



Development Permit

Clatsop County Community Development
800 Exchange St Ste 100
Astoria, OR 97103

Ph. (503) 325 - 8611 Fax (503) 338 - 3606

For Department Use Only

Permit #: 20190462
Permit Type: Type I
Entry Date: 9/4/2019
Entered By: Ian Sisson
Assigned To:
Permit Status: Approved Conditional

Permit Timeline

User	Status	Date
Ian Sisson	Entered	09/04/2019
Ian Sisson	Approved Condi	09/04/2019

Proposed Use

Proposed Use: **Other**

Zone: **RM**
Overlay District: **GHO , NWI**

Description: Bridge to replace failed culvert at Canyon Creek on Ecola State Park Road to Indian Beach.

Owner/Project Location

Owner: Name: **Oregon Parks and Recreation Dept**
Address: 725 Summer St #C
City, State, Zip: Salem, OR 97301

Ph. #: (503) 986-0764
Cell: () -
Fax: () -

Site Address: I R S Q S Qq S Taxlot
City: State: OREGON 5 10 00 0 0 00800

Applicant/Agent

Applicant: Name: Oregon Parks and Recreation Dept
Address: 725 Summer St #C
City, State, Zip: Salem, OR 97301

Ph. #: (503) 986-0764
Cell: () -
Fax: () -

Ph. #: () -
Cell: () -
Fax: () -

Fees

Fee Type:
Planning/Development

Permit Fee Total:

\$84.00

Total: \$84.00

Receipt

<u>Payor Name:</u>	<u>Pymnt Type</u>	<u>Check #</u>	<u>Pymnt Date</u>	<u>Pymnt Amount:</u>
Oregon Parks and Recreation Dept	Check	12522580	09/04/2019	\$84.00

Balance Due: \$0.00

Signatures

1. For Commercial and Industrial uses, include parking and loading plan, sign plan and erosion control plan.
2. For residential and other uses, include an erosion control plan.
3. Review attached applicant's statement and sign below.

I have read and understand the attached APPLICANT'S STATEMENT and agree to abide by the terms thereof.

Applicant Signature: _____ **Date:** _____

Owner Signature: _____ **Date:** _____

Agent Signature: _____ **Date:** _____



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Zoning District Requirements

Property Access Info.

Access to Property:
County Permit Required?
State Permit Required?

Direction	Setbacks	
	Req.	Actual
F:		
S1:		
S2:		
R:		

Property Information

Compliance/Permit Requirements

Clatsop County Compliance

Except as noted, the Clatsop County Community Development Department finds the proposed use(s)/action(s) in compliance with the Clatsop County Land & Water Development and Use Ordinance and with the Clatsop County Comprehensive Plan.

The evaluation of the land parcels outlined above is based on the information presented at this time, standards provided in the Clatsop County Land & Water Development & Use Ordinance, and policies of the Comprehensive plan, and the Zoning/ Comprehensive Plan Map.

The applicant or property owner must comply with the conditions noted below and on the attached applicants statement. This permit is not valid unless the conditions are met.

Permit Requirements

Details

Erosion control plan	Applicant responsible for assuring that development does not impact other properties. All disturbed areas must be stabilized with seeding, mulching, landscaping, or other appropriate means. Proper soil erosion and sediment control prevention measures and devices are required on-site at all times.
Plot plan	All development shall occur in accordance with the approved site plan.
Stormwater Drainage plan	Applicant responsible for assuring that development activity does not adversely affect adjoining properties or area (upstream or downstream) drainage facilities.

Entered by: Ian Sisson

Entered Date: 09/04/2019

Applicants Signature: _____

Date: _____

Clatsop County Authorization: _____

Date: _____



Development Permit

Applicant's Statement

1. *Pertaining to the subject property described, I hereby declare that I am the legal owner of record, or an agent having the consent of the legal owner of record, and am authorized to make the application for a Development Permit/Action so as to obtain the following permits: Building, Sanitation, U.S. Army Corps of Engineers, Oregon Division of State Lands, Oregon Department of Transportation, Oregon Department of Parks and Recreation, or a Clatsop County Road Approach. I shall obtain any and all necessary permits before I do any of the proposed uses or activities. The statements within this application are true and correct to the best of my knowledge and belief. I understand that if the permit authorized was based on false statements, or it is determined that I have failed to fully comply with all conditions attached to and made a part of this permit, this permit approval is hereby revoked and null and void.*
2. *It is expressly made a condition of this permit that I at all times fully abide by all State, Federal, and local laws, rules, and regulations governing my activities conducted or planned pursuant to this permit.*
3. *As a condition for issuing this Development Permit/Action, the undersigned agrees that he/she will hold Clatsop County harmless from and indemnify the County for any and all liabilities to the undersigned, his/her property or any other person or property, that might arise from any and all claims, damages, actions, causes of action or suits of any kind or nature whatsoever, which might result from the undersign's failure to build, improve or maintain roads which serve as access to the subject property or from the undersign's failure to fully abide by any of the conditions included in or attached to this permit.*
4. **WAIVER OF VESTED RIGHTS DURING APPEAL PERIOD FOR ZONING AUTHORIZATIONS.**
I have been advised that this Land and Water Development Permit/Action by the Clatsop County Community Development Director may be appealed within twelve (12) calendar days of the date of of permit issuance and authorization (note: if the twelfth day is a Saturday, Sunday or legal holiday, the appeal period lasts until the end of the next day which is not a Saturday, Sunday or legal holiday). I understand that if the approval authorized by the County and referenced above is reversed on appeal, then the authorization granted prior to the end of the appeal period will be null and void. I further understand and consent to the fact that any actions taken by me in reliance upon the authorization granted during the appeal period shall be at my own risk, and that I hereby agree not to attempt to hold Clatsop County responsible for consequences or damages in the event that removal of improvements constructed during the appeal period is ordered because an appeal is sustained.
5. *I am aware that failure to abide by applicable Clatsop County Land and Water Development and Use Ordinance 80-14, as amended and Standards Document regulations may result in revocation of this permit or enforcement action by the County to resolve a violation and that enforcement action may result in levying of a fine.*
6. *I understand that a change in use, no matter how insignificant, may not be authorized under this permit and may require a new Development Permit/Action (check first, with the Clatsop County Community Development Department).*
7. *I understand that this Development Permit/Action expires 180 days from the date of issuance unless substantial construction or action pursuant to the permit has taken place. Upon expiration, a new development permit must be obtained.*



Clatsop County
 Community Development
 800 Exchange Street, Suite 100
 Astoria, Oregon 97103
 Phone 503 325-8611 Fax 503 338-3606
comdev@co.clatsop.or.us www.co.clatsop.or.us

Development Permit

Fee: \$84.00

INSTRUCTIONS:

1. Complete form and attach site plan.
2. For commercial and industrial uses, include parking and loading plan, sign plan and erosion control plan.
3. For residential and other uses, include an erosion control plan.
4. Review applicant's statement and sign this form.

Proposed Use: New bridge to replace failed culvert

Base Zone: RM - Recreation Management **Overlay District(s):** GHO Oceanfront

Project Location:

T 5N R 10W S 07 TL 510000000800 Acres 464.02

Owner: Oregon Parks and Recreation Department Email: cliff.serres@oregon.gov

Address: 725 Summer St NE, Ste C City/State/Zip: Salem OR 97301

Phone: 503.507.5708 mobile Phone: 503.986.0764

Applicant: Clifton J Serres Email: _____

Address: _____ City/State/Zip: _____

Phone: _____ Phone: _____

Other Name: _____ Email: _____

Address: _____ City/State/Zip: _____

Phone: _____ Phone: _____

SIGNATURES: I have read and understand the statements **ON THE BACK OF THIS FORM** and agree to abide by them. **All owners of record**, per Clatsop County Assessment records, **must sign the application**. Representatives of public agencies, corporations, trusts, etc. must provide documentation of signing authority.

Signature: *Clifton J Serres* Date: 10/08/18

Signature: _____ Date: _____

Signature: _____ Date: _____

Signature: _____ Date: _____

1. Pertaining to the subject property described, I hereby declare that I am the legal owner of record, or an agent having the consent of the legal owner of record, and am authorized to make the application for a Development Permit/Action so as to obtain the necessary building permits, sanitation permits, US Army Corps of Engineers permits, Oregon Division of State Lands permits, Oregon Department of Transportation permits, Oregon Department of Parks and Recreation permits, or Clatsop County road approach permits. I shall obtain any and all necessary permits and complete the conditions of approval as required herein within 180 days of the issuance of this permit before I do any of the proposed uses or activities. The statements within this application are true and correct to the best of my knowledge and belief. I understand that if the permit authorized was based on false statements or misrepresentation or it is determined that I have failed to fully comply with all conditions attached to and made a part of this permit, this permit approval is hereby revoked and null and void.
2. It is expressly made a condition of this permit that I at all times fully abide by all state, Federal and local laws, rules, regulations governing my activities conducted or planned pursuant to this permit.
3. As a condition for issuing this Development Permit/Action the undersigned agrees that he/she will hold Clatsop County harmless from and indemnify the County for any and all liabilities to the undersigned, his/her property, or any other person or property, that might arise from any and all claims, damages, actions, causes of action or suits of any kind or nature whatsoever which might result from the signer's failure to build, improve or maintain roads which serve as access to the subject property or from the undersign's failure to fully abide by any of the conditions included in or attached to this permit.
4. WAIVER OF VESTED RIGHTS DURING APPEAL PERIOD FOR ZONING AUTHORIZATION. I have been advised that this Land and Water Development permit/Action by the Clatsop County Community Development Director may be appealed within twelve calendar days of the date of permit issuance and authorization (note: if the twelfth day is a Saturday, Sunday or legal holiday, the appeal period lasts until the end of the next day which is not a Saturday, Sunday or legal holiday). I understand that if the approval authorized by the County and referenced above is reversed on appeal, then the authorization granted prior to the end of the appeal period will be null and void. I further understand and consent to the fact that any actions taken by me in reliance upon the authorization granted during the appeal period shall be at my own risk, and that I hereby agree not to attempt to hold Clatsop County responsible for consequences or damages in the event that removal of improvements constructed during the appeal period is ordered because an appeal is sustained.
5. I am aware that failure to abide by applicable Clatsop county Land and Water Development and Use Ordinance 80-14, as amended, and Standards Document regulations may result in revocation of this permit or enforcement action by the County to resolve a violation and that enforcement action may result in levying of a fine.
6. I understand that a change in use, no matter how insignificant, may not be authorized under this permit and may require a new Development Permit/Action. You should check with the Clatsop County Community Development Department.
7. This Development Permit/Action expires 180 days from the date of issuance unless substantial construction or action pursuant to the permit has taken place. Upon expiration, a new development permit must be obtained.



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, PORTLAND DISTRICT
P.O. BOX 2946
PORTLAND, OR 97208-299

May 23, 2019

Regulatory Branch
Corps No.: NWP-2019-248

Mr. Jeffrey Wagner
Oregon Parks and Recreation Department
12735 NW Pacific Coast Highway
Seal Rock, Oregon 97376
jeffrey.wagner@oregon.gov

Dear Mr. Wagner:

The U.S. Army Corps of Engineers (Corps) received your permit application requesting a Department of the Army (DA) permit to replace an existing 12 foot diameter corrugated metal culvert with a bridge. The project is located in Canyon Creek, Cannon Beach, Clatsop County, Oregon at Latitude/Longitude: 45.9230°, - 123.9677°. Your application has been assigned Corps No.: NWP-2019-248. Please refer to this number in all correspondence. Based on the information provided, we have determined a DA permit is not required for the proposed work.

Section 404 of the Clean Water Act (Section 404) generally requires that you obtain a DA permit prior to discharging dredged or fill material into waters of the U.S., including wetlands. However, discharges of dredged or fill material that may result from certain activities are exempt from regulation under Section 404.

Federal Regulation 33 CFR 323.4(a)(2) states that the maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, bridge abutments or approaches, and transportation structures generally does not require a DA permit. Maintenance does not include any modification that changes the character, scope or size of the original fill design. Emergency reconstruction must occur within a reasonable period of time after damage occurs in order to qualify for this exemption.

In addition to the above requirements, the discharge of dredged or fill material must meet two additional requirements to qualify for an exemption: (1) the discharged material may not contain a toxic pollutant listed under Section 307 of the Clean Water Act and (2) the discharge may not convert an area of waters of the U.S. to a use to which it was not previously subject where the flow, circulation, or reach is impaired or reduced. Please contact us for a DA permit if your proposal does not meet these requirements.

Proposed is the construction of a bridge spanning Canyon Creek on Indian Beach Road in order to replace an existing 12 foot diameter corrugated steel culvert. The bridge will meet Oregon Department of Fish & Wildlife's (ODFW) criteria for fish passage. The existing culvert will be removed, concrete foundations will be cast in place in uplands, pre-cast concrete walls will be set on the foundations, engineered beams will be set onto the wall structure, and then the road surface will be paved. The streambed will be graded where the culvert was located and approximately 103 cubic yards (cy) of streambed cobbles, 8 cy of streambed boulders, and 248 cy of native soil and streambed material will be placed within approximately 2056 square feet (0.05 acre) below the Ordinary High Water Mark of Canyon Creek, which is within the original fill prism.

Based upon information provided in your permit application, we have determined your proposed activities are exempt from Section 404, and a DA permit is not required. The Corps also regulates work in navigable waters of the U.S. under Section 10 of the Rivers and Harbors Act. However, since the proposed work would not occur in a navigable water of the U.S., it will not require a Section 10 DA permit. Although a DA permit is not required, other local, State, or Federal requirements may still apply.

Our determination regarding the proposed work is based on the project description and construction methods provided in your permit application. You are cautioned that any change in the location or plans of the work may result in activities that require a DA permit.

Please note, this letter is not an official jurisdictional determination or concurrence of the geographic limits of waters at this site. If you have any questions, please contact Ms. Danielle Erb at the letterhead address, by telephone at (503) 808-4368, or E-mail: danielle.h.erb@usace.army.mil.

Sincerely,
WHITE.MELOD
Y.J.1292348157
Melody White
Team Leader, Regulatory Branch

Digitally signed by
WHITE.MELODY.J.1292348157
Date: 2019.05.23 12:36:42
-07'00'

Enclosure

cc:

Oregon Department of State Lands (dan.cary@state.or.us)
Oregon Department of Environmental Quality (401applications@deq.state.or.us)
Oregon Department of Land Conservation and Development (patty.snow@state.or.us;
elizabeth.i.ruther@state.or.us)

DSL USE ONLY

Issue Date: 7/11/2019 Expiration Date: 7/11/2022 DSL No. 62103

In-Water Work Period: July 1 to Sept. 15 to _____

Eligible 7/11/2019 Incomplete _____ Ineligible _____
Date Date Date

Activity on state-owned waterway Proprietary Auth on File: _____

Access Agreement attached Further Action Required by Applicant:
 Registration Lease/License Other Contact: _____

RC Signature: *Jeffrey Wagner*

GENERAL AUTHORIZATION ELIGIBILITY VERIFICATION FORM

AND

**NOTICE FOR EXEMPTION OF CERTAIN
VOLUNTARY HABITAT RESTORATION ACTIVITIES**

RECEIVED

JUN 21 2019

1. RESPONSIBLE PERSON CONTACT INFORMATION		
Name (print) Jeffrey Wagner	Affiliation (company or agency) Oregon Parks & Recreation Department (OPRD)	
Mailing address or PO Box 12735 NW Pacific Coast Hwy		
City Seal Rock	State OR	97376
Phone number (541) 563-8507	Cell or alternate number (971) 239-2133	
E-mail jeffrey.wagner@oregon.gov	Fax number (541) 563-8508	

DS

2. LANDOWNER INFORMATION (if different than responsible party)		
Name (print) Oregon Parks & Recreation Department		
Mailing address or PO Box 725 Summer St NE Ste C		
City Salem	State OR	Zip Code 97301
Phone number (503) 986-0764	E-mail cliff.serres@oregon.gov	

3. PROJECT LOCATION INFORMATION

County: Clatsop		Nearest City: Cannon Beach	
Physical address or description: 84318 Ecola Park Road			
<input checked="" type="checkbox"/> Stream	Name of stream Canyon Creek	Tributary of Feldenheimer Drainage	River mile 2.6
Is this <u>designated essential salmon habitat (ESH)</u> ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
<input type="checkbox"/> Wetland	Cowardin Class	HGM	
LATITUDE AND LONGITUDE (In Decimal Degrees, example: DD.DDDDDD) LEGAL DESCRIPTION FOR PROJECT (Check the description that applies and enter information below)			
<input checked="" type="checkbox"/> Project with single removal-fill site. Provide the information for the removal-fill site under "Start." <input type="checkbox"/> Project with multiple removal-fill sites. Provide the following for the project center point "Start." <input type="checkbox"/> Linear project. Provide the following information for the project start point <u>and</u> end point.			
Start point Latitude: <u>45.931</u> Start Longitude: <u>-123.974</u>			
Township: <u>5N</u> Range: <u>10W</u> Section: <u>7</u> ¼ - ¼ Section: _____ Tax lot(s): <u>800</u>			
End point Latitude: <u>45.931</u> End point Longitude: <u>-123.975</u>			
Township: <u>5N</u> Range: <u>10W</u> Section: <u>7</u> ¼ - ¼ Section: _____ Tax lot(s): <u>800</u>			

4. PROJECT INFORMATION

Anticipated project dates: Start (mo) JUL (yr) 2019 Completion (mo) SEP (yr) 2019

5. ACTIVITIES FOR THIS PROJECT. Check all that apply.

- Minimal Disturbance within ESH Waters *No Fee*
- Piling Placement and Removal in Non-Tidal Waters *No Fee*
- Temporary Impacts to Non-tidal Wetlands *Fee May Apply*
- Waterway Bank Stabilization *No Fee*
- Certain Transportation-Related Activities *Fee May Apply*
- Removing and Disposing of Sediment Behind Tidegates and Hydraulically Closed Perimeters *Fee May Apply*
- Waterway Habitat Restoration *No Fee*
- Wetland Ecosystem Restoration *No Fee*
- Notice for Exemption of Certain Voluntary Habitat Restoration Activities *No Fee*
(Must be combined with another activity listed above, see page 16 for further information.)

General Authorization for Waterway Habitat Restoration

OAR 141-089-0780 through 141-089-0795

Project Activities (Check all that apply):

Barrier removal: Fill: 374 cubic yards Removal: 342 cubic yards

- Artificial Barrier Type:
- Less than 200 cubic yards total for this project

Grade control structures: Fill: _____ cubic yards Removal: _____ cubic yards

- Less than 100 cubic yards for every ½ mile of waterway
- Does not create a barrier to fish passage
- Structure mimics natural feature
- Does not require annual maintenance

Fish and wildlife passage: Fill: _____ cubic yards Removal: _____ cubic yards

- Less than 100 cubic yards for every ½ mile of waterway
- ODFW notified

Fish screening install or replace: Fill: _____ cu. yds. Removal: _____ cu. yds.

- Less than 100 cubic yards and ODFW notified

Low profile porous weirs: Fill: _____ cubic yards Removal: _____ cubic yards

- 100 cubic yards or less of removal-fill activity per ½ mile of waterway
- Each structure occupies less than 40% pre-construction bankfull width

Side channel/alcove habitat restoration: Fill: _____ cu. yds. Removal: _____ cu. yds

- 200 cubic yards or less of removal-fill
- Removal of artificial barrier only to reconnect naturally formed side channel or alcove

Remove or Replace Existing Culverts and Tide Gates for Fish Passage:

- The new culvert or tidegate is not exempt, and
- The project is consistent with ODFW Fish Passage Statutes in writing by ODFW.

Fish Passage Application sent; awaiting official notification Fish Passage Approved

For Complete Notification you must attach the following:

Project Description: Brief description of project and construction methods to be used. Provide sufficient detail to demonstrate compliance with the conditions pertaining to anchoring, rock and gravel placement, use of natural materials and not requiring annual maintenance.

Resource characteristics: Description of the biological and physical characteristics of the waterway. Include any navigation, fishing or recreational use.

(Continued on next page)

General Authorization for Removing and Disposing of Sediment Behind Tidegates and within Hydraulically Closed Perimeters

OAR 141-089-0760 through 141-089-0775

Eligibility (Check all that apply):

- Project is upstream from a tidegate or within a hydraulically closed perimeter

Project (Check all that apply):

- Removal from below ordinary high water:

_____ ft. length x _____ ft. width x _____ ft. depth = _____ cubic feet

_____ cubic feet (divide by 27 for cubic yards) = _____ cubic yards

- Project will not create larger dimensions than original construction

- Fill into adjacent wetlands:

_____ cubic yards (cubic feet removed divided by 27) placed in adjacent wet pasture wetlands. Do not count fill placed in uplands.

- Disposal of material will not create uplands from wetlands

Fill _____ cubic yards + Removal _____ cubic yards = _____ cubic yards disturbance

For Complete Notification you must attach the following:

- Fee Due:** \$250.00 (when 50 or more cubic yards total disturbance).

Project Description: Description of project and construction methods to be used. Provide location of downstream tidegate or description of the hydraulically closed perimeter with sufficient detail to demonstrate compliance with the conditions and eligibility requirements according to the applicable General Authorization.

Resource characteristics: Description of the biological and physical characteristics of the wetland and waterway. Include HGM and Cowardin Class and current land use. Indicate if any wetland type of conservation concern is within the project area. (For help see: http://www.oregon.gov/dsl/WW/Documents/wetland_cons_concern.pdf)

Project location map: Sufficient detail to allow person to drive to the site from the nearest city/town or major highway intersection. Show line of the *entire project*, location of disposal area, location of tidegate.

Project area photo(s): Photo(s) of existing conditions required for all activity areas.

Plan view drawing(s): Include existing drainages, scale, jurisdictional boundaries (ordinary high water line or wetland boundary if delineated), clear identification of areas proposed for removal or fill, location of cross-section(s).

Cross-section drawing(s): Include existing and proposed elevations, horizontal and vertical scale; jurisdictional boundaries (ordinary high water line or wetland boundary if delineated); proposed water elevation.

DSL Use Only:

DSL Determination _____ Date _____ RC Initial _____

Project location map: Sufficient detail to allow person to drive to the site from the nearest city/town or major highway intersection. Show boundaries of the *entire project*.

Project area photo(s): Photo(s) of existing conditions required for all activity areas.

Plan view drawing(s): Include existing and proposed contours, scale, ordinary high water lines; clear identification of areas proposed for removal or fill, location of cross-section(s).

Cross-section drawing(s): Include existing and proposed elevations, horizontal and vertical scale; ordinary high water line; proposed water elevation.

Note: Drawings must contain sufficient information to demonstrate compliance with the conditions and eligibility requirements of the applicable General Authorization. Do not use "typical" drawings.

DSL Use Only:

DSL Determination

eligible

Date

7/11/2019

RC Initial

E

General Authorization for Wetland Ecosystem Restoration

OAR 141-089-0800 through 141-089-0815

Project Activities (Check all that apply):

- | | |
|---|--|
| <input type="checkbox"/> Ground alteration for vegetation | <input type="checkbox"/> Low earthen berms/spillways: _____ ft. |
| <input type="checkbox"/> Floodplain contouring | <input type="checkbox"/> Shallow excavations for macrotopography |
| <input type="checkbox"/> Grading for microtopography | <input type="checkbox"/> Removal of structures |
| <input type="checkbox"/> Removal of accumulated material | |

Eligibility Verification Requirements: All projects must meet the following criteria to be eligible. Please have documentation available upon request, to verify each of the following statements:

Statement of Eligibility:

I, the responsible party for this notification, agree that the project proposed meets all of the following eligibility criteria and I have documentation, immediately available upon request, to verify the listed criteria have been met.

- This project is compatible with watershed management plans.
- This project will not convert wetland to upland, or one wetland ecosystem to another aquatic use.
- This project will have minimal adverse effect to adjacent and existing onsite wetlands.
- This project will not introduce non-native species.
- This project is consistent with wetland conservation plans (West Eugene only).

For Complete Notification you must attach the following.

- Description of project goals and objectives for achieving wetland ecosystem restoration to include but not limited to how the proposed project will repair or return natural or historic functions.
- Construction methods: Description of construction methods, methods to avoid impacts to undisturbed wetlands on or adjacent to the project area, and the proposed planting plan. Provide sufficient detail to demonstrate compliance with the conditions and eligibility requirements of the applicable General Authorization.

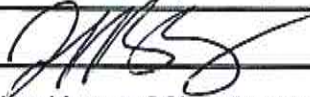
(Continued on next page)

6. Signature

By signing below, I understand:

- The information provided herein is, to the best of my knowledge and belief, true, complete, and accurate.
- I am responsible for complying with the requirements and conditions set forth in the applicable administrative rules for General Authorizations and for Voluntary Habitat Restoration activities.
- This approval does not authorize trespass on the lands of others. The responsible party shall obtain all necessary access permits or rights-of-way before entering lands owned by another.
- If this is state-owned submerged or submersible land, there may be additional easements, royalties and/or other requirements by DSL's [Aquatic Resource Management Program](#).
- This approval does not authorize any work that is not in compliance with local zoning or other local, state or federal regulation pertaining to the operations described herein. The responsible party shall obtain necessary approvals and permits before proceeding under this authorization.
- All work done under this authorization must comply with OAR Chapter 340, Standards of Quality for Public Waters of Oregon.
- When listed species are present, the responsible party must comply with the State Endangered Species Act and the Federal Endangered Species Act.
- Violations of the terms and conditions of this authorization are subject to administrative and/or legal action, which may result in revocation of the approval or damages. The responsible party is responsible for the activities of all contractors or other operators involved in work done at the site or under this approval.
- The Department of State Lands may, at any time, by notice to the responsible party, revoke or modify this approval if it determines the project scope or conditions of the General Authorization are insufficient to minimize individual or cumulative environmental effects in accordance with OAR 141-085.
- Employees of the Department of State Lands and all duly authorized representatives of the Director shall be permitted access to the project area at all reasonable times for the purpose of inspecting work performed under this approval.
- In issuing this authorization, the Department of State Lands makes no representation regarding the quality or adequacy of the approved project design, materials, construction, or maintenance except to approve the project's design and materials, as set forth herein, as satisfying the resource protection, scenic, safety, recreation, and public access requirements of ORS Chapter 196 and related administrative rules.
- Responsible person shall defend and hold harmless the State of Oregon, and its officers, agents, and employees from any claim, suit, or action for property damage or personal injury or death arising out of the design, material, construction, or maintenance of the approved improvements.
- When approval from ODFW for Fish Passage is required, written authorization must be received from ODFW prior to ground disturbing activities.
- A permit from the U.S. Army Corps of Engineers may also be required.

Signature



Date

6/14/19

Please mail completed form to DSL at the appropriate regional office for your project location:

DSL – West of the Cascades:

Department of State Lands
775 Summer Street, Suite 100
Salem, OR 97301-1279
Phone: 503-986-5200 Fax: 503-378-4844

OR

DSL - East of the Cascades:

Department of State Lands
1645 NE Forbes Road, Suite 112
Bend, Oregon 97701
Phone: 541-388-6112 Fax: 541-388-6480



Oregon

Kate Brown, Governor

Department of Fish and Wildlife

West Region
4907 3rd Street
Tillamook, OR 97141
(503) 842-2741
Fax (503) 842-8385
www.odfw.com



June 27, 2019

Jeffrey Wagner
Oregon Parks and Recreation Department
12735 NW Pacific Coast Hwy
Seal Rock, OR 97376

RE: Fish Passage Approval for Ecola Park Rd Bridge over Canyon Creek (PA-01-0156)

Dear Mr. Wagner:

The Oregon Department of Fish and Wildlife (ODFW) has reviewed the design plans for the OPRD's bridge over Canyon Creek at Ecola Park Road. We have determined the design plans to construct the crossing is consistent with the state's fish passage design criteria for road-stream crossings, as defined in OAR 635-412-0035(1) and (3) and therefore approve the projects as required by Oregon fish passage law (ORS 509.585).

This ODFW fish passage approval for the bridge over Canyon Creek at Ecola Park Road (PA-01-0156) is contingent on specific operational items which include:

1. All in-water work, defined as work at or below the ordinary high water mark elevation of the project area, shall be complete during the appropriate ODFW in-water work period, or as otherwise defined by ODFW.
2. The ODFW North Coast Watershed District Fish Biologist in Tillamook shall be notified prior to the implementation of the project.
3. Fish salvage and rescue shall be performed prior to commencement of any in-water work, including work area isolation and temporary water management. Pursuant to OAR 635-412-0035 (10e), prior to in-stream construction activities, all fish must be safely collected, removed from the construction site or dewatered reach, and placed in the flowing stream by an authorized person in possession of a separate valid permit issued by ODFW. An Oregon Scientific Take Permit (OR-STP) from ODFW is required to conduct fish salvage in Oregon and other additional authorization may be needed from NMFS or USFWS if work is in ESA waters. OR-STP's can take up to 4-6 weeks for processing and can be applied for at: <https://apps.nmfs.noaa.gov/index.cfm> or if you have questions about OR-STP permitting, please contact fish.research@state.or.us.

4. Temporary water management and work area isolation measures shall not restrict downstream fish passage during construction for the project.
5. As per ORS 509.601, The Oregon Department of Parks and Recreation shall be responsible for all maintenance required such that the project provides adequate passage for native migratory fish. Failure to maintain fish passage at the new stream crossings for the duration of this approval shall constitute a violation of this approval and applicable fish passage laws (ORS 509.585 and 509.610).
6. Monitoring and reporting on the effectiveness of passage of native migratory fish is required for the project.
7. Monitoring reports shall be completed and submitted by you, or your designee, to the ODFW Statewide Fish Passage Program Coordinator and the ODFW North Coast Watershed District Fish Biologist annually for a period of 5-years after the completion of the project.
8. If monitoring by the Applicant, your designee, or ODFW indicates that volitional fish passage is questionable or not provided, the Applicant in consultation with the ODFW, shall determine the cause and, during a work period approved by the ODFW, shall modify the project to rectify fish passage problems as necessary.
9. The ODFW shall be allowed to inspect the project at reasonable times for the duration of this approval. Unless prompted by emergency or other exigent circumstances, inspection shall be limited to regular and usual business hours, including weekends.
10. It is the responsibility of the Applicant to comply with all necessary and required local, county, state, and federal approvals and permits.
11. This approval in no way purports or authorizes take of a federally listed species.

Please retain this correspondence for your records, as this documents ODFW's approval of fish passage for the OPRD's bridge over Canyon Creek at Ecola Park Road (PA-01-0156) This approval is solely for the purpose of fulfilling Oregon fish passage statutory requirements and responsibilities administered by the Oregon Fish and Wildlife Commission or the Department and does not satisfy any other Department, federal, state, or local laws, rules, or regulations, including but not limited to State or Federal Endangered Species Acts, any applicable water rights, approvals or other certificates administered by regulatory authorities.

Please continue to coordinate with me as the project advances towards implementation. You may contact me District at 503-842-2741 x237 or by email at Michael.Sinnott@state.or.us if you have any questions regarding the content of this fish passage approval.

Sincerely,



Michael V. Sinnott
Assistant District Fish Biologist
Oregon Department of Fish and Wildlife
4907 Third Street
Tillamook, OR 97141

Cc: Greg Apke
Robert Bradley
Cliff Serres

ODFW FISH PASSAGE APPROVAL #PA-01-0156

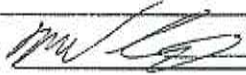
Ecola Park Road Bridge at Canyon Creek

• ODFW will use the following criteria to determine the level of review required.

For ODFW Use Only

	YES	NO	N/A
1. Is the bed within the crossing as wide as the active channel:.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the bed within the culvert at the same slope, and at grades continuous with, the surrounding stream:.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3a. If the crossing is open-bottomed, is there 3 feet of vertical clearance between the active channel width elevation and the inside top of the crossing:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OR			
3b. If the crossing is closed-bottomed, will bed depth within the culvert be 20-50% of the crossing height:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Is the bed material that will be used sufficient to assure water depth will be similar to that in the surrounding stream (i.e., will not go sub-surface prematurely):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are the bed material or retention measures that will be used sufficient to assure that the bed will be maintained through time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. If the crossing is longer than 40 feet, will partially-buried, over-sized rock be placed within the crossing's bed:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Will the bed within the crossing be placed during construction:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. If trash racks are present, are they above the active channel width elevation and do vertical bars have at least 9 inches of clear space between them:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. If there is an upstream pond, wetland, or backwater area, has its desired state after construction been determined, and have these considerations been addressed in the design:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Are upstream grade control measures satisfactory:.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. Are the construction timing and measures adequate based on the location:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are there plans to maintain the crossing:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- If all answers are "Yes" or "Not Applicable", this plan is eligible for approval by an ODFW biologist.
- If any answer is "No" or there are other concerns, consult with the Fish Passage Coordinator.

APPLICATION IDENTIFIER: OPRD, Ecola Park Road Bridge ODFW # PA-01-0156	
DATE RECEIVED: 06/14/2019	
APPROVED <input checked="" type="checkbox"/>	SIGNATURE: 
DENIED <input type="checkbox"/>	DATE: 06/27/2019
CONDITIONS:	TITLE: Assistant District Fish Biologist
See contingencies listed in authorization letter.	

**Canyon Creek (Ecola State Park Road) Bridge
Bridge Construction**

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BID SCHEDULE



OREGON DEPARTMENT OF FISH AND WILDLIFE

Fish Passage Plan for a Road-Stream Crossing

If you unlock and re-lock this Form, information already entered may be lost in certain versions of MS Word.

If your project includes multiple crossings, please complete this form for each crossing.

APPLICANT INFORMATION

APPLICANT: Jeffrey Wagner TITLE: Construction Project Manager
ORGANIZATION: Oregon Parks & Recreation Dept.
ADDRESS: 12735 NW Pacific Coast Hwy
CITY: Seal Rock STATE: OR ZIP: 97376
PHONE: (541) 563-8507
FAX: (541) 563-8508
E-MAIL ADDRESS: jeffrey.wagner@oregon.gov

SIGNATURE: [Handwritten Signature] DATE: 6/14/19

AUTHORIZED AGENT (if any): Clifton Serres TITLE: Engineering Manager
ORGANIZATION: Oregon Parks & Recreation Dept.
ADDRESS: 725 Summer St NE Ste C
CITY: Salem STATE: OR ZIP: 97301
PHONE: (503) 986-0764
FAX: (503) 986-0792
E-MAIL ADDRESS: cliff.serres@oregon.gov

SIGNATURE: _____ DATE: _____

OWNER (if different than Applicant): TITLE:
ORGANIZATION:
ADDRESS:
CITY: STATE: ZIP:
PHONE:
FAX:
E-MAIL ADDRESS:

SIGNATURE: _____ DATE: _____

LOCATION

COUNTY Clatsop
ROAD..... Ecola Park Road
RIVER/STREAM Canyon Creek
TRIBUTARY OF
BASIN
COORDINATES a Longitude: -123.9677°W Latitude: 45.9230°N
LEGAL DESCRIPTION 1/4 / 1/4:
Section: 7 Tax Map #:
Township: 5N Tax Lot #: 800
Range: 10W

a geographic projection using NAD_83 and formatted as decimal degrees to at least 4 places

STREAM CROSSING INFORMATION

Please indicate measurement units where applicable and see footnotes for supporting descriptions of the information requested.

- NEW CROSSING
- REPLACEMENT OF EXISTING CROSSING
- MODIFICATION OF EXISTING CROSSING

EXISTING CROSSING	<ul style="list-style-type: none"> • TYPE/SHAPE ^b Pipe Round • MATERIAL ^c Corrugated Metal Pipe • LENGTH 52' • INSIDE DIAMETER (if round) 12' <li style="text-align: center;">OR INSIDE RISE (Height) AND N/A INSIDE SPAN (Width) N/A • CULVERT SLOPE 0.2% • DOES IT CONTROL AN UPSTREAM POND, WETLAND, BACKWATER AREA, OR WATER RIGHT? ^d Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
STREAM	<ul style="list-style-type: none"> • AVERAGE UPSTREAM ACW ^{e,f} 22' • AVERAGE DOWNSTREAM ACW ^{e,f} 22' • UPSTREAM SLOPE ^g 1.58% • DOWNSTREAM SLOPE ^g 2.24% • DESCRIBE STREAMBED MATERIAL ... Sands, gravel, and cobbles • SIZE OF D₁₀₀ ROCK ^h ~4"
PROPOSED CROSSING	<ul style="list-style-type: none"> • TYPE/SHAPE ^b Bridge • MATERIAL ^c Prestressed concrete slabs on reinf. concrete abutments • LENGTH 31' • INSIDE DIAMETER (if round) N/A <li style="text-align: center;">OR INSIDE RISE (Height) AND 9' INSIDE SPAN (Width) 41'-8" • CULVERT SLOPE 1.59% • BED HEIGHT – INLET ^{i,j} 1.5' • BED HEIGHT – OUTLET ^{i,k} 1.5' • BED SLOPE ⁱ 1.59% • BED MATERIAL ^l (describe and/or fill in %) . Mix of fines and gravels, cobbles, and boulders <ul style="list-style-type: none"> % FINES (dirt, silt, sand) 15% % SMALL ROCK (1/2-6" diameter) 75% % LARGE ROCK (6"-D₁₀₀) ^h 0% % OVER-SIZED ROCK (D₁₅₀-D₂₀₀) ^h ... 10% • BED PLACEMENT METHOD ^l See attached documents • BED RETENTION MEASURES ^l No bed retention measures are required for this project • GRADE CONTROL MEASURES ^l No grade control measures are required for this project • ADDITIONAL STRUCTURES ^m N/A
CONSTRUCTION	<ul style="list-style-type: none"> • DATE WORK WILL BEGIN Early Sep 2019 • DATE WORK WILL BE COMPLETED .. Mid Nov 2019 • DETAILS ⁿ See attached documents

MAINTENANCE	<ul style="list-style-type: none"> • WILL THE CROSSING BE INSPECTED FOR DEBRIS AND BED RETENTION (WITHIN, BELOW, AND ABOVE THE CROSSING) AT LEAST ANNUALLY AND AFTER STORM EVENTS? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> • IF NEEDED, WILL REMEDIAL MEASURES BE TAKEN AS SOON AS POSSIBLE? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--------------------	--

- ^b e.g., bridge, open-bottomed arch, pipe arch/squashed, round, rectangular
- ^c e.g., reinforced concrete, concrete, wood, plastic, corrugated metal, metal
- ^d if "Yes", explain how these will be addressed in a separate attachment
- ^e "ACW" is the active channel width, which is the stream width between the ordinary high water lines, or at the channel bankfull elevation if the ordinary high water lines are indeterminate; ordinary high water lines are not the same as the wetted width and are typically determined by changes on the bank in vegetation, changes in sediment size and/or color, water lines on the bank, trees, or leaves, or the point where debris (e.g., needles, leaves, twigs, cones) accumulation begins
- ^f 3 measurements 20 feet apart should be averaged; begin measurements approximately 10 ACWs from the inlet (upstream) or outlet (downstream) of the crossing if this distance is outside of the influence of existing artificial obstructions and prior to adjoining tributaries as you move away from the crossing (if not, take measures at locations which fulfill these requirements); indicate measurement locations on the **Profile Design Drawing**
- ^g take measurements away from the crossing and at the point where ACW measurement begins
- ^h D_{100} is the average diameter of the 10 largest, naturally-occurring rocks in the stream reach; $D_{150} = D_{100} \times 1.5$; $D_{200} = D_{100} \times 2$
- ⁱ "bed" refers to the stream bed within or under the crossing structure
- ^j depth of fill material or countersinking/embedding (excluding protruding over-sized rock) at the crossing's inlet
- ^k depth of fill material or countersinking/embedding (excluding protruding over-sized rock) at the crossing's outlet
- ^l these are measures outside of the crossing structure intended to prevent up- or downstream channel degradation, especially important to consider in locations where an existing smaller culvert is being replaced and there is the potential for upstream channel degradation (i.e., a "headcut") and associated off-site property or passage problems
- ^m e.g., bed retention measures, weirs, baffles, trash racks, aprons, retaining walls, overflow pipes, channel restoration/scour remediation measures
- ⁿ unless already described in an accompanying Department of State Lands Removal-Fill Application, include a description of a) temporary downstream passage, upstream passage, screening, and bypass measures, b) worksite isolation measures, c) fish salvage (note: an ODFW Fish Take Permit may be necessary), d) sediment and erosion control measures, and e) site restoration measures. For more details on Oregon Fill Removal Law see the Oregon Division of State Lands Removal-Fill Guide at <http://oregonstatelands.us/DSL/PERMITS/rfg.shtml>.

ADDITIONAL INFORMATION

Provide this information only if the bed within the proposed crossing is not as wide as the active channel width or will not be embedded.

	High Design Flow ^o	Low Design Flow ^p
Flow ^q (cfs)		
Water Depth in Crossing (in.)		
Water Velocity in Crossing (fps)		
Water Drop ^r at Inlet (in.)		
Water Drop ^r at Outlet (in.)		
Pool Depth Below Outlet (in.)		
Water Drop ^r at Weirs/Baffles (in.)		
Pool Depth Below Weirs/Baffles (in.)		
Depth of Nappe ^s at Weirs/Baffles (in.)		

^o High Design Flow is the mean daily average stream discharge that is exceeded 5 percent of the time during the period when ODFW determines that native migratory fish require fish passage

^p Low Design Flow is the mean daily average stream discharge that is exceeded 95 percent of the time, excluding days with no flow, during the period when ODFW determines that native migratory fish require fish passage

⁹ attach a description of the methodology, calculations, and assumptions used to determine the high and low design flows

¹ drop should be measured from the upstream water surface elevation to the downstream water surface elevation

² the nappe is the water flowing over weirs/baffles

DESIGN DRAWINGS

Please attach the following design drawings with the specified information on them.

- **PLAN**, including:
 - active channel (i.e., ordinary high water or bankfull lines)
 - existing crossing and additional structures
 - proposed crossing and additional structures
 - dimensions
- **PROFILE**, including:
 - existing grade (measured at the deepest part of the stream channel from 10 ACWs downstream of the outlet [i.e., downstream end of crossing] to 10 ACWs upstream of the inlet [i.e., upstream end of crossing], at 5-foot intervals), including road
 - existing crossing and additional structures
 - proposed grade (measured at the deepest part of the stream channel from 10 ACWs downstream of the outlet to 10 ACWs upstream of the inlet, at 5-foot intervals), including road
 - proposed crossing, bed, and additional structures
 - dimensions
 - location of **STREAM CHANNEL CROSS-SECTIONS** (see below), ACW measurements, and *Slope* measurements
 - water surface elevations at high and low design flows for the proposed crossing, **if** the proposed crossing will not be as wide as the active channel width or will not be embedded
- **CROSS-SECTION OF PROPOSED CROSSING**, including bed details
- **STREAM CHANNEL CROSS-SECTIONS** (2 cross-sections total, with one located downstream where the ACW measurements begin and one located upstream where the ACW measurements begin; measurements should be taken at 1-foot intervals perpendicular to the flow of the stream and should encompass the entire active channel plus 0.5 ACW on each side of the stream [for a total cross-section measurement of 2 x ACW]; measurements may be taken with survey equipment or by measuring the distance from a level line to the bottom of the streambed or ground)
- **DETAILS OF ADDITIONAL STRUCTURES** (e.g., grade control measures, bed retention measures, weirs/baffles, trash racks, aprons, retaining walls, overflow pipes, channel restoration/scour remediation measures)

Please submit this application along with project design plans to the appropriate ODFW District Fish Biologist for the crossing's location. The complete application can also be sent electronically to the ODFW Fish Passage Coordinator at greg.d.apke@state.or.us and send one signed original paper copy of the application to the ODFW Fish Passage Coordinator at 4034 Fairview Industrial Dr. SE, Salem, OR 97302.

ODFW FISH PASSAGE APPROVAL #PA-00-0000
(insert name of project)

• ODFW will use the following criteria to determine the level of review required.

For ODFW Use Only

	YES	NO	N/A
1. Is the bed within the crossing as wide as the active channel:.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the bed within the culvert at the same slope, and at grades continuous with, the surrounding stream:.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3a. If the crossing is open-bottomed, is there 3 feet of vertical clearance between the active channel width elevation and the inside top of the crossing:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OR			
3b. If the crossing is closed-bottomed, will bed depth within the culvert be 20-50% of the crossing height:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is the bed material that will be used sufficient to assure water depth will be similar to that in the surrounding stream (i.e., will not go sub-surface prematurely):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Are the bed material or retention measures that will be used sufficient to assure that the bed will be maintained through time:.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. If the crossing is longer than 40 feet, will partially-buried, over-sized rock be placed within the crossing's bed:.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Will the bed within the crossing be placed during construction:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. If trash racks are present, are they above the active channel width elevation and do vertical bars have at least 9 inches of clear space between them:.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. If there is an upstream pond, wetland, or backwater area, has its desired state after construction been determined, and have these considerations been addressed in the design:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Are upstream grade control measures satisfactory:.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Are the construction timing and measures adequate based on the location:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are there plans to maintain the crossing:.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- If all answers are "Yes" or "Not Applicable", this plan is eligible for approval by an ODFW biologist.
- If any answer is "No" or there are other concerns, consult with the Fish Passage Coordinator.

APPLICATION IDENTIFIER: (insert name of project & applicant) ODFW # PA-00-0000	
DATE RECEIVED: (insert date)	
APPROVED <input type="checkbox"/>	SIGNATURE: _____ DATE: _____
DENIED <input type="checkbox"/>	TITLE: _____
CONDITIONS:	

OREGON STATE PARKS AND RECREATION

PLANS FOR PROPOSED PROJECT

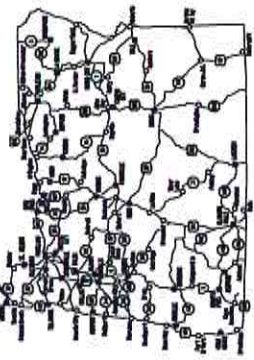
GRADING AND STRUCTURE

CANYON CREEK BRIDGE

CULVERT REPLACEMENT

ECOLA STATE PARK
CLATSOP COUNTY, OR
JUNE 2019

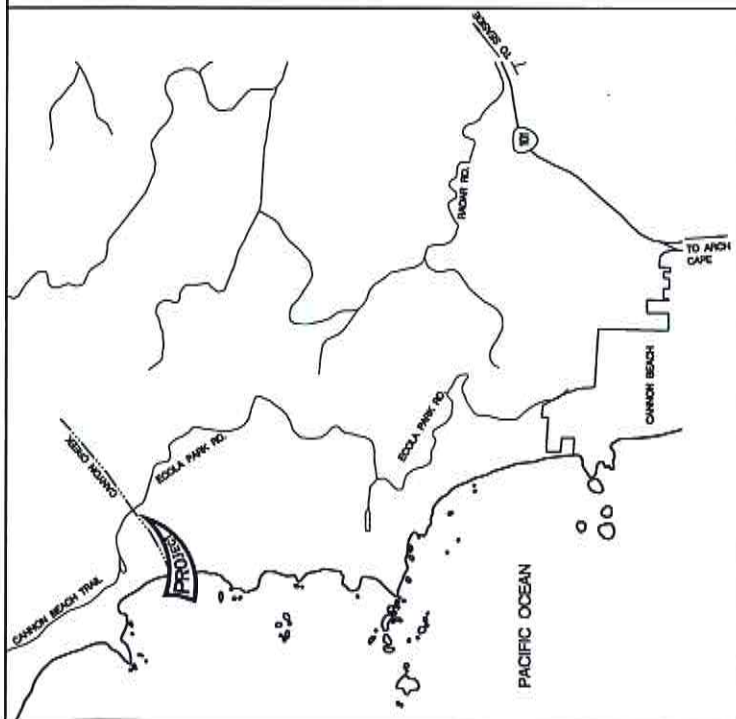
PROJECT SITE



ATTENTION:
Oregon Law Requires Ejecta Rules Adopted By The Oregon Utility Notification Center. These Rules Are Set Forth In OAR 823-008-000 Through OAR 823-008-009. All Contractors Working On The Project Must Comply With The Rules. The Oregon Utility Center Is (503) 232-1867.

LET'S ALL
WORK TOGETHER
TO MAKE THIS
JOB SAFE

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	Title Sheet
2	General Notes
3	Survey Control
4	Erosion Control Plan
5	Erosion Control Details
6	Stream Grading Plan
7	Stream Grading Details
8	Constructed Streambed
9	Stormwater Plan
10	Road Plan and Profile
11	Guardrail Plan
12	Plan and Elevation
13	Foundation Plan
14	Bent 1 Plan and Elevation
15	Bent 2 Plan and Elevation
16	Abutment Details 1
17	Abutment Details 2
18	PCPS Shop Schedule and Details
19	Bridge Rail Details



VICINITY MAP
1/8" = 500'

OWNER: OREGON PARKS AND RECREATION DEPARTMENT
12735 NW PACIFIC COAST HWY.
SEAL ROCK, OR 97376-9632
CONTACT: JEFFREY WAGNER
541-563-8507
JEFFREY.WAGNER@OREGON.GOV

ENGINEER: OTAK, INC.
700 WASHINGTON ST., SUITE 300
VANCOUVER, WA 98660
CONTACT: NICK BROWN
360-906-6791
NICK.BROWN@OTAK.COM

SURVEYOR: CASTLE ROCK SURVEYING
P.O. BOX 1252
CANNON BEACH, OR 97110
CONTACT: JOHN WICKHAM
503-436-1218
JOHN@WICKHAMGMAIL.COM

BID PLANS

SCALES INDICATED ARE FOR 22"x34" FULL SIZE DRAWINGS

OREGON STATE PARKS
700 Washington Street, Suite 300
Vancouver, Washington 98660
Phone: (360)906-6791 Fax: (360)906-6855

**CANYON CREEK BRIDGE
CULVERT REPLACEMENT
ECOLA STATE PARK**
CLATSOP COUNTY, OR
Engineer: Jeffrey Wagner, P.E.
Professional Engineer License No. 12512, State of Oregon

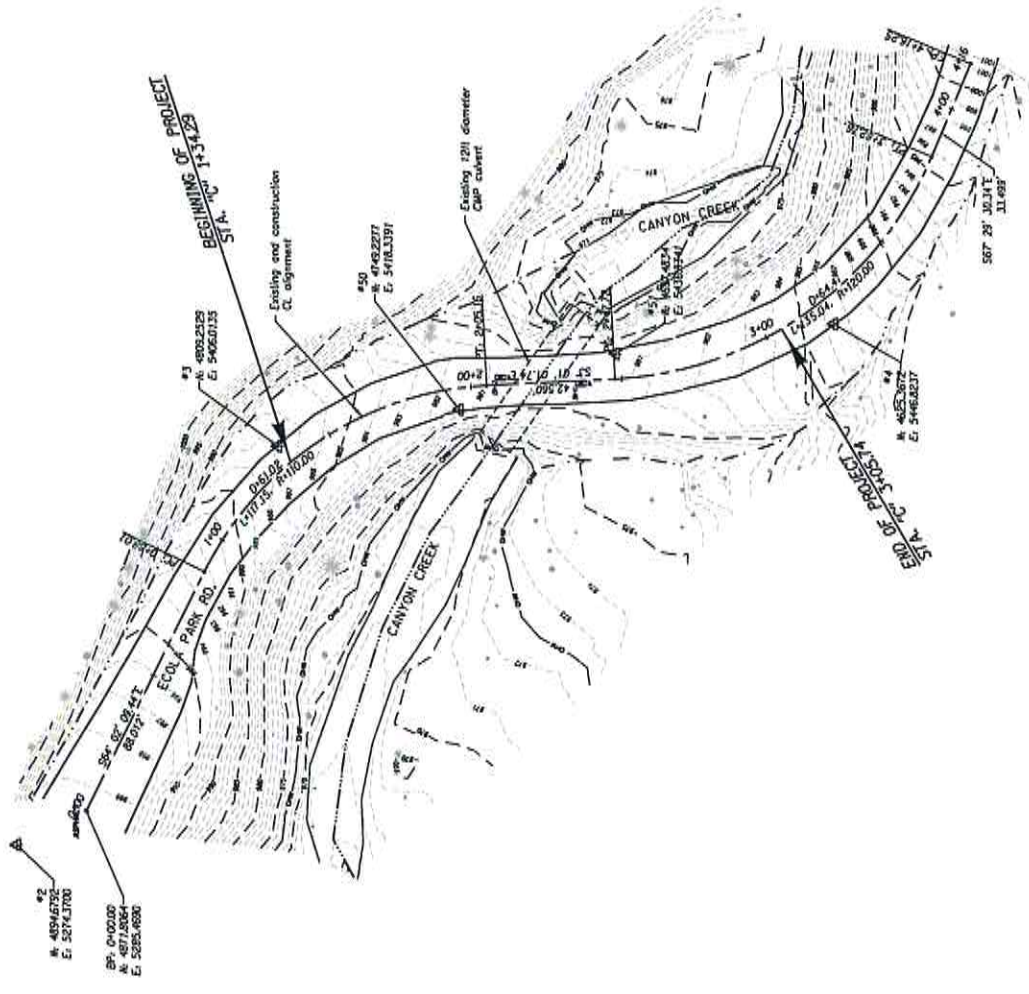
TITLE SHEET

SHEET NO. 7

NOTES

1. All elevations shown are of 1" contours and are based on an assumed elevation of 1000.00' at control point #2.
 2. Bearings are based on a compass bearing of north 69° west between control points #2 and #1.
 3. Survey data based on information provided by Cable Road Surveyors, dated January 11, 2017.

SURVEY CONTROL			
POINT	NORTHINGS	EASTINGS	ELEVATION
1	5000.0000	5000.0000	995.625
2	4894.9792	5274.3700	1000.000
3	4808.2528	5496.0135	1000.000
4	4853.3572	5446.8237	985.341
5	4941.0971	5650.3862	1017.222
50	4748.2277	5718.3391	981.208
51	4697.4534	5435.0347	980.161



#2
 N: 4894.9792
 E: 5274.3700
 Elev: 1000.000

SURVEY CONTROL
 Station 143+30



SCALES INDICATED ARE FOR 22"x34" FULL SIZE DRAWINGS

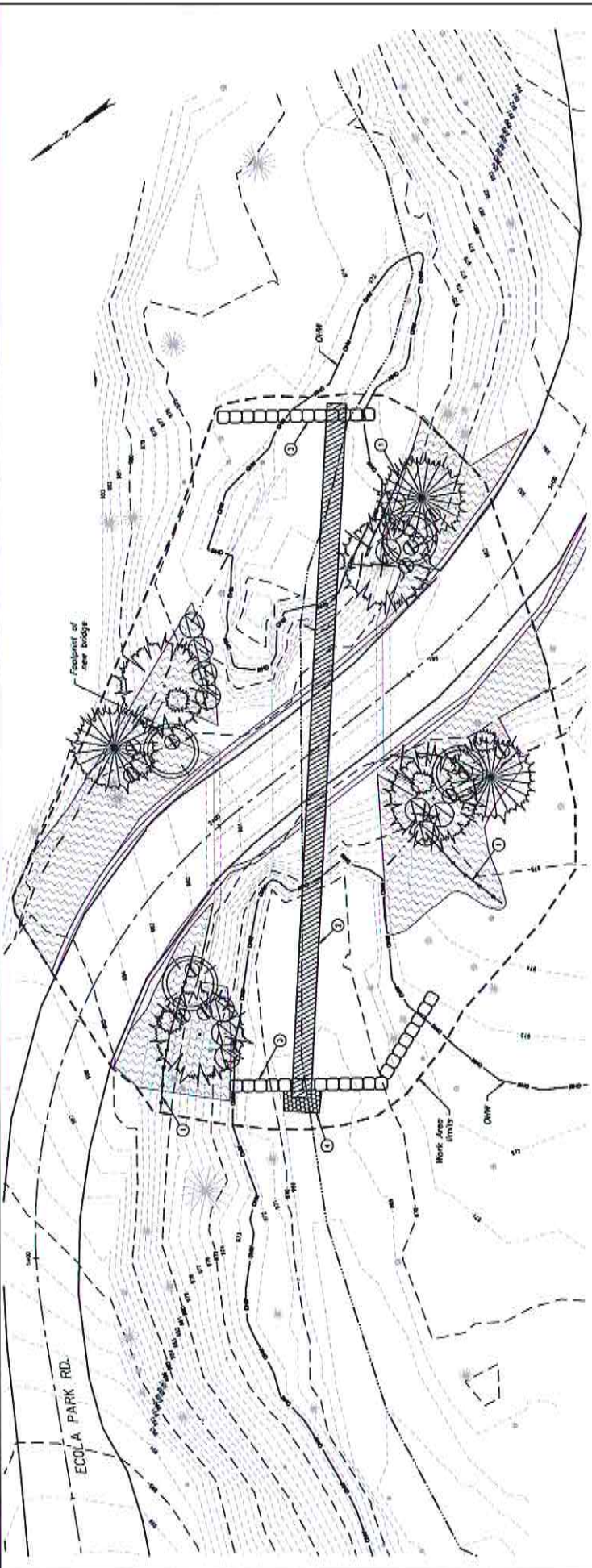
Otak
 700 Washington Street, Suite 200
 Astoria, Oregon 97103
 Phone: (503) 325-4433 Fax: (503) 325-4433

OREGON STATE PARKS
 CANYON CREEK BRIDGE
 CULVERT REPLACEMENT
 EDDA STATE PARK
 CLATSOP COUNTY, OR

Professional Engineer
 License No. 10000
 Scott A. McNeil
 10/1/2017
 12/31/2020

BID PLANS

SURVEY CONTROL
 SHEET NO. 3



- NOTES:**
1. Schedule Fence (unsupported) on Dr. No. R01040. Contractors may substitute cast, adobe fence with Section Type 3, allow white S&P. Pk. R01030.
 2. Driveway Pile
 3. Isolation Dam
 4. Offset Retention
- STANDARD DRAWINGS:**
- R01000 Construction Entrance
 - R01005 Chest Dam
 - R01010 Inlet Retention Type 1,2,3
 - R01015 Inlet Retention Type 4
 - R01020 Inlet Retention Type 5
 - R01025 Retention Barrier Type 2,3,4
 - R01030 Retention Fence Supporter
 - R01040 Unsupported
 - R01045 Temporary Stone Drain
 - R01050 Temporary Scarer Basin
 - R01055 Arching
 - R01060 Tire Mats Type J
 - R01070 Concrete Trust Nostril

- EROSION CONTROL NOTES:**
1. The contractor is responsible for implementation of the ESC plan and the construction, maintenance, replacement and upgrading of the ESC BMP's until construction is completed and permanent vegetation is established.
 2. Erosion Control measures shown on this plan are the minimum requirements for an approved site. The contractor may substitute other measures if they are approved by the Engineer. All measures must be installed and maintained in accordance with the specifications for Construction, Treatment, this plan, for all channels and existing existing channels. All measures must be installed and maintained in accordance with the specifications for Construction, Treatment, this plan, for all channels and existing existing channels.
 3. Develop a detailed plan of the Erosion Control measures shown as required by Section 02200, Oregon Standard Specifications for Construction, Treatment, this plan, for all channels and existing existing channels. All measures must be installed and maintained in accordance with the specifications for Construction, Treatment, this plan, for all channels and existing existing channels.
 4. Install measures within the right-of-way or construction easement unless directed otherwise.
 5. Install erosion control measures at the beginning of construction and maintain for the duration of the project. Additional measures may be required to insure that all paved areas are kept clean.
 6. Construct silted fence 5 feet above the top of the 1% slope where sediment-laden water has a potential of entering waterways or along the ROW.
 7. Provide all inlets during access, parking, and northwest operations to prevent pollutants from entering storm water system.
 8. At the end of each work day, contain or remove any sediment or debris on all paved surfaces due to erosion control measures. Additional measures may be required to insure that all paved areas are kept clean.
 9. Construct and/or maintain ESC measures prior to starting any grading, excavate and repair them as necessary throughout construction to ensure proper function and effectiveness.
 10. On-site storm water storage for erosion control measures may be provided by one or more of the following:
 - a. Stormwater Storage Ponds
 - b. Stormwater Storage Basins
 - c. Stormwater Storage Tanks
 - d. Stormwater Storage Structures
 11. Stormwater basins shall be designed to be pumped out of the construction area and discharged in a waterway or other approved discharge point. Stormwater basins shall be designed to discharge storm water into Carrion Creek.
 12. Provide stabilized construction entrance on both ends of project. Graphic symbols are provided as reference or structure.

- PLANTING LEGEND:**
- Inlet Permanent Seeding - 0.05 Ac.
 - Inlet Salsberry - 13 Ea.
 - Inlet Evergreen Mulberry - 5 Ea.
 - Inlet Sward Fern - 12 Ea.
 - Inlet Vine Maple - 4 Ea.
 - Inlet Silto Spruce - 4 Ea.
 - Inlet Western Redwood - 3 Ea.

- EROSION CONTROL PLAN**
13. Provide the West Type J facility at proper site.
14. Contractor Bypass system shall be capable of discharging 20 cfs.
15. Source or granular material stabilized throughout the project with topsoil covers to prevent rill or wheel erosion.
16. During construction, care will be taken to prevent any petroleum products, chemicals, or other pollutants from entering the creek. The contractor shall be responsible for the site remediation work, and contact the Owner's Representative.
17. The ESC BMP's shall be suspended daily by the contractor and maintained or necessary to ensure their continued function.
18. Water with turbidity greater than 100 above the upstream ambient level shall not be discharged back into the creek, pond, or nearby wetland.
19. Restore all disturbed areas with permanent seeding and planting after construction is completed.
20. See planting schedule on sheet 5.

OTAK

122 Washington Street, Suite 100
Vancouver, Washington 98660
Phone: (360) 571-1811 Fax: (360) 571-1811

**CARRION CREEK BRIDGE
CULVERT REPLACEMENT
ECOLLA STATE PARK**

CLATSOP COUNTY, OR
Clatsop State Park, P.O.
Bridgman, Oregon 97136, P.O.
Bridgman, Oregon 97136, P.O.

EROSION CONTROL PLAN

SHEET NO. 4

SCALE INDICATED ARE FOR 22"x34" FULL SIZE DRAWINGS

PROJECT: 1022202

BID PLANS

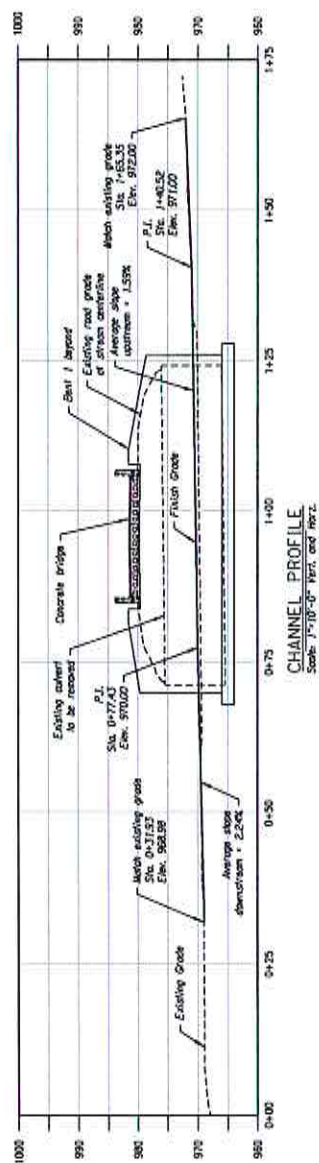
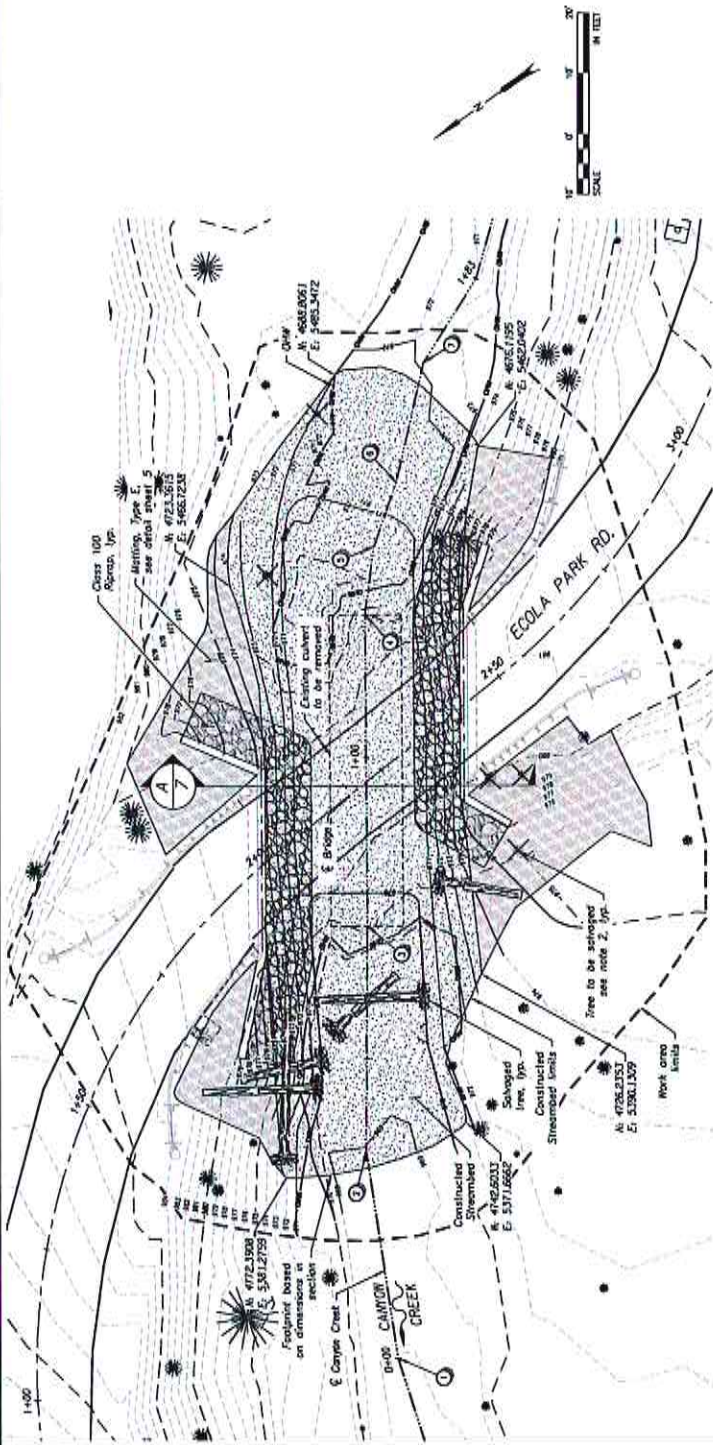
1" = 0' 0" 15' 30' IN FEET

NOTE:

1. Proper existing attachments and materials to the proposed artwork practices. Remove only the trees shown for removal on the plan.
2. Slope existing trees with nail wood stakes. Place salvaged trees in grade as shown on the plan.



POINT	NORTHING	EASTING
①	4774.4525	51963.7133
②	4750.0225	53772.7159
③	4737.2413	54077.5507
④	4707.7565	54483.5527
⑤	4693.9970	54583.4008
⑥	4630.7375	54643.1003
⑦	4675.5560	54763.1553



OTAK
250 Washington Street, Suite 200
Seattle, Washington 98102
Phone: (206) 277-9813 Fax: (206) 277-9811

OTAK
250 Washington Street, Suite 200
Seattle, Washington 98102
Phone: (206) 277-9813 Fax: (206) 277-9811

**CANYON CREEK BRIDGE
CULVERT REPLACEMENT
ECOLA STATE PARK**
CLATSOP COUNTY, OR
Matthews Engineering, P.C.
Matthews Engineering, P.C.
Clatsop County, Oregon, USA

STREAM GRADING PLAN

SCALE INDICATED ARE FOR 22"x34" FULL SIZE DRAWINGS

SHEET NO. 6



BID PLANS

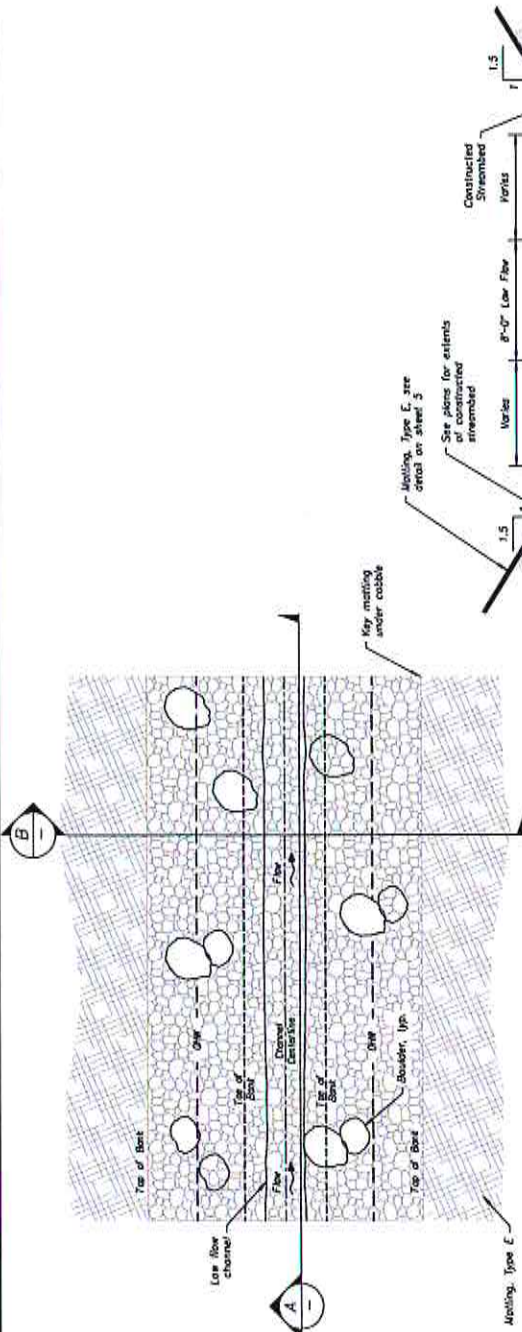
Constructed Streambed Notes:

1. Remove unsuitable materials from the channel area. These may include, but are not limited to the following: concrete, vegetation, garbage, silt, and rock. Construct with owner's representative prior to receiving any large boulders.
2. Excavation carried below the sub-grade lines shown shall be replaced with the specified overlying material. The contractor shall bear of costs for correcting over excavated areas.
3. Perform all shaping of the sub-grade to elevations, lines and grades, as shown. Slope, 1:1, and finish shape of channel to conform to the sub-grade lines, grades, and cross sections of sheet. The finished sub-grade shall be inspected by the owner's representative prior to placement of constructed streambed.
4. Place stone for constructed streambed in a manner that prevents aggregation of stone areas. Constructed streambed stone shall be placed in a manner that promotes mixing of stone areas into a consolidated layer after each 10' of placement.
5. Place 12"-18" high diameter/ 80-200lbs boulders at a density of 6 boulders/500 square feet within constructed streambed area.
6. Place coarse sand in 6" lifts.
7. Place gravel and fines mix on top of each lift of coarse mix. Use water to wash the gravel and fines mix into the voids within the coarse mix layer. Wash water shall flow through the coarse mix layer. If necessary, additional hand washing with rockbars, rakes, etc. may be required to eliminate voids in constructed streambed.
8. Continue coarse sand and gravel and fines mix placement until the finish grade for the streambed construction is reached.
9. Do not allow the gravel mix to build up such that any of the subsequent lifts of streambed stone will rest upon gravel mix.
10. Streambed stone shall be placed according to the following rules and provisions. All streambed stone shall be smooth and round. Angular, broken, or crushed stone is not acceptable. The constructed streambed will comprise of approximately 50% coarse mix and 50% gravel and fines mix. Coarse mix shall be 1-6 inch diameter. Gravel and fines mix shall be #4200 - 3" high diameter.
11. If needed to obtain surface flow of wash water, add additional gravel with fines.

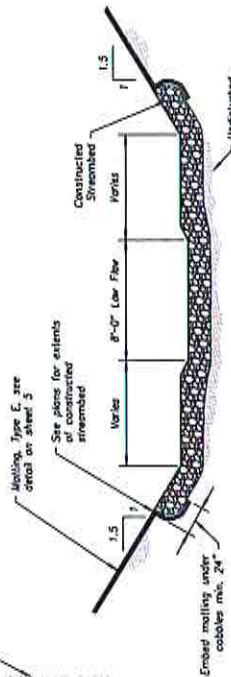
Constructed Streambed Material Table

Fill Material	Size Range (in. dia / max. weight)
Habitat Boulders	12"-18"/60-200
Coarse	1-6
Gravel with Fines	#4200-3"

* Diameter measured along intermediate axis of boulders, rocks, and gravel.

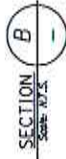


CONSTRUCTED STREAMBED DETAIL
Scale: N.T.S.

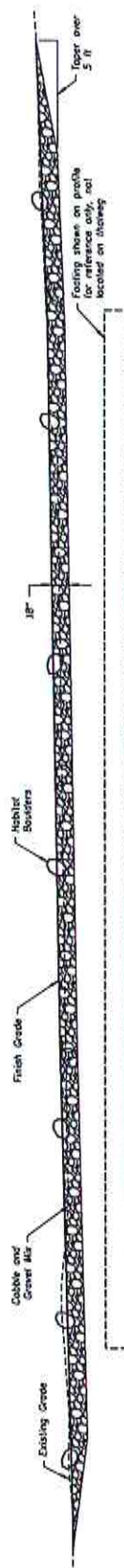


SECTION B
Scale: N.T.S.

Notes:
1. Do not place matting under bridge. See section on sheet 7.



STREAMBED CONSTRUCTION SECTION A
Scale: 1/4" = 1'-0"



SCALES INDICATED ARE FOR 22 1/2" x 34" FULL SIZE DRAWINGS

OREGON STATE PARKS

Otak

100 Washington Street, Suite 100
Vancouver, Washington 98660
Phone: (360) 575-1313 Fax: (360) 575-1383

**CANTON CREEK BRIDGE
QUARTER REPLACEMENT
ECOLA STATE PARK
CLATSOP COUNTY, OR**

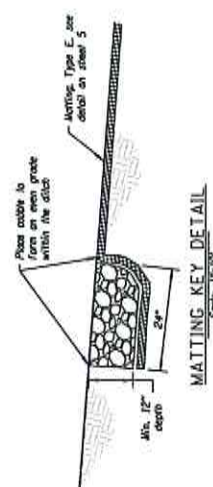
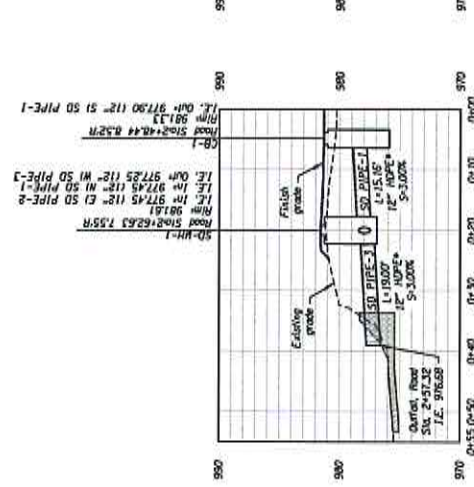
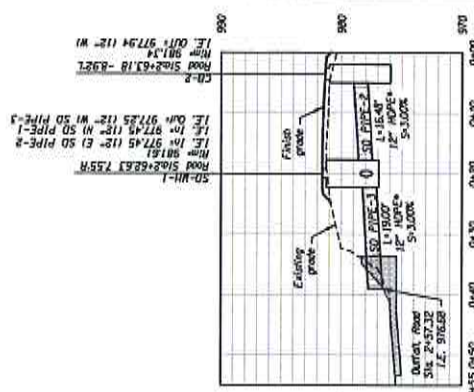
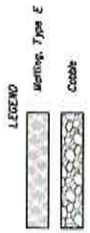
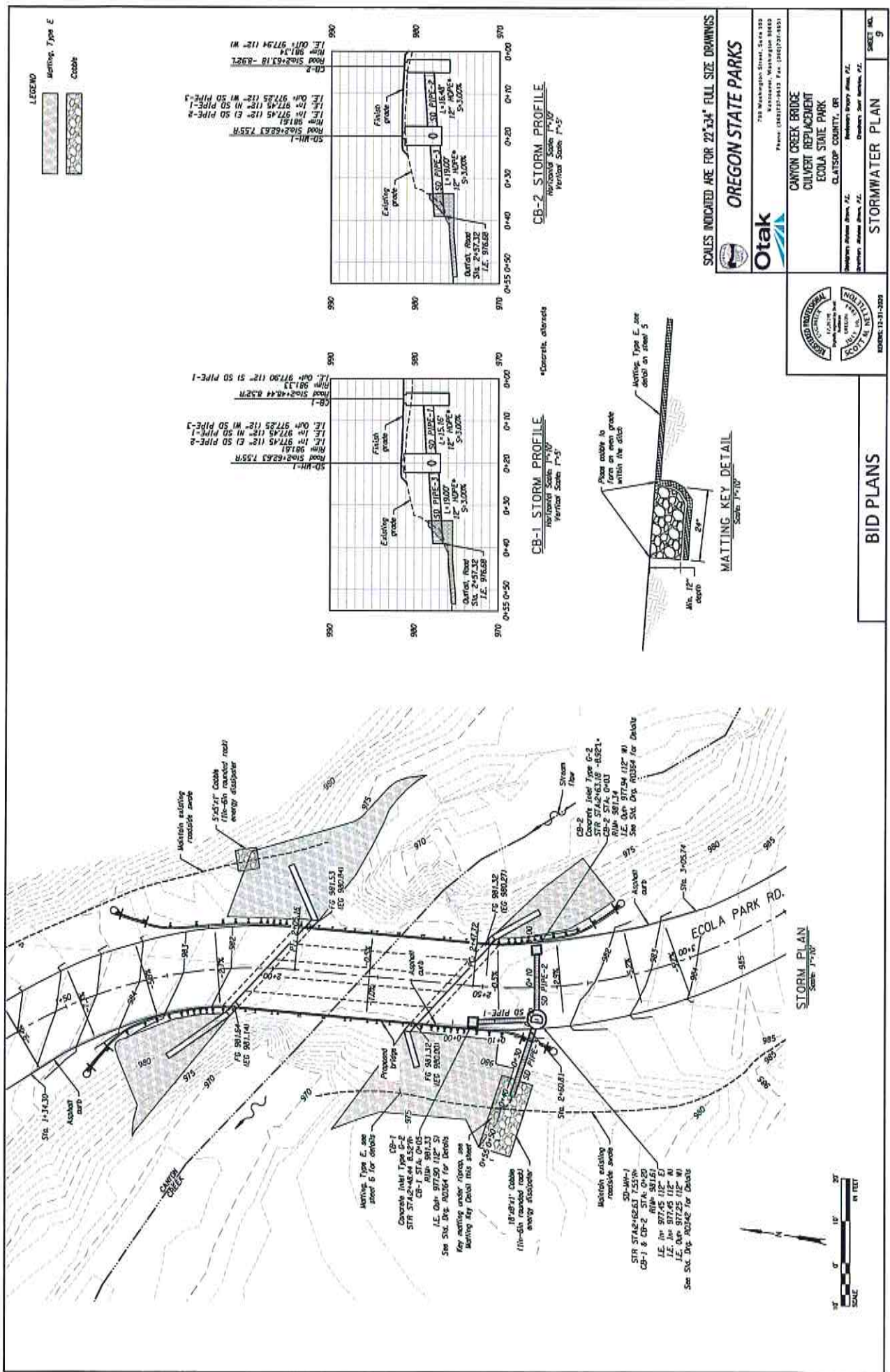
Contract No. 16-11-12
Contractor: Otak, Inc., P.O. Box 100, Cannon Creek, OR 97103
Subcontractor: Otak, Inc., P.O. Box 100, Cannon Creek, OR 97103

CONSTRUCTED STREAMBED

SHEET NO. 8



BID PLANS



OTAK
720 Washington Street, Suite 202
Knoxville, Tennessee 37902
Phone: (615) 251-1415 Fax: (615) 251-1451

OREGON STATE PARKS

**CANYON CREEK BRIDGE
CULVERT REPLACEMENT
ECOLA STATE PARK**

Highways Division, P.E.
Clatsop County, OR

Stormwater Plan
Sheet No. 9

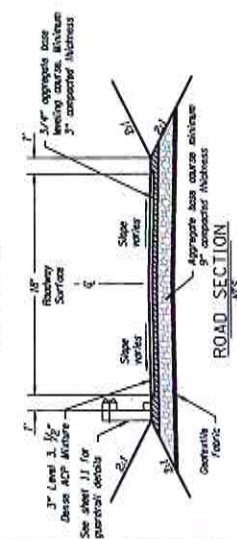
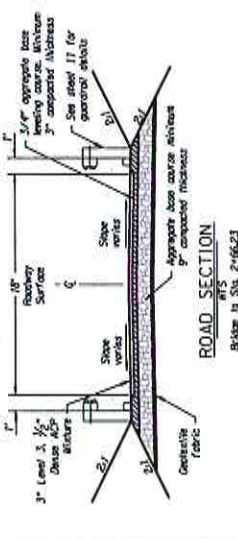
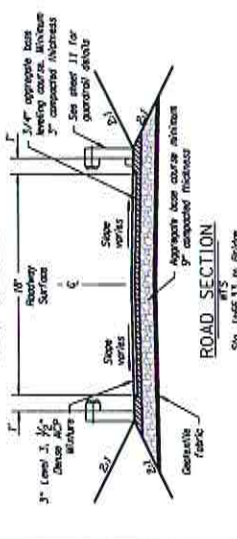
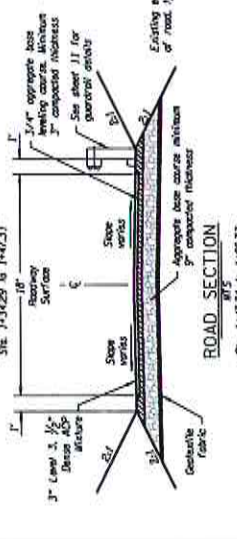
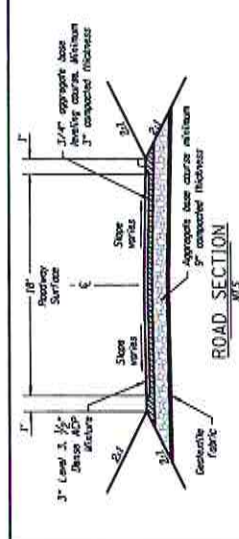
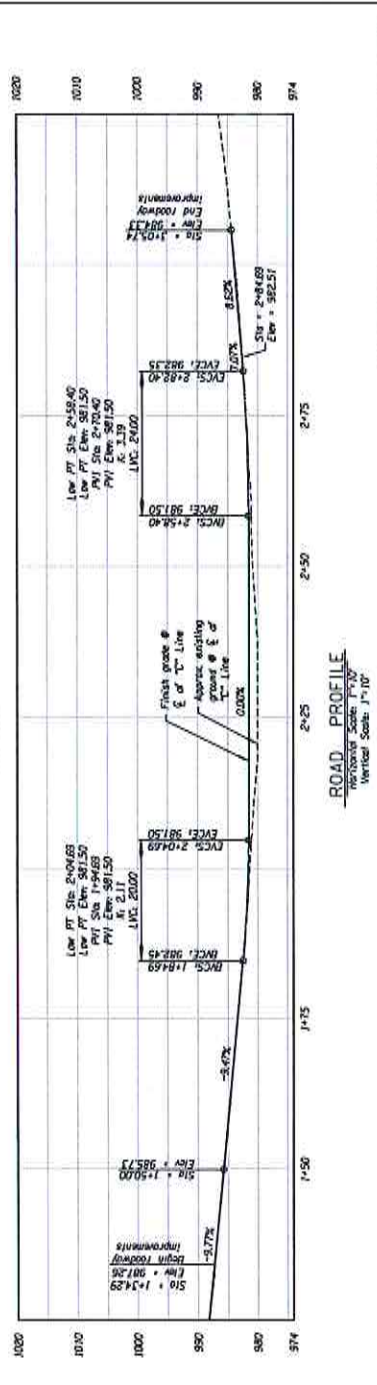
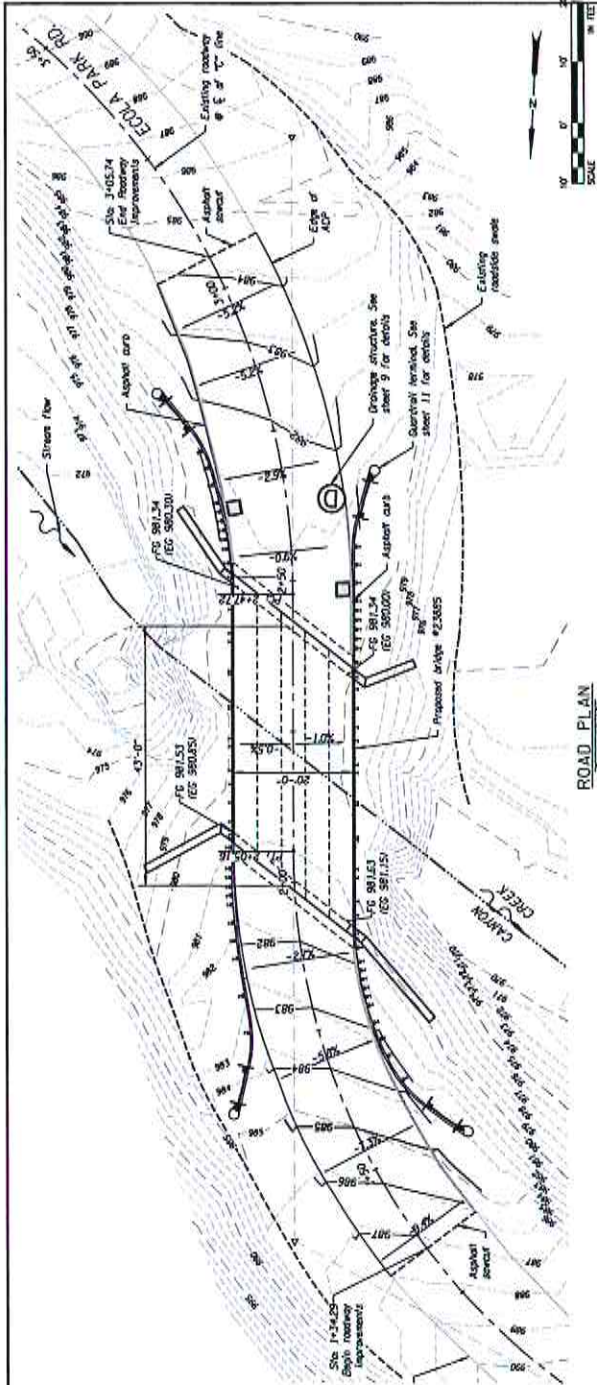


BID PLANS



STORM PLAN
Scale 1"=10'

DATE: 12-31-2020



OTAK ENGINEERS ARCHITECTS INC.

125 Washington Street, Suite 122
 Vancouver, Washington 98660
 Phone: (360) 675-1111 Fax: (360) 675-1111

CANYON CREEK BRIDGE
 CULVERT REPLACEMENT
 EODA STATE PARK
 CLATSOP COUNTY, OR

Geotechnical Engineer: Bruce P.E.
 Structural Engineer: Bruce P.E.
 Civil Engineer: Scott P.E.
 Surveyor: Scott P.E.

SCALE INDICATED ARE FOR 22"x34" FULL SIZE DRAWINGS

ROAD PLAN AND PROFILE

SHEET NO. 70

OTAK ENGINEERS ARCHITECTS INC.

125 Washington Street, Suite 122
 Vancouver, Washington 98660
 Phone: (360) 675-1111 Fax: (360) 675-1111

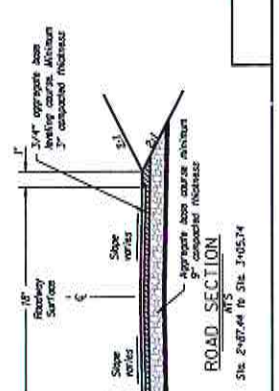
CANYON CREEK BRIDGE
 CULVERT REPLACEMENT
 EODA STATE PARK
 CLATSOP COUNTY, OR

Geotechnical Engineer: Bruce P.E.
 Structural Engineer: Bruce P.E.
 Civil Engineer: Scott P.E.
 Surveyor: Scott P.E.

SCALE INDICATED ARE FOR 22"x34" FULL SIZE DRAWINGS

ROAD PLAN AND PROFILE

SHEET NO. 70



OTAK ENGINEERS ARCHITECTS INC.

125 Washington Street, Suite 122
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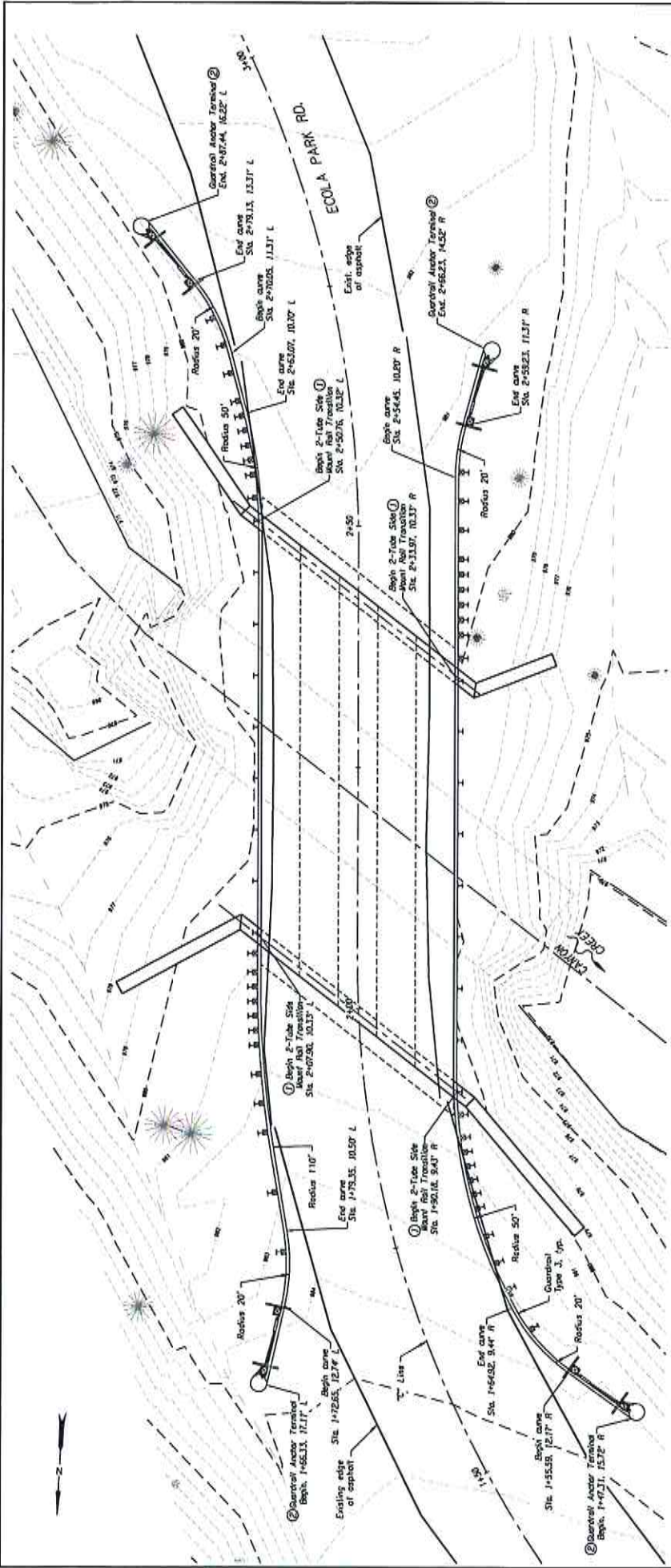
CANYON CREEK BRIDGE
 CULVERT REPLACEMENT
 EODA STATE PARK
 CLATSOP COUNTY, OR

Geotechnical Engineer: Bruce P.E.
 Structural Engineer: Bruce P.E.
 Civil Engineer: Scott P.E.
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SCALE INDICATED ARE FOR 22"x34" FULL SIZE DRAWINGS

ROAD PLAN AND PROFILE

SHEET NO. 70



- ① Guard 2-Tube Side Mount Rail Transition
See 217, 218, 219, 220
See 219 for topographic details
- ② General Anchor Termination
See 217, 218, 219, 220



SCALES INDICATED ARE FOR 22"x34" FULL SIZE DRAWINGS

Otak
100 Washington Street, Suite 200
Vancouver, Washington 98660
Phone: (360) 271-8433 Fax: (360) 272-0881

OREGON STATE PARKS

CANYON CREEK BRIDGE
CULVERT REPLACEMENT
ECOLA STATE PARK
CLATSOP COUNTY, OR

Clatsop County, Oregon, P.E.
Clatsop County, Oregon, P.E.
Clatsop County, Oregon, P.E.
Clatsop County, Oregon, P.E.

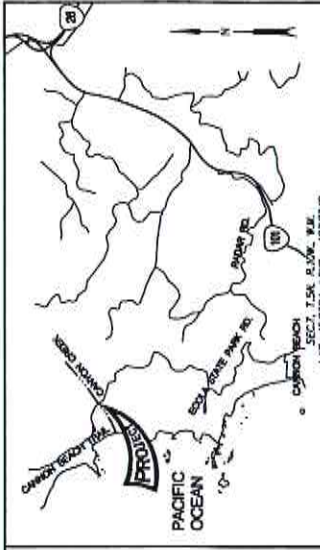
GUARDRAIL PLAN

SHEET NO. 37



BID PLANS

DATE: 12-21-2009



LOCATION MAP
No Scale

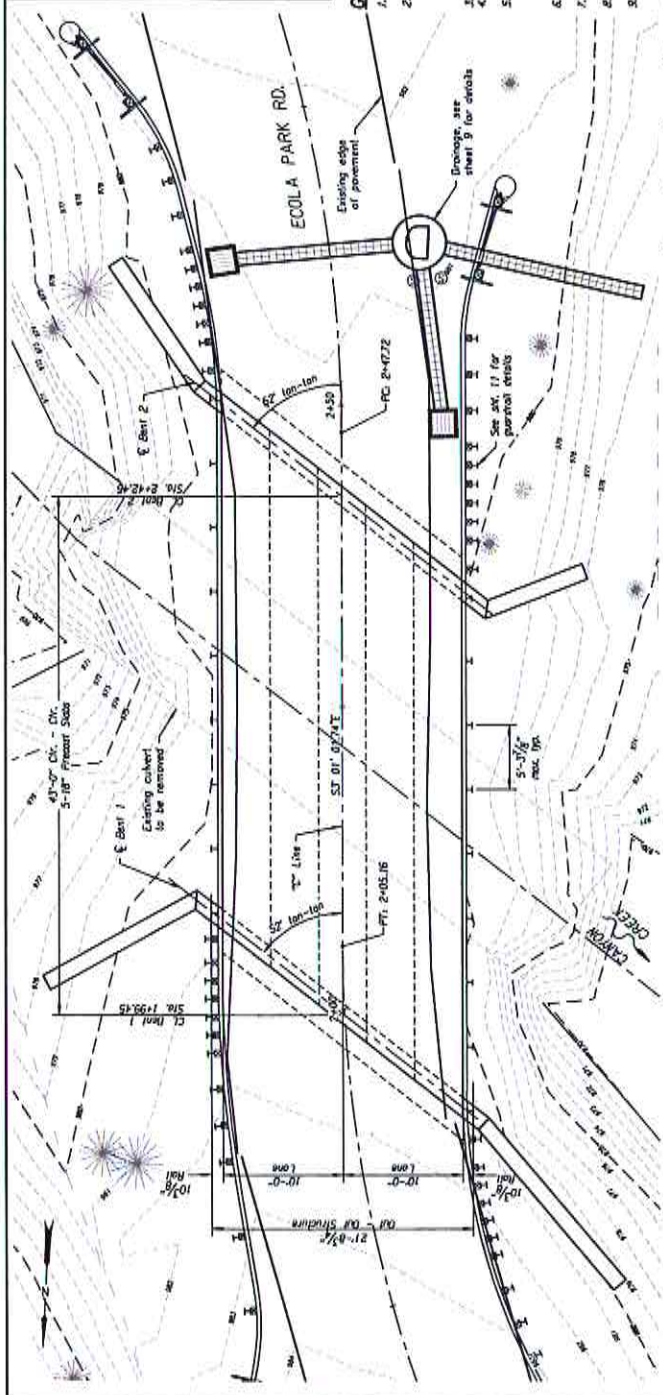
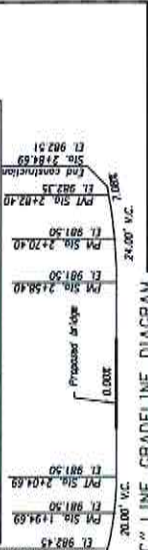
GENERAL NOTES:

- All vertical and horizontal data is in accordance with the requirements of the Oregon State Department of Transportation, Oregon Standard Specifications for Construction, 2018 and special provisions. Structure is designed in accordance with the requirements for Load & Resistance Factor Design per "LIFTING LIFTED Bridge Design Specifications" 2018, which address and the ODOT Bridge Design Manual. The structure is designed for a design speed of 35 mph and a design wind speed of 100 mph. The structure is designed for a design flood of 100-year return period. The structure is designed for a design seismicity of 0.2g and seismic design category B.
- All existing and proposed structures are shown on this plan. Structures are shown in the plan view and in elevation. Structures are shown in the plan view and in elevation. Structures are shown in the plan view and in elevation.
- All dimensions shown are measured horizontally or vertically unless noted otherwise. Dimensions and details not identified shall be as determined by the engineer's design. Submit any proposed deviations from identified requirements for review as a request for information prior to submitting shop drawings.
- Construction joints will be shown only at the abutment stems in the plans or as approved by the engineer.
- Concrete is precast/precast-in-place per PDPS Detail sheet 1E. All other concrete to be Class 4000 unless noted otherwise.
- Reinforcing steel shall be as specified in approved standard specifications or verified by independent analysis. Dimensions and details not identified shall be as determined by the engineer's design. Submit any proposed deviations from identified requirements for review as a request for information prior to submitting shop drawings.
- Provide reinforcing steel according to ASTM A706 or ASTM A615 60K 60K. Final bars and welds reinforcing steel conform to ASTM A706. Unless noted otherwise, minimum lap splice lengths shall be as follows:

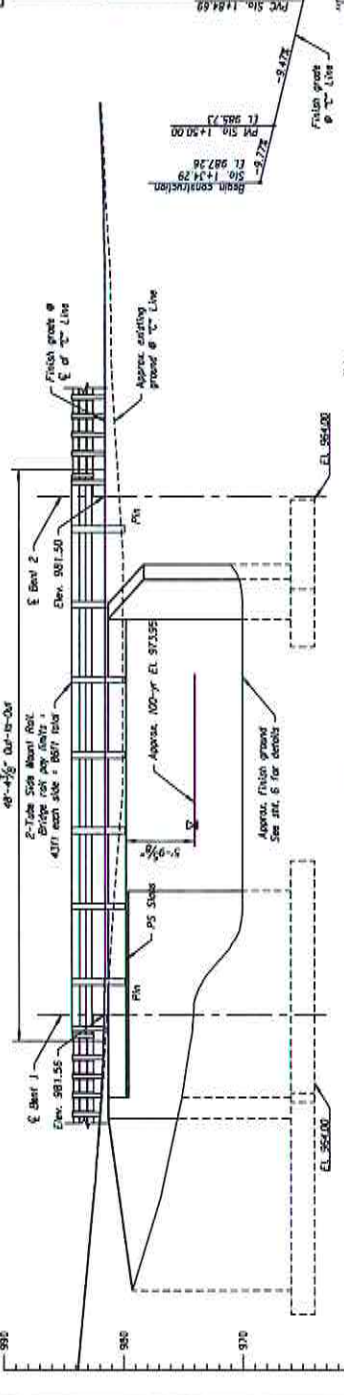
Bar Size	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18
Welded	1'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	3'-0"	4'-0"	5'-0"	7'-0"	per Permit

Reinforcing splice lengths (Cross B) Grade 60 $f_c = 4.0 \text{ ksi}$

ITEMS	(INFTS)	DESIGN FLOOD	BASE FLOOD	MAX. PROBABLE FLOOD
DISCHARGE	62.61	487	487	625
RECURRENT INTERVAL	(YRS)	100	100	500
H.W. ELEVATION AT UPSTREAM FACE OF BRIDGE	(FT)	971.68	971.68	974.19
ALONG EMBANKMENT	(FT)	0.0	0.0	0.0
SCOUR ELEVATION	(FT)	968.7	968.7	968.2



PLAN
Scale 1"=10'



ELEVATION
Scale 1"=10'

"C" LINE GRADELINE DIAGRAM
Scale 1"=100'

BID PLANS
CANYON CREEK BRIDGE
CULVERT REPLACEMENT
ECOLA STATE PARK
CLATSOP COUNTY, OR
PLAN AND ELEVATION

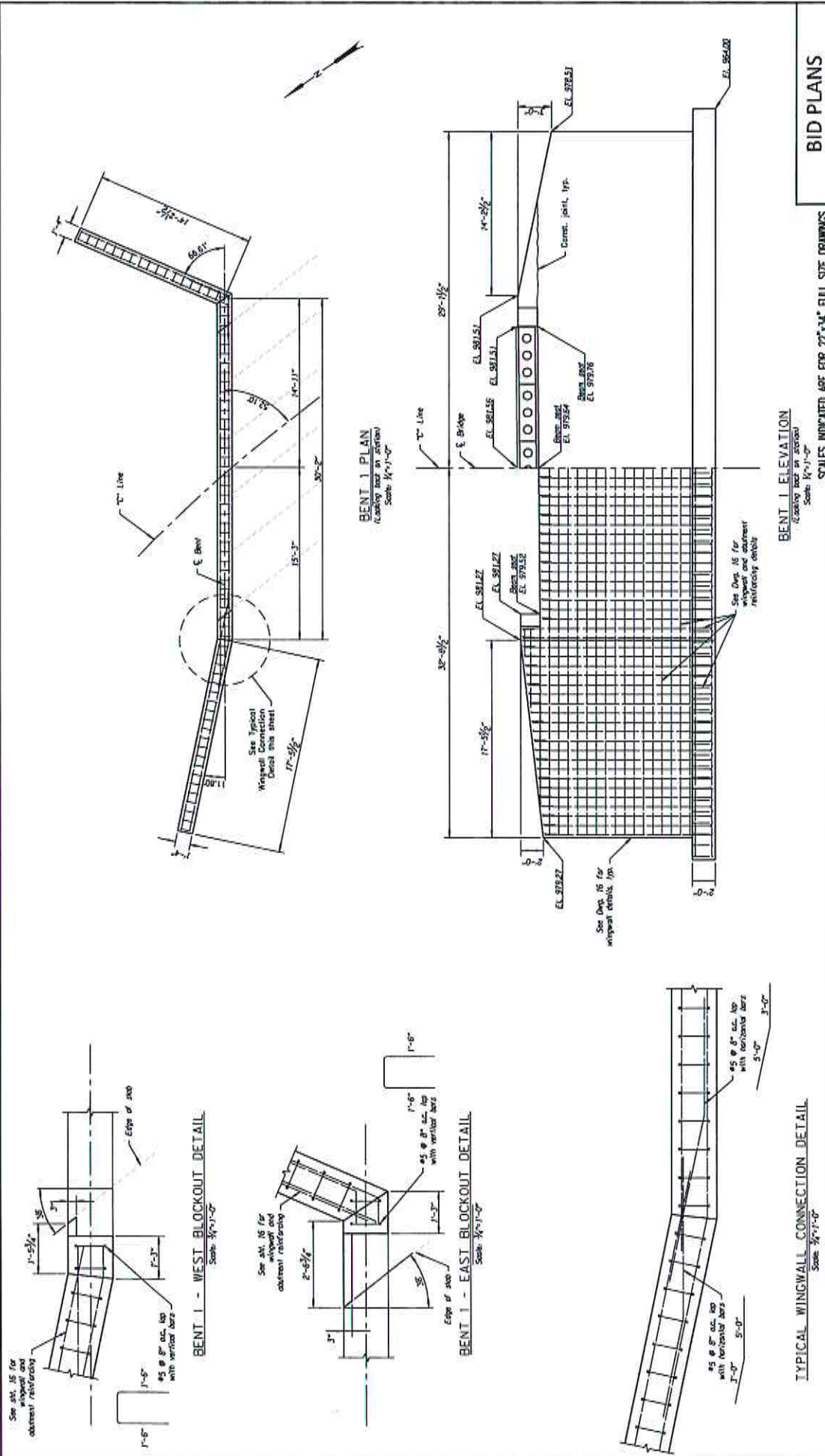
STRUCTURE NO. 23885
DATE June 2019
CALC. BOOK K&E

OTAK
700 Washington Street, Suite 200
Astoria, Oregon 97103
Phone: (503) 325-8813 Fax: (503) 325-8851

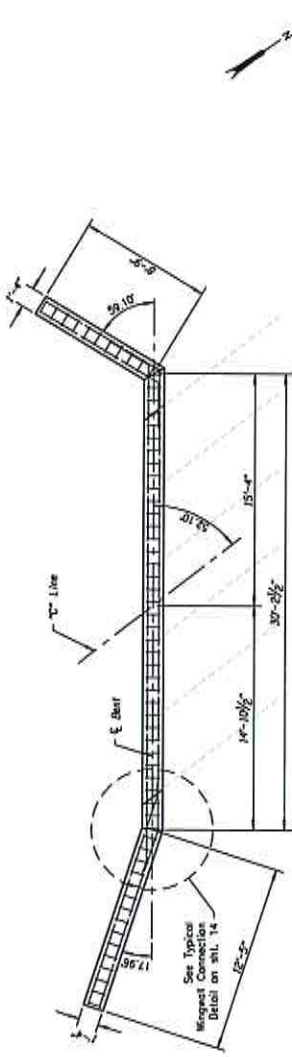
OTAK
1900-10-31-2020

BY Nicholas Brown, P.E.
DRAFTER
Nicholas Brown, P.E.
CHECKER
Scott Matheson, P.E.
DESIGNER
Gregory Atkins, P.E.
APPROVED BY DWPL

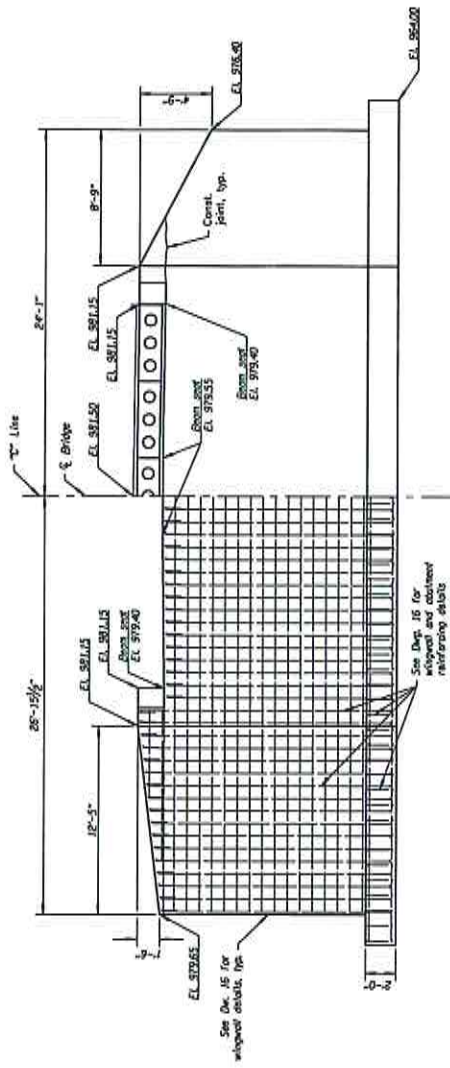
DATE: _____
PROJECT: _____
SHEET: 12 OF 19
DRAWING NO.: S01



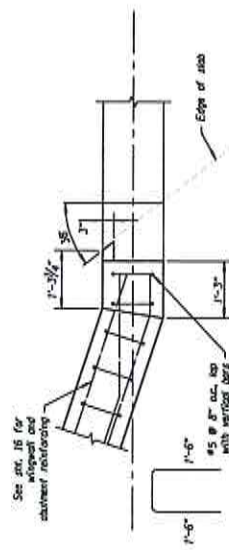
DATE		REVISION	BY	CHKD.	DATE	STRUCTURE NO.	SCALES INDICATED ARE FOR 22" X 34" FULL SIZE DRAWINGS		BID PLANS	
						23885	CANYON CREEK BRIDGE CULVERT REPLACEMENT		SHEET 14 OF 19	
ACCOMPANIED BY: ENCL.							OREGON STATE PARKS AND RECREATION		DRAWING NO. S03	
							DATE June 2019		ECOLA STATE PARK CLATSOP COUNTY, OR	
							CALC. BOOK AKK		BENT 1 PLAN AND ELEVATION	
							700 Washington Street, Suite 300 Kirkland, Washington 98033 Phone: (860) 271-8813 Fax: (860) 272-8851			



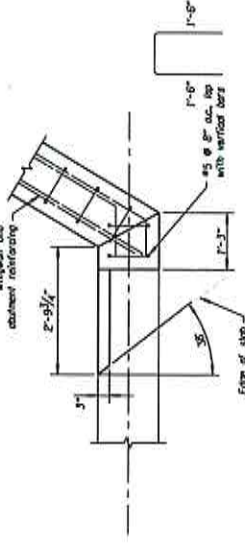
BENT 2 PLAN
Scale 3/8"=1'-0"



BENT 2 ELEVATION
Scale 3/8"=1'-0"

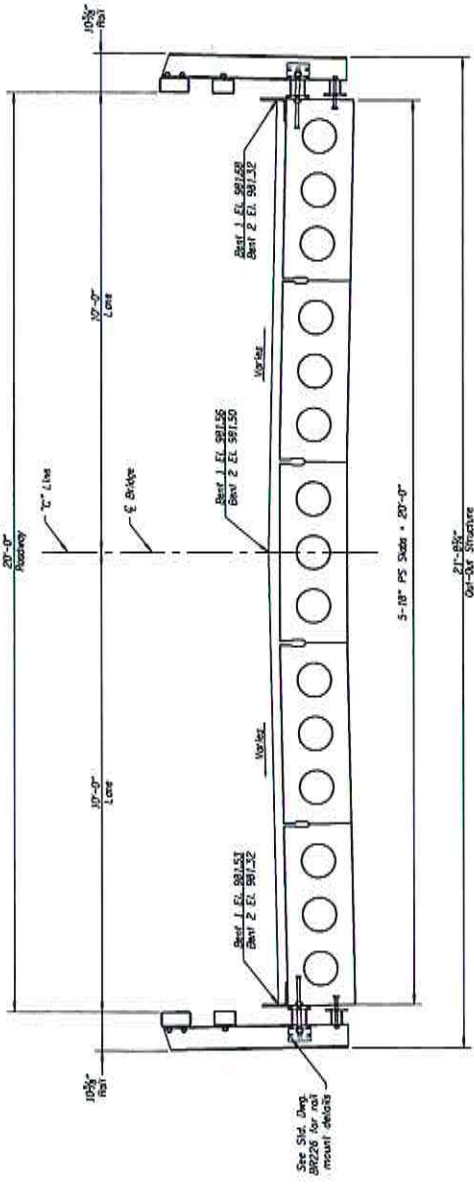


BENT 2 - EAST BLOCKOUT DETAIL
Scale 3/8"=1'-0"



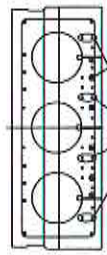
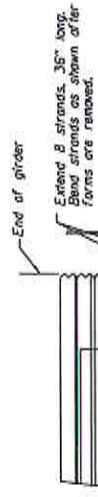
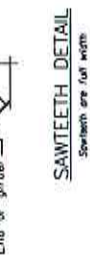
BENT 2 - WEST BLOCKOUT DETAIL
Scale 3/8"=1'-0"

DATE	REVISION	BY	REVISION	BY	REVISION
				Nicholas Brown, P.E.	
				Nicholas Brown, P.E.	
				Scott Herlihan, P.E.	
				Gregory Miness, P.E.	
ACCOMPANIED BY: DRCS.					
			212 Washington Street, Suite 302 Tualatin, Oregon 97062 Phone: (503) 271-9513 Fax: (503) 271-9551		
OREGON STATE PARKS AND RECREATION			STRUCTURE NO. 2-3895		
SCALES INDICATED ARE FOR 22 1/2" x 34" FULL SIZE DRAWINGS			DATE June 2019		
CANYON CREEK BRIDGE CULVERT REPLACEMENT ECOLA STATE PARK CLATSOP COUNTY, OR			CALC. BOOK ZZZ		
BENT 2 PLAN AND ELEVATION			PRINTING NO. S04		



Notes:
 1. Horizontal dimensions and slabs are measured normal to 1" Line unless noted otherwise.
 2. Elevation shown are finish grade.

TYPICAL SECTION
 Scale: 1/2"=1'-0"



PARTIAL END ELEVATION
 STRAND EXTENSION DETAIL (FOR REFERENCE)
 PARTIAL END VIEW

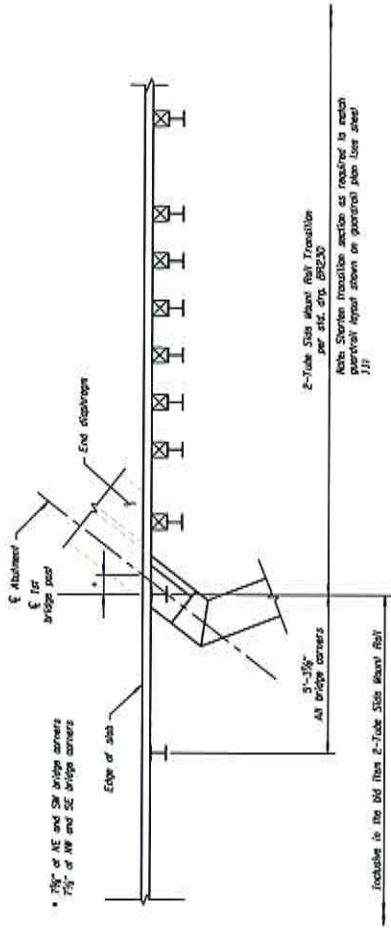
18" STANDARD PRECAST PRESTRESSED SLABS (FOR REFERENCE)

Slab Number	Number Required	Span Number	Horizontal Length of slab & fl. (after shortening)	Skew Angle	Number of Strands	Distance "Yc" to c.g. strand of midspan, in.	Distance "Yt" to c.g. top strand, in.	Concrete Strength @ 28 Days, ksi	Concrete Strength @ Release, ksi	Initial Tension per Strand, kips	Upward of Release	Upward 3 months after Release	Upward 5 years after Release	Downward Due to S/DL	Downward Due to S/DL after Loading	Estimated Shrinkage 2 weeks after Release, in.
-	5	1	44'-9"	30	30	3.42	2.59	7.0	5.0	203	1.33	1.18	1.15	-0.76	-0.68	0.52

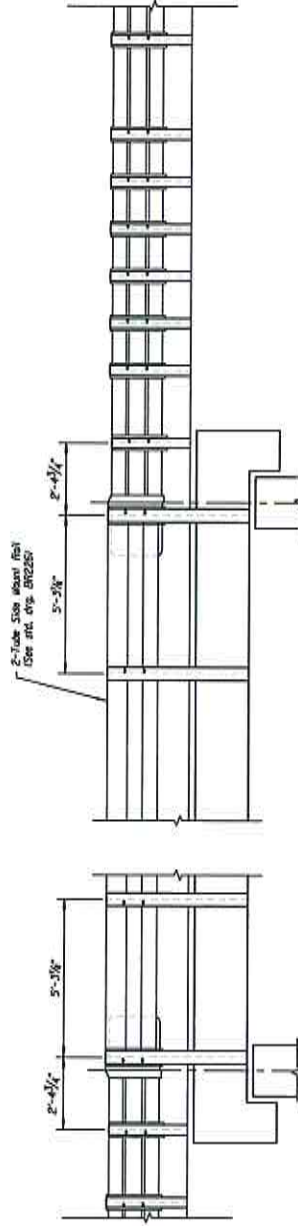
The superimposed dead load (S/DL) is 59 lbs./ft² which includes the present wearing surface, bridge rails, utilities and allowance for 2 in. depth of future wearing surface.

Note: Precast prestressed slabs to be provided by Agency, see special provisions.

ACCOMPANIED BY: _____ DESIGNER: _____ CHECKER: _____ DATE: _____		FOR REFERENCE ONLY		OREGON STATE PARKS AND RECREATION		STRUCTURE NO. 23885		BID PLANS	
				Nicholas Brown, P.E. Nicholas Brown, P.E. Scott Neffler, P.E. Gregory Mines, P.E.		DATE: June 2019		CANYON CREEK BRIDGE CULVERT REPLACEMENT ECOLA STATE PARK CLATSOP COUNTY, OR	
Otak				100 Washington Street, Suite 202 Vancouver, Washington 98662 Phone: (360) 273-6613 Fax: (360) 273-0651		CALC. BOOK: zxx		PCPS SLAB SCHEDULE AND DETAILS	



PARTIAL PLAN
Scale 1/2"=1'-0"



WEST ELEVATION
Scale 1/2"=1'-0"

NORTH END OF BRIDGE SHOWN

SOUTH END OF BRIDGE SHOWN

DATE		REVISION		BY		CHECKED		APPROVED		DRAWING NO.	
										SOB	
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OREGON STATE PARKS AND RECREATION STRUCTURE NO. 2-3995 DATE June 2019 CALC. BOOK JJK				OREGON STATE PARKS AND RECREATION 700 Washington Street, Suite 200 Vancouver, Washington 98660 Phone: (509)737-8813 Fax: (509)737-8851				SCALES INDICATED ARE FOR 22"x34" FULL SIZE DRAWINGS CANYON CREEK BRIDGE CULVERT REPLACEMENT ECOLA STATE PARK CLATSOP COUNTY, OR BRIDGE RAIL DETAILS			
MICHAEL BROWN, P.E. MICHAEL BROWN, P.E. SCOTT JERNIGAN, P.E. GREGORY MINAX, P.E.											

SECTION 00210 - MOBILIZATION

Comply with Section 00210 of the Standard Specifications modified as follows:

00210.40 Mobilization - Add the following bullet to the end of the bullet list:

- Obtaining and maintaining access to Doc Express®, and using Doc Express® to submit documents according to 00170.08.

00210.90 Payment - Add the following paragraph to the end of this subsection:

No separate or additional payment will be made for any costs associated with obtaining and maintaining access to Doc Express® or the use of Doc Express®.

SECTION 00220 - ACCOMMODATIONS FOR PUBLIC TRAFFIC

Comply with Section 00220 of the Standard Specifications modified as follows:

Add the following subsection:

00220.42 Bridge Site Road Closure - Close the road to traffic at the bridge site during reconstruction of the bridge. Do not close the road until all materials and equipment are on hand or guaranteed to be delivered so that the work can be done in an efficient manner with a minimum period of road closure.

The road closure will not be allowed until the area is signed according to the TCP and the requirements of Section 00225.

SECTION 00225 - WORK ZONE TRAFFIC CONTROL

Comply with Section 00225 of the Standard Specifications.

SECTION 00245 - TEMPORARY WATER MANAGEMENT

Section 00245, which is not a Standard Specification, is included in this Project by Special Provision.

Description

00245.00 Scope - This work consists of furnishing, installing, operating, maintaining, and removing temporary water management facilities in regulated work areas.

00245.02 Definitions:

Temporary Water Management Facility - A facility that conveys water around work areas, removes water from work areas, and treats and discharges water at locations outside work areas.

00245.03 Temporary Water Management Plan - The Agency Temporary Water Management Plan (TWMP) is a concept plan. 28 Calendar Days before beginning work in regulated work areas, submit stamped working drawings of a Contractor-developed TWMP, according to 00150.35, based on either the Agency's concept plan or an independent plan that meets water quality and environmental guideline requirements and does not affect neighboring properties or water rights.

Include at least the following information:

- The sequence and schedule for dewatering and re-watering.
- How the work area will be isolated from the active stream flow upstream, through, and downstream.
- How the stream flow will be routed and conveyed around or through the isolated work area.
- How the isolated area will be de-watered.
- How the pumped water will be treated before it is discharged downstream.
- Discuss all construction stages.
- A list of on-site backup materials and equipment
- Calculations of water withdraw pumps capacity.

Obtain the Engineer's written approval before beginning work in in-water work areas.

00245.10 Materials - Furnish materials meeting the following requirements:

Pipe	00445.11
Plastic Sheeting	00280.14(a)
Riprap	00390.11
Sandbags	00280.15(a)
Water Intake Screening.....	00290.34(c)

Furnish pumps that are:

- Self priming.
- Equipped with a variable speed governor.
- Equipped with a power source.
- Able to pump water that contains soft and hard solid.

Furnish sediment control bags that meet the following requirements:

The sediment control bag shall be manufactured using a polypropylene 8 oz. non-woven geotextile sewn into a bag using a high-strength thread. The non-woven geotextile shall meet the following requirements:

Property	Test Method	Requirement
Weight	ASTM D-3776	8 oz./sq. yd.
Min. Grab Tensile Strength	ASTM D-4632	205 Lb.
Min. CBR Puncture Strength	ASTM D-4833	525 lb.
Min. Flow Rate	ASTM D-4491	90 gal./min/ft ²
Maximum Permittivity	ASTM D-4491	1.4 sec ⁻¹
Min. Ultraviolet Stability	ASTM D-4355	70%
Min. AOS % Retained	ASTM D-4751	Sieve No. 80
Min. Overall Removal Efficiency	ASTM D-7880	97.55%

Construction

00245.40 Fish Removal - The Agency, ODFW biologists, or ODOT consultant personnel will remove fish and aquatic life from the isolation work areas. Allow them access into the isolation work areas before and after installation of the temporary water management facilities as follows:

- Before Installation of Facilities - Before installing temporary water management facilities they will remove fish and aquatic life within the proposed isolated work area.
- After Installation of Facilities - After installing temporary water management facilities begin reducing the water level through the isolated work area. They will remove all fish and aquatic life as the water level is reduced. The water level will need to be sufficiently lowered for the safe capture and removal of fish and aquatic life. Do not de-water the isolation area until all fish and aquatic life have been removed.

00245.41 Installation - During installation of the temporary water management facility, maintain a downstream water flow rate of at least 50 percent of the upstream water flow rate.

00245.42 Operation - Operate temporary water management as follows:

- Protect fish and fish habitat according to 00290.34.
- Maintain and control water flow downstream of the isolated work area for the duration of the diversion to prevent downstream de-watering.
- Clean and repair water intake screening to maintain adequate flow and protection of aquatic life.

00245.43 Maintenance - Monitor water turbidity according to 00290.30(a)(8).

00245.44 Removal - Remove the temporary water management facility and rewater and restore the stream flow when approved by the Engineer. Maintain downstream water flow during removal of the facility.

Measurement

00245.80 Measurement - No measurement of quantities will be made for temporary water management facilities.

The estimated quantities of materials required for the temporary water management facility are:

Temporary Water Management Facility at Station _0+28 to 1+66__ :

Pipe	143 Feet
Plastic Sheetting	200 Square Yard
Riprap	5 Cubic Yard
1 ton Sandbags.....	80 Each
Pumps with Intake Screening.....	2 Each
Sediment Control Bags	2 Each

Turbidity monitoring will be measured according to 00290.80.

00245.90 Payment - The accepted quantities of temporary water management facilities will be paid for at the Contract lump sum amount for the item "Temporary Water Management Facility at Station _____".

The location of the facility will be inserted in the blank.

Payment will be payment in full for completing the TWMP, furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

Turbidity monitoring will be paid according to 00290.90.

No separate or additional payment will be made for designing, maintaining, operating, moving, and removing the facility.

SECTION 00280 - EROSION AND SEDIMENT CONTROL

Comply with Section 00280 of the Standard Specifications modified as follows:

00280.14(e) Slope and Channel Liner Matting – Replace the paragraph that begins with "Furnish matting from the QPL . . ." with the following:

Furnish matting from the QPL that meets the following performance criteria, except for Type F. For Type F, provide matting meeting the specific requirements listed below.

Replace the bullet that begins "Type F – Flexible . . ." with the following:

- Type F Non-Woven - Long-term, machine-produced, double-net erosion control blanket of 100% coconut fiber with a functional longevity of up to 24 months. The blanket shall be of consistent thickness with the coconut evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with 100% biodegradable woven natural organic fiber netting. The netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands to form an approximate 0.50 x 1.0 inch mesh. The blanket shall be sewn together on 1.50 inch centers with biodegradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches from the edge) as an overlap guide for adjacent mats. The matting shall meet Type 4 specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17. The matting shall meet or exceed the following requirements:

<u>Parameter</u>	<u>Procedure/Test</u>	<u>Criterion</u>
Thickness	ASTM D6525	0.23 inches
Resiliency	ECTC Guidelines	85%
Water Absorbency	ASTM D1117	365%
Mass/Unit Area	ASTM 6475	9.79 oz/sy
Light Penetration	ASTM D6567	16.2%
Tensile Strength - MD	ASTM D6818	206.4 lbs/ft
Elongation - MD	ASTM D6818	15.3%
Tensile Strength - TD	ASTM D6818	145.2 lbs/ft
Elongation - TD	ASTM D4632	12.9%

00280.48 Emergency Materials - Add the following paragraphs after the paragraph that begins "Provide, stockpile, and protect...":

Provide and stockpile the following emergency materials on the Project site:

Item	Quantity
Plastic Sheeting	20 Square Yards

SECTION 00290 - ENVIRONMENTAL PROTECTION

Comply with Section 00290 of the Standard Specifications modified as follows:

00290.00 Scope – Add the following paragraph to the end of the subsection:

The Contractor is responsibility for compliance with all Federal, State, and Local Regulations and permit conditions. All permits obtained for the project are included in the Bid Package, Including US Army Corps of Engineers, Oregon Department of State Lands, and Oregon Department of Fish and Wildlife Fish Passage Approval.

00290.30(a) Pollution Control Measures - Add the following subsections and bullets:

(7) Water Quality:

- Do not discharge contaminated or sediment-laden water, including drilling fluids and waste, or water contained within a work area isolation, directly into any waters of the State or U.S. until it has been satisfactorily treated (for example: bioswale, filter, settlement pond, pumping to vegetated upland location, bio-bags, dirt-bags). Treatment shall meet the turbidity requirements below.
- Do not cause turbidity in waters of the State or U.S. greater than 10% above background reading (up to 100 feet upstream of the Project), as measured 100 feet downstream of the Project.
- During construction, monitor in-stream turbidity and inspect all erosion controls daily during the rainy season and weekly during the dry season, or more often as necessary, to ensure the erosion controls are working adequately meeting treatment requirements.
- If construction discharge water is released using an outfall or diffuser port, do not exceed velocities more than 4 feet per second, and do not exceed an aperture size of 1 inch.
- If monitoring or inspection shows that the erosion and sediment controls are ineffective, mobilize work crews immediately to make repairs, install replacements, or install additional controls as necessary.
- Underwater blasting is not allowed.
- Implement containment measures adequate to prevent pollutants or construction and demolition materials, such as waste spoils, fuel or petroleum products, concrete cured less than 24 hours, concrete cure water, silt, welding slag and

grindings, concrete saw cutting by-products and sandblasting abrasives, from entering waters of the state or U.S.

- End-dumping of riprap within the waters of the state or U.S. is not allowed. Place riprap from above the bank line.
- Cease project operations under high flow conditions that may result in inundation of the project area, except for efforts to avoid or minimize resource damage.
- The Project Manager retains the authority to temporarily halt or modify the Project in case of excessive turbidity or damage to natural resources.

(8) Visual Turbidity Monitoring - Perform visual turbidity monitoring each day when working in regulated work areas according to the following:

- Before beginning work, make in stream turbidity observation approximately 100 feet upstream and, based on the wetted stream width, at the compliance distance listed in Table 00290-1 downstream of the in-water work area.
- Make in stream turbidity observations upstream and downstream every four hours.
- If a turbidity plume is observed within the compliance distance downstream of the in-water work area, implement in-water best management practices (BMP). If a turbidity plume is still observed at the second four hour observation, stop all in-water work and implement additional BMP. Resume in-water work activity the next morning.
- If a turbidity plume is observed beyond the compliance distance downstream of the in-water work area at any observation interval, stop all in-water work and implement additional BMP. Resume in-water work activity the next morning.

Table 00290-1

Wetted Stream Width	Compliance Distance
≤ 30 feet	50 feet
> 30 feet to 100 feet	100 feet
> 100 feet to 200 feet	200 feet
> 200 feet	300 feet
Lakes, Ponds, and Reservoirs max. surface dimension	Lesser of 100 feet or

Document all turbidity monitoring results including date, time, and location on the Agency provided form or another form approved by the Agency. Submit reports to the Engineer weekly when working in regulated work areas and keep copies of the reports at the project site.

If work activities violate permit conditions or cause water quality violations which may endanger the health of aquatic life or environment, stop all in-water work activities and notify the Engineer. Submit a written report of violations to the Engineer within 5 Calendar Days of violation.

00290.34 Protection of Fish and Fish Habitat - Add the following paragraph:

Meet with the Agency Biologist, Resource Representative, Project Manager, and inspector on site, before moving equipment on-site or beginning any work, to ensure that all parties understand the locations of sensitive biological sites and the measures that are required to be taken to protect them.

00290.34(a) Regulated Work Areas - Add the following to the end of this subsection:

The regulated work area is the area at or below the ordinary high water (OHW) elevation shown on the plans.

For this Project, the regulated work area is the area at or below 972.5 feet assumed elevation and between stream stations 0+25 and 1+70.
Perform work within the regulated work area only during the in-water work period. The in-water work period is from July 1st to September 15th.

00290.34(b) Prohibited Operations - Replace this subsection, except for the subsection number and title, with the following:

Except where allowed by the Contract or by permit, do not:

- Blast underwater.
- Use water jetting.
- Release petroleum products or chemicals in the water.
- Disturb spawning beds.
- Obstruct stream channels.
- Cause silting or sedimentation of waters of the State or waters of the U.S.
- Use treated timbers within the regulated work area.
- Impede adult and juvenile fish passage, including intermittent streams.

Allow entry within the Regulated Work Area or between stations 00290.34(c) Aquatic Species Protection Measures Required by Environmental Permits:

(1) General Requirements:

- Do not install fish ladders (for example: pool and weirs, vertical slots, fishways) or fish trapping systems.
- Do not apply surface fertilizer within 50 feet of any stream channel.

Use heavy equipment as follows:

- Choice of equipment must have the least adverse effects on the environment (for example: minimally sized, low ground pressure).
- Secure absorbent material around all stationary power equipment (for example: generators, cranes, drilling equipment) operated within 150 feet of wetlands,

waters of the State, waters of the U. S., drainage ditches, or water quality facilities to prevent leaks, unless suitable containment is provided to prevent spills from entering waters of the state or waters of the U.S.

- Do not cross directly through a stream for construction access, unless shown or approved. If shown or approved, cross perpendicular to the stream and do not block stream flow. When a crossing is no longer needed, completely remove the crossing and restore the soils and vegetation to the original condition.
- Store fuel and maintain all equipment in staging areas that are at least 150 feet away from any waters of the State, waters of the U.S., or storm inlet or on an impervious surface that is isolated from any waters of the State, waters of the U.S., or storm inlet.
- If temporary access roads are needed within 150 feet of any body of water, use existing routes unless new routes are shown or approved.
- Before beginning work on temporary access routes that are not shown, submit a proposal to the Engineer for approval.

(2) Work Area Isolation - Provide work isolation according to Section 00245. Provide safe passage around or through the isolated work area for adult and juvenile migratory fish unless passage did not previously exist.

(3) Water Intake Screening - Install, operate, and maintain fish screens on each water intake used for project construction, including pumps used to isolate an in-water work area. When drawing or pumping water from any stream, protect fish by equipping intakes with screens having a minimum 27% open area and meeting the following requirements:

- Circular screen face openings must not exceed 3/32 inch in diameter. Perforated plate must be smooth to the touch with openings punched through in the direction of the approaching flow.
- Slotted or rectangular screen face openings must not exceed 1.75 mm (approximately 1/16 inch) in the narrow direction.
- Square screen face openings must not exceed 3/32 inch on a side.
- The screen material must be corrosion resistant and sufficiently durable to maintain a smooth uniform surface with long term use.

Choose size and position of screens to meet the following criteria:

Type	Approach Velocity ¹ (Ft./Sec.)	Sweeping Velocity ² (Ft./Sec.)	Wetted Area of Screen (Sq. Ft.)	Comments

Screen with proven self-cleaning system	≤ 0.4	–	Divide max. water flow rate (cfs) by 0.4 fps	–
Screen with no cleaning system other than manual	≤ 0.2	–	Divide max. water flow rate (cfs) by 0.2 fps	Pump rate 1 cfs or less
¹ Velocity perpendicular to screen face at a distance of approximately 3 inches ² Velocity parallel to screen				

(4) Special Aquatic Habitats - The following exploration or construction activities are not allowed in special aquatic habitats:

- Use of pesticides and herbicides, unless allowed according to Section 01030.
- Use of short pieces of plastic ribbon to determine flow patterns.
- Temporary roads or drilling pads built on steep slopes, where grade, soil type, or other features suggest a likelihood of excessive erosion or slope failure.
- Exploratory drilling in estuaries that cannot be conducted from a work barge, or an existing bridge, dock, or wharf.
- Installation of a fish screen on any permanent water diversion or intake that is not already screened.
- Drilling or sampling in an EPA-designated Superfund Site, a state-designated clean-up area, or the likely impact zone of a significant contaminant source, as identified by historical information, U. S. Army Corps of Engineers representative, or the Agency.

(5) Site Restoration - Restore damaged streambanks to a natural slope, pattern, and profile suitable for establishment of permanent woody vegetation unless precluded by pre-project conditions (for example: natural rock substrate):

- Replant all damaged streambanks before the first April 15 following construction.
- If use of large wood, native topsoil, or native channel material is required for the site restoration according to the roadside development plans, stockpile all large wood, native vegetation, weed-free topsoil, and native channel material displaced by construction. Cut trees or large wood and trees into pieces of no less than 20 feet in length, or as shown on the roadside development plans or as directed. Stockpiled native wood and vegetation remain the property of the Agency.
- Stabilize all disturbed soils, including obliteration of temporary access roads, following any break in work unless construction will resume in 4 Calendar Days.

(6) Surface Water Diversions - Surface water may be diverted to meet construction needs other than work area isolation, consistent with Oregon law, only if water from sources that are already developed, such as municipal supplies, small ponds, reservoirs, or tank trucks, is unavailable or inadequate, and meeting the following conditions:

- When alternative surface sources are available, divert from the stream with the greatest flow.
- Install, operate, and maintain a temporary fish screen.
- Do not exceed a pumping rate and volume of 10% of the available flow. For streams with less than 5 cubic feet per second, do not exceed drafting of 18,000 gallons per day. Do not use more than one pump for each site.

(4) Temporary Power, Communication and Water Lines - Before installing temporary power, communication, or water lines across streams or bodies of water, submit a proposed plan to the Engineer for approval. Do not begin installation before receiving approval from the Engineer. Proposed plans for installation of temporary power, communication, and water lines and stream crossings shall utilize the following design methods in the listed order of priority:

1. Aerial lines, including lines hung from existing bridges.
2. Directional drilling, boring and jacking that spans the channel migration zone and any associated wetland.
3. Trenching, which is restricted to intermittent streams and may only be used when the stream is naturally dry. For all sections of trenches below the ordinary high water line, backfill with native material and cap with clean gravel suitable for fish use in the project area.

Align each crossing as perpendicular to the watercourse as possible. For drilled, bored, or jacked crossings, ensure that the line is below the total scour prism. Return any large wood displaced by trenching or plowing as nearly as possible to its original position, or otherwise arranged to restore habitat functions.

(5) Injured Fish Notification - If a dead or injured fish is found in the project area, immediately notify the Agency. If the injured fish is in a location where further injury or stress may take place, attempt to move the fish to a safer location, if one is available, near the capture site while keeping the fish in the water and reducing its stress as much as possible. Do not disturb the fish after it has been moved. If the fish is dead or dies while being captured or moved, save the fish and any tags. The Agency will notify appropriate regulatory agencies about the injured or dead fish and provide additional direction to the Contractor.

Add the following subsection:

00290.36(c) Prevent Nesting - Comply with Migratory Bird Treaty Act (16 U.S.C. 703-712). Submit a migratory bird protection plan for review and approval at least 10 Calendar Days before the pre-construction conference. Include the following:

- Provide a list of qualified personnel experienced in bird identification, including a summary of their qualifications. A qualified individual shall have at least 2 years of work experience identifying nesting birds in the Pacific Northwest.
- Describe measures to avoid disturbance to migratory bird nesting habitat (vegetation, structures) from March 1 to September 1 of each year. If complete avoidance is not

feasible, describe measure and method to prevent birds and bats from nesting within the Project Site. Describe measures to install, inspect, maintain, and repair exclusionary devices and/or harassment methods, and a schedule for installing, inspecting, and removing exclusionary measures.

- Do not begin work until the migratory bird protection plan and the implementation schedule are approved.
- Prevent nesting by native birds on structures to be removed or repaired and on vegetation to be removed as follows:
 - Install, inspect, repair and maintain exclusionary methods or begin harassment methods to prevent nesting of native birds in, on, or under the structures and the vegetation from March 1 to September 1 of each year.
 - If exclusionary measures have been installed or harassment methods have begun on-site prior to NTP, within 15 Calendar Days of the preconstruction conference, assume responsibility for ensuring that native birds do not nest in, on, or under the structures or the vegetation, according to Agency's migratory bird protection plan, including maintaining and inspecting exclusionary measures.
 - Using qualified personnel from the list, perform inspections on the structures (and the vegetation) according to the implementation schedule for nesting activity and effectiveness of exclusionary measures. Document inspections and maintain documentation on-site.
 - Remove existing bird nests only if no eggs or young are found.
 - Meet with the Agency Biologist, the Engineer, and inspector on-site if nests containing eggs or young are found.
 - Use equivalent materials when repairing or replacing damaged exclusionary measures.
 - If on-site work is completed prior to September 1, discontinue exclusionary measures or harassment methods.

In the event the Contractor fails to prevent nesting of native birds, the Engineer may suspend the work according to 00180.70.

Unless authorized in writing by the Engineer, return to the Engineer, within 5 Calendar Days of removal, all exclusionary measures applied by others prior to the NTP for the Project.

Add the following subsection:

00290.36(d) Wildlife Avoidance/Harassment (High Noise) - For purposes of this project, "high noise" is defined as sound pressure levels greater than 10 dBA above the ambient as measured by the L_{AFmax} and L_{AFeq} at sensitive habitat as shown:

- Non-blasting high-noise producing construction activities are not allowed between April 1 and August 5. Blasting activities within one mile of sensitive habitat shall be conducted only between September 15 and March 30.
- Non-blasting high noise producing construction activities conducted from August 6 to September 15 shall implement a daily limited operating period of daytime work being

conducted from two hours after sunrise to two hours before sunset. If night construction is needed, then activity shall be conducted one hour after sunset to one hour before sunrise.

00290.41 Protection of Wetlands – Replace the title of this subsection with “Protection of Waters of the U.S. or State”

Delete the paragraph that begins with “For the purposes of this Section...”.

00290.41(a) Identifying Wetlands – Replace the title of this subsection with “Identifying Waters of the U.S. or State, Including Wetlands”

00290.41(b) Disturbing Wetlands – Replace the title of this subsection with “Disturbing Waters of the U.S. or State, Including Wetlands”

- Add the following to the end of this subsection:

Permits have been obtained for this project from the US Army Corps of Engineers (Corps) and the Department of State Lands (DSL). Keep a copy of Corps and DSL permits at the project site during construction. Changes to the project that may increase the amount of fill placed or material removed in waters of the U.S. or State, or the acreage of waters impacted are not authorized. The following waters of the U.S. or State are present and have been determined to be unavoidable:

Impact Waters of the US or State	Removal Volume (cu yds.)	Fill Volume (Cu yds)	Station	Duration of Impact (Temporary or Permanent)	Area of impact (Acres)
Canyon Creek	880	785	0+30 to 1+65	Permanent	0.25

SECTION 00305 - CONSTRUCTION SURVEY WORK

Section 00305, which is not a Standard Specification, is included for this Project by Special Provision.

Description

00305.00 Scope - Provide construction survey work according to the current edition on the date of Advertisement, of the ODOT "Construction Surveying Manual for Contractors". This manual is available on the web at:

http://www.oregon.gov/ODOT/ETA/Documents_Geometronics/Construction-Survey-Manual-Contractors.pdf

Measurement

00305.80 Measurement - No measurement of quantities will be made for construction survey work.

Payment

00305.90 Payment - The accepted quantities of construction survey work will be paid for at the Contract lump sum amount for the item "Construction Survey Work".

Payment will be payment in full for furnishing all material, equipment, labor, and incidentals necessary to complete the work as specified.

No separate or additional payment will be made for any temporary protection and direction of traffic measures including flaggers and signing necessary for the performance of the construction survey work.

No separate or additional payment will be made for preparing surveying documents including but not limited to office time, preparing and checking survey notes, and all other related preparation work.

Costs incurred caused by survey errors will be at no additional cost to the Agency. Repair any damage to the Work caused by Contractor's survey errors at no additional cost to the Agency. The Engineer may make an equitable adjustment, which may decrease the Contract Amount, if the required survey work is not performed.

SECTION 00310 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Comply with Section 00310 of the Standard Specifications.

SECTION 00320 - CLEARING AND GRUBBING

Add the following subsection:

00320.02 (d) Tree Salvage – Tree Salvage consists of:

- Removal of trees (as indicated on the plans) with root wads intact
- Stockpiling of removed trees on site
- Placement of removed trees in final location (as shown on the plans)

Add the following subsection:

00320.44 Tree Salvage - Remove tree with root wad intact by felling tree with an excavator or similar equipment

00320.80 Measurement

Add the following to the end of the subsection:

- Tree Salvage – Per each

00320.80 Payment

Add the following to the end of the subsection:

Bid Item	Unit of Measurement
Tree Salvage.....	EA

SECTION 00330 - EARTHWORK

Comply with Section 00330 of the Standard Specifications modified as follows:

00330.03 Basis of Performance - Add the following paragraph to the end of this subsection:

Perform all earthwork under this Section except for Constructed Streambed (cobbles, habitat boulders, and gravel with fines) on the excavation basis.

00330.42(c)(3) Embankment Slope Protection - Add the following paragraph:

Construct the outer 12 inches of embankments with suitable materials to establish slope stabilization through permanent seeding. If suitable material is not available, provide suitable materials from a Contractor-provided source which conforms to the requirements of 00330.11 or 00330.13 and provides favorable conditions for germination of seed and growth of grass.

SECTION 00340 - WATERING

Comply with Section 00340 of the Standard Specifications.

SECTION 00390 - RIPRAP PROTECTION

Comply with Section 00390 of the Standard Specifications.

SECTION 00405 - TRENCH EXCAVATION, BEDDING, AND BACKFILL

Comply with Section 00405 of the Standard Specifications modified as follows:

00405.12 Bedding - Replace the bullet that begins "3/8" - 0 PCC Fine Aggregate..." with the following bullet:

- 3/8" - 0 PCC fine Aggregate conforming to 02690.30(g).

00405.46(c)(2) Class A, B, C, or D Backfill - Replace the paragraph that begins "Compact the top 3 feet..." with the following paragraph:

Compact each layer of trench backfill material within the Roadway and Shoulders, and within a 2V:1H Slope line projected from each Subgrade Shoulder, to not less than 95 percent of maximum density. Compact all other trench backfill material to not less than 90 percent of maximum density.

SECTION 00440 - COMMERCIAL GRADE CONCRETE

Comply with Section 00440 of the Standard Specifications modified as follows:

Add the following subsection:

00440.02 Abbreviations and Definitions:

ASTV – Actual Strength Test Value – See 02001.02 for definition.

00440.12 Properties of Commercial Grade Concrete - Replace the bullet that begins "Compressive strength..." with the following bullet:

- Compressive Strength - ASTV minimum of 3,000 psi at 28 days

00440.14(d) Hardened CGC - Add the following to the end of this subsection:

The ASTV at 28 Days is the average compressive strength of the three cylinders tested. Discard all specimens that show definite evidence, other than low strength, of improper sampling, molding, handling, curing, or testing. The average strength of the remaining cylinders shall then be considered the test result.

SECTION 00445 - SANITARY, STORM, CULVERT, SIPHON, AND IRRIGATION PIPE

Comply with Section 00445 of the Standard Specifications.

SECTION 00470 - MANHOLES, CATCH BASINS, AND INLETS

Comply with Section 00470 of the Standard Specifications.

SECTION 00480 - DRAINAGE CURBS

Comply with Section 00480 of the Standard Specifications.

SECTION 00501 - BRIDGE REMOVAL

Comply with Section 00501 of the Standard Specifications modified as follows:

00501.00 Scope - Add the following paragraph(s) to the end of this subsection:

Remove the existing Corrugated Pipe Culvert over Canyon Creek .

SECTION 00510 - STRUCTURE EXCAVATION AND BACKFILL

Comply with Section 00510 of the Standard Specifications.

SECTION 00530 - STEEL REINFORCEMENT FOR CONCRETE

Comply with Section 00530 of the Standard Specifications modified as follows:

00530.80(a) Lump Sum - Add the following to the end of this subsection:

The estimated quantity of reinforcement is:

Quantity Structure	Uncoated (Pound)	Coated (Pound)	
Canyon Creek		45,450	0

SECTION 00540 - STRUCTURAL CONCRETE

Comply with Section 00540 of the Standard Specifications modified as follows:

00540.17(a) Aggregate - Replace this entire subsection, including 00540.17(a)(1) and 00540.17(a)(2), with the following subsection:

00540.17(a) Aggregate - Acceptance of aggregate will be according to 02690.12.

00540.17(c)(2) Actual Strength Test Value - Replace this subsection, except for the subsection number and title, with the following:

The ASTV at 28 Days is the average compressive strength of the three cylinders tested. Discard all specimens that show definite evidence, other than low strength, of improper sampling, molding, handling, curing, or testing. The average strength of the remaining cylinders shall then be considered the test result.

00540.49(a)(1) Hot Weather - Replace the paragraph that begins "Maintain the concrete temperature..." with the following paragraph:

Maintain the concrete temperature during hot weather as specified. When concrete temperatures approach the maximum allowable temperature according to 02001.20(d), take appropriate action to lower the concrete temperature.

00540.51(a) General Requirements - Replace the paragraph that begins "Cure cast-in-place concrete..." with the following paragraph:

Cure cast-in-place concrete surfaces with water, wet burlap, and a layer of 4 mil polyethylene film, except polypropylene fabric may be used in place of wet burlap on horizontal surfaces. Begin curing as soon after placement as possible without damaging the freshly placed concrete. Continue curing for 7 Calendar Days (14 Calendar Days for bridge decks) after placement.

Add the following paragraph to the end of this subsection:

If the ambient temperature falls below 50 °F, or is forecasted to be below 50 °F, provide a 24-hour continuous recording thermometer and place it directly on the surface of the concrete. Once placed, the thermometer shall remain in place for the duration of the cure period. Use methods approved by the Engineer to maintain a concrete temperature of at least 50 °F during the cure period.

00540.80(a)(1) Lump Sum - Add the following to the end of this subsection:

The estimated quantity of concrete is:

Canyon Creek Bridge

Type and Class Quantity (Cu. Yd.)

Foundation Concrete, Class 4000

200

SECTION 00550 - PRECAST PRESTRESSED CONCRETE MEMBERS

00550.00 Scope - Replace this subsection, except for the subsection number and title, with the following:

This work consists of receipt, final delivery and placement of pre-fabricated prestressed concrete slabs as supplied by the Agency for construction in the final constructed position as indicated on the Project Plans and within these Specifications. Receipt by the Contractor will be at the location of road closure, specifically the Ecola State Park road wye at the Ecola Point Day Use area, approximately 1.25 road miles south of the project location.

Comply with Sections 00550.49 through 00550.90 of the Standard Specifications modified as follows:

00550.49 Lifting, Storage, Transporting, Erecting, and Bracing - Add the following paragraph to the beginning of this subsection:

Contractor will supply all applicable activities within this subsection from acceptance of the prestressed members, freight on board, at the Ecola Park Road wye from the Ecola Point Day-Use area to the final bridge site location including installation into the final position.

00550.80 Measurement – Replace this subsection with the following:

No measurement will be made for the work under this section.

00550.90 Payment – Replace this subsection with the following:

The accepted quantity of work performed under this Section will be paid for at the Contract lump sum price, for the following item:

Pay Item	Unit of Measurement
Install Precast Prestressed Slabs.....	Lump Sum

SECTION 00582 - BRIDGE BEARINGS

Comply with Section 00582 of the Standard Specifications.

SECTION 00587 - BRIDGE RAILS

Comply with Section 00587 of the Standard Specifications modified as follows:

00587.10 Materials - Add the following to the end of the list:

Coating Materials for Concrete..... 02210.30

00587.42(e) Latex Paint Cure for PCC - Replace this subsection with the following subsection:

00587.42(e) Latex Emulsion Paint Cure for PCC - As an option to curing cast-in-place or slipformed bridge rails, the following procedure may be used:

- Allow free moisture to flash off, but only until the concrete surface does not glisten, and never for more than 1 hour.
- Apply latex emulsion paint from the QPL as follows:
 - Apply the first coat at an application rate of 150 square feet per gallon.
 - Allow the first coat to air-dry for 1 hour.
 - Apply the second coat at an application rate of 150 square feet per gallon, with the application direction transverse to the direction of the first coat.

00587.80 Measurement - Add the following to the end of this subsection:

The estimated quantity of bridge rail is:

Quantity Structure Rail Type	(Foot)	
Canyon Creek	BR226	96

SECTION 00591 - SPRAY WATERPROOFING MEMBRANE

Comply with Section 00591 of the Standard Specifications.

SECTION 00640 - AGGREGATE BASE AND SHOULDERS

Comply with Section 00640 of the Standard Specifications.

SECTION 00744 - ASPHALT CONCRETE PAVEMENT

Comply with Section 00744 of the Standard Specifications modified as follows:

00744.11(a) Asphalt Cement - Add the following to the end of this subsection:

Provide PG 64-22 grade asphalt cement for this Project.

00744.42 Tack Coat - Add the following paragraph to the end of this subsection:

Treat all waterproofing membranes on and against which ACP is to be placed with an asphalt tack coat meeting the requirements of 00744.11(a) or as recommended by the membrane manufacturer.

SECTION 00810 - METAL GUARDRAIL

Comply with Section 00810 of the Standard Specifications modified as follows:

00810.10 Materials - In the list of materials, replace the line that begins "Wood Guardrail Blocks..." with the following line:

Guardrail Blocks..... 02110.20

00810.13 Guardrail Anchors - Add the following paragraph to the end of this subsection:

Furnish one guardrail anchor cable assembly per project for testing according to AASHTO M 30.

SECTION 01030 - SEEDING

Comply with Section 01030 of the Standard Specifications modified as follows:

01030.13(f) Types of Seed Mixes - Add the following to the end of this subsection:

Provide the following seed mix formulas:

- Permanent Seeding:

Botanical Name (Common Name)	PLS (lb/acre)	÷	(% Purity (minimum)	x	% Germination) (minimum)	=	Amount (lb/acre)
Agrostis exerata (Spike Bentgrass)	0.187		_____		_____		_____
Bromus carinatus (California Brome)	7.251		_____		_____		_____
Elymus glaucus (Blue Wildrye)	32.031		_____		_____		_____
Festuca rubra var. rubra (Native Red Fescue)	3.876		_____		_____		_____

01030.15 Mulch - Add the following paragraphs and bullets to the end of this subsection:

Furnish straw mulch for all temporary roadside erosion control seeding, except hydromulch may be used under the following conditions:

- Spring planting west of the Cascades between March 1 and May 15.
- Slopes are steeper than 1V to 1.5H and longer than 16 feet.
- Residential or commercial sites with low erosion potential such as sidewalk, median, or parking lot planter strips.

Projects that have variable slopes may include straw mulch and hydromulch when approved.

01030.42 Weed Control - Add the following paragraph and bullets after the paragraph that begins "If a pesticide has been approved for..." and before subsection (a):

The Specified Weeds and plant species to be removed include the following:

- Blackberry Species
- Reed Canarygrass
- Scotch Broom

The minimum living plant coverage for native plant seeding is 80 percent of ground surface.

SECTION 01040 - PLANTING

Comply with Section 01040 of the Standard Specifications modified as follows:

01040.22 Water - Add the following paragraph(s) to the end of this subsection:

Provide moisture retention chemicals for this Project.

01040.49 General Planting - Add the following to the end of this subsection:

Perform initial watering and continue with the watering frequencies according to 01040.71.

01040.80(f) Mulch - Replace this subsection, except for the subsection number and title, with the following:

Mulch will be measured on the volume basis at the time of placement, or on the weight basis. Trucking invoices may be used to determine volumes if the quantities are verifiable to the satisfaction of the Engineer.

01040.90(d) Plant Materials - Replace the paragraph that begins "Partial payments for plant Materials will..." and the partial payment table with the following paragraph and table:

Partial payments for plant Materials will be made as follows:

At the time of the original planting	60%
After the first plant establishment inspection	10%
After the second plant establishment inspection.....	10%
After the third plant establishment inspection	10%
At completion of the establishment period.....	10%

SECTION 01091 – CONSTRUCTED STREAMBED

Section 01091, which is not a Standard Specification, is included in this Project by Special Provision.

Description

01091.00 Scope - This work consists of installing constructed streambed as shown on the plans.

Materials

01091.10 Material - Furnish materials meeting the following requirements:

(a) Habitat Boulders:

Habitat Boulders shall be 12" to 18" size (nominal), hard, durable, subrounded to subangular shaped rock. Nominal Size can be determined by taking the average dimension of the three axes of the rock: Length, Width, and Thickness, by use of the following calculation:

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

Length is the longest axis, width, is the second longest axis, the thickness is the shortest axis. The thickness of a single rock shall be not less than one-third its length. Rounded rock, Angular rock, non-durable rock, shale, or rock with shale seams will not be accepted. The Engineer shall inspect the source before delivery of Habitat Boulders.

(b) Cobbles- Cobbles shall be hard, durable, subrounded to rounded shaped rock meeting the following requirements for grading. The material must be free from overburden, spoil, shale and organic material. Non-durable rock, shale or rock with shale seams is not acceptable.

The grading of the Cobbles shall range from 6 inches down to 1 inch. The gradation shall be well mixed. Verification of the gradation shall be made by the Engineer by visual inspection of the load before it is dumped into place.

(c) Gravel with Fines – Gravel with Fines shall be a well-graded mixture of silt, durable sand, and river run gravel containing no particle with any dimension greater than 3 inches. The material must be free from overburden, spoil, shale and organic material. Non-durable rock, shale or with shale seams is not acceptable. Submit a minimum 5-gallon sample to be visually approved by Engineer.

Construction

01091.40 General - Obtain all permits and perform work in and around water according to Section 00290 and the following:

Do not over excavate when performing constructed streambed work without obtaining prior approval from the Agency. Over-excavation along the streambank requires restoration of the bank to finished grade by construction of wrapped soil lifts at no additional cost to the Agency.

(a) **Habitat Boulders** - Place boulders in the streambed within the streambed gravel mix to depth as shown. Rocks shall be placed with the minimum spacing as shown on plan.

(b) **Cobbles and Gravel with Fines** - Place cobbles as shown or directed in 6-inch lifts. Place 3-inch lift of gravel with fines material over each lift of Streambed Gravel Mix and power wash smaller material into voids until water ponds on the surface. If water does not pond on surface add more gravel with fines material and power wash as required. Completion of power wash shall be approved by Engineer.

Measurement

01091.80 Measurement - Work performed under this Section will be measured according to the following:

(a) **Constructed Streambed** - The quantities of constructed streambed shall be measured per ton.

Payment

01091.90 Payment - The accepted quantities of constructed streambed will be paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	Unit of Measurement
(a) Constructed Streambed.....	Ton

Item (d) includes over-excavation, furnishing and placing the streambed gravel, and washing in the clean silt/durable sand. No separate or additional payment will be made for clean silt/durable sand.

No separate or additional payment will be made for clean silt/durable sand.

Payment will be payment in full for furnishing and placing all Materials, and for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

SECTION 02820 - METAL GUARDRAIL

Comply with Section 02820 of the Standard Specifications modified as follows:

02820.50 Acceptance of Materials - Replace this subsection, except for the subsection number and title, with the following:

Acceptance of metal guardrail Materials will be according to Section 00165.35.