SIGNED 2025.01.22 14:31:34-08'00'
OREGON
JAN. 20, 1998
CRAIG J. TOTTEN
EXPIRES 06/30/2026

LANE COUNTY
OREGON

LANE COUNTY
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SASHA VARTANIAN
ECS DIVISION MANAGER

REVISION	DATE	APPR'D

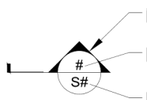
HIGH PASS RD, SWARTZ CR CULVERT

GENERAL NOTES AND CULVERT PLAN

ROAD NO. 345500
PROJECT NO. 36734S510
DATE 2/11/25

SHEET NO.
S1

LEGEND

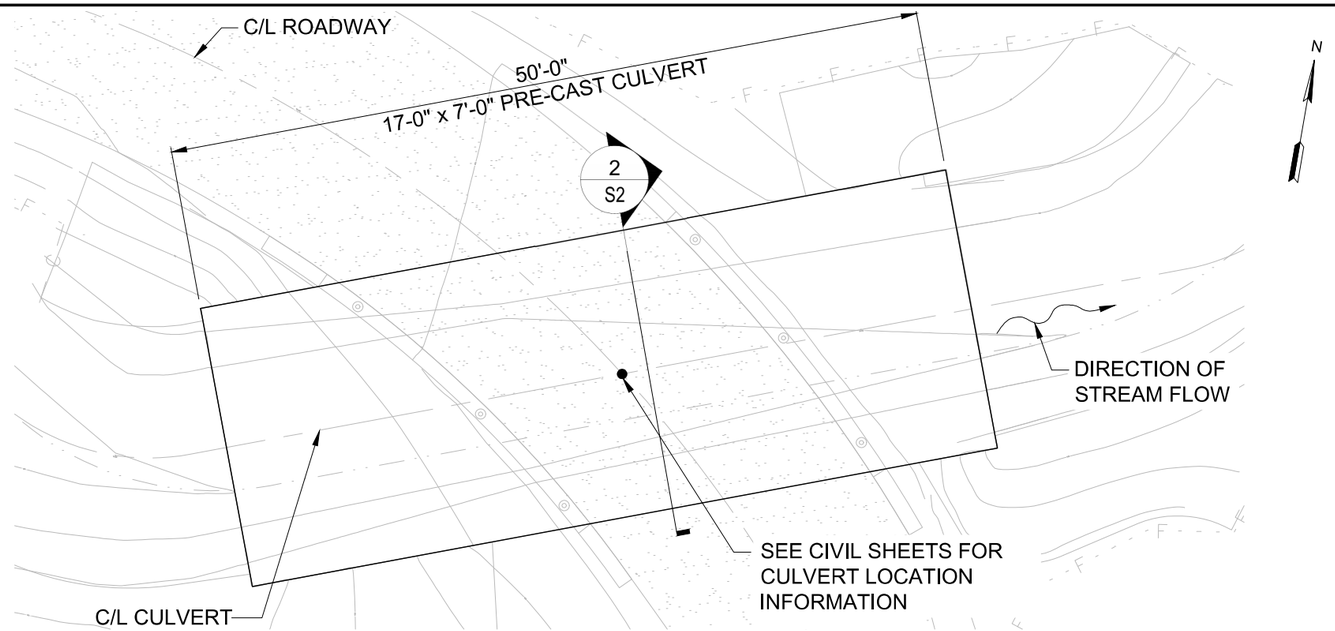


INDICATES DIRECTION OF VIEW (CUT)

INDICATES DETAIL OR SECTION NUMBER

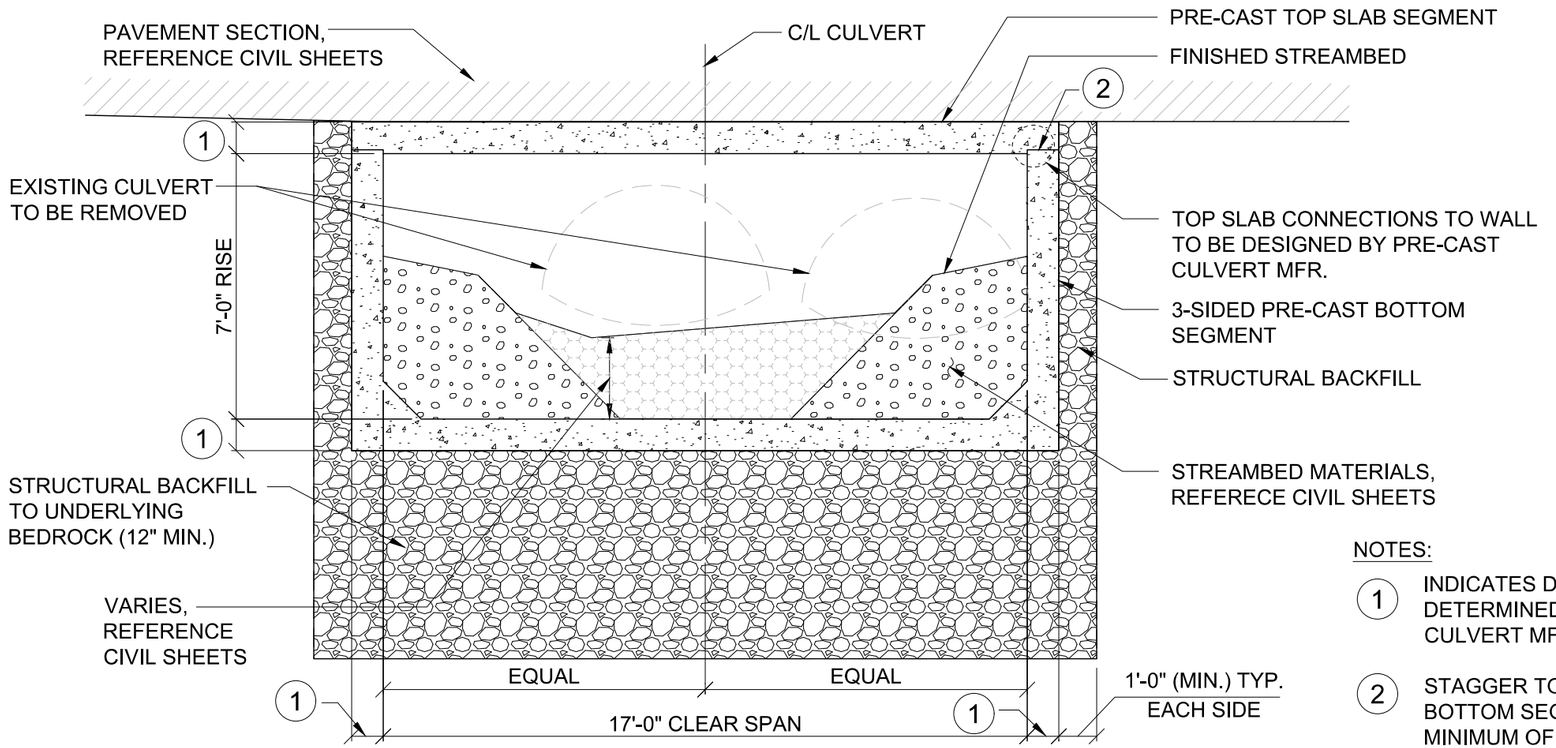
INDICATES SHEET NUMBER WHERE DETAIL IS DRAWN

REFER TO SHEET LGN FOR ADDITIONAL LEGEND INFORMATION.



1 PLAN

1"=10'-0"



2 TYPICAL CULVERT SECTION

1/4"=1'-0"

NOTES:

1. INDICATES DIMENSION TO BE DETERMINED BY PRECAST CULVERT MFR.
2. STAGGER TOP SLAB JOINTS FROM BOTTOM SEGMENT JOINTS A MINIMUM OF 2'-0".

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STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
19608PE
DIGITALLY SIGNED 2025.01.22 14:31:37-08'00'
OREGON JAN. 20, 1998
CRAIG J. TOTTEN
EXPIRES 06/30/2026

LANE COUNTY OREGON

LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DANIEL M. HURLEY, P.E.
PUBLIC WORKS DIRECTOR

SASHA VARTANIAN
ECS DIVISION MANAGER

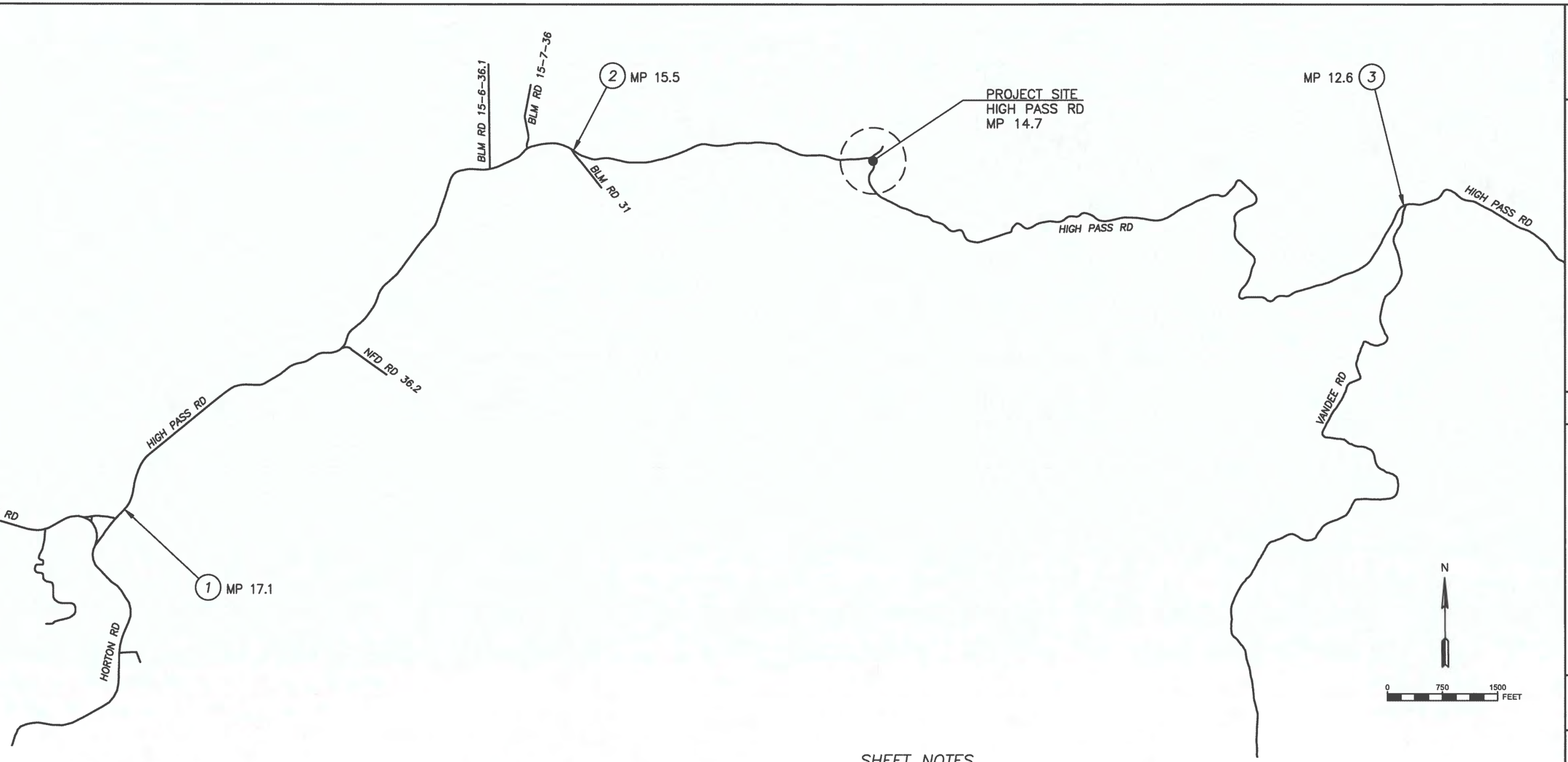
REVISION	DATE	APPR'D

HIGH PASS RD, SWARTZ CR CULVERT

CULVERT PLAN AND SECTION

DATE 2/1/25
PROJECT NO. 367345510
ROAD NO. 34550

SHEET NO.
S2



ROAD CLOSED
2.5 MILES AHEAD
LOCAL TRAFFIC ONLY

R11-3A
(60" X 30")
1

ROAD CLOSED
1 MILE AHEAD
LOCAL TRAFFIC ONLY

R11-3A
(60" X 30")
2

ROAD CLOSED
2 MILES AHEAD
LOCAL TRAFFIC ONLY

R11-3A
(60" X 30")
3

SHEET NOTES

1. POST-MOUNT OR MOUNT ON A TEMPORARY SIGN SUPPORT ALL SIGNS SHOWN. SET LOCATION AND MOUNTING HEIGHT IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. SEE ODOT STD DWGS TM821 & TM822.
2. PROVIDE ADDITIONAL SIGNING AS SHOWN ON OREGON STANDARD DRAWINGS TM800, TM840, & TM850 AS APPLICABLE OR AS DIRECTED BY THE ENGINEER
3. ENGINEER TO DETERMINE LOCATIONS OF POST-MOUNTED SIGNS
4. USE SIGNS: R11-4 QTY - 3
5. SEE SHEET TC2 FOR TRAFFIC CONTROL WITHIN PROJECT VICINITY.

TRAFFIC CONTROL PLAN

SCALE: 1"=1500'

PROJECT MANAGER	DRAFTER
AARON FISHER	PATRICK REINING

REGISTERED PROFESSIONAL ENGINEER
52862PE
Ryan Sisson 2/21/25
OREGON
JAN. 9, 2007
RYAN W. SISSON

RENEWS: 06-30-2026

LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DANIEL M. HURLEY
PUBLIC WORKS DIRECTOR

SASHA VARTANIAN
ECS DIVISION MANAGER

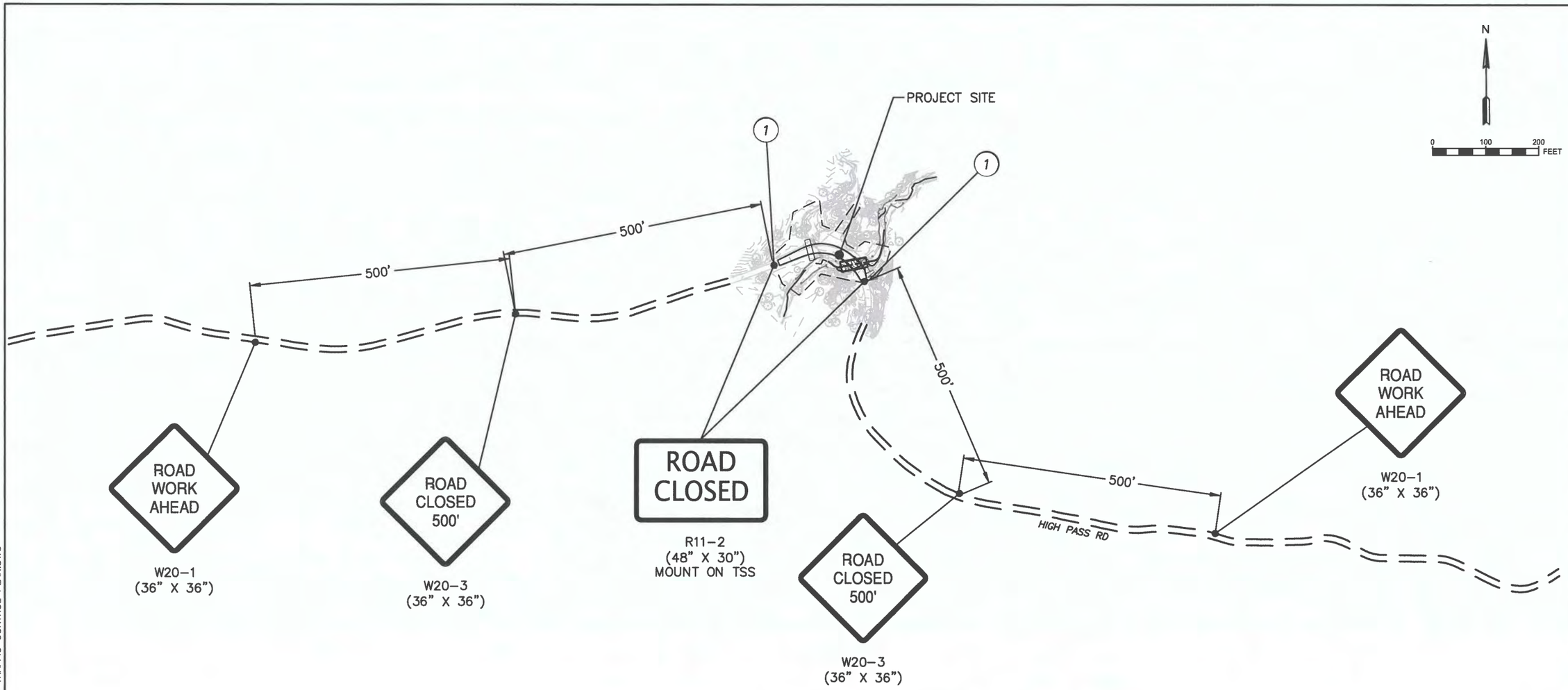
REVISION	DATE	APPR'D

HIGH PASS RD - SWARTZ CR CULVERTS
TEMPORARY TRAFFIC CONTROL
TRAFFIC CONTROL PLAN 1

DATE	PROJECT NO.	ROAD NO.
12/4/24	367345510	345500

SHEET NO.
TC1

H:\PROJECTS\#R367345510 HIGH PASS RD CULV - SWARTZ CR\PLANS\TC - TRAFFIC CONTROL PLAN.DWG



TRAFFIC CONTROL PLAN

SCALE: 1" = 200'

CONSTRUCTION NOTES

(1) 8' TYPE 3 BARRICADE – 4 EA.
SEE ODOT STD DWG TM820

GENERAL NOTES

1. POST-MOUNT OR MOUNT ON A TEMPORARY SIGN POST ALL SIGNS SHOWN. SET LOCATION AND MOUNTING HEIGHT IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. SEE ODOT STD DWGS TM821 & TM822.
2. PROVIDE ADDITIONAL SIGNING AS SHOWN ON OREGON STANDARD DRAWINGS TM800, TM840, & TM850 AS APPLICABLE OR AS DIRECTED BY THE ENGINEER
3. ENGINEER TO DETERMINE LOCATIONS OF POST-MOUNTED SIGNS
4. USE SIGNS: W20-1 QTY – 2
   W20-3 QTY – 2
   R11-2 QTY – 2

PROJECT MANAGER	DRAFTER
AARON FISHER	PATRICK REINING

REGISTERED PROFESSIONAL ENGINEER
52862PE
Ryan Sisson
OREGON
JAN. 9, 2007
RYAN W. SISSON
2/2/26
RENEWS: 06-30-2026

LANE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DANIEL M. HURLEY
PUBLIC WORKS DIRECTOR

SASHA VARTANIAN
ECS DIVISION MANAGER

APPR'D | REVISION | DATE

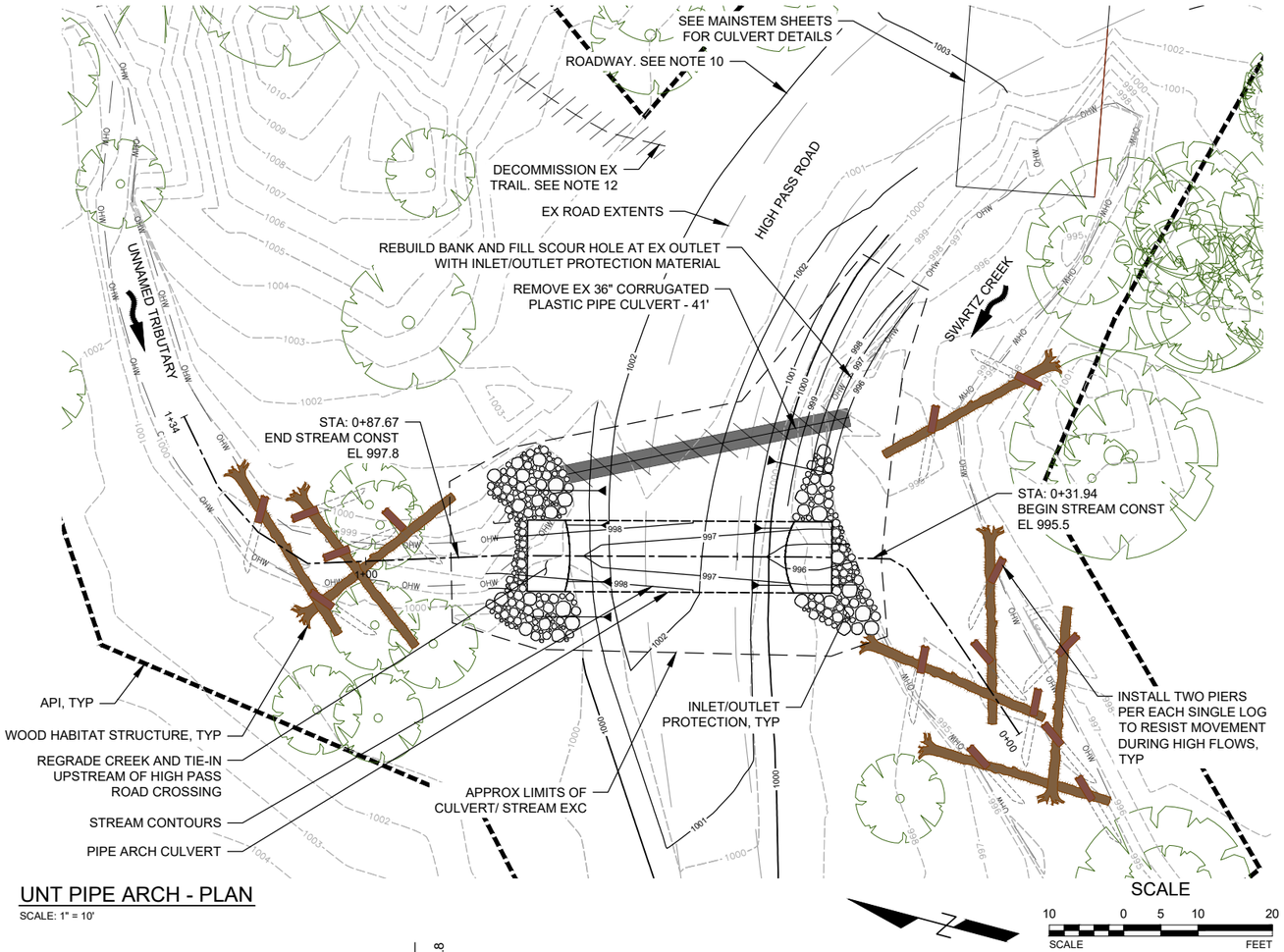
HIGH PASS RD - SWARTZ CR CULVERTS
TEMPORARY TRAFFIC CONTROL
TRAFFIC CONTROL PLAN 2

ROAD NO. 345500
PROJECT NO. 367345510
DATE 12/4/24

SHEET NO.
TC2

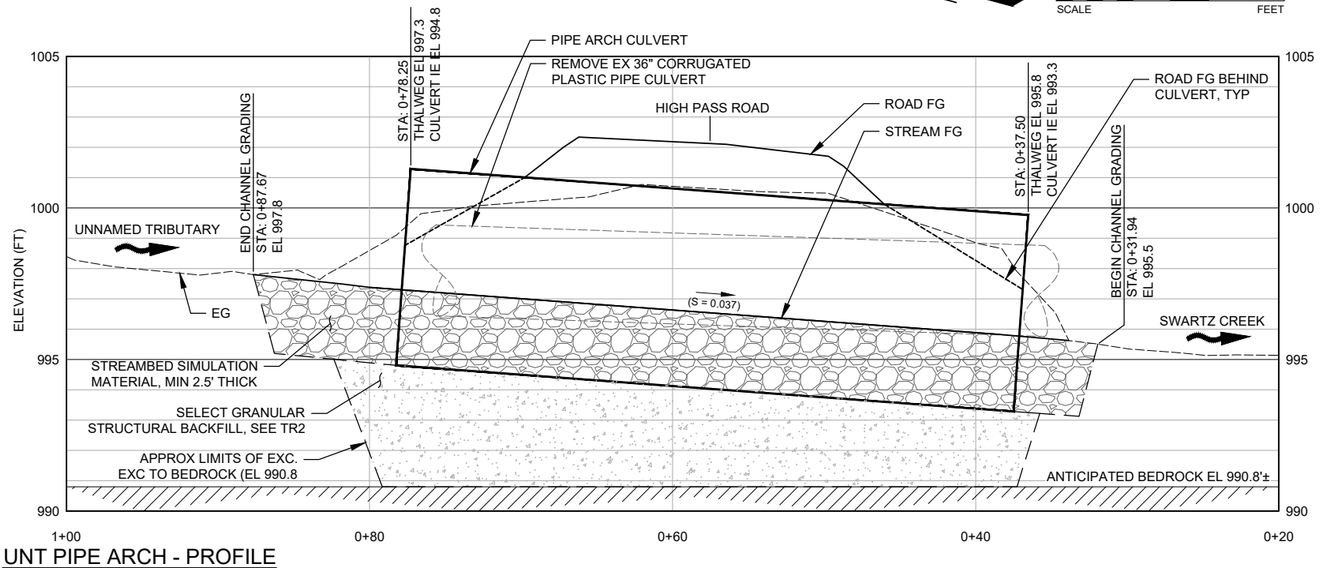
H:\PROJECTS\#R367345510 HIGH PASS RD CULV - SWARTZ CR\PLANS\TC - TRAFFIC CONTROL PLAN.DWG

FINAL DESIGN
FEBRUARY 2025



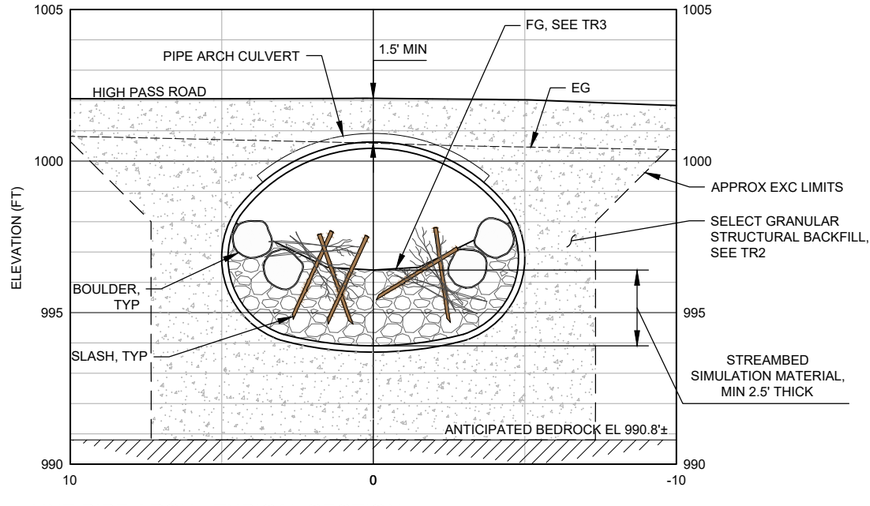
UNT PIPE ARCH - PLAN

SCALE: 1" = 10'



UNT PIPE ARCH - PROFILE

SCALE: 1" = 5'
2X VERTICAL EXAGGERATION



UNT PIPE ARCH - TYPICAL SECTION

SCALE: 1" = 2.5'

LEGEND:

- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- EDGE OF GRAVEL ROAD
- ORDINARY HIGH WATER
- PROJECT API
- STREAM REALIGNMENT
- REMOVE CULVERT
- PROPOSED CULVERT
- EXISTING TREE

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL SUBMIT A TEMPORARY STREAM DIVERSION PLAN PRIOR TO CONSTRUCTION FOR APPROVAL. TEMPORARY STREAM DIVERSION PLAN SHALL FOLLOW DETAILS ON DRAWING TSD1 AND TSD2 AND PER SPECIFICATIONS.
2. PROTECT EXISTING TREES DURING CONSTRUCTION TO THE MAX EXTENT POSSIBLE.
3. REMOVE, HAUL, AND DISPOSE OF EX 36" CORRUGATED PLASTIC PIPE CULVERT.
4. INSTALL 9'-7" (SPAN) X 6'-6" (RISE) X 40.75' NOM (LONG), ALUMINUM SINGLE RADIUS PIPE ARCH CULVERT PER DRAWINGS TR1-TR2.
5. CONSTRUCT STREAMBED AND CHANNEL PER DRAWINGS TR1-TR3. MATCH EXISTING ELEVATIONS AT UP AND DOWNSTREAM TIE-INS AND BLEND CHANNEL TO PROVIDE SMOOTH TRANSITIONS.
6. STREAMBED MATERIAL, CHANNEL ROCK, AND SLASH INSIDE CULVERT SHALL BE PLACED WITHIN CULVERT SEGMENT BY SEGMENT OF THE PIPE ARCH CULVERT. MATERIAL SHALL BE MOUNDED IN CENTER OF CULVERT TO MINIMIZE LOADING ON CULVERT WALLS PRIOR TO PLACEMENT OF SELECT BACKFILL. FINISH STREAM GRADING AND PLACEMENT OF BOULDERS SHALL BE COMPLETED BY HAND.
7. FILL CHANNEL AT EX CULVERT INLET WITH STREAMBED SIMULATION MATERIAL. PREPARE STREAMBED MATERIAL PER DETAILS AND NOTES ON TR3.
8. CONSTRUCT INLET AND OUTLET PROTECTION MATERIAL. MATERIAL SHALL BE RIPRAP, CLASS 2 AND A MIN OF 2' THICK AS SHOWN ON PLAN. MATERIAL SHALL EXTEND FROM ROADWAY TO CHANNEL BOTTOM.
9. WOOD HABITAT STRUCTURES SHALL BE FIELD FIT DURING CONSTRUCTION BY ENGINEER OR REPRESENTATIVE. ALL LOGS SHALL BE FREE OF DECAY AND ROT.
10. RECONSTRUCT ROAD SURFACE AND EMBANKMENT PER DRAWINGS C1 - C3.
11. INSTALL OBJECT MARKERS AT UNT CULVERT PER DRAWING C2.
12. DECOMMISION EX GRAVEL TRAIL (APPROX 75 LF). ALL COMPACTED SURFACES SHALL BE RIPPED AND LEFT INACCESSIBLE. EX TREES AND VEGETATION SHALL BE PRESERVED TO THE MAX EXTENT POSSIBLE. REMOVE, HAUL, AND DISPOSE OF ANY TRASH OR CONCRETE.

REGISTERED PROFESSIONAL ENGINEER
97072PE
DIGITALLY SIGNED
OREGON
MAR 09, 2021
ALEXANDER K. MORTON
RENEWS: 12/31/2026

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HIGH PASS RD -
SWARTZ CR CULVERTS
LANE COUNTY, OREGON

UNT PIPE ARCH PLAN, PROFILE AND SECTION

REVISION NUMBER

No.	Date	Revision

Date	Designed By
2/25/2025	AM
Drawn By	Checked By
DK	CL

SCALE 0 1"

JOB NO. 20230024

SHEET NO. TR1

OF

DWG: Z:\Shared\W2\CAD\20230024- Swartz Creek\DWG\SHEETS\SC-C2.0.dwg USER: dkelley
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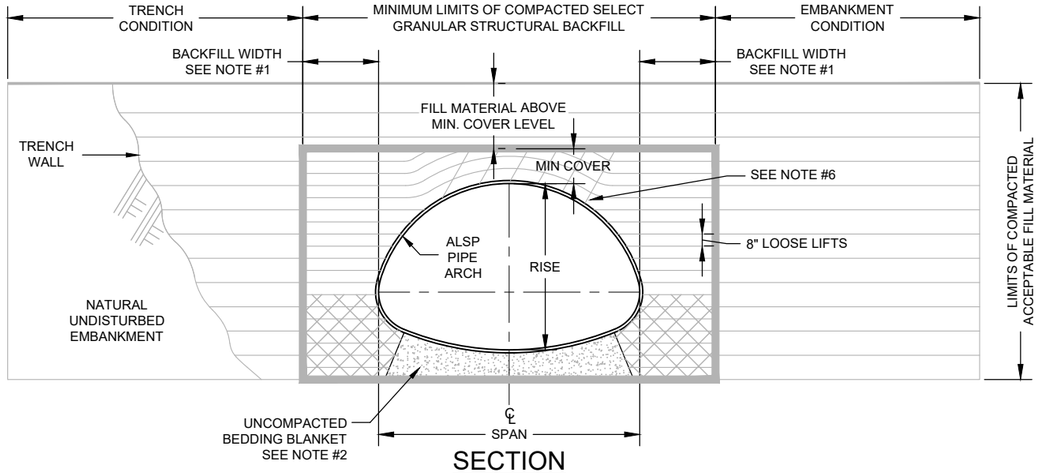

SECTION

SELECT GRANULAR STRUCTURAL BACKFILL LIMITS.

CRITICAL HAUNCH AREA BACKFILL ZONE, PRESSURE ON SOIL GREATEST HERE.

INITIAL LIFTS OVER THE CROWN OF STRUCTURE AS INDICATED BY SHADED AREA TO BE COMPACTED TO REQUIRED DENSITY WITH HAND OPERATED EQUIPMENT OR WITH LIGHTWEIGHT (D-4 OR LIGHTER) EQUIPMENT.

NOTES:

1. TRENCH WIDTH AND/OR SELECT BACKFILL WIDTH SHALL BE DETERMINED BY THE ENGINEER OF RECORD DEPENDING ON SITE SPECIFIC CONDITIONS. TYPICAL BACKFILL WIDTH IS 4 FEET FOR STRUCTURE SPANS 14 FEET AND LESS, AND 6 FEET FOR STRUCTURE SPANS GREATER THAN 14 FEET.
2. SHAPED BEDDING IS REQUIRED FOR A MINIMUM WIDTH OF SPAN/2. THE MINIMUM BEDDING THICKNESS SHALL BE 6 INCHES.
3. ALL SELECT GRANULAR BACKFILL TO BE PLACED IN A BALANCED FASHION IN THIN LIFTS (8" LOOSE TYPICALLY) AND COMPACTED TO 95 PERCENT DENSITY PER AASHTO T-99.
4. COMPLETE AND REGULAR MONITORING OF THE PIPE ARCH STRUCTURE IS NECESSARY DURING THE BACKFILL PROCESS TO AT LEAST THE MINIMUM COVER LEVEL.
5. PREVENT DISTORTION OF SHAPE AS NECESSARY BY VARYING COMPACTION METHODS AND EQUIPMENT.
6. PLACE SELECT GRANULAR BACKFILL IN RADIAL LIFTS AT APPROXIMATELY 85% OF THE RISE OF THE PIPE ARCH STRUCTURE.

ADDITIONAL SELECT GRANULAR STRUCTURAL BACKFILL NOTES:

SATISFACTORY BACKFILL MATERIAL, PROPER PLACEMENT, AND COMPACTION ARE KEY FACTORS IN OBTAINING MAXIMUM STRENGTH AND STABILITY.

THE BACKFILL MATERIAL SHOULD BE FREE OF ROCKS, FROZEN LUMPS, AND FOREIGN MATERIAL THAT COULD CAUSE HARD SPOTS OR DECOMPOSE TO CREATE VOIDS. BACKFILL MATERIAL SHOULD BE WELL GRADED GRANULAR MATERIAL THAT MEETS THE REQUIREMENTS OF AASHTO M-145 FOR SOIL CLASSIFICATIONS A-1, A-2-4, A-2-5 OR A-3 MODIFIED. RECYCLED CONCRETE/SLAG ARE NOT RECOMMENDED FOR STRUCTURAL BACKFILL MATERIAL.
SEE THE STRUCTURAL PLATE BACKFILL GROUP CLASSIFICATION TABLE ON THIS SHEET. BACKFILL MUST BE PLACED SYMMETRICALLY ON EACH SIDE OF THE STRUCTURE IN 8" LOOSE LIFTS. EACH LIFT IS TO BE COMPACTED TO A MINIMUM OF 95 PERCENT DENSITY PER AASHTO T-99.

A HIGH PERCENTAGE OF SILT OR FINE SAND IN THE NATIVE SOILS SUGGESTS THE NEED FOR A WELL GRADED GRANULAR BACKFILL MATERIAL TO PREVENT SOIL MIGRATION. IF THE PROPOSED BACKFILL IS NOT A WELL GRADED GRANULAR MATERIAL, A NON-WOVEN GEOTEXTILE FILTER FABRIC SHALL BE PLACED BETWEEN THE SELECT BACKFILL AND THE IN SITU MATERIAL.

DURING BACKFILL, ONLY LIGHTWEIGHT TRACKED VEHICLES (D-4 OR LIGHTER) SHOULD BE NEAR THE STRUCTURE AS FILL PROGRESSES ABOVE THE CROWN AND TO THE FINISHED GRADE. THE ENGINEER AND CONTRACTOR ARE CAUTIONED THAT THE MINIMUM COVER MAY NEED TO BE INCREASED TO HANDLE TEMPORARY CONSTRUCTION VEHICLE LOADS (HEAVIER THAN D-4).

STRUCTURAL PLATE BACKFILL GROUP CLASSIFICATION, REFERENCE AASHTO M-145					
GROUP CLASSIFICATION	**A-1-a**	**A-1-b**	**A-2-4**	**A-2-5**	**A-3**
SIEVE ANALYSIS PERCENT PASSING					
NO. 10 (2.000 MM)	**50 MAX.**	**----**	**----**	**----**	**----**
NO. 40 (0.425 MM)	**30 MAX.**	**50 MAX.**	**----**	**----**	**51 MAX.***
NO. 200 (0.075 MM)	**15 MAX.**	**25 MAX.**	**35 MAX.**	**35 MAX.**	**10 MAX.**
ATTERBERG LIMITS FOR FRACTION PASSING NO. 40 (0.425 MM)					
LIQUID LIMITS	**----**	**----**	**40 MAX.**	**41 MIN.**	**----**
PLASTICITY INDEX	**6 MAX.**	**6 MAX.**	**10 MAX.**	**10 MAX.**	**NON PLASTIC**
USUAL MATERIALS	**STONE FRAGMENT, GRAVEL AND SAND**		**SILTY OR CLAYEY GRAVEL AND SAND**		**COARSE SAND**

*MODIFIED FROM AASHTO M-145.

FINE BEACH SANDS, WINDBLOWN SANDS, STREAM DEPOSITED SANDS, ETC., EXHIBITING FINE, ROUNDED PARTICLES AND TYPICALLY CLASSIFIED BY AASHTO M-145 AS A-3 MATERIALS SHOULD NOT BE USED.

REFERENCE THE MOST CURRENT VERSION OF ASTM D2487, STANDARD PRACTICE FOR CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES (UNIFIED SOIL CLASSIFICATION SYSTEM), FOR COMPARABLE SOIL GROUPS.

1.0 STANDARDS AND DEFINITIONS

1.1 STANDARDS - ALL STANDARDS REFER TO THE CURRENT ASTM/AASHTO EDITION UNLESS OTHERWISE NOTED.

1.1.1 ASTM B746 "CORRUGATED ALUMINUM ALLOY FOR STRUCTURAL PLATE FOR FIELD-BOLTED PIPE, PIPE-ARCHES, AND ARCHES." (AASHTO DESIGNATION M-219).

1.1.2 AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES - SECTION 12 DIVISION I - DESIGN, AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.

1.1.3 AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES - SECTION 26 DIVISION II - CONSTRUCTION, AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS - SECTION 26. ASTM B789, STANDARD PRACTICE FOR INSTALLING CORRUGATED ALUMINUM STRUCTURAL PLATE PIPE.

1.2 DEFINITIONS

1.2.1 OWNER - IN THESE SPECIFICATIONS THE WORD "OWNER" SHALL MEAN LANE COUNTY.

1.2.2 ENGINEER - IN THESE SPECIFICATIONS THE WORD "ENGINEER" SHALL MEAN THE ENGINEER OF RECORD OR OWNER'S DESIGNATED ENGINEERING REPRESENTATIVE.

1.2.3 MANUFACTURER - IN THESE SPECIFICATIONS THE WORD "MANUFACTURER" SHALL MEAN CORPORATION FURNISHING THE STRUCTURE.

1.2.4 CONTRACTOR - IN THESE SPECIFICATIONS THE WORD "CONTRACTOR" SHALL MEAN THE FIRM OR CORPORATION UNDERTAKING THE EXECUTION OF ANY INSTALLATION WORK UNDER THE TERMS OF THESE SPECIFICATIONS.

1.2.5 APPROVED - IN THESE SPECIFICATIONS THE WORD "APPROVED" SHALL REFER TO THE APPROVAL OF THE ENGINEER OR HIS DESIGNATED REPRESENTATIVE.

1.2.6 AS DIRECTED - IN THESE SPECIFICATIONS THE WORDS "AS DIRECTED" SHALL REFER TO THE DIRECTIONS TO THE CONTRACTOR FROM THE OWNER OR HIS DESIGNATED REPRESENTATIVE.

2.0 GENERAL CONDITIONS

2.1 ANY INSTALLATION GUIDANCE PROVIDED HEREIN SHALL BE ENDORSED BY THE ENGINEER; DISCREPANCIES HEREIN ARE GOVERNED BY THE ENGINEER'S PLANS AND SPECIFICATIONS.

2.2 THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL AND EQUIPMENT AND PERFORM ALL WORK AND SERVICES EXCEPT THOSE SET OUT AND FURNISHED BY THE OWNER, NECESSARY TO COMPLETE IN A SATISFACTORY MANNER THE SITE PREPARATION, EXCAVATION, FILLING, COMPACTION, GRADING AS SHOWN ON THE PLANS AND AS DESCRIBED THEREIN. THIS WORK SHALL CONSIST OF ALL MOBILIZATION CLEARING AND GRADING, GRUBBING, STRIPPING, REMOVAL OF EXISTING MATERIAL UNLESS OTHERWISE STATED, PREPARATION OF THE LAND TO BE FILLED, FILLING OF THE LAND, SPREADING AND COMPACTION OF THE FILL, AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING OF THE CUT AND FILL AREAS TO CONFORM WITH THE LINES, GRADES, SLOPES, AND SPECIFICATIONS. THIS WORK IS TO BE ACCOMPLISHED UNDER THE OBSERVATION OF THE OWNER OR HIS DESIGNATED REPRESENTATIVE.

2.3 PRIOR TO BIDDING THE WORK, THE CONTRACTOR SHALL EXAMINE, INVESTIGATE AND INSPECT THE CONSTRUCTION SITE AS TO THE NATURE AND LOCATION OF THE WORK, AND THE GENERAL AND LOCAL CONDITIONS AT THE CONSTRUCTION SITE, INCLUDING WITHOUT LIMITATION, THE CHARACTER OF SURFACE OR SUBSURFACE CONDITIONS AND OBSTACLES TO BE ENCOUNTERED ON AND AROUND THE CONSTRUCTION SITE AND SHALL MAKE SUCH ADDITIONAL INVESTIGATION AS HE MAY DEEM NECESSARY FOR THE PLANNING AND PROPER EXECUTION OF THE WORK.

IF CONDITIONS OTHER THAN THOSE INDICATED ARE DISCOVERED BY THE CONTRACTOR, THE OWNER SHALL BE NOTIFIED IMMEDIATELY. THE MATERIAL WHICH THE CONTRACTOR BELIEVES TO BE A CHANGED CONDITION SHALL NOT BE DISTURBED SO THAT THE OWNER CAN INVESTIGATE THE CONDITION.

2.4 THE CONSTRUCTION SHALL BE PERFORMED UNDER THE DIRECTION OF THE ENGINEER.

2.5 ALL ASPECTS OF THE STRUCTURE DESIGN AND SITE LAYOUT INCLUDING FOUNDATIONS, BACKFILL, END TREATMENTS AND NECESSARY SCOUR CONSIDERATION SHALL BE PERFORMED BY THE ENGINEER.

3.0 ASSEMBLY AND INSTALLATION

3.1 BOLTS AND NUTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307 AND/OR ASTM A449. THE PIPE ARCH STRUCTURE SHALL BE ASSEMBLED IN ACCORDANCE WITH THE PLATE LAYOUT DRAWINGS PROVIDED BY THE MANUFACTURER AND PER THE MANUFACTURER'S RECOMMENDATIONS.

BOLTS SHALL BE TIGHTENED USING AN APPLIED TORQUE OF BETWEEN 100 AND 150 FT.-LBS.

3.2 THE PIPE ARCH STRUCTURE SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, THE MANUFACTURER'S RECOMMENDATIONS, AND AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES - SECTION 26 DIVISION II - CONSTRUCTION/AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS - SECTION 26.

3.3 TRENCH EXCAVATION SHALL BE MADE IN EMBANKMENT MATERIAL THAT IS STRUCTURALLY ADEQUATE. THE TRENCH WIDTH SHALL BE SHOWN ON THE PLANS. POOR QUALITY IN SITU EMBANKMENT MATERIAL MUST BE REMOVED AND REPLACED WITH SUITABLE BACKFILL AS DIRECTED BY THE ENGINEER.

3.4 BEDDING PREPARATION IS CRITICAL TO BOTH STRUCTURE PERFORMANCE AND SERVICE LIFE. THE BED SHOULD BE CONSTRUCTED TO UNIFORM LINE AND GRADE TO AVOID DISTORTIONS THAT MAY CREATE UNDESIRABLE STRESSES IN THE STRUCTURE AND/OR RAPID DETERIORATION OF THE ROADWAY. THE BED SHOULD BE FREE OF ROCK FORMATIONS, PROTRUDING STONES, FROZEN LUMPS, ROOTS, AND OTHER FOREIGN MATTER THAT MAY CAUSE UNEQUAL SETTLEMENT.

3.5 THE FOUNDATION SHALL BE DESIGNED TO SUPPORT THE RADIAL PRESSURES EXERTED BY THE SMALLER RADIUS PORTIONS OF THE PIPE. THE PRINCIPAL FOUNDATION SUPPORT SHALL BE PROVIDED IN THE CRITICAL HAUNCH AREA EXTENDING RADIALLY OUTWARD FROM THE HAUNCHES.

3.6 THE STRUCTURE SHALL BE ASSEMBLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL PLATES SHALL BE UNLOADED AND HANDLED WITH REASONABLE CARE. PLATES SHALL NOT BE ROLLED OR DRAGGED OVER GRAVEL ROCK AND SHALL BE PREVENTED FROM STRIKING ROCK OR OTHER HARD OBJECTS DURING PLACEMENT IN TRENCH OR ON BEDDING.

3.7 THE STRUCTURE SHALL BE BACKFILLED USING CLEAN WELL GRADED GRANULAR MATERIAL THAT MEETS THE REQUIREMENTS FOR SOIL CLASSIFICATIONS A-1, A-2-4, A-2-5 OR A-3 MODIFIED PER AASHTO M-145. SEE THE STRUCTURAL PLATE BACKFILL GROUP CLASSIFICATION TABLE ON THIS SHEET.

BACKFILL MUST BE PLACED SYMMETRICALLY ON EACH SIDE OF THE STRUCTURE IN 8 INCH LOOSE LIFTS. EACH LIFT SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT DENSITY PER AASHTO T-99.

3.8 IF TEMPORARY CONSTRUCTION VEHICLES ARE REQUIRED TO CROSS THE STRUCTURE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE ENGINEER TO DETERMINE THE AMOUNT OF ADDITIONAL MINIMUM COVER NECESSARY TO HANDLE THE SPECIFIC LOADING CONDITION.

NORMAL HIGHWAY TRAFFIC IS NOT ALLOWED TO CROSS THE STRUCTURE UNTIL THE STRUCTURE HAS BEEN BACKFILLED AND PAVED. IF THE ROAD IS UNPAVED, COVER ALLOWANCE TO ACCOMMODATE RUTTING SHALL BE AS DIRECTED BY THE ENGINEER.

3.9 IF AN ALUMINUM HEADWALL AND/OR WINGWALL SYSTEM IS SPECIFIED, THE SELECT GRANULAR STRUCTURAL BACKFILL LIMITS SHALL EXTEND PAST THE DEADMAN ANCHOR SYSTEM. CONTACT THE ENGINEER IF STIFF MATERIAL OR ROCK IS ENCOUNTERED WHERE THE WINGWALLS AND DEADMEN ARE TO BE INSTALLED.

REGISTERED PROFESSIONAL ENGINEER
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MAR 09, 2021
ALEXANDER K. MORTON
RENEWS: 12/31/2026

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HIGH PASS RD -
SWARTZ CR CULVERTS
LANE COUNTY, OREGON

UNT PIPE ARCH
DETAILS

REVISION NUMBER

No.	Date	Revision

Date 2/25/2025 | Designed By AM
Drawn By DK | Checked By CL

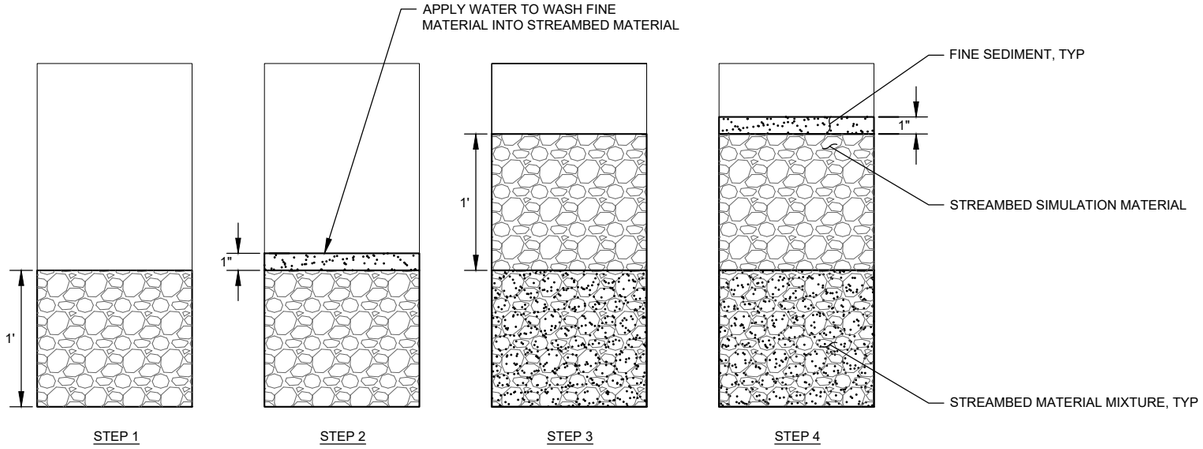
SCALE 0 1"

JOB NO. 20230024

SHEET NO. TR2
OF

DWG: Z:\Shared\W2x\CAD\20230024- Swartz Creek\DWG\SHEETS\SC-C2.0.dwg USER: dkelley
DATE: Feb 25, 2025 1:28pm XREFS:SC-XR-TB-22x34 SC-XR-EG SC-XR-LEGEND SC-XR-MAP

FINAL DESIGN
FEBRUARY 2025



STREAMBED PLACEMENT CONSTRUCTION NOTES

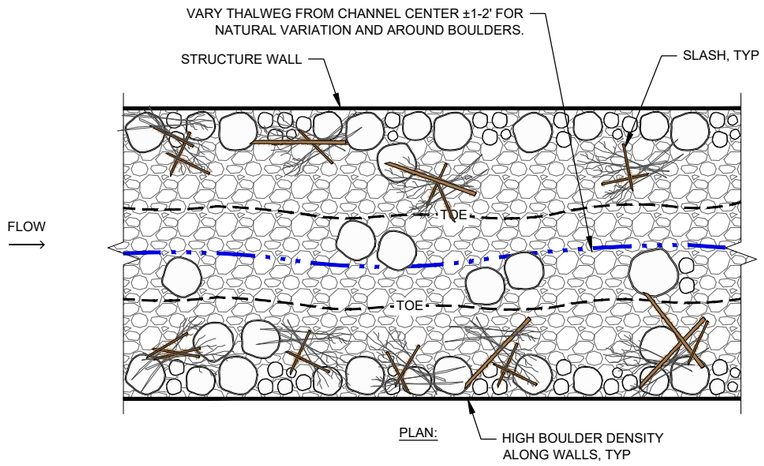
STEP 1. PLACE STREAMBED SIMULATION MATERIAL IN 1' MAX. LIFTS ALONG THE PROPOSED STREAM ALIGNMENT.

STEP 2. PLACE 1" OF FINE SEDIMENT OR SAND UNIFORMLY OVER STREAMBED SIMULATION MATERIAL. APPLY TURBID WATER TO WASH THE FINE MATERIAL INTO THE STREAMBED SIMULATION MATERIAL.

STEP 3. PLACE AN ADDITIONAL 1' STREAMBED SIMULATION MATERIAL UNIFORMLY OVER STREAMBED MATERIAL MIXTURE.

STEP 4. PLACE 1" OF FINE SEDIMENT OR SAND UNIFORMLY OVER STREAMBED SIMULATION MATERIAL. APPLY TURBID WATER TO WASH THE FINE MATERIAL INTO THE STREAMBED SIMULATION MATERIAL. REPEAT STEPS 1 AND 2 FOR A MIN. DEPTH OF 2.5' AND FINISH GRADE IS MET.

1 TYPICAL STREAMBED CHANNEL PREPARATION
NTS



2 TYPICAL BOULDER AND SLASH PLACEMENT DETAIL
NTS

STREAMBED CONSTRUCTION NOTES:

1. CONTRACTOR SHALL CREATE STREAMBED MATERIAL MIXTURES TO MEET THE GRADATIONS SHOWN ON THIS SHEET. MIXTURES SHALL BE SUBMITTED FOUR WEEKS MIN. PRIOR TO INSTALLATION FOR APPROVAL BY ENGINEER.
2. STREAMBED MIXTURE SHALL BE INSTALLED IN MAX 12" LIFTS. STREAMBED FINE SEDIMENT (SAND OR FINER) SHALL BE WASHED IN BETWEEN EACH LIFT TO SEAL STREAMBED. FINE SEDIMENTS ARE TO BE WASHED INTO STREAMBED MIXTURE USING A PRESSURIZED HOSE TO FILL VOIDS. THE CONTRACTOR SHALL CONTINUE ADDING FINES UNTIL WASH WATER IS PONDING ON TOP OF STREAMBED AND APPROVED BY ENGINEER BEFORE BEGINNING NEXT LIFT. SEE DETAIL ON THIS SHEET.
3. INSTALL BOULDERS THROUGHOUT PIPE ARCH CULVERT AS SHOWN. LARGER BOULDERS SHALL BE PLACED ALONG THE EDGES OF THE CULVERT. BOULDER AT STREAMBED SURFACE SHALL BE EMBEDDED A MIN. 1/2 THEIR DIAMETER.
4. BURY SMALL BRANCHES AND SLASH (20 CY) INTO STREAMBED MATERIAL MIXTURE AND PROTRUDE BEYOND FG 1' MAX. BRANCHES AND SLASH SHALL BE APPROX. 4' LONG AND 4" DIA.
5. VARY THALWEG ±1-2' FROM CHANNEL CENTER AS SHOWN TYP DETAIL BELOW.

STREAMBED SIMULATION MATERIAL

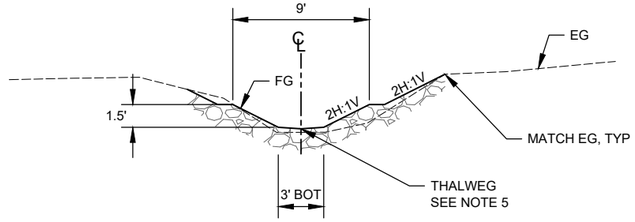
PERCENT PASSING BY WEIGHT	AVG PARTICLE SIZE (IN)
100	16
84	10
50	7
30	2
10	NO. 10 SIEVE

NOTE: STREAMBED SIMULATION MATERIAL GRADATION DOES NOT ACCOUNT FOR STREAMBED FINE SEDIMENT. MATERIAL MAY BE OVERSIZED OR LARGER THAN THE DESIGN GRADATION, BUT SHALL NOT BE UNDERSIZED OR BELOW.

FISH PASSAGE BOULDER - TYPE 1

ROCK DIA[1] (IN)	ROCK MASS (LBS)
20" - 24"	400 - 800

[1] THE INTERMEDIATE DIMENSION IS THE LONGEST STRAIGHT-LINE DISTANCE ACROSS THE ROCK THAT IS PERPENDICULAR TO THE ROCK'S LONGEST AXIS ON THE ROCK FACE WITH THE LARGEST PROJECTION PLANE



3 UNNAMED TRIBUTARY - TYPICAL STREAM SECTION
NTS

IMPACTS TO ORDINARY HIGH WATER UNT TO SWARTZ CREEK

DESCRIPTION	OHW (SF)
EX CULVERT	142
PROP CULVERT	310

REMOVAL-FILL IMPACTS TO UNT TO SWARTZ CREEK, FOR PERMIT PURPOSES

PROJECT ELEMENT	LOCATION	REMOVAL (CY)	FILL (CY)	NOTES
IMPACT TO EXISTING OHW				
EX CULVERT REMOVAL	ABOVE OHW	2	2	36" PVC PIPE THICKNESS
	BELOW OHW	2	2	36" PVC PIPE THICKNESS
EX CULVERT OVER-EXC	ABOVE OHW	15	15	ROADWAY FILL
	BELOW OHW	5	5	ROADWAY FILL
STREAMBED MATERIAL IN UNT AND SWARTZ	ABOVE OHW	0	16	STREAMBED MATERIAL (INCL BOULDERS)
	BELOW OHW	0	8	STREAMBED MATERIAL (INCL BOULDERS)
HABITAT WOOD IN UNT AND SWARTZ	ABOVE OHW	0	11	WOOD
	BELOW OHW	0	26	WOOD
INLET/OUTLET PROJECTION IN UNT AND SWARTZ	ABOVE OHW	0	40	RIPRAP CLASS 2
	BELOW OHW	0	20	RIPRAP CLASS 2
SUBTOTAL	ABOVE OHW	17	85	
SUBTOTAL	BELOW OHW	7	61	
PROPOSED CULVERT ACTIVITIES				
PROP CULVERT OVER-EXC	ABOVE OHW	270	0	EXC TO BEDROCK
SELECT GRANULAR STRUCTURAL BACKFILL	ABOVE OHW	0	190	ROADWAY FILL
STREAMBED MATERIAL IN PROP CULVERT	ABOVE OHW	0	52	STREAMBED MATERIAL (INCL BOULDERS)
SUBTOTAL	ABOVE OHW	270	242	

REGISTERED PROFESSIONAL ENGINEER
97072PE
DIGITALLY SIGNED
OREGON
MAR 09, 2021
ALEXANDER K. MORTON
RENEWS: 12/31/2026

WOLF WATER RESOURCES, INC.
1001 SE WATER AVE. SUITE #160
PORTLAND, OR 97214
503.207.6688

SIUSLAW WATERSHED COUNCIL
10866 EAST MAPLETON ROAD
MAPLETON, OR 97453
541.268.3044

SIUSLAW WATERSHED COUNCIL
HIGH PASS RD -
SWARTZ CR CULVERTS
LANE COUNTY, OREGON

STREAMBED DETAILS

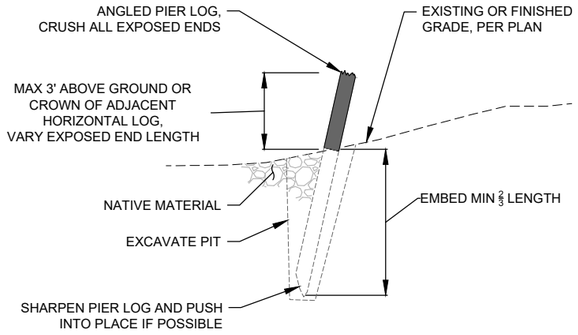
REVISION NUMBER

No.	Date	Revision

Date 2/25/2025 | Designed By AM
Drawn By DK | Checked By CL
SCALE 0 1"
JOB NO. 20230024
SHEET NO. TR3
OF

DWG: Z:\Shared\W2r\CAD\20230024- Swartz Creek\DWG\SHEETS\SC-C2.0.dwg USER: dkelley
DATE: Feb 25, 2025 1:28pm XREFS:SC-XR-TB-22x34 SC-XR-EG SC-XR-LEGEND SC-XR-MAP

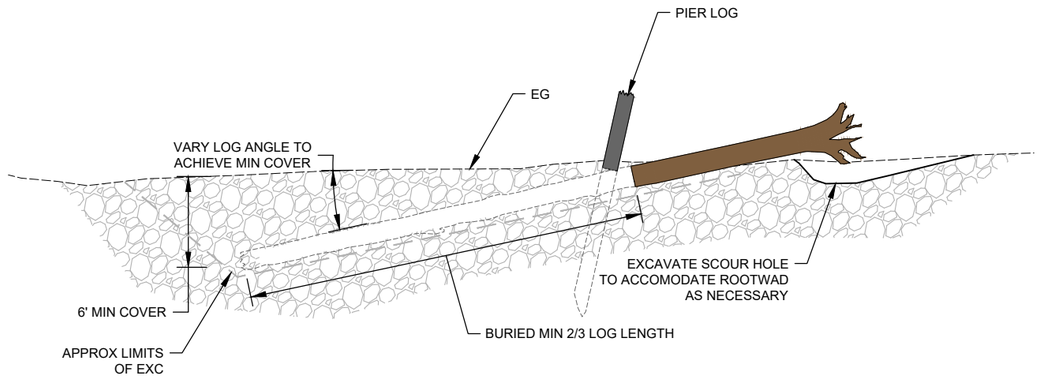
FINAL DESIGN
FEBRUARY 2025



PIER LOG NOTES:

1. ALL PIER LOGS TO BE ANGLED WITHIN 10°-30° OF VERTICAL. VARY ANGLE OF PIER LOGS TO LOOK NATURAL..
2. PIER LOGS SHALL BE USED TO PIN ADJACENT LOGS.
3. PIER LOG HEIGHTS TO VARY FROM 2' TO 3' MAX ABOVE GROUND OR ADJACENT HORIZONTAL LOG.

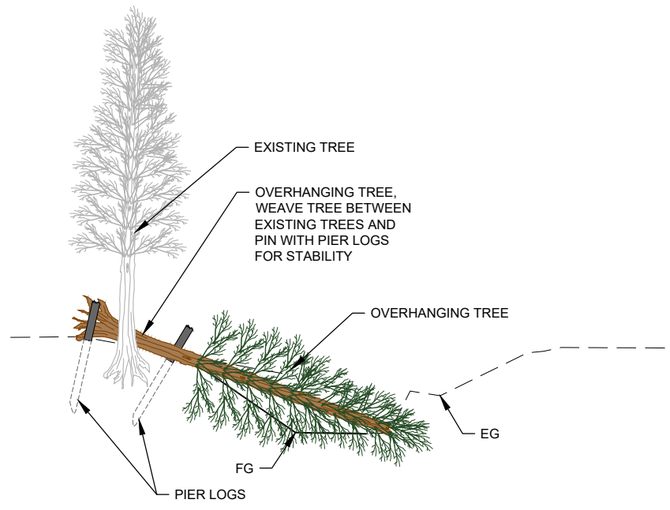
1 PIER LOG
NTS



2 KEYED LOG
NTS

LOG INSTALLATION NOTES:

1. CONTRACTOR TO COORDINATE LOG PLACEMENT WITH ENGINEER PRIOR TO CONSTRUCTION. ENGINEER SHALL APPROVE PLACEMENT BEFORE COMPLETION.
2. ALL LOGS SHALL BE DRIVEN INTO THE GROUND WITHOUT EXCAVATION. SHARPEN ENDS OF LOGS WITH A CHAINSAW AND DRIVE SHARPENED END INTO THE GROUND AT THE ANGLES AND BURIAL DEPTHS SHOWN IN DETAILS.
3. IF DRIVING TO REQUIRED DEPTHS IS NOT POSSIBLE, LOGS SHALL BE INSTALLED BY EXCAVATING A TRENCH, PLACING THE LOG, BACKFILLING, AND MACHINE COMPACTING BACKFILL PER SPECIFICATIONS. SELECT NATIVE BACKFILL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO FIRM CONDITION.
4. EMBED LOGS A MINIMUM OF ⅔ THE TOTAL LENGTH OF THE LOG.
5. ALL PIER LOGS TO BE ANGLED WITHIN 30° - 45° OF VERTICAL. VARY ANGLE OF PIER LOGS TO LOOK NATURAL.
6. EMBED ROOTWAD AS NEEDED TO ACHIEVE REQUIRED BURIAL DEPTH AND ALLOW FOR FULL CONTACT BETWEEN THE BOTTOM OF THE LOG AND THE FINISHED GRADE. BACKFILL TEMPORARY EXCAVATIONS WITH SELECT NATIVE BACKFILL.
7. SEE SPECIFICATIONS FOR TREE SPECIES. HABITAT LOG DIAMETER MEASURED AT BREAST HEIGHT (DBH) AND LENGTH AS SHOWN ON PLANS (SHT TR1).
8. CRUSH ALL EXPOSED SAW-CUT PIER PIECES AFTER DRIVING.
9. VARY THE ORIENTATION OF THE LOGS IN EACH OF THE STRUCTURES AS DIRECTED BY THE ENGINEER.
10. HABITAT LOGS MAY BE EMBEDDED IN CLUSTERS AS DIRECTED BY OPR.



3 OVERHANGING TREE
NTS

Piece Summary		
PIECE	QTY PER STRUCTURE	LENGTH / DBH
WHOLE TREE W/ ROOTWAD	1	40' / 18 -24"
PIER LOGS	2	20' / 10-12"
RACKING OR SMALL TREES	4	

REGISTERED PROFESSIONAL ENGINEER
97072PE
DIGITALLY SIGNED
OREGON
MAR 09, 2021
ALEXANDER K. MORTON
RENEWS: 12/31/2026

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REVISION NUMBER

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OF

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DATE: Feb 25, 2025 1:28pm XREFS:SC-XR-TB-22x34 SC-XR-EG SC-XR-LEGEND SC-XR-MAP

Siuslaw Watershed Council
Mapleton, Oregon

SPECIAL CONTRACT REQUIREMENTS

for

Lane County Project # 367345510

High Pass Rd – Swartz Creek Culverts

The following Special Contract Requirements amend and supplement the *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-24*, U.S. Department of Transportation, Federal Highway Administration.

ATTENTION

The following Special Contract Requirements (SCRs) are only a portion of the specifications for this project. These SCRs amend and supplement the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-24. The FP-24 is a separately published book. In order to understand the solicitation properly you need to have the FP-24 as well as this packet. Pay particular attention to the provisions of Subsection 104.07 in the FP-24 that explain how each of the many contract documents fit together.

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NOTICE TO BIDDERS

01 NOV 2024–FP24

I. Project Location

General Location. The project work is located 13 miles west of Junction City in Lane County. Approximate Global Positioning System (GPS) coordinates for the beginning of the project are 44°13'44"N, 123°27'21"W

Project Limits. Signs have not been erected to identify the project limits. No Government personnel will be available for tours.

II. Pre-Bid Information.

GENERAL AND TECHNICAL QUESTIONS REGARDING PROPOSED WORK FOR THIS PROJECT WILL BE ACCEPTED UNTIL CLOSE-OF-BUSINESS ON April 15th, 2025.

Refer to page A-5 for information on how to submit questions related to General Information and Technical Information.

Every attempt to respond to questions will be made. However, response to questions received after the above posted date is not guaranteed.

Electronic Plan Sheets. This solicitation includes electronic plan sheets available at www.siuslaw.org/contractor-opportunities/

Requests for Information. Requests for technical information (Plan and Division 100 – 700 Specification questions only) about this project will only be accepted in writing.

Surety Bond Guarantee Program. Small businesses that need surety bonds can qualify for U.S. Small Business Administration (SBA) backed surety bonds. SBA assistance in locating a participating surety company or agent, and completing application forms is available online. For more information on the U.S. SBA's Surety Bond Guarantee program, go online to http://www.sba.gov/content/contractors or call 1-800-U-ASK-SBA.

III. Post Award Information.

Insurance. Base insurance requirements are described in Subsection 107.05 and may be amended during the Contract development process with the Siuslaw Watershed Council to include additional insurance requirements.

IV. Specifications and Permits.

Specifications. This solicitation and subsequent contract are governed by the *Federal Acquisition Regulation (FAR),* agency supplemental regulations, and the *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-24* with Supplemental and Amended Specifications in the Special Contract Requirements (SCR) document. An electronic version of FP-24 may be found at https://highways.dot.gov/federal-lands/specs. Supplemental SCR's are attached to this document.

Electronic Documentation. Requires all documents (including but not limited to correspondence, notifications, submittals, reports, and pay notes) to be submitted in a pdf format, or an approved fixed-layout electronic format. See Subsection 104.04.

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V. Bid Schedule

The bid schedule for the project is as follows:

BID SCHEDULE

SECTION	PAY ITEM	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	BID AMOUNT
Title	151 - MOBILIZATION					
151	15101-0000	MOBILIZATION	LPSM	ALL	$	$
Title	152 - CONSTRUCTION SURVEY AND STAKING					
152	15201-0000	CONSTRUCTION SURVEY AND STAKING	LPSM	ALL	$	$
Title	153 - CONTRACTOR QUALITY CONTROL					
153	15301-0000	CONTRACTOR QUALITY CONTROL	LPSM	ALL	$	$
Title	154 - CONTRACTOR SAMPLING AND TESTING					
154	15401-0000	CONTRACTOR TESTING	LPSM	ALL	$	$
Title	155 - SCHEDULES FOR CONSTRUCTION CONTRACTS					
155	15501-0000	CONSTRUCTION SCHEDULE	LPSM	ALL	$	$
Title	157 - SOIL EROSION AND SEDIMENT CONTROL					
157	15701-0000	SOIL EROSION CONTROL	LPSM	ALL	$	$
157	15705-1400	SOIL EROSION CONTROL, FIBER ROLL	LNFT	250	$	$
Title	201 - CLEARING AND GRUBBING					
201	20102-0000	CLEARING AND GRUBBING	LPSM	ALL	$	$
Title	203 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS					
203	20304-1000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LPSM	ALL	$	$
Title	204 - EXCAVATION AND EMBANKMENT					
204	20401-0000	ROADWAY EXCAVATION	CUYD	72	$	$
204	20466-0000	CONSERVE AND STOCKPILE TOPSOIL	CUYD	10	$	$
Title	207 - EARTHWORK GEOSYNTHETICS					
207	20701-1000	SEPARATION GEOTEXTILE, WOVEN	SQYD	100	$	$
Title	211 - ROADWAY OBLITERATION					
211	21102-1000	ROADWAY OBLITERATION, METHOD 1	LPSM	ALL	$	$
Title	302 - CRUSHED AGGREGATE					
302	30202-2100	ROADWAY AGGREGATE, METHOD 2, SURFACE COURSE	TON	320	$	$
Title	602 - CULVERTS AND DRAINS					
602	60220-0000	PRECAST REINFORCED CONCRETE BOX CULVERT (SWARTZ)	LNFT	50	$	$
Title	603 - STRUCTURAL PLATE STRUCTURES					
603	60302-0000	STRUCTURAL PLATE PIPE ARCH (UNT)	LNFT	41	$	$
Title	609 - CURB AND GUTTER					
609	60901-0000	CURB, CONCRETE	LNFT	64	$	$

Title	624 - TOPSOIL					
624	62407-0000	PLACING CONSERVED TOPSOIL	CUYD	10	$	$
Title	625 - TURF ESTABLISHMENT					
625	62511-2000	SEEDING, HYDRAULIC METHOD	LPSM	ALL	$	$
Title	626 - PLANTS, TREES, SHRUBS, VINES, AND GROUND COVERS					
626	62605-2001	BUNDLES, WILLOW OR OSIER DOGWOOD	EACH	9	$	$
Title	628 - TEMPORARY STREAM DIVERSIONS					
628	62801-0000	TEMPORARY STREAM DIVERSION	LPSM	ALL	$	$
628	62802-0000	TEMPORARY STREAM TURBIDITY MONITORING	LPSM	ALL	$	$
Title	629 - ROLLED EROSION CONTROL PRODUCTS AND CELLUAR CONFINEMENT SYSTEMS					
629	62901-0800	ROLLED EROSION CONTROL PRODUCT, TYPE 2.D	SQYD	50	$	$
Title	633 - PERMANENT TRAFFIC CONTROL					
633	63306-0100	POST, STEEL, U-CHANNEL	EACH	4	$	$
633	63308-3000	OBJECT MARKER, TYPE 3	EACH	4	$	$
633	63309-0900	DELINEATOR, TYPE FLEXIBLE	EACH	6	$	$
Title	635 - TEMPORARY TRAFFIC CONTROL					
635	63501-0000	TEMPORARY TRAFFIC CONTROL	LPSM	ALL	$	$
Title	647 - ENVIRONMENTAL DESIGN					
647	64702-3600	ENVIRONMENTAL DESIGN, STREAMBED CHANNEL RECONSTRUCTION (SWARTZ)	LPSM	ALL	$	$
647	64702-3600	ENVIRONMENTAL DESIGN, STREAMBED CHANNEL RECONSTRUCTION (UNT)	LPSM	ALL	$	$
				TOTAL BID:	$	

Request for Proposal (RFP)

Date of issue: 3/24/2025

The Siuslaw Watershed Council (SWC) is seeking a qualified Contractor to review the attached Culvert Designs, Plans and Specifications and submit a proposal for the replacement of two (2) Aquatic Organism Passage (AOP) culverts on Lane County owned and maintained High Pass Road (Exhibits A and B) right-of-way. The land ownership surrounding High Pass Rd is under the jurisdiction of the Bureau of Land Management. The Contractor will be responsible for the removal and disposal of the existing structures and installation of two (2) new road-stream crossings detailed in Exhibit C, subject to the requirements detailed in FP-24 The Standard Specifications for the Construction of Roads and Bridges on Federal Highway Projects, Special Contract Requirements (Exhibit D) and all applicable environmental and timing restrictions.

Submittals are due by 5:00 PM on April 11th,

2025

Mandatory site visit to the Swartz Creek road-stream crossing replacement and habitat improvement project site will be held on

April 2nd, 2025.

Contact information:

Project Manager:

Caleb Mentzer, Siuslaw Watershed Council

Phone: 541-269-3044 (office), 541-513-2604 (cell)

E-mail: projects@siuslaw.org

GENERAL WAGE DETERMINATIONS

Minimum Wage Requirements - This Project is subject to prevailing wage rate requirements. No less than the higher of the applicable federal or state prevailing wage rates shall be paid to workers.

Applicable Wages - Prevailing wage rates published in the following wage determinations and any applicable modifications or amendments apply to this Project and are incorporated by reference:

(1) U.S. Department of Labor, "General Wage Determinations Issued under the Davis-Bacon and Related Acts: Oregon Highway Construction Projects", and

(2) Oregon Bureau of Labor and Industries (BOLI), "Prevailing Wage Rates For Public Works Contracts".

The applicable wage rates last published prior to the time of Bid Closing apply to this Project.

Wage Rates are Internet-Accessible - The applicable wage rates can be found at:

Oregon Bureau of Labor & Industries (BOLI)

https://www.oregon.gov/boli/employers/Pages/prevailing-wage-rates.aspx

US Department of Labor (Davis-Bacon)

https://sam.gov/content/wage-determinations

Wage Rates are Subject to Change - Modifications or amendments to the wage rates applicable to this Project may occur any time before Bid Closing. Bidders are responsible to monitor web page for modifications and amendments up until Bid Closing.

ATTENTION

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SPECIAL CONTRACT REQUIREMENTS (SCR)

The following Special Contract Requirements amend and supplement the *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-24*, U.S. Department of Transportation, Federal Highway Administration.

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DIVISION 100
GENERAL REQUIREMENTS

Section 101. — TERMS, FORMAT, AND DEFINITIONS

01 APR 2024 – FP-24

101.03 Abbreviations. Add the following to paragraph (a):

OHWM or OHW — Ordinary High-Water Mark

UNT — Unnamed Tributary to Swartz Creek

101.04 Definitions. Add the following:

Filter Blanket - A layer of graded rock placed between the area prepared for it and the riprap.

Holidays - Holidays occur on the following days:

- 1st day of January — New Years' Day;
- 3rd Monday of January — Martin Luther King, Jr. Day;
- 3rd Monday of February — Presidents' Day;
- Last Monday of May — Memorial Day;
- 19th day of June — Juneteenth National Independence Day;
- 4th day of July — Independence Day;
- 1st Monday of September — Labor Day;
- 2nd Monday of October — Columbus Day;
- 11th day of November — Veterans' Day;
- 4th Thursday of November — Thanksgiving Day;
- 25th day of December — Christmas Day;
- Other days declared holidays by the Congress or the President; and
- If a holiday occurs on a Saturday, the preceding Friday is also a legal holiday. If a holiday occurs on a Sunday, the Monday following is also a legal holiday.

In-Water Work — Work below the ordinary high-water mark.

Pneumatic Roller — Self-propelled compaction device with smooth pneumatic tires staggered in position to provide overlap between the front and rear tires.

Section 102. — BID, AWARD, AND EXECUTION OF CONTRACT

01 APR 2024 – FP-24

102 Delete Section 102 in its entirety.

Delete Section 102 in its entirety

Section 103. — SCOPE OF WORK

01 APR 2024 – FP-24

Delete Subsections 103.2, 103.3, 103.4

Delete Subsections 103.2, 103.3, 103.4

103.01 Intent of Contract. Add the following:

The CO may request additional work on sites within or in the vicinity of the project. Such work generally will be in response to natural disasters. Provide cost proposals and perform work as ordered by the CO.

103.05 Partnering. Delete the text of this Subsection and substitute the following:

To facilitate this contract, the CO offers to participate in a partnership with the Contractor. This partnership draws on the strengths of each organization to identify and achieve reciprocal goals. Partnering strives to resolve problems in a timely, professional, and non-adversarial manner. If problems result in disputes, partnering encourages, but does not require, alternative dispute resolution instead of the formal claim process. The objective is effective and efficient contract performance to achieve a quality project within budget and on schedule.

Acceptance of this partnering offer by the Contractor is optional, and the partnership is bilateral.

(a) Formal partnering. If the formal partnering offer is accepted, mutually agree with the CO on the level of organizational involvement and the need for a professional to facilitate the partnering process. Engage the facilitator and other resources for key Contractor representatives and the CO to attend a partnership development and team-building workshop usually between the time of award and the Notice to Proceed. Hold additional progress meetings upon mutual agreement.

The direct cost of formal partnering facilities, professional facilitation, copying fees, and other miscellaneous costs directly related to partnering meetings will be shared by the Contractor and Government. Secure and pay for facilities, professional fees, and miscellaneous requirements. Submit invoices to the CO. The Government will reimburse the Contractor for 50 percent of the agreed costs incurred for the formal partnering process. The Government's share will not exceed $5,000.00.

Each party is responsible for making and paying for its own travel, lodging, and meal arrangements. No time extension for the completion of the project will be made for the use of formal partnering.

(b) Informal partnering. If the informal partnering offer is accepted, mutually agree with the CO on the timing and substance of an informal Partnering meeting.

Costs of implementing and maintaining the informal partnership are the responsibility of the party incurring the cost.

Section 104. — CONTROL OF WORK

Delete Subsections 104.1, 104.2 and 102.4

Delete Subsections 104.1, 104.2, 104.4

01 JUL 2024 – FP-24

104.06 Specifications and Drawings. Delete Subsection (b)(2)*(k)* and substitute the following:

(k) Precast Reinforced Concrete Box Culvert and Structural Plate Culvert with load ratings and supporting calculations;

Section 105. — CONTROL OF MATERIAL

01 APR 2024– FP-24

105.02(a) Government-furnished sources. Add the following:

Government-furnished disposal site for this project are identified as follows:

- Government-furnished optional disposal area.

  The optional waste soil location is a BLM approved disposal area proximate to the project site located on Bureau of Land Management land in Section 31, T 15S, R 6W. Approximate GPS coordinates for the source are 44.226, -123.417.

There is no charge for use of the government furnished disposal listed above. Restore the area to pre-work conditions including seeding as part of the use of the property.

105.02(c) Contractor-located sources. Delete the text of this Subsection and substitute the following:

The Contractor is responsible for Contractor-located material sources, including established commercial material sources. Use sources that fulfill the contract quantity and quality requirements. Determine the quantity, type of equipment, and work necessary to select and produce an acceptable material. All material transported to the site must be certified weed free. The CO may request written documentation of methods used to determine the weed free status of any and all material secured by the Contractor. Secure permits and clearances for use of the source and submit copies of the documents to the CO. Follow the environmental requirements of Subsection 107.10(d) and anticipate a minimum of 60 days for approvals for use of any contractor located source. Submit available historical data indicating acceptable material can be produced from the source. Perform quality control sampling and testing according to the approved Contractor Quality Control Plan in Section 153, aggregate source quality tests, and applicable Sampling, Testing, and Acceptance Requirements table included at the end of each Section. Allow the CO the opportunity to witness sampling and splitting of the test material.

105.04 Handling and Storing Material. Delete the text of the second paragraph and substitute the following:

Use only approved portions of the right-of-way for staging or storing of materials such as culverts, geotextile fabric, temporary traffic control devices; and for equipment parking.

Provide additional space as needed. Do not use private property for staging, storage, or disposal without written permission of the owner or lessee and prior to completion of the requirements of Subsection 107.10(d). Submit copies of agreements and documents and do not use property until approved.

Section 106. — ACCEPTANCE OF WORK

01 JUL 2024– FP-24

106.01 Conformity with Contract Requirements. Amend as follows:

Add the following to the second paragraph:

References to the MUTCD refer to the 2009 MUTCD with Revision Numbers 1, 2 and 3 incorporated.

Add the following:

Obtain copies of the following documents at:

https://highways.dot.gov/federal-lands/construction/paynotes

- *Construction Paynote Examples*, dated August 2011.

Obtain copies of the following documents at:

https://highways.dot.gov/federal-lands/materials

- *WFLHD Sampling and Testing Methods*;
- Materials Testing Forms;
- FLH T 521 – *Standard Method of Test for Determining Riprap Gradation by Wolman* Count; and
- FLH Addendum to AASHTO T 308 – *Standard Method of Test for Correction Factors for Hot Mix Asphalt (HMA) Containing Recycled Asphalt Pavement (RAP) by the Ignition Method*.

106.03 Certification. Add the following after the second paragraph:

Obtain required certifications and maintain records of all required certifications according to Subsections 103.04 and 153.04(a).

Submit a completed Form WFLHD 87 *Certification of Compliance* with each material requiring a certification. An electronic version may be found at:

https://highways.dot.gov/federal-lands/construction/forms-wfl

Submit all certifications to the CO unless otherwise specified in the Section ordering the work.

Section 107. — LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

01 NOV 2024(3)– FP-24

107.01 Laws to be Observed. Delete the third paragraph and substitute the following:

Comply with the terms and conditions included in all permits and agreements obtained by the Government for performing the work included in this contract (See Section H). The Government will extend the permits and

agreements in Section H as needed. Notify CO of proposed changes, including required revisions to Government-obtained permits that are required by the Contractor's methods of operation. Obtain additional permits or agreements that are required by the Contractor's methods of operation. Allow adequate time in the construction schedule for any additional permits or changes to Government-obtained permits. Provide copies of approved permits and finalized agreements not in the contract upon receipt.

- DEQ / Army Corp. of Engineers Joint Permit Application
- RGP4 Army Corp. of Engineers General Permit
- GP42104 Army Corp of Engineers General Permit
- Lane County Zoning Permit Type 1
- Lane County Facilities Permit

Add the following subsection:

107.01A National Pollutant Discharge Elimination System Permit (NPDES). (ADDED SUBSECTION).

(a) Erosion Control Supervisor. Provide a qualified Erosion Control Supervisor and Visual Monitoring Inspector according to Subsection 157.03.

(b) Preparation of the Erosion and Sediment Control Plan (ESCP). The Government will make a preliminary ESCP available under FAR Clause 52.236-4 – Physical Data. Perform the following:

(1) Update the cover sheets in the preliminary ESCP as necessary.

(2) Update the preliminary site maps and erosion/sediment control details and layout sheets in the preliminary ESCP as necessary to accommodate project site conditions and proposed construction operations. Include map locations and erosion and sediment control measures for all Government-provided:

(a) Staging areas;

(b) Equipment storage areas;

(c) Erodible stockpiles; and

(3) Prepare erosion/sediment control plans for each applicable phase of construction activity noted in the ESCP cover sheet.

(4) Identify the Erosion Control Supervisor and Visual Monitoring Inspector and their qualifications in the preliminary ESCP.

(5) Submit one electronic copy of the ESCP to the CO 14 calendar days prior to the preconstruction conference. Allow 20 working days for CO approval of the ESCP. Upon approval, print one paper copy and place in a binder following the FHWA tab format. The approved ESCP becomes the ESCP of record for the project.

(6) Maintain and update the ESCP of record as needed throughout construction. Make the ESCP available for public and regulatory-agency inspection.

Do not perform any ground disturbing activities including clearing, grubbing, or earthwork until the updated ESCP of record has been approved.

(c) Public Notice. Provide an aluminum sign panel to be installed in an approved location. Fabricate and mount signs in accordance with Section 635. Post signs in a publicly accessible location. Provide signs containing the following information using a large, readable font of at least 1-inch size letters:

(1) Contractor's contact name and phone number for obtaining additional information.

(2) Include the following statement:

- "For a copy of the Erosion and Sediment Control Plan for this site or if indicators of storm water pollutants in the discharge or in the receiving waterbody are observed, contact the Federal Highway Administration at WFLHDStormwater@dot.gov.

Removal and disposal of the sign panel, posts, and any other information posted on the sign panel will be performed by others.

(d) Inspections. Perform ESCP inspections as required in Subsection 157.14, and the ESCP. Document inspections using FHWA forms provided in the ESCP of record and retain the records in the ESCP binder. Submit each inspection to the CO for approval within 24 hours of completing an inspection. Allow 2 working days for CO approval of inspections. Co-sign each approved inspection and file in the ESCP binder. Complete all ESCP forms as construction progresses until final acceptance.

(e) Revisions to the Erosion and Sediment Control Plan (ESCP). Ensure that all erosion and sediment control procedures, practices, and inspections are current. Revisions to the ESCP are required for, but are not limited to, any of the following reasons:

(1) Part of a corrective action;

(2) Increase or decrease in project size;

(3) Change in the size or location of disturbed areas;

(4) Change to BMPs; or

(5) Change to the certified inspector or stormwater team member(s) working on the design, installation, and maintenance of erosion and sediment control measures.

If project size is increased and the total disturbed area on the project exceeds 5 acres, notify the CO and do not begin work in new project areas until approved by the CO. Allow 3 weeks for CO approval.

Revise the ESCP as necessary during construction. Submit each revision to the CO for approval within 24 hours of the revision. Allow 2 working days for CO approval of a revision. Co-sign each approved ESCP revision and file in the ESCP binder in the ESCP amendment log. Implement approved revisions and corrective actions according to the timelines.

(f) Project close-out. Provide the CO with the complete ESCP of record upon final acceptance of the project, including inspection forms, logs, and all other required documentation added during the project.

(g) Contractor selected sites. Prepare separate ESCP and file separate NOI for all Contractor-selected sources and all waste, borrow, and staging sites not included in the contract. These ESCP(s) and NOI(s) are solely the responsibility of the Contractor. Do not submit to CO for approval or for signature.

107.02 Protection and Restoration of Property and Landscape. Amend as follows:

(b) Vegetation. Delete the text of this Subsection and substitute the following:

Do not disturb any area outside the construction limits unless authorized according to Subsections 105.02(c) and 107.10(d). Replace trees, shrubs, or vegetated areas outside the construction limits damaged by construction operations as directed and at no additional cost to the Government. Only remove damaged limbs of existing trees when directed by an approved arborist.

(c) Archeological. Add the following:

When notifying the CO, include a brief statement of the location and details of the finding.

Paleontological remains and archeological specimens found within the construction area are the property of the Bureau of Land Management and will be removed only by the BLM or designated representatives.

107.08 Sanitation, Health, and Safety. Add the following after the first paragraph:

Submit an accident prevention plan for implementing safety and health standards at the Preconstruction Conference.

107.10 Environmental Protection. Amend as follows:

(b) Oil and hazardous substances. Add the following:

Inspect all vehicles and equipment conducting operations nearby wetlands or waters daily for fluid leaks.

If contaminated soils, contaminated groundwater or hazardous materials are encountered during construction, stop construction activities in the contaminated area and notify the CO immediately. Prevent stormwater discharges from the contaminated areas until approved. Prepare an Environmental Management Plan (EMP). Submit the EMP for approval prior to working in contaminated areas of the project.

(c) Dirt, plant, and foreign material. Delete this Subsection and substitute the following:

Remove dirt, plant, and foreign material from vehicles and equipment before entry into the project area. Prevent introduction of noxious weeds and non-native plant species into the work site. Follow applicable Federal land management agency and state rules and regulations. Maintain cleaning and inspection records. Clean hauling vehicles before their initial entry; subsequent entries will not require cleaning unless requested. Notify the CO a minimum of 48 hours before entry to allow for inspection.

Clean all vehicles and equipment to remove all visible traces of soil, plant material, debris, and petroleum from wheels, tires, tracks, drive mechanisms, undercarriages, etc. Only materials and equipment free of toxic pollutants may be placed within wetlands and waters.

(d) Clearances for Contractor-selected, noncommercial areas. Delete this Subsection and substitute the following:

(d) Sites outside construction limits. Activities outside the construction limits include, but are not limited to the following; material sources, waste sites, haul roads, staging areas, and water sources. Provide the following documents to the CO and anticipate a minimum of 60 days for approvals. Do not use sites or sources until approved.

The requirements (1) through (6) below do not apply to Government designated sites or sources or commercial sites or sources that are established, have provided material over the last two years, have

appropriate Federal, State and local permits, and do not require expansion outside their currently established and permitted area.

(1) Proposed activity description. Submit a description, schedule, and location of the proposed activities for approval. Include maps of the area and other relevant information.

(2) Cultural resources. Submit written documentation satisfactory to the CO for a recommendation of either "no historic properties affected or "no effect" according to 36 CFR 800.4(d)(1) for historic properties on or eligible for listing to the National Register of Historic Places. Provide either:

(a) Documentation showing there are no cultural resources present, and a recommendation of either "no historic properties affected" or "no effect" according to 36 CFR 800.4(d)(1). Documents must be prepared by an individual qualified under the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, 48 FR 44738-44739 and 36 CFR Part 61.

Documentation must be satisfactory to the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) as appropriate, according to 36 CFR 800.3(c).

The CO will submit the documentation to the SHPO or THPO; or

(b) Documentation showing a finding of either "no historic properties affected" or "no effect" according to 36 CFR 800.4(d)(1) has been previously obtained for the proposed activities from the State, Tribal Government or Federal Land Management Agency responsible for the land. Include attached copies of SHPO concurrence, or Memorandum of Agreement (MOA) where concurrence is not required.

(3) Species protected under the Endangered Species Act of 1973. Submit written documentation satisfactory to the CO that the proposed action will have no effect to any threatened or endangered species or their critical habitat. Provide either:

(a) A current list of all threatened or endangered species in the site of proposed activities from the U.S. Fish and Wildlife Service and National Marine Fisheries Service; and a recommendation of a "no effect" determination according to Section 7 of the Endangered Species Act prepared by a biological specialist with a minimum of 3 years of experience in Endangered Species Act compliance or other qualifications acceptable to the CO; or

(b) Documentation showing the proposed activities have previously been determined to comply with the Endangered Species Act and this determination remains valid. This documentation must be from the State, Tribal Government or Federal Land Management Agency responsible for the land. Attach evidence of compliance, including correspondence with the U.S. Fish and Wildlife Service and National Marine Fisheries Service.

(4) Wetlands and Waters. Submit written documentation satisfactory to the CO, that the proposed action will comply with Sections 404 and 401 of the Clean Water Act, Executive Order 11990, and will not affect any wetlands or waters under Federal, State, or local jurisdiction. Documentation must be prepared by a wetland specialist with a minimum of 3 years of experience in wetland and ordinary high water mark delineation.

(5) Federal lands. Before use of sites on Federal lands, submit a copy of the Letter of Approval or Special Use Permit from the applicable Federal agency allowing use of the site for intended purposes.

(6) Tribal, state and local approvals. Comply with applicable laws regarding the proposed activities. Submit copies of required clearances, including hazardous waste compliance, tribal, State and local permits and approvals.

Add the following:

(e) Other requirements. Comply with the following requirements:

(1) Perform in-water work from August 6th to September 16th (dates inclusive) in accordance with Section 628 unless otherwise approved by the CO.

(2) Use biodegradable vegetable-based oil in any equipment that operates over or reaches into wetlands or waters of the US.

(3) If active bird nests are identified during clearing operations; immediately suspend operations within 500 feet of the nest, and notify the CO within 1 hour. Obtain approval from the CO before restarting operations.

(4) Store all food, toiletries, and other potential attractants (e.g., petroleum products, antifreeze, personal hygiene items) in wildlife-proof containers or enclosed construction equipment, except during actual use.

(5) Remove all trash from the project site daily and dispose of trash according to Subsection 203.07.

(6) Do not disturb, feed, or approach any wildlife species (e.g., reptiles, birds, raptors, or bats) found nesting, hibernating, or otherwise living in, or immediately nearby, worksites.

(7) Do not allow equipment to idle longer than 10 minutes.

(8) Conduct machinery maintenance and refueling at a distance of 200 feet or greater from any wetlands or waters. Refueling of equipment may occur within 200 feet of waterbodies if approved by the CO and spill prevention measures are in place.

Section 108. — PROSECUTION AND PROGRESS

01 NOV 2024 – FP-24

Delete Section 108 in its entirety

Delete Section 108 in its entirety

Section 109. — MEASUREMENT AND PAYMENT

01 APR 2024 – FP-24

Delete Subsections 109.06, 109.07, 109.08, 109.09

Delete Subsections 109.06, 109.07, 109.08, 109.09

109.01 Measurement of Work. Delete the fourth paragraph and Table 109-01 of Subsection 109.01 and replace

with the following:

109.1 Measurement of Work

Table 109.1 indicates the accuracy required for quantities of the various pay units used in the schedule of items. Use this guide to determine the decimal placement in the final payment.

Table 109.1

Decimal accuracy of quantities for Final Payment

Pay Item	Level of Precision
Linear Foot	1
Exception--Timber, Steel, and concrete Piles	0.1
Station	0.1
Mile	0.01
Square Foot	0.1
Square Yard	0.1
Each	1
Acre	0.01
Gallon	1
M-Gals.	0.1
Cubic Yard	1
Exception--Structure Excavation; Sheathing Materials; Bedding, Bed Course, and Backfill Materials; Gabions;	0.1
Exception--Concrete; Masonry	0.01
Pound	1
Ton	0.1
Exception--Calcium Chloride; Sodium Chloride; Hydrated Lime; Bituminous Materials; Pavements; Bed Course Materials	0.01
Hour	0.1
MFBM	0.01
Station Yard	1
Cubic Yard Mile	1
Ton Mile	1

109.03 Weighing Procedures and Devices. Delete the first paragraph of Subsection (c) and substitute the following:

(c) Project weighing system. Provide, erect, and maintain approved automatic digital scales. For small quantities, manual scales may be used when approved in writing and if the method of weighing meets all other contract requirements. Provide scales that record mass at least to the nearest 100 pounds. Maintain the scale accuracy to within 0.5 percent of the correct mass throughout the calibration range of the scale.

109.08 Progress Payments. Amend as follows:

Delete Subsection (d) and substitute the following:

(d) Closing date and invoice submittal date. The closing date for progress payments will be designated by the CO. Include work performed after the closing date in the following month's invoice. For work performed between September and July of any year, submit invoices to the designated billing office by the 7th day after the closing date. Invoices received by the designated billing office after the 16th day following the closing date, for work included in the September through July invoices, will not be accepted for payment processing that month. For work included in the August invoice, submit the invoice to the designated billing office by the 5th day after the closing date. Invoices received by the designated billing office after the 5th day following the closing date, for work included in the August invoice, will not be accepted for payment processing that month. Include late, unprocessed invoice submittals in the following month's invoice.

Delete Subsection (e) and substitute the following:

(e) Processing progress payment requests. No payment will be made for work unless field note documentation for the work was provided by the closing date.

(1) Work performed between September and July.

(a) Invoices received by the 7th day following the closing date.

(1) Proper invoices. If the invoice meets the requirements of Subsection 109.08(b), and the quantities and unit prices shown on the Contractors' invoice agree with the corresponding quantities and unit prices shown on the Governments' receiving report, the invoice will be paid.

(2) Defective invoices. If the invoice does not meet the requirements of Subsection 109.08(b), or if any of the quantities or unit prices shown on the Contractors' invoice exceed the corresponding quantities and unit prices shown on the Governments' receiving report, the invoice will be deemed defective and the Contractor so notified according to FAR Clause 52.232-27(a)(2). Defective invoices will not be corrected by the Government and will be returned to the Contractor within 7 days after the Government's designated billing office receives the invoice.

Revise and resubmit returned invoices by the 18th day following the closing date. The CO will evaluate the revised invoice. If the invoice still does not meet the requirements of Subsection 109.08(b), the Contractor will be so notified according to FAR Clause 52.232-27(a)(2), and no progress payment will be made that month. Correct the deficiencies and resubmit the invoice the following month.

If the revised invoice meets the requirements of Subsection 109.08(b), but still has quantities or unit prices exceeding the corresponding quantities and unit prices shown on the Governments' receiving report, the Government's data for that item of work will be used. The Contractors' invoice, as revised by the Governments' receiving report, will be forwarded for processing by the 23rd day following the closing date. The Contractor will be notified by the 23rd day following the closing date of the reasons for any changes to the invoice.

(b) Invoices received between the 8th and 16th day following the closing date.

(1) Proper invoices. If the invoice meets the requirements of Subsection 109.08(b), and the quantities and unit prices shown on the Contractors' invoice agree with the corresponding

quantities and unit prices shown on the COs' receiving report, the invoice will be deemed proper and forwarded for processing within 7 days of receipt.

(2) Defective invoices. If the invoice does not meet the requirements of Subsection 109.08(b), the invoice will be deemed defective, the Contractor so notified according to FAR Clause 52.232 27(a)(2), and no progress payment will be made that month. Correct the deficiencies and resubmit the invoice the following month.

If the invoice meets the requirements of Subsection 109.08(b), but has quantities or unit prices exceeding the corresponding quantities and unit prices shown on the Governments' receiving report, the Government's data for that item of work will be used. The Contractors' invoice, as revised by the Governments' receiving report, will be forwarded for processing within 7 days after receiving the invoice. The Contractor will be notified, within 7 days of the Government's receipt of the invoice, of the reasons for any changes to the invoice.

(2) Work performed during August.

(a) Proper invoices. If the invoice meets the requirements of Subsection 109.08(b), and the quantities and unit prices shown on the Contractor's invoice agree with the corresponding quantities and unit prices shown on the CO's receiving report, the invoice will be deemed proper and forwarded for processing within 7 days of receipt.

(b) Defective invoices. If the invoice does not meet the requirements of Subsection 109.08(c), the invoice will be deemed defective, the Contractor so notified according to FAR Clause 52.232 27(a)(2), and no progress payment will be made that month. Correct the deficiencies and resubmit the invoice the following month.

If the invoice meets the requirements of Subsection 109.08(b), but has quantities or unit prices exceeding the corresponding quantities and unit prices shown on the Governments' receiving report, the Government's data for that item of work will be used. The Contractors' invoice, as revised by the Governments' receiving report, will be forwarded for processing within 7 days after receiving the invoice. The Contractor will be notified, within 7 days of the Government's receipt of the invoice, of the reasons for any changes to the invoice.

Delete Subsection (f) and substitute the following:

(f) Partial payments. Invoices may include the following:

(1) Progress payments may include partial payment for material to be incorporated in the work, provided the material is delivered on or near the project, or stored in an approved storage location.

Provide test results and material certifications for material when partial payment is requested.

Do not request partial payment for materials that do not meet the contract specifications according to Subsections 106.03 and 106.04 or when the pay factor is less than 0.9 as calculated under Subsection 106.05. Partial payments will not be made for living or perishable material.

(2) Partial payment for preparatory work.

Individual and cumulative partial payments for preparatory work and material will not exceed the lesser of:

- 80 percent of the contract bid price for the item; or
- 100 percent of amount supported by copies of invoices submitted.

The quantity paid will not exceed the corresponding quantity estimated in the contract. Partial payment for preparatory work and material does not constitute acceptance of work.

Submit pay notes according to Subsection 109.01. Provide a cost breakdown of the bid item components and submit invoices or other documents supporting the partial payment.

The CO may adjust partial payments for protection of the Government.

109.09 Final Payment. Add the following after the first paragraph:

Payment for individual pay items will be based on the awarded unit price for each pay item according to the following table.

Table 109-1
Decimal Accuracy of Quantities for Payment

Pay Item	Level of Precision
Linear Foot	1
Exception--Timber, Steel, and concrete Piles	0.1
Station	0.1
Mile	0.01
Square Foot	0.1
Square Yard	0.1
Each	1
Acre	0.01
Gallon	1
M-Gals.	0.1
Cubic Yard	1
Exception--Structure Excavation; Sheathing Materials; Bedding, Bed Course, and Backfill Materials; Gabions;	0.1
Exception--Concrete; Masonry	0.01
Pound	1
Ton	0.1
Exception--Calcium Chloride; Sodium Chloride; Hydrated Lime; Bituminous Materials; Pavements; Bed Course Materials	0.01
Hour	0.1
MFBM	0.01
Station Yard	1
Cubic Yard Mile	1
Ton Mile	1

DIVISION 150
PROJECT REQUIREMENTS

Section 152. — CONSTRUCTION SURVEY AND STAKING

01 APR 2024 – FP-24

Construction Requirements

152.04 General. Delete the text of this Subsection and substitute the following:

Provide a crew supervisor on the project whenever surveying and staking is in progress. Provide survey instruments and supporting equipment capable of achieving the specified tolerances. If approved, construction equipment controlled with a GPS or Robotic Total Station (RTS) machine guidance system may be used in the construction of subgrade, subbase, and base aggregate courses, or other construction operations.

Provide acceptable tools and supplies of the type and quality suitable for highway survey work. Provide stakes and hubs of sufficient length to provide a solid set in the ground with sufficient surface area above ground for necessary legible and durable markings.

Include staking activities in the construction schedule submitted according to Section 155. Include the dates and sequence of each staking activity.

If the contractor establishes additional control, provide the contractor-established control network to the Government for verification.

The Government has set horizontal and vertical control points for the project. The location and identity of each control point are shown on the plans.

(a) Government furnished information. The Government will furnish the design data described below:

(1) Proposed horizontal alignment(s) and profile grade(s) in Portable Document Format (.pdf) and LandXML (.xml) formats;

(2) Cross Sections in Portable Document Format (.pdf);

(3) Earthwork volume report in Portable Document Format (.pdf);

(4) Superelevation report in Portable Document Format (.pdf) or Microsoft Excel (.xlsx) format;

(5) Clearing limits (based on theoretical catch points) in Portable Document Format (.pdf) or Microsoft Excel (.xlsx) format;

(6) Construction staking notes containing points at centerline, shoulders, and theoretical slope stake catch in Portable Document Format (.pdf) or Microsoft Excel (.xlsx) format;

(7) X, Y, Z coordinates of subgrade and base layer(s) points at centerline and shoulders, in Portable Document Format (.pdf) or Microsoft Excel (.xlsx) format;

(8) Proposed finished surface in LandXML (.xml) format;

(9) Proposed subgrade surface in LandXML (.xml) format:

(10) Proposed 3D breaklines in Drawing Exchange Format (.dxf);

(11) Existing ground surface in LandXML (.xml) format; and

(12) Control Point coordinates in Microsoft Excel (.xlsx) format.

Perform additional conversions and calculations as necessary for convenient use of Government-furnished data. The Contractor is responsible for the accuracy of all information converted from the Government-furnished data. Provide immediate notification of apparent errors in the furnished data.

(b) Pre-survey meeting. Before surveying or staking, discuss and coordinate the following with the CO:

(1) Surveying and staking methods;

(2) Stake marking;

(3) Grade control for courses of material;

(4) Referencing;

(5) Structure control;

(6) Field staking data;

(7) Localization of the GPS systems to the Government-established control points; and

(8) Other procedures and controls necessary for the work.

Do not start work until staking or 3D verification data for the affected work has been approved.

Preserve initial reference and control points. Notify the CO of missing control points or stakes at least 10 days before starting construction. Reestablish initial control points and obtain approval before starting construction.

Acceptance of the construction staking does not relieve the Contractor of responsibility for correcting errors discovered during the work and for bearing additional costs associated with the error.

Maintain legibility of stake markings for the duration of the project or until notified in writing the stakes are no longer needed. Replace stakes as necessary to ensure markings are maintained.

Record survey and measurement field data in an approved format. Submit as-staked data and corrections made to the Government-furnished survey data. Submit survey and measurement data at least weekly, while surveys are being conducted.

The construction survey and staking work may be spot-checked for accuracy, and unacceptable portions of work may be rejected. Resurvey rejected work, and correct work that is not within the tolerances specified in Table 152-1.

Remove and dispose of flagging, paint, lath, stakes, and other staking material after the project is complete.

Compute and provide calculations supporting pay quantities. Measure quantities within the tolerances established by the CO according to Section 109.

152.05 Survey and Staking Requirements. Amend as follows:

Section 153. — CONTRACTOR QUALITY CONTROL

01 APR 2024(3)– FP-24

Delete the text of this Section and substitute the following:

Description

153.01 This work consists of planning and implementing a construction quality process to ensure work conforms to the contract requirements. This work also includes quality control (QC) inspection and documentation, process control sampling and testing, obtaining samples for QC testing, and performing QC tests. See FAR Clause 52.246-12 Inspection of Construction.

Construction Requirements

153.02 Qualifications. Provide a QC manager (QCM) with at least three years' experience in areas of material testing, inspection, management, supervision, and QC.

153.03 Quality Control Plan (QCP).

(a) Personnel. Provide a QCM, on-project during work, with authority to stop non-compliant work, or work that results in non-compliance with contract requirements. Submit a letter, from a company officer or official with higher authority than the Superintendent, that authorizes the QCM to stop work.

Identify an alternate, meeting QCM qualifications, to act as QCM in the QCM's absence. Do not use an alternate as the QCM for more than three (3) days unless approved by the CO.

At least 14 days before starting work, submit names and qualifications of the QCM, and any alternate being used on the project. Do not use QC personnel that have not been approved by the CO.

At the preconstruction conference, submit a cost breakdown of the individual items included in the lump sum.

(b) Development. At least 14-days before starting a work feature, develop and submit a QCP for each work feature listed below, to be approved by the CO. The absence of a plan does not relieve the Contractor of complying with the contract requirements. Additional QCPs, and/or activities, may be required to provide effective quality management. The CO may request a QCP for additional work features that are not listed below.

(1) Control of Material (Section 105);

(2) Construction Survey and Staking (Section 152);

(3) Soil Erosion and Sediment Control (Section 157);

(4) Clearing and Grubbing (Section 201);

(5) Removal of Structures and Obstructions (Section 203);

(6) Excavation and Embankment (Section 204);

(7) Rock Blasting; (Section 205);

(8) Earthwork Geosynthetics (Section 207);

(9) Structure Excavation and Backfill (Sections 208, 209);

(10) Roadway Obliteration (Section 211);

(11) Linear Grading (Section 212);

(12) Subgrade Stabilization (Section 213);

(13) Riprap (Section 251);

(14) Rockery, Special Rock Embankment, and Rock Buttress (Section 252);

(15) Recycled Asphalt Base (Section 310);

(16) Asphalt Concrete (Sections 401, 403);

(17) Concrete, Steel, and Timber Structures (Sections 552, 553, 554, 555, 557, 563, 564);

(18) Drainage Structures (Section 602, 604, 605, 608);

(19) Minor Structures (Sections 609, 615);

(20) Stone Masonry (Sections 620);

(21) Topsoil and Turf Establishment (Sections 624, 625);

(22) Permanent Traffic Control (Section 633, 634);

(23) Temporary Traffic Control (Sections 156, 635); and

(24) Signal, Lighting, and Electrical Systems (Section 636).

Provide a QCP for each work feature in a format approved by the CO.

Include process control sampling and testing in the QCP. Perform process control sampling and testing according to Subsection 153.05 and the QCP.

153.04 Prosecution of Work. Complete the following:

(a) Preparatory and Start-up Phase. Thoroughly address the following activities (1 through 3) for each work feature, and denote in the plan the person/position performing each activity.

(1) Check and verify that submittals, plans, and materials certifications meet contract requirements, then submit these documents at least 7 days before installation unless otherwise stated in the contract. Certify compliance by completing and signing Form WFLHD-87. An electronic version of the form is available at:

https://highways.dot.gov/federal-lands/construction/forms-wfl.

(2) Conduct pre-work meetings. Review contract requirements with the construction crew, foremen, and Government personnel before beginning work. Conduct additional pre-work meetings as necessary and when crew(s) change.

(3) Ensure construction methods will result in end-products meeting contract requirements.

Include the following in the plan for applicable work features:

(a) A brief narrative of how the work will be accomplished describing the methods, crews, and equipment.

(b) The process to ensure the completed feature of work conforms to contract requirements.

(c) The inspection and testing frequency to ensure the process remains valid or work is being performed according to the established process.

(d) The action(s) to be taken and alterations to the inspection and testing frequency, if inspection or testing reveals the work is not meeting contract requirements.

Revise QC plans when personnel, activities, or processes change or when deficiencies occur in the work.

(b) Implementation. Implement QC activities as described in the accepted plan. Do not begin a work feature until the plan is approved by the CO and a pre-work meeting (activity 2) is performed. In the QC Reports described below, document when each activity (1 through 3) was performed, and by whom.

(1) QC Reports. Report the results of QC inspections that verify the work meets contract requirements as QC activities are performed. Describe the results of reviews, inspections, measurements, and testing activities. Attach original support data and test results. Document QC pre-work meetings, and discussions with the construction staff and Government personnel. Document deficiencies found in the work and describe corrective actions, adjustments to frequency of QC activities, and method or process changes to correct and eliminate future deficiencies. Provide reports to the CO daily or as otherwise approved. Include the following certification signed by the QCM:

"I certify that the information contained in this record is accurate and that work documented herein complies with the contract. Exceptions to this certification are documented as a part of this record."

(2) Notification of Completion of Work. Submit a completed *"Notification of Completion of Work"* (Form WFLHD 470) when the phase of work listed below is ready for inspection. An electronic version of WFLHD 470 is available at:

https://highways.dot.gov/federal-lands/construction/forms-wfl.

Allow 1 working day for the following work to be inspected.

(a) Survey and staking (field stakes and notes). Provide survey notes for the following:

(1) Control points – before disturbing original control points;

(2) Clearing limits – before starting clearing and grubbing operations;

(3) Slope stakes – before clearing operations or topsoil removal;

(4) Subexcavation – after staking and prior to backfilling;

(5) Box Culvert – before starting work on each component;

(b) Construction work.

(1) Erosion control devices – prior to any ground disturbing activities;

(2) Any pavement structure layer requiring hubs – before placing next layer;

(3) Structural excavation – before backfilling;

(4) Forms and reinforcing steel – before placing concrete; and

The CO may request submission of a form WFLHD 470 for worked not specifically listed in this subsection, or may not require a form for the listed work.

153.05 Sampling and Testing. Perform process control sampling and testing according to the *Sampling, Testing, and Acceptance Requirements* table included at the end of each Section.

Perform QC sampling and testing as defined in the QCP.

Allow the CO the opportunity to witness all sampling and/or testing. When requested, sample and split QC samples according to AASHTO or other acceptable procedures. Immediately perform splits when required. Deliver and label split QC samples according to Subsection 154.03.

Provide the following documentation:

(a) Test Results. Label test results with the same information required by Subsection 154.03. Attach work sheets, used to determine test values, to the test result forms when submitted.

(b) Control Charts. Maintain linear control charts identifying project number and name; pay item number; test number; each test parameter; upper and/or lower specification limits applicable to each test parameter; and test results. Use control charts to document process variability; identify production and equipment problems; and identify potential pay factor adjustments. Correct processes when problems exist. Post charts at the Contractor's project testing lab and on site.

153.06 Acceptance. Contractor QC will be evaluated under Subsections 106.02 and 106.04 based on the demonstrated ability of the Contractor's QC system to ensure that work meets the contract requirements.

If Government testing and inspections (quality assurance) indicate the Contractor's QC system is ineffective or the plans are not being followed; make immediate improvements to correct inadequacies. Submit written notifications of improvements and modifications to the system.

A maximum of 10 percent of the total progress payment amount will be retained and affected project work may be stopped if a QCP is not accepted, the plan is not being followed, or work does not meet contract requirements.

Measurement

153.07 Measure the Section 153 items listed in the bid schedule according to Subsection 109.02.

Payment

153.08 The accepted quantities, measured as provided in Subsection 109.02 and above, will be paid at the contract price per unit of measurement for the Section 153 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

Payment for the lump sum item will be prorated based on the work completed for this Section.

Section 154. — CONTRACTOR SAMPLING AND TESTING

01 APR 2024 – FP-24

Construction Requirements

154.02 General. Amend as follows:

Delete the first paragraph and substitute the following:

Sample and test material according to the Sampling, Testing, and Acceptance Requirements tables included at the end of each Section. Provide testers conforming to Subsection 153.02. Perform additional sampling and testing as directed if material does not meet requirements.

Add the following to the second paragraph:

Provide representative samples according to the individual Sections ordering the work.

154.03 Sampling. Add the following:

When samples are required send to:

Lane County Materials Laboratory
Public Works – Engineering & Construction Services
3040 N Delta Highway
Eugene, Oregon 97408
ecs-materials@lanecountyor.gov

Deliveries will be accepted from 7:00 a.m. to 3:30 p.m. PT, Monday through Friday, except holidays.

The sampling frequencies and reporting times are listed in the Sampling, Testing, and Acceptance Requirements tables included at the end of each Section.

Section 155. — SCHEDULES FOR CONSTRUCTION CONTRACTS

01 APR 2024(2)– FP-24

Delete Section 155 in its entirety

Delete Section 155 in its entirety

Measurement

Section 156. — PUBLIC TRAFFIC

01 APR 2024 – FP-24

Construction Requirements

156.02 Qualifications. Delete the text of this Subsection and substitute the following:

Provide a traffic control supervisor certified by the Oregon Department of Transportation. At least 30 days before starting work, submit documentation of appropriate certifications for approval.

156.03 Accommodating Traffic During Work. Add the following:

Accommodate traffic according to MUTCD, approved traffic control plan and this section. Perform work in a manner that ensures safety and convenience of the public. Unless otherwise provided for in Table 156-1, keep existing roads open to all traffic during road improvement work, and maintain them in a condition that will adequately accommodate traffic. Delays may not exceed 20 minutes at any one time followed by an open period of no less than 5 minutes. Accommodate public traffic on roads adjacent to and within the project until the project is accepted according to Subsection 106.06(b).

Table 156-1
Temporary Road Closures

Road Number	From Terminus	To Terminus	Maximum Consecutive Days of Closure	Minimum Consecutive Days Open
345500	Junction with Horton Road	Junction with Vandee Road	60 days	N/A

156.08 Traffic Control Supervisor. Add the following:

(k) Transport personnel, construction signs, barricades, drums, cones, tubular markers, and other traffic control devices.

Section 157. — SOIL EROSION AND SEDIMENT CONTROL

01 APR 2024(1) – FP-24

Construction Requirements

157.04 General. Delete Subsection 157.04 and substitute with the following:

Provide and construct permanent and temporary soil erosion and sediment control measures according to the plans, contract permits, Section 107, and this Section. Contract permits amend the requirements of this Section. Do not modify the type, size, or location of measures or practices without approval. Provide and install permanent and temporary measures to control erosion, sedimentation, and discharge of pollutants, according to the state the project Erosion and Sediment Control Plan (ESCP) of record, and this contract.

Provide an ECS to manage installation, maintenance, inspection, and reporting for erosion and sediment control measures, maintain and update the ESCP of record, and prepare any documentation required by the construction storm water permit or the ESCP. Furnish the ECS's name, project office address, 24-hour telephone number(s), and qualifications at the preconstruction conference.

If soil erosion and sediment control measures are not functioning as intended, take corrective action to eliminate or minimize pollutants in stormwater discharges from the project.

Immediately report to the CO any incident of non-compliance with the construction storm water permit that may endanger health or the environment. Provide copies of any correspondence or reports required by either the construction storm water permit or the ESCP.

Thirty (30) days prior to the start of construction, submit a written plan according to subsection 104.03 with all necessary permits that provides permanent and temporary erosion control measures to minimize erosion and sedimentation during and after construction. Do not begin work until the necessary controls for that particular phase of work have been implemented. Do not modify the type, size, or location of any control without approval.

When erosion control measures are not functioning as intended, take corrective action to eliminate or minimize pollutants in storm water discharges from the project.

157.05 Controls and Limitations on Work. Delete this Subsection and substitute the following:

(a) Install all sediment perimeter control measures prior to clearing, grubbing, and grading activities. Install additional erosion and sediment control measures as needed during construction.

(b) Before conducting land clearing and disturbance, mark all clearing limits in the field. Mark trees, wetlands, sensitive areas, and buffer zones for preservation as shown on the plans. Preserve existing vegetation wherever possible.

(c) Stabilize and maintain construction access points between unpaved and paved sites to minimize tracking of mud and dirt onto public roads. Remove sediment that has been tracked-out from the site by the end of the same day it is identified.

(d) Phase construction activities to minimize the amount and duration of soil exposed to erosion. Establish final grade as soon as practicable and apply temporary or permanent soil stabilization measures. Limit the combined grubbing, grading, excavating, borrow, and fill within the construction limits to 5 acres of exposed soil at one time.

(e) Divert runoff around exposed soils.

(f) Commence temporary or permanent soil stabilization measures immediately if no further disturbance of an area of the site or stockpile is expected within the next 14 days. Complete installation of temporary soil stabilization measures to disturbed sites or stockpiles within 14 days and installation of permanent soil stabilization measures within 7 days of last disturbance. Provide for temporary stabilization of all exposed soil prior to winter construction shut down.

(g) Construct and maintain perimeter protection and locate erodible stockpiles away from storm drain inlets, waterways, and drainage channels. Locate stockpiles outside of natural buffers.

(h) Stabilize or cover stockpiles at the end of the workday and before extended breaks in construction if a storm event is forecasted that may result in discharge from the site or if wind speeds greater than 10 miles per hour are forecasted.

(i) Handle and dispose of all pollutants, including construction materials, waste materials, and construction debris, in a manner that does not cause contamination of storm water. Provide containers with lids or provide a cover (e.g., tarp, plastic sheeting) to prevent exposure to precipitation.

(j) Cover all sediment loads prior to leaving the construction site. If transporting saturated soils, use water-tight trucks or drain loads on site.

(k) Apply fertilizers and other chemicals in a manner and at application rates that will not result in loss of chemicals to storm water runoff. Follow manufacturers label requirements except as otherwise required by the contract.

(l) Do not discharge concrete wastewater near or into waterways or wetlands. Submit proposed washout areas for approval. Direct concrete wastewater into an impermeable-lined pit or leak-proof container sufficiently sized to avoid overflows.

(m) Remove accumulated sediment adjacent to inlet protection measures by the end of the same day it is identified, or by the end of the following day if removal the same day is not feasible.

(n) Remove sediment that leaves the site. Place sediment back on site and stabilize or dispose of sediment within 24 hours. Prevent further discharge of sediment from the site and complete a corrective action report.

157.14 Inspection and Reporting. Delete this Subsection and substitute the following:

(a) Inspect the following areas of the project:

(1) All areas where soil has been disturbed and that has not been permanently stabilized;

(2) All erosion and sediment control measures and pollution prevention measures;

(3) Government-provided material, waste, borrow, staging and maintenance areas;

(4) All areas where storm water typically flows within the site;

(5) All points of storm water discharge from the site; and

(6) All locations where temporary stabilization measures have been implemented.

(b) Conduct an inspection the first day that construction activities begin.

(c) Inspect all erosion and sediment control measures once every 14 days and within 24 hours of a storm event that results in discharge from the site, or when there is runoff from snowmelt sufficient to cause a discharge. If no discharge occurred within 24 hours of a storm event, then document that no discharge from the site has occurred.

Document the day that construction activities are completed in portions of the site or portions that will be temporarily inactive for 14 days and identify the location on site in the inspection report.

Submit completed inspection reports within 24-hours of performing an inspection.

(d) Inspections may be temporarily reduced or suspended in accordance with the the following conditions:

(1) Inspections may be temporarily reduced to once every 14 days for the first month and then once per month, when construction is temporarily inactive for a period of greater than 14 days and if all disturbed areas have been either permanently or temporarily stabilized.

(2) For linear construction sites, portions of the project that have final stabilization measures implemented, inspections may be reduced to once every 14 days for the first month and then once more within 24 hours of any storm event leading to discharge from the site. If no issues or evidence of stabilization problems, inspections may be discontinued in the stabilized area.

(3) If the project is suspending construction activities due to frozen conditions, inspections may be suspended if all disturbed areas have been stabilized and only if discharges are unlikely due to

continuous frozen conditions. If unexpected weather conditions occur that may result in discharges from the site, immediately resume inspections.

(4) If an inspection is not possible due to adverse weather conditions, a delayed inspection must occur once the site is accessible.

Document the reason for the reduction in inspection frequency and locations (if applicable) in the ESCP. Resume the normal inspection schedule once construction activities resume and/or the site is accessible.

(e) Identify all water quality sampling locations in the ESCP and record sampling results in the inspection forms. Conduct water quality sampling at all locations where construction stormwater runoff is entering a surface water.

(f) Visually monitor all points where stormwater is discharged into a receiving water, constructed or natural site drainage feature, or storm drain inlet. If there is visible turbidity or a sheen in the discharge, stop all earth disturbing construction activities, notify CO immediately, and conduct turbidity sampling.

(g) If there is visible turbidity or a sheen in the discharge, conduct turbidity sampling using a calibrated turbidity meter. Calibrate prior to sampling and on the same day of sampling.

Conduct turbidity sampling as follows using a calibrated turbidity meter and record in a daily log the date, time, location and turbidity levels at each monitoring location:

(1) Background location. Collect a sample at a relatively undisturbed location, approximately 100 feet up current from the disturbing activity and/or stormwater discharge location.

(2) Discharge location. Collect a sample at the point where stormwater runoff enters the surface water.

If turbidity as measured in Nephelometric Turbidity unit (NTU) is no more than 10 percent higher compared to the background location sample taken upstream, no further monitoring is required.

If turbidity exceeds 10 percent of background, stop all earth disturbing construction activities and notify CO immediately. Take immediate action to address the cause of exceedance. Once monitoring results show turbidity is no more than a 10 percent increase of the background NTU, construction activities can resume.

Submit completed monitoring reports within 24-hours of performing turbidity monitoring.

157.15 Maintenance and Cleanup. Delete this Subsection and substitute the following:

(a) Maintain the functionality of erosion and sediment control measures, and clean measures that are one-third full of sediment, until final acceptance or until disturbed sites are stabilized according to the CO. Remove and dispose accumulated sediment according to Subsection 204.14.

(b) Corrective action is required for any of the following reasons:

(1) Discharges are causing an exceedance of water quality standards or there is visible turbidity in surface waters or a conveyance system leading to surface waters.

(2) An erosion and sediment control device necessary was not installed or installed incorrectly.

(3) A prohibited discharge has occurred.

(c) Implement maintenance of erosion and sediment control devices or other corrective action within the following time requirements:

(1) Begin maintenance of erosion and sediment control devices within 24 hours of discovery and complete as soon as possible but no later than 7 days from time of discovery. Revise the ESCP if required.

(2) Begin corrective action immediately and complete within 24 hours of discovery. If infeasible to implement corrective action within 24 hours, document reasons in the corrective action log in the ESCP and identify the schedule for repair. Make revisions to the ESCP and document the corrective action in the Corrective Action Log in the ESCP within 24 hours of completing and provide a copy to the CO for approval.

(d) Include the following information in the Corrective Action Log:

(1) Project Name;

(2) A description of the noncompliance, including date and time of discovery and cause of noncompliance;

(3) Identification of discharge locations that were out of compliance;

(4) Photos of the discharge before and after corrective action(s) implementation;

(5) Timeline of corrective action events, including period of noncompliance, and steps taken to reduce, eliminate and prevent recurrence of the noncompliance;

(6) Names, titles and contact information of personnel conducting inspections; and

(7) Weather conditions that varied from predicted storm events.

(e) Upon approval, remove and dispose of erosion and sediment control devices and structures according to Subsections 203.05 and 203.07. Restore the ground to its natural or intended condition and provide permanent erosion control measures.

157.16 Acceptance. Delete the first paragraph and substitute the following:

Material for erosion and sediment control measures will be evaluated under Subsections 106.02 and 106.03. Do not provide a copy of the certifications for erosion and sediment control materials to the CO, unless otherwise directed by the CO.

DIVISION 200
EARTHWORK

Section 201. — CLEARING AND GRUBBING

01 APR 2024 – FP-24

Measurement

201.08. Delete the second paragraph and substitute the following:

Do not make deductions from the area computation unless excluded areas are designated in the contract.

Where the new construction follows the existing road, exclude that portion of the old roadbed within the clearing and grubbing limits from the measurement area.

Exclude from the measurement area any body of water and non-vegetated portions of its shoreline within the clearing and grubbing limits.

Section 204. — EXCAVATION AND EMBANKMENT

01 APR 2024 – FP-24

204.07 Subexcavation Add the following:

See UNT Pipe Arch Plan, Profile, and Section sheet in Plans for excavation requirements.

204.14 Disposal of Unsuitable or Excess Material. Add the following:

Dispose of unsuitable or excess material at an approved site at the contractor's expense.

Section 209. — STRUCTURE EXCAVATION AND BACKFILL

01 APR 2024 – FP-24

Construction Requirements

209.06 Dewatering. Delete the text of this Subsection and substitute the following:

Construct stream diversion according to Section 628 – Temporary Stream Diversions. If dewatering is necessary, dewater according to Subsection 208.07.

Section 211. — ROADWAY OBLITERATION

01 APR 2024 – FP-24

Description

211.01. Add the following to the end of the subsection:

This work also includes obliterating, decompacting, and decommissioning the existing trail as shown on plans following Roadway Obliteration Method 1 per subsection 211.02. The existing trail shall be ripped to a minimum depth of 18 inches and recontoured to leave an undulating and hummocky finished surface grade.

DIVISION 300
AGGREGATE AND BASE COURSES

Section 302. —CRUSHED AGGREGATE

01 APR 2024 – FP-24

Delete Table 302-1 and substitute the following:

Table 302-1
Sampling, Testing, and Acceptance Requirements

Material or Product (Subsection)	Type of Acceptance (Subsection)	Characteristic	Category	Test Methods Specifications	Sampling Frequency	Point of Sampling	Split Sample	Reporting Time	Remarks
Production									
Crushed aggregate	Measured and tested for conformance (106.04)	Moisture-density	–	AASHTO T 180 Method D [1]	1 per aggregate supplied	Stockpile or production output	No	14 days before use	Not required for shoulder finishing
		Density	–	AASHTO T 310 or other approved procedures	1 per 1500 SQYD per lift	In-place after compaction	"	End of shift	For Method 2 compaction only
Crushed aggregate	Process control (153.03)	Moisture content (in-place)	–	"	"	"	"	"	Not required for shoulder finishing
Finished Product									
Crushed aggregate	Measured and tested for conformance (106.04)	Surface tolerance & grade	–	Subsection 301.06	Determined by the CO	Surface of final course	No	Before placement of next lift or as requested	–

[1] Minimum of 5 points per proctor.

DIVISION 550
BRIDGE CONSTRUCTION

Section 552. — STRUCTURAL CONCRETE

01 APR 2024 – FP-24

552.06 Quality Control of Mix. Add the following:

(d) Curing and Shipping. Provide the appropriate initial curing of concrete cylinders taken for compressive strength testing, and transport the cylinders to the Lane County Laboratory according to Subsection 154.03. Cylinders will be tested at 7, 14, and 28 days from the date molded.

552.18 Acceptance. Add the following to Table 552-10 Note (2):

Transportation of specimens to laboratory may exceed time limits specified in AASHTO T 23.

DIVISION 600
INCIDENTAL CONSTRUCTION

Section 602. — CULVERTS AND DRAINS

01 APR 2024 – FP-24

Construction Requirements

602.04 Laying Concrete Pipe and Precast Concrete Box Culverts. Amend as follows:

Delete paragraph (b)(2) and substitute the following:

> **(2)** Align the pipe sections. Force the joints home using the pipe manufacturer's recommended procedure. Do not drive or ram by hand or machinery.

Delete the last paragraph and substitute the following:

Use supplemental concrete pipe ties when laying concrete pipe in grades 5 percent or steeper. Install supplemental concrete pipe ties on the last downstream pipe-to-pipe joint and at the downstream pipe-to-end section joint, if present. Block the last day's run to prevent creep.

Section 603. — STRUCTURAL PLATE STRUCTURES

01 APR 2024 – FP-24

Add the following:

603.02(a) Shop Drawings. Submit drawings and supporting calculations that bear the seal and signature of a professional engineer proficient in the applicable design field to the owner for approval within 4 weeks of notice to proceed. The contractor shall be responsible for verification of all field dimensions prior to fabrication.

603.02(b) Fabrication and Quality Control. Final manufacturing processes including corrugating, punching, curving, special fabrication and optional zinc priming shall be performed in the United States of America at a common location. All raw materials shall be traceable and certified by the mill for material composition and physical properties.

603.04 Erecting. Add the following:

See Section 204.07 for UNT structure excavation requirements.

Follow manufacturer's construction recommendations. See UNT Pipe Arch Detail sheet in Plans for general construction notes. Where these two conflict, manufacturer's construction recommendations shall govern.

SECTION 609. — CURB AND GUTTER

609.11. Add the following:

Curb endings will be included in the measured length of the curb.

Section 625. — TURF ESTABLISHMENT

01 APR 2024 – FP-24

Construction Requirements

625.03 General. Delete this Subsection and substitute the following:

Apply turf establishment to finished slopes and ditches between September 1 and October 15. Do not apply turf establishment during windy weather or when the ground is excessively wet, frozen, snow covered, extremely dry, cloddy, hard pan, or not friable.

625.07 Seeding. Add the following to Subsection (b):

Apply the seed at the rate of 400 pounds of pure live live seed per acre.

Section 626. — PLANTS, TREES, SHRUBS, VINES, AND GROUND COVERS

01 JUL 2024– FP-24

626.07(d) Live Pole Bundles. Delete this Subsection and substitute the following:

Live Pole Bundles shall be made of the plant materials (species and size) shown on the plans. Each live pole bundle shall be comprised of six individual poles lashed together by coir twine. Each live bole bundle is considered one plant. The intent is that at least one pole of each bundle survives. The other five poles are intended to be protection from rock placement damage.

626.09(d) Watering. Add the following:

Submit a watering plan discussing the watering system components and how it will be implemented, including flow rates and duration.

Live Pole Bundles shall be watered once a week at a rate of 2 gallons/hour, totaling 1-inch of water. Frequency may be reduced to once a week at a rate of 1 gallon/hour; totaling 1-inch of water by using time released watering systems as approved by the Engineer. Watering shall start the day that the first Live Pole Bundles are installed and end when the precipitation rate matches 1-inch per week for 2 consecutive weeks or until October 31, whichever comes first.

Include watering on the look-ahead schedule per 155.11 and the Contractor's Daily Record of Construction Operations per 155.12.Water may not be sourced from the Creek. Provide a suitable source for regular watering on site.

Measurement

626.15 Measurement - No measurement of quantities will be made for Work performed under this Section.

Payment

626.16 Payment - No separate or additional payment will be made for Work performed under this Section. Payment will be included in payment made for the appropriate items under which this Work is required.

Section 628. — TEMPORARY STREAM DIVERSIONS

01 JUL 2024– FP-24

628.05(d) Bypass pumping diversion. Delete the third sentence and substitute the following:

Place a mesh screen over the intake with a maximum mesh size of $^{3}/_{32}$ inch.

Section 633. — PERMANENT TRAFFIC CONTROL

01 APR 2024 – FP-24

Construction Requirements

633.04 Sign Posts. Add the following:

Fabricate sign posts from galvanized steel.

Section 635. — TEMPORARY TRAFFIC CONTROL

01 APR 2024 – FP-24

Construction Requirements

635.07 Construction Signs. Delete this Subsection and substitute the following:

Roll-up signs may be used instead of panels when in place for less than 48 consecutive hours.

Furnish posts conforming to Subsection 718.04, except wood posts may be untreated. Install posts according to Subsection 633.04. Portable sign supports may be used instead of sign posts when approved.

Remove or completely cover unnecessary signs.

635.25 Acceptance. Delete the first paragraph and substitute the following:

Material for temporary traffic control devices will be evaluated under Subsections 106.02 and 106.03. Do not provide a copy of the certifications for temporary traffic control materials to the CO, unless otherwise directed.

Section 647. — ENVIRONMENTAL DESIGN (ADDED SECTION)

01 APR 2024 – FP-24

Description

647.01 General. This work consists of constructing waterway enhancements such as fish rocks, large woody material, streambed simulation material, and other types of waterway items as shown or directed.

Material

647.02 Conform to the following subsections:

Live Pole Bundles	626.07(d)
Rip-Rap	705.02
Engineered Streambed Material	726.01
Fish Passage Boulders	726.02
Large Woody Debris	726.03
Filter Rock	705.08

647.03 Definitions.

(a) Filter Rock Blanket – A 6-inch deep layer of 4”-0 filter rock meeting the requirements of 705.08 placed under vegetated riprap as shown on the plans.

(b) Vegetated Riprap – Class 2 riprap placed per plan with live pole bundles according to 626.07(d) and the plans.

(c) Bank Rock -Class 2 Riprap placed on the stream bank as show on the plans.

(d) Fish Passage Boulders - Provide 400 pound to 800 pound size, hard, durable, angular shaped Rock (approximately 20 to 24 inch diameter) according to 726.02. Furnish a single Rock with a thickness of not less than one-third its length. Round Rock, nondurable Rock, shale, or Rock with shale seams will not be accepted.

647.03 Streambed Simulation Material.

Provide a streambed material mixture as detailed on the plans. **Construction Requirements**

647.04 Pre-Work Meeting.

Attend a pre-work meeting at the Project Site with the Engineer, at a mutually agreed upon time, at least 8 Calendar Days prior to implementation of any waterway enhancement work. Required attendees include:

- Contracting Officer
- Engineer of Record
- Contractor
- Waterway Enhancement Subcontractor (if applicable)
- Lane County Environmental Coordinator
- Lane County Hydraulics Designer

Representatives from interested permitting agencies will be invited by the Agency.

The pre-work meeting agenda typically includes the methods of accomplishing all phases of the waterway enhancement work, including:

- temporary stream diversion (TSD)

- fish salvage plan and strategy
- environmental risks discussion
- turbidity monitoring
- energy dissipation
- dewatering and re-watering plan and strategy
- existing streambed material salvage (if applicable)
- site clean-up expectations
- circumstances under which contacting the Engineer of Record is required

Notify Lane County seven (7) days prior to start of environmental work so they can be onsite.

647.05 Dewatering. Dewatering or temporary stream diversion is required for all work below the regulator ordinary high water indicated on the plans.. Dewater according to Sections 157, 208 and 628.. The plans indicate a potential dewatering approach, contractor to submit a proposed temporary stream diversion plan prior to site mobilization per 628 . Customize dewatering to the site depending on flow, ground water depths at the time of installation, terrain configuration, and culvert embedment depths.

Allow the Agency to relocate fish contained within dewatered reach before the site is completely dewatered. Fish will be relocated in the closest pool upstream of the construction zone.

Maintain the dewatering operations to ensure the turbidity return flow does not exceed water quality standards. Water from the construction site may require additional filtration to prevent turbid water from directly entering the stream. Cease operations when turbidity exceeds State water quality standards and place additional erosion control measures as required.

647.06 Equipment Operations. An oil spill containment kit is required on each job site when working in and around water. Composition of the kit is dependent on the job; determine contents of the kit as needed for each job. At a minimum, include tarps and oil-absorbent pads.

Do not drive metal track equipment directly on metal or concrete structure surfaces. Place a layer of streambed mix material on the structure bottom before operating metal track equipment directly on metal or concrete structure surfaces.

Do not drive metal track equipment directly on metal or concrete structure surfaces. Place a layer of streambed mix material on the structure bottom before operating metal track equipment directly on metal or concrete structure surfaces.

647.07 Excavation. Control excavated material to minimize disturbance to the adjacent channel and banks.

647.08 Rock Removal.

Remove bedrock encountered during excavation to the lines and grades required in the contract. Remove rock by either mechanical means with hydraulic impact hammers or by ripping rock as required.

647.09 Construction of Stream Bed.

(a) General. Begin construction from the downstream end and work upstream unless otherwise approved by the CO. Install materials per construction notes shown on the plans for each culvert.

(b) Large Woody Debris. Wood habitats structures shall be installed as shown on the Plans. The Contractor shall vary the plan view orientation of the logs within the limits shown and as directed by the CO or Engineer. Contractor shall construct each structure using the number and size of logs per each structure as shown in the Plans. The Contractor shall install and position the logs to the satisfaction of the Engineer prior to the backfill of excavation required to achieve minimum embedment and burial.

Wood habitat structures shall be installed after final grades have been met and prior to final surface preparation and seeding. Backfill wood habitat structures with compacted native floodplain soils. Top dress finish grades with native topsoils as shown and/or directed.

Install two pier logs per each single log to resist movement during high flows. All pier logs shall be driven at a 15 to 45 degree angle from vertical towards logs to resist floatation or rotation of the adjacent log. Ensure log-to-log contact between pier logs and adjacent logs. Reposition logs and redrive pier logs if necessary, to achieve log-to-log contact. Tops of pier logs shall extend a minimum of 1.5 feet and maximum of 3 feet above the tops of adjacent log to ensure adequate overlap.

Visible log ends shall be broken or cut in a manner that does not compromise the integrity of the log or prevent adequate overlapping. Ends may be broken prior to installation.

(c) Fish Passage Boulders. Place fish passage boulders as shown or as directed. Bury fish passage boulders a minimum of 50% into the engineered streambed materials.

(d) Large Material. Place larger materials as shown on the plans using methods that do not cause segregation or damage to the prepared surface. Place or rearrange material to obtain a uniformly dense, compact, low permeability mass, matching streambed simulation details. Fill voids by machine or hand tamping before placing the next lift. Compact streambed materials with mechanical hand tampers or excavator bucket or vibratory plate compactor attachment.

Material must not be placed within the bankfull width of the stream. Riprap may only be placed below bankfull height when necessary for protection of abutments and pilings as directed.

(e) Fine Material. Fill all voids left during placement of large material, boulders, steps, ribs, banks and streambed materials adjacent to footings, concrete structures or corrugated pipes with streambed sediment. Use water pressure, metal tamping rods, and similar hand operated equipment to force streambed sediment material into all surface and subsurface voids between the structure and rocks, and between individual rocks. Ensure the streambed is sealed to limit permeability.

647.11 Rewatering. Conduct rewatering activities to minimize sediment movement downstream of the site upon completion of instream work. Prior to rerouting stream flow into the new channel, rinse the surface of the streambed to removed fine-grained sediment. After the initial sediment pulse is removed, slowly breach the diversion dams to avoid a large pulse of water being sent through the newly constructed channel.

647.12 Acceptance. Environmental design material will be evaluated under Subsections 106.02 and 106.04.

Measurement

647.13 Measure the Section 647 pay items listed in the bid schedule according to Subsection 109.02.

Payment

647.14 The accepted quantities will be paid at the contract price per unit of measurement for the Section 647 pay items listed in the bid schedule. Payment will be full compensation for the work prescribed in this Section. See Subsection 109.05.

DIVISION 700
MATERIAL

Section 703. — AGGREGATE

01 JUL 2024 – FP-24

703.05 Subbase, Base, and Surface Course Aggregate. Amend as follows:

Add the following to Subsection (a):

(7) Accelerated weathering of aggregate by use of Dimethyl Sulfoxide (DMSO), WFLHD Standard Test Method 12% maximum

Add the following to Subsection (b):

(3) SEP (SE/P200) (SE/P75 Index) 1.000 min.

Section 705. — ROCK

01 APR 2024 – FP-24

705.08 Filter Rock. Delete Table 705-04 and substitute the following:

Table 705-4
Gradation Requirements for Filter Rock

Percent of Rock by Mass	Range of Intermediate Dimensions (1)	Range of Rock Mass, pounds (2)
20	3-5	2.6 to 12
30	2-3	0.8 to 2.6
50	1-2	0.4 to 0.8

(1) The intermediate dimension is the longest straight-line distance across the rock that is perpendicular to the rock's longest axis on the rock face with the largest projection plane.

(2) Rock mass is based on a specific gravity of 2.65.

Section 707. — METAL PIPE

707.06 Aluminum-Alloy Structural Plate Structures. Add the following:

This specification covers the design, manufacturing and installation of the corrugated aluminum structural plate structure detailed in the plans.

(a) Qualified Suppliers. The aluminum-alloy Corrugated Pipe shall be obtained from an approved one of the following preapproved manufacturers:

Contech Engineered Solutions LLC
12901 SE 97th Ave #400, Clackamas, OR 97015
503 240 3393

Pacific Corrugated Pipe Co
89822 State Hwy 99 N, Eugene, OR 97402
541 461 0990

(b) Alternate Suppliers. Suppliers other than those listed above may be used provided the owner's agent evaluates the proposed supplier and approves the supplier.

Proposed alternate suppliers must have at least fifteen (15) years of experience designing these types of structures and a minimum of fifteen (15) successful projects, of similar shape and construction methods, each of which has been in service at least three (3) years.

Submit the following information for review by the Agency per submittal review schedule in 603.02:

- Product Literature
- All documentation to ensure substitution will be in compliance with the contract requirements.
- Project specific representative drawings for bridge projects listed above with material, complete design calculations and design specification references.

The owner's agent will evaluate and verify the accuracy of the submittal prior to bid. If the owner's agent determines that the qualifying criteria have not been met, the contractor's proposed supplier shall be rejected. This ruling shall be final.

(c) Aluminum Structural Plate. Aluminum Structural Plate shall consist of plate, ribs and appurtenant items as shown on the plans and shall conform to the requirements of AASHTO M219 or ASTM B746 and the following tables:

ALUMINUM STRUCTURAL PLATE 9x2-1/2 Corrugated Plate Section Properties				
Nominal Thickness (in)	Moment of Inertia (in^4/ft)	Section Modulus (in^3/ft)	Radius of Gyration (in)	Area of Section (in^2/ft)
*0.100	0.997	0.767	0.844	1.404
0.125	1.248	0.951	0.844	1.750
0.150	1.499	1.131	0.845	2.100
0.175	1.751	1.309	0.845	2.449

0.200	2.004	1.484	0.846	2.799
0.225	2.258	1.657	0.847	3.149
0.250	2.513	1.828	0.847	3.501

*0.100 inch thick plate shall be used for un-curved elements only.

ALUMINUM STRUCTURAL PLATE RIB Composite Section Properties						
Metal Thickness (inches)						
Rib Type @ Spacing	0.125	0.150	0.175	0.200	0.225	0.250
Plastic Moment Capacity, Mp (kip-ft/ft)						
No Rib	2.65	3.18	3.71	4.24	4.77	5.30
Type II @ 54	4.62	5.46	6.04	6.61	7.17	7.74
@ 27	6.18	7.25	7.94	8.60	9.25	9.87
@ 18	7.41	8.66	9.48	10.26	11.00	11.71
@ 9	10.63	12.13	13.08	14.05	15.03	16.02
Type IV @ 54	5.87	6.82	7.43	8.04	8.63	9.21
@ 27	8.32	9.59	10.39	11.14	11.85	12.55
@ 18	10.42	11.90	12.84	13.72	14.57	15.39
@ 9	16.45	18.46	19.41	20.38	21.37	22.37
Type VI @ 54	8.74	9.51	10.24	10.95	11.64	12.32
@ 27	13.76	14.33	15.16	16.19	17.36	17.48
@ 18	20.09	20.56	20.79	21.30	21.74	22.58
@ 9	32.24	34.35	36.46	38.54	39.88	40.63

Aluminum Alloy Plates shall be fabricated from 5052-H141 aluminum alloy conforming to AASHTO M219 or ASTM B209.

Aluminum Alloy Ribs shall be fabricated from 6061-T6 aluminum alloy conforming to ASTM B221.

(d) Fasteners. Steel Nuts and bolts shall conform to AASHTO M232 and M291 or ASTM A307, Grade A (bolts) and A563, Grade A (nuts). Aluminum nuts and bolts (if required) shall conform to ASTM B746.

(e) Engineering Structural Design The structural design engineering shall conform to the provisions of AASHTO Standard Specifications for Highway Bridges Section 12.6.2 and the following:

- AASHTO Standard Specification For Highway Bridges 17th Edition with interim revisions Section 12 Working Stress Design.
- AASHTO LRFD Bridge Design Specifications 2012 Section 12 Load Resistance Factor Design.
- ASTM B790 Standard Practice for Structural Design of Corrugated Aluminum Pipe, Pipe-Arches, and Arches for Culverts, Storm Sewers, and Other Buried Conduit.

Design loads shall be specified by the manufacturers Engineer. Construction loads and any temporary loads exceeding the service live load are not allowed on the structure without approval from the Engineer.

The manufactures Engineer shall specify the materials and extents of the foundations or bedding and backfill material within the critical backfill zone with consideration of structure shape and in situ conditions.

The manufacturers Engineer shall consider the structural capacity of trench walls or adjacent embankments to provide balanced soil loads on the structure.

Section 713. — ROADSIDE IMPROVEMENT MATERIAL

01 APR 2024 – FP-24

713.04 Seed. Add the following:

Furnish a mixture consisting of the following kinds of seeds with the corresponding percentages by weight of "live seed":

Common Name	Botanical Name	% by Weight PLS
Perennial Ryegrass	Lolium perenne	39%
Chewings Fescue	Festuca rubra ssp. fallax	25%
Creeping Red Fescue	Festuca rubra	25%
Highland Colonial Bentgrass	Agrostis capillaris var highland	7%
White Clover	Trifolium repens	4%
	Total:	**100%**

Section 714. — GEOSYNTHETIC MATERIAL

`01 NOV 2024– FP-24

714.01 Geotextile. Add the following:

(e) Subgrade stabilization geotextile. Conform to AASHTO M 288 Table 12, Class 4A Geotextile.

Section 718. — TRAFFIC SIGNING AND MARKING MATERIAL

01 APR 2024 – FP-24

718.03 Panels. Add the following before the first paragraph:

Fabricate permanent traffic control sign panels from aluminum.

718.05(d) Plastic. Delete this Subsection and substitute the following:

Provide surface mounted permanent tubular markers from one of the following suppliers:

- Impact Recovery Systems 4" Diameter Tuff Post – 36" tall white tube with yellow reflector with 2" squeeze on surface mounted fixed base.

Suppliers other than those listed above may be used provided the owner's agent evaluates the proposed supplier and approves the supplier.

Section 726. — STREAMBED SIMULATION MATERIALS (ADDED SECTION)

726.01 Streambed Simulation Materials.

Provide uncrushed, free of deleterious material, hard, durable rock material that is well graded from the maximum size to the minimum size meeting the following test requirements for quality:

Aggregate Property	Test Method	Requirement
Degradation Factor	ODOT TM 208	15 min,
L.A. Wear, 500 Rev.	AASHTO T 96	50% max

(a) Rip-Rap. Provide rip-rap meeting the requirements of 705.02.

(b) Salvaged streambed material. Native streambed material excavated and stockpiled as directed to be used to supplement the imported streambed sediment, sand and cobbles as directed.

(c) Streambed sediment. Provide streambed sediment according to the following table:

Sieve Size	Percent Passing by Weight
2 1/2" square	100

2” square	65 - 100
1” square	50 - 85
U.S. No. 4	26 - 44
U.S. No. 40	16 max.
U.S. No. 200	5.0 - 9.0

(e) Streambed Cobbles. Grade streambed round cobbles according to the following requirements expressed as a percentage by weight:

Percent Passing					
Approx. Size [1]	**4” Cobbles**	**6” Cobbles**	**8” Cobbles**	**10” Cobbles**	**12” Cobbles**
12”					99-100
10”				99-100	70-90
8”			99-100	70-90	
6”		99-100	70-90		
5”		70-90			30-60
4”	99-100			30-60	
3”	70-90		30-60		
2”		30-60			
1 1/2"	20-50				
3/4"	10 max.	10 max.	10 max.	10 max.	10 max.

[1] Approximate size can be determined by taking the average dimension of the cobble (length, width, and thickness) using the following calculation:

$$\text{Approximate Size} = \frac{\text{Length + Width + Thickness}}{3}$$

726.02 Fish Passage Boulders. Furnish rounded hard durable rock that is resistant to weathering and water action, free of organic or other unsuitable material, similar in color and shape to those in the area, and at rounded. Do not use shale, claystone, siltstone, rock with shale seams, or other fissile or fissured rock that may break into smaller pieces in the process of handling and placing. Conform to test values in 705.02.

Fish Passage Boulder Size		
Rock Size[1]	Approx Size	Rock Mass (lbs)
Type One	20” – 24”	400 – 800

[1] Approximate size can be determined by taking the average dimension of the cobble (length, width, and thickness) using the following calculation:

$$\frac{\text{Length + Width + Thickness}}{3}$$

726.03 Large Woody Material. Furnish logs with a DBH of 18 to 24 inches by 40 feet long conifer trees with rootwad. Furnish structurally sound logs that are free of rot and disease.

Rootwads: (minimum 5 foot diameter fan) and tree limbs shall be maintained as possible. Rootwads shall generally be installed with the rootwad facing upstream, with exceptions as shown on the Plans or as needed for natural variability.

Pier Logs: Pier logs shall be approximately 20 feet long with a DBH of 10 inches to 12 inches.

Slash: Slash and tree limbs smaller approximately 4 inch DBH shall be used as slash in the constructed streambed for UNT. These logs may be with or without bark. The length of each log shall be approximately 4 feet long. Logs shall have a substantial portion of their limbs left intact. Ends and limbs shall not be trimmed as broken ends and limbs are preferred. Logs may be partially hollow and contain cavities as long as they are generally sound and intact.

PERMITS

See the permits obtained for the project following this page.

FIRE PROTECTION AND SUPPRESSION PLAN

See the fire protection and suppression plan requirements for the project following this page.

Schedule of Items

Swartz Creek AOPs

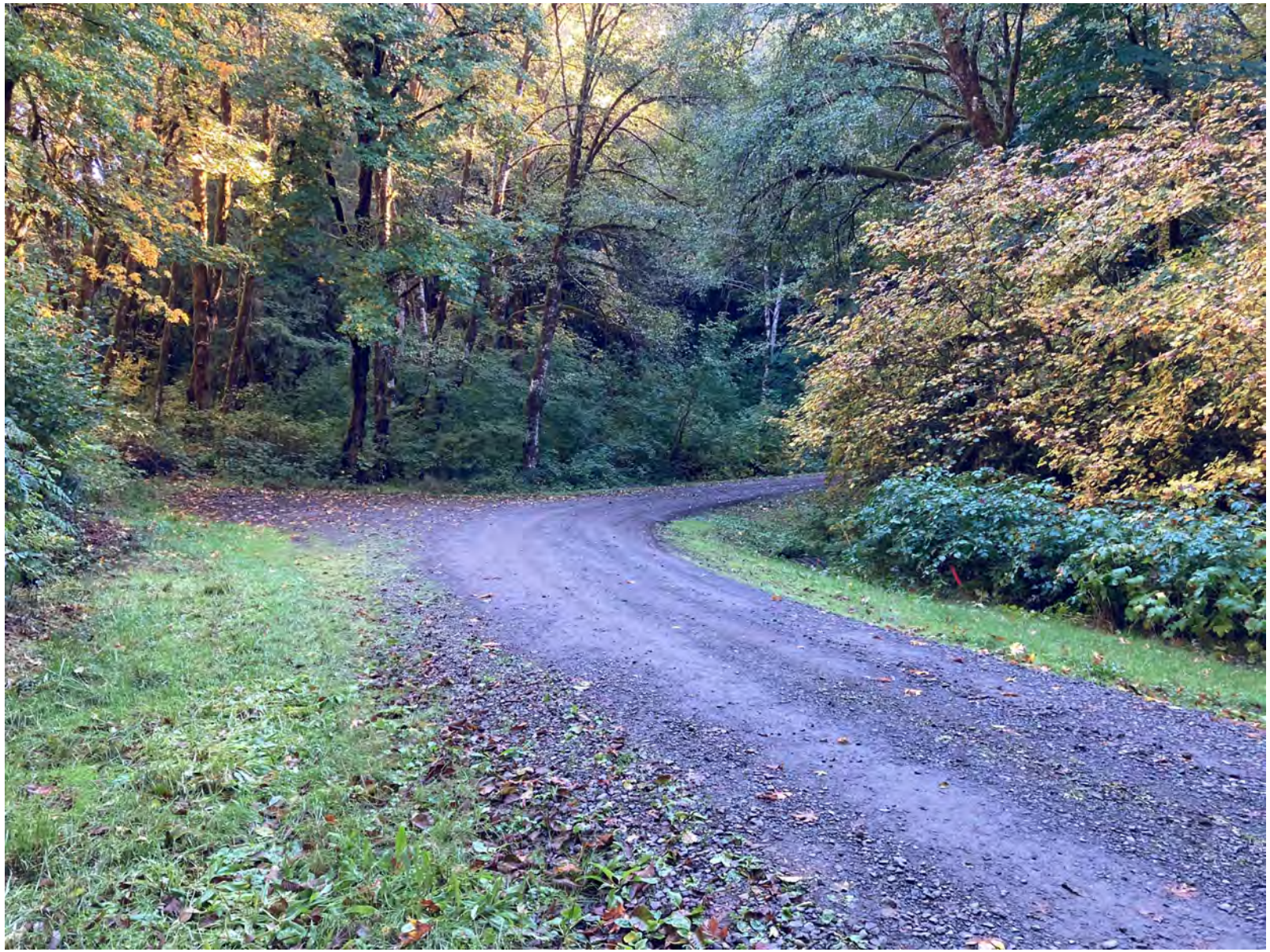
Siuslaw Watershed Council

ITEM NO.	DESCRIPTION	PAY UNIT	EST. QTY.	UNIT PRICE	TOTAL PRICE
15101-0000	Mobilization	LPSM	ALL	$_____	$_____
15201-0000	Construction Survey and Staking	LPSM	ALL	$_____	$_____
15301-0000	Contractor Quality Control	LPSM	ALL	$_____	$_____
15401-0000	Contractor Testing	LPSM	ALL	$_____	$_____
15501-0000	Construction Schedule	LPSM	ALL	$_____	$_____
15701-0000	Soil Erosion Control	LPSM	ALL	$_____	$_____
15705-1400	Soil Erosion Control, Fiber Roll	LNFT	250	$_____	$_____
20102-0000	Clearing and Grubbing	LPSM	ALL	$_____	$_____
20304-10000	Removal of Structures and Obstructions	LPSM	ALL	$_____	$_____
20401-0000	Roadway Excavation	CUYD	72	$_____	$_____
20466-0000	Conserve and Stockpile Erosion	CUYD	10	$_____	$_____
20701-10000	Separation Geotextile, Woven	SQYD	100	$_____	$_____
21102-10000	Roadway Obliteration, Method 1	LPSM	ALL	$_____	$_____
30202-2100	Roadway Aggregate, Method 2, Surface Course	Ton	320	$_____	$_____
60220-0000	17’0” (span) x 7’0” (rise) Precast Reinforced Concrete Box Culvert (Swartz)	LNFT	50	$_____	$_____
60302-0000	9’7” (span) x 6’6” (rise) Structural Plan Pipe Arch (UNT)	LNFT	41	$_____	$_____
60901-0000	Placing Conserved Topsoil	CUYD	10	$_____	$_____

62511-2000	Seeding, Hydraulic Method	LPSM	All	$_____	$_____
62605-2001	Bundles, Willow or Red Osier Dogwood	EACH	9	$_____	$_____
62801-0000	Temporary Stream Diversion	LPSM	ALL	$_____	$_____
62802-0000	Temporary Stream Turbidity Monitoring	LPSM	ALL	$_____	$_____
62901-0800	Rolled Erosion Control Product, Type 2.D	SQYD	50	$_____	$_____
63306-0100	Post, Steel, U-Channel	EACH	4	$_____	$_____
63308-3000	Object Marker, Type 3	EACH	4	$_____	$_____
63309-0900	Delineator, Type Flexible	EACH	6	$_____	$_____
63501-0000	Temporary Traffic Control	LPSM	ALL	$_____	$_____
64702-3600	Environmental Design, Streambed Channel Reconstruction (Swartz)	LPSM	ALL	$_____	$_____
64702-3600	Environmental Design, Streambed Channel Reconstruction (UNT)			$_____	$_____
	TOTAL ITEMS COST				$_____

Appendix 1: Swartz Creek AOP and habitat restoration

Swartz Creek restoration site 10/18/2023



Swartz Creek mainstem: upstream of culvert 2/23/2023

Swartz Creek mainstem: downstream of culvert 2/23/2023

Swartz Creek Unnamed Tributary: upstream of culvert 10/18/2023

Swartz Creek Unnamed Tributary: downstream of culvert 10/18/2023