Invitation for Bids, Contract and Specifications for:

**FFFPP 15 (Fuell) and FFFPP 16 (Creelman)**
Fish Passage Barrier Removal Projects

**Contracting Agent**
Ms. Alison Studley
Skagit Fisheries Enhancement Group
1202 S. 2nd St., Suite C
Mount Vernon, WA 98273
Tel. 360-336-0172 300
Email astudley@skagitfisheries.org

**Design Engineer**
Mr. Tom Slocum, PE
Conservation Project Workshop, Inc.
2752 Broadway St.
Bellingham WA 98225
Tel. 360 296 6667
Email tom.cpworkshop@gmail.com

For information, please contact the Contracting Project Manager, Kristin Murray, 360-853-5893, kmurray@skagitfisheries.org

March 23, 2022
Contents

<table>
<thead>
<tr>
<th>Item</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineer’s Certification</td>
<td>3</td>
</tr>
<tr>
<td>Bid Proposal and Contract Requirements</td>
<td>4</td>
</tr>
<tr>
<td>Bid Proposal</td>
<td>8</td>
</tr>
<tr>
<td>Construction Contract</td>
<td>17</td>
</tr>
</tbody>
</table>

Attachments

<table>
<thead>
<tr>
<th>Attachment 1</th>
<th>Specifications and Special Provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment 2</td>
<td>Plan Sets</td>
</tr>
<tr>
<td>Attachment 3</td>
<td>Schedules of Measurement and Payment</td>
</tr>
<tr>
<td>Attachment 4</td>
<td>Forest Practice Hydraulic Project Approval (FPA) Permit #2818395 (Fuell) and #2818404 (Creelman)</td>
</tr>
</tbody>
</table>
Engineer’s Certification

Contract documents for Skagit Fisheries Enhancement Group project:

**FFFPP 15 (Fuell) and FFFPP 16(Creelman) Fish Passage Barrier Removal Projects**

The contract documents contained herein have been prepared by or under the direction of the following registered Professional Engineer:

Thomas M. Slocum, PE
BID PROPOSAL AND CONTRACT REQUIREMENTS

Request for Quotations
Project Title: FFFPP 15 (Fuell) and FFFPP 16 (Creelman) Fish Passage Barrier Removal Projects
Project Sponsor: Skagit Fisheries Enhancement Group (SFEG)

Location of the Project
The address of Project Site 1 (Fuell) is 23628 Fremali Lane, Mount Vernon, WA 98274
The address of Project Site 2 (Creelman) is near 25209 Star View Drive, Mount Vernon, WA 98273

Description of Projects
Project FFFPP 15 (Fuell) includes the following elements:
- Removing two culverts and associated fill material from a private forest road crossing of Starbird Creek.
- Replacing the crossing with a 40-foot long, pre-engineered and prefabricated bridge and bridge sills
- Reconstructing a natural stream channel through the crossing
- Placing bank armoring on the re-grade slopes beneath the bridge
- Reconstructing the unpaved driveway to cross the new bridge.

Project FFFPP 16 (Creelman) includes the following elements:
- Removing a culvert and associated fill from a private logging road crossing of an unnamed trib of Cold Springs Creek
- Replacing the culvert with a 40-foot long, galvanized steel plate arch culvert
- Reconstructing a natural stream channel through the crossing
- Redirecting a road ditch through a new 25-foot-long culvert and constructing a new ditch outlet to the creek
- Reconstructing the unpaved road over the two new culverts

SFEG will be responsible for obtaining all environmental permits and supplying the bridge and plate arch culverts

Engineer’s Cost Estimate
The engineer’s cost estimate for FFFPP 15 is $81,800. The engineer’s cost estimate for FFFPP 16 is $84,200. These costs do not include the purchase of the bridge, plate arch culvert and related structural components, which SFEG will pay for.

Pre-Bid Meeting
A mandatory pre-bid meeting will be offered on April 7, 2022, at 9:00 am. Details on how to access the site will be provided to plan holders who request it via email.

Materials Supplied by the Contracting Agency
For the Fuell project, SFEG will supply the bridge superstructure, foundation sill blocks, guardrails and all other structural components of the bridge, hereafter referred to as the Bridge. SFEG will pay for delivery of the Bridge from the vendor to the work site. The Contractor will coordinate with
bridge vendor for the delivery of the Bridge. It is anticipated that the Bridge will be available for delivery by August 1st, 2022, depending on the Bridge vendor's fabrication schedule.

For the Creelman project, SFEG will supply all structural components of the plate arch culvert, hereafter referred to as the Plate Arch Culvert. SFEG will pay for delivery of the Plate Arch Culvert from the vendor to the work site. The Contractor will coordinate with Plate Arch Culvert vendor for its delivery. It is anticipated that the Plate Arch Culvert will be available for delivery by August 1st, 2022, depending on the vendor's fabrication schedule.

The Contractor shall become the owner of the Bridge and the Plate Arch Culvert at the time of delivery. Ownership shall transfer to the respective Landowners upon final acceptance and payment of the construction. All warranties for the workmanship and fabrication of the Bridge and the Plate Arch Culvert shall remain in effect from the fabricator. Installation and construction warranty shall remain in effect for one year after final acceptance by the Contractor.
Tentative Construction Schedule

SFEG anticipates the following schedule for contracting and construction. The actual schedule(s) may vary depending on contingencies in permitting, bridge delivery, weather, and other relevant considerations.

- Pre-Bid Meeting: April 7th, 2022
- Bids due: April 21st, 2022
- Expected Contract Award: April 27th, 2022
- Pre-construction site meeting with selected contractor: Week of May 18
- Submission of Work Plans (see Spec. Section 1-05.3): June 1st, 2022
- Expected Notice to Proceed: July 1st, 2022
- Start Instream Work: August 1st, 2022
- Bridge and Plate Arch Culvert Delivery: August 1st, 2022
- Complete Instream Work and Substantial Completion: September 30th, 2022
- Project Complete, Final Completion: October 15th, 2022

Submission of Proposals

The following items are required for a proposal to be considered responsive:

A. Complete all parts of the attached BID PROPOSAL form including the SCHEDULE OF QUANTITIES (cost proposal) and the LIST OF SUBCONTRACTORS. The bid will be considered responsive only if the Bid Proposal form is entirely completed. Also include on that list the fabricators or suppliers that are in excess of 5% of the total contract amount. Bid sheets must be filled out separately for each project because they are funded by separate grants. Upon award, costs for EACH site must be tracked and invoiced separately for reimbursement.

B. A representative of the contractor has visited the site and has reviewed the Plans and Specifications and demonstrates a working knowledge of the entire scope of work.

C. The bidder must provide a bid deposit as described in Section 1-02.7 of the CONTRACT.

D. Three references are required with the proposal. These references should include past clients who; 1) are familiar with the respondent’s abilities to work in a stream with sensitive salmon resources, and 2) can respond to the contractor’s quality of work, timeliness and reliability.

E. Submit to SFEG no later than 5:00 p.m. on April 21, 2022. Bids may be delivered by email, mail, or hand delivery to SFEG’s office. Email bids should have “FFFPP 15 and FFFPP 16 BID RESPONSE” in subject line and be sent as a single PDF document to kmurray@skagitfisheries.org. Bids will be opened and read on April 21, 2022, at 5pm. Please do not CC engineer or SFEG contracting agent.

In addition to bid responsiveness, the SFEG awards contracts to the lowest responsible bidder, defined in RCW 43.19.1911, as follows:

"(9) In determining "lowest responsible bidder", in addition to price, the following elements shall be given consideration:
(a) The ability, capacity, and skill of the bidder to perform the contract or provide the service required.
(b) The character, integrity, reputation, judgment, experience, and efficiency of the bidder.
(c) Whether the bidder can perform the contract within the time specified.
(d) The quality of performance of previous contracts or services.
(e) The previous and existing compliance by the bidder with laws relating to the contract or services.
(f) Such other information as may be secured having a bearing on the decision to award the contract: Contractor MUST track expenses separately for project site FFFPP 15 (Fuell) and project site FFFPP 16 (Creelman) and these projects are funded by separate grants. All invoices will be labeled with the respective project site, FFFPP 15(Fuell) or FFFPP 16 (Creelman) in order to be paid.

Documents Included:
A. Bid Proposal (7 pages)
B. Specifications and Special Provisions (Attachment A)
C. Drawings (Attachment B)
D. Forest Practices Hydraulic Project Approval (FPA) Permit # 2818395 and # 2818404

Bonds and Insurance Required:
A. Bid Deposit (Bid Bond)
B. Contract Bonds (Performance Bond and Payment Bond)
C. Standard Liability Insurance (as described in WSDOT Standards 1-07.18)
Bidder

Name

Address

For the construction of:
FFFPP 15 (Fuell) and FFFPP 16(Creelman) Fish Passage Barrier Removal Project, hereinafter referred to as the Project.

To:
Kristin Murray
Skagit Fisheries Enhancement Group
P.O. Box 2497
1202 South 2nd Street, Suite C
Mount Vernon WA 98273
360-336-0172
kmurray@skagitfisheries.org

We, the undersigned, having examined the Invitation to Bidders and the Contract Documents for the construction of the Work, and having investigated the site of the Project offer to construct and complete the Work in conformity with said documents, and to enter into an agreement according to the form hereto attached, in consideration of the sum arrived at by the proper extension of units of work shown in the following Schedule of Quantities, or such sum as may be ascertained in accordance with said documents.

We acknowledge receipt, understanding and full consideration of Addenda Number(s) __________________________ issued prior to the date for receipt of bids (blank or “NA” if no addenda have been issued).

Signature
**FFFPP #15 Fuell Fish Passage Barrier Removal Project Construction Bid Sheet**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Unit measure</th>
<th>Estimated quantity</th>
<th>Unit price</th>
<th>Total price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Contractor Submittals, Mobilization and Demobilization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Submittals: Work plan, SPCC and dewatering plans</td>
<td>lump sum</td>
<td>1</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>1.2</td>
<td>Mobilization and demobilization</td>
<td>lump sum</td>
<td>1</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>1.3</td>
<td>Tree removal and brushing</td>
<td>lump sum</td>
<td>1</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>1.4</td>
<td>Gate removal and reinstallation</td>
<td>lump sum</td>
<td>1</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>1.5</td>
<td>Final site cleanup</td>
<td>Lump sum</td>
<td>1</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>1.6</td>
<td>Miscellaneous force account work</td>
<td>dollars</td>
<td></td>
<td>$ 5,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>2</td>
<td>Water Quality Protection and Erosion Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Floating silt (turbidity) curtain installation and removal</td>
<td>lineal feet</td>
<td>50</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>2.2</td>
<td>Filter (silt) fence installation</td>
<td>lineal feet</td>
<td>200</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>2.3</td>
<td>Fish exclusion (by SFEG)</td>
<td>N.A.</td>
<td></td>
<td>N.A.</td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>Work area isolation with bulk bags</td>
<td>lineal feet</td>
<td>40</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>2.5</td>
<td>Work area dewatering/pumping</td>
<td>lump sum</td>
<td>1</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>2.6</td>
<td>Erosion control blanket</td>
<td>square yards</td>
<td>50</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>2.7</td>
<td>TESC seeding, fertilize and mulch</td>
<td>acre</td>
<td>0.1</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Culvert Removal and Bridge Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Structural excavation Class B - remove culvert fill and excavate</td>
<td>cubic yards</td>
<td>390</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>3.2</td>
<td>Soil disposal - haul offsite</td>
<td>cubic yards</td>
<td>360</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>3.3</td>
<td>Culvert demolition and offsite disposal</td>
<td>lump sum</td>
<td>1</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Unit</td>
<td>Quantity</td>
<td>Cost</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------------------------------------------</td>
<td>------</td>
<td>----------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>3.4</td>
<td>Gravel backfill Class A for sills, road regrade and bank armoring filter layer, placed</td>
<td>ton</td>
<td>70</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>3.5</td>
<td>Construction geotextile for sill footing subgrade</td>
<td>square yard</td>
<td>45</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>3.6</td>
<td>Quarry spall bank armoring, placed</td>
<td>ton</td>
<td>38</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>3.7</td>
<td>Common borrow (field soil) placed over riprap and abutments</td>
<td>cy</td>
<td>30</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>3.8</td>
<td>Bridge and sill installation, including welding shear plates. (SFEG will supply and deliver bridge and sills)</td>
<td>lump sum</td>
<td>1</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>3.9</td>
<td>Crushed surfacing top course for road ramps and regrade</td>
<td>ton</td>
<td>20</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>3.10</td>
<td>Final grading: topsoil placement</td>
<td>cubic yards</td>
<td>5</td>
<td>$</td>
<td></td>
</tr>
</tbody>
</table>

### 4 Stream Channel Construction

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Provide and place stream bed mix</td>
<td>ton</td>
<td>30</td>
<td>$</td>
</tr>
<tr>
<td>4.2</td>
<td>Provide and install LWM</td>
<td>each</td>
<td>2</td>
<td>$</td>
</tr>
</tbody>
</table>

**Total construction cost** $ -

**8.2% sales tax** $ -

**TOTAL** $ -
### FFFPP #16 Creelman Fish Passage Barrier Removal Project Construction Bid Sheet

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Unit measure</th>
<th>Estimated quantity</th>
<th>Unit price</th>
<th>Total price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Contractor Submittals, Mobilization and Demobilization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Submittals: Work plan, SPCC and dewatering plans</td>
<td>lump sum</td>
<td>1</td>
<td></td>
<td>$ -</td>
</tr>
<tr>
<td>1.2</td>
<td>Mobilization and demobilization</td>
<td>lump sum</td>
<td>1</td>
<td></td>
<td>$ -</td>
</tr>
<tr>
<td>1.3</td>
<td>Tree removal and brushing</td>
<td>lump sum</td>
<td>1</td>
<td></td>
<td>$ -</td>
</tr>
<tr>
<td>1.4</td>
<td>Final site cleanup</td>
<td></td>
<td></td>
<td></td>
<td>$ -</td>
</tr>
<tr>
<td>1.5</td>
<td>Miscellaneous force account work</td>
<td>dollars</td>
<td></td>
<td>$10,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>2</td>
<td>Water Quality Protection and Erosion Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Filter (silt) fence installation</td>
<td>lineal feet</td>
<td>225</td>
<td></td>
<td>$ -</td>
</tr>
<tr>
<td>2.2</td>
<td>Fish exclusion (by SFEG)</td>
<td></td>
<td></td>
<td></td>
<td>N.A.</td>
</tr>
<tr>
<td>2.3</td>
<td>Work area isolation with sandbag dams and flow diversion culvert, per the TESC plan</td>
<td>Lump sum</td>
<td>1</td>
<td></td>
<td>$ -</td>
</tr>
<tr>
<td>2.4</td>
<td>Work area dewatering/pumping¹</td>
<td>lump sum</td>
<td>1</td>
<td></td>
<td>$ -</td>
</tr>
<tr>
<td>2.5</td>
<td>Erosion control blanket</td>
<td>square yards</td>
<td>80</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>2.6</td>
<td>TESC seeding, fertilize and mulch</td>
<td>acre</td>
<td>0.3</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Culvert Removal and Pipe Arch Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Structural excavation Class B - remove culvert fill and stream bed excavation</td>
<td>cubic yards</td>
<td>340</td>
<td></td>
<td>$ -</td>
</tr>
<tr>
<td>3.2</td>
<td>Onsite soil disposal ²</td>
<td>cubic yards</td>
<td>215</td>
<td>$ -</td>
<td>-</td>
</tr>
<tr>
<td>3.3</td>
<td>Culvert demolition and offsite disposal</td>
<td>lump sum</td>
<td>1</td>
<td></td>
<td>$ -</td>
</tr>
<tr>
<td>3.4</td>
<td>Plate arch culvert assembled and installed</td>
<td>Lump sum</td>
<td>1</td>
<td></td>
<td>$ -</td>
</tr>
</tbody>
</table>

¹ For the purpose of bidding, that contractor shall assume 3 days of pumping.
² For the purpose of bidding, the contractor shall assume the disposal site is within 1000 feet of the project site.
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5</td>
<td>Class A gravel backfill placed around culvert and filter layer for slope armoring</td>
<td>tons</td>
<td>150</td>
<td>$</td>
</tr>
<tr>
<td>3.6</td>
<td>Common borrow (field soil) cover placed around the culvert</td>
<td>cubic yards</td>
<td>110</td>
<td>$</td>
</tr>
<tr>
<td>3.7</td>
<td>Road reconstruction: crushed surfacing base course placed.</td>
<td>tons</td>
<td>30</td>
<td>$</td>
</tr>
<tr>
<td>3.8</td>
<td>Road reconstruction: crushed surfacing top course placed.</td>
<td>tons</td>
<td>20</td>
<td>$</td>
</tr>
<tr>
<td>4</td>
<td><strong>Stream Channel Construction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Provide and place stream bed mix</td>
<td>tons</td>
<td>85</td>
<td>$</td>
</tr>
<tr>
<td>4.2</td>
<td>Provide and place large cobble and boulders for streambed and grade control weirs</td>
<td>tons</td>
<td>10</td>
<td>$</td>
</tr>
<tr>
<td>5</td>
<td><strong>Road Ditch Treatment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>Furnish and install an 18”x25’ HDPE culvert, including grading the outlet to the creek</td>
<td>Lump sum</td>
<td>1</td>
<td>$</td>
</tr>
<tr>
<td>5.2</td>
<td>Armor the inlet and outlet of the plate arch culvert and the road ditch culvert with quarry spall</td>
<td>tons</td>
<td>15</td>
<td>$</td>
</tr>
<tr>
<td>5.3</td>
<td>Backfill the road ditch with compacted common borrow to the surrounding grade</td>
<td>cubic yards</td>
<td>5</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td><strong>Total construction cost</strong></td>
<td></td>
<td></td>
<td>$</td>
</tr>
<tr>
<td></td>
<td><strong>8.2% sales tax</strong></td>
<td></td>
<td></td>
<td>$</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td>$</td>
</tr>
</tbody>
</table>

---

3 Includes reconstructing the road surface over both the new plate arch and the new road ditch culverts

**FFFPP 15 and FFFPP 16 Fish Passage Barrier Removal – Bid Request**

12
LIST OF SUBCONTRACTORS
(See Section 1-02.6 of Amendments to the Standard Specification)

For each category of work in this project, the bidder shall identify the category of any work expected to be more than five percent (5%) of the total work and the Subcontractor, Fabricator or Supplier performing it. Failure to list Subcontractors, Fabricators, or Suppliers shall render the bid NONRESPONSIVE.

PROJECT NAME: FFFPP 15 (Fuell) and FFFPP 16 (Creelman) Fish Passage Barrier Removal Projects

<table>
<thead>
<tr>
<th>Firm Name and Address</th>
<th>Type of Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Subcontractor/Supplier</td>
<td></td>
</tr>
<tr>
<td>2. Subcontractor/Supplier</td>
<td></td>
</tr>
<tr>
<td>3. Subcontractor/Supplier</td>
<td></td>
</tr>
<tr>
<td>4. Subcontractor/Supplier</td>
<td></td>
</tr>
<tr>
<td>5. Subcontractor/Supplier</td>
<td></td>
</tr>
</tbody>
</table>

☐ No subcontractors, fabricators or suppliers will be used on this contract.
LIST OF REFERENCES

List at least three references. These references should include past clients who are familiar with the bidder’s quality of work, timeliness, reliability, etc.

PROJECT NAME: FFFPP 15 (Fuell) and FFFPP 16 (Creelman) Fish Passage Barrier Removal Projects

<table>
<thead>
<tr>
<th>Name of Reference Company / Contact and Phone Number</th>
<th>Project Name and General Location</th>
<th>Type of Work Performed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FFFPP 15 and FFFPP 16 Fish Passage Barrier Removal – Bid Request
BID FORM SIGNATURES

By signing this you are signifying your interest in constructing the subject project and it is your intent to enter into a written contract for delivery of the constructed project.

This Construction contract falls under the most recent Standard Specifications for Road, Bridge and Municipal Construction, M41-10, as published by Washington State Department of Transportation (WSDOT) and is hereby appended.

Please write out amounts below.

Total Cost, including sales tax (written):

$_____________________________________________________________

Total Cost, including sales tax (numerical):  $ _____________________

Signatures:

______________________________________________________________
Signature and Title  Date

Company Name:

Should this bid be accepted, we agree to appear at the office of the SFEG within five (5) business days from the date of the Notice of Acceptance to return the signed contract and provide the required Certificate(s) of Insurance.

We agree to begin work no later than ____________________ and to proceed so as to complete the project no later than ____________________.

Attached hereto is a certified check, cashier’s check or bid bond in the amount of

______________________________  Dollars  ($__________________)

Payable to the order of the Skagit Fisheries Enhancement Group; this amount being five percent (5%) of the total bid, based upon the approximate quantities at the above prices. (As per CONTRACT Section 1-02.7.)
BID FORM SIGNATURES CONTINUED

DATED this ___ day of __________ 2022, at ______________, Washington.

ADDRESS OF BIDDER
(Principal Place of Business) ________________________________ Firm Name

                                      By ________________________________ Signature

                                      ________________________________

Telephone ____________________________ Printed Name and Title
Fax # ________________________________

If the bidder is a corporation, this proposal must be executed by its duly authorized officials.

Contractor's State Registration Number ________________________________

State Industrial Insurance Number ________________________________
CONSTRUCTION CONTRACT

Project Name: FFFPP FFFPP 15 (Fuell) and 16(Creelman) Fish Passage Barrier Removal Project

Job Codes: FFFPP 15 and FFFPP 16

Date:

THIS AGREEMENT is between Skagit Fisheries Enhancement Group (SFEG), hereinafter referred to as the Owner, and ______________ hereinafter referred to as the “Contractor”. The parties agree as follows:

Contact Info:

<table>
<thead>
<tr>
<th>SFEG’s Address</th>
<th>P.O. Box 2497</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mt. Vernon, Washington 98273</td>
</tr>
<tr>
<td>SFEG’s Contract Representative</td>
<td>Kristin Murray</td>
</tr>
<tr>
<td>Email address:</td>
<td><a href="mailto:kmurray@skagitfisheries.org">kmurray@skagitfisheries.org</a></td>
</tr>
<tr>
<td>Telephone Number</td>
<td>(360) 336-0172 Ext 302</td>
</tr>
<tr>
<td>Facsimile Number</td>
<td>(360) 336-0701</td>
</tr>
<tr>
<td>Contractor’s Name:</td>
<td></td>
</tr>
<tr>
<td>Contractor’s Address</td>
<td></td>
</tr>
<tr>
<td>Contractor’s Authorized Representative</td>
<td></td>
</tr>
<tr>
<td>Email address</td>
<td></td>
</tr>
<tr>
<td>Telephone Number</td>
<td></td>
</tr>
<tr>
<td>Facsimile Number</td>
<td></td>
</tr>
<tr>
<td>Project Manager’s Name and contact information (email &amp; phone) (if different than above)</td>
<td></td>
</tr>
<tr>
<td>Federal Tax ID #</td>
<td></td>
</tr>
<tr>
<td>Washington UBI No.</td>
<td></td>
</tr>
<tr>
<td>Washington Contractor’s License</td>
<td></td>
</tr>
<tr>
<td>OMWBE Certification No./Date (IF APPLICABLE)</td>
<td></td>
</tr>
</tbody>
</table>
**Project Description.**

SFEG Contract #: SFEG 2022-04  
Project Name: Fuell/Starbird Creek and Creelman/Cold Springs Tributary Fish Passage Barrier Removal Project

Project Job Code: FFFPP 15 (Fuell)  
Project Addresses: 23628 Fremali Lane  
                     Mt Vernon, WA 98274

Tax Parcel No: P17799  
Property Owner: Loren Fuell

Project Job Code: FFFPP 16 (Creelman)  
Project Addresses: 25209 Star View Drive  
                     Mount Vernon, WA 98273

Tax Parcel No: 30423  
Property Owner: Paul Creelman

**Scope of Work**
The Contractor shall complete all work specified in the plans (drawings), specifications and attachments listed in the contract documents titled *Invitation for Bids, Contract and Specifications for: FFFPP FFFPP 15 (Fuell) and FFFPP 16(Creelman) Fish Passage Barrier Removal Project*, dated 3/18/2022.

**Time of Completion**
The work to be performed under this contract may commence at the time of contract signature and shall be substantially complete by October 31, 2022.

**Payment**
SFEG shall pay the Contractor the amount listed for each pay item on the Bid Form submitted by Contractor (Bid Form in Appendix B), multiplied by the quantity of work completed for each pay item. At the time of Contract signature, the total amount of SFEG payment to Contractor at the completion of work would be: $___________. All invoices must reference job codes **FFFPP 15** and **FFFPP 16**. SFEG shall pay the amount due the Contractor for services billed and completed within forty-five (45) days of receiving a completed bill.

This Contract is subject to the prevailing wage requirements of RCW 39.12 and to RCW 49.28 (as amended or supplemented). The hourly minimum rates for wages and fringe benefits are listed at [http://www.Lni.wa.gov/TradesLicensing/PrevWage/WageRates/default.asp](http://www.Lni.wa.gov/TradesLicensing/PrevWage/WageRates/default.asp). An approved “Statement of Intent” must be on file with the Washington State Department of Labor and Industries for the initial invoice to be considered “complete”. An approved “Affidavit” that prevailing wages were paid must be on file for the final invoice to be considered “complete”.
Increased or decreased quantities or changed conditions may alter the final payment to contractor as outlined in Standard Specifications 1-04.06 or 1-04.07 respectively.

A Performance and Payment Bond (Construction Bond) for the full project is required for this project.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement effective as of the last day of signature.

SKAGIT FISHERIES ENHANCEMENT GROUP
APPROVED:

___________________________
Signature

Name: _______________________
Title: _______________________
Date: ________________

CONTRACTOR
APPROVED:

___________________________
Signature

Name: _______________________
Title: _______________________
Date: ________________
INTRODUCTION
All project work shall be done in accordance with the drawings, permit conditions and the specifications listed in this document. Except where explicitly amended or supplemented in this document or in the drawings (hereafter “Special Provisions”), all work and contract administration procedures shall be done in accordance with the most current edition of the Washington State Department of Transportation Standard Specifications for Road, Bridge and Municipal Construction (hereafter “Standard Specifications”). The Standard Specifications and Special Provisions shall govern the work and shall be considered part of the Contract Documents. Inclusion of individual provisions of the Standard Specifications in the Contract Documents shall not be construed to imply that any provision that may not be listed is inapplicable.

The drawings contain special material and construction specifications for specific items of the overall work. The drawings also contain a general construction plan and a temporary erosion and sediment control (TESC) plan for each project site. All of the special specifications and plans listed in the drawings are incorporated into the contract. These special specifications and plans are intended to supplement the Standard Specifications for applicable and relevant work items identified in the drawings. Inclusion of special specifications for a particular work item shall not be construed to imply that any other applicable and relevant Standard Specification provision does not also apply to the particular work item. However, in accordance with Standard Specification Section 1-04.2, in case of any inconsistency between the drawings and the Standard Specifications, the drawings shall take precedence.

SPECIAL PROVISIONS
The following Amendments to the Standard Specifications are made a part of this contract and supersede any conflicting provisions of the Standard Specifications.

DIVISION 1
GENERAL REQUIREMENTS

Section 1-01. Contract Administration

Section 1-01.3 Definitions
Section 1-01.3 is amended as follows:
For the purpose of this Contract, all terms in the Standard Specifications referring to the “State,” “Department,” and similar public entities shall be construed to refer to SFEG. Likewise, the terms “Engineer” and “Site Engineer” and “Site Manager” in the Standard Specifications shall refer to SFEG’s designated contract agent.

For the purposes of this contract, the Contracting Agency is Skagit Fisheries Enhancement Group (SFEG). SFEG’s designated agent for contracting is:

Ms. Kristin Murray
Skagit Fisheries Enhancement Group
P.O. Box 2497
Mount Vernon, WA 98273
360-336-0172

SFEG’s designated agent shall have authority to make all decisions related to the administration and execution of the contract. The contract agent shall represent the design engineer and have the authority to make decisions related to construction of the project on behalf of the design engineer, after due consultation.

Section 1-02. Bid Procedures and Conditions

Section 1-02.2 Plan and Specifications

SFEG shall keep review copies of the Plans and Specifications at its office and shall provide one copy of these at no cost to any prospective bidder upon request. The copy may be provided in paper or electronic form, per request. Upon award of the contract, SFEG will supply one copy of the Plans and Specs at no cost to the contractor and subcontractor(s) (if any) upon request.

Section 1-02.3 Estimated Quantities

The bid forms in the contract documents list estimated quantities of work for each project site. Attachment 3 lists a schedule for measurement and payment for each site. Bids and payment shall be based on these estimated work quantities.

Section 1-02.4 Examination of Plans, Specifications and Site of Work

This section is supplemented with the following:

All prospective bidders are required to visit the site during a pre-bid meeting. All plan holders will be notified of the day, time and place of a site visit to be scheduled by the Project Manager.

Section 1-02.5 Proposal Form

Bidders shall complete the proposal form provided in the contract documents. All other provisions of Standard Specifications Section 1-02 are unchanged.
Section 1-02.6 Preparation of Proposal

Paragraph five; item #1 is revised to read:

The Bidder shall list all Subcontractors, fabricators, or suppliers expected to perform more than five percent (5%) of the contracted work on the bid form.

Section 1-02.7 Bid Deposit

This section is supplemented with the following:

1. When the sum of the base bid is $35,000.00 or less, no bid deposit is required.

2. When the sum of the base bid is greater than $35,000.00, a bid guarantee deposit in the amount of five percent (5%) of the base bid amount is required.

Section 1-02.9 Delivery of Proposal

This section is revised to read:

Bids shall be submitted to SFEG by 5:00 PM on (April 21, 2022). Bids may be submitted in paper format or in electronic .pdf file format provided that they contain all the relevant information in Section 1-02.9. Any part of the bid proposal not received prior to the time specified will not be considered and the bid will be returned to the bidder unopened.

Section 1-02.12 Public Opening of Proposals

This section is supplemented with the following:

Public opening of bids is not required of the SFEG. After the Bid Opening, Bidders may obtain bid results from the SFEG by calling the number listed on the cover of the bid proposal.

1-02.15 Pre-Award Information

This section is supplemented with the following:

The wage determination(s) referred to in the Washington State Prevailing Wage Rate Law, are incorporated into the contract, and are identified as follows:

Washington State Prevailing Wage Rate for Skagit County.

Section 1-02.16 Bid Amounts

This section is supplemented as follows:

The Bidder agrees to hold the base bid prices for forty-five (45) days from date of bid opening.

Section 1-03 Award and Execution of the Contract
This section is amended as follows:

The bidder will return to the SFEG a signed contract, insurance certificate(s) and bonds within five (5) business days after receipt of contract. If the apparent successful bidder fails to sign all contractual documents or provide the bond and insurance as required or return the documents within five (5) business days after receipt of the contract, the SFEG may terminate the award of the contract.

**Section 1-03.4 Contract Bond**

Item 1 is revised to read:

1. Be on a standard surety form.

All other items included as written

**Section 1-04 Scope of Work**

**Section 1-04.4 Changes**

This section is supplemented with the following:

SFEG reserves the right to make changes in the scope of work for reasons including, but not limited to, final funding availability and the conditions of the project’s regulatory permits, in accordance with this section and the Standard Specifications.

If SFEG desires to order a change in the Work, it may request a written Change Order proposal from Contractor. Procedures for considering a Change Order are as follows:

1. The Contractor shall submit a Change Order proposal within 24 hours of the request from SFEG, or within such other period as mutually agreed.

2. The Change Order proposal shall be full compensation for implementing the proposed change in the Work, including any adjustment in the Contract Sum or Contract Time, and including compensation for all delays in connection with such change in the work and for any expense or inconvenience, disruption of schedule, or loss of efficiency or productivity occasioned by the change in Work.

3. Upon receipt of the Change Order proposal, or a request for equitable adjustment in the Contract Sum or Contract Time, SFEG may accept or reject the proposal, request further documentation, or negotiate acceptable terms with the Contractor.

4. Pending agreement on the terms of the Change Order, SFEG may direct Contractor to proceed immediately with the Change Order Work. Contractor shall not proceed with any change in the Work until it has obtained SFEG’s approval. All Work done pursuant to any SFEG-directed change in the Work shall be executed in accordance with the Contract Documents.
5. If SFEG and Contractor reach agreement on the terms of any change in the Work, including any adjustment in the Contract Sum or Contract Time, such agreement shall be incorporated in a Change Order. The Change Order shall reflect full payment and final settlement of all claims for time and for direct, indirect and consequential costs, including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity, related to any Work either covered or affected by the Change Order, or related to the events giving rise to the request for equitable adjustment.

6. A request for an equitable adjustment in the Contract Sum shall be based on written notice delivered to the SFEG within 24 hours of the occurrence of the event giving rise to the request. For purposes of this part, “occurrence” means when Contractor knew, or in its diligent prosecution of the Work should have knowledge of the event giving rise to the request. If the Contractor believes it is entitled to an adjustment in the Contract Sum, Contractor shall immediately notify SFEG and begin to keep and maintain complete, accurate and specific daily records. Contractor shall give SFEG access to any such records and, if requested, shall promptly furnish copies of such records to SFEG.

7. Contractor shall not be entitled to any adjustment in the Contract Sum for any occurrence of events or costs that occurred more than 24 hours before Contractor’s written notice to SFEG. The written notice shall set forth, at a minimum, a description of:

   a. The event giving rise to the request for an equitable adjustment in the Contract Sum.
   b. The nature of the impacts to Contractor and Subcontractors, if any; and,
   c. To the extent possible, the amount of the adjustment in Contract Sum requested.

8. Failure to properly give such written notice shall, to the extent SFEG’s interests are prejudiced, constitute a waiver of Contractor’s right to an equitable adjustment.

9. When the request for compensation relates to a delay or other change in Contract Time, Contractor shall demonstrate the impact on the critical path of the schedule attributable to the change of Work or event(s) giving rise to the request for equitable adjustment. Contractor shall be responsible for showing clearly on the Progress Schedule that the change or event:

   a. Had specific impact on the critical path and, except in case of concurrent delay, was the sole cause of such impact; and
   b. Could not have been avoided by re-sequencing of the Work or other reasonable alternatives.

Section 1-04.6 Variation in Estimated Quantities
This section is supplemented as follows:

Payment to the Contractor will be made only for the actual quantities of Work performed and accepted in conformance with the Contract. When the accepted quantity of Work performed under a unit item varies from the original Proposal quantity, payment will be at the unit Contract price for all Work unless the total accepted quantity of any Contract item, adjusted to exclude added or deleted amounts included in change orders accepted by both parties, increases or decreases by more than 30 percent from the original Proposal quantity. In that case, payment for Contract Work may be adjusted as described herein.

Section 1-05.3 Plans and Working Drawings

This section is supplemented with the following:

Not later than 5 business days after Notification of Apparent Low Bidder and before signing of the Construction Contract with the SFEG, the Contractor shall submit a written Construction Work Plan for each project site. No physical work is to be performed at the site until the Construction Work Plan is reviewed and approved by the Project Manager and Landowner. It should include at a minimum:

1. A list of construction personnel and the supervisory chain of responsibility proposed.
2. A detailed construction schedule
3. A Spill Prevention, Control and Countermeasures (SPCC) Plan
4. A Stream By-Pass Plan and proposed sizing
5. A Dewatering and Work Area Isolation Plan
7. Offsite location for disposing excavated soil.

Section 1-05.4 Conformity With and Deviation from Plans and Stakes

This section is supplemented with Special Condition 1-14.

Section 1-06.2 Acceptance of Materials

At least 10 days before commencing construction, the Contractor shall provide SFEG with samples of the topsoil (Section 8-02.3(4)), large wood material (LWM) (Section 8-28.2.2) and stream bed mix (Section 9-03.11) that it proposes to use for the construction work tasks. All other applicable provisions of Section 1.06.2 are unchanged.

Section 1-07 Legal Relations and Responsibilities to the Public

1-07.2 State Taxes

FFFP 15 (Fuell) and FFFP 16 (Creelman) Fish Passage Barrier Removal Project
Skagit Fisheries Enhancement Group Contract No. 2022-04
(March 23, 2022)
Delete 1-07.2(1) and 1-07.2(2) and replace with the following:

The total bid amounts shall include Washington State Sales Tax (WSST) as a line item. All other taxes imposed by law shall be included in the bid amount. The SFEG will include WSST in progress payments according to the percent of completion. The Contractor shall pay the WSST to the Department of Revenue and shall furnish proof of payment to the SFEG if requested.

Section 1-07.4(2) Health Hazards

This section is supplemented as follows:

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the work.

Personal protection equipment, PPE, is required to be worn during anytime that personnel are on the construction site and out of the vehicle. Hard hats, boots, and safety shirts, vests or jackets are required. DNR Fire rules shall apply. A DNR approved firefighting water tank is required as per DNR requirements.

The Contractor shall protect the lives and health of employees performing the work and other persons who may be affected by the work; prevent damage to materials, supplies and equipment whether on site or stored off-site; and prevent damage to other property at the site or adjacent thereto. Contractor shall comply with chapter 296-800 WAC and all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; shall erect and maintain all necessary safeguards for such safety and protection; and shall notify SFEGs of adjacent property and utilities when prosecution of the work may affect them.

Contractor shall maintain an accurate record of exposure data on all incidents relating to the work resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies or equipment. Contractor shall immediately report any such incident to SFEG and appropriate jurisdictions. SFEG shall, at all times, have a right of access to all records of exposure.

All work shall be performed with due regard for the safety of the public. Contractor shall perform the work so as to cause a minimum of interruption of vehicular traffic or inconvenience to pedestrians. All arrangements to care for such traffic shall be Contractor’s responsibilities. All expenses involved in the maintenance of traffic by way of detours shall be borne by Contractor.

In an emergency affecting the safety of life or the work or of adjoining property, Contractor is permitted to act, at its discretion, to prevent such threatened loss or injury, and Contractor shall so act if authorized or instructed.

Nothing provided in this section shall be construed as imposing any duty upon the SFEG with regard to, or as constituting any express or implied assumption of control or responsibility over,
project site safety, or over any other safety conditions relation to employees or agents of the Contractor or any of its Subcontractors, or the public

**COVID 19 Work requirements**

Contractor warrants that all work contemplated hereunder performed by it and its Subcontractors will (1) follow guidance issued by the U.S. Center for Disease Control, OSHA (including but not limited to those outlined in OSHA 3990-03 2020, Washington State Department of Health; Washington State L&I; and (2) comply with all local, state and federal regulations pertaining to the COVID-19 pandemic. Any Notice to Proceed with this work will be issued by SFEG in a manner consistent with federal and state requirements relating to the COVID-19 pandemic in effect at that time.

Contractor will be solely responsible for the health and safety of all workers performing work under this contract. The contractor is also responsible for tracking and implementing new local, state or federal orders, work restrictions and safety guidelines from the CDC as they are released to limit the risk of COVID-19 transmission.

**1-07.5 Environmental Regulations**

**1-07.5(1) General**

This section is supplemented with the following:

This specification describes requirements originating from the Washington Department of Natural Resources (WDNR) whose responsibility in this case is to make sure aquatic resources and fish communities are adequately protected during construction projects.

The contractor is advised that many of the requirements for protection of fish life, water quality, etc., are shown on drawings and described in Division 8.

**1-07.5(2) State Department of Natural Resources**

This section is supplemented with the following:

In addition to the requirements listed in this section, the Contractor shall comply with the specific provisions of Forest Practices Hydraulics Project Approval No.2818395 (Fuell) and No. 2818404 (Creelman), which is included by reference to these specifications. Detailed requirements for fish exclusion, stream isolation and dewatering, and other relevant environmental projections are listed in Division 8.

**1-07.6 Permits and Licenses**

This section is supplemented with the following:

SFEG shall be responsible for obtaining all environmental permits required for construction, including but not necessarily limited to approvals from WDNR and WDFW. SFEG shall provide
the Contractor with copies of the relevant permits, which are required to be kept on site at all times.

**Section 1-07.8 High Visibility Apparel**

The first paragraph of Section 1-07.8 is amended as follows:

The Contractor shall require all personnel at the work site under their control (including Subcontractors and lower tier subcontractors) and working outside of vehicles and potentially in presence of traffic on private or public roads, to comply with the following:

Remaining paragraphs as written.

**Section 1-07.17 Utilities and Similar Facilities**

Section 1-07.17 is supplemented as follows:

The Drawings make no representation regarding the presence of absence of utility lines at the work site, but buried and overhead utility lines are known to cross the construction area. The Contractor shall call the Utility Location Request Center (One Call Center), for field location not less than two nor more than ten business days before the scheduled date for commencement of excavation which may affect underground utility facilities, unless otherwise agreed upon by the parties involved. A business day is defined as any day other than Saturday, Sunday, or a legal local, state or federal holiday. The telephone number for the One Call Center for this project is 1-800-424-5555.

Public and private utilities, or their contractors, will furnish all work necessary to adjust, relocate, replace, or construct their facilities unless otherwise provided for in the Plans or these Special Provisions. Such adjustment, relocation, replacement, or construction will be done during the prosecution of the work for this project.

The Contractor is alerted to the existence of Chapter 19.122 RCW, a Washington State law relating to underground utilities. Any cost to the Contractor incurred as a result of this law shall be at the Contractor's expense

All other provisions of Section 1-07.17 remain unchanged.

**Liability Insurance (§1-07.18)**

The Contractor shall include both Skagit Fisheries Enhancement Group and Conservation Project Workshop, Inc. as “also insured” in its commercial general liability insurance policy for the duration of the contract. All other provisions of Section 1-07.18 remain unchanged.

**Section 1-08. Prosecution and Progress**

Preconstruction Meeting (new section)
Within 20 days of executing the contract, the Contractor shall meet with SFEG at the construction site to confirm the physical site conditions and to explain its detailed construction plan. At the Contractor’s request, SFEG will provide any additional measurements and site information that it may have that are relevant to the execution of the work. This information, if any, shall then be included as part of the Contract Documents.

**Section 1-08.3 Progress Schedule**

The second paragraph of this section is revised to read:

The Contractor shall submit two copies of the progress schedule (total working days) to the Project Manager no later than 7 days prior to the scheduled start of work. This schedule and any supplemental schedule shall show:

(1) Physical completion of all work within the specified contract time, (2) the proposed order of work, and (3) projected starting and completion times for major phases of the work and for the total project. The schedule shall be developed by a critical path method. The Contractor shall provide sufficient material, equipment, and labor to meet the completion times in this schedule.

**Section 1-08.5 Times for Completion**

This section is amended as follows:

The Contractor shall accomplish all in-stream work requiring water diversion between August 1, 2022, and September 15, 2022. Site preparation and other preliminary work (not requiring entry into the stream) may be started shortly before the stated commencement date; therefore, on-site work may start as soon as the contract has been executed and the Construction Work Plan is reviewed and approved by the Project Manager. All site work shall be completely finished by October 31st, 2022.

All other provisions of Section 1.08.5 are unchanged.

**Section 1-08.9 Liquidated Damages**

This section is amended as follows:

The Contractor further agrees that, from the compensation otherwise to be paid, SFEG may charge actual costs to the Contract for any time over the agreed to completion date where work remains uncompleted, which sum is agreed upon as the actual damages which SFEG will sustain in case of the failure of the Contractor to complete the work in the time stipulated and this sum is not to be construed as in any sense a penalty. These actual costs will be, but not limited to:

1. Any fines by Permitting Agencies for work not being completed within the time frame stipulation in the permit.

2. Any costs imposed by the local authorities due to the work not being completed on time.
3. Additional special inspections and engineering services that might be required.

4. It is not the intent of SFEG to recoup our extra management expenses.

Section 1-09. Measurement and Payment

Section 1-09.3 Scope of Payment is supplemented as follows:

Measurement and payment for the specific work items will be based on the schedules in Attachment 3. Estimated quantities of work items for bid purposes are listed in the proposal forms. All other provisions of Section 1-09.3 are unchanged.

1-09.9 Payments

Section 1-09.9 is supplemented as follows:

SFEG intends to use a 45-day payment turn around schedule under this contract due to partial payment approvals and required signatures by the SFEG Board. The start of that 45-day clock will be based upon the written approval of the Contractors, partial pay request by the project manager, and that verification of prevailing wage affidavits have been properly filed and approved monthly by the Contractor with the State of Washington.

Section 1-10 Temporary Traffic Control

Section 1-10 is supplemented as follows:

For work at the Fuell project site, the contractor shall coordinate with SFEG and the vendor of the bridge to ensure that it is moved from the delivery location to the work area with a minimum of disruption to the landowner and neighbors. As part of the Section 1-05.3 submittal, the contractor shall submit a brief plan for SFEG’s approval that identifies how the bridge will be moved to the work site and any temporary removal of fences or other property that must be done to accommodate the move. Upon approval, the contractor’s work activities shall conform to the plan. All other applicable provisions of Section 1-10 shall remain unchanged.

New Section 1-11. Construction Staking

SFEG will establish suitable elevation benchmarks and construction staking for locating the principal components of the work at each project site. The Contractor shall be responsible for preserving or replacing, if necessary, all benchmarks and control stakes. The Contractor shall ensure a surveying accuracy within 0.1 feet vertical of the specified elevations. The Contractor shall provide SFEG with a copy of any calculations and measurements used in the construction work upon request.

New Section 1-13 Temporary Utilities

The Contractor shall supply and maintain all necessary and temporary electrical services and required water and sanitation facilities as needed for construction of this project. A portable toilet shall be delivered and maintained for the duration of the project. Any water required on site will
be provided by the Contractor. No water may be drawn from the creeks at the project sites, except for purposes of dewatering the work area, as identified in the dewatering plan and WDNR hydraulic project approval.

DIVISION 2
EARTHWORK

2-01.2(2) Waste Site

For the Fuell project site, all excavated soil that is not used as “Selected Materials” (see Section 2-03.3) shall be disposed of offsite at a location to be determined by the Contractor. For the Creelman project site, surplus excavated soil shall be graded at an onsite location selected by the landowner, per the specifications. Cleared vegetation at both sites shall be disposed of onsite at locations selected by the landowners. No burning of debris is allowed onsite.

2-02.2 Construction Access

The contractor shall develop a construction access plan to be reviewed and approved by the site manager before staging any equipment and materials on site. The plan shall include but not necessarily be limited to coordinating delivery and unloading of the bridge and pipe arch culvert components with the vendors, ensuring traffic safety for vehicles entering and leaving the sites, and repairing any damage to pavement to pre-project conditions.

2-03.3(10) Selected Materials

One type of material that is identified in the plans may be considered to be “Selected Materials.” Soil that is excavated from the culvert overburden that meets the specification for “Common Borrow” (Section 9-03.14(3)) will be used to backfill, as specified in the plans. The use of this material shall follow the provisions of Section 2-03.3(10) as applicable.

New Section Added

2-03.3(20) Stream Bed Excavation

The new channels shall be excavated to the elevations, cross sections and profile shown in the drawings. Excavation shall include creating irregular-shaped channel section and floodplain as shown in the plans and in the typical details. The final channel subgrade shall be compacted to match the surrounding natural soil compaction.

The lines and grade of the constructed channels shall be tapered to meet the lines and grade of the existing channel upstream and downstream of the work boundaries in a natural appearance, to the satisfaction of the site manager.
The specific unit of measurement will apply as noted in the Schedule of Quantities. Excavation and disposal shall be included in this pay item.

DIVISION 4 – BASES

4-04 BALLAST AND CRUSHED SURFACING

4-04.1 Description

This work consists of placing a sub grade for the bridge sills, pipe arch culvert, bank armoring, and re-graded road, as shown on the plans. Placement shall conform to the lines, grades, depth, and typical cross-sections shown in the Plans.

4-04.2 Materials

Materials shall meet the requirements of the following sections:

Gravel Backfill 9-03.12

Crushed Surfacing 9-03.9(3)

Common Borrow 9-03.14(3)

4-04.4 and 4-04.5 Measurement and Payment

Measurement and Payment will be based on the quantities identified in the Schedule of Measurement and Payment and include compensation for all costs of procuring, hauling, placing and compacting of the material.

DIVISION 6

STRUCTURES

Section 6-01 General Requirements for Structures

Section 6-01.1 Description

This section is amended as follows:

The Contracting Agency will purchase a pre-engineered and prefabricated concrete bridge, abutment sills, and related appurtenances, and pay for their delivery to the project site for installation by the contractor.

The Contractor shall be responsible for coordinating the final delivery arrangements and unloading the bridge and related structures at the project site, which typically includes real-time cell phone communication with the delivery truck driver. The contractor’s approved construction
access plan (Section 2-02.2) shall include all necessary arrangements for ensuring traffic safety on Fremali Lane during delivery and unloading the bridge and related structures.

The Contractor shall become the owner of the bridge and related structures at the time of delivery. Ownership shall transfer to the Landowner upon final acceptance and payment of the construction. All warranties for the bridge workmanship and fabrication shall remain in effect from the fabricator. Installation and construction warranty shall remain in effect for one year after final acceptance by the Contractor.

The approximate dimensions of the bridge, sills and related structures are shown in the drawings and in shop drawings, which will be provided by the vendor. The Contractor shall install the bridge and related structures per the location, elevations and other relevant details shown in the drawings.

Payment for this work item shall include welding shear plates to connect the bridge panels, as specific.

All other relevant provisions of Sections 6-01, 6-02 and 6-03 shall apply, as appropriate.

DIVISION 7
DRAINAGE STRUCTURES, STORM SEWERS, ETC.

SECTION 7-03.1 Description
This section is amended as follows:
The Contracting Agency will purchase a pre-engineered and structural plate arch culvert and pay for their delivery to the project site for installation by the contractor.

The Contractor shall be responsible for coordinating the final delivery arrangements and unloading the plate arch culvert and related materials at the project site, which typically includes real-time cell phone communication with the delivery truck driver.

The Contractor shall become the owner of the plate arch culvert and related materials structures at the time of delivery. Ownership shall transfer to the Landowner upon final acceptance and payment of the construction. All warranties for workmanship and fabrication shall remain in effect from the fabricator. Installation and construction warranty shall remain in effect for one year after final acceptance by the Contractor.

The dimensions of the plate arch culvert are shown in the drawings and in shop drawings, which will be provided by the vendor. The Contractor shall install the plate arch culvert per the location, elevations and other relevant details shown in the drawings.

All other relevant provisions of Sections 7-01, 7-02 and 7-03 shall apply, as appropriate.

DIVISION 8
MISCELLANEOUS CONSTRUCTION

FFFPP 15 (Fuell) and FFFPP 16 (Creelman) Fish Passage Barrier Removal Project
Skagit Fisheries Enhancement Group Contract No. 2022-04
(March 23, 2022)
SECTION 8-01 IS AMENDED AS FOLLOWS:

8-01 Erosion Control and Water Pollution Control
The Contractor shall furnish, install and maintain various measures (aka “best management practices” or BMPs) at the work sites to stabilize soil from excessive erosion and protect off-site waterbodies from sediment runoff. Specific BMPs are listed in “Work Sequencing and Temporary Erosion and Sediment Control (TESC) Measures” in the plan sets. Additional BMPs may be identified in the project’s Stormwater Pollution Prevention Plan (SWPPP) and NPDES construction stormwater general permit, if applicable. Applicable provisions of the WDNR Hydraulic Project Approvals are incorporated by reference.

The Contractor shall prepare a SWPPP if required by the Contracting Agency. Prior to commencing work on the project, the Contractor shall attend an on-site meeting with the Contracting Agency to identify TESC BMPs required for this project. At that time the Contractor and Contracting Agency may modify the specified TESC measures as appropriate from the forecasted weather conditions. Erosion and sediment control BMPs to be used shall conform to the current Stormwater Management Manual for Western Washington, Department of Ecology Publication #12-10-030, Chapter 3 – “Construction Stormwater Pollution Prevention.”

8-01.3(2) Temporary Seeding and Mulching
The contractor shall complete temporary seeding and mulching of all disturbed soil, including soil covered by erosion control blanket, within two days of completing grading activities. Seed shall be commercially prepared, low-growing, live native grass seed mix applied at a rate of 2 pounds per 1,000 sf. by hand raking. Mulch shall be weed-free straw applied at an application rate of 2,500 per acre (about 60 lb./1000 sf) and pressed into the prepared soil. Seeding and mulching shall include applying a commercial 16-20-20 fertilizer at a rate of 250 lbs/acre (about 6 lb./1000 sf). All other provisions of Section 8-01.3(2) apply, as appropriate.

8-01.3(7) Erosion Control Blanket
The TESC plan in the drawings supplements Specification No. 8-013(7) by specifying use of C-150 coir erosion control fabric or equivalent. The fabric shall be installed and staked per the specification and the manufacturer’s guidance.

Other TESC BMPs, including but not limited to installation of straw wattles and seeding and fertilizing, shall be done per the specifications in Section 8-01.3.

Section 8-02.3(4) Topsoil
The contractor shall supply Topsoil Type A (Section 8-02.3(4)(A) from an off-site source. The topsoil shall be a weed free, 3-part topsoil-sand-compost garden soil mix. The contractor will provide a sample or certification from the supplier for the contracting agency’s approval.

ADD NEW SECTION:
FFFPP 15 (Fuell) and FFPFP 16 (Creelman) Fish Passage Barrier Removal Project
Skagit Fisheries Enhancement Group Contract No. 2022-04
(March 23, 2022)
8-05 In-stream Work Area Isolation, Dewatering and Fish Exclusion

8-05.1 Description and Purpose
The Work shall consist of providing, installing, operating, removing and disposing of temporary measures (aka “best management practices” or BMPs) for excluding fish from, isolating and dewatering the work areas upstream and downstream of the work sites. The purpose of the work is to protect water quality and fish from construction-related turbidity impacts.

This section supplements Section 8-01.3(1)C “Water Management.” Relevant provisions of Section 8-01.3(1)C shall apply, as appropriate.

8-05.2 Specific BMPs and Materials
The Contractor shall design, provide materials for, construct, operate and maintain the specific BMPs that are identified in the “Work Sequencing and TESC Measures” sheets of the drawing sets. Additional BMPs may be identified in the project’s Forest Practices Hydraulic Project Approval (FPA) and SWPPP. Applicable provisions of the FPA and SWPPP are incorporated into this specification by reference.

The Contractor shall submit a stream isolation and dewatering plan, which details the design and operation of the required BMPs, to the Contracting Agency at least two weeks before commencing construction. The plan may be part of the overall SWPPP, if applicable. The Contractor shall not commence construction until the Contracting Agency approves the plan.

8-05.3 Construction Requirements
All construction work shall be done in accordance with the BMPs identified in the approved stream isolation and dewatering plan, including but not necessarily limited to the following items.

8-05.3(1) Work Area Isolation
The Contractor shall isolate the work areas as required to protect the creeks from turbidity impacts during construction activities. For the Fuell project site, the drawings specify placing a continuous line of 3’x3’x3’ soil-filled bulk bags between the banks of the excavated areas. For the Creelman project site, the drawings specify sandbag/plastic sheeting dam. The contractor may use equivalent alternative designs identified in its approved stream isolation and dewatering plan. If there is significant flow in either creek at the time of construction, the Contractor’s stream isolation and dewatering plan shall include a method for bypassing the flow around or through the construction area. Per the FPA, even if the stream is dry, the contractor will have all necessary stream bypass and fish exclusion materials on-site during operations in case the stream becomes rewatered. The Contractor shall be responsible for installing maintaining the work items so that they function as intended throughout the duration of the construction work.

If turbidity or sediment from the work areas are found to be impacting either creek at levels that may constitute a violation of any state water quality requirements or permit conditions, the
Contractor shall stop work to allow dissipation of turbidity or sediment until water quality returns to within the relevant water quality standards.

Prior to recommencing work, the Contractor’s certified erosion and sediment control lead (CESCL) and the site engineer will identify and implement measures to control the turbidity. Measures may include but not necessarily be limited to:

1. Conducting an inspection of all controls to identify any potential problems. Immediately repair and/or replace any controls found to not be effective.
2. Augmenting existing controls as necessary.
3. Altering work methods and/or means as necessary to prevent any further occurrences of violations in water quality.
4. After performing all of the above, work activities may be continued provided water quality conditions are met.

Work Area Isolation shall be done in coordination with related Erosion Control and Water Pollution Control tasks (Section 8-01), including installation of floating turbidity curtains (Section 8-01.3(1)C7).

8-05.3(2) Work Area Dewatering

The Contractor shall dewater the work areas as required to construct the work and to protect the creeks from turbidity impacts during construction activities. Specific work items are identified in the drawings and SWPPP plan, as appropriate. Additional detailed requirements for screening and operating dewatering pumps are mandated in the Hydraulic Project Approvals. The pump intake shall have a fish screen affixed to prevent entrainment of fish into the bypass. The screen open spacing shall not exceed 0.067”. The Contractor shall be responsible for installing, operating and maintaining the work items so that they function effectively and in compliance with the relevant permit conditions throughout the duration of the construction work.

Work Area Dewatering shall be done in coordination with related Erosion Control and Water Pollution Control tasks (Section 8-01), including construction of pump discharge pads (Section 8-01.3(1)D).

8-05.3(3) Fish Exclusion and Notifications

The Contracting Agency shall be responsible for completing the fish exclusion activities at each work site, per the requirements of the FPA. At the Contracting Agency request, the Contractor shall assist its staff with fish exclusion tasks. The Contractor shall notify the Contracting Agency a minimum of 3 working days prior to starting any in-stream construction activities. Diversion start-up and fish removal are not allowed on Friday, Saturday or Sunday. The Contractor shall make the stream isolation area safe and accessible, to allow the Contracting Agency to complete fish exclusion activities. To that end, no heavy equipment will be operated within 30 feet and overhead of Agency staff. In-water work shall not commence until the Contracting Agency has completed the fish exclusion activities. It is anticipated the fish exclusion activates will take one day to complete with additional fish removal occurring as the isolated stream section is dewatered.
8-05.3(4) Removal of Temporary Work Area Isolation Measures
After completing all work in the isolated channel areas, the Contractor shall remove all of its temporary stream isolation and dewatering materials measures are removed. The Contractor shall notify the Contracting Agency two days before removing the temporary measures. Re-watering of the stream channel after completion of the instream construction shall be done gradually so there is no discernable change in streamflow downstream of the Project. If excessive turbidity impacts are observed after removing the temporary controls, the Contractor will take appropriate measures to address the turbidity, per the instructions of the site inspector and CESCL, as outlined in Item 8-05.3(1).

8-05.4 Measurement and Payment
Measurement and payment for work area isolation at each project site is specified in the schedule for measurement and payment at each site. Payment shall be compensation for providing, installing, maintaining and removing all work for isolating the work area.

Work Area Dewatering shall be measured on a lump sum basis for completing this work item per the contractor’s approved dewatering plan. Payment shall be compensation for all materials, equipment, installation, operation and removal of the dewatering system.

ADD A NEW SECTION
Section 8-28 Large Wood Material (LWM) Habitat Structures

Section 8-28.1 Description and Purpose
LWM habitat structures shall be constructed at the locations, configurations and elevations as shown in the Drawings to provide instream habitat functions for fish.

Section 8-28.2 Materials
LWM habitat structures shall consist of all materials specified in the Drawings, including tree trunks and root wads, as specified below. The Contractor shall provide a sample of the LWM habitat structure tree trunk/root wad units to the Contracting Agency for approval at least 10 days before starting construction.

LWM Habitat Structure
The LWM pieces shall consist of a fir, hemlock or cedar tree trunk with attached root wad in sound condition (no rot). The tree trunks shall be at least 10-inches diameter at breast height (DBH) with the root wad at least 2-feet in diameter. The total length of the trunk and root wad shall be at least 18 feet. Root wads shall be free of attached rock and soil.

Section 8-28.3 Construction Requirements
The Contractor shall install LWM Habitat Structures at the locations, configurations, elevations and ballasting configurations shown on the Drawings. The site engineer may direct the Contractor to modify the location and configuration of each structure, depending on site conditions.

The Contractor shall exercise care when installing LWM Habitat Structures to ensure that the method of installation minimizes disturbance of waterways and prevents sediment or pollutant discharge into water.

Section 8-28.4 Measurement

Section LWM Habitat Structures will be measured per each structure installed per the designs shown in the Drawings.

Section 8-28.5 Payment

Payment will be made in accordance with Section 1-04.1 for the following:

“LWM Habitat Structure” per each:

The bid item price shall include all costs including materials, labor, equipment and appurtenances required for construction of each structure, as shown in the Drawings.

DIVISION 9 MATERIALS

Section 9-03.11 Streambed Aggregates is amended as follows:

Section 9-03.11(1) Stream Bed Sediment (“Stream Bed Gravel-Cobble Mix”)

Fuell Project Site:

A 6-inch depth of stream bed sediment shall be placed on the finished subgrade of the reconstructed stream channel to match the final elevations and channel cross sections, as shown in the Drawings and typical details. Placement of stream bed sediment shall be done following placement of all large wood material (LWM) and other channel features, as specified in Special Provision Division 8.

The stream bed cobble mix shall be clean, naturally occurring, water-rounded gravel material with particle size ranging from <1/4” to 8”, in approximately the following proportions:

- 60% of the total volume shall be gravel of size passing a 1.5” screen
- 20% shall be coarse gravel and small cobble between 1.5” and 3.5”
- 20% shall be cobble between 3.5” and 8” size

The Contractor shall provide a screening gradation curve of the proposed stream bed mix from the source quarry for approval by the site engineer prior to acceptance for use in the project.
Creelman Project Site:

Placement and depth of “streambed gravel-cobble mix”, buried cobble grade control weirs, and streambed boulders is specified in the plans. The particle size range for Streambed gravel-cobble mix shall be <\(\frac{1}{4}\)" to 10", per the size distribution shown in the plans. Stream bed boulders shall be one-man rock, per Section 9-03.11(3)
The purpose of the project is to improve fish passage in an unnamed tributary of Cold Springs Creek by removing a barrier culvert and associated fill from the creek and replacing it with a pipe arch culvert meeting WDFW Stream Simulation guidance. The project is funded by the Washington Family Forest Fish Passage Program, FFFPP Project No. 19–1355.

Index of Drawings

1. Cover Sheet
2. Project Information Sheet
3. Project Work Area Existing Site Plan
4. Existing Channel Profile and Cross Section Views
5. Proposed Site Plan and Road Profile
6. Proposed Channel Profile and Cross Section Views
7. Construction Details
8. Construction Details (continued)
9. Work Sequencing and TESC Measures

Design Prepared by

Conservation Project Workshop, Inc.
2752 Broadway St.
Bellingham WA 98225
(360) 295-8667
Critical Area Impacts
Field observations of soils, plants and hydrology at this site indicate that no regulated wetlands occur adjacent to the proposed work area. The tributary is listed as WDFW Type "F" water body. Impacts to this water body will consist of 1) excavation of artificial fill associated with the existing culvert crossing 2) placing a new culvert, soil fill and approximately 295 square feet (sf) of rock bank armoring, and 3) placing gravel-coal mix on 720 sf of the constructed channel bed below the OHW elevation. The boundaries of excavation and fill placement are shown on Sheet 5 of the drawing set. The following table summarizes the quantities of excavation and filling work, including that below the existing OHW mark of the creek channel.

For the purposes of environmental permitting, the project is considered to be "self mitigating". It is assumed that correcting of the existing fish passage barrier together with recent installation of livestock exclusion fencing at the site will mitigate for the construction impacts.

Estimated Work Quantities
Estimated quantities of grading are listed in the following table. These estimates are the design engineer's best estimates, but may not necessarily represent the actual as-built quantities for the completed project.

<table>
<thead>
<tr>
<th>Grading Quantities for Permit Purposes</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>Quantity</td>
</tr>
<tr>
<td>Excavation below the OHW line</td>
<td>103.7</td>
</tr>
<tr>
<td>Fill below the OHW line</td>
<td>94.0</td>
</tr>
<tr>
<td>Total Grading</td>
<td>549.3</td>
</tr>
<tr>
<td>Excavation in Wetlands</td>
<td>0.0</td>
</tr>
<tr>
<td>Fill in Wetlands</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Abbreviations
The following abbreviations are commonly used in the plan:
- BM = bench mark
- CS = construction boundary
- EDG = edge of grading
- gse = ground surface elevation
- OHW = Ordinary High water
- SF = Silt fence/silt curtain
- xs = cross section
- wse = water surface elevation
- LW = large woody material
- IE = invert elevation
- el = elevation
- RP = reference point

General Legend
The following symbols are commonly used in the plan. Other symbols are identified in individual drawing sheets.

- Property line
- Existing site contour
- Buried utility line
- Existing feature removed
- Fence
- Creek
- OHW
- Edge of grading
The depiction of site features is based on publicly available aerial photos, LiDAR data, and field observations, but is not warranted to be accurate. This drawing is intended for planning purposes only and not as a legal boundary survey or formal delineation of critical areas. No representation is made regarding buried utility lines, if any. The contractor is responsible for contacting Dig Safe before doing any excavation at the site.
Channel Construction Notes

Channel Construction
1. Overseed to 6" below the final channel bed and the culvert invert and compact the sub-grade.
2. Place 6" of structural backfill to form the culvert bed and extend up to the top of the corner plate on the outside of the culvert to support the backfills.
3. Construct the stream bed in the culvert and extend to meet the existing grade of the channel at the upstream and downstream grading limits. Place stream bed material per the spec. and channel dimensions shown in the detail. The final channel grade shall include a low-flow inner channel with irregular, meandering platform and cross section.
4. Fill the culvert bed with streambed material in 6-inch lifts while attaching the culvert plates and supporting them on the outside with structural fill.
5. Complete the assembly of the culvert plates, using compacted field soil as backfill above the level of the final streambed elevation, per the vendor's specifications.

Gravel & Cobble Stream Bed Mix
1. Place streambed mix on the channel subgrade to match the final elevations and configuration shown in the typical grading cross section views.
2. The streambed mix shall consist of a well-graded mix of gravel to large cobble with particle size ranging from < 1/16" to 10", in approximately the following proportions:
   - 50% of the total volume shall be gravel of size passing a 1/16" screen.
   - 20% shall be coarse gravel and small cobble between 1/2" and 3 1/2".
   - 10% shall be cobble between 3 1/2" and 10" size.
   - 10% shall be one-man boulders (12" to 18").
3. The materials shall be consistent with WSDOT materials specification 9-03.11. The large cobble and boulders shall be angular to sub-angular (not round). The final mix shall be approved by the site manager. Boulders shall be placed randomly throughout the the culvert/streambed fill.
4. The buried cobble grade control weir shall consist of 8" to 10" cobble placed in a shallow arc across the channel, about 1/2 inch below the final channel grade. Use the larger rocks as footers or the smaller rocks to bear on, per the detail.

Buried Cobble Grade Control Weir (Sta. 1+80 and 2+08)

Culvert Construction Detail

Culvert is a Contech 40" x 13"-3" x 9'-4"; 8 gage galvanized steel multi-plate pipe arch culvert with 6"x2" corrugations or equivalent design. Culvert shall be approved by the engineer and be installed per the manufacturer's specifications.

Cross Section View

Profile View (not to scale)

Road surface is 3" layer of compacted 1" minus crushed aggregate. Road cross section shall have a 1" crown in the center, tapering to the sides.

Underdrain Culvert Construction

Prepared for:

South Whidbey Water and Sanitation District
3725 84th St SE
Aberdeen, WA 98520

Date: 1-22-22
Scale: 1" = 0'24" Sheet 7 of 9

Prepared by:

Conservation Project Workshop Inc.
3725 Broadway St.
Aberdeen, WA 98520
(360) 296-3365
New Culvert Profile at Road Sta. 1+70

**Culvert Outlet Swale Typical Cross Section View**

- Depth varies between 6" to 40", per the profile view
- Tilt disturbed soil per the TESC plan
- 1:1 side slopes at all locations
- Outlet Sta 0+450 to 0+55: Armor sides and bottom with 6" depth of 4" quarry spill. Taper the downstream end to meet the existing creek bank at Creek Sta 1+450

**Ditch Plug & Culvert Sump**

- Profile View
- Cross Section View
- Fill the ditch waist (downslope) of Sta 1+70 to the surrounding grade with compacted field soil
- Excavate a sump in the ditch at the culvert inlet. Armor sides with 6" thick layer of 4"-minus quarry spill
- 18" culvert
- Excavate organic material to mineral soil. Backfill to the surrounding natural grade with compacted common borrow / field soil. Taper surface to make smooth transition between the road fill and the adjacent hillside or floodplain and plant per the TESC plan

**Materials Specification**

1. "Compacted gravel/structural backfill" shall meet WSDOT 9-02.12(1)A Gravel backfill Class A
2. "1-inch minus aggregate" shall meet WSDOT 9-03.9(3) Crushed surfacing top course
3. "Quarry spill" shall meet WSDOT 9-13.1(5)
4. "Common borrow field soil" shall meet WSDOT 9-03.14(5)
5. "Topsoil" shall meet WSDOT Special Provision 8-02.0(4)A

**Ditch Fill Typical Cross Section View**

- Scale

**Notes**

- 9 of 9
- Sheet
- 22-22
- Made by: 10/13/15
- Reviewed by: 10/23/15
- Prepared by: 10/18/15
- Sheet: 9 of 9
- Reference: FRPP #19-1355 Project
- Construction Details (continued)
Work Sequencing and TESC Measures

For the purpose of protecting water quality and public safety, the construction work shall follow the general plan below. The contractor, as noted, is solely responsible for deciding the actual methods and sequence of all construction tasks.

1. General Rest Management Practices

   1.1 All work shall be done during summer low flow in accordance with all permit conditions.
   1.2. Vehicle traffic is restricted to the construction area boundaries shown on the schematic drawings and/or construction materials in the road. Construction access and construction materials on the schematic drawings and/or construction materials in the road are located as shown on the schematic drawings.
   1.3. All work will be done using a tracked excavator operating landward from the banks of the creek. Excavation and/or placement of construction materials will not be done without the prior written consent of the site manager.
   1.4. The project engineer will take note of the contractor’s location and elevations of the work area before the start of construction. The contractor shall mark all construction materials as needed.

2. Sediment and Water Quality Protection

   2.1. During the construction work, it is anticipated that there will be minimal flow in the creek. No other vegetation or suspended construction work in the event that unexpected high rainfall events raise water levels in the creek.

   2.2. Silk/Filter fencing shall be placed across the creek channel at the upstream and downstream construction boundaries, as shown on the schematic drawings. The upstream filter curtain shall be placed first and then the stream bank shall be placed with a buffer zone to move any fall flow before entering the downstream filter curtain.

   2.3. The filter area work will then be completed by constructing temporary days of sedimentation. Channel Sheeting or equivalent across the wetted channel between the silts. Approximations of the days are shown on the schematic drawings. Stream flow, if any, will be diverted through the work area by a 5° diameter drain that will be placed beside the sand bag dam. The contractor shall divert the location of the dam as needed for completing the excavations and/or construction work.

   2.4. Seepage into the excavation will be removed by pumping as needed. A back-up pump shall be staged at the site during construction. Both pumps will be fitted with approved fish exclusion screens.

   3. Water pumped from the excavation will be delivered to the right bank of the creek at a rate of 35 cfs. The discharge area will be protected with a 1.5% apron of rock.

   3.6. No more ground area shall be disturbed during the day than can be stabilized by the end of the work day.

4. Culvert Removal and Rough Grading

   4.1. The existing culvert and road fill will be removed. The channel and bank slopes will be excavated back to a subgrade limits shown in the grading area. Excavation will be limited to the area delineated on the site plan.

   4.2. The culvert will be crushed and disposed of at an approved location selected by the landowner. The spoils will be graded to an even surface and seeded with native grasses as indicated.

5. Channel, Culvert & Road Construction

   5.1. The plan with grass areas shall be assembled in sequence with placing streambed and structural backfill as outlined on Sheet 7.

   5.2. After completion of the culvert construction, the road fill will be backfilled with compacted borrow to the level of the road subgrade.

   5.3. Rock armoring shall be placed on the upstream and downstream sides of the road fill.

   5.4. The road will be constructed to final grade.

   5.5. The new road drainage curtain and road area will be constructed of rock and the ditch filled to the level of the surrounding natural grade. Alternatively, this work may be performed before removing the creek culvert.

6. Erosion Control Planning & Site Cleanup

   6.1. The temporary dam and the filter fencing will be removed from the creek channel as shown on the schematic drawings and/or construction materials in the road.

   6.2. The sides of the culvert will be covered with 300 g silt fence to protect the banks from direct contact with the road.

   6.3. The surface of the ditch fill, the area, and any other disturbed areas will be seeded with native grass and mulched with straw.

   6.4. After the temporary ground cover is established in late fall, the remaining silt fencing will be removed.

6.4 All construction materials and equipment will be removed to the satisfaction of the landowner.
**Fuell Fish Passage Barrier Removal Project**

**Project Owner**
Loren Fuell  
23628 Fremali Lane  
Mount Vernon WA 98274  
email lefuell@gmail.com

**Project Applicant**
Skagit Fisheries Enhancement Group  
c/o Kristin Murray  
PO Box 2497  
Mount Vernon, WA 98273  
email kmurray@skagitfisheries.org

**Project Description**
The purpose of the project is to improve fish passage in Starbird Creek by removing two barrier culverts and associated fill from the creek and replacing them with a prefabricated bridge meeting WDFW water crossing guidance. The project is funded by the Washington Family Forest Fish Passage Program, FFFPP Project No. 20-1892.

**Index of Drawings**

<table>
<thead>
<tr>
<th>Sheet</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Cover Sheet</td>
</tr>
<tr>
<td>2.</td>
<td>Project Information Sheet</td>
</tr>
<tr>
<td>3.</td>
<td>Project Work Area Existing Site Plan</td>
</tr>
<tr>
<td>4.</td>
<td>Existing Channel Profile and Cross Section Views</td>
</tr>
<tr>
<td>5.</td>
<td>Proposed Site Plan</td>
</tr>
<tr>
<td>6.</td>
<td>Proposed Channel Profile and Cross Section Views</td>
</tr>
<tr>
<td>7.</td>
<td>Construction Details</td>
</tr>
<tr>
<td>8.</td>
<td>Construction Details (continued)</td>
</tr>
<tr>
<td>9.</td>
<td>Work Sequencing and TESC Measures</td>
</tr>
</tbody>
</table>

**Design Prepared by**
Conservation Project Workshop, Inc.  
2752 Broadway St.  
Bellingham WA 98225  
(360) 296-6687
Project Purpose
The purpose of the project is to improve fish passage in Starbird Creek by removing a pair of barrier culverts and associated fill from the creek and replacing them with a prefabricated bridge meeting WDWR's water crossing design guidance. The project is funded by the Washington Family Forest Fish Passage Program, FFPFP Project No. 20-1892.

Project Description
The project includes the following elements:
- Removing two undersized culverts and associated fill from an upvalley forest road crossing of the creek.
- Replacing the crossing with a 40-foot x 1-foot wide prefabricated steel or concrete bridge over concrete slabs.
- Reconstructing 40 LF of stream channel through the crossing.
- Installing 2 LWM habitat structures.
- Regrading 40 LF of road to improve drainage.

Elevation Datum and OHW
All elevation data in the plans are referenced to a project benchmark shown on the site plans. The bench mark has an assumed elevation of 326.00' NAVD88, based on a recent Skagit County LDAR elevation model.

The project designer determined Ordinary High Water (OHW) at the work site by field indicators and the 100-year flood elevation by HEC RAS modeling. The OHW and OHW_Cross lines are indicated on the drawings. The project site does not have within a mapped FEMA floodway (Flood Zone C).

Land Ownership
All work will take place on Skagit County tax parcel ID No. P17799, which is owned by Loren Fuell and Sara Perry.

General Specifications
The project shall be constructed to the lines, grades and specifications shown in the drawings and any supplemental specifications. Except where noted in the drawings or detailed specs, all work shall follow current WSDOT “Standard Specifications for Road, Bridge and Municipal Construction.”

Utilities
No buried or overhead utility lines were observed at the project site during project field measurements. No representation is made regarding the presence or absence of other utility lines that are not readily visible, if any. Responsibility for identifying and protecting utilities shall be the contractor’s in accordance with WSDOT standard specifications. Costs incurred by the contractor for removing or relocating utilities, if any, shall be paid by the project contracting agent under a written change order.

Permits
The project applicant is responsible for obtaining all relevant environmental permits. All work shall be done in accordance with all relevant permit requirements.

Critical Area Impacts
Field observations of soils, plants, and hydrology at this site indicate no regulated wetlands occur in the proposed work area. The tributary is listed as WDWR Type "F" water body. Impacts to this water body will consist of 1) excavation of artificial fill associated with the existing culvert crossing 2) placing a new bridge, abutments and approximately 540 square feet (sf) of rock bank armor, and 3) placing gravel cobble mix on 540 sf of the constructed channel bed below the CHW elevation. The boundaries of excavation and fill placement are shown on Sheet 5 of the drawing set. The following table summarizes the quantities of excavation and filling work, including that below the existing OHW mark of the creek channel.

For the purposes of environmental permitting, the project is considered to be "self mitigating," it is assumed that correcting the existing fish passage barrier will mitigate for the construction impacts.

Estimated Work Quantities

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavation below the CHW line</td>
<td>75.4</td>
</tr>
<tr>
<td>Excavation above the OHW line</td>
<td>250.7</td>
</tr>
<tr>
<td>Fill below the CHW line</td>
<td>41.2</td>
</tr>
<tr>
<td>Fill above the OHW line</td>
<td>75.5</td>
</tr>
<tr>
<td>Total Grading</td>
<td>442.8</td>
</tr>
</tbody>
</table>

Grading Quantities for Permit Purposes

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavation in Wetlands</td>
<td>0</td>
</tr>
<tr>
<td>Fill in Wetlands</td>
<td>0</td>
</tr>
</tbody>
</table>

2. Construction Work and Materials Quantity Estimates

Estimated quantities of construction work are listed in the contractor bid sheet.

General Legend
The following symbols are commonly used in the plan. Other symbols are identified in individual drawing sheets.

<table>
<thead>
<tr>
<th>Property line</th>
<th>Existing site contour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buried utility line</td>
<td>Existing feature removed</td>
</tr>
<tr>
<td>Fence</td>
<td>Creek OHW</td>
</tr>
<tr>
<td>Edge of grading</td>
<td></td>
</tr>
</tbody>
</table>

Abbreviations
The following abbreviations are commonly used in the plan:

- CB: construction boundary
- EDG: edge of grading
- GSE: gas surface elevation
- OHW: Ordinary high water
- SF: Silt fence/silt curtain
- XS: cross section
- WSE: water surface elevation
- LWM: large wood material


\[ h_{100} = 100 \text{ year flood water} \]
Channel Cross Section at Road CL (Channel Sta. 1+98)

- Remove the culverts and all fill from the new channel cross section. Install a new 40'x14' ML-93 steel or concrete bridge on prefab concrete sills.
- Remove existing gate & replace at Sta. 0+95

See Sheet 7 for details for abutment and bank armor design.

The final bridge deck and road elevation may vary depending on the actual depth of the bridge girders. The bottom chord of the girders and top of abutments shall be at the elevations shown in the drawings.

Channel Profile at the Road Crossing

- Sta. 1+80 to 2+14
  - Remove existing culverts
  - Fill and construct channel per detail

See plan view for extent of rock armor

Channel
- Sta. Description
  - 1+60: End of potential regrade, el. 322.2'
  - 1+78: LWM #1 rootwad crest el. ± 323.9'
  - 1+80: End new channel, Thalweg el. 322.3'
  - 1+85: DS end of riprap. Toe el. 220.6'
  - 1+89: Edge of sill. Top el. = 327.45'
  - 1+91: Edge of bridge
  - 1+98: Bridge CL. Final deck el. = 330.5'
  - 2+09: Top edge of riprap. El. = ±327.4'
  - 2+20: Start new channel. Thalweg el. 322.7'
  - 2+22: LWM #2 rootwad crest el. ± 324.1'
  - 2+30: Start of potential regrade, el. 322.8'

Loren Fulk
Prepared for:
Conservation District
133113N 84E

Date: 1-12-22
Scale: As noted
Sheet 6 of 8
Bridge Abutment, Bank Armoring and Channel Construction Details

Bridge Approach Ramps
1. Strip existing road surface to mineral soil, grub out any roots or organic material and compact to WSDOT specs.
2. Backfill to 3' below final grade with compacted gravel/structural backfill and place a 3' top course of crushed #1 minus aggregate on the 12-foot wide driving surface.
3. Grade 2:1 side slopes. Top dress the sides of the ramp with 3' of topsoil and plant with native grass seed per the TESC plan.

Abutment Sub-grade and Footing Requirements
1. Excavate the subgrade for the bridge abutments to mineral soil at least 12" below the elevation of the bottom of the abutments. Compact to a firm base per WSDOT standard specifications.
2. The subgrade will be inspected by the project engineer, who may require additional stabilization work as needed.
3. Place non-woven geotextile (Milfab RS350 or equivalent) over the entire footprint. Overlap the seams between the geotextile panels by 3 feet.
4. Place gravel structural fill in 6" lifts on top of the geotextile. Place the gravel evenly to prevent wrinkling or bunching of the geotextile.
5. After setting the concrete abutment blocks, backfill the excavation to the surrounding ground surface with gravel/structural backfill.

Materials Specification
1. "Compacted gravel/structural backfill" shall meet WSDOT 9-03.12(3)(A) Gravel backfill Class A
2. "1-inch minus aggregate" shall meet WSDOT 9-03.9(3) Crushed surfacing top course
3. "Quarry spall" shall meet WSDOT 9-13.1(5)
4. "Common borrow field soil" shall meet WSDOT 9-03.14(3)
5. "Top soil" shall meet WSDOT Special Provision 8-02.3(4)

Bank armoring:
- A 12" layer of 6" quarry spall over a 4" filter layer of gravel/structural backfill. Maximum slope 1:5H:1V. Include a 12-inch wide toe.
- Toe of armoring is set back min. 8.5' from the final channel centerline (both banks). Backfill over the buried riprap with compacted common borrow field soil and top dress with 6" of stream bed mix to the 100-year flood elevation. See the channel grading cross sections (Sheet 6) for elevations of the toe of armoring.

Road Drainage Improvement Construction Details
1. Remove top 6" of road surface from the section of road to be treated (Sta. 14+70 to 24+10). Remove additional organic soil as needed to reach mineral soil subgrade and grub out any roots or organic material. Dispose the excavated soil off site.
2. Compact the subgrade to WSDOT specs.
3. Backfill with compacted gravel/structural backfill to 3' below the final surface. Place a 3" layer of compacted #1 minus aggregate to final surface elevation across the 12-foot roadway width, forming a 1-inch high crown along the road centerline so that water drains off to each side.
4. Place topsoil on shoulders to match surrounding side slopes and plant per the TESC plan.
5. The final road profile shall match the existing road profile.
Large Wood Material Details

Channel Cross Section View

Place two LWL habitat structures in the channel at the locations shown in the site plan, per the specifications.

Configure each LWL piece so that the root wad rests on the channel bed and the trunk angles upstream about 45° relative to the bank line in the horizontal plane and downward about 5° in the vertical plane.

Scale

Large Wood Material Specifications

LWL habitat structures shall meet the following specifications. See Special Provision 8-28.

1. Each LWL structure shall consist of a tree trunk with its root wad attached. The trunk shall be at least 10 inches (DIA) and the root wad at least 2’ in diameter. LWL shall be fir, hemlock or cedar in sound condition (no rot). Total length (root wad plus trunk) shall be 18 to 20 feet.

2. LWL structures shall be balled by burying the landward end of the trunk in the creek bank. At least 65% of the length of the structure shall be buried in a trench and backfilled with compacted field soil so that there is at least 12” of soil cover over the top of the trunk. The exposed soil shall be seeded with native grass seed and mulched with straw.

Channel and Streambed Specifications

Channel Construction

1. Excavate the culvert fill and remove the culverts to match the channel profile and typical grading sections shown on Sheet 6. The channel shall include an irregular shape, meandering low-flow terrace, and sloping higher flow terrace, as shown on the typical cross section. Taper the ends of the channel grading to blend into the natural channel bottom and banks upstream and downstream. The site manager shall approve the final grading configuration for the channel.

2. Overexcavate the new channel bottom to 6” below final grade and compact the subgrade to match the surrounding soil.

3. Install the large wood material (LWL) pieces at the locations shown on Sheet 6, per the specs.

4. Backfill the channel to the final grade with the gravel and cobble mix, per the spec.

Gravel & Cobble Streambed Mix (See Special Provision 9-03-11)

1. Place a 6-inch depth of streambed mix on the channel subgrade to match the final elevations and configuration shown in the profile view (Sheet 6). The mix shall be placed after installing the LWL pieces so that it settles around and helps ballast them.

2. The streambed mix shall consist of a well graded mix of gravel to large cobble with particle size ranging from < 1/2” to 8”, in approximately the following proportions:
   - 60% of the total volume shall be gravel of size passing a 1/2” screen
   - 20% shall be coarse gravel and small cobble between 1/2” and 3.5”
   - 20% shall be cobble between 3.5” and 8” size.
   - Final mix shall be approved by the site manager.
Work Sequencing and TESC Measures

For the purpose of protecting water quality and public safety, the construction work shall follow the general plan below. The contractor is solely responsible for deciding the actual methods and sequence of all construction tasks.

1. **General Pest Management Practices**
   1.1 All work shall be done during summer low water in accordance with all permit conditions.
   1.2 Vehicle traffic is restricted to the construction area boundaries shown in the schematic drawing. Stage construction materials in the pasture area shown on the schematic. Construction access onto the site is via a private, gravelled driveway off Fremali Lane. Trimming of driveway landscaping to allow for construction access shall be coordinated with the owner.
   1.3 All work will be done using a tracked excavator operating forward from the banks of the creek. No construction vehicles shall drive through the channel.
   1.4 All construction work shall be isolated from surface water using the BMPs listed in Item 3.

2. **Pre-construction Brushing and Staking**
   2.1 Vegetation within the grading limits consists of mature alders and maples on the sides of the road fill and shrubs along the creek bank. The contractor will remove this vegetation and dispose of it at an off-site location to be identified by the landowner. No other vegetation shall be removed without permission from the landowner.
   2.2 The existing gate will be removed from the road and stockpiled for replacement.
   2.3 The project engineer will stake out the grading limits and the locations of the ditches before the start of construction. The contractor shall mark offsets as needed.

3. **Grading and Water Quality Protection Buffers**
   3.1 During the summer construction window, it is anticipated that there will be minimal flow in the creek. The contractor, however, shall be prepared to suspend construction work in the event that unexpected high rainfall events raise water levels in the creek.
   3.2 Suspended silt curtains shall be placed across the creek channel at the upstream and downstream construction boundaries, as shown in the schematic figure. The upstream silt curtain shall be placed first and the channel shall be swept with a block net to move any fish downstream before placing the downstream silt curtain.
   3.3 The culvert removal work area will then be isolated by constructing temporary dams of gravel-filled bulk bags, sheet piling or equivalent across the wetted channel between the silt curtains. Approximate locations of the dams are shown on the schematic drawing. Replacement of the channel between the temporary dams will be de-watered by pumping as necessary to allow for excavation of the culvert fill and placement of new bank armoring.
   3.4 A back-up pump shall be staged at the site during construction. Both pumps shall be fitted with approved fish exclusion screens.
   3.5 Water pumped from de-watering will be discharged to the left bank floodplain levees of the creek in a manner that does not cause erosion. At a minimum, the discharge area shall be protected with a 3’ x 3’ area of rock fill.
   3.6 No more ground area shall be disturbed during the day than can be stabilized by the end of the work day.

4. **Culvert Removal and Rough Grading**
   4.1 The existing culverts and road fill will be removed. The channel bed and bank slopes will be excavated back to the subgrade limits shown in the grading cross section view. Excavation shall be limited to the area delineated on the site plan.
   4.2 The culverts will be crushed and disposed of on-site. Suitable fill material will be stockpiled as "soil" and reused for top dressing the road embankments. The soil engineer will determine whether excavated material is suitable for this purpose.
   4.3 All remaining excavated material will be disposed of at an off-site location selected by the contractor.

5. **Channel Bridge and Road Construction**
   5.1 The sides of the excavation beneath the new bridge will be armored per the design details. The LWK pieces will be placed at locations shown in the plans.
   5.2 Stream bed mix will be placed in the channel to final grade.
   5.3 Precast bridge abutments and the prefabricated bridge will be installed per the design details on the bridge vendor’s shop drawings. Final elevation of the abutments shall be confirmed by the field engineer.
   5.5 The abutments will be backfilled, approach ramps constructed and bridge deck grouted placed per the construction details. Road drainage improvements west of the bridge shall be completed and the gate will be reinstalled at the location shown in the plans.

6. **Erosion Control Blanket and Site Cleanup**
   6.1 The temporary dam and the suspended silt curtains will be removed from the creek channel immediately after completing the bridge work. Silt fencing will be placed along the toe of grading to the right of the schematic.
   6.2 All creek bank soils that were disturbed by construction, including the sides of the approach ramps will be covered with C-352 soil erosion control fabric and planted with native grass seed. The staging area and any other disturbed soil areas will be seeded with native grass and mulched with straw.
   6.3 After the temporary ground cover is established in late fall, the remaining silt fencing will be removed.
   6.4 All construction materials and equipment will be removed to the satisfaction of the landowner.
## ATTACHMENT 3
### FUELL PROJECT SITE SCHEDULE OF MEASUREMENT AND PAYMENT

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item</th>
<th>Basis of payment</th>
<th>WSDOT Standard Spec. Section</th>
<th>Description/Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Contractor Submittals, Mobilization and Demobilization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Submittals: Work plan, SPCC and dewatering plans</td>
<td>lump sum</td>
<td>8-01.3(1)A, as applicable.</td>
<td>Cost for preparing the required work plan, spill prevention control and countermeasures (SPCC) plan, and construction site dewatering/stream isolation plan, as required by the construction permits.</td>
</tr>
<tr>
<td>1.2</td>
<td>Mobilization and demobilization</td>
<td>lump sum</td>
<td></td>
<td>Cost for mobilization and demobilization of all materials, equipment and labor. Includes toilet, SPCC equipment, and all other temporary facilities.</td>
</tr>
<tr>
<td>1.3</td>
<td>Floating silt (turbidity) curtain installation and removal</td>
<td>lineal feet</td>
<td>8-01.3(1)C7</td>
<td>Furnish and install silt curtain across the channel u.s. and d.s. of the driveway crossing. Curtains to be removed after completing construction.</td>
</tr>
<tr>
<td>1.4</td>
<td>Tree removal and brushing</td>
<td>lump sum</td>
<td>2-01.3</td>
<td>Remove trees flagged by the site manager and dispose them offsite.</td>
</tr>
<tr>
<td>1.5</td>
<td>Gate removal and reinstallation</td>
<td>lump sum</td>
<td></td>
<td>Remove the existing road gate and reinstall it at the location shown in the plans to the satisfaction of the landowner</td>
</tr>
<tr>
<td>1.6</td>
<td>Final site cleanup</td>
<td>lump sum</td>
<td></td>
<td>Includes removal of all temporary BMPs, temporary contractor facilities, construction boundary fencing, and trash, and any other cleanup needs at the site manager’s direction.</td>
</tr>
<tr>
<td>2</td>
<td>Water Quality Protection and Erosion Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Floating silt curtain installation and removal</td>
<td>lineal feet</td>
<td>8.01.3(9)A1</td>
<td>Furnish and install silt curtain across the upstream and downstream channel, as shown on the TESC plan.</td>
</tr>
<tr>
<td>2.2</td>
<td>Filter fencing installation and removal</td>
<td>lineal feet</td>
<td>8.01.3(9)A2</td>
<td>Furnish and install standard filter/silt fencing placed along the edge of exposed soil adjacent to the creek, as shown in the TESC plan. To be left in place until the soil is stabilized with grass.</td>
</tr>
<tr>
<td>Section</td>
<td>Description</td>
<td>Unit</td>
<td>Provisions</td>
<td>Notes</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
<td>------</td>
<td>------------</td>
<td>-------</td>
</tr>
<tr>
<td>2.3</td>
<td>Fish exclusion (by SFEG)</td>
<td>N.A.</td>
<td>Spec. Prov. 8-05.3(3)</td>
<td>No bid for this item. Per the Special Provisions, the contractor shall facilitate the work by SFEG.</td>
</tr>
<tr>
<td>2.4</td>
<td>Work area isolation with bulk bags</td>
<td>lineal feet</td>
<td>Spec. Prov. 8-05.3(1)</td>
<td>All costs for installing and removing temporary dams at 2 locations shown on the drawings. Payment is per lineal foot of dam. Assumes using 3’x3’ sand-filled bulk bags, or an equivalent design per the contractor’s approved dewatering plan.</td>
</tr>
<tr>
<td>2.5</td>
<td>Work area dewatering/pumping</td>
<td>lump sum</td>
<td>8-01.3(1)D</td>
<td>Install a pump discharge pad and operate pump(s) to allow for construction in the dry, depending on the water level in the creek. Design TBD by the contractor’s approved dewatering plan.</td>
</tr>
<tr>
<td>2.6</td>
<td>Erosion control blanket</td>
<td>square yards</td>
<td>Special Provision 8-01.3(7)</td>
<td>Cost for furnishing and installing coir erosion control fabric on exposed soils on the sides of the driveway ramp, abutments, and creek floodplain.</td>
</tr>
<tr>
<td>2.7</td>
<td>TESC seeding, fertilizing and mulching</td>
<td>acres</td>
<td>Special Provisions: 8-01.3(2)</td>
<td>Seeding with native grass seed mix and mulching with straw, per acre treated.</td>
</tr>
</tbody>
</table>

### 3. Culvert Removal and Bridge Construction

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Unit</th>
<th>Provisions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Structural excavation, Class B - remove culvert fill, excavate for sills and streambed</td>
<td>cubic yards</td>
<td>2-09.3 as applicable</td>
<td>All costs for excavating the culvert fill, subgrade for the bridge abutments and bank armoring, and channel shaping. Measurement is in-place volume of soil to be removed.</td>
</tr>
<tr>
<td>3.2</td>
<td>Soil disposal - haul off-site</td>
<td>cubic yards</td>
<td>1-09 as applicable</td>
<td>All costs for hauling and disposing excavated soil at an offsite disposal site to be determined by the contractor. Retain30 cubic yards of the material and stockpile it for later use (Item #3.7).</td>
</tr>
<tr>
<td>3.3</td>
<td>Culvert demolition and offsite disposal</td>
<td>lump sum</td>
<td></td>
<td>All costs for removing the two road culverts and disposing them at an offsite location to be determined by the contractor.</td>
</tr>
<tr>
<td>3.4</td>
<td>Gravel backfill Class A for sills, road regrade and bank armoring filter layer, placed</td>
<td>ton</td>
<td>9.03.12(1)A and 9.03.9(3)</td>
<td>Furnish, place and compact gravel. Scale tickets required.</td>
</tr>
<tr>
<td>3.5</td>
<td>Construction geotextile for sill footing subgrade</td>
<td>square yards</td>
<td>2-12.3(2)</td>
<td>Cost for furnishing and placing geotextile (geosynthetic).</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Unit</td>
<td>Code</td>
<td>Details</td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------------------</td>
<td>------</td>
<td>--------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3.6</td>
<td>Quarry spall bank armoring, placed</td>
<td>ton</td>
<td>9-13.1(5)</td>
<td>Furnish and place WSDOT quarry spall bank armoring on bank slopes around the bridge sills. Scale ticket required.</td>
</tr>
<tr>
<td>3.7</td>
<td>Common borrow (field soil) placed over riprap and sills</td>
<td>cubic yards</td>
<td>9.03.14(3)</td>
<td>All costs for grading stockpiled borrow from the culvert excavation. Measurement is volume of final grading in-place</td>
</tr>
<tr>
<td>3.8</td>
<td>Bridge and sill installation</td>
<td>lump sum</td>
<td>6-03.5 as applicable</td>
<td>All labor and equipment for installing the bridge, sills, and guard rails per the vendor's shop drawings and instructions. Includes welding of shear connectors, as shown in shop drawings. SFEG will supply and deliver the bridge, sills and associated materials to the site.</td>
</tr>
<tr>
<td>3.9</td>
<td>Crushed surfacing top course for road regrade and ramps</td>
<td>ton</td>
<td>9.03.9(3)</td>
<td>Cost for providing, placing and compacting, per the plans.</td>
</tr>
<tr>
<td>3.10</td>
<td>Final grading: topsoil placement</td>
<td>cubic yards</td>
<td>Special provisions 8-02.3(4)A</td>
<td>All costs for final shaping of the floodplain under the bridge and the sides of the road ramps and providing and spreading topsoil on these areas.</td>
</tr>
<tr>
<td>4</td>
<td><strong>Stream Channel Construction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Provide and place stream bed mix</td>
<td>ton</td>
<td>Special Prov. 9-03.11</td>
<td>All costs for furnishing and placing streambed mix in the new channel. Scale ticket required.</td>
</tr>
<tr>
<td>4.2</td>
<td>Provide and install LWM</td>
<td>each</td>
<td>Special Provision 8-28</td>
<td>All costs for furnishing and installing LWM habitat structures.</td>
</tr>
</tbody>
</table>
### ATTACHMENT 3
CREELMAN PROJECT SITE SCHEDULE OF MEASUREMENT AND PAYMENT

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item</th>
<th>Basis of payment</th>
<th>WSDOT Standard Spec. Section</th>
<th>Description/Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Submittals: Work plan, SPCC and dewatering plans</td>
<td>lump sum</td>
<td>8-01.3(1A), as applicable.</td>
<td>Cost for preparing the required work plan, spill prevention control and countermeasures (SPCC) plan, and construction site dewatering/stream isolation plan, as required by the construction permits.</td>
</tr>
<tr>
<td>1.2</td>
<td>Mobilization and demobilization</td>
<td>lump sum</td>
<td></td>
<td>Cost for mobilization and demobilization of all materials, equipment and labor. Includes toilet, SPCC equipment, and all other temporary facilities.</td>
</tr>
<tr>
<td>1.3</td>
<td>Tree removal and brushing</td>
<td>lump sum</td>
<td>2-01.3</td>
<td>Remove trees flagged by the site manager and dispose them offsite.</td>
</tr>
<tr>
<td>1.4</td>
<td>Final site cleanup</td>
<td>lump sum</td>
<td></td>
<td>Includes removal of all temporary BMPs, temporary contractor facilities, construction boundary fencing, and trash, and any other cleanup needs at the site manager's direction.</td>
</tr>
<tr>
<td>2.1</td>
<td>Filter/silt fencing installation and removal</td>
<td>lineal feet</td>
<td>8.01.3(90A2)</td>
<td>Furnish and install standard filter/silt fencing placed along the edge of exposed soil adjacent to the creek, as shown in the TESC plan. To be left in place until the soil is stabilized with grass.</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Measure</td>
<td>Spec. Provision</td>
<td>Details</td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------------------</td>
<td>---------</td>
<td>----------------</td>
<td>-------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2.2</td>
<td>Fish exclusion (by SFEG)</td>
<td>N.A.</td>
<td>Spec. Prov. 8-05.3(3)</td>
<td>No bid for this item. Per the Special Provisions, the contractor shall facilitate the work by SFEG.</td>
</tr>
<tr>
<td>2.3</td>
<td>Work area isolation with sandbag dams and flow diversion culvert, per the TESC plan</td>
<td>lump sum</td>
<td>Spec. Prov. 8-05.3(1)</td>
<td>All costs for installing and removing temporary dams at 2 locations and routing stream flow (if any) through a 6&quot; culvert, as shown on the drawings, or an equivalent design per the contractor's approved dewatering plan.</td>
</tr>
<tr>
<td>2.4</td>
<td>Work area dewatering/pumping</td>
<td>lump sum</td>
<td>8-01.3(1)D</td>
<td>Install a pump discharge pad and operate pump(s) to allow for construction in the dry, depending on the water level in the creek. Design TBD by the contractor's approved dewatering plan.</td>
</tr>
<tr>
<td>2.5</td>
<td>Erosion control blanket</td>
<td>square yards</td>
<td>Special Provision 8-01.3(7)</td>
<td>Cost for furnishing and installing coir erosion control fabric on exposed soils on the sides of the culvert fill and reconstructed creek banks.</td>
</tr>
<tr>
<td>2.6</td>
<td>TESC seeding, fertilizing and mulching</td>
<td>acres</td>
<td>Special Provisions: 8-01.3(2)</td>
<td>Seeding with native grass seed mix and mulching with straw, per acre treated.</td>
</tr>
<tr>
<td>3.1</td>
<td>Structural excavation, Class B - remove culvert fill and abutment and streambed excavation</td>
<td>cubic yards</td>
<td>2-09.3 as applicable</td>
<td>All costs for excavating the culvert fill, subgrade for the bridge abutments and bank armoring, and channel shaping. Measurement is in-place volume of soil to be removed.</td>
</tr>
<tr>
<td>3.2</td>
<td>Onsite soil disposal</td>
<td>cubic yards</td>
<td>1-09 as applicable</td>
<td>All costs for hauling excavated soil and grading it out at an on-site location to be approved by the landowner.</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Unit</td>
<td>Code</td>
<td>Notes</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------</td>
<td>-------</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3.3</td>
<td>Culvert demolition and offsite disposal</td>
<td>lump sum</td>
<td></td>
<td>All costs for removing the existing road culvert and disposing it at an offsite location to be determined by the contractor.</td>
</tr>
<tr>
<td>3.4</td>
<td>Plate arch culvert assembled and installed</td>
<td>lump sum</td>
<td>7-02.3, as applicable</td>
<td>All costs for placing and assembling the steel plates to form the plate arch culvert per the per the vendor’s specifications at the design elevations and grades. SFEG will supply and deliver the materials to the site.</td>
</tr>
<tr>
<td>3.5</td>
<td>Class A gravel backfill placed around culvert and filter layers for slope armoring</td>
<td>tons</td>
<td>9.03.12(1)A and 9.03.9(3)</td>
<td>Furnish, place and compact gravel. Scale tickets required.</td>
</tr>
<tr>
<td>3.6</td>
<td>Common borrow (field soil) cover placed around the culvert</td>
<td>cubic yards</td>
<td>9-03.14(3)</td>
<td>All costs for grading stockpiled borrow from the culvert excavation. Measurement is volume of final grading in-place</td>
</tr>
<tr>
<td>3.7</td>
<td>Road reconstruction: crushed surfacing base course placed</td>
<td>tons</td>
<td>9-03.9(3)</td>
<td>Cost for providing, placing and compacting, per the plans (both culvert sites).</td>
</tr>
<tr>
<td>3.8</td>
<td>Road reconstruction: crushed surfacing top course placed.</td>
<td>tons</td>
<td>9-03.9(3)</td>
<td>Cost for providing, placing and compacting, per the plans (both culvert sites).</td>
</tr>
<tr>
<td>4.1</td>
<td>Provide and place stream bed mix</td>
<td>tons</td>
<td>Special Prov. 9-03.11</td>
<td>All costs for furnishing and placing streambed mix in the new channel. Scale ticket required.</td>
</tr>
<tr>
<td>4.2</td>
<td>Provide and place large cobble and boulders for streambed and grade control weirs</td>
<td>tons</td>
<td>Special Provision 9-03.11</td>
<td>All costs for furnishing and placing streambed boulders and cobble grade control weirs in the new channel. Scale ticket required.</td>
</tr>
<tr>
<td>5.1</td>
<td>Furnish and install an 18”x25’ HDPE culvert, including grading the outlet to the creek</td>
<td>lump sum</td>
<td>7-02.3, as applicable</td>
<td>All costs for providing and installing the new road ditch culvert, including grading the outlet channel to the creek and placing common borrow cover to the base of the road subgrade</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------------------------------------------------------</td>
<td>---------</td>
<td>------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>5.2</td>
<td>Armor the inlet and outlet of the plate arch culvert and the road ditch culvert with quarry spall</td>
<td>tons</td>
<td>9-13.1(5)</td>
<td>Furnish and place WSDOT quarry spall bank armoring at all locations shown in the plans. Scale ticket required.</td>
</tr>
<tr>
<td>5.3</td>
<td>Backfill the road ditch with compacted common borrow to the surrounding grade</td>
<td>cubic yards</td>
<td>9-03.14(3)</td>
<td>All costs for grading stockpiled borrow from the culvert excavation. Measurement is volume of final grading in-place</td>
</tr>
</tbody>
</table>
ATTACHMENT 4
FOREST PRACTICES HYDRAULIC PROJECT APPROVALS

(To be included)
FPA/N No: 2818404
Effective Date: 3/14/2022
Expiration Date: 3/14/2025
Shut Down Zone: 656
EARR Tax Credit: ☒ Non-eligible
Reference: Creelman Barrier Culvert Removal

Decision
☐ Notification Accepted
☒ Approved
☐ Disapproved
☐ Closed

Operations shall not begin before the effective date.

This Forest Practices Application is subject to the conditions listed below.

This Forest Practices Application is disapproved for the reasons listed below.

Applicant has withdrawn the FPA/N.

FPA/N Classification
☐ Class II  ☒ Class III  ☐ Class IVG  ☐ Class IVS

Number of Years Granted on Multi-Year Request
☐ 4 years  ☐ 5 years

Conditions on Approval/Reasons for Disapproval
Instream work is limited to the timing window between August 8th to October 1st. If the stream is observed dry for a minimum two-week period, the landowner may operate outside the timing window. All necessary bypass and fish exclusion materials shall be on-site during operations in case the stream becomes re-watered. Authorization to operate outside the timing window must be received by the operator in writing from the DNR Forest Practices Forester.

Issued By: Dave Klingbiel
Title: Forest Practices Forester – Roads Specialist
Copies to: ☒ Landowner, Timber Owner and Operator
Issued in person: ☒ Landowner ☐ Timber Owner ☐ Operator

Region: Northwest
Date: 3/14/2022
By: [Signature]
Decision

☐ Notification Accepted
☐ Approved
☐ Disapproved
☐ Closed

Operations shall not begin before the effective date.
This Forest Practices Application is subject to the conditions listed below.
This Forest Practices Application is disapproved for the reasons listed below.
Applicant has withdrawn the FPA/N.

FPA/N Classification
☐ Class II  ☒ Class III  ☐ Class IVG  ☐ Class IVS

Number of Years Granted on Multi-Year Request
☐ 4 years  ☐ 5 years

Conditions on Approval/Reasons for Disapproval

Instream work is limited to the timing window between August 1st and September 30th. If the stream is observed dry for a minimum two-week period, the landowner may operate outside the timing window. All necessary bypass and fish exclusion materials shall be on-site during operations in case the stream becomes re-watered. Any authorization to operate outside the timing window shall be given to the operator in writing by the Forest Practices Forester.

Issued By: David Klingbiel

Region: Northwest

Title: Forest Practices Forester – Roads Specialist

Date: 3/3/2022

Copies to: ☒ Landowner, Timber Owner and Operator

Issued in person: ☐ Landowner ☐ Timber Owner ☐ Operator

By:
**Appeal Information**
You have thirty (30) days to file (i.e., actually deliver) an appeal in writing of this Decision and any related State Environmental Policy Act (SEPA) determinations to the Pollution Control Hearings Board, the Attorney General's Office, and the Department of Natural Resources' region office. See RCW 76.09.205. The appeal period starts when the applicant receives this decision, which usually happens electronically on the date indicated below.

You must file your appeal at all three addresses below:

<table>
<thead>
<tr>
<th>Pollution Control Hearings Board</th>
<th>Office of the Attorney General Natural Resources Division</th>
<th>Department Of Natural Resources Northwest Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Address</td>
<td>Physical Address</td>
<td>919 N Township Street</td>
</tr>
<tr>
<td>1111 Israel Road, SW</td>
<td>1125 Washington Street, SE</td>
<td>Sedro-Woolley, WA 98284</td>
</tr>
<tr>
<td>Suite 301, Tumwater, WA 98501</td>
<td>Olympia, WA 98504</td>
<td></td>
</tr>
<tr>
<td>Mailing address</td>
<td>Mailing Address</td>
<td></td>
</tr>
<tr>
<td>Post Office Box 40903</td>
<td>Post Office Box 40100</td>
<td></td>
</tr>
<tr>
<td>Olympia, WA 98504-0903</td>
<td>Olympia, WA 98504-0100</td>
<td></td>
</tr>
</tbody>
</table>

Information regarding the Pollution Control Hearings Board can be found at: [http://www.eluho.wa.gov/](http://www.eluho.wa.gov/)

**Other Applicable Laws**
Operating as described in this application/notice does not ensure compliance with the Endangered Species Act, or other federal, state, or local laws.

**Transfer of Forest Practices Application/Notification (WAC 222-20-010)**

**Continuing Forestland Obligations (RCW 76.09.060, RCW 76.09.070, RCW 76.09.390, and WAC 222-20-055)**
Obligations include reforestation, road maintenance and abandonment plans, conversions of forestland to non-forestry use and/or harvest strategies on perennial non-fish habitat (Type Np) waters in Eastern Washington.

Before the sale or transfer of land or perpetual timber rights subject to continuing forest and obligations, the seller must notify the buyer of such an obligation on a form titled "Notice of Continuing Forest Land Obligation". The seller and buyer must both sign the "Notice of Continuing Forest Land Obligation" form and send it to the DNR Region Office for retention. This form is available at DNR region offices.

If the seller fails to notify the buyer about the continuing forestland obligation, the seller must pay the buyer's costs related to continuing forestland obligations, including all legal costs and reasonable attorneys' fees incurred by the buyer in enforcing the continuing forestland obligation against the seller.

Failure by the seller to send the required notice to DNR at the time of sale will be prima facie evidence in an action by the buyer against the seller for costs related to the continuing forestland obligation prior to sale.

**DNR affidavit of mailing:**

On this day 3/3/2022, I placed in the United States mail at Sedro-Woolley, WA, postage paid, a true and accurate copy of this document. Notice of Decision FPA #2818395

Adriana Cappello
(Printed Name)

[Signature]