



Columbia River

Honor. Protect.
Restore.

OFFICE
P.O. Box 151
401 Fort Road
Toppenish, WA 98948

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(509)-423-7616

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clec@yakamafish-nsn.gov

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Yakamafish-nsn.gov

2017 Entiat River

Entiat 3-D Large Woody Material (LWM) Revisited Project

Dear Contractor:

March 16, 2017

The Yakama Nation's Upper Columbia Habitat Restoration Project is requesting bids for construction of a **Salmon Habitat Enhancement Project** to be implemented adjacent to the Entiat River during the in-water work window for this reach of the Entiat, which is July 16th-July 31st. The project will involve all work elements and specifications found in the Project Plans attached to this bid packet.

If you are interested in an award for this contract please attend the only pre-bid site visit scheduled on **Tuesday, April 18th, 2017, at 1:00 pm** at the meeting location (**USFS Preston Pit, Entiat River Road Mile 22.5**). This site visit will be conducted by Yakama Nation Fisheries Habitat Biologist, Christopher Clemons who is the project manager.

By the close of business on **Thursday, May 4th, 2017**, each contractor must have completed and submitted a signed copy of the attached Entiat 3-D LWM Revisited Project Bid Sheet. Please specify in writing on the bid sheets that all bid prices will be valid for at least 180 days. All competitive bid materials must be either hand delivered or sent by parcel delivery service or postal mail to:

Yakama Nation
Attn: Jackie Olney
RE: Entiat 3-D LWM Revisited Project
PO Box 151
Toppenish WA, 98948
(Shipping address: 401 Fort Road, Toppenish, WA 98948)

Most portions of the project will be conducted between **July 16th and July 31, 2017**, to coincide with the permitted in-water work windows negotiated with NOAA, USFWS, and WDFW for this project. The full project will occur when ESA-listed juvenile and adult salmon and steelhead may be present in or near the project area so turbidity control via cofferdam systems will be of the utmost importance. The winning contractor will understand the magnitude of this project and be equipped to perform all necessary elements for a project of this type within a critical habitat stream. The winning contractor will have extensive experience in the following: building cofferdams, de-watering following NMFS fish screening protocols, constructing log jams, excavating engineered channels and minimizing local disturbance.

All contractors submitting bids for this project shall provide and/or demonstrate, at a minimum, the following:

- ***A list of experienced equipment operators that will be on-site during project construction. Please provide details of their work on in-stream habitat enhancement structures within the past several years.***
- ***A detailed construction timeline of how you propose to get all project tasks completed within the stated project timeline.***
- ***Experience and preferably examples of the ability to create de-watered work areas through the use of coffering techniques. A cofferdam and surface water diversion plan should be submitted with the bid documents.***
- ***A list of key pieces of heavy equipment that will be used in construction of the project.***
- ***A vibratory pile driver; no impact hammer of any sort will be permitted for this project.***

Please note:

- Davis Bacon Wages apply to this contract. The winning contractor will adhere to the Davis Bacon rules and comply and submit all necessary paperwork to the Yakama Nation.
- The Yakama Nation is exempt from state taxes on this project. Please see the attached Treaty Fishery Exempt Cover Letter and Treaty Fishery Exempt Certificate. The winning contractor will receive signed copies for their records.
- This project has adopted by reference in the Engineer's Planset the 2014 Washington State Department of Transportation (WSDOT) Standard Specifications for Road, Bridge, and Municipal Construction. Please download a digital copy of the WSDOT 2014 Standard Specifications from <http://www.wsdot.wa.gov/publications/manuals/fulltext/M41-10/SS2014.pdf>.
- This project will occur on private properties. Under no circumstances are the contractor's allowed to access the property parcels unless accompanied by the project manager. The wood for this project has already been decked by the project installation locations; however several pieces of wood will still need to be hauled from the Preston Pit location. In addition, upon project completion several pieces of wood will also need to be hauled back to the Preston Pit and decked in a location specified by the project manager.
- Awarded contractor must provide "san-i-can" service. It is the contractor's responsibility to remove the san-i-can immediately upon project completion.

The attached template Construction Services Agreement provides an overview of the scope of work likely to be incorporated into the awarded contract. Please make note of specific provisions provided in this Construction Services Agreement, including the detailed Exhibits, that may be in addition to the specifications and directions found in the Project Planset.

Also, please note that this project is pending on permitting and final landowner permission. The Yakama Nation reserves the right to accept or reject any and all of the proposals received as a result of this request, or to cancel in part or entirely this request if it is in the best interest of the Yakama Nation to do so. This request does not commit the Yakama Nation to pay any costs incurred in the preparation of a proposal.

For questions regarding the site visit, please contact me at the numbers provided below.

Sincerely,

Christopher Clemons

Christopher Clemons
1885 S. Wenatchee Ave.
Wenatchee, WA. 98801
(509)-881-5746
clec@yakamafish-nsn.gov

EXHIBIT A

Project Overview & Scope of Work Entiat 3-D LWM Revisited Project

1. Background:

The Yakama Nation's Upper Columbia Habitat Enhancement Project (UCHRP) will accepting bids for a Habitat Enhancement Project taking place this summer along the Upper Entiat River, Stillwaters Reach. The project will take place during the in-water work window of July 16 - July 31st, 2017. Work was previously done at this location in 2012 and was called the 3-D Habitat Enhancement Project. Additional work was planned at that time; however the landowners wanted to wait a few seasons to observe how the existing structures interacted with their properties. All of the work will benefit listed salmonid species inhabiting the mainstem Entiat River.

The attached **Exhibit B "Budget Bid Sheet"** provides the contract Line Item Budget/Task Bid Sheet which is referenced to the work tasks described in this **Exhibit A "Scope of Work"** and **Exhibit C "Payment Plan/Schedule"** provides a payment schedule and requirements. **Exhibit D "Engineer's Stamped Final Project Plans"** provides the Engineer's Construction Plan Set and special provisions by which the work tasks are based. **Exhibit E "HIP III General Conservation Measures"** provides specific best management practices to be employed during construction activities.

2. Location:

This project is along the mainstem Entiat River between river miles (RM) 24.0-25.0. The physical addresses for the properties are as follows: 17801 & 17803 Entiat River Road. The wood for this project has already been procured and is onsite close to installation locations; however three of the rootwads to be installed are located at the Preston Pit location approximately 1.5 miles before project location and will need to be hauled to placement location at Contractor's expense. Any additional wood that is left over upon project completion will need to be hauled to the Preston Pit location at the contractor's expense and decked at an approved location by the Designated Representative.

A pre-bid project tour will take place on Tuesday April 11th, 2017, 1PM. We will be meeting at the Preston Pit location at Entiat River road mile 22.5. From this location we will drive to the private parcels where the work will be taking place. Please dress appropriately for the weather and site conditions for this time of the year. While this meeting is not mandatory, it is highly recommended that the contractor attend this site visit as this will be the only time for the contractor to ask detailed questions of the project manager, Chris Clemons and project engineer, Dan

Miller of Interfluve Inc. Pre-bid tour notes **Exhibit “H”** will be uploaded to the Yakama Nation Fisheries site upon completion of the project tour within 48 hours.

Completed bid materials need to be mailed in hard copy format along with all required exhibits, to the address listed in the cover letter as well as below, no later than Close of Business, 5PM, on Friday April 27th, 2017. No electronic copies will be accepted nor will bids be accepted with missing or required exhibits.

Attn: Jackie Olney; Entiat 3-D LWM Revisited Project

PO Box 151

Toppenish, WA. 98948

(Shipping address if large envelope): 401 Fort Road, Toppenish, WA. 98948

3. Project Tasks:

All tasks will be completed as per **“Exhibit D” Engineer’s Stamped Final Plans**. Major project elements include, but are not limited to the following:

- Mobilization & Traffic Control
- TESC, SPCC Plan & Implementation
- Site Access
- Temporary Cofferdams & Fish Rescue
- Dewatering
- One Extension of Existing ELS #2
- Three Margin Wood Jams
- Fabric Encapsulated Soil Lifts at all locations
- Site Restoration & Clean Up/ Seed & Mulch

4. Project Schedule and Key Deliverables:

- Construct the habitat enhancement project at the 3-D project site within the in-water work window of July 16th – July 31st, 2017.
- Haul approximately three rootwads from Preston Pit location.
- Obtain the DNR Industrial Fire Precaution Level Waiver prior to the start of construction for the appropriate fire level if needed and as required.
- Construct extension of existing Engineered Log Structure (ELS) #2
- Construct three small scale margin wood jams downstream of existing ELS #3

5. Contractor Obligations:

Pre Project:

- The Contractor shall fill out and return **Exhibit B “Budget/Bid Sheet.”** The bid submitted needs to be all inclusive for all activities identified in **Exhibit A “Scope of Work”, signed, dated, certified and be valid for 180days.**
- The Contractor is responsible for submitting an appropriate construction activity timeline.
- Contact the regional Department of Natural Resources Office to obtain information to submit the necessary paperwork to for the appropriate Industrial Fire Precaution Level Waiver for construction activities.

For the Project:

- The contractor shall furnish all supervision, labor and equipment and tools necessary to complete the project tasks as described in **Exhibits A “Scope of Work” & D “Engineer’s Stamped Final Project Plans.”**
- The contractor will be responsible for providing dust abatement control at all times on private property as well as respect property owners comings and goings.
- The contractor shall be responsible for providing traffic and safety control during construction activities while entering and exiting private property along the Entiat River Road.
- The contractor shall only use and provide a vibratory implement for the vertical log installation.
- The contractor will need to outfit equipment with bio-degradable hydraulic fluid and only refuel at approved upland locations at least 50yards from open water.
- Provide Sani-Can service for all project locations and place 50yds. from open water.

Final Cleanup: The contractor shall perform final cleanup to the Owner’s satisfaction. The Owner will not process the final invoice for this project until all items have been addressed appropriately. Any and all work areas for all project sites shall be inspected by the Owner prior to demobilization for each project location. The contractor shall, but not limited to for each project site as follows:

- The contractor shall remove and dispose of properly any and all construction materials as well as remove Sani-Can Service upon project completion.
- The contractor shall haul and dispose of properly any and all excess project spoils to an approved upland location at contractor’s expense.
- The contractor shall haul any excess wood to the Preston Pit location at their expense and decked at a location approved by the Owner.

- Replace and Repair any damage along access routes used for hauling materials and constructing the project to the Owner's satisfaction at the contractor's expense.

6. Consistent Satisfactory Progress:

Consistent satisfactory progress in this project will be required. Satisfactory progress will be measured by both the quality and quantity of work. If for any reason no work is performed, the Contractor may be given a notice of contract cancellation. Consistent satisfactory progress will also be determined by the Contractor's demonstrated ability to perform all work tasks described in **Exhibit D "Engineer's Stamped Final Project Plans."** If it appears that the Contractor is unable to complete the project tasks within the permitting work window, the Contractor may be given a notice of contract cancellation. The Yakama Nation's designated representative will monitor progress closely.

7. Fish Removal

In-water construction activities will require fish removal of all isolated in-water work sites. Fish removal will be conducted in a timely manner by the Owner's Designated Representatives and the time taken to implement proper fish removal protocols will be considered incidental to the contractor's work tasks.

8. Fire Suppression

The Contractor will be familiar with and prepared for the requirements associated with Industrial Fire Precaution Levels (IFPL) II & III and the restrictions associated with those. The contractor may seek to acquire IFPL shut down exemptions to allow work to continue on schedule.

9. Road Signage

The Contractor will observe all road signage regulations regardless of the project location and as per **Exhibit D "Engineer's Stamped Final Project Plans."**

10. Utilities Location

The Contractor will locate all utilities prior to any excavation.

11. Communication with Landowners

The Contractor expressly agrees that Contractor and his staff will not communicate with the Landowner in any manner, whether it be in regard to the project or otherwise, without express permission from, or the presence of the Designated Representative.

12. Exclusivity

During the term of this Agreement, including time taken for mobilization and demobilization of construction equipment, Contractor shall not conduct any work on the property designated in this Agreement unless so directed by the Designated Representative. Contractor shall require in all contracts with subcontractors that subcontractors not conduct any work on the property designated in this Agreement unless so directed by the Designated Representative. Any additional work conducted on the property designated in this Agreement by Contractor without the express consent of the Designated Representative shall constitute a material breach of this Agreement, thereby relieving the Yakama Nation from all payment obligations to the Contractor.

13. Contractor Bid Packet Documents (List of Exhibits A-H):

- Exhibit “A” – Project Overview & Scope of Work **(Provided by YN)**
- Exhibit “B” – Budget Bid Sheet **(Provided by YN)**
- Exhibit “C” – Payment Plan/Schedule **(Provided by YN)**
- Exhibit “D” – Engineer’s Stamped Final Project Plans **(Provided by YN)**
- Exhibit “E” – HIP III General Conservation Measures **(Provided by YN)**
- Exhibit “F” – Heavy Equipment Daily Standby Rate **(Provided by YN)**
- Exhibit “G” – Tax Forms & Certified Payroll Forms **(Provided by YN)**
- Exhibit “H” – Pre-Bid Project Tour Notes **(Provided by YN after April 11, 2017)**
- Yakama Nation Construction Consultant Agreement Template

14. Standby Time

The Contractor shall notify the Designated Representative in advance of any intent to charge for standby time based upon the rates quoted by the contractor in **Exhibit F “Heavy Equipment Daily Standby Rate.”** Prior to invoicing for any standby time, the contractor must receive notice in writing from the Designated Representative that standby time is an applicable charge due to construction halting events related to environmental or permitting conditions outside of the control of the Yakama Nation or the Contractor. Standby time will be calculated at the daily rate per piece of equipment as per the Contractor’s stated rates. Standby time charges will only apply to full work days where construction activities are not possible and will not be pro-rated by partial work days or hours on standby.

Exhibit B "Budget Bid Sheet": Entiat 3D - LWM Revisited Habitat Enhancement Project

Please Use the Engineer's
Stamped Project Plans and the
bid packet to produce your
competitive bids.

No.	Item	Quantity	Unit	Unit Price	Extended Price
1	Mobilization, Traffic Control	1	LS		
2	TESC, SPCC Plan & Implementation	1	LS		
3	Site Access	1	LS		
4	Temporary Cofferdams & Fish Rescue	1	LS		
5	Dewatering	1	LS		
6	One (1) Extension of Existing ELS #2 Jam	1	LS		
7	Three (3) Margin Wood Jams	1	LS		
8	Fabric Encapsulated Soil Lifts	4	LS		
9	Site Restoration & Clean Up / Seed & Mulch	1	LS		

GRAND TOTAL (No
Tax)

Company Name:

Date Prepared:

Ceritfication

Printed Name &
Title:

Signature:

By Signing and submitting this form you are agreeing to honor the competed competitive bid for a period of up to 180 days from the date this form was prepared.

EXHIBIT C

Payment Plan/Schedule: Entiat 3-D LWM Revisited Habitat Enhancement Project

I. Payment Schedule

- ☒ **Progress:** The Contractor shall submit a separate bill for each major project task element after the work has been completed, reviewed and accepted by Yakama Nation's Designated Representative. The Contractor is encouraged to invoice monthly when payment is necessary.
- ☐ **Percentage:** The Contractor shall invoice monthly and will be allowed to submit a bill for percentage of work completed after the work has been reviewed and accepted by Yakama Nation's Designated Representative.
- ☐ **Actual Work Completed:** The Contractor shall invoice monthly and will be allowed to submit a bill for actual work completed.
- ☐ **Alternative Schedule:** The Contractor shall invoice and be allowed to submit a bill as follows: [alternate payment plan description, e.g., 30% deposit with balance due after work has been reviewed and accepted by the Yakama's Designated Representative.]

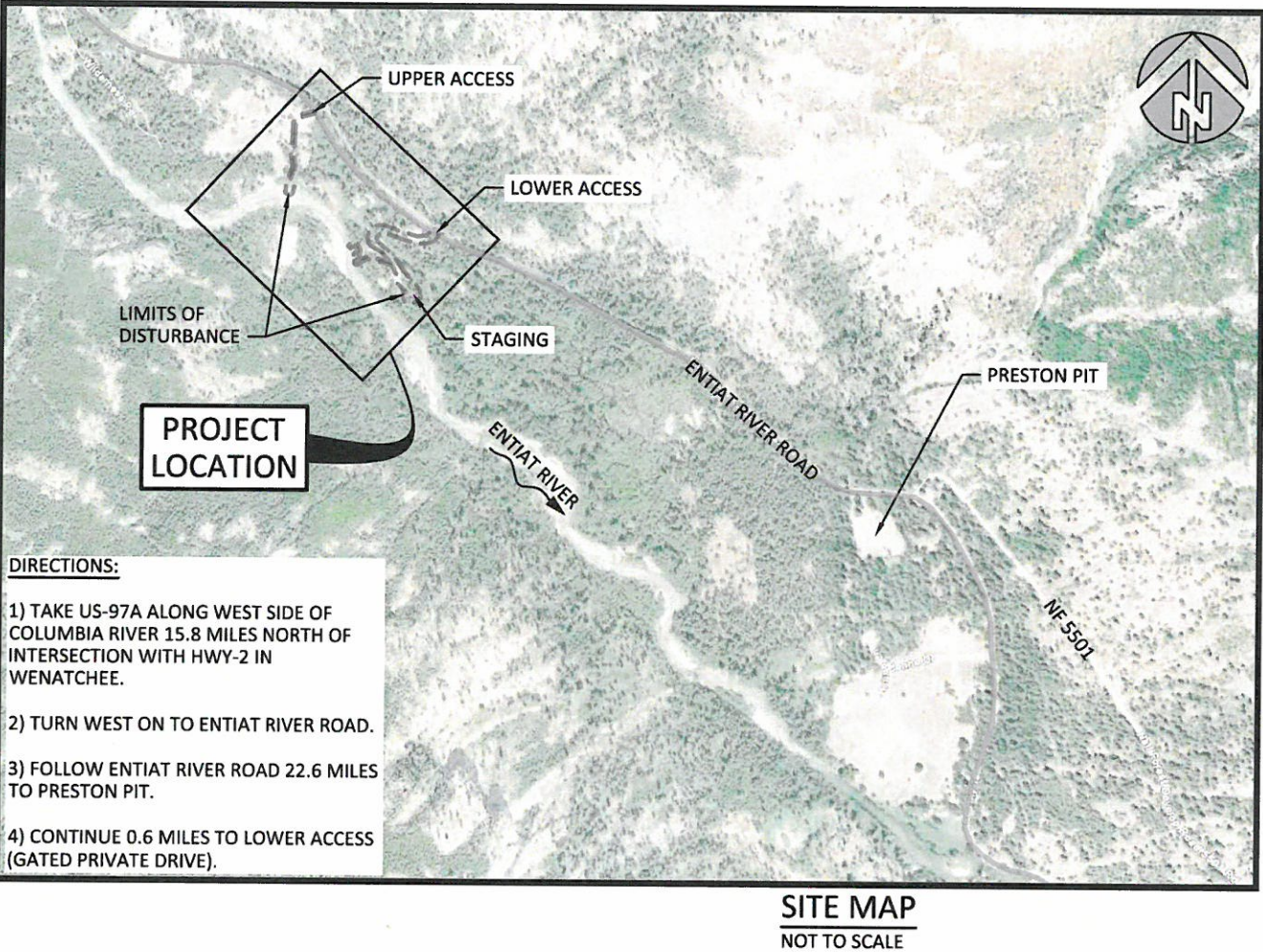
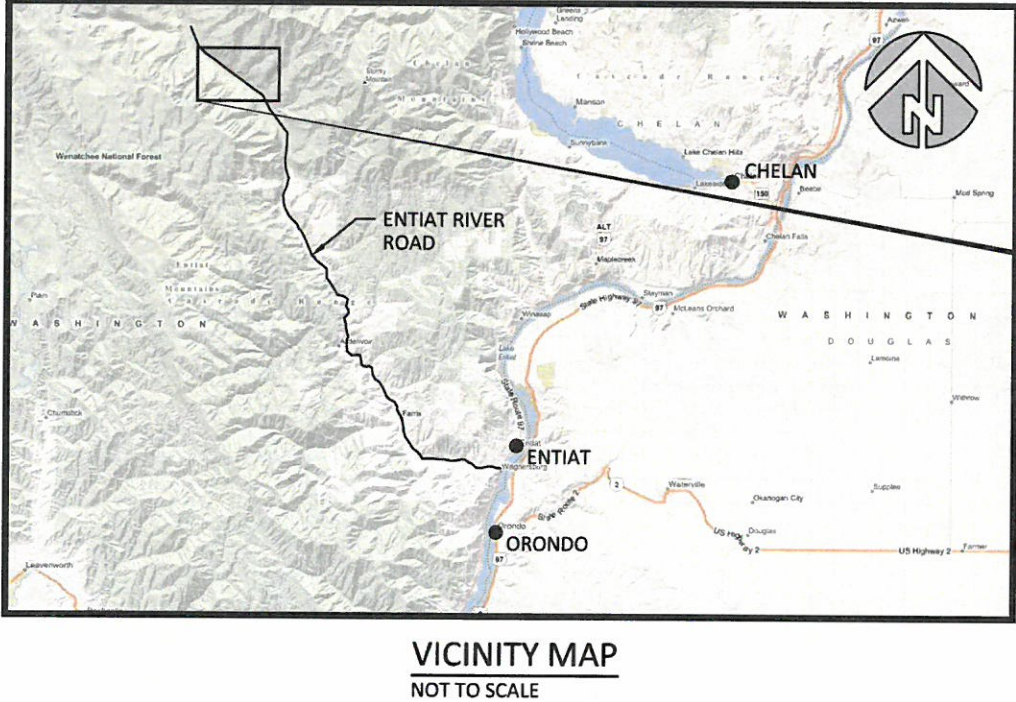
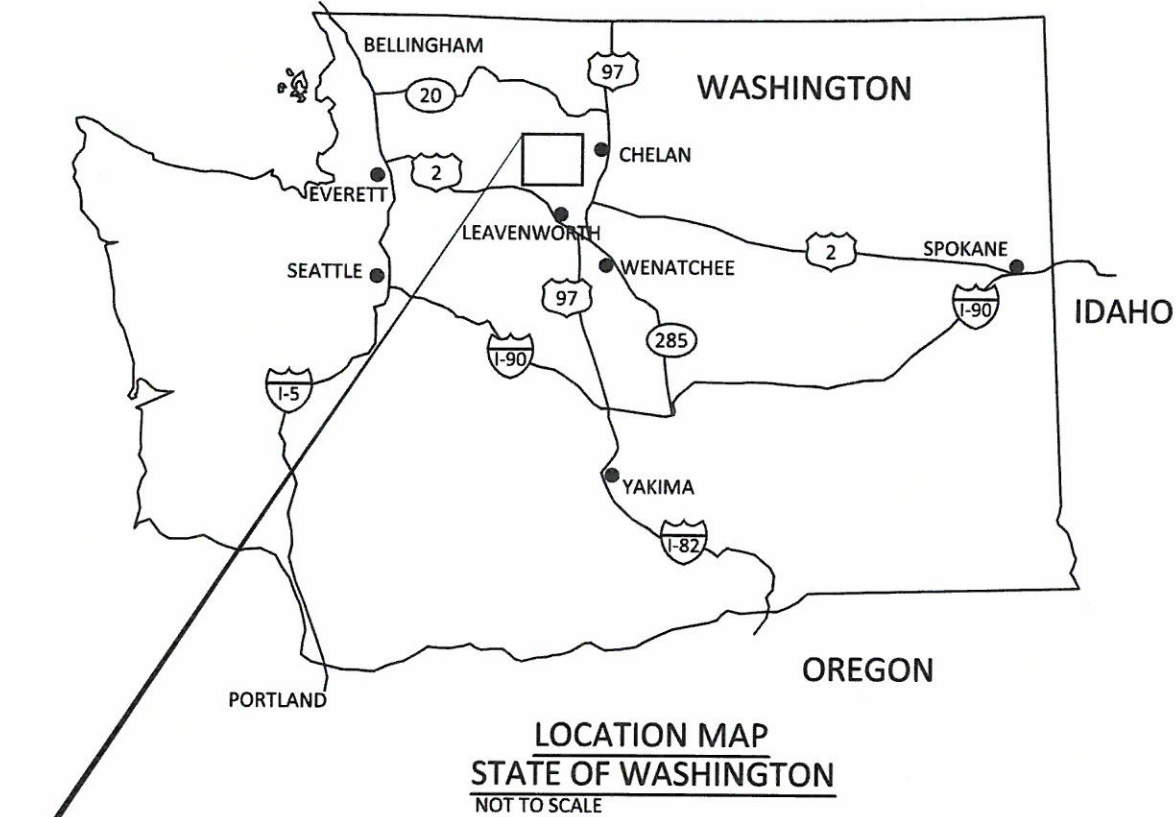
2. Tax Exempt Certificate

Due to the location and nature of the Services being provided by Contractor:

- ☐ The Contractor **has not** been given a Tax Exemption Certificate
- ☒ The Contractor **has** been given a single use Tax Exemption Certificate. Due to the nature of this Agreement, as set forth below, the Contractor should be allowed to use the tax-exempt certificate that is included with this document. [Provide a description of how the Services to be performed justifies use of tax-exempt certificate.]

ENTIAT 3D LWM REVISITED
FINAL DESIGN

Chelan County, WA
June 2016



SHEET INDEX:

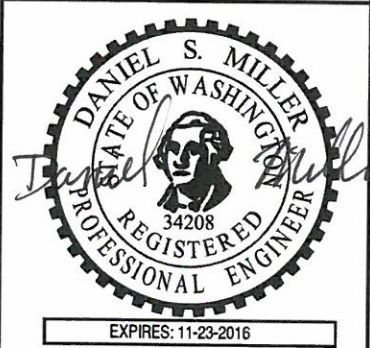
1	COVER, SHEET INDEX AND VICINITY MAP
2	GENERAL NOTES
3	GENERAL NOTES, ABBREVIATIONS AND QUANTITIES
4	EXISTING CONDITIONS SURVEY CONTROL AND TEMPORARY ACCESS
5	PROPOSED CONDITIONS
6	EROSION CONTROL AND COFFERDAM DETAILS
7	ELS 2 EXTENSION JAM DETAILS
8	HABITAT ENHANCEMENT WOOD DETAILS
9	FES LIFT CONSTRUCTION SEQUENCE
10	FES LIFT DETAILS
11	SUGGESTED CONSTRUCTION OF FORM FOR FES LIFT
12	VERTICAL LOG PULLOUT TESTING DETAILS
13	SPECIAL SPECIFICATIONS
14	SPECIAL SPECIFICATIONS

COORDINATES:

LATITUDE: 47°53'46.93"N
LONGITUDE: 120° 27'21.88"W

TOWNSHIP 28N, RANGE 19E, SECTION 28

WATERBODY: ENTIAT RIVER
TRIBUTARY OF: COLUMBIA RIVER



NO.	BY	DATE	REVISION DESCRIPTION

NS DRAWN	DM DESIGNED	DM CHECKED
DM APPROVED	6/7/2016 DATE	14-02-43 WO3 PROJECT

CONFEDERATED TRIBES AND BANDS OF THE YAKAMA NATION
ENTIAT 3D LWM REVISITED
PRELIMINARY DESIGN



501 Portway Avenue, Suite 101
Hood River, OR 97031
541.386.9003
www.interfluve.com

COVER, SHEET INDEX AND
VICINITY MAP

C:\U-Z\Yakoma_OnCall_Survey&Modeling_140242\Work_Orders\Entiat_3D_Seale_EI\S\Drawings\F Entiat Seale D.dwg -- nbushnev -- 6/7/16

ALL WORK SHALL CONFORM TO THE CURRENT EDITIONS OF STANDARD PLANS AND SPECIFICATIONS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT), AND LOCAL STANDARDS UNLESS INDICATED OTHERWISE BY THE CONTRACT DOCUMENTS. IN CASE OF A CONFLICT BETWEEN THE REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT WILL PREVAIL.

WORK SHALL OCCUR DURING THE PERMITTED IN-WATER WORK PERIOD STATED IN THE HYDRAULIC PROJECT APPROVAL.

TOPOGRAPHIC DATA WAS ORIGINALLY COLLECTED BY INTER-FLUVE USING TOTAL STATION EQUIPMENT IN 2010. PROJECT AREA SURVEY WAS UPDATED BY INTER-FLUVE USING TOTAL STATION EQUIPMENT IN OCTOBER, 2015. SURVEY DATA IS BASED ON A LOCAL COORDINATE SYSTEM.

ENTIAH RIVER GRAVEL AND FLOODPLAIN SOILS. 2011 CONSTRUCTION OF ENGINEERED LOG STRUCTURES 2 AND 3 SHOWED SAND AND SILT WITH A THIN VENEER OF GRAVEL AND COBBLE. VISIBLE RIVER BED SUBSTRATE INCLUDES COBBLE, GRAVEL AND SAND.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR HAVING UTILITIES LOCATED PRIOR TO CONSTRUCTION ACTIVITIES.

THE CONTRACTOR SHALL PROVIDE EQUIPMENT AND LABOR TO AID THE AFFECTED UTILITY SERVICE IN REPAIRING DAMAGED OR DESTROYED UTILITIES AT NO ADDITIONAL COST.

THE CONTRACTOR SHALL REPLACE DAMAGED OR DESTROYED CONSTRUCTION STAKES AT NO ADDITIONAL COST.

[illegible]

501 Portway Avenue, Suite 101
Hood River, OR 97031
541.386.9003
www.interfluve.com

SHEET

2 OF 14 |

STABILIZE SOILS AND PROTECT SLOPES

FROM MAY 1 THROUGH SEPTEMBER 30, ALL EXPOSED SOILS SHALL BE PROTECTED FROM EROSION BY MULCHING, HYDROSEED COVERING, OR OTHER APPROVED MEASURES WITHIN 3 DAYS OF GRADING. FROM OCTOBER 1 THROUGH APRIL 30, ALL EXPOSED SOILS MUST BE PROTECTED WITHIN 2 DAYS OF GRADING. SOILS SHALL BE STABILIZED BEFORE A WORK SHUTDOWN, HOLIDAY OR WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST. SOIL STOCKPILES MUST BE STABILIZED AND PROTECTED WITH SEDIMENT TRAPPING MEASURES. HYDROSEED ALL DISTURBED AREAS NOT INDICATED IN THE CONTRACT DOCUMENTS FOR OTHER PERMANENT STABILIZATION MEASURES AS SOON AS PRACTICAL.

DESIGN, CONSTRUCT, AND PHASE CUT AND FILL SLOPES IN A MANNER THAT WILL MINIMIZE EROSION. REDUCE SLOPE VELOCITIES ON DISTURBED SLOPES BY PROVIDING TEMPORARY BARRIERS. STORMWATER FROM OFF SITE SHOULD BE HANDLED SEPARATELY FROM STORMWATER GENERATED ON SITE.

AFTER FINAL SITE STABILIZATION

ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BEST MANAGEMENT PRACTICES (BMPs) ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED FROM THE SITE OR INCORPORATED INTO FINISHED GRADING. DISTURBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED.

RIVER DIVERSION

DIVERSION MAY BYPASS THE RIVER AROUND SMALLER WORK AREAS AT CONTRACTOR'S DISCRETION.

DEWATERING OF IN-CHANNEL WORK AREA(S) SHALL OCCUR CONCURRENT WITH FISH RESCUE. CONTRACTOR SHALL COORDINATE WITH THE YAKAMA NATION FISHERIES FOR FISH RESCUE. CONTRACTOR SHALL PROVIDE YAKAMA FISHERIES AMPLE TIME TO SCHEDULE FISH RESCUE. IF DIVERSION FAILS DUE TO CONTRACTOR NEGLIGENCE, FISH RESCUE SHALL BE REPEATED BY YAKAMA FISHERIES CREWS AT CONTRACTOR'S EXPENSE.

FISH RESCUE

ALL FISH RESCUE EFFORTS SHALL BE PERFORMED BY A YAKAMA NATION FISHERIES/AQUATIC BIOLOGIST EXPERIENCED WITH THE COLLECTION AND HANDLING OF SALMONIDS FROM CONSTRUCTION SITES.

ALL FISH TRAPPED IN RESIDUAL POOLS WITHIN THE PROJECT AREA WILL BE CAREFULLY COLLECTED BY SEINE AND/OR DIP NETS AND PLACED IN CLEAN TRANSFER CONTAINERS WITH ADEQUATE VOLUME OF FRESH RIVER WATER.

CAPTURED FISH SHALL BE IMMEDIATELY RELEASED DOWNSTREAM OF PROJECT AREA.

TREE SALVAGE

ALL APPROPRIATE TREE SPECIES WITHIN CLEARING LIMITS REMOVED FOR CONSTRUCTION, AS APPROVED BY THE OWNER'S REPRESENTATIVE, SHALL TEMPORARILY BE STOCKPILED WITHIN LIMITS OF DISTURBANCE. STOCKPILED TREE/SLASH SHALL BE REINCORPORATED INTO FINISHED PROJECT.

ANY REMOVED VEGETATION GREATER THAN 6 INCHES DIAMETER AND 15 FEET LONG SHOULD BE INCORPORATED INTO LOG STRUCTURES, SEE SHEET 7. CONTRACTOR IS RESPONSIBLE FOR REMOVING SMALLER CLEARING AND GRUBBING DEBRIS FROM THE SITE AND DISPOSING AT A LEGAL LOCATION AT THE END OF THE PROJECT UNLESS DIRECTED BY THE OWNER'S REPRESENTATIVE.

ALL TREES REMOVED WITHIN CLEARING LIMITS SHALL BE REMOVED WHOLE WITH ROOTWAD AND UTILIZED IN PROJECT CONSTRUCTION AS DIRECTED BY OWNER'S REPRESENTATIVE.

EXISTING TREES ALONG ACCESS ROUTE THROUGH PFEIFFER'S PROPERTY WILL BE REPLACED BY OTHERS.

LIVE TREES

ALL TREES NOT MARKED FOR REMOVAL SHALL BE LEFT STANDING UNDISTURBED. CONSTRUCTION ACTIVITY SHALL NOT DEBARK OR DAMAGE LIVE TREES.

KEEP OUT OF DRIP LINE OF EXISTING TREES TO REMAIN.

CONSTRUCTION DEWATERING

IF ADDITIONAL PUMPING IS REQUIRED TO DEWATER DURING CONSTRUCTION, PUMPED DISCHARGE SHALL RELEASE SEDIMENT-LADEN WATER AT AN UPLAND DISCHARGE LOCATION IN A MANNER THAT DOES NOT CAUSE EROSION, CONTAMINATION, OR INCREASE TURBIDITY OF SURFACE WATERS.

OWNER'S REPRESENTATIVE SHALL APPROVE DEWATERING DISCHARGE LOCATION PRIOR TO IMPLEMENTATION.

CONTRACTOR SHALL PERFORM CONSTRUCTION DEWATERING IN SUCH A MANNER AS TO AVOID THE RELEASE OF TURBID OR SEDIMENT-LADEN WATER IN ORDER TO PREVENT CONTAMINATION OR INCREASE TURBIDITY OF SURFACE WATERS. SEDIMENT LADEN WATER MAY BE PUMPED TO AN UPLAND DISCHARGE LOCATION AND ALLOWED TO SHEET FLOW THROUGH EXISTING VEGETATION BEFORE INFILTRATING INTO THE GROUND. IF THIS METHOD IS NOT SUFFICIENT TO PREVENT RETURN OF TURBID WATER TO SURFACE WATERS OF THE ENTIAT RIVER AND FLOODPLAIN, A 'DIRT-BAG' OR SEDIMENT RETENTION STRUCTURE MAY BE REQUIRED AS NECESSARY TO COMPLY WITH LAWS AND PERMIT REQUIREMENTS AT NO ADDITIONAL COST.

CONTRACTOR WILL PROVIDE ANY PUMPS, HOSES AND FITTINGS NEEDED TO PERFORM THE DEWATERING. THE PUMP EQUIPMENT SELECTED BY THE CONTRACTOR SHALL BE SUFFICIENT TO DEWATER THE SITE THOROUGHLY.

CONTRACTOR SHALL PROVIDE VISQUEEN OR GEOTEXTILE LINER, PLYWOOD, OR METAL PLATING AS NECESSARY TO DISSIPATE PUMP DISCHARGE JET TO PREVENT EROSION.

WETLANDS AND WATERS OF THE US

THE ORDINARY HIGH WATER (OHW) LINES DISPLAYED IN THIS DESIGN PACKAGE WERE DELINEATED BY INTER-FLUVE STAFF AND ARE BASED UPON ANALYSIS, MODELING, AND BEST PROFESSIONAL JUDGMENT.

THESE DO NOT NECESSARILY REPRESENT JURISDICTIONAL BOUNDARIES. WITHIN THE STATE OF WASHINGTON, THE ARMY CORPS OF ENGINEERS AND THE DEPARTMENT OF ECOLOGY HAVE THE FINAL AUTHORITY IN DETERMINING WATERS AND WETLANDS BOUNDARIES AND REGULATIONS.

QUANTITIES ESTIMATE

Location	Item	Qty	Unit	Total
Upstream extension of existing ELS #2: 1 structure				
	Large wood (no root wads) hauled from staging and installed	6	EA	--
	Large wood (root wads) hauled from staging and installed	9	EA	--
	Vertical Log Installation	8	EA	--
	Excavation for LWM (assumed ave geometry 35'Wx35'Lx7'D)	320	CY	--
	3"-12" Stone for backfill facing	46	CY	--
	Imported gravel/cobble & topsoil for LWM trench backfill	240	CY	--
	Vegetated FES lift - multiple tiers across width of LWM trench	160	LF	--
Margin wood - downstream from existing ELS #3: 3 structures				
	Large wood (no root wads) hauled from staging and installed	1	EA	3
	Large wood (root wads) hauled from staging and installed	2	EA	6
	Vertical Log Installation	3	EA	9
	Excavation for LWM trenches (assumed geometry per log 3'Wx30'Lx5'D)	67	CY	201
	Imported gravel/cobble & salvaged fines for LWM trench backfill	63	CY	189
	Vegetated FES lift - multiple tiers across width of LWM trench	18	LF	54
Site restoration				
	seed and mulch disturbed areas (not on existing roads or staging areas)	14	MSF	--

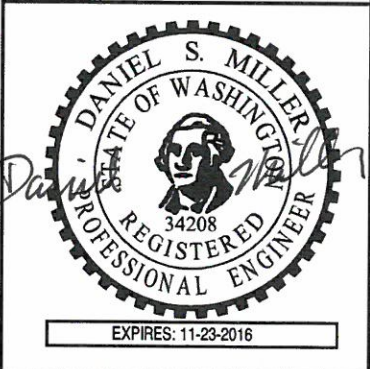
CY = CUBIC YARDS
EA = EACH
LF = LINEAL FEET
MSF = 1,000 SQUARE FEET

ABBREVIATIONS

APPROX	APPROXIMATE
BMP	BEST MANAGEMENT PRACTICE
CY	CUBIC YARDS
CO	COUNTY
°	DEGREE
DBH	DIAMETER AT BREAST HEIGHT
ELS	ENGINEERED LOG STRUCTURE
ESC	EROSION AND SEDIMENT CONTROL
FES	FABRIC ENCAPSULATED SOIL
' or FT	FOOT
GPM	GALLONS PER MINUTE
GIS	GEOGRAPHIC INFORMATION SYSTEMS
HWY	HIGHWAY
HRS	HOURS
ID	IDENTIFICATION
" or IN	INCH
LWM	LARGE WOODY MATERIAL
MAX	MAXIMUM
MFR	MANUFACTURER
MIN	MINIMUM
OHW	ORDINARY HIGH WATER
OZ	OUNCE
%	PERCENT
LBS	POUNDS
REF	REFERENCE
RD	ROAD
STD	STANDARD
TBM	TEMPORARY BENCHMARK
TYP	TYPICAL
YD	YARD

NOTES:
ESTIMATED MATERIAL VOLUMES ARE APPROXIMATE IN-PLACE QUANTITIES AND NOT FACTORED FOR EXPANSION OF EXCAVATED MATERIAL OR COMPACTION OF PLACED MATERIAL. MEASUREMENT AND PAYMENT SHALL NOT BE BASED ON WEIGHT TICKETS OR TRUCK MEASURE WITHOUT PRIOR WRITTEN APPROVAL.

EXCAVATED MATERIAL NOT SUITABLE FOR SALVAGE AND REUSE SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR LEGAL OFFSITE DISPOSAL



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NO.	BY	DATE	REVISION DESCRIPTION

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DM APPROVED	6/7/2016 DATE	14-02-43 WO3 PROJECT

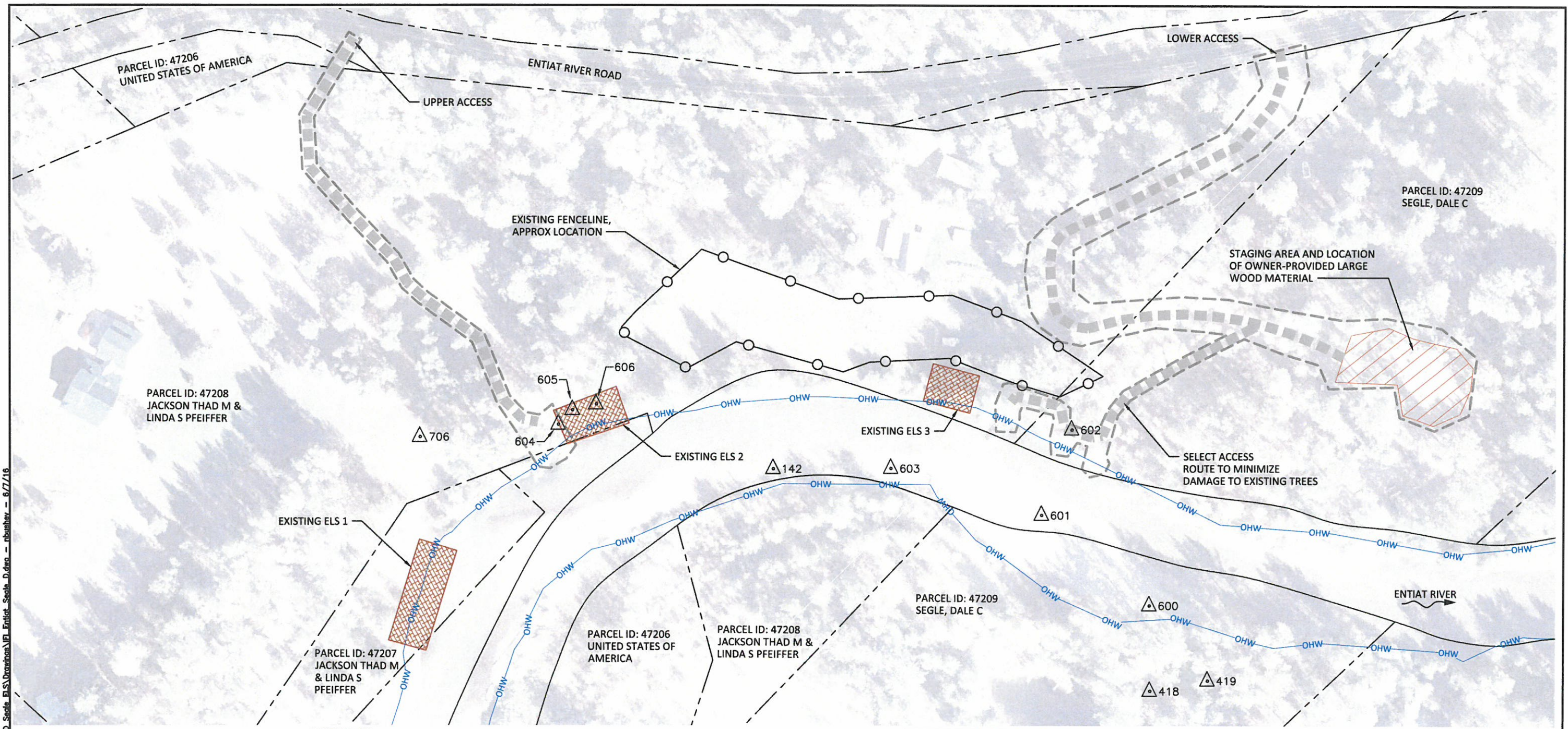
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ENTIAT 3D LWM REVISITED
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GENERAL NOTES,
ABBREVIATIONS AND
QUANTITIES

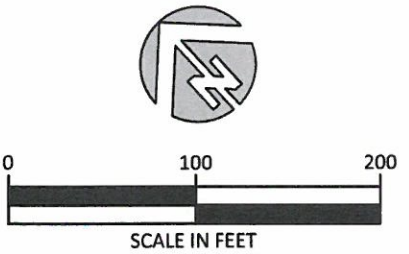
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3 OF 14

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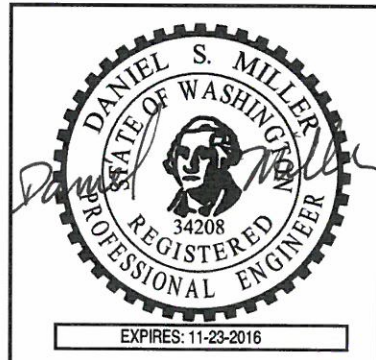
LEGEND

- EXISTING CONTOURS
- TEMPORARY ACCESS
- LIMITS OF DISTURBANCE
- PROPERTY BOUNDARY, PER CHELAN CO GIS
- ORDINARY HIGH WATER
- EXISTING FENCE LINE, APPROX LOCATION
- SURVEY CONTROL POINT
- TEMPORARY STOCKPILE AND STAGING AREA
- EXISTING ENGINEERED LOG STRUCTURE



SURVEY CONTROL				
POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
142	17414669.91'	2263983.43'	1720.48'	TBM
418	17414234.02'	2264097.84'	1738.65'	REBAR
419	17414199.94'	2264147.61'	1740.41'	REBAR
600	17414297.52'	2264159.45'	1720.11'	REBAR
601	17414441.91'	2264146.18'	1719.14'	REBAR
602	17414483.04'	2264230.31'	1722.58'	TBM
603	17414585.34'	2264069.59'	1719.93'	TBM
604	17414857.57'	2263858.33'	1728.90'	TBM
605	17414858.27'	2263879.16'	1729.82'	NAIL
606	17414845.43'	2263900.47'	1731.42'	NAIL
706	17414948.50'	2263748.11'	1728.37'	TBM

NOTE:
PROJECT RELATIVE
HORIZONTAL AND
VERTICAL DATUM



NO.	BY	DATE	REVISION DESCRIPTION

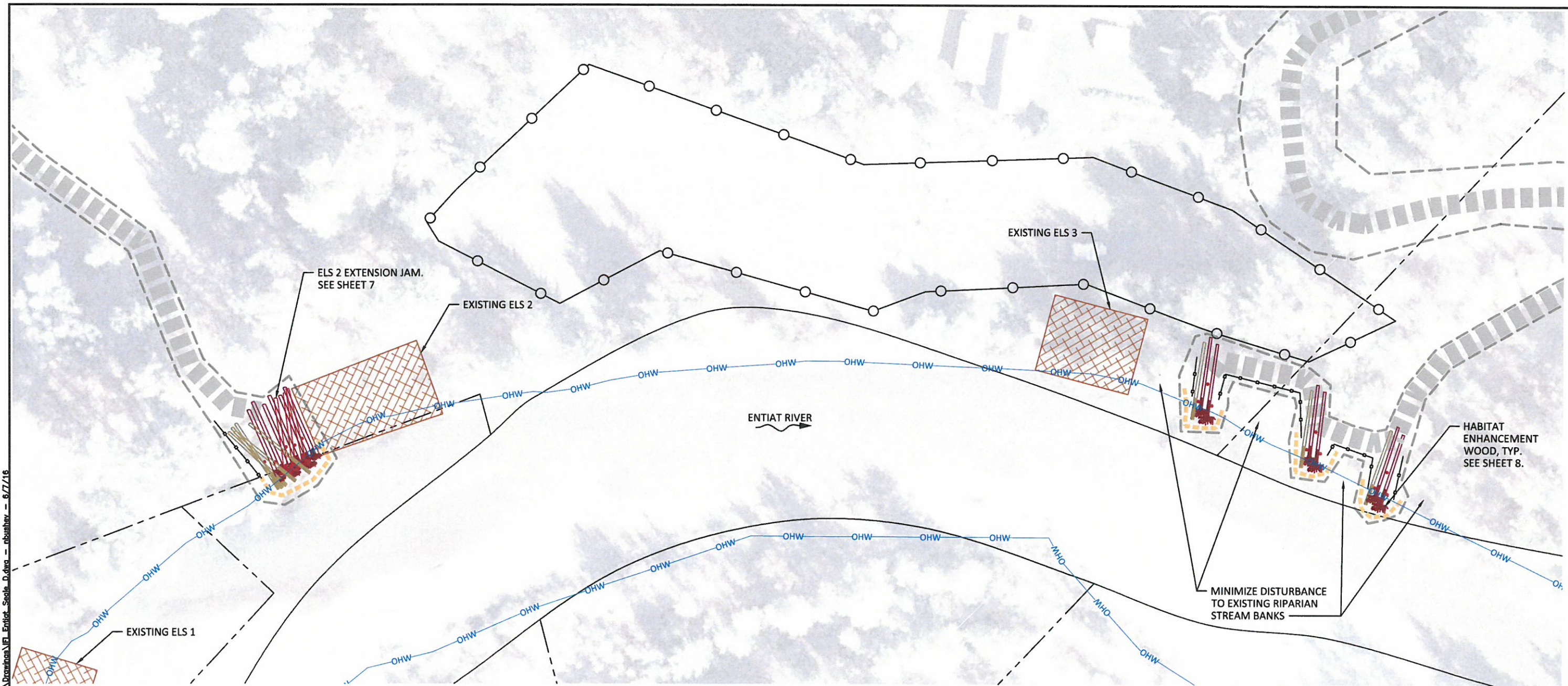
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DM	6/7/2016	14-02-43 WO3
APPROVED	DATE	PROJECT

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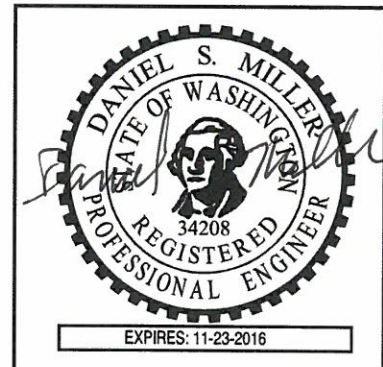
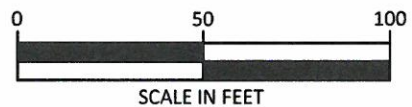
EXISTING CONDITIONS
SURVEY CONTROL AND
TEMPORARY ACCESS

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LEGEND

- EXISTING CONTOURS
- TEMPORARY ACCESS
- LIMITS OF DISTURBANCE
- PROPERTY BOUNDARY, PER CHELAN CO GIS
- OHW --- ORDINARY HIGH WATER
- EXISTING FENCE LINE, APPROX LOCATION
- TEMPORARY COFFERDAM, SEE (2/6) (3/6)
- TEMPORARY SILT FENCE, SEE (1/6)
- TEMPORARY STOCKPILE AND STAGING AREA
- EXISTING ENGINEERED LOG STRUCTURE



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DM	6/7/2016	14-02-43 WO3
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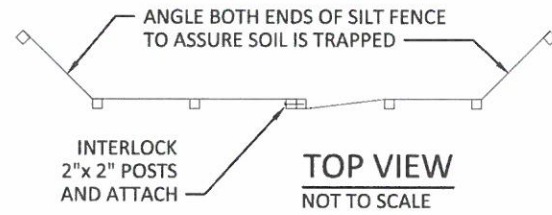
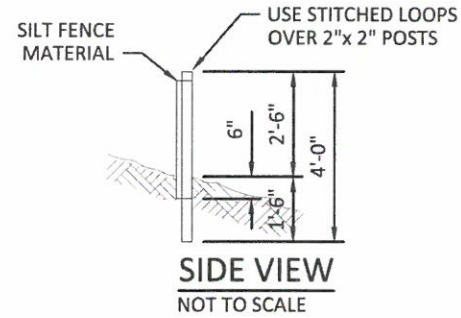
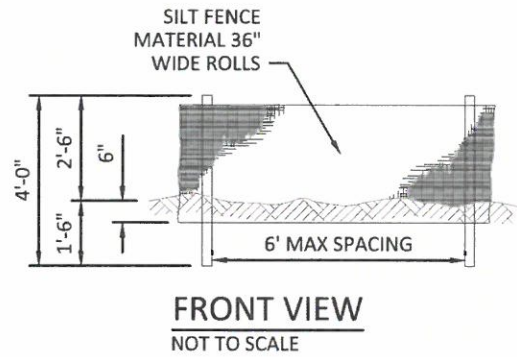
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PROPOSED CONDITIONS

SHEET
5 OF 14



1
6 TYPICAL DETAIL - SILT FENCE
NOT TO SCALE

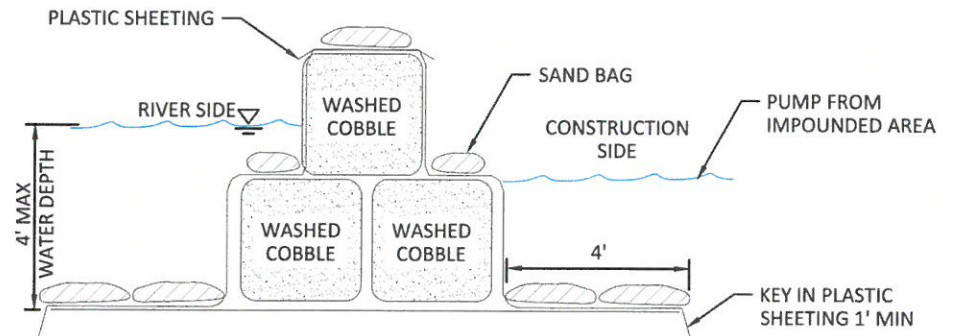
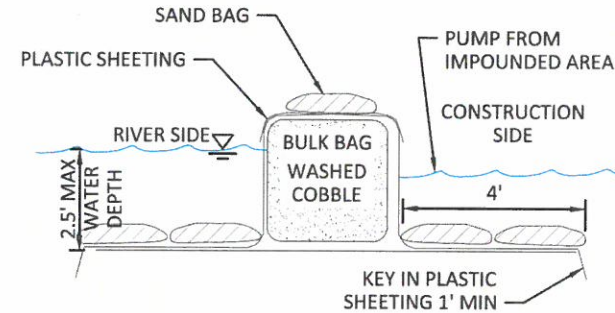
SILT FENCES:

- THE SILT FENCE SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, SILT FENCE SHALL BE SPICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6 INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST. ALTERNATIVELY, OVERLAP AND INTERLOCK TWO POSTS WITH ATTACHED FABRIC AS REQUIRED TO MEET APPLICABLE REGULATIONS.
- THE SILT FENCE IS TO BE INSTALLED AT LOCATIONS SHOWN ON THE PLAN ALONG THE DOWNHILL PERIMETER OF CONSTRUCTION AREAS. THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 24 INCHES.
- THE SILT FENCE SHALL HAVE A MINIMUM VERTICAL BURIAL OF 6 INCHES. ALL EXCAVATED MATERIAL FROM SILT FENCE INSTALLATION SHALL BE BACK-FILLED AND COMPACTED ALONG THE ENTIRE DISTURBED AREA.
- STANDARD OR HEAVY DUTY SILT FENCE SHALL HAVE MANUFACTURED STITCHED LOOPS FOR 2 INCHES X 2 INCHES POST INSTALLATION.
- SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY PROTECTED AND STABILIZED, OR AS DIRECTED BY OWNER'S REPRESENTATIVE.

BULK BAG NOTES:

- BULK BAG COFFERDAM SHALL BE CONSTRUCTED OF SEVERAL UNITS OF BULK BAGS FILLED WITH WDFW APPROVED 3" MINUS WASHED GRAVEL, AND ABUTTED SIDE BY SIDE TO CREATE A ROW THAT ISOLATES THE CONSTRUCTION SITE.
- IF WATER DEPTH EXCEEDS 85% OF THE BULK BAG HEIGHT, AN ADDITIONAL TOP ROW OF BULK BAGS SHALL BE INSTALLED, SUPPORTED BY TWO BOTTOM ROWS OF BULK BAGS. BULK BAG COFFERDAM SHALL BE SEALED BY COVERING THE COFFERDAM WITH PLASTIC SHEETING HELD IN PLACE BY STANDARD SANDBAGS PLACED IN ROWS ON TOP OF COFFERDAM, AND AT TOE OF COFFERDAM.
- THE PLASTIC SHEETING SHALL BE DRAPED ALONG THE CHANNEL BOTTOM ON BOTH SIDES OF THE COFFERDAM WITH OUTWARD EDGE OF SHEETING A MINIMUM OF 4- FEET FROM TOE OF COFFERDAM. THE DRAPED PORTION OF PLASTIC SHEETING SHALL BE PINNED TO THE CHANNEL BED BY A MINIMUM OF TWO ROWS OF STANDARD SANDBAGS.
- THE CONSTRUCTION SIDE EDGE OF PLASTIC SHEETING SHALL BE TOED INTO THE CHANNEL BED A MINIMUM OF 1-FT. TOEING IN THE OUTWARD EDGE OF PLASTIC SHEETING SHALL OCCUR AFTER THE COFFERDAM IS CLOSED TO PREVENT TURBIDITY RELEASE TO THE WATERWAY.
- THE TERMINAL ENDS OF BULK BAG COFFERDAM, WHERE IT CONNECTS TO CHANNEL BANK OR HIGH GROUND, SHALL BE SEALED WITH PLASTIC SHEETING AND STANDARD SANDBAGS.
- BULK BAGS SHALL BE CUBE-SHAPED POLYPROPYLENE WOVEN FABRIC BAGS WITH FULLY OPEN TOP, FLAT BOTTOM, FOUR LOOPS, MINIMUM 2-TON WEIGHT CAPACITY, MINIMUM 5:1 SAFETY FACTOR.
- PLASTIC SHEETING SHALL BE MINIMUM 6-MIL THICKNESS. ROLL LENGTH SHALL BE LONG ENOUGH TO ENSURE THAT ENTIRE LENGTH OF COFFERDAM WILL BE COVERED WITHOUT A SEAM. MINIMUM 12-FT WIDE ROLL SHALL BE USED FOR SINGLE LAYER BULK BAG COFFERDAM. MINIMUM 16-FT WIDE ROLL SHALL BE USED FOR 2-LAYER STACKED BULK BAG COFFERDAM.
- BULK BAG COFFERDAM SHALL BE COMPLETELY REMOVED FROM SITE AFTER CONSTRUCTION IS COMPLETED AND TURBIDITY HAS BEEN REMOVED.
- CONTENTS OF BULK BAGS SHALL BE DISPOSED OF ONSITE AT LOCATIONS SPECIFIED BY OWNER.
- MEASUREMENT AND PAYMENT FOR BULK BAG COFFERDAM, SAND BAGS, PLASTIC SHEETING, WASHED GRAVEL PLACEMENT, MAINTENANCE AND REMOVAL OF ALL MATERIALS SHALL BE INCIDENTAL TO THE LUMP SUM ALL INCLUSIVE COST FOR DIVERSION AND DEWATERING.
- ALTERNATE COFFERDAM MATERIALS AND CONFIGURATIONS MAY BE ALLOWED BUT SHALL NOT BE IMPLEMENTED WITHOUT REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS AND/OR VENDOR CUT SHEETS FOR SUBSTITUTIONS.

2
6 TYPICAL DETAIL - TEMPORARY COFFERDAM
NOT TO SCALE

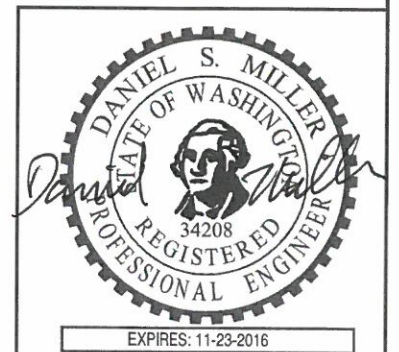


3
6 TYPICAL DETAIL - TEMPORARY COFFERDAM SECTION
IN WATER DEPTHS GREATER THAN 2.5'
NOT TO SCALE

Cofferdam Quantities

Location	Item	Qty	Unit
ELS 2 Extension Jam (1 structure)			
	length of cofferdammed area	35	FT
	width of cofferdammed area	10	FT
	Area of cofferdammed area	350	SF
Habitat Enhancement Wood (3 structures)			
	length of individual cofferdammed area	20	FT
	width of individual cofferdammed area	10	FT
	Subtotal area of individual cofferdammed area	200	SF
	Total area of three cofferdammed areas	600	SF

FT = feet
SF = square feet



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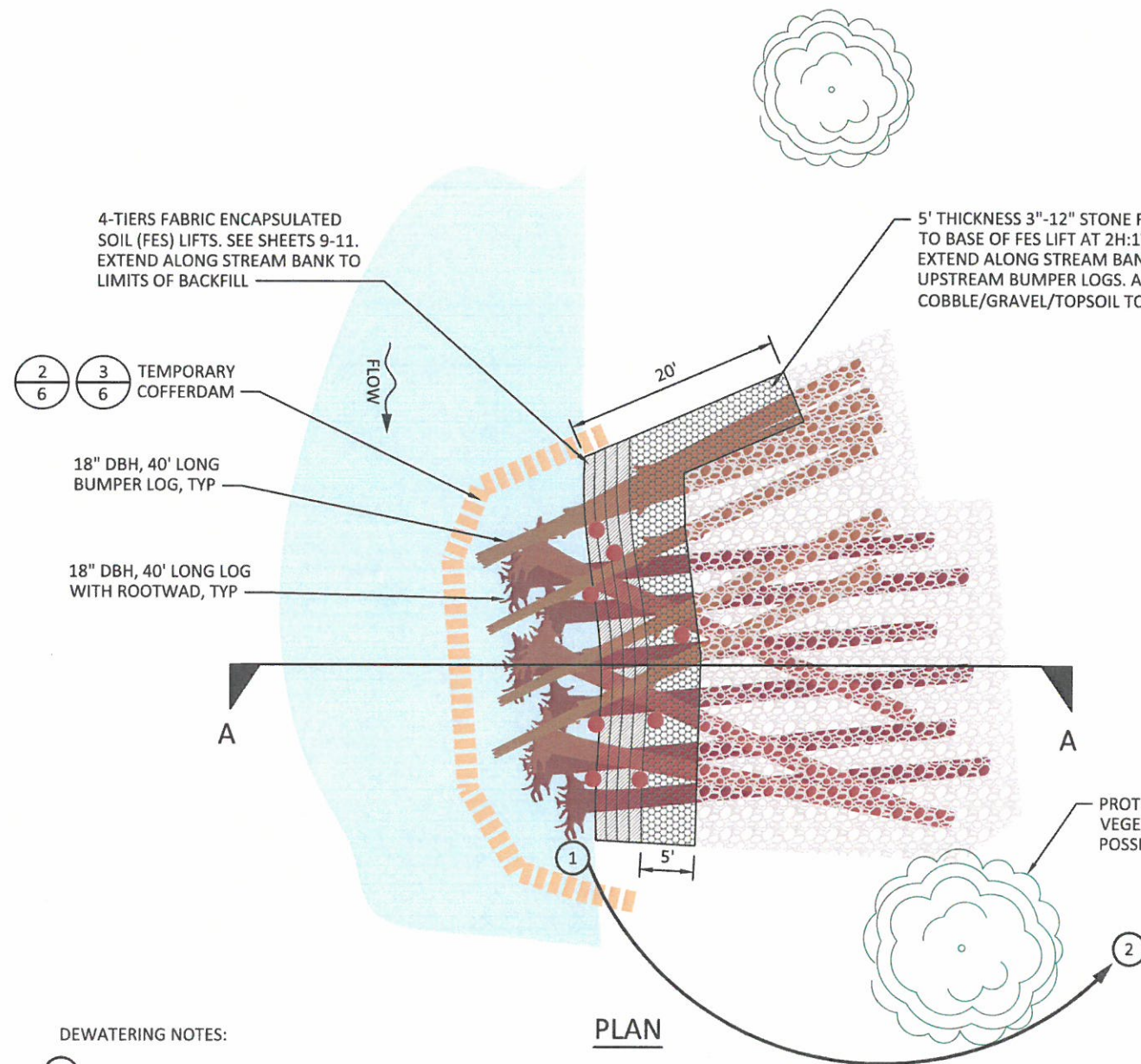
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EROSION CONTROL AND
COFFERDAM DETAILS

SHEET

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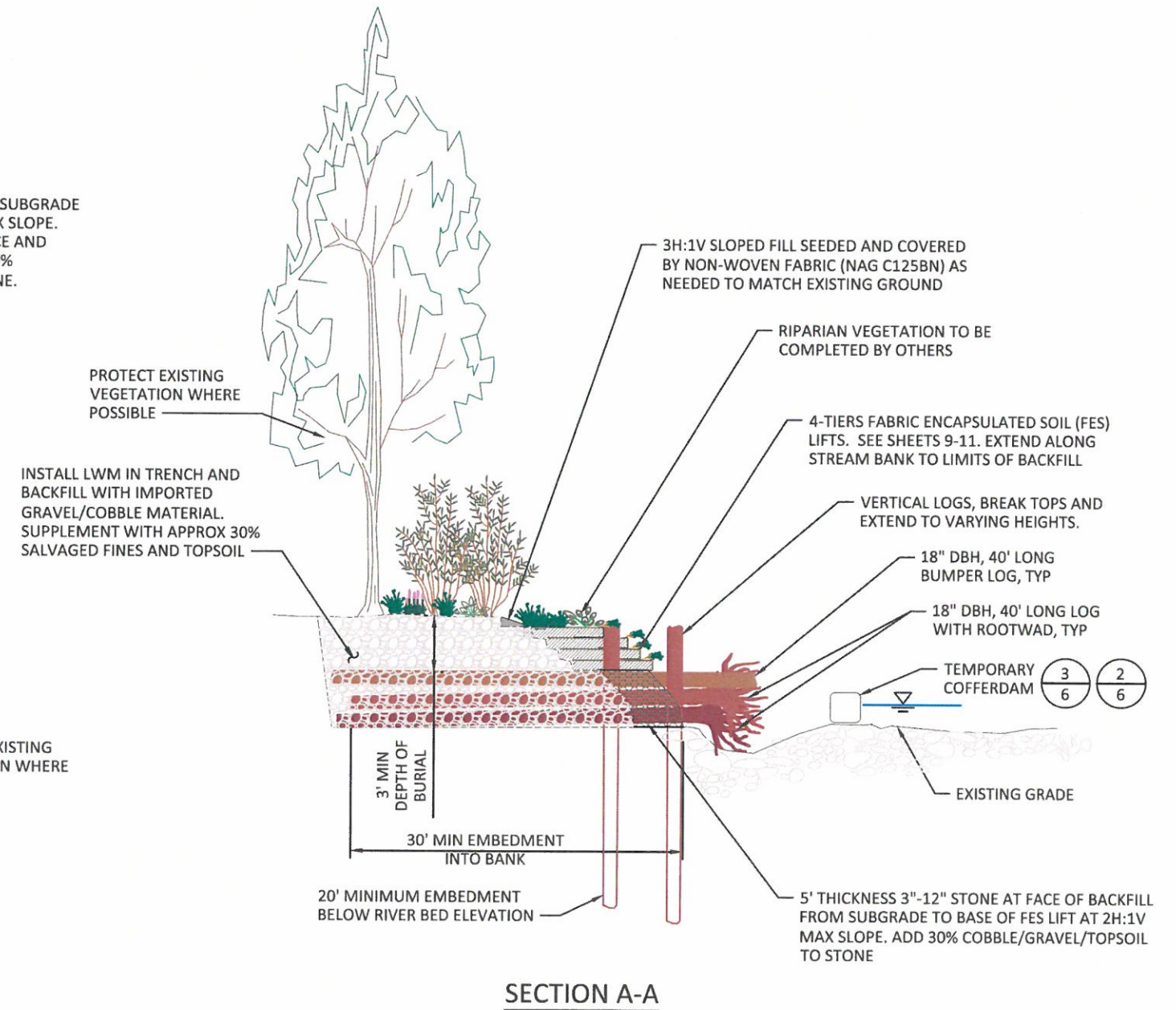
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DEWATERING NOTES:

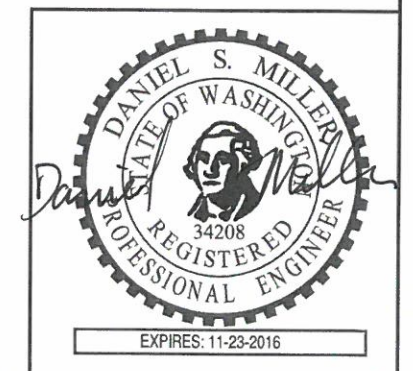
- 1 CONSTRUCTION DEWATERING SUMP. CONTRACTOR SHALL PROVIDE PUMP TO DRAW DOWN WATER LEVEL SUFFICIENTLY FOR PLACEMENT OF LWM.
- 2 CONSTRUCTION DEWATERING DISCHARGE LOCATION. CONTROL DISCHARGE TO PREVENT EROSION AND RETURN OF TURBID WATER TO SURFACE WATERS.

1
7 ELS 2 EXTENSION JAM
NOT TO SCALE



NOTES:
ALL VERTICAL LOGS SHALL BE INSTALLED USING VIBRATORY PILE DRIVING EQUIPMENT. INSTALLATION BY EXCAVATION, HAMMERING OR VIBRATORY PLATE COMPACTOR SHALL NOT BE ALLOWED.

ACCEPTABLE MINIMUM VIBRATORY PILE DRIVING EQUIPMENT SHALL INCLUDE: HMC MOVAC SONIC SIDE GRIP VIBRATORY PILE DRIVER-MODEL SP80 OR EQUIVALENT.



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DM APPROVED	6/7/2016 DATE	14-02-43 WO3 PROJECT

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ELS 2 EXTENSION JAM DETAILS

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2 to 3-TIERS FABRIC ENCAPSULATED
SOIL (FES) LIFTS. SEE SHEETS 9-11.
EXTEND TO LIMITS OF BACKFILL

18" DBHx40' LONG
BUMPER LOG

2 3
6 6
TEMPORARY
COFFERDAM

DEWATERING NOTES:

- 1 CONSTRUCTION DEWATERING SUMP. CONTRACTOR SHALL PROVIDE PUMP TO DRAW DOWN WATER LEVEL SUFFICIENTLY FOR PLACEMENT OF LWM.
- 2 CONSTRUCTION DEWATERING DISCHARGE LOCATION. CONTROL DISCHARGE TO PREVENT EROSION AND RETURN OF TURBID WATER TO SURFACE WATERS.

18" DBHx40' LONG
LOGS WITH
ROOTWAD

PLAN

PROTECT EXISTING VEGETATION
WHERE POSSIBLE

INSTALL LWM IN TRENCH AND
BACKFILL WITH IMPORTED
GRAVEL/COBBLE MATERIAL.
SUPPLEMENT WITH APPROX 30%
SALVAGED FINES AND TOPSOIL

RIPARIAN VEGETATION TO BE
COMPLETED BY OTHERS

2 to 3-TIERS FABRIC ENCAPSULATED
SOIL (FES) LIFTS. SEE SHEETS 9-11.
EXTEND TO LIMITS OF BACKFILL

VERTICAL LOGS, BREAK
TOPS AND EXTEND TO
VARYING HEIGHTS

TEMPORARY
COFFERDAM 3 2
6 6

2.5' MIN
DEPTH
OF BURIAL

30' EMBEDMENT
INTO BANK

20' MINIMUM
EMBEDMENT BELOW
RIVER BED ELEVATION

MATCH TO EXISTING
STREAMBED ELEVATION

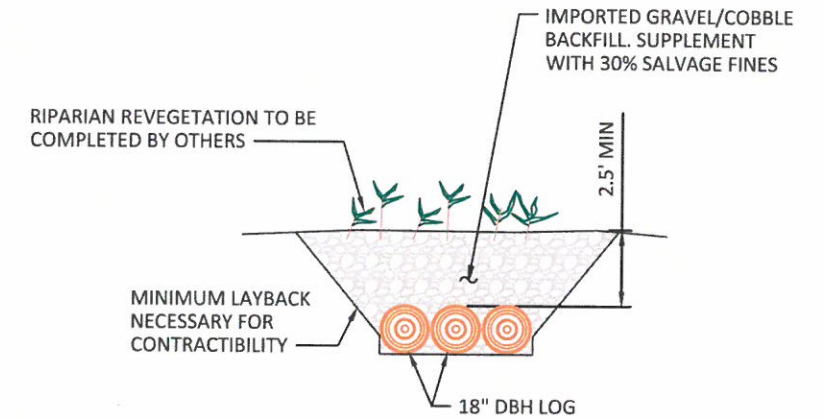
EXISTING GRADE

SECTION A-A

1
8

TYPICAL DETAIL - HABITAT ENHANCEMENT WOOD

NOT TO SCALE

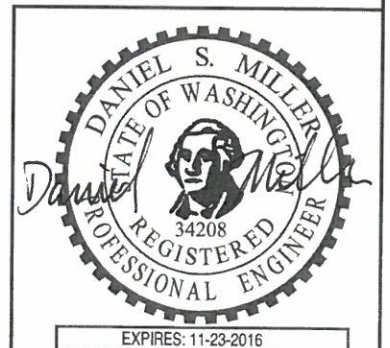


SECTION B-B

NOTES:

ALL VERTICAL LOGS SHALL BE INSTALLED USING
VIBRATORY PILE DRIVING EQUIPMENT.
INSTALLATION BY EXCAVATION, HAMMERING OR
VIBRATORY PLATE COMPACTOR SHALL NOT BE
ALLOWED.

ACCEPTABLE MINIMUM VIBRATORY PILE DRIVING
EQUIPMENT SHALL INCLUDE: HMC MOVAC SONIC
SIDE GRIP VIBRATORY PILE DRIVER-MODEL SP80 OR
EQUIVALENT.



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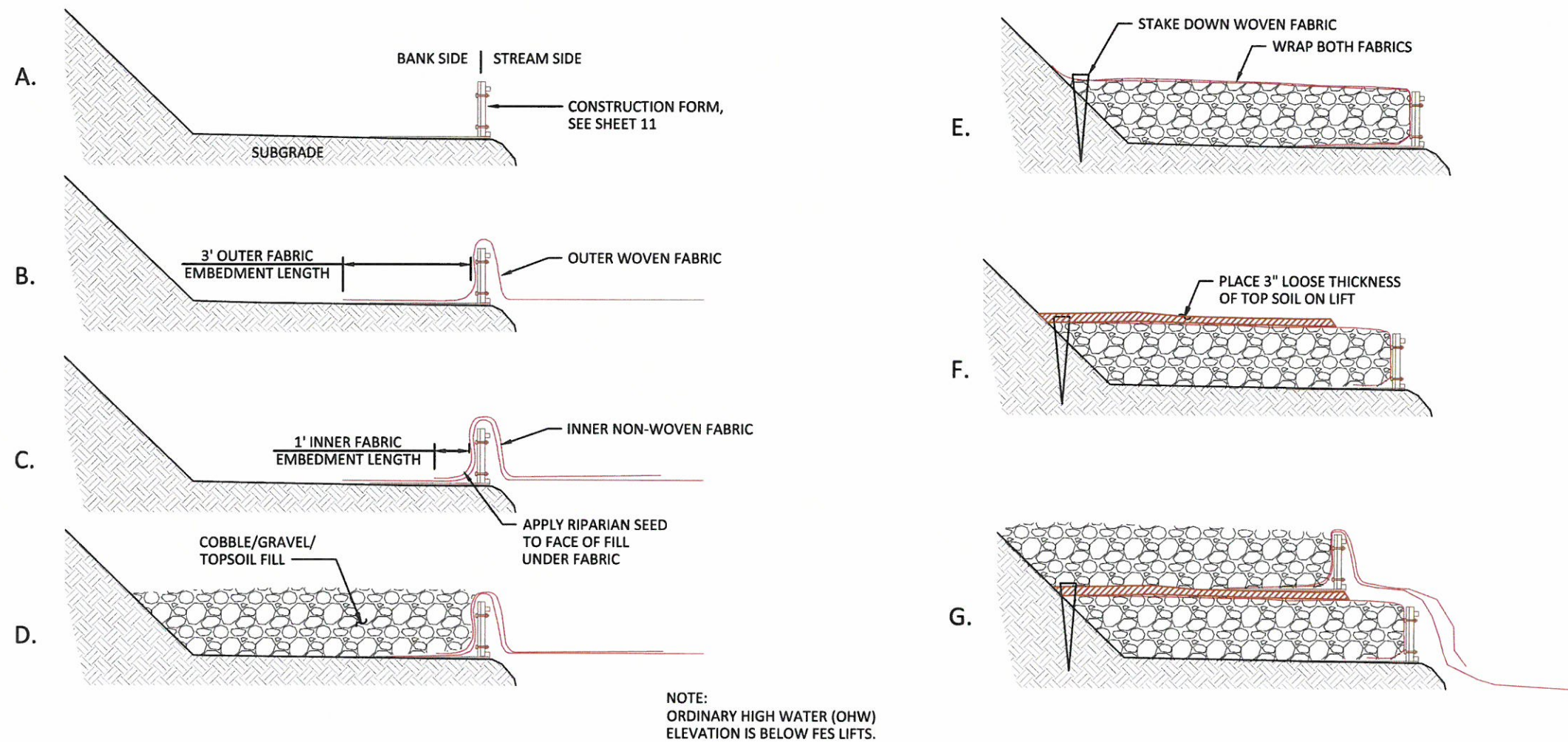
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HABITAT ENHANCEMENT
WOOD DETAILS

SHEET

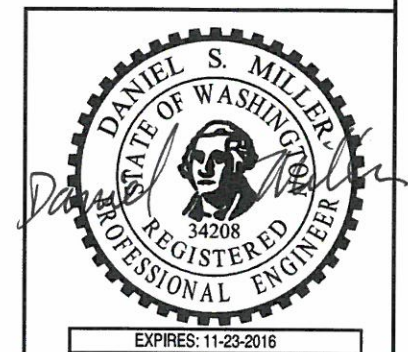
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GENERAL INSTRUCTIONS FOR CONSTRUCTING FABRIC WRAPPED LIFTS

1. LIFTS WILL BE CONSTRUCTED TO ENCAPSULATE TRENCH BACKFILL. EXTEND TO WIDTH OF EXCAVATED TRENCH AND BACKFILL.
2. UNROLL THE OUTER FABRIC (WOVEN COIR) PARALLEL TO THE LONG AXIS OF THE CHANNEL AND POSITION IT SO THAT 3 FEET EXTENDS FOR EMBEDMENT ON THE BANK SIDE OF THE FORMS (FIG B), AND A MINIMUM 3 FEET EXTENDS LENGTHWISE BEYOND THE LAST FORM FOR OVERLAP. EXTEND FABRIC 3 FEET BEYOND ENDS OF FES LIFT TO BOX-FOLD ENDS. DRAPE THE REMAINDER OF THE FABRIC OVER THE TOP OF THE FORMS ON THE STREAM SIDE (FIG B).
3. UNROLL THE INNER FABRIC (NON-WOVEN COIR) OVER THE TOP OF THE OUTER FABRIC AND POSITION IT SO THAT AT LEAST 1 FOOT OF THE INNER FABRIC EXTENDS AS AN EMBEDMENT LENGTH ON THE BANK SIDE OF THE FORMS (FIG C). DRAPE THE REMAINDER OF THE FABRIC OVER THE TOP OF THE FORMS ON THE STREAM SIDE AND ALIGN THE LONG EDGES OF THE INNER AND OUTER FABRICS. STRETCH AND PULL THE FABRIC LAYERS TO REMOVE WRINKLES.
4. PLACE COBBLE GRAVEL MIX WITH APPROX 30% TOPSOIL FILL OVER THE FABRIC ON THE BANK SIDE OF THE FORMS TO A COMPACTED DEPTH OF 12 INCHES.
5. RIPARIAN SEED SHALL BE PLACED ON SOIL AND BENEATH FABRIC ON ALL EXPOSED SURFACES.
6. FOLD THE LOOSE ENDS OF THE TWO FABRIC LAYERS BACK OVER THE COMPACTED FILL MATERIAL AND STRETCH TIGHTLY TO REMOVE WRINKLES (FIG E). SECURE WITH WOODEN STAKES.
7. PLACE 3" OF LOOSE TOPSOIL ON LIFT. REPEAT STEPS 2-6 TO REACH FULL BANK HEIGHT.
8. ON THE TOP LIFT, EXCAVATE A KEY TRENCH 1.5 FEET WIDE AND 0.5 FEET DEEP ALONG THE LAND-WARD EDGE OF THE OUTER FABRIC LAYER, PARALLEL TO THE FORMS. SECURE FABRIC IN THE KEY TRENCH WITH WOODEN STAKES.
9. BACKFILL & COMPACT THE KEY TRENCH WITH TOPSOIL AND CONTINUE TO APPLY TOPSOIL TO SMOOTHLY MERGE WITH EXISTING CONTOURS.



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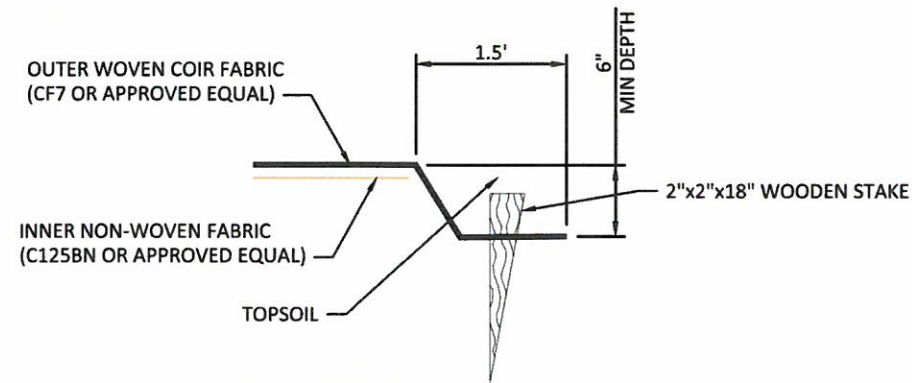
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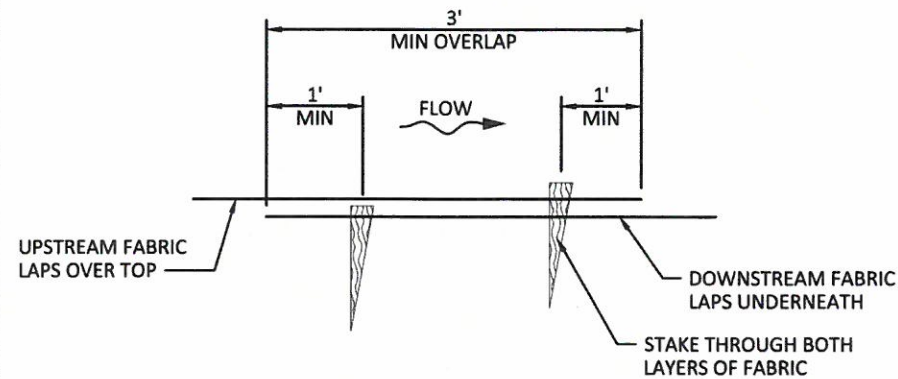
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FES LIFT CONSTRUCTION
SEQUENCE

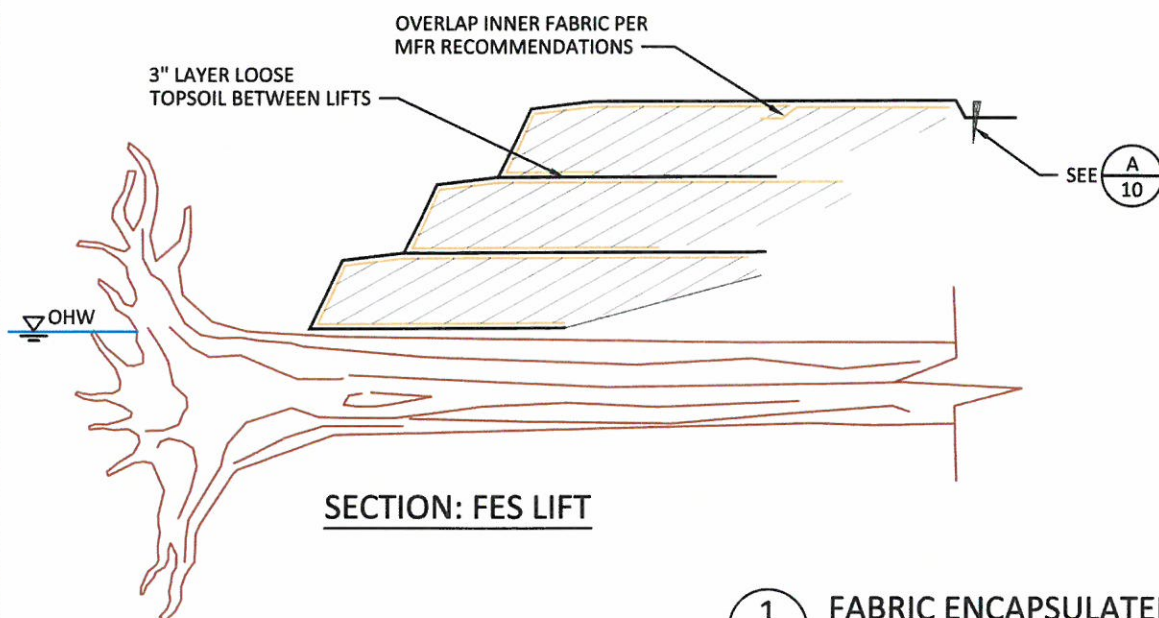
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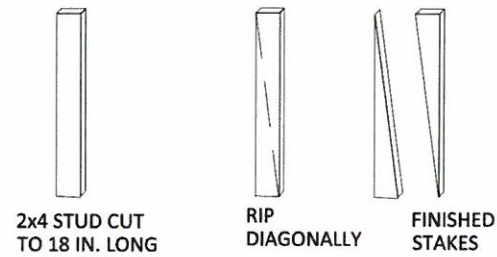
A
10
FABRIC EDGE
NOT TO SCALE



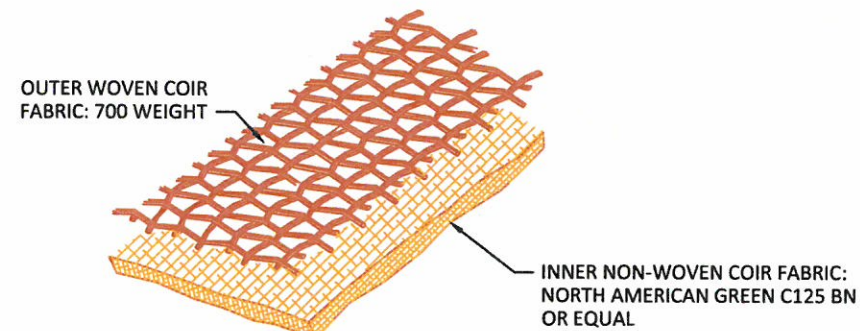
C
10
FABRIC OVERLAP
NOT TO SCALE



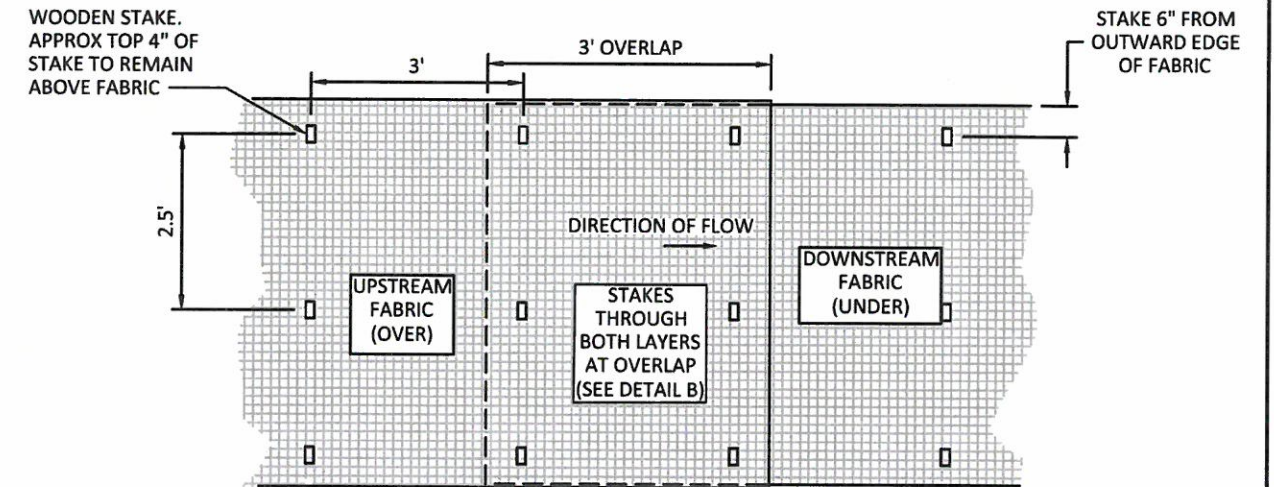
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FABRIC ENCAPSULATED SOIL (FES) LIFT
NOT TO SCALE



B
10
WOODEN STAKE CONSTRUCTION
NOT TO SCALE

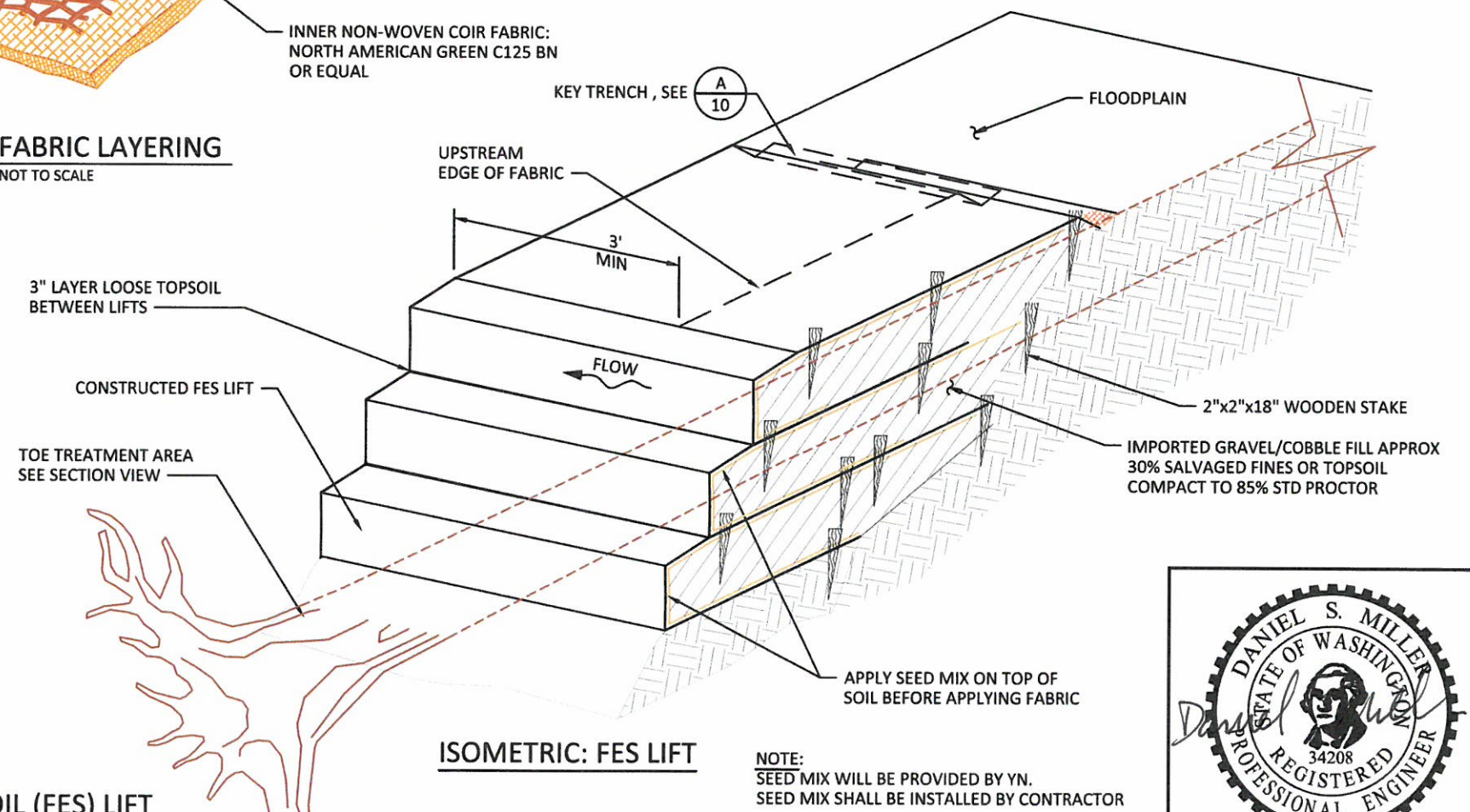


D
10
FABRIC LAYERING
NOT TO SCALE



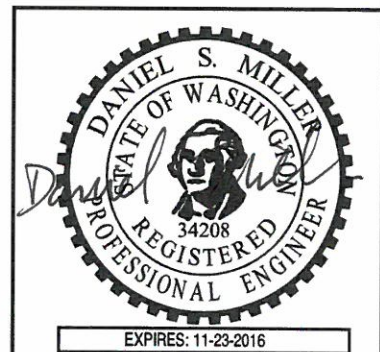
PLAN VIEW

E
10
FABRIC LAYOUT AND STAKING DETAIL
NOT TO SCALE



ISOMETRIC: FES LIFT

NOTE:
SEED MIX WILL BE PROVIDED BY YN.
SEED MIX SHALL BE INSTALLED BY CONTRACTOR



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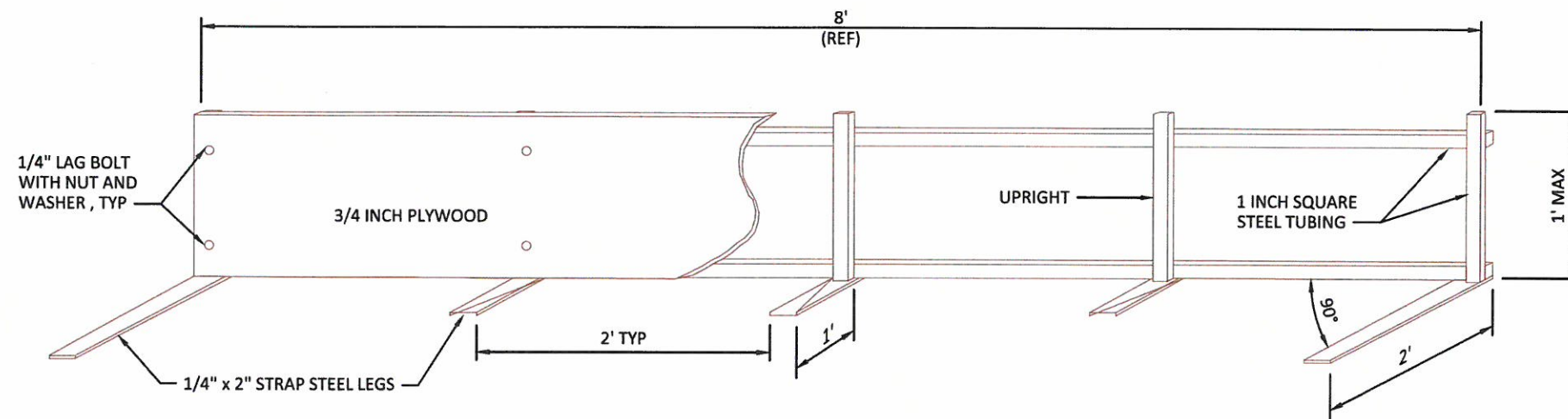
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ENTIAT 3D LWM REVISITED
PRELIMINARY DESIGN



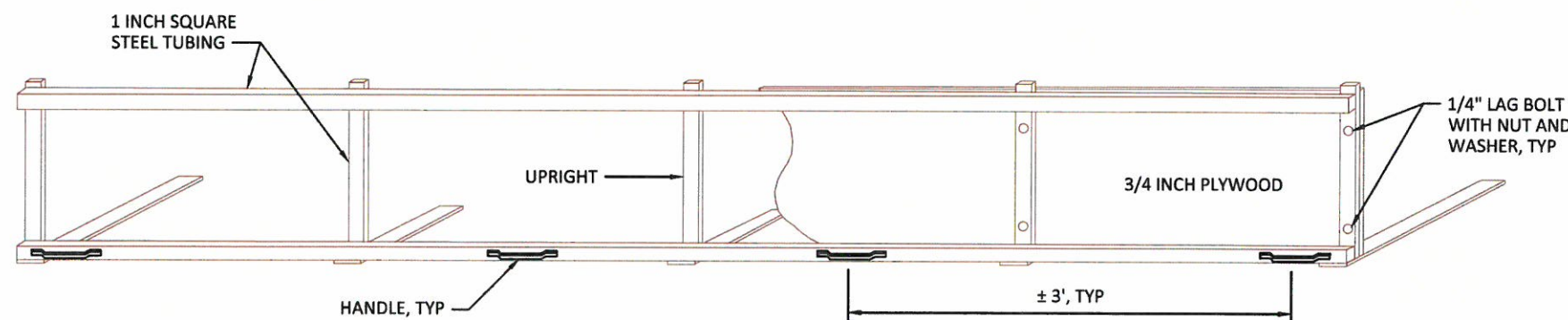
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FES LIFT DETAILS

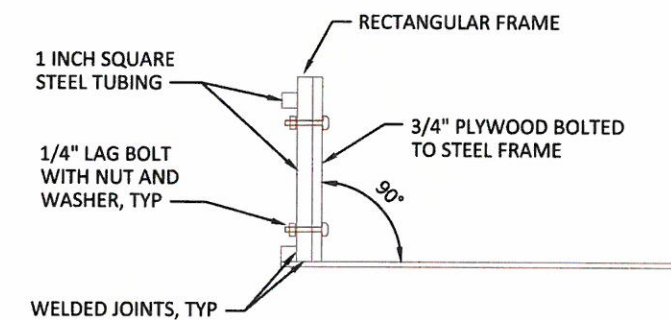
SHEET
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ISOMETRIC VIEW FROM REAR



ISOMETRIC VIEW FROM FRONT



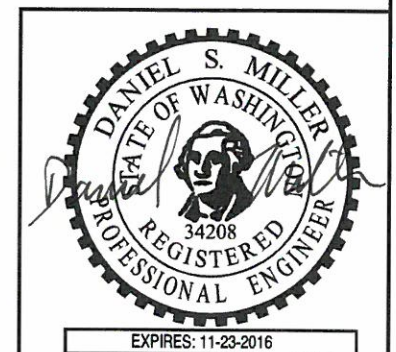
END VIEW

GENERAL NOTES ON FABRICATION OF FORMS

FOR FABRIC WRAPPED SOIL CONSTRUCTION

1. FABRICATE FORMS BY WELDING 1 INCH TUBULAR STEEL TOGETHER TO CREATE A 1x8 FOOT RECTANGULAR FRAMEWORK.
2. WELD LENGTHS OF 1/4x2 INCH STEEL STRAP AT 90 DEGREES TO THE FRAME EVERY 2 FEET.
3. ATTACH A PIECE OF 3/4 INCH PLYWOOD TO THE FRAME USING 1/4 INCH DIAMETER LAG BOLTS OR EQUIVALENT.
4. REMOVAL AND TRANSPORT OF THE FORMS IS FACILITATED IF HEAVY DUTY HANDLES ARE ATTACHED TO THE FRAME AS SHOWN.

1
11 FABRIC WRAPPED SOIL CONSTRUCTION FORM
NOT TO SCALE



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NO.	BY	DATE	REVISION DESCRIPTION

NS	DM	DM
DRAWN	DESIGNED	CHECKED
DM	6/7/2016	14-02-43 WO3
APPROVED	DATE	PROJECT

CONFEDERATED TRIBES AND BANDS OF THE YAKAMA NATION
ENTIAT 3D LWM REVISITED
PRELIMINARY DESIGN



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SUGGESTED CONSTRUCTION
OF FORM FOR FES LIFT

SHEET

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VERTICAL LOGS

ALL VERTICAL LOGS SHALL BE INSTALLED USING VIBRATORY PILE DRIVING EQUIPMENT. INSTALLATION BY EXCAVATION, HAMMERING OR VIBRATORY PLATE COMPACTOR SHALL NOT BE ALLOWED.

ACCEPTABLE MINIMUM VIBRATORY PILE DRIVING EQUIPMENT SHALL INCLUDE: HMC MOVAX SONIC SIDE GRIP VIBRATORY PILE DRIVER - MODEL SP80 OR EQUIVALENT.

VERTICAL LOGS SHALL BE A MAXIMUM OF 16" DIAMETER AT BREAST HEIGHT, WITH NO BARK.

RIGGING

RIGGING FOR VERTICAL LOG TESTING SHALL CONFORM TO THE TENSION SCALE MANUFACTURER'S RECOMMENDATIONS.

CHOKERS, CABLES AND AND SHACKLES SHALL HAVE MINIMUM WORKING LOAD RATING OF 12 TONS. FITTINGS SHALL BE SIZED ACCORDINGLY

TESTING

TESTING OF VERTICAL LOGS SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER.

EACH VERTICAL LOG TEST SHALL HAVE UPWARD LOAD GRADUALLY INCREASED AND AS CLOSELY ALIGNED TO AXIS OF VERTICAL LOG AS POSSIBLE. RECORD THE VERTICAL LOG DIAMETER, EMBEDMENT DEPTH AND MAXIMUM FORCE REQUIRED TO MOVE THE VERTICAL LOG. UP TO A TOTAL OF THREE LOADINGS MAY BE REQUIRED AT EACH EMBEDMENT DEPTH.

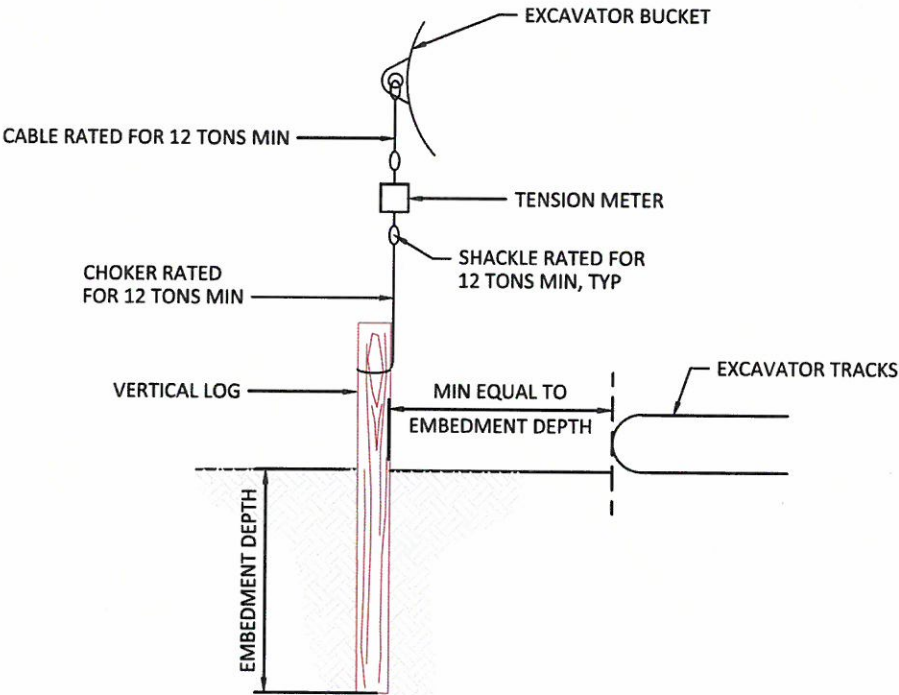
PROOF TESTS SHALL BE MADE AT UP TO FOUR EMBEDMENT DEPTHS TO BE DETERMINED IN THE FIELD. AS A GUIDELINE TEST EMBEDMENT DEPTHS MAY INCLUDE 6', 8', 10', AND 12'.

EXCAVATOR CONDUCTING PULL OUT LOADING SHALL BE POSITIONED NO CLOSER THAN EMBEDMENT DEPTH OF VERTICAL LOG IF POSSIBLE. IF A CLOSER POSITIONING IS REQUIRED, EXCAVATOR SHALL BE NO CLOSER THAN THAT REQUIRED TO GENERATE DESIRED LOADING WITH DISTANCE FROM VERTICAL LOG NOTED IN THE TEST RECORD.

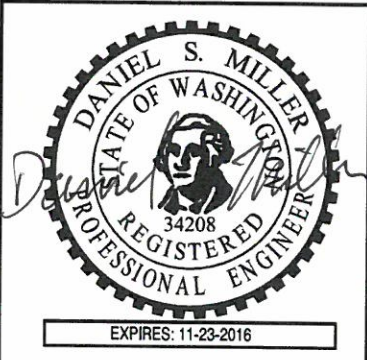
PULL OUT RESISTANCE READING SHALL BE COMPARED AGAINST EXCAVATOR MAX LIFT OFFSET TABLE.

1 VERTICAL LOG PER HABITAT ENHANCEMENT WOOD STRUCTURE AND 2 VERTICAL LOGS FOR THE ELS 2 EXTENSION JAM SHALL BE PROOF TESTED. IF RESULTS VARY MORE THAN 50% THEN IT SHOULD BE ANTICIPATED THAT UP TO 25% OF THE PRODUCTION VERTICAL LOGS SHALL BE PROOF TESTED.

CONSTRUCTED DRIVEN VERTICAL LOG EMBEDMENT DEPTH SPECIFIED IN THE PLANS MAY BE REDUCED OR INCREASED, PENDING PULL OUT TEST RESULTS, AT NO ADDITIONAL COST.



VERTICAL LOG PULLOUT TESTING
NOT TO SCALE



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VERTICAL LOG PULLOUT
TESTING DETAILS

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Provisions

INTRODUCTION

The Washington State Department of Transportation's Standard Specifications for Road, Bridge and Municipal Construction 2014 (WSDOT Standard Specifications) shall apply unless otherwise noted in the following special provisions. The "Contracting Agency" or "Owner" shall be the Confederated Tribes and Bands of the Yakama Nation. Additional specifications in the following contract sections are included for items not covered by the WSDOT Standard Specifications.

DIVISION 1 - GENERAL REQUIREMENTS

Sections 1-02, 1-03, and 1-08 (except 1-08.6, 1-08.7, 1-08.8) of the Standard Specifications do not apply.

ESC, SPCC PLAN AND IMPLEMENTATION

Description

This work shall provide for preparation, implementation, and removal of a temporary Erosion Sediment Control (ESC) plan and for the preparation and implementation of a Spill Prevention Control and Countermeasure (SPCC) plan in accordance with Section 1-07.15 of the Standard Specifications, and as amended by these special provisions.

- 1. Biodegradable hydraulic fluid shall be installed into each piece of heavy machinery working within 50 feet of the Entiat River.
- 2. Silt fence or cofferdams shall be installed between water and work areas shown in the plans.
- 3. Staging, stockpile, and access areas are shown in the plans. The irregular shape of these areas is intended to provide large areas but that also avoid impacts to existing trees. The owner will flag a corridor to delineate trees that shall be avoided. The contractor shall install high visibility fence along the flagged corridor. Areas within the footprint of project earthwork can also be used as staging & stockpile areas.
- 4. This item includes erosion control measures, including the maintenance or replacement of spent erosion control measures.

Measurement

"ESC, SPCC Plan and Implementation," including the above amendments to the item will be measured by lump sum.

Payment

Payment will be made in accordance with Section 1-09.9 for the following bid items: "ESC, SPCC Plan and Implementation" per lump sum.

MOBILIZATION

This item consists of work in accordance with Section 1-09.7 of the Standard Specifications.

Removal of excess LWM to a location designated by owner at project completion shall be incidental to "Mobilization".

Measurement

"Mobilization" will be measured by lump sum. Demobilization shall be incidental to "Mobilization".

Payment

"Mobilization", lump sum.

TRAFFIC CONTROL

Temporary traffic control requirements shall include barricades and construction signage at the entrance to the project site and any other measures per Section 1-10 and local regulations.

Measurement

"Traffic Control" will be measured by lump sum.

Payment

"Traffic Control", lump sum.

DIVISION 2 - EARTHWORK

CLEARING AND GRUBBING

This item consists of clearing and grubbing for construction as shown on the plans including those areas required for temporary access routes and in accordance with Section 2-01 of the Standard Specifications, and as amended by these special provisions.

- 1. Areas for clearing and grubbing shall be the minimum necessary and within the limits of disturbance shown on the plans. These areas will be flagged in the field by the owner prior to clearing and grubbing work. Clearing and grubbing shall not occur outside of the designated limits.
- 2. Disturbance to river banks and riparian vegetation shall be minimized and shall only include those areas marked by the owner.
- 3. Included in this item are the removal and salvage of trees, varying in size. Salvaged trees shall be reused as woody material. Trees to be salvaged will be identified in the field by the owner's representative.
- 4. Shrubs removed during clearing and grubbing shall be left on site and placed outside of the limits of disturbance to be used as slash during installation of LWM.
- 5. Vegetation protection and restoration per Section 1-07.16(2) shall be incidental to clearing and grubbing.

Measurement

Removal and salvage of trees and shrubs shall be considered incidental to clearing and grubbing bid item. Measurement and compensation for the installation of salvaged trees is described under "LWM" and paid under that item. No additional compensation will be allowed.

"Clearing and Grubbing," including the above amendments to the item will be measured by lump sum.

Payment

Payment will be made in accordance with Section 1-09.9 for the following bid items: "Clearing and Grubbing" per lump sum.

COFFERDAM

This section is added.

8-31.1 Description

The work consists of furnishing, installing, monitoring, maintaining, and removing cofferdams, and coordinating with the owner for fish salvage relocation activities.

8-31.2 Materials

8-31.2(1) The contractor shall provide all required materials for the project. Materials for bulk bag cofferdam are described in the project plans.

8-31.2(2) If contractor elects to use an alternate method for temporary cofferdam, contractor shall provide to the owner shop drawings and/or vendor cut sheets for substitutions and submit cofferdam/diversion plan for review prior to implementation.

8-31.3 Construction Requirements

8-31.3(1) Cofferdams

The contractor shall isolate the work area from the waterway by installing cofferdams per the plans. No turbidity from construction activities shall enter the waterway. Cofferdams shown on the plans are a suggested method. Contractor shall determine own method and submit a cofferdam and diversion plan for review and approval.

If bulk bag cofferdam is the selected method, bulk bag cofferdam construction requirements are described in the plans.

8-31.3(2) Coordination with Fish Rescue

The contractor shall provide minimum 3 days advance notice to the owner before each cofferdam installation date. The contractor shall understand that cofferdam installation requires coordination with the owner and only after the owner has completed fish rescue can the cofferdams be completed.

8-31.4 Measurement

Measurement will be based on the item from the bid list installed and the work for that portion completed.

"Cofferdam" will be measured by lump sum.

8-31.5 Payment

Payment will be made in accordance with Section 1-09.9 for the following bid items: "Cofferdam" per lump sum.

PUMPING

This section is added.

8-32.1 Description

The work consists of furnishing, monitoring, operating, maintaining, and removing pumps, and installation of control of water BMPs.

8-32.2 Materials

8-32.2(1) One 6" pump, with pumping capacity greater than 600 gpm, assuming 12 feet of vertical lift and 300 feet of discharge hose. To prevent turbidity from entering the river, pumps may need to run 24 hrs or until water is clear. Pumps shall have soundproofing. Electric pumps with generators and quiet packs are a preferred and approved method.

8-32.2(2) 300 feet of 6 inch discharge hose.

8-32.2(3) One or more 2-inch (or larger) trash pumps, with at least 200 feet of discharge hose.

8-32.2(4) Environmental protection measures such as straw bales, perforated pipe for discharge flow distributors, geotextiles, filter bags, or other means of controlling water and turbidity. No turbidity shall be allowed to enter the river or surface waters.

8-32.3 Construction Requirements

8-32.3(1) Pumps

Groundwater and surface waters are expected to be encountered during excavations. Pumping shall prevent groundwater that has mixed with construction water from entering the river and dewater construction areas.

- 1. To help prevent turbidity from leaking through the cofferdams at the downstream end of the project, the contractor shall provide and operate 6" pump(s) to lower the water surface within the isolated area and discharge to an infiltration area.
- 2. Construction water shall be pumped away from work areas and be infiltrated into the ground and without entering the waterway.

8-32.3(2) Environmental Protection Measures

If infiltration becomes an ineffective means to control turbidity, additional and alternative methods, such as pumping into stilling basins or filtration geotextile fabric shall be required at the contractor's expense.

8-32.4 Measurement

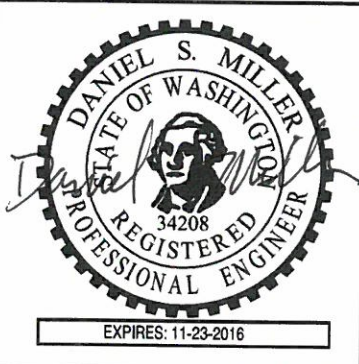
Measurement will be based on the item from the bid list installed and the work for that portion completed.

"Pumping" will be measured by lump sum.

8-32.5 Payment

Payment will be made in accordance with Section 1-09.9 for the following bid items: "Pumping" per lump sum

The unit contract prices for "Pumping" shall be full compensation for all costs incurred for equipment, materials and labor for furnishing, installing, operating, securing, maintaining and removal of pumping equipment as outlined in the plans. If additional environmental protection measures are required to control turbidity, they shall be considered incidental to pumping and no additional compensation will be made.



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SPECIAL SPECIFICATIONS

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8-34.3 Construction Requirements

FES lifts shall be constructed as shown on the design plans and specified below.

1. FES lifts shall be placed along the river bank the full width of the trench excavated (subgrade) for placement of LWM.

2. Place forms along the bank in locations to achieve the lines and grades shown on the plans.

3. Roll woven coir fabric along the streambank and place fabric against the subgrade and (vertical) form face with embedment lengths as shown on the plans.

4. Roll non-woven coir fabric along the streambank and place on top of the woven coir fabric to achieve the embedment length shown on the plans.

5. Remove all wrinkles in coir fabric and ensure that fabrics rest tightly against the subgrade and form face with the proper embedment lengths. Allow excess coir fabric to drape over the form toward the stream channel.

6. Apply seed mix provided by the owner to that portion of non-woven coir fabric that is placed against the vertical face of the form.

7. Place the appropriate soil and compact to 85% standard proctor. Soil lift shall be a maximum 1.0 foot thick.

8. Apply seed mix provided by the owner as shown on the plans to the soil lift.

9. Pull coir fabrics that are draped over the form back over seeded soil. Pull coir fabrics tight and stake according to the specifications and plans.

10. Remove forms. Note, forms can be removed by hand, or pried with a bar if necessary. Contractor shall not use equipment to remove forms.

11. Repeat 2-10, above, to achieve the lines and grade shown on the plans.

Finished FES lifts shall have no loose coir fabric. Areas with loose coir fabric shall be staked with tapered wooden stakes to hold coir fabrics firmly to underlying soil. If coir fabric folds are required around channel bends, the fold shall be in the direction of flow and coir fabric shall be staked at the folds.

8-34.4 Measurement

Measurement for FES lifts shall be lump sum. All equipment, labor and materials required to complete FES lifts shall be incidental to "FES Lifts".

8-34.5 Payment

Payment shall be lump sum for item "FES Lifts".

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SPECIAL SPECIFICATIONS

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SPECIAL SPECIFICATIONS

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DOCUMENTATION: TO BE POSTED ONSITE BY THE CONTRACTOR IN A LOCATION VISIBLE TO THE PUBLIC.

- A) NAME(S), PHONE NUMBER(S), AND ADDRESSES) OF THE PERSON(S) RESPONSIBLE FOR OVERSIGHT.
- B) A DESCRIPTION OF HAZAROUS MATERIALS THAT WILL BE USED, INCLUDING INVENTORY, STORAGE, AND HANDLING PROCEDURES.
- C) PROCEDURES TO CONTAIN AND CONTROL A SPILL OF ANY HAZAROUS MATERIAL GENERATED, USED OR STORED ON-SITE, INCLUDING NOTIFICATION OF PROPER AUTHORITIES.
- D) A STANDING ORDER TO CEASE WORK IN THE EVENT OF HIGH FLOWS EXCEPT AS NECESSARY TO MINIMIZE RESOURCE DAMAGE (ABOVE THOSE ADDRESSED IN THE DESIGN AND IMPLEMENTATION PLANS) OR EXCEEDANCE OF TAKE OR WATER QUALITY LIMITATIONS.

SITE PREPARATION

- 1) SITE LAYOUT AND FLAGGING: PRIOR TO CONSTRUCTION, THE ACTION AREA WILL BE CLEARLY FLAGGED TO IDENTIFY THE FOLLOWING:

- A) SENSITIVE RESOURCE AREAS, SUCH AS AREAS BELOW ORDINARY HIGH WATER, SPAWNING AREAS, SPRINGS, AND WETLANDS;
- B) EQUIPMENT ENTRY AND EXIT POINTS;
- C) ROAD AND STREAM CROSSING ALIGNMENTS;
- D) STAGING, STORAGE, AND STOCKPILE AREAS; AND
- E) NO-SPRAY AREAS AND BUFFERS.

- 2) TEMPORARY ACCESS ROADS AND PATHS:

- A) EXISTING ACCESS ROADS AND PATHS WILL BE PREFERENTIALLY USED WHENEVER REASONABLE, AND THE NUMBER AND LENGTH OF TEMPORARY ACCESS ROADS AND PATHS THROUGH RIPARIAN AREAS AND FLOOD PLAINS WILL BE MINIMIZED TO LESSEN SOIL DISTURBANCE AND COMPACTION, AND IMPACTS TO VEGETATION.
- B) TEMPORARY ACCESS ROADS AND PATHS WILL NOT BE BUILT ON SLOPES WHERE GRADE, SOIL, OR OTHER FEATURES SUGGEST LIKELIHOOD OF EXCESSIVE EROSION OR FAILURE. IF SLOPES ARE STEEPER THAN 30%, THEN THE ROAD WILL BE DESIGNED BY A CIVIL ENGINEER WITH EXPERIENCE IN STEEP ROAD DESIGN.
- C) THE REMOVAL OF RIPARIAN VEGETATION DURING CONSTRUCTION OF TEMPORARY ACCESS ROADS WILL BE MINIMIZED. WHEN TEMPORARY VEGETATION REMOVAL IS REQUIRED, VEGETATION WILL BE CUT AT GROUND LEVEL, (NOT GRUBBED).
- D) AT PROJECT COMPLETION, ALL TEMPORARY ACCESS ROADS AND PATHS WILL BE OBLITERATED, AND THE SOIL WILL BE STABILIZED AND RE-VEGETATED. ROAD AND PATH OBLITERATION REFERS TO THE MOST COMPREHENSIVE DEGREE OF DECOMMISSIONING AND INVOLVES RE-COMPACTING THE SURFACE AND DITCH, PULLING THE FILL MATERIAL ONTO THE RUNNING SURFACE, AND RESHAPING TO MATCH THE ORIGINAL CONTOUR.
- E) TEMPORARY ROADS AND PATHS IN WET AREAS OR AREAS PRONE TO FLOODING WILL BE OBLITERATED BY THE END OF THE IN-WATER WORK WINDOW.

- 3) TEMPORARY STREAM CROSSINGS:

- A) EXISTING STREAM CROSSINGS WILL BE PREFERENTIALLY USED WHENEVER REASONABLE, AND THE NUMBER OF TEMPORARY STREAM CROSSINGS WILL BE MINIMIZED.
- B) TEMPORARY BRIDGES AND CULVERTS WILL BE INSTALLED TO ALLOW FOR EQUIPMENT AND VEHICLE CROSSING OVER PERENIAL STREAMS DURING CONSTRUCTION.
- C) EQUIPMENT AND VEHICLES WILL CROSS THE STREAM IN THE WET ONLY WHERE:
 - 1. THE STREAMBED IS BEDROCK; OR
 - II. MATS OR OFF-SITE LOGS ARE PLACED IN THE STREAM AND USED AS A CROSSING.
- D) VEHICLES AND MACHINERY WILL CROSS STREAMS AT RIGHT ANGLES TO THE MAIN CHANNEL, WHEREVER POSSIBLE.
- E) THE LOCATION OF THE TEMPORARY CROSSING WILL AVOID AREAS THAT MAY INCREASE THE RISK OF CHANNEL RE-ROUTING OR AVULSION.
- F) POTENTIAL SPAWNING HABITAT (I.E., POOL TAILOUTS) AND POOLS WILL BE AVOIDED TO THE MAXIMUM EXTENT POSSIBLE.
- G) NO STREAM CROSSINGS WILL OCCUR AT ACTIVE SPAWNING SITES, WHEN HOLDING ADULT LISTED FISH ARE PRESENT, OR WHEN EGGS OR ALEVINS ARE IN THE GRAVEL. THE APPROPRIATE STATE FISH AND WILDLIFE AGENCY WILL BE CONTACTED FOR SPECIFIC TIMING INFO.
- H) AFTER PROJECT COMPLETION, TEMPORARY STREAM CROSSINGS WILL BE OBLITERATED AND THE STREAM CHANNEL AND BANKS RESTORED.

- 4) STAGING, STORAGE, AND STOCKPILE AREAS:

- A) STAGING AREAS (USED FOR CONSTRUCTION EQUIPMENT STORAGE, VEHICLE STORAGE, FUELING, SERVICING, AND HAZAROUS MATERIAL STORAGE) WILL BE 150 FEET OR MORE FROM ANY NATURAL WATER BODY OR WETLAND, OR ON AN ADJACENT, ESTABLISHED ROAD AREA IN A LOCATION AND MANNER THAT WILL PRECLUDE EROSION INTO OR CONTAMINATION OF THE STREAM OR FLOODPLAIN.
- B) NATURAL MATERIALS USED FOR IMPLEMENTATION OF AQUATIC RESTORATION, SUCH AS LARGE WOOD, GRAVEL, AND BOULDERS, MAY BE STAGED WITHIN THE 100-YEAR FLOODPLAIN.
- C) ANY LARGE WOOD, TOPSOIL, AND NATVE CHANNEL MATERIAL DISPLACED BY CONSTRUCTION WILL BE STOCKPILED FOR USE DURING SITE RESTORATION AT A SPECIFICALLY IDENTIFIED AND FLAGGED AREA.
- D) ANY MATERIAL NOT USED IN RESTORATION, AND NOT NATIVE TO THE FLOODPLAIN, WILL BE REMOVED TO A LOCATION OUTSIDE OF THE 100-YEAR FLOODPLAIN FOR DISPOSAL.

- 5) EQUIPMENT: MECHANIZED EQUIPMENT AND VEHICLES WILL BE SELECTED, OPERATED, AND MAINTAINED IN A MANNER THAT MINIMIZES ADVERSE ON THE ENVIRONMENT (E.G., MINIMAL Y-SIZED, LOW PRESSURE TIRES, MINIMAL, HARD-TURN PATHS FOR TRACKED VEHICLES; TEMPORARY MATS OR PLATES WITHIN WET AREAS OR ON SENSITIVE SOILS). ALL VEHICLES AND OTHER MECHANIZED EQUIPMENT WILL BE:

- A) STORED, FUELED, AND MAINTAINED IN A VEHICLE STAGING AREA PLACED 150 FEET OR MORE FROM ANY NATURAL WATER BODY OR WETLAND, OR ON AN ADJACENT, ESTABLISHED ROAD AREA;
- B) REFUELED IN A VEHICLE STAGING AREA PLACED 150 FEET OR MORE FROM A NATURAL WATERBODY OR WETLAND, OR IN AN ISOLATED HARD ZONE, SUCH AS A PAVED PARKING LOT OR ADJACENT, ESTABLISHED ROAD (THIS MEASURE APPLIES ONLY TO GAS-POWERED EQUIPMENT, WITH TANKS LARGER THAN 5 GALLONS);
- C) BIODEGRADABLE LUBRICANTS AND FLUIDS SHOULD BE USED, IF POSSIBLE. ON EQUIPMENT OPERATING IN AND ADJACENT TO THE STREAM CHANNEL AND LIVE WATER;
- D) INSPECTED DAILY FOR FLUID LEAKS BEFORE LEAVING THE VEHICLE STAGING AREA FOR OPERATION WITHIN 150 FEET OF ANY NATURAL WATER BODY OR WETLAND; AND
- E) THOROUGHLY CLEANED BEFORE OPERATION BELOW ORDINARY HIGH WATER, AND AS OFTEN AS NECESSARY DURING OPERATION, TO REMAIN GREASE FREE.

- 6) EROSION CONTROL: EROSION CONTROL MEASURES WILL BE PREPARED AND CARRIED OUT, COMMENSURATE IN SCOPE WITH THE ACTION, THAT MAY INCLUDE THE FOLLOWING:

- A) TEMPORARY EROSION CONTROLS:
 - I. TEMPORARY EROSION CONTROLS WILL BE IN PLACE BEFORE ANY SIGNIFICANT ALTERATION OF THE ACTION SITE AND APPROPRIATELY INSTALLED DOWN SLOPE OF PROJECT ACTIVITY WITHIN THE RIPARIAN BUFFER AREA UNTIL SITE REHABILITATION IS COMPLETE.
 - II. IF THERE IS A POTENTIAL FOR ERODED SEDIMENT TO ENTER THE STREAM, SEDIMENT BARRIERS WILL BE INSTALLED AND MAINTAINED FOR THE DURATION OF PROJECT IMPLEMENTATION.
 - III. TEMPORARY EROSION CONTROL MEASURES MAY INCLUDE FIBER WATTLES, SILT FENCES, JUTE MATTING, WOOD FIBER MULCH AND SOIL BINDER, OR GEOTEXTILES AND GEOSYNTHETIC FABRIC.
 - IV. SOIL STABILIZATION UTILIZING WOOD FIBER MULCH AND JACKPIFIER (HYDRO-APPLIED) MAY BE USED TO REDUCE EROSION OF BARE SOIL. IF THE MATERIALS ARE NOXIOUS WEED FREE AND NONTOXIC TO AQUATIC AND TERRESTRIAL ANIMALS, SOIL MICROORGANISMS, AND VEGETATION.
 - V. SEDIMENT WILL BE REMOVED FROM EROSION CONTROLS ONCE IT HAS REACHED 1/3 OF THE EXPOSED HEIGHT OF THE CONTROL.
 - VI. ONCE THE SITE IS STABILIZED AFTER CONSTRUCTION, TEMPORARY EROSION CONTROL MEASURES WILL BE REMOVED.
- B) EMERGENCY EROSION CONTROLS: THE FOLLOWING MATERIALS FOR EMERGENCY EROSION CONTROL WILL BE AVAILABLE AT THE WORK SITE:
 - SUPPLY OF SEDIMENT CONTROL MATERIALS; AND AN OIL-ABSORBING FLOATING BOOM WHENEVER SURFACE WATER IS PRESENT.

- 7) TIMING OF IN-WATER WORK: APPROPRIATE STATE (OREGON DEPARTMENT OF FISH AND WILDLIFE (ODFW), WASHINGTON DEPARTMENT OF FISH AND WILDLIFE (WDFW), IDAHO DEPARTMENT OF FISH AND GAME (IDFG), MONTANA FISH WILDLIFE AND PARKS (MFWP) GUIDELINES FOR TIMING OF IN-WATER WORKS (IWW) WILL BE FOLLOWED.

- A) BULL TROUT - WHILE UTILIZING THE APPROPRIATE STATE DESIGNATED IN-WATER WORK PERIOD WILL LESSEN THE RISK TO BULL TROUT, THIS ALONE MAY NOT BE SUFFICIENT TO ADEQUATELY PROTECT LOCAL BULL TROUT POPULATIONS. THIS IS ESPECIALLY TRUE IF WORK IS OCCURRING IN SPAWNING AND REARING AREAS BECAUSE EGGS, ALEVIN, AND FRY ARE IN THE SUBSTRATE OR CLOSELY ASSOCIATED HABITATS NEARLY YEAR ROUND. SOME AREAS MAY NOT HAVE DESIGNATED IN-WATER WORK WINDOWS FOR BULL TROUT OF IF THEY DO, THEY MAY CONFLICT WITH WORK WINDOWS FOR SALMON AND STEELHEAD. IF THIS IS THE CASE, OR IF PROPOSED WORK IS TO OCCUR WITHIN BULL TROUT SPAWNING AND REARING HABITATS, PROJECT PROponents WILL CONTACT THE APPROPRIATE USFWS FIELD OFFICE (SEE APPENDIX B IN THIS BO) TO INSURE THAT ALL REASONABLE IMPLEMENTATION MEASURES ARE CONSIDERED AND AN APPROPRIATE IN-WATER WORK WINDOW IS BEING USED TO MINIMIZE PROJECT EFFECTS.
- B) LAMPREY - THE PROJECT SPONSOR AND/OR THEIR CONTRACTORS WILL AVOID WORKING IN STREAM OR RIVER CHANNELS THAT CONTAIN PACIFIC LAMPREY FROM MARCH 1 TO JULY 1 IN LOW TO MID ELEVATION REACHES (<5,000 FEET). IN HIGH ELEVATION REACHES(>5,000 FEET), THE PROJECT SPONSOR WILL AVOID WORKING IN STREAM OR RIVER CHANNELS FROM MARCH 1 TO AUGUST 1. IF EITHER TIMEFRAME IS INCOMPATIBLE WITH THE OTHER OBJECTIVES, THE AREA WILL BE SURVEYED FOR NESTS AND LAMPREY PRESENCE, AND AVOIDED IF POSSIBLE. IF LAMPREYS ARE KNOW TO EXIST, THE PROJECT SPONSOR WILL UTILIZE DE-WATERING AND SALVAGE PROCEDURES OUTLINED IN US FISH AND WILDLIFE SERVICE (2010).
- C) EXCEPTIONS TO ODFW, WDFW, MFWP, OR IDFG IN-WATER WORK WINDOWS WILL BE REQUESTED FROM NMFS AND THE FWS. AN IWW VARIANCE REQUEST (PRE-COORDINATED WITH STAFF BIOLOGISTS) WILL BE E-MAILED FROM AN APPROPRIATE REPRESENTATIVE OF THE ACTION AGENCY TO THE NMFS HABITAT BRANCH CHIEF AND THE FWS FIELD OFFICE SUPERVISOR FOR THE PROJECT AREA. WORK WILL NOT PROCEED OUTSIDE THE IWW UNTIL THE EXCEPTION IS APPROVED BY E-MAILS FROM NMFS AND/OR THE FWS.

- 8) DUST ABATEMENT: THE PROJECT SPONSOR WILL DETERMINE THE APPROPRIATE DUST CONTROL MEASURES (IF NECESSARY) BY CONSIDERING SOIL TYPE, EQUIPMENT USAGE, PREVAILING WIND DIRECTION, AND THE EFFECTS CAUSED BY OTHER EROSION AND SEDIMENT CONTROL MEASURES. IN ADDITION, THE FOLLOWING CRITERIA WILL BE FOLLOWED:

- A) WORK WILL BE SEQUENCED AND SCHEDULED TO REDUCE EXPOSED BARE SOIL, SUBJECT TO WIND EROSION.
- B) DUST-ABATEMENT ADDITIVES AND STABILIZATION CHEMICALS (TYPICALLY MAGNESIUM CHLORIDE, CALCIUM CHLORIDE SALTS, OR LIGNINSULFONATE) WILL NOT BE APPLIED WITHIN 25 FEET OF WATER OR A STREAM CHANNEL AND WILL BE APPLIED SO AS TO MINIMIZE THE LIKELIHOOD THAT THEY WILL ENTER STREAMS. APPLICATIONS OF LIGNINSULFONATE WILL BE LIMITED TO A MAXIMUM RATE OF 0.5 GALLONS PER SQUARE YARD OF ROAD SURFACE, ASSUMING A 50:50 (LIGNINSULFONATE TO WATER) SOLUTION.
- C) APPLICATION OF DUST ABATEMENT CHEMICALS WILL BE AVOIDED DURING OR JUST BEFORE WET WEATHER, AND AT STREAM CROSSINGS OR OTHER AREAS THAT COULD RESULT IN UNFILTERED DELIVERY OF THE DUST ABATEMENT MATERIALS TO A WATERBODY (TYPICALLY THESE WOULD BE AREAS WITHIN 25 FEET OF A WATERBODY OR STREAM CHANNEL. DISTANCES MAY BE GREATER WHERE VEGETATION IS SPARSE OR SLOPES ARE STEEP).
- D) SPILL CONTAINMENT EQUIPMENT WILL BE AVAILABLE DURING APPLICATION OF DUST ABATEMENT CHEMICALS.
- E) PETROLEUM-BASED PRODUCTS WILL NOT BE USED FOR DUST ABATEMENT.

- 9) SPILL PREVENTION CONTROL, AND COUNTER MEASURES: THE USE OF MECHANIZED MACHINERY INCREASES THE RISK FOR ACCIDENTAL SPILLS OF FUEL, LUBRICANTS, HYDRAULIC FLUID, OR OTHER CONTAMINANTS INTO THE RIPARIAN ZONE OR DIRECTLY INTO THE WATER. ADDITIONALLY, UNCURED CONCRETE AND FORM MATERIALS ADJACENT TO THE ACTIVE STREAM CHANNEL, MAY RESULT IN ACCIDENTAL DISCHARGE INTO THE WATER. THESE CONTAMINANTS CAN DEGRADE HABITAT, AND INJURE OR KILL AQUATIC FOOD ORGANISMS AND ESALISTED SPECIES. THE PROJECT SPONSOR WILL ADHERE TO THE FOLLOWING MEASURES:

- A) A DESCRIPTION OF HAZARDOUS MATERIALS TO BE USED (INVENTORY & STORAGE) AND HANDLING PROCEDURES WILL BE AVAILABLE ON-SITE.
- B) WRITTEN PROCEDURES FOR NOTIFYING ENVIRONMENTAL RESPONSE AGENCIES WILL BE POSTED AT THE WORK SITE.
- C) SPILL CONTAINMENT KITS (INCLUDING INSTRUCTIONS FOR CLEANUP AND DISPOSAL) ADEQUATE FOR THE TYPES AND QUANTITY OF HAZARDOUS MATERIALS USED AT THE SITE WILL BE AVAILABLE AT THE WORK SITE.
- D) WORKERS WILL BE TRAINED IN SPILL CONTAINMENT PROCEDURES AND WILL BE INFORMED OF THE LOCATION OF SPILL CONTAINMENT KITS.
- E) ANY WASTE LIQUIDS GENERATED AT THE STAGING AREAS WILL BE TEMPORARILY STORED UNDER AN IMPERVIOUS COVER, SUCH AS A TARPALIN, UNTIL THEY CAN BE PROPERLY TRANSPORTED TO AND DISPOSED OF AT A FACILITY THAT IS APPROVED FOR RECEIPT OF HAZARDOUS MATERIALS.

- 10)INVASIVE SPECIES - EQUIPMENT CLEANING AND MAINTENANCE: THE FOLLOWING MEASURES WILL BE FOLLOWED TO AVOID INTRODUCTION OF INVASIVE PLANTS AND NOXIOUS WEEDS INTO PROJECT AREAS:

- A) PRIOR TO ENTERING THE SITE, ALL VEHICLES AND EQUIPMENT WILL BE POWER WASHED, ALLOWED TO FULLY DRY, AND INSPECTED TO MAKE SURE NO PLANTS, SOIL, OR OTHER ORGANIC MATERIAL ADHERES TO THE SURFACE.
- B) WATERCRAFT, WADERS, BOOTS, AND ANY OTHER GEAR TO BE USED IN OR NEAR WATER WILL BE INSPECTED FOR AQUATIC INVASIVE SPECIES; WADING BOOTS WITH FELT SOLES ARE NOT TO BE USED DUE TO THEIR PROPENSITY FOR AIDING IN THE TRANSFER OF INVASIVE SPECIES.

HIP III GENERAL CONSERVATION MEASURES

Bonneville Power Administration: Environment, Fish and Wildlife

Designed		<i>FEB 2015</i>
Drawn	<i>C. CHRISTIANSEN</i>	<i>X</i>
Checked	<i>X</i>	
Approved		
Title		

X

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File Name

HIP III GCA

Drawing No.

1

Sheet 1 of 2

WORK AREA ISOLATION & FISH SALVAGE

ANY WORK AREA WITHIN THE WETTED CHANNEL WILL BE ISOLATED FROM THE ACTIVE STREAM WHENEVER ESA LISTED FISH ARE REASONABLY CERTAIN TO BE PRESENT. OR IF THE WORK AREA IS LESS THAN 300-FEET UPSTREAM FROM KNOWN SPawning HABITATS. WHEN WORK AREA ISOLATION IS REQUIRED. DESIGN PLANS WILL INCLUDE ALL ISOLATION ELEMENTS. FISH RELEASE AREAS. AND WHEN A PUMP IS USED TO DE-WATER THE ISOLATION AREA AND FISH ARE PRESENT. A FISH SCREEN THAT MEETS NMFS'S FISH SCREEN CRITERIA (NMFS 2011, OR MOST CURRENT), WORK AREA ISOLATION AND FISH CAPTURE ACTIVITIES WILL OCCUR DURING PERIODS OF THE COOLEST AIR AND WATER TEMPERATURES POSSIBLE. NORMALLY EARLY IN THE MORNING VERSUS LATE IN THE DAY. AND DURING CONDITIONS APPROPRIATE TO MINIMIZE STRESS AND DEATH OF SPECIES PRESENT.

FOR SALVAGE OPERATIONS IN KNOWN BULL TROUT SPawning AND REARING HABITAT. ELECTRO-FISHING SHALL ONLY OCCUR FROM MAY 01 TO JUL 31. NO ELECTRO-FISHING WILL OCCUR IN ANY BULL TROUT OCCUPIED HABITAT AFTER AUG 15. BULL TROUT ARE VERY TEMPERATURE SENSITIVE AND GENERALLY SHOULD NOT BE ELECTRO-SHOCKED OR OTHERWISE HANDLED WHEN TEMPERATURES EXCEED 15 DEGREES CELSIUS. SALVAGE ACTIVITIES SHOULD TAKE PLACE DURING PERIODS OF THE COOLEST AIR AND WATER TEMPERATURES POSSIBLE. NORMALLY EARLY IN THE MORNING VERSUS LATE IN THE DAY. AND DURING CONDITIONS APPROPRIATE TO MINIMIZE STRESS TO FISH SPECIES PRESENT.

SALVAGE OPERATIONS WILL FOLLOW THE ORDERING. METHODLOGIES. AND CONSERVATION MEASURES SPECIFIED BELOW IN STEPS 1 THROUGH 6. STEPS 1 AND 2 WILL BE IMPLEMENTED FOR ALL PROJECTS WHERE WORK AREA ISOLATION IS NECESSARY ACCORDING TO CONDITIONS ABOVE. ELECTRO-FISHING (STEP 3) CAN BE IMPLEMENTED TO ENSURE ALL FISH HAVE BEEN REMOVED FOLLOWING STEPS 1 AND 2. OR WHEN OTHER MEANS OF FISH CAPTURE MAY NOT BE FEASIBLE OR EFFECTIVE. DE-WATERING AND RE-WATERING (STEPS 4 AND 5) WILL BE IMPLEMENTED UNLESS WETTED IN-STREAM WORK IS DEEMED TO BE MINIMALLY HARMFUL TO FISH, AND IS BENEFICIAL TO OTHER AQUATIC SPECIES. DE-WATERING WILL NOT BE CONDUCTED IN AREAS KNOWN TO BE OCCUPIED BY LAMPREY, UNLESS LAMPREYS ARE SALVAGED USING GUIDANCE SET FORTH IN US FISH AND WILDLIFE SERVICE (2010).

1) ISOLATE:

- A) BLOCK NETS WILL BE INSTALLED AT UPSTREAM AND DOWNSTREAM LOCATIONS AND MAINTAINED IN A SECURED POSITION TO EXCLUDE FISH FROM ENTERING THE PROJECT AREA.
- B) BLOCK NETS WILL BE SECURED TO THE STREAM CHANNEL BED AND BANKS UNTIL FISH CAPTURE AND TRANSPORT ACTIVITIES ARE COMPLETE.
- C) IF BLOCK NETS REMAIN IN PLACE FOR THE DURATION OF THE PROJECT TO EXCLUDE FISH. THE BANKS AND FREE OF ORGANIC ACCUMULATION. IF THE PROJECT IS WITHIN BULL TROUT SPawning AND REARING HABITAT. THE BLOCK NETS MUST BE CHECKED EVERY FOUR HOURS FOR FISH IMPINGEMENT ON THE NET. LESS FREQUENT INTERVALS MUST BE APPROVED THROUGH A VARIANCE REQUEST.
- D) NETS WILL BE MONITORED HOURLY ANYTIME THERE IS IN-STREAM DISTURBANCE.

2) **SALVAGE:** – AS DESCRIBED BELOW, FISH TRAPPED WITHIN THE ISOLATED WORK AREA WILL BE CAPTURED TO MINIMIZE THE RISK OF INJURY. THEN RELEASED AT A SAFE SITE:

- A) REMOVE AS MANY FISH AS POSSIBLE PRIOR TO DE-WATERING.
- B) DURING DE-WATERING, ANY REMAINING FISH WILL BE COLLECTED BY HAND OR DIP NETS.
- C) SINES WITH A MESH SIZE TO ENSURE CAPTURE OF THE RESIDING ES-LISTED FISH WILL BE USED.
- D) MINNOW TRAPS WILL BE LEFT IN PLACE OVERNIGHT AND USED IN CONJUNCTION WITH SEINING.
- E) IF BUCKETS ARE USED TO TRANSPORT FISH:
 - I. THE TIME FISH ARE IN A TRANSPORT BUCKET WILL BE LIMITED. AND WILL BE RELEASED AS QUICKLY AS POSSIBLE.
 - II. THE NUMBER OF FISH WITHIN A BUCKET WILL BE LIMITED BASED ON SIZE, AND FISH WILL BE OF RELATIVELY COMPARABLE SIZE TO MINIMIZE PREDATION.
 - III. AERATORS FOR BUCKETS WILL BE USED OR THE BUCKET WATER WILL BE FREQUENTLY CHANGED WITH COLD CLEAR WATER AT 15 MINUTE OR MORE FREQUENT INTERVALS.
 - IV. BUCKETS WILL BE KEPT IN SHADED AREAS OR WILL BE COVERED BY A CANOPY IN EXPOSED AREAS.
 - V. DEAD FISH WILL NOT BE STORED IN TRANSPORT BUCKETS, BUT WILL BE LEFT ON THE STREAM BANK TO AVOID MORTALITY COUNTING ERRORS.
- F) AS RAPIDLY AS POSSIBLE (ESPECIALLY FOR TEMPERATURE-SENSITIVE BULL TROUT), FISH WILL BE RELEASED IN AN AREA THAT PROVIDES ADEQUATE COVER AND FLOW REFUGE. UPSTREAM RELEASE IS GENERALLY PREFERRED. BUT FISH RELEASED DOWNSTREAM WILL BE SUFFICIENTLY OUTSIDE OF THE INFLUENCE OF CONSTRUCTION.
- G) SALVAGE WILL BE SUPERVISED BY A QUALIFIED FISHERIES BIOLOGIST EXPERIENCED WITH WORK AREA ISOLATION AND COMPETENT TO ENSURE THE SAFE HANDLING OF ALL FISH.

3)

- ELECTROFISHING:** ELECTROFISHING WILL BE USED ONLY AFTER OTHER SALVAGE METHODS HAVE BEEN EMPLOYED OR WHEN OTHER MEANS OF FISH CAPTURE ARE DETERMINED TO NOT BE FEASIBLE OR EFFECTIVE. IF ELECTROFISHING WILL BE USED TO CAPTURE FISH FOR SALVAGE. THE SALVAGE OPERATION WILL BE LED BY AN EXPERIENCED FISHERIES BIOLOGIST AND THE FOLLOWING GUIDELINES WILL BE FOLLOWED:
 - A) THE NMFS'S ELECTROFISHING GUIDELINES (NMFS 2000).
 - B) ONLY DIRECT CURRENT (DC) OR PULSED DIRECT CURRENT (PDC) WILL BE USED AND CONDUCTIVITY MUST BE TESTED.
 - I. IF CONDUCTIVITY IS LESS THAN 100 MS. VOLTAGE RANGES FROM 900 TO 1100 WILL BE USED.
 - II. FOR CONDUCTIVITY RANGES BETWEEN 100 TO 300 MS. VOLTAGE RANGES WILL BE 500 TO 800.
 - III. FOR CONDUCTIVITY GREATER THAN 300 MS. VOLTAGE WILL BE LESS THAN 400.
 - C) ELECTROFISHING WILL BEGIN WITH A MINIMUM PULSE WIDTH AND RECOMMENDED VOLTAGE AND THEN GRADUALLY INCREASE TO THE POINT WHERE FISH ARE IMMOBILIZED.
 - D) THE ANODE WILL NOT INTENTIONALLY CONTACT FISH.
 - E) ELECTROFISHING SHALL NOT BE CONDUCTED WHEN THE WATER CONDITIONS ARE TURBID AND VISIBILITY IS POOR. THIS CONDITION MAY BE EXPERIENCED WHEN THE SAMPLER CANNOT SEE THE STREAM BOTTOM IN ONE FOOT OF WATER.
 - G) IF MORTALITY OR OBVIOUS INJURY (DEFINED AS DARK BANDS ON THE BODY, SPINAL DEFORMATIONS, DE-SCALING OF 25% OR MORE OF BODY, AND TORPIDITY OR INABILITY TO MAINTAIN UPRIGHT ATTITUDE AFTER SUFFICIENT RECOVERY TIME) OCCURS DURING ELECTROFISHING, OPERATIONS WILL BE IMMEDIATELY DISCONTINUED. MACHINE SETTINGS, WATER TEMPERATURE AND CONDUCTIVITY CHECKED, AND PROCEDURES ADJUSTED OR ELECTROFISHING POSTPONED TO REDUCE MORTALITY.

4)

- DEWATER:** DEWATERING, WHEN NECESSARY, WILL BE CONDUCTED OVER A SUFFICIENT PERIOD OF TIME TO ALLOW SPECIES TO NATURALLY MIGRATE OUT OF THE WORK AREA AND WILL BE LIMITED TO THE SHORTEST LINEAR EXTENT PRACTICABLE.
 - A) DIVERSION AROUND THE CONSTRUCTION SITE MAY BE ACCOMPLISHED WITH A COFFER DAM AND A BYPASS CULVERT OR PIPE. OR A LINED, NON-ERODIBLE DIVERSION DITCH, WHERE GRAVITY FEED IS NOT POSSIBLE. A PUMP MAY BE USED, BUT MUST BE OPERATED IN SUCH A WAY AS TO AVOID REPETITIVE DE-WATERING AND RE-WATERING OF THE SITE. IMPOUNDMENT BEHIND THE COFFERDAM MUST OCCUR SLOWLY THROUGH THE TRANSITION. WHILE CONSTANT FLOW IS DELIVERED TO THE DOWNSTREAM REACHES.
 - B) ALL PUMPS WILL HAVE FISH SCREENS TO AVOID JUVENILE FISH IMPINGEMENT OR ENTRAPMENT. AND WILL BE OPERATED IN ACCORDANCE WITH NMFS'S CURRENT FISH SCREEN CRITERIA (NMFS 2011,4, OR MOST RECENT VERSION), IF THE PUMPING RATE EXCEEDS 3 CUBIC FEET SECOND (CFS). A NMFS HYDRO FISH PASSAGE REVIEW WILL BE NECESSARY.
 - C) DISPERSION OF FLOW ENERGY AT THE BYPASS OUTFLOW WILL BE PROVIDED TO PREVENT DAMAGE TO RIPARIAN VEGETATION OR STREAM CHANNEL.
 - D) SAFE REENTRY OF FISH INTO THE STREAM CHANNEL. WILL BE PROVIDED. PREFERABLY INTO POOL, HABITAT WITH COVER, IF THE DIVERSION ALLOWS FOR DOWNSTREAM FISH PASSAGE.
 - E) SEEPAGE WATER WILL BE PUMPED TO A TEMPORARY STORAGE AND TREATMENT SITE OR INTO UPLAND AREAS TO ALLOW WATER TO PERCOLATE THROUGH SOIL OR TO FILTER THROUGH VEGETATION PRIOR TO REENTERING THE STREAM CHANNEL.

5)

- RE-WATERING:** UPON PROJECT COMPLETION, THE CONSTRUCTION SITE WILL BE SLOWLY RE-WATERED TO PREVENT LOSS OF SURFACE FLOW DOWNSTREAM AND TO PREVENT A SUDDEN INCREASE IN STREAM TURBIDITY. DURING RE-WATERING, THE SITE WILL BE MONITORED TO PREVENT STRANDING OF AQUATIC ORGANISMS BELOW THE CONSTRUCTION SITE.

6)

- SALVAGE NOTICE:** MONITORING AND RECORDING OF FISH PRESENCE, HANDLING, AND MORTALITY MUST OCCUR DURING THE DURATION OF THE ISOLATION, SALVAGE, ELECTROFISHING, DEWATERING, AND REVATERING OPERATIONS. ONCE OPERATIONS ARE COMPLETED, A SALVAGE REPORT WILL DOCUMENT PROCEDURES USED, ANY FISH INJURIES OR DEATHS (INCLUDING NUMBERS OF FISH AFFECTED), AND CAUSES OF ANY DEATHS.

CONSTRUCTION AND POST-CONSTRUCTION CONSERVATION MEASURES FOR AQUATIC SPECIES

- 1) **FISH PASSAGE:** FISH PASSAGE WILL BE PROVIDED FOR ANY ADULT OR JUVENILE FISH LIKELY TO BE PRESENT IN THE ACTION AREA DURING CONSTRUCTION, UNLESS PASSAGE DID NOT EXIST BEFORE CONSTRUCTION OR THE STREAM IS NATURALLY IMPASSABLE AT THE TIME OF CONSTRUCTION. IF THE PROVISION OF TEMPORARY FISH PASSAGE DURING CONSTRUCTION WILL INCREASE NEGATIVE EFFECTS ON AQUATIC SPECIES OF INTEREST OR THEIR HABITAT, A VARIANCE CAN BE REQUESTED FROM THE NMFS BRANCH CHIEF AND THE FWS FIELD OFFICE SUPERVISOR (APPENDIX B OF THIS BO). PERTINENT INFORMATION, SUCH AS THE SPECIES AFFECTED, LENGTH OF STREAM REACH AFFECTED, PROPOSED TIME FOR THE PASSAGE BARRIER, AND ALTERNATIVES CONSIDERED, WILL BE INCLUDED IN THE VARIANCE REQUEST.

2) CONSTRUCTION AND DISCHARGE WATER:

- A) SURFACE WATER MAY BE DIVERTED TO MEET CONSTRUCTION NEEDS, BUT ONLY IF DEVELOPED SOURCES ARE UNAVAILABLE OR INADEQUATE.
- B) DIVERSIONS WILL NOT EXCEED 10% OF THE AVAILABLE FLOW.
- C) ALL CONSTRUCTION DISCHARGE WATER WILL BE COLLECTED AND TREATED USING THE BEST AVAILABLE TECHNOLOGY APPLICABLE TO SITE CONDITIONS.
- D) TREATMENTS TO REMOVE DEBRIS, NUTRIENTS, SEDIMENT, PETROLEUM HYDROCARBONS, METALS AND OTHER POLLUTANTS LIKELY TO BE PRESENT WILL BE PROVIDED.

- 3) **MINIMIZE TIME AND EXTENT OF DISTURBANCE:** EARTHWORk (INCLUDING DRILLING, EXCAVATION, DREDGING, FILLING AND COMPACTING) IN WHICH MECHANIZED EQUIPMENT IS IN STREAM CHANNELS, RIPARIAN AREAS, AND WETLANDS WILL BE COMPLETED AS QUICKLY AS POSSIBLE. MECHANIZED EQUIPMENT WILL BE USED IN STREAMS ONLY WHEN PROJECT SPECIALISTS BELIEVE THAT SUCH ACTIONS ARE THE ONLY REASONABLE ALTERNATIVE FOR IMPLEMENTATION, OR WOULD RESULT IN LESS SEDIMENT IN THE STREAM CHANNEL OR DAMAGE (SHORT- OR LONG-TERM) TO THE OVERALL AQUATIC AND RIPARIAN ECOSYSTEM RELATIVE TO OTHER ALTERNATIVES. TO THE EXTENT FEASIBLE, EQUIPMENT WILL WORK FROM THE TOP OF THE BANK, UNLESS WORK FROM ANOTHER LOCATION WOULD RESULT IN LESS HABITAT DISTURBANCE.

4) CESSATION OF WORK:

- PROJECT OPERATIONS WILL CEASE UNDER THE FOLLOWING CONDITIONS:
 - A) HIGH FLOW CONDITIONS THAT MAY RESULT IN INUNDATION OF THE PROJECT AREA, EXCEPT FOR EFFORTS TO AVOID OR MINIMIZE RESOURCE DAMAGE.
 - B) WHEN ALLOWABLE WATER QUALITY IMPACTS, AS DEFINED BY THE STATE CWA SECTION 401 WATER QUALITY CERTIFICATION, HAVE BEEN EXCEEDED. OR
 - C) WHEN 'INCIDENTAL TAKE' LIMITATIONS HAVE BEEN REACHED OR EXCEEDED.

5) SITE RESTORATION:

- WHEN CONSTRUCTION IS COMPLETE:
 - A) ALL STREAM BANKS, SOILS, AND VEGETATION WILL BE CLEANED UP AND RESTORED AS NECESSARY USING STOCKPILED LARGE WOOD, TOPSOIL, AND NATIVE CHANNEL MATERIAL.
 - B) ALL PROJECT RELATED WASTE WILL BE REMOVED.
 - C) ALL TEMPORARY ACCESS ROADS, CROSSINGS, AND STAGING AREAS WILL BE OBLITERATED. WHEN NECESSARY FOR RE-VEGETATION AND INFILTRATION OF WATER, COMPACTED AREAS OF SOIL WILL BE LOOSEND.
 - D) ALL DISTURBED AREAS WILL BE REHABILITATED IN A MANNER THAT RESULTS IN SIMILAR OR IMPROVED CONDITIONS RELATIVE TO PRE-PROJECT CONDITIONS. THIS WILL BE ACHIEVED THROUGH REDISTRIBUTION OF STOCKPILED MATERIALS, SEEDING, AND/OR PLANTING WITH LOCAL NATIVE SEED MIXES OR PLANTS.

- 6) **RE-VEGETATION:** LONG-TERM SOIL STABILIZATION OF DISTURBED SITES WILL BE ACCOMPLISHED WITH REESTABLISHMENT OF NATIVE VEGETATION USING THE FOLLOWING CRITERIA:

- A) PLANTING AND SEEDING WILL OCCUR PRIOR TO OR AT THE BEGINNING OF THE FIRST GROWING SEASON AFTER CONSTRUCTION.
- B) AN APPROPRIATE MIX OF SPECIES THAT WILL ACHIEVE ESTABLISHMENT, SHADE, AND EROSION CONTROL OBJECTIVES, PREFERABLY FORB, GRASS, SHRUB, OR TREE SPECIES NATIVE TO THE PROJECT AREA OR REGION AND APPROPRIATE TO THE SITE WILL BE USED.
- C) VEGETATION, SUCH AS WILLOW, SEDGE AND RUSH MATS, WILL BE SALVAGED FROM DISTURBED OR ABANDONED FLOOD PLAINS, STREAM CHANNELS, OR WETLANDS.
- D) INVASIVE SPECIES WILL NOT BE USED.
- E) SHORT-TERM STABILIZATION MEASURES MAY INCLUDE THE USE OF NON-NATIVE STERILE SEED MIX (WHEN NATIVE SEEDS ARE NOT AVAILABLE), WEED-FREE CERTIFIED STRAW, JUTE MATTING, AND OTHER SIMILAR TECHNIQUES.
- F) SURFACE FERTILIZER WILL NOT BE APPLIED WITHIN 50 FEET OF ANY STREAM CHANNEL, WATER BODY, OR WETLAND.
- G) FENCING WILL BE INSTALLED AS NECESSARY TO PREVENT ACCESS TO RE-VEGETATED SITES BY LIVESTOCK OR UNAUTHORIZED PERSONS.
- H) RE-ESTABLISHMENT OF VEGETATION IN DISTURBED AREAS WILL ACHIEVE AT LEAST 70% OF PRE-PROJECT CONDITIONS WITHIN 3 YEARS.
- I) INVASIVE PLANTS WILL BE REMOVED OR CONTROLLED UNTIL NATIVE PLANT SPECIES ARE WELL ESTABLISHED (TYPICALLY 3 YEARS POST-CONSTRUCTION).

- 7) **IMPLEMENTATION MONITORING:** PROJECT SPONSOR STAFF OR THEIR DESIGNATED REPRESENTATIVE WILL PROVIDE IMPLEMENTATION MONITORING TO ENSURE COMPLIANCE WITH THE APPLICABLE BIOLOGICAL OPINION, INCLUDING:

- A) GENERAL CONSERVATION MEASURES ARE ADEQUATELY FOLLOWED; AND
- B) EFFECTS TO LISTED SPECIES ARE NOT GREATER THAN PREDICTED AND INCIDENTAL TAKE LIMITATIONS ARE NOT EXCEEDED.

- 8) **CWA SECTION 401 WATER QUALITY CERTIFICATION:** THE PROJECT SPONSOR OR DESIGNATED REPRESENTATIVE WILL COMPLETE AND RECORD WATER QUALITY OBSERVATIONS TO ENSURE THAT IN-WATER WORK IS NOT DEGRADING WATER QUALITY. DURING CONSTRUCTION, CWA SECTION 401 WATER QUALITY CERTIFICATION PROVISIONS PROVIDED BY THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY, WASHINGTON DEPARTMENT OF ECOLOGY, OR IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY WILL BE FOLLOWED. TURBIDITY MONITORING SHALL BE CONDUCTED IN ACCORDANCE WITH THE HIP III TURBIDITY MONITORING PROTOCOL OUTLINED BELOW AND RECORDED ON THE PROJECT COMPLETION FORM.

TURBIDITY MONITORING PROTOCOL

THE PROJECT SPONSOR SHALL COMPLETE AND RECORD THE FOLLOWING WATER QUALITY OBSERVATIONS TO ENSURE THAT ANY INCREASE IN SUSPENDED SEDIMENT DOES NOT EXCEED THE LIMIT FOR HIP III COMPLIANCE. RECORDS SHALL BE REPORTED ON THE HIP III PROJECT COMPLETION FORM (PNF).

- 1) TAKE A BACKGROUND TURBIDITY SAMPLE USING AN APPROPRIATELY AND FREQUENTLY CALIBRATED TURBIDIMETER IN ACCORD WITH MANUFACTURER'S INSTRUCTIONS, OR A VISUAL TURBIDITY OBSERVATION, EVERY 2 HOURS WHILE WORK IS BEING IMPLEMENTED, OR MORE OFTEN IF TURBIDITY DISTURBANCES VARY GREATLY. TO ENSURE THAT THE IN-WATER WORK AREA IS NOT CONTRIBUTING VISIBLE SEDIMENT TO THE WATER COLUMN, THE BACKGROUND SAMPLES OR OBSERVATIONS SHOULD BE TAKEN AT A RELATIVELY UNDISTURBED AREA APPROXIMATELY 100 FEET UPSTREAM FROM THE PROJECT AREA. RECORD THE OBSERVATION, LOCATION, AND TIME BEFORE MONITORING AT THE DOWNSTREAM POINT.

- 2) TAKE A SECOND SAMPLE OR OBSERVATION, IMMEDIATELY AFTER EACH UPSTREAM SAMPLE OR OBSERVATION, APPROXIMATELY 50 FEET DOWNSTREAM FROM THE PROJECT AREA IN STREAMS THAT ARE 30 FEET WIDE OR LESS, 100 FEET DOWNSTREAM FROM THE PROJECT AREA FOR STREAMS BETWEEN 30 AND 100 FEET WIDE, 200 FEET DOWNSTREAM FROM THE PROJECT AREA FOR STREAMS GREATER THAN 100 FEET WIDE, AND 300 FEET FROM THE DISCHARGE POINT OR NON-POINT SOURCE FOR AREAS SUBJECT TO TIDAL OR COASTAL SCOUR. RECORD THE DOWNSTREAM OBSERVATION, LOCATION, AND TIME.

- 3) COMPARE THE UPSTREAM AND DOWNSTREAM OBSERVATIONS/SAMPLES. IF OBSERVED OR MEASURED TURBIDITY DOWNSTREAM IS MORE THAN UPSTREAM OBSERVATION OR MEASUREMENT (> 10%), THE ACTIVITY MUST BE MODIFIED TO REDUCE TURBIDITY. IF VISUAL ESTIMATES ARE USED, AN OBVIOUS DIFFERENCE BETWEEN UPSTREAM AND DOWNSTREAM OBSERVATIONS SHALL BEAR THE ASSUMPTION OF A (> 10%) DIFFERENCE. CONTINUE TO MONITOR EVERY 2 HOURS AS LONG AS IN-STREAM ACTIVITY CONTINUES.

- 4) IF THE EXCEEDANCE CONTINUES AFTER THE SECOND MONITORING INTERVAL (AFTER 4 HOURS), THE ACTIVITY MUST STOP UNTIL THE TURBIDITY LEVEL RETURNS TO BACKGROUND, AND THE EC LEAD MUST BE NOTIFIED WITHIN 48 HOURS. THE EC LEAD SHALL DOCUMENT THE REASONS FOR THE EXCEEDANCE. CORRECTIVE MEASURES TAKEN, NOTIFY THE LOCAL NMFS BRANCH CHIEF AND/OR USFWS FIELD SUPERVISOR AND SEEK RECOMMENDATIONS.

- 5) IF AT ANY TIME, MONITORING, INSPECTIONS, OR OBSERVATIONS/SAMPLES SHOW THAT THE TURBIDITY CONTROLS ARE INEFFECTIVE, IMMEDIATELY MOBILIZE WORK CREWS TO REPAIR, REPLACE, OR REINFORCE CONTROL AS NECESSARY.

HIP III GENERAL CONSERVATION MEASURES

Bonneville Power Administration: Environment, Fish and Wildlife

Designed		
Drawn	C. CHRISTIANSEN	FEB 2015
Checked	X	X
Approved		
Title		

X

X

File Name

HIP III GCM

Drawing No.

2

**(Exhibit-F) Heavy Equipment List and Daily Standby Rate – Entiat 3-D
LWM Revisited Habitat Enhancement Project**

#	Item Description	Daily Standby Rate
1		\$
2		\$
3		\$
4		\$
5		\$
6		\$
7		\$
8		\$
9		\$
10		\$
11		\$
12		\$
13		\$
14		\$
15	Example: 160 Series Excavator	\$ 50.00

EXHIBIT G Entiat 3-D LWM Revised



Confederated Tribes and Bands
of the Yakama Nation

Established by the
Treaty of June 9, 1855

Date, 2017

Business Name Here
Address
Address

RE: Tax Exemption Restoration Project

Attached please find an executed Treaty Fishery Tax Exemption Certificate concerning the Yakama Nation's contracting with Business Name for construction of salmon habitat which it undertakes as co-manager of fisheries resources pursuant to the Treaty with the Yakama of 1855 (12 Stat.951). The certificate is being provided to Business Name to assist it in complying with seller record keeping requirements in WAC 458-20-192(4). By executing the certificate, the Yakama Nation is certifying only that it is a federally recognized Indian tribe and that the contracted salmon habitat restoration work is part of its treaty fishery management program. The Yakama Nation does not waive sovereign immunity from suit, nor by executing the certificate, acknowledge or dispute the jurisdiction of the state of Washington over any governmental activities of the Yakama Nation or the applicability or non-applicability of any statutes or rules of the state of Washington to the exercise of tribal government operations or rights reserved to the Yakama Nation or its members by the Treaty of 1855. Business Name is advised to keep this letter on record with the attached certificate.

Sincerely,

Tribal Chairperson
Yakama Tribal Council
Yakama Nation

Post Office Box 151, Fort Road, Toppenish, WA 98948 (509) 865-5121



Treaty Fishery Tax Exemption Certificate

This document is to be completed by the Tribe, Tribal member, or Intertribal organization whenever claiming an exemption from sales tax for purchases of Treaty Fishery items.

Type of Certificate:

☐ **Blanket Certificate** (*Blanket certificates are valid for as long as the buyer and seller have a recurring business relationship. A "recurring business relationship" means at least one sale transaction within a period of twelve months. RCW 82.08.050 (7)(c).*)

☒ **Single Use Certificate**

Seller's name: _____ Date: _____

Address: _____ City: _____ State: _____ Zip code: _____

The purchaser is claiming exemption for the following Treaty Fishery item(s) or service(s):

Check Applicable Boxes

- ☐ Boat, Boat Trailer
☐ Gear, Net
☐ Boat/Engine Repair
☐ Laboratory Equipment
☐ Smoking Equipment
☐ Operating Supplies

- ☐ Motor
☐ Specialized Clothing
☐ Hatchery Equipment
☐ Processing Equipment
☒ Other (explain): Construction of salmon habitat restoration

Provide one of the following:

☒ Federally recognized Tribe of the purchaser: Confederated Tribes and Bands of The Yakama Nation and
Treaty Indian Fishing Identification Card number: _____ or

☐ Name of Intertribal Organization: _____

Note: This exclusion from tax is limited to those businesses wholly owned and operated by Indians/Tribes who have

Treaty fishing rights and to Intertribal organizations for the protection of Indian Treaty Fisheries. Treaty Fishery means the fishing and shellfish rights preserved in a Tribe's treaty, a federal executive order, or an act of Congress. It includes activities such as harvesting, processing, transporting, or selling, as well as activities such as management and enforcement.

Sellers must document the buyer's name, address, item(s) purchased, and dollar amount of purchase.

Reference: RCW 82.08.0254 and WAC 458-20-192.

I, the undersigned buyer, understand that by completing and signing this certificate I am certifying that I qualify for the tax-exempt purchase(s) indicated above. I understand that I am required to keep records to verify eligibility for the exemption(s) and that I will be required to pay sales or use tax on purchases that do not qualify for the exemption(s) in addition to any applicable interest and penalties. This certificate is given with full knowledge of, and subject to, the legally prescribed penalties for fraud and tax evasion per RCW 82.32.090.

Buyer's name: Yakama Nation Telephone number: (509) 865-5121

Signature: _____ Date: _____

Address: PO Box 151 City: Toppenish State: WA Zip code: 98948

Seller must retain a copy of this certificate.

Do not send to Department of Revenue.

For tax assistance or to request this document in an alternate format, visit <http://dor.wa.gov> or call 1-800-647-7706. Teletype (TTY) users may call (360) 705-6718.



Prime Contractor ☐

Subcontractor ☐

CERTIFIED PAYROLL REPORT

Project Name		County		Project or Contract#	
Project Address		City		State	
Company Name		Phone			
Address		City		State ZIP+4	

For the week ending: Month Day Year	Awarding Agency Name		Phone	
	Address		City State ZIP+4	

Work Classification and Soc Sec# of Employee	Name and Address	Overtime or Regular	Day and Date							Total Hours	Rate of Pay	Gross Amount Earned	Total Hourly "Usual Benefits"	Deductions			NET WAGES	
			Sun	Mon	Tue	Wed	Thu	Fri	Sat					FICA	Withhold- ing Tax	Other		
			Hours Worked Each Day															
1.		OT								0.00		0.00	0.00	\$ 0.00				\$ 0.00
		RG								0.00		0.00						
2.		OT								0.00		0.00	0.00	\$ 0.00				\$ 0.00
		RG								0.00		0.00						
3.		OT								0.00		0.00	0.00	\$ 0.00				\$ 0.00
		RG								0.00		0.00						
4.		OT								0.00		0.00	0.00	\$ 0.00				\$ 0.00
		RG								0.00		0.00						
5.		OT								0.00		0.00	0.00	\$ 0.00				\$ 0.00
		RG								0.00		0.00						
6.		OT								0.00		0.00	0.00	\$ 0.00				\$ 0.00
		RG								0.00		0.00						
7.		OT								0.00		0.00	0.00	\$ 0.00				\$ 0.00
		RG								0.00		0.00						
8.		OT								0.00		0.00	0.00	\$ 0.00				\$ 0.00
		RG								0.00		0.00						
9.		OT								0.00		0.00	0.00	\$ 0.00				\$ 0.00
		RG								0.00		0.00						
10.		OT								0.00		0.00	0.00	\$ 0.00				\$ 0.00
		RG								0.00		0.00						

AFFIRMATION

Today's Date	Printed name of party signing this report	Title
The party signing this report pays or supervises the (Name of contractor or subcontractor) payment of the persons employed by:		
Project Name:	For the week starting:	For the week ending:

"USUAL BENEFITS" DISTRIBUTION (Please report in "per hour" terms)						
Work Classification	Total Hourly "Usual Benefits" (A + B + C + D + E)	(A) Hourly Pension	(B) Hourly Medical	(C) Hourly Vacation	(D) Hourly Holiday	(E) Approved Apprentice Program
1.	\$ 0.00					
2.	\$ 0.00					
3.	\$ 0.00					
4.	\$ 0.00					
5.	\$ 0.00					
6.	\$ 0.00					
7.	\$ 0.00					
8.	\$ 0.00					
9.	\$ 0.00					
10.	\$ 0.00					

The party signing below **AFFIRMS** the following:

- (1) All information contained in this Certified Payroll Report, including any addenda, is correct and complete.
- (2) The wage rates for workers, laborers or mechanics as reported above are not less than the applicable wage rates contained in any wage determination related to the contract; and the classifications as reported above for each worker, laborer or mechanic conform with the actual work performed by such worker, laborer or mechanic.
- (3) The payments of usual benefits as listed above have been or will be made to appropriate approved plans, funds or programs for the benefit of such employees.
- (4) All persons employed on the above-referenced project(s) have been paid the full weekly wages earned, and no rebates have been or will be made either directly or indirectly to or on behalf of the above-named contractor or subcontractor from the weekly wages earned by any person. No deductions, other than those which are legally permissible, have been made by any person either directly or indirectly from the full wages earned.
- (5) Any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with the Washington State Apprenticeship and Training Council.

Falsification of any of the above statements is a violation of RCW 39.12.050 subject to prosecution, sanctions, and penalties.

Print or type name of party signing this report	Title	Signature
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CONSTRUCTION SERVICES AGREEMENT

BETWEEN:

THE CONFEDERATED TRIBES AND BANDS OF THE YAKAMA NATION

on behalf of its _____ program or department
P.O. Box 151 / 401 Fort Road
Toppenish, WA 98948
General Phone: (509) 865-5121
Program Phone:
(HEREAFTER "YAKAMA NATION")

AND

[CONTRACTOR NAME]

Address Line 1
Address Line 1
Phone:
(HEREAFTER "CONTRACTOR")

This Construction Services Agreement ("Agreement") is executed by and between Contractor and Yakama Nation, a federally recognized sovereign Nation pursuant to the Treaty with the Yakamas of 1855 (12 Stat. 951). Contractor and Yakama Nation may be collectively referred to herein as the "Parties," and each may be referred to as a "Party."

1. TERM

The effective term of this Agreement shall be from _____, through _____, absent a valid termination action in accordance with the express terms of this Agreement.

2. PERFORMANCE

Contractor agrees to perform the services set forth in the attached scope of work, Exhibit "A" (collectively, the "Services"), which is incorporated by reference in this Agreement.

3. COMPENSATION

A. *Maximum Compensation.* The **total compensation amount** approved by Yakama Nation for this Agreement is limited to, and ***shall not exceed*** _____ (\$_____); which amount shall include any and all compensation for the Services as described herein and set forth in detail in the budget attached as Exhibit "B". If Exhibit "B" describes separate and specific maximum compensation amounts for services and expenses, then at the end of the term of this Agreement, any remaining balance in the amount allocated for expenses may be used by Yakama Nation, at its sole discretion, to cover fees for authorized services, so long as the total compensation amount set forth above is not exceeded.

B. *Invoicing, Progress Reports and Payment of Compensation.* Yakama Nation shall compensate Contractor according to the billing rate(s) and/or fee schedule(s) set forth in Exhibit "C" in an amount not to exceed that stated above. Contractor shall submit monthly invoices and appropriate supporting documentation to Yakama Nation, including a progress report that provides of brief summary of daily activities associated with services performed and completed by Contractor. Unless the Parties agree in writing to different terms, invoice periods shall begin on the first day of each month and end on the last day of each month. Invoices shall be submitted by Contractor to Yakama Nation's designated staff contact within fifteen (15) days after the end of the month in which the services were provided and/or expenses were incurred. Contractor waives the right to receive full payment on invoices submitted more than sixty (60) days following the end of the proper invoice period. If a question or concern arises regarding an item on an invoice, Yakama Nation shall notify Contractor of the question or concern. Within five (5) business days following such notification, Contractor shall take action to sufficiently explain or correct the item, or Contractor shall be deemed to have waived their right to demand payment for the item.

C. *Availability of Funds.* Notwithstanding any other provisions of this Agreement, Contractor understands and agrees that compensation for services and expenses under the terms of this Agreement shall be contingent upon the availability of funds (a) placed to the credit of Yakama Nation in the Treasury of the United States, (b) appropriated by Congress, or (c) from local funds maintained in the name of Yakama Nation.

D. *Federal & Grant Funds.* Contractor understands and agrees that agreements and contracts funded by federal funds or other grant funds may be subject to certain legal requirements. These may include, but are not limited to, those requirements set forth in the United States Office of Budget Management's Uniform Guidance, 2 C.F.R. Part 200, and/or the terms of an applicable source grant. Contractor agrees to comply with and utilize funds in accordance with all applicable laws, regulations, and guidelines, and with any applicable grant or contract terms, and further understands and agrees that the use of such funds may be subject to audit by the grantor agency. Contractor shall reimburse Yakama Nation for any costs of Contractor that are disallowed by a grantor.

4. PROPERTY DEVELOPED BY CONTRACTOR

Contractor agrees that it will retain no interest in the information, data, proposals, papers, copyrights, patents, or any other material or property developed, discovered, invented, and/or accumulated by Contractor in connection with the performance of this Agreement. Subject to applicable law, Contractor shall turn over such information, data, proposals, papers, copyrights, patents, discoveries, inventions, and other material or property to Yakama Nation upon the expiration or termination of this Agreement or upon request.

5. PUBLICATION OF INFORMATION

The dissemination or publication of documents, information material or other property developed or generated by Contractor during the course of this Agreement shall require the written approval of Yakama Nation.

6. RECORDS

A. *Access.* Subject to applicable law, Yakama Nation will provide Contractor with reasonable access to its personnel, facilities, and records necessary to the performance of this Agreement.

B. *Maintenance & Retention of Records; Financial Management for Accounting and Audits.* Contractor shall maintain and retain auditable records during the term of this Agreement and for a period of at least three (3) years following the expiration or termination of this Agreement. Contractor shall maintain its records to comply with the Audit Act of 1984, P.L. 98-502 (31 U.S.C. § 7501 et. seq., as amended) and the Office of Management and Budget's Uniform Guidance requirements set forth at, 2 C.F.R. part 200, Subpart F, as amended. Contractor shall adhere to a systematic accounting method that assures timely and appropriate resolution of audit findings and recommendations in compliance with the Uniform Guidance. Subject to applicable law, Contractor agrees that Yakama Nation, the grantor agency (if applicable), the Comptroller General of the United States, or any of their duly authorized representatives, shall have timely access to Contractor's records which are pertinent to the subject matter of this Agreement and the performance of obligations contained herein, for the purpose of conducting an audit and/or examination, and/or creating excerpts and/or transcriptions.

7. INDEPENDENT CONTRACTORS

Contractor shall employ, at its own expense, all personnel and equipment reasonably necessary to perform the Services called for by this Agreement. Such personnel shall not be considered Yakama Nation employees. Contractor shall be responsible to ensure that all personnel engaged in performing Services are fully qualified to undertake the work in accordance with applicable tribal, federal, state, and local laws. Contractor shall at all times in performance of this Agreement operate as, and have the status of, an independent contractor, and will not be an agent or employee of Yakama Nation; nor will Contractor or its personnel be entitled to any employee benefits provided by Yakama Nation. The Parties are not engaged in a joint venture or partnership. Neither party can represent or bind the other. Unless otherwise expressly agreed, Contractor shall be solely responsible to secure and pay for any necessary or appropriate permits, fees, licenses, inspections, or other prerequisites necessary for proper performance of the Services called for by this Agreement.

8. SUBCONTRACTING

A. Contractor shall not be permitted to hire a subcontractor to perform the Services called for by this Agreement without express prior written consent. Any unauthorized attempt by Contractor to subcontract for such Services shall be null and void, and Contractor shall be responsible for all expenses, fees, and costs associated with any such unauthorized subcontract.

B. An award of this Agreement based on a bid or proposal naming specific subcontractors and identifying the portions of the work to be performed by the subcontractors shall constitute prior written consent to the hiring of the named subcontractor(s). Subcontractor selection and subcontractor employment shall be subject to applicable TERO and Indian Preference

requirements described above. Contractor shall be responsible to ensure their subcontractors are in compliance with Yakama Nation TERO and Indian Preference requirements.

9. ASSIGNMENT OF INTEREST

Contractor shall not assign its interest in this Agreement, or any part thereof, including its right to receive payment for services performed, to another party. Any attempt by Contractor to assign any obligations, rights, or fees under this Agreement will be null and void, and Contractor shall be responsible for all expenses, fees, and or costs associated with any unauthorized assignment.

10. INDEMNIFICATION

Contractor shall, at its sole expense, hold harmless, indemnify, and defend Yakama Nation and its officers, agents, employees, and assigns against any and all losses, costs, damages, expenses or other liabilities whatsoever, including reasonable attorney's fees and expenses, that arise out of or are connected with, directly or indirectly, Contractor's actions or omissions, or Contractor's agents' acts or omissions related to this Agreement, including, but not limited to, accidents or injuries to persons or property.

11. SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK

A. Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to:

- (1) Conditions bearing upon transportation, disposal, handling, and storage of materials;
- (2) The availability of labor, water, electric power, and roads;
- (3) Uncertainties of weather, river stages, tides, or similar physical conditions at the site;
- (4) The conformation and conditions of the ground; and
- (5) The character of equipment and facilities needed preliminary to and during work performance.

Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by Yakama Nation and information available to the public from local government agencies, as well as from the drawings and specifications made a part of this Agreement. Any failure of Contractor to take the actions described and acknowledged in this paragraph will not relieve Contractor from responsibility for properly estimating the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to Yakama Nation.

B. Yakama Nation assumes no responsibility for any conclusions or interpretations made by Contractor based on the information made available by Yakama Nation. Nor does Yakama Nation assume responsibility for any understanding reached or representation made concerning

conditions that can affect the work by any of its officers or agents before the execution of this Agreement, unless that understanding or representation is expressly stated in this Agreement.

12. PHYSICAL DATA

Data and information furnished or referred to below or in the attached exhibits is for Contractor's information. Yakama Nation shall not be responsible for any interpretation of or conclusion drawn from the data or information made available to Contractor. Further, Yakama Nation specifically does not warrant construction methodology that may be included in such documents.

(a) The indications of physical conditions on any drawings or specifications that have been provided are the result of general inspection of the site. [if applicable, insert a description of investigational methods used, such as surveys, auger borings, core borings, test pits, probing, test tunnels, etc.].

(b) [Write "n/a" or insert other pertinent information].

13. SCHEDULE FOR CONSTRUCTION

A. *Construction Schedule.* Unless the construction schedule is specifically addressed elsewhere in this Agreement, Contractor shall, within five (5) days after the work commences on the Agreement or another period of time determined by Yakama Nation, prepare and submit to Yakama Nation three (3) copies of a practicable schedule showing the order in which Contractor proposes to perform the work, and the dates on which Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion each week during the Agreement period. If Contractor fails to submit a schedule within the time prescribed, Yakama Nation may withhold approval of progress payments until Contractor submits the required schedule. Should Contractor fall behind its schedule, a revised schedule shall be forwarded with the next Contractor's request for progress payment. Additional schedules shall be furnished to Yakama Nation as soon as practicable if so requested.

B. *Rate of Progress.* With any and each partial payment request, Contractor shall submit a copy of the last submitted schedule annotated to indicate actual progress made to date. If at any time, in the opinion of Yakama Nation, Contractor has fallen behind the schedule to an extent which would jeopardize timely completion, Contractor shall take the steps necessary to improve its progress, including those that may be required, to enable timely completion without additional cost to Yakama Nation. Such steps may include, but are not limited to, increasing the number of shifts, the amount of overtime, days of work per week, and/or the amount of construction plant being utilized. Contractor shall submit any supplementary schedules Yakama Nation deems necessary to demonstrate how the rate of progress necessary for timely completion will be regained.

C. *Breach.* Failure of Contractor to comply with the requirements of this section shall be considered a material breach and grounds for a determination by Yakama Nation that Contractor

is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the Agreement. Upon making this determination, Yakama Nation may terminate Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this Agreement.

14. DIFFERING SITE CONDITIONS

Contractor shall promptly, and before the conditions are disturbed, give a written notice to Yakama Nation of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this Agreement, or (2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent to the type of work provided for in the Agreement. Unless specifically identified in the Agreement, discoveries of archaeological or historical remains such as graves, fossils, skeletal materials and artifacts protected by the Archaeological Resources Protection Act (36 CFR 1214) are considered type 2 conditions.

15. LAYOUT OF WORK

Contractor shall lay out its work from Yakama Nation established base lines and bench marks indicated on the drawings or any other manner furnished by Yakama Nation. Contractor shall be responsible for all measurements in connection with the layout. Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work. Contractor shall be responsible for the execution of the work to the lines and grades that may be established or indicated by Yakama Nation. Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by Yakama Nation until authorized to remove them. If such marks are destroyed by Contractor or through its negligence before their removal is authorized, Yakama Nation may replace them and deduct the expense of the replacement from any amounts due or to become due to Contractor.

16. SPECIFICATIONS, DRAWINGS AND MATERIAL SUBMITTALS

A. Omissions from any drawings and specifications that have been provided, or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve Contractor from performing such omitted or misdescribed details of the work. Work shall be performed as if fully and correctly set forth and described in the drawings and specifications.

B. Contractor shall check all drawings furnished by Yakama Nation prior to starting work and shall promptly notify Yakama Nation of any discrepancies. Figures marked on drawings shall in general be followed in preference to scale measurements. Large-scale drawings shall in general govern small-scale drawings. Contractor shall compare all drawings and verify the figures before laying out the work, and will be responsible for any errors which might have been avoided thereby.

17. MATERIAL & WORKMANSHIP

A. *Materials.* All equipment, material, and articles incorporated into the work covered by this Agreement shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this Agreement. Use of recycled materials for the manufacture of such products is encouraged. Equipment, material, or articles specified by trade name, make, or catalog number, shall be provided. Equivalent items are not acceptable unless specifically authorized in the specification.

B. *Professional Work.* All work under this Agreement shall be performed in a professional, thorough, skillful, and safe manner, and shall be consistent with relevant professional standards. Yakama Nation may require, in writing, that Contractor remove from the work any employee Yakama Nation deems incompetent, unsafe, or otherwise objectionable.

C. *Legally Compliant Work.* In performing its obligations under this Agreement, Contractor shall comply with all applicable tribal, federal, state and local laws, regulations, guidelines and policies in performance of services under this Agreement. Such laws may include, but are not limited to, the Davis Bacon Act and related federal labor law requirements associated with federally funded construction projects. Contractor represents that it has reviewed, and is familiar with, all laws relevant to the performance of services under this Agreement.

18. SUPERINTENDENCE BY THE CONTRACTOR

At all times during performance of this Agreement, and until the work is completed and accepted, Contractor shall directly superintend the work or assign and have on the worksite a competent superintendent who is satisfactory to Yakama Nation and has authority to act for Contractor.

19. PERMITS AND RESPONSIBILITIES

Unless otherwise provided in this Agreement, Contractor shall, without additional expense to Yakama Nation, be responsible for obtaining any and all necessary licenses and permits, and for complying with any tribal, federal, state, and municipal laws, codes, and regulations applicable to the performance of the work. Contractor shall also be responsible for all damages to persons or property that occur as a result of Contractor's fault or negligence, and shall take proper safety and health precautions to protect the work, the workers, the public, and the property of Yakama Nation and others. Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under this Agreement.

20. OTHER CONTRACTS

Yakama Nation may undertake or award other contracts for additional work, or may utilize in-house construction forces, at or near the site of the work. Contractor shall fully cooperate with such other contractors and Yakama Nation employees, and carefully adapt scheduling and performance of the work under this Agreement to accommodate simultaneous performance,

heeding any direction that may be provided by Yakama Nation. Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractors or by Yakama Nation employees.

21. USE AND POSSESSION PRIOR TO COMPLETION

Yakama Nation shall have the right to take possession of or use any completed or partially completed part of the work call for by this Agreement. Before taking possession of or using any work, Yakama Nation shall furnish Contractor a list of items of work remaining to be performed or corrected on those portions of the work that Yakama Nation intends to take possession of or use. However, failure of Yakama Nation to list any item of work shall not relieve Contractor of responsibility for complying with the terms of this Agreement. Yakama Nation's possession or use shall not be deemed an acceptance of any work under this Agreement.

22. CLEANING UP

A. Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. Before completing the work, Contractor shall remove from the work and premises any rubbish, tools, scaffolding, equipment, and materials that are not the property of the owner of the underlying real property. Upon completing the work, Contractor shall leave the work area in a clean, neat, and orderly condition satisfactory to Yakama Nation.

B. Unless specifically set forth in the Agreement, Contractor shall not burn any material on site, on the right-of-way or on the access roads to the sites. All material and debris shall be hauled to an appropriate disposal site.

23. ROAD MAINTENANCE

Contractor shall maintain all roads used by it, and upon completion of the job shall leave them in as good a condition as when first used. A road-grading machine (not a bulldozer) shall be used for maintenance and final grading. In no event shall Contractor interfere with the property owner's use of roads existing prior to Contractor's entry.

24. STOP WORK ORDER

A. Yakama Nation may order Contractor to suspend all or any part of the work call for by this Agreement for the period of time that Yakama Nation determines appropriate for the convenience of Yakama Nation.

B. Contractor shall immediately comply with Yakama Nation's order and take all reasonable steps to minimize the incurring of costs allocable to the work covered by the order.

25. PROTECTION OF EXISTING VEGETATION, STRUCTURES, AND IMPROVEMENTS

A. Contractor shall preserve and protect all structures, equipment, utilities, other improvements, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this Agreement. Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during performance of this Agreement, or by the careless operation of equipment, or by workers, Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by Yakama Nation's representative.

B. If Contractor fails or refuses to repair the damage promptly, Yakama Nation may have the necessary work performed and charge the cost to Contractor.

26. INSURANCE

A. The following minimum kinds and amounts of insurance are applicable in the performance of the work under this Agreement. Contractor shall (subject to applicable law) maintain such insurance, naming Yakama Nation as an additional insured:

(1) *Workers' compensation and employer's liability.* Contractor is required to comply with applicable Federal and State workers compensation and occupational disease statutes. Employer's liability coverage of at least \$100,000 shall be required.

(2) *General liability.* Contractor shall provide general liability insurance of at least \$1,000,000 per occurrence. Any policy aggregate limits which apply, shall be modified to apply to each location and project. The policy shall name Yakama Nation, its officials, officers, employees and agents, as insureds with respect to Contractor's performance of services.

(3) *Automobile liability.* Contractor shall provide automobile liability insurance covering the operation of all automobiles used in the performance of this Agreement. Policies shall provide limits of at least \$1,000,000 per accident and include coverage for all owned, non-owned and hired automobiles. Contractor's policy shall be primary to any insurance of Yakama Nation.

(4) *Environmental impairment liability.* Contractor shall provide environmental impairment liability insurance of at least \$1,000,000 per occurrence. Such insurance will include coverage for the clean up, removal, storage, disposal, transportation and/or use of pollutants. The insurance policy shall name Yakama Nation, its officials, officers, employees and agents as insured. Contractor's policy shall be primary to any insurance of Yakama Nation.

B. Contractor may, with the approval of Yakama Nation, maintain a self-insurance program; provided that, with respect to workers' compensation, Contractor is qualified pursuant to statutory authority.

C. Before commencing work under this Agreement, Contractor shall provide to Yakama Nation certificates of insurance from the insurance company stating the insurance required has been obtained and is in force. The certificate(s) shall identify Contractor and the contract(s) for which coverage is provided, and shall contain a statement that the insurer will give notice of cancellation or any material change to Yakama Nation at least thirty (30) days before the effective date. In addition, Contractor shall provide certificates as the policies are renewed throughout the period of this Agreement. If Contractor's insurance does not cover the subcontractors involved in the work, Contractor shall provide certificates stating that the required insurance has been obtained by the subcontractors.

27. INSPECTION - SERVICES AND CONSTRUCTION

A. Yakama Nation may inspect the work called for by this Agreement at any time and place. Where possible and practicable, Yakama Nation will perform inspections in a manner that will not unduly delay the work.

B. If any of the services do not conform with the requirements of this Agreement, or with applicable laws, regulations or governmental policies, Yakama Nation may require the Contractor to perform the services again in conformity at no cost to Yakama Nation. When the defects in services cannot be corrected by re-performance, Yakama Nation may deduct from the Agreement payments an amount which reflects the reduced value of the services performed.

C. Neither inspection, lack of inspection, acceptance, nor payment shall relieve the Contractor of any of its obligations under this Agreement. Contractor's duty to re-perform non-conforming work is intended to survive the expiration of this Agreement's term, and shall apply even where non-conformance is discovered following its expiration.

D. If Contractor does not promptly replace or correct rejected work, Yakama Nation may (without limiting any other legal or equitable remedies available to it) (1) by contract or otherwise, replace or correct the work and charge the cost to Contractor, and may (2) terminate this Agreement for default.

E. Unless otherwise specified in the Agreement, acceptance by Yakama Nation will be in writing and shall be made as promptly as practicable after completion and inspection of all work called by this Agreement or that portion of the work Yakama Nation determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, non-compliance with applicable law, or Yakama Nation's rights under any warranty or guarantee.

28. WARRANTY - CONSTRUCTION

A. In addition to any other warranties in this Agreement, Contractor warrants, except as provided in paragraph (H)(1) of this clause, that work performed by it and/or its subcontractors under this Agreement conforms to applicable law and to the contract requirements, and is free of any defect in equipment, material, or design furnished, or workmanship performed by Contractor or any subcontractor or supplier at any tier.

B. This warranty shall continue for a period of three (3) years from the date of final acceptance of the work. If Yakama Nation takes possession of any part of the work before final acceptance, this warranty shall continue for a period of three (3) years from the date Yakama Nation takes possession.

C. Contractor shall remedy at Contractor's expense any failure to conform, or any defect. In addition, Contractor shall remedy at Contractor's expense any damage to Yakama Nation-owned or controlled real or personal property, when that damage is the result of:

- (1) Contractor's failure to conform to applicable law or contract requirements; or
- (2) Any defect of equipment, material, workmanship, or design furnished by Contractor.

D. Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. Contractor's warranty with respect to work repaired or replaced will run for three (3) years from the date of repair or replacement.

E. Yakama Nation shall notify Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

F. If Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, Yakama Nation shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at Contractor's expense.

G. With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this Agreement, Contractor shall:

- (1) Obtain all warranties that would be given in normal commercial practice;
- (2) Require all warranties to be executed, in writing, for the benefit of Yakama Nation, if directed by Yakama Nation; and
- (3) Enforce all warranties for the benefit of Yakama Nation, if directed by Yakama Nation.

H. Unless a defect is caused by the negligence of Contractor or subcontractor or supplier at any tier, Contractor shall not be liable for the repair of any defects of material or design

furnished by Yakama Nation nor for the repair of any damage that results from any defect in Yakama Nation-furnished material or design.

- (1) This warranty shall not limit Yakama Nation's rights under the Inspection and Acceptance clause of this Agreement with respect to latent defects, gross mistakes, or fraud.

29. TAXES

The compensation for Services performed under this Agreement shall include all applicable Tribal, Federal, State, and local taxes and duties. Depending on the location and nature of the Services provided, when applicable, Yakama Nation shall provide Contractor a single use Tax Exemption Certificate.

30. TERMINATION

A. *Notice.* Yakama Nation may terminate all or any part of this Agreement, at any time, with or without cause, upon written notice to Contractor. Upon receipt of the termination notice, Contractor shall promptly stop work on the terminated portion of the Agreement. Contractor obligations shall be consistent with those set forth above in the Stop Work Order clause of this Agreement.

B. *Breach.* In the event of termination for breach or violation of the terms and provisions of this Agreement, Yakama Nation, to the extent permitted by applicable law, shall be entitled to enforce its rights under this Agreement, and recover its court costs and reasonable attorney's fees, as determined by the court. The foregoing shall not in any way limit or restrict any right or remedy at law or equity which would otherwise be available to Yakama Nation, including, but not limited to, the right to contract with other qualified persons to complete the performance of services identified in or called for by this Agreement.

C. *Termination By Tribal Council Executive Committee.* Notwithstanding anything herein to the contrary, Contractor understands and agrees that the Yakama Nation Tribal Council Executive Committee may immediately terminate this Agreement by written notice.

D. *Effect of Complete Termination.* Upon the complete termination of this Agreement, the liability of the Parties for the further performance of this Agreement shall cease, but the Parties shall not be relieved of the duty to perform their obligations up to the date of termination.

E. *Effect of Partial Termination.* The compensation amount shall be revised as a result of a partial termination under this section. On fixed-price contracts the revised amount shall not exceed the pre-termination contract price plus reasonable termination expenses. On cost-reimbursement contracts the revised amount shall not exceed the total of allowable and allocable costs of performance prior to termination plus termination expenses plus an adjustment of the fee on the terminated portion of the Agreement. No payment will be made for anticipated profits on the terminated portion, or consequential damages, of this Agreement. Contractor shall submit a settlement proposal within thirty (30) days of the notice of termination.

31. FORCE MAJEURE

This Agreement is subject to force majeure, and is contingent on strikes, accidents, acts of God, weather conditions, fire regulations, the actions of any government, including funding and/or budgetary decisions, and other circumstances which are beyond the control of the parties. If the terms and conditions of this Agreement are unable to be performed as a result of any cause of force majeure, then this Agreement shall be void, without penalty to any party for such non-performance.

32. NOTICE

Notice to Contractor shall consist of a letter, delivered postage prepaid, addressed to:

[Contractor's Legal Agent's Name]
[Contractor Name]
[Address No. 1]
[Address No. 2]

Notice to Yakama Nation shall consist of a letter, delivered postage prepaid, addressed to:

JoDe L. Goudy, Chairman
Yakama Tribal Council
PO Box 151 / 401 Fort Road
Toppenish, WA 98948

With courtesy copies to Yakama Nation's Designated Representative detailed below, and the Lead Attorney of Yakama Nation's Office of Legal Counsel at P.O. Box 150, Toppenish, WA 98948.

Either party may from time to time change its designated address for notice, or designated contact(s) for notice, by giving the other party reasonable notice of such change.

33. SUPERVISION OF CONTRACTOR/DESIGNATED REPRESENTATIVE

Contractor shall act under the supervision of the following Designated Representative of Yakama Nation in performing services under this Agreement:

Name:	Clemons, Christopher Yakama Nation Habitat Fisheries Biologist II
Address:	1885 S. Wenatchee Ave., Wenatchee, WA. 98801
Phone:	(509)-881-5746
Email:	clec@yakamafish-nsn.gov

The Designated Representative is designated for project management purposes only, and does not have authority to authorize any changes, modifications or addendums to this Agreement, nor does the Designated Representative have signing authority on behalf of Yakama Nation.

Yakama Nation shall provide Contractor reasonable notice if there is a change in the Designated Representative.

34. COMPLIANCE PROVISIONS

A. *Discrimination.* Contractor shall not discriminate against any employee or applicant for employment because of handicap, race, age, religion, or sex. Contractor will take affirmative steps to ensure that applicants are employed, and that employees are treated fairly during employment, without regard to their handicap, race, age, religion, or sex.

B. *Indian Preference.* Notwithstanding the above, Contractor shall, for all work performed on or near the Yakama Reservation pursuant to this Agreement, and consistent with Section 703(i) of the 1964 Civil Rights Act, give preference in employment (including any authorized subcontracts) to equally qualified Indians regardless of their handicap, age, religion or sex. To the extent feasible and consistent with the efficient performance of this Agreement, Contractor shall provide employment and training opportunities to Indians that are not fully qualified to perform under this Agreement, regardless of their handicap, age, religion or sex. Further, Contractor shall comply with any and all applicable Indian preference laws and requirements established by Yakama Nation, including those set forth in the Yakama Nation Tribal Employment Rights Ordinance (“TERO”), as amended (Yakama Revised Law & Order Codes, Title 71).

35. JURISDICTION & VENUE

The validity, interpretation, and performance of this Agreement, and any and all written instruments, agreements, specifications and other writings of whatever nature which relate to or are part of this Agreement, shall be governed by and construed in accordance with the laws of Yakama Nation. Both Parties understand and agree that this Agreement establishes a consensual business relationship between the Parties for purposes of Yakama Tribal Court jurisdiction. Venue of any court action filed to enforce or interpret the provisions of this Agreement shall be exclusively in Yakama Nation Tribal Court(s). In the event of litigation to enforce the provisions of this Agreement, the prevailing party shall be entitled to reasonable legal fees and expenses in addition to any other relief allowed.

36. DISPUTE RESOLUTION

A. *Meet and Confer Meeting.* In the event that a dispute arises between the Parties over the performance, interpretation, or enforcement of this Agreement, the Parties in the first instance shall attempt in good faith to resolve the dispute informally by mutual Agreement in a face-to-face meet and confer meeting. All offers, promises, conduct and statements, whether oral or written, made in the course of the meet and confer meeting by any of the Parties, their agents, employees, experts and attorneys shall be considered confidential, privileged and inadmissible for any purpose, including impeachment, in any other proceeding involving the Parties, provided that evidence that is otherwise admissible or discoverable shall not be rendered inadmissible or non-discoverable as a result of its use in the meet and confer meeting.

B. *By Tribal Council Chairman.* If the Parties are unable to resolve the dispute during the meet and confer meeting, the aggrieved party shall submit the matter, in writing, to the Chairman of the Yakama Nation Tribal Council. A copy of the aggrieved party's submission shall be served upon the other party in accordance with the notice provisions of this Agreement. The Chairman shall promptly convene a meeting of the Parties, which shall be held in Toppenish, Washington, to resolve the matter. The decision of the Chairman shall be final and binding upon both Parties. Provided, however, that nothing shall operate to limit or prohibit Yakama Nation from otherwise enforcing its rights under this Agreement. In the event that the Chairman has a conflict of interest that would prevent her/him from hearing the dispute, s/he may, at her/his sole discretion, either decline to hear the dispute, or appoint an alternate Tribal Leader or Elder to serve in his/her place.

C. Nothing in this section shall operate to prohibit Yakama Nation from enforcing its rights under this Agreement in a court of appropriate jurisdiction. Yakama Nation may at its own election seek recovery of monetary damages from Contractor's breach of any terms in this Agreement.

37. GENERAL TERMS

A. *Headings.* Headings are provided for convenience and do not affect the meaning of the provisions to which they are affixed.

B. *Severability.* If any term of this Agreement is to any extent illegal, otherwise invalid, or incapable of being enforced, such term shall be excluded to the extent of such invalidity or unenforceability; all other terms hereof shall remain in full force and effect; and, to the extent permitted and possible, the invalid or unenforceable term shall be deemed replaced by a term that is valid and enforceable and that comes closest to expressing the intention of such invalid or unenforceable term.

C. *Changes to the Agreement.* No change, amendment, modification, or addendum to this Agreement shall be valid unless it is in writing and executed by authorized representatives of both Parties.

D. *Additional Services.* Except as otherwise provided in this Agreement, no payment for additional services shall be made unless such services and the price therefore have been requested and authorized in advance in writing by Yakama Nation.

E. *Survival.* The requirements of Section 4 (Property Developed by Contractor), Section 6 (Maintenance & Retention of Records; Financial Management for Accounting & Audits), Section 10 (Indemnification), Section 28 (Warranty-Construction) and Section 36 (Dispute Resolution) of this Agreement shall survive termination of this Agreement.

F. *No General Waiver.* Any waiver or failure of the Parties to enforce or insist upon any term in this Agreement does not constitute a general waiver or relinquishment of that term.

G. *No Construction Against Drafter.* Each party has participated in negotiating and drafting this Agreement. If any ambiguity or question of intent or interpretation arises, this Agreement is

to be construed as if the Parties had drafted it jointly, as opposed to being construed against one party because it was responsible for drafting one or more provisions.

H. *Execution.* This Agreement may be executed in counterparts, electronically, or by facsimile.

38. ENTIRE AGREEMENT

This Agreement incorporates all the agreements, covenants and understandings between the Parties. No agreement or understanding, verbal or otherwise, of the Parties regarding their responsibilities under this Agreement shall be valid or enforceable unless embodied in this Agreement.

The following Exhibits are incorporated by reference into this Agreement:

- Exhibit "A" – Project Overview & Scope of Work
- Exhibit "B" – Project Budget/Bid Sheet
- Exhibit "C" – Payment Plan/Schedule
- Exhibit "D" – Engineer's Stamped Final Plans
- Exhibit "E" – HIP III General Conservation Measures
- Exhibit "F" – Heavy Equipment Daily Standby Rate
- Exhibit "G" – Tax Forms & Certified Payroll Forms
- Exhibit "H" – Pre-Bid Project Tour Notes (After April 11th, 2017)

39. SOVEREIGN IMMUNITY

Notwithstanding any other terms or provisions of this Agreement, Contractor understands and agrees that Yakama Nation, by entering into this Agreement, does not waive its sovereign immunity from suit, nor does it waive, alter, or otherwise diminish its rights, privileges, remedies or services guaranteed by the Treaty with the Yakamas of 1855 (12 Stat. 951).

40. SPECIAL PROVISIONS

In addition to the forgoing terms and conditions, the following requirements are agreed to and shall apply to this Agreement:

A. [Mark as n/a, or insert special provision text.]

IN WITNESS WHEREOF, we set our hands and seals:

[Signature page(s) to follow.]

CONFEDERATED TRIBES & BANDS OF THE YAKAMA NATION:

By:_____

Date:_____

Name: JoDe Goudy (or authorized designee)

Title: Yakama Nation Tribal Council Chairman

CONTRACTOR NAME:

EIN #

By:_____

Date:_____

Name:

Title:

NOTICE TO POTENTIAL CONSULTANTS & CONTRACTORS

**COMPLIANCE REQUIREMENT:
WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES
RIGHT OF ENTRY TERMS & CONDITIONS
Entiat 3-D Large Woody Material Revisited Project**

All prospective consultants and contractors intending to bid on this project are hereby notified that any associated contract(s) awarded to them shall be subject to the requirements, terms and conditions of any Right of Entry agreement or Aquatic License ("ROE") issued to the Yakama Nation for this project by the Washington State Department of Natural Resources ("WDNR").

These ROE requirements may include, but are not limited to:

- Indemnification of WDNR
- Insurance Coverage Types & Amounts (with WDNR as additional insured)
- Performance Bonds