



Lower Columbia Fisheries Enhancement Group

12404 SE Evergreen Highway
Vancouver, WA 98683

lcfeg@info.org

July 1, 2011

To All Interested Contractors:

The Lower Columbia Fish Enhancement Group (LCFEG) is seeking bids from qualified contractors to construct a salmon recovery project on the North Fork Lewis River. This request for contractor bids is being e-mailed to a list of pre-qualified contractors maintained by the LCFEG and is also being publicly advertised for a period of 1 week beginning July 1st 2011 via direct solicitation and posting on the SWWA Contractors Association website. The successful contractor will be selected based on low bid, general qualifications as well as experience constructing similar river restoration projects. A statement of qualifications and experience must accompany the bid.

Bid documents are available for review on our website at www.lcfeg.org & www.swca.org

If you are interested in bidding on this project you must notify the LCFEG by email no later than 4:30 p.m. Friday July 8th, 2011. Any letters or emails of interest received after this time will not be considered.

A mandatory site visit is scheduled for Wednesday July 13th at 9 a.m. at which time we will walk through the project site and answer questions. Copies of the site plans will be given to contractors at this meeting.

The bid submittal deadline is 5 p.m. Tuesday July 19th, 2011. No additional bids will be accepted after that time.

Notification of the apparent successful bidder will occur on Friday July 22nd.

Please note that estimated quantities are listed on the design plans, but it is the responsibility of each contractor to estimate their own quantities and not rely on the quantities provided. All bids will be final and no cost increases will be granted. The contractors bidding must be licensed in the state of Washington, are required to show proof of insurance and must abide by all relevant local, State and Federal guidelines. This is a prevailing wage job funded by RCO. The low bid contractor will be required to sign a contract agreeing to follow the design plans and other contract provisions unless a change is approved in writing by all parties.

All work must be completed in the 2011 construction window August 1 through September 30th 2011.

**CONSTRUCTION CONTRACT
BETWEEN
LOWER COLUMBIA FISH ENHANCEMENT GROUP
AND
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX**

**NF LEWIS RM 13.5 OFF-CHANNEL HABITAT ENHANCEMENT
RCO PROJECT #10-1498**

PROJECT DESCRIPTION:

The NF Lewis River RM 13.5 Habitat Enhancement Project will create a 2,900 foot long side-channel within the floodplain of the NF Lewis River and 500 feet of new tributary habitat entering the side-channel. Side-channel and tributary construction includes the excavation of 21,000 cubic yards of material, channel shaping, and installation of large wood material for habitat enhancement. All excavated material must be hauled from the project site and disposed outside the 100-year floodplain. At the inlet of the side channel a rock and boulder entrance structure will be constructed. All work will be done in isolation from flowing water using temporary coffer dams to isolate construction areas.

THIS AGREEMENT, made and entered into between the LOWER COLUMBIA RFEG, 12404 SE Evergreen Highway Vancouver, WA 98683 hereinafter referred to as the Owner, and *****, WA, hereinafter called the Contractor. The Contractor is awarded this project based on a Lump Sum low bid of \$***** to complete the project in its entirety.

The Owners representative will be ***** and the Contractors representative will be *****

In consideration of the terms and conditions listed below both parties agree as follows and no other written or oral agreement shall be considered unless changed in writing and agreed to by both parties.

1. The project is to create a side-channel, install wood structures and to re-configure a small tributary. The Contractor shall do all work and provide all tools, materials and equipment necessary to complete this project per the engineered drawings and specifications except as provided by Owner. The Owner will provide construction design plans and engineering, construction management oversight and permits. This includes staking construction and excavation limits, wood structure locations, inspections and final approval. Owner will provide all large wood, labor & tools necessary to fasten wood structures.

The project may begin August 1st 2011 and must be completed no later than September 30th 2011 and must follow all permit conditions. Payment for completed project work shall be made as defined in the Standard Contract Specifications, attached herein. Completion of the project will be determined by of the Owner's Project Manager, Project Engineer and Executive

Director. The lump sum bid is based on the criteria stipulated in the project notice dated 7-1-2011, and the design plans provided at the time of the bid. All quantities were to be confirmed by the contractor and no cost increases above the bid amount will be allowed.

2. The Contractor shall provide and bear the expense of all equipment and labor based on the State of Washington's prevailing wage.
3. The project will be completed in a timely manner not to exceed the permitted in-stream work period August 1 thru September 30th 2011. Materials and equipment staging may start prior to August 1 2011 as long as work does not require a permit.
4. All work will be subject to approval by the Owner's Project Manager based on the approved engineered plans provided to the contractor. Any changes during construction **MUST** be approved **in writing** by the Project Manager or the project engineer. The Contractor will not be paid for any work or materials not on the engineered plans unless they provide a written agreement signed by the Client's Project Manager, Project Engineer or Executive Director.
5. The Contractor must supply the appropriate equipment to accomplish the job in a timely manner. The equipment must meet permit specifications including but not limited to being in good condition, clean and oil free. Power washing or steam cleaning equipment is strongly suggested prior to mobilizing to the project site. The equipment will be inspected prior to the project start and periodically throughout the duration of the project by the Project Manager. All oil leaks will be corrected at the request of the Project Manager prior to resumption of work.
6. Fish removal will be provided by Owner. Contractor must provide 5 days notice before work begins to allow removal of fish and other organisms from the work area.
7. All areas of construction must be put back to original or better condition by the Contractor with erosion control measures such as hay mulching, fertilizing, grass seeding and storm water runoff controls and other treatments as determined by the engineered plans and Project Manager.
8. The Contractor agrees to the full performance and complete construction of the project per the engineered plans.
9. The Contractor shall comply with the permit measures, regulations and laws relative to doing stream restoration as governed by local, state and federal agencies.
10. All permitting will be completed by the Owner and no work will be done until all required permits have been issued. The Owner will give copies of the permits to the Contractor who must have copies on-site at all times and make them available on site for inspection by regulatory agency representatives.
11. If due to the Contractor's error, or failure to follow the design plans as determined by the Owner's representative or the project engineer, the Contractor will make such corrections at no cost to the Owner.
12. The Owner will have the right to cancel the services of the Contractor by giving written notice to the Contractor and stopping all work without cause. The Contractor will receive payment for work only to the date of such written notice. Upon payment the Owner will be discharged from all liability to the Contractor and this contract shall be terminated.

13. If the Owner should cancel the contract with the Contractor, the Contractor will be financially responsible for any corrections needed to the work accomplished up to the date of written termination. This amount will not exceed the percentage of the project completed at that time. The percentage complete will be determined by the Owner's project manager and engineer.
14. The Contractor may terminate this contract by giving written notice to the Owner at any time.
15. Any expenses required to obtain a new contractor based on the Contractor's terminating this agreement will be deducted from the proportional amount as determined by the Owner in the process stipulated in item (14) of this agreement.
16. The Contractor shall indemnify and hold harmless the Owner and its' agents and employees and shall defend at its own expense all claims, demands, or lawsuits or equity arising in whole or in part from the Contractor's negligence or breach of any of its obligations under this contract agreement.
17. The Owner shall indemnify and hold harmless the Contractor and its' agents and employees and shall defend at its own expense all claims, demands, or lawsuits arising in whole or in part from the Owner or its agents negligence or breach of any of its obligations under this contract agreement.
18. The Contractor will be required to provide proof of insurance before commencing work (see standard contract specifications, attached herein).
19. The contractor will obtain written documentation from their insurance provider showing that the landowner is covered under their liability insurance. This is to be provided to the Owner prior to commencing work.

Contract approved and accepted by:

BY _____
Authorized Owner Representative

Date _____

BY _____
Authorized Contractor Representative

Date _____

Standard Contract Specifications

SECTION 1 LEGAL RELATIONS AND RESPONSIBILITIES

Article 1.1 Laws to be Observed

The contractor will implement the Construction of the project in accordance with applicable federal, state, and local laws, regulations and LCFEG & RCO funding board policies. The contractor shall comply with, and LCFEG is not responsible for determining compliance with, any and all applicable federal, state, and local laws regulations and/or policies including but not limited to State Environmental Policy Act; LCFEG required insurance including Industrial Insurance Coverage; Architectural Barriers Act; permits (shoreline, Hydraulics Project Approval, demolition); land use regulations (critical areas Ordinances Industrial Safety and Health Act); and Buy American Act.

Article 1.2 Independent Capacity of the Contractor

The Contractor and its employees or agents performing under this agreement are not officers or agents of the LCFEG. The contractor will not hold itself nor claim to be an officer, employee, or agent of the LCFEG. The Contractor will be responsible for withholding and/or paying employment taxes, insurance, or deductions of any kind required by federal state, and/or local laws.

Article 1.3 Notice to Contractor Any written notice to the Contractor shall be considered served on said Contractor whether it is handed to their representative, or mailed or e-mailed by computer to the address stated in the Agreement.

Article 1.4 Notice by Contractor Any written notice to the LCFEG shall be considered served on the LCFEG whether it is handed to the Project Manager, or mailed or e-mailed to the address stated in the Agreement.

Article 1.5 Successors and Assigns The Contractor binds them self, their partners, successors, assigns, and legal representatives to the LCFEG with respect to all covenants, conditions, and obligations contained in the Agreement Documents.

Article 1.6 Assignments The Contractor shall not assign the whole or any part of any monies due or to become due from the Agreement without written consent of the LCFEG. Any assignment shall state that the right of the assignee to any monies due or to become due shall be first subject to prior claims of all persons, firms, and corporations who performed work or supplied equipment or materials for the Work.

Article 1.7 Licenses, and Permits The Contractor shall obtain and maintain all licenses, and permits except those the LCFEG obtains, necessary to perform the work. The Contractor shall comply with all conditions and requirements of the licenses and permits.

Article 1.8 Copyright and Patents The Contractor shall indemnify the LCFEG, it directors, employees and Project Manager from any and all claims, suits, or actions,

including attorney's fees and cost, brought for the infringement of any copyright or patent claim by virtue of use of any material, equipment, device, method or process utilized in the Work

Article 1.9 Insurance The Contractor **before** commencing work shall obtain all insurance stipulated in this Article. The Contractor shall maintain this insurance during the duration of the Work and until the date of Final Acceptance. The Contractor shall provide a certificate(s) of insurance from an acceptable insurance company showing the LCFEG as an additional named insured, verification that insurance is the type and amount specified, and is in full force. The certificate shall provide the address of the company, policy number, and expiration date and signed by an authorized representative of the insurance company.

Each policy will not be changed, canceled, not renewed, or allowed to terminate during the contract period without first providing the LCFEG with written notice of the action.

The following types of insurance shall be provided:

- Workers' Compensation as required by the State of Washington
- Comprehensive General Liability for bodily injury and property damage, resulting from operations of the Contractor, explosion, collapse, faulty products and materials, Contractual agreements and personal injury. Minimum limits shall be \$500,000.00, Combined Limit, Each Occurrence and Aggregate
- Comprehensive Automobile Liability for bodily injury and property damage, including all owned, hired and non-owned automobiles. Minimum limits shall be \$500,000.00 Combined Limit per accident.
- Excess Liability Insurance, Umbrella Form. Minimum limits shall be \$1,000,000.00 Combined bodily injury and property damage
- Additionally insurance for 100% of the replacement value of the loss of Work because of damage by fire, theft, vandalism, and malicious mischief.

Article 1.10 Indemnification The Contractor shall indemnify, defend and hold harmless the LCFEG, its Directors, employees and its agents from and against all claims, damages, losses and expenses including attorneys' fees arising out of or resulting from performance of the work; provided that any such claim, damage, loss, or expense is (1) attributable to bodily injury, sickness, disease, death or personal injury, or to damage or destruction of tangible property including the loss of use there from; and (2) is caused in whole or in part by any negligent act, error, or omission of the Contractor or anyone employed directly or indirectly by them, regardless whether or not it is caused in part by a party indemnified hereunder.

Article 1.11 Claims by Workmen, Suppliers and Subcontractors In the event the Contractor or any Subcontractor fails, neglects or refuses to make prompt and full payment for labor, services, materials supplies, equipment rental or provisions furnished by any person in connection with the Work, then the LCFEG may withhold the amount due from the Contractor's payment(s) provided that an affidavit of claim is received by the LCFEG. The withholding shall not relieve the Contractor or their Surety from their obligations with respect to payment for such claims.

Article 1.12 Certified Payroll, Prevailing Wages The contractor agrees to pay the prevailing rate of wage to all workers, laborers, or mechanics employed in the performance of any part of this Agreement when required by state law to do so, and to comply with the

provisions of Davis-Bacon Act, other federal laws and Chapter 39.12 RCW as amended, and the rules and regulations of the Department of Labor and Industries.

The Contractor and Subcontractors shall submit copies of all declarations of certified payroll signed and attested to, that all applicable employees have been paid for all hours worked at least at the Prevailing hourly rates set by the State and Federal Department of labor, whichever is higher, for the job performed, and region within which the work was accomplished. The submittal shall provide the name of the employee, the job classification, hours worked, the hourly rate paid, and the total amount paid. Submittals shall be provided to the LCFEG Operations Director within 5 days of the end of each pay period and shall include all labor expenses incurred.

Article 1.13 Lawsuits Any lawsuit filed as a result of this Agreement by the Contractor or their Surety, agents or related parties shall commence in the Superior Court of the State of Washington situated within Clark County.

Article 1.14 Equal Employment Opportunity The contractor shall comply with all applicable federal, state, and local nondiscrimination laws and/or policies, including but not limited to: the Americans with Disabilities Act; Civil Rights Act; and the Age Discrimination Act. In the event of the contractor's noncompliance or refusal to comply with any nondiscrimination law or policy, the agreement may be rescinded, cancelled, or terminated in whole or in part, and the contractor may be declared ineligible for further work with the LCFEG. The contractor is responsible for any and all costs or liability arising from the contractor's failure to comply with applicable law.

The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, national origin, ancestry, age, sex or marriage status. To the extent that it is not a factor in ability to perform the work, the Contractor shall not discriminate because of mental or physical handicap. The Contractor shall take affirmative action to insure that the aforementioned conditions are not a factor in employment. The Contractor agrees to post in a conspicuous place poster(s) setting forth the provisions of non-discrimination. The Contractor shall declare that discrimination will not be a factor in any advertisement for personnel and shall also require the same provisions of every subcontractor.

Article 1.15 Rights and Remedies The duties and obligations of the Contractor, their agents and subcontractors imposed by the Agreement Documents and the rights and remedies of the LCFEG available there under shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise available under law.

The failure of the LCFEG or its Project Manager to insist in any one or more instances upon the strict performance of any one or more provisions of the Agreement or to exercise any right herein contained or provided by law, shall not be a waiver or construed to be a waiver or relinquishment of the performance of such provisions. Such provision shall continue unchanged and remain in full force and effect.

Article 1.16 Records Management The contractor shall maintain books, records, documents, data, and other evidence relating to this agreement and performance of the services described herein, including but limited to accounting procedures and practices which sufficiently and properly reflect all direct and indirect costs of any nature expended in the performance of this agreement. The contractor shall retain such records for a period of six years from the date LCFEG & the Funding Source closes the project. At no additional

cost, these records, including materials generated under the agreement, shall be subject to at all reasonable times to inspection, review or audit by an LCFEG Auditor or the Funding Source, personnel duly authorized by the Funding Source, LCFEG appointed Auditor, the Office of the State Auditor, and federal and state officials so authorized by law, regulation or agreement. If any litigation, claim or audit is started before the expiration of the six (6) year period, the records shall be retained until all litigation, claims, or audit findings involving the records have been resolved.

The Contractor acknowledges that the LCFEG receives grant funds to perform functions of Salmon Habitat Restoration. All federally full, or partial funded projects are subject to 42.56 RCW and that this contract shall be defined as a public record as defined by 42.56 RCW.

In compliance with chapter 39.29 RCW, the contractor shall provide access, when requested to data generated under this contract to the LCFEG, Funding Source representatives, the Joint Legislative Audit & Review Committee, and the State Auditor at no additional cost. This includes access to the project for which this agreement applies.

Article 1.17 Debarment Certification for Federally Funded Projects The Contractor (lower tier participant) certifies to the LCFEG that neither they nor their subcontractors are suspended or debarred. The prospective lower tier participant certifies, by signing this agreement, that neither it nor its principals nor any other lower tier participants are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency. The prospective lower tier participant shall provide immediate written notice to the LCFEG if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. Should the prospective lower tier participant (contractor) enter into a covered transaction with another person at the next lower tier, the contractor agrees by signing this agreement that it will verify that the person with whom it or its lower tier participant intends to do business is not excluded or disqualified. The lower tier participant (contractor) will do this by:

- A. Checking the federal Excluded Parties List System (www.epls.gov) for that person or
- B. Collecting a certification from that person (LCFEG contract)
- C. Adding a clause or condition to the covered transaction with that person.

The prospective lower tier participant (contractor) agrees by signing this agreement that it shall not knowingly enter into a lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in a covered transaction may rely upon certification of a prospective lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows the certification is erroneous.

Article 1.18 Construction, Operation, Use and Maintenance of Assisted Projects

Contractor must ensure that the project site including undeveloped sites, are built, operated, used and maintained:

- A. According to applicable federal, state, and local laws and regulations, including public health standards and building codes.
- B. In a reasonable safe condition for the project's intended use
- C. Throughout its estimated life so as to prevent undue deterioration

- D. In compliance with all federal and state nondiscrimination laws, regulations, and policies.

Facilities open to the public must:

- A. Be constructed to meet or exceed the minimum requirements of most current local or state codes. Uniform Federal Accessibility Standards, guidelines, or rules, including but not limited to: the international Building Code, the Americans with Disabilities Act, and the Architectural Barriers Act, as updated and where applicable.

Article 1.19 Order of Precedence This agreement is entered into, pursuant to, and under the authority granted by applicable federal and state laws. The provisions of the agreement shall be constructed to conform to those laws. In the event of an inconsistency shall be resolved by giving precedence in the following order:

- A. Applicable federal or state statues, regulations, policies and procedures including the funding source and policies and procedures, applicable federal office of management and budget (OMB) circular and federal and state executive orders;
- B. Agreements including attachments
- C. Special conditions
- D. Standard terms and conditions of the Agreement.

The provisions of this agreement are intended to be severable. If any term or provision is illegal or invalid for any reason whatsoever, such illegality or invalidity shall not affect the validity of the remainder of the agreement.

SECTION 2 MEASUREMENT AND PAYMENT

Article 2.1 Method of Measurement All work completed under this Agreement shall be measured by the Project Manager and/ or Project Engineer.

Article 2.2 Scope of Payment The Contractor shall accept the compensation herein provided as full payment for the Work. The Contractor shall do all things necessary to perform and complete the Work in accordance with the Agreement Documents. Any loss, damage or liability arising from the nature of the work or from the action of the weather, flooding, delays caused by the Contractor, or any unforeseen occurrence and difficulties which may be encountered shall not entitle the Contractor to additional payment. Work paid for under one item will not be paid for under another item.

Article 2.3 Advance on Materials If prior approved by the Project Manager, the Contractor may request payment for materials yet to be incorporated in the work but delivered to the Work site or other site approved by the Project manager. The amount of Payment will be based upon the cost of the materials and shipping and will not exceed the amount of invoice. The Contractor shall make available to the Project Manager, evidence of the amount and payment to the supplier.

No advance payment will be made for fuel, supplies, forms, false work, equipment or rented equipment, or temporary structures of any kind, which will not become an integral part of the finished Work.

Article 3.4 Progress Payments The Contractor may request progress payments after 25% of the work is complete. Applications for progress payments shall be submitted upon

forms provided by the Project Manager supported by such data as the Project Manager may require.

The project Manager shall review the application and within 7 days and either:

- Approve the application,
- Disapprove the application,
- Or approve only a partial payment requested in the application.

The Project Manager shall provide with their approval an explanation of the basis for their action.

No payment will be made to the Contractor for the following:

- Defective work or uncompleted portions of the Work
- Claims by Subcontractors, suppliers, laborers, or the Department of Labor
- Claims made directly to the LCFEG based upon actions or omissions of the Contractor, subcontractors or their agents

The LCFEG will retain 25% of the total approved bid amount until the entire project is completed and accepted. Retainage will be withheld until all work is completed and accepted by the Project Manager, Project Engineer and Executive Director.

The LCFEG will endeavor to make payment of approved payments within 45 days of receipt of invoice. However it is understood by the Contractor that grant funds made available for compensation are not normally available except by reimbursement from the grant funding source and are made only upon that sources receipt of all documentation that funds have been properly expended in accordance with that agencies policies and procedures. If the Contractor has not received payment within 90 days then they may suspend work until payment is made. During any such suspension the Contractor shall take every precaution to prevent damage, deterioration or siltation of receiving water courses resulting from erosion of disturbed soil.

Article 2.5 Final Payment Upon final inspection approval the Project Manager will accept a request for final payment and certification of final project completion. No final payment or certification will be given until the following certification of compliance from the Contractor signed by them, is received by the Project manager.

I (we) hereby certify that all work has been performed and materials supplied in accordance with the Agreement Documents; that not less than the prevailing wages as required have been paid to all laborers, equipment operators and mechanics; that all payroll taxes have been paid; and all claims for materials and labor and other services performed in connection with the work have been satisfied.

Upon receipt of the above request and certification the LCFEG will make final payment.

Acceptance of final payment by the Contractor shall release the LCFEG from all claims and liability to the Contractor for all things done or furnished with the Work, and for every act of the LCFEG, its Project Manager, and agents relating to or arising out of the Work.

My signature below signifies I have read, understand and agree to abide by the standard contract specifications above.

Contractor Representative
Signature _____

DATE _____

PROJECT SPECIFIC PROVISIONS & BID PREPARATION GUIDANCE

Definitions:

Contractor: the individual, partnership, firm, corporation, or joint venture who will be Contracting with the Owner to do the prescribed Work.

Owner: the party that is responsible for the execution and administration of the Contract.

Owner's Representative: the person who administers the construction program.

Plans: the Contract Plans or Standard Plans which show location, character, and dimensions of prescribed Work including layouts, profiles, cross-sections, and other details.

Standard Specifications: Generally defines owner and contractor requirements

Special Provisions: supplemental Specifications and modifications to the Standard specifications and the amendments to the Standard Specifications that apply to an individual project.

Special Notes:

Spoils: All spoils developed as a result of this contract must be disposed off-site and above the 100 year floodplain. LCFEG may require the contractor to certify the spoil material is properly disposed of per local government regulations.

Permits: The Contractor shall be responsible for meeting the requirements of all Permits issued to this project, including implementing, inspecting and filing reports, maintaining, replacing and removing Temporary Erosion and Sediment controls (TESC), and Spill Prevention, Control, and Countermeasure (SPCC) measures. All reporting requirements are incidental to the described items and no additional measurement and payment will be made. Including but not limited to: Nationwide Permit (ACOE), Hydraulic Project Approval (HPA), and Construction Stormwater General Permit (NPDES).

Construction Schedule: The inwater work window specified in the permits extends from August 1 to September 30, 2011. In order to ensure construction activities are completed within this time period, the selected contractor must begin work prior to August 10 and must demonstrate their ability to complete the project within the schedule. Preparation work, including establishment of access, clearing, staging, and initial excavation, may begin prior to August 1 if said work does not require a permit and the Project Manager has been notified. Preference will be given to contractors that can ensure an early start and efficient completion of the project in a timely manner.

Construction Oversight: The Contractor shall provide the Owner with regular scheduling updates and advance notice of all construction activities. Construction activities shall occur only when the Owner or Owner's Representative is on site unless the Contractor receives authorization to conduct project work in the Owner's absence.

1. **Mobilization**

This item shall consist of all preparation work and operations performed by the Contractor prior to beginning work on the project including demobilization. In addition, all costs for acquiring, preparing, and cleaning up the staging area for the project will be considered part of this item.

MEASUREMENT AND PAYMENT

Based on the lump sum contract price

2. **Establish Access**

Haul roads shall be on existing access roads or within the footprint of clearing and grubbing as shown in the Plans.

The Contractor shall establish stable access routes. The Contractor is advised that saturated conditions are to be expected at excavated depths and surface water and muck may be encountered in some areas. Groundwater infiltration into excavations shall be expected. In wet areas, establishment of stable access routes may require the use of temporary roadbed materials; these will be furnished and installed by the Contractor and will be fully removed following construction. Materials and methods used for roadbed material must be approved by the Owner's Representative or Owner prior to construction. Tracked dump trucks are recommended for un-amended access routes. Installing brush or logs to distribute wheel loading is recommended for wheeled vehicle access.

MEASUREMENT AND PAYMENT

Based on the lump sum contract price

3. **Erosion and Sediment Control**

This item includes provisions for erosion control, dewatering, and dust control.

- A. Erosion and sediment control measures shall be taken to ensure that no sediment or sediment-laden waters that originate from construction activities are allowed to drain away from the site and enter adjacent water bodies or wetlands. Erosion control shall utilize Best Management Practice (BMP) to prevent or reduce erosion. Erosion control shall be in place prior to commencing any ground-breaking activity, including but not limited to clearing and grubbing. Erosion control includes measures to control surface runoff originating from precipitation, adjacent water bodies, irrigation return flow, or other sources. The Owner's Representative or Owner will determine the effectiveness of the erosion control program and may request the Contractor to provide additional measures, at no additional cost to Owner.
- B. Dewatering shall be conducted as necessary to facilitate construction and to avoid discharge of turbid water into adjacent water bodies, including the Lewis River, the tributary, or nearby wetlands. This item shall consist of furnishing and running a pump

- or pumps capable of dewatering the work area prior to and during construction in order to facilitate excavation, channel shaping, and placement of large wood. The Contractor shall dispose of water from the project area in a suitable manner and without damage to adjacent property or to the channel bed and banks. Turbid water shall be discharged to vegetated areas that allow for infiltration, or controls shall be added to the dewatering system to prevent the discharge of any turbid water from leaving the site, and to prevent the build-up of sediment in wetlands located within the site. Such controls may include stilling basins, or filtration with fabrics if necessary. The Contractor shall be fully responsible and liable for all damages that may result from failure to adequately keep the excavation dewatered. The Owner's Representative or Owner will determine the effectiveness of the dewatering program and may request the Contractor to provide additional measures, at no additional cost to Owner.
- C. The Contractor shall use all reasonable measures to control dust during construction so that it is not visible beyond the limits of disturbance and so that airborne particulate matter does not enter adjacent agricultural areas. Dust control measures may include frequent road cleaning, and application of water. Utilize methods and practices of construction to eliminate dust in full observance of agency regulations. The Owner's Representative or Owner will determine the effectiveness of the dust control program and may request the Contractor to provide additional measures, at no additional cost to Owner.
- D. The Contractor shall submit an Erosion and Sediment Control Plan as necessary to satisfy the requirements of all required permits. The plan shall be sufficient to protect the work in progress, and must be approved by the Owner's Representative prior to implementation. This Plan shall include:
- Narrative of the access, erosion control, dewatering, and dust control methods to be used
 - Provisions for repairs or maintenance of erosion/sediment controls, dust controls, and dewatering measures in case of failure
 - The plan shall include the name, address and 24-hour contact number of the person responsible for erosion and sediment control measures

MEASUREMENT AND PAYMENT

Payment shall be per lump sum contract price. This item shall include the provision, installation, inspection, maintenance, replacement, and repair of all Erosion and Sediment Control measures.

4. Clearing and Grubbing

This item consists of clearing and grubbing for construction and access. This item also includes the stockpiling and later incorporation of cleared woody material into log jam structures. Clearing and Grubbing area is 4 acres.

Included in this item are the removal, haul, and disposal of the topsoil and sod, shrubs, stumps, and non-native vegetation (Himalayan Blackberry and Scotch Broom). If the noxious weed *Japanese Knotweed* is found on site, the plants shall be handled separately by excavating to remove all roots and shall be disposed of by 6' deep burial or burned at a disposal site provided by the Contractor. Disposal site will be provided by the Owner. Disposal method shall be approved by the Owner.

All cleared woody material less than 8 inches diameter at breast height (dbh) shall be set aside and reserved for later incorporation into woody debris structures (log jams). Incorporation of this woody material into structures shall be considered part of this bid item. The salvage and handling of trees greater than 8 inches dbh shall be conducted in accordance with the provisions specified in bid item 11.

Contractor will refrain from clearing any vegetation not required to complete project.

MEASUREMENT AND PAYMENT

Payment for Clearing and Grubbing shall be lump sum contract price for four acres. The Contractor shall provide all labor, materials and equipment necessary for excavation and disposal and/or placement of cleared and grubbed materials.

5. **Side Channel Excavation, including Haul**

This item consists of bulk excavation of the Side Channel for construction as shown on the plans. Included in this item are excavation, haul, and disposal.

All excavated material that is not necessary for channel shaping (see bid items 6 and 7) shall be hauled to a spoil site provided by the Contractor. The in situ volume of material to be excavated and hauled to a spoil site is estimated at approximately 21,000 cubic yards. Initial excavation for the channel shape should not be carried deeper than the elevations shown. **The Contractor shall bear all costs for correcting over excavated areas.**

Known materials to be excavated include sand, gravel, and cobble, with occasional boulders and buried logs. The Contractor is advised that portions of excavations will be below groundwater levels. Saturated soils are to be expected.

The Contractor is responsible for finding an appropriate spoil disposal site located outside of the project area and above the FEMA regulated 100-year floodplain.

MEASUREMENT AND PAYMENT

Payment for Channel Excavation Including Haul shall be by lump sum contract price, which payment shall be considered full compensation for all tools, equipment, materials, labor, and incidentals required to complete this work as specified herein.

6. **Side Channel Grading**

This item consists of shaping the constructed side channel streambed and streambanks by excavating approximately 500 cubic yards to form channel pools and placing the fill to form channel bars, riffles, and banks. Perform all shaping of the channel to the elevations, lines, and grades as shown on the Plans and as directed by the Owner's Representative.

MEASUREMENT AND PAYMENT

Payment shall be lump sum contract price.

7. **Tributary Construction**

This item consists of building the constructed tributary channel streambed and streambanks by excavating 400 cubic yards to form a new channel including bedform

grading (e.g. pools and riffles). Perform all shaping of the channel to the elevations, lines, and grades as shown on the Plans and as directed by the Owner's Representative.

MEASUREMENT AND PAYMENT

Payment shall be lump sum contract price.

8. **Boulders Incl. Cabling and Clamping**

Contractor shall conduct work related to furnishing and installing 10 boulders, cabling and securing logs to the boulders as shown in the Plans and as directed by the Owner or Owner's Representative.

This work includes: drilling boulders, applying epoxy, installing cables and cable clamps.

MATERIALS

BOULDERS

The size of each boulder shall be characterized by 3 dimensions A, B, & C with A-axis being the longest dimension. B-axis, the 2nd longest dimension, shall be minimum 36". Boulders shall be non-fractured basalt or other hard durable rock with minimum specific gravity of 2.65.

CABLE

Cable shall be galvanized, steel core, 1/2-inch diameter and shall have a minimum nominal tensile capacity of 6 tons.

CABLE CLAMPS

Cable clamps shall be galvanized steel and shall meet the performance requirements of Federal Specification FF-C-450 TYPE 1 CLASS 1. Cable clamps shall be Crosby Clips, "G-450" or approved equal. Number and spacing of clamps will conform to manufacturer specifications for intended application.

EPOXY

Epoxy for anchoring shall be Hilti HIT-RE 500 adhesive or approved equal.

CONSTRUCTION

Install boulders as shown in the plans at the Side Channel Inlet. The boulders will be installed below finish grade in an excavated trench. The boulders shall be cabled to a sill log also installed in the excavated trench.

For each connection, make a complete wrap with the cable around the log to be cabled.

Drill holes in solid rock and avoid any cracks or fractures. Holes shall be 9/16 inch in diameter. Holes must be drilled 6 inches, minimum, into rock. Holes must be cleaned of loose rock fragments and powder with a brush and water. Holes must be clean of all dust, debris, oil, and soap residues. The holes must flush clear to insure No material exists between the cable, epoxy, and rock surface.

Install epoxy per manufacturer's recommendations. Fill drill holes with enough epoxy to ensure complete coverage of inserted cable.

Wipe cable with clean rag soaked in acetone to remove oils and greases prior to insertion into epoxy filled hole. Insert cable into hole so that end of cable hits the bottom of the hole. Excess epoxy should come out of the top of the hole as cable is seated in hole. Test strength of bond by picking up log after minimum cure time recommended by the epoxy manufacturer. If bond fails, replace with a new hole and cut the contaminated end off of the cable.

Use three cable clamps at each clamping location. Install clamps after epoxy has cured enough to prevent movement or loosening. Following clamping, cable shall not have more than a 1-inch gap between the cable and the woody debris when levered with a steel bar. No slack will be allowed.

MEASUREMENT AND PAYMENT

Boulders Incl. Cabling and Clamping shall be paid as part of the lump sum contract price. The Contractor shall provide all labor, materials, and equipment necessary to perform Boulder Cabling and Clamping. Installed logs and vertical piles shall be paid under separate items (see bid items 9 and 10)

9. Large Wood Installation

This specification includes logs and logs with attached rootwads used as the primary key pieces to construct log jams. This specification does not include pilings used to ballast log structures (see bid item 10) or slash added to log structures (see bid item 4). Work includes

MATERIALS

Approximately 165 pieces of large wood (logs) will be provided by the Owner and placed in the stockpile area. Logs will generally have the following characteristics:

- At least 40% will contain an attached rootwad.
- Trunk diameter of logs (measured at the small end) will range from 10 to 24 inches, with at least 25% of logs exceeding 18 inches diameter.
- Log length will range from 30 to 50 feet.
- Logs will be cedar, fir, spruce, or hemlock.
- Logs will be recently harvested or in a 100% rot free condition.
- Rootwads will be a minimum of 6 feet in diameter.

CONSTRUCTION

Care should be taken when handling log materials to minimize damage such as abrasion, splitting, crushing and shearing to the tree trunk and roots.

Locations and orientations of logs will generally be as indicated in the Plans; however, final specific location and orientation will be approved by the Owner's Representative or the Owner and will depend upon the specific shape of wood and site conditions. Installation of woody debris shall be understood to require a "fit in the field" approach as directed by the Owner's Representative or Owner.

Logs shall be partially buried to provide ballast and/or to accommodate the positions and alignments of logs. The depth and length of burial of each log will vary from 0 to 20 feet as directed by the Owner's Representative or Owner. Up to four logs will be completely buried

near the side channel inlet. Burial material shall be bucket-compacted to minimize shifting or rocking motion of the log. Excavating trenches for placement of logs and backfilling material shall be incidental to this item.

Ballasting of logs shall be provided through partial burial of logs and/or attachment to buried vertical pilings. Placement will require consideration of fastening requirements such as installing each log so that it is in direct contact to one or more piles (Piles - Bid Item 10) and/or other logs. Fastening will be performed by the Owner either during or following construction.

MEASUREMENT AND PAYMENT

Woody Debris installation shall be paid on a lump sum contract price basis. The Contractor shall provide all labor, materials and equipment necessary to move Large Wood from the stockpile site and install it, including incidental excavation and handling.

10. **Vertical Log Pilings Installation**

Approximately 210 logs will be used as vertical pilings to provide ballast to Large Wood Installations. Logs will be provided by the Owner and placed in the stockpile area. Logs will generally have the following characteristics:

- Trunk diameter of logs (measured at the small end) will be minimum 10 inches.
- Log length will range from 25 to 30 feet.
- Logs will be cedar, fir, spruce, or hemlock.
- Logs will be cleaned of secondary branches and include only the main trunk.
- Logs will not be milled round pilings and will be free of any treatment.
- Logs will be recently harvested or in a 100% rot free condition.

Care should be taken when handling log materials to minimize damage such as abrasion, splitting, crushing and shearing to the tree trunk and roots.

Each vertical log pile shall be buried minimum 14 feet deep vertically below finish grade. Burial depths are known to be below groundwater levels so burial by excavating a hole and backfilling will not be feasible. **Therefore, pile driving equipment shall be used to install vertical log piles.** The Owner's representative will insure logs can be fastened to piling before approving completed work.

MEASUREMENT AND PAYMENT

Vertical log piling installation shall be paid on a lump sum contract price basis. The Contractor shall provide all labor, materials and equipment necessary to move and install Vertical Log Pilings including incidental handling. The Owner will provide labor, tools and materials to fasten logs to pilings.

11. **Salvaged Trees with Rootwads**

This item includes trees greater than 8 inches dbh that must be removed because they are within the project clearing limits. Trees meeting these criteria will be removed during initial clearing and grubbing and will be set aside and later incorporated into Large Woody Debris structures or repositioned as floodplain roughness. Trees to be salvaged shall be pushed over and handled so that root wads and branches remain largely attached and intact. After initial removal, trees shall be set aside outside the channel construction area for ease of access for placement in channel following placement of other log structures (bid item 9). Salvaged trees do not count towards the total wood numbers specified in other provisions. No trees outside the limits of construction or access routes shall be removed.

Placement locations and orientations of salvaged trees will generally be as indicated in the Plans; however, final specific location and orientation will be approved by the Owner's Representative or the Owner and will depend upon the specific shape of wood and site conditions. Ballast will be provided through attachment to buried vertical pilings. Specifications for pilings are included in bid item 10. **Fastening will be performed by the Owner either during or following construction. Placement will require consideration of fastening requirements.**

MEASUREMENT AND PAYMENT

Payment shall be lump sum contract price. The Contractor shall provide all labor, materials and equipment necessary for salvage, stockpiling, and placement of trees.

12. Temporary Cofferdams

This item consists of providing and installing and/or constructing measures to bypass the surface waters of the stream around in-channel work areas, and to pump and treat turbid flow if necessary.

MATERIALS

BULK BAG COFFERDAM

Bulk bags shall be waterproof 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 cover the entire cofferdam without seams. Minimum 12-ft wide roll shall be used for single layer bulk bag cofferdam. Minimum 16-ft roll shall be used for 2-layer stacked bulk bag cofferdam.

Standard sandbags shall be filled with sand or pea gravel.

PUMPS

The Contractor shall be responsible for determining pump capacity requirements to provide pumping as shown in the Plans.

Alternative cofferdam materials and configurations may be allowed but shall not be implemented without review and approval by the Owner or Owner's Representative. Contractor shall provide shop drawings and/or vendor cut sheets for substitutions.

CONSTRUCTION

This item includes cofferdams for isolating the work area(s) from the waterway. Pumping from within the coffer dammed area shall be conducted to remove impounded water and discharge it to vegetated areas for infiltration. Controls shall be added as needed to prevent the discharge of any turbid water from leaving the site, and to prevent the build-up of sediment in wetlands located within the site. Such controls may include stilling basins, or filtration with fabrics if necessary.

Bulk bag cofferdam shall be constructed of several units of bulk bags filled with 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 the work area side of the cofferdam with outward edge of sheeting minimum 4-feet from toe of cofferdam. The draped portion of plastic sheeting shall be pinned to the channel bed by minimum two rows of standard sandbags. The outward edge of plastic sheeting shall be toed into the channel bed minimum 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.

This work includes the furnishing, operation, and maintenance of the pump or pumps as necessary to complete work in the area associated with the pumped diversion.

Commencement of Temporary Cofferdams shall be concurrent with Fish Exclusion. Contractor shall coordinate with the Owner to schedule Fish Exclusion and fish rescue, with 5 days advance notice.

Bulk bag cofferdam shall be completely removed after construction is completed and turbidity has been removed. Care shall be taken to minimize sediment disturbance during the removal process. All temporary material shall be removed from the site at the conclusion of the project.

At Contractor's discretion, additional cofferdams may be installed but at no cost to the Owner.

MEASUREMENT AND PAYMENT

Measurement and payment for bulk bag cofferdam shall be lump sum contract price. Sandbags and plastic sheeting shall be incidental to Temporary Cofferdams.

The contractor shall provide all equipment, materials, and labor necessary to construct and maintain cofferdams and pumps.

Provision, installation, inspection, replacement, and repair of pumps or sediment controls for residual dewatering of in-channel work areas shall be incidental to Temporary Cofferdams.

BID PROPOSAL for NF Lewis River 13.5 (Phase 2) Habitat Enhancement Project

<u>No.</u>	<u>Item</u>	<u>Price</u>
1	Mobilization	\$ _____
2	Establish Access	\$ _____
3	Erosion and Sediment Control	\$ _____
4	Clearing & Grubbing	\$ _____
5	Side-Channel Excavation , Incl. Haul	\$ _____
6	Side Channel Grading	\$ _____
7	Tributary Construction	\$ _____
8	Boulders Incld Cabling & Clamping	\$ _____
9	Large Wood Installation	\$ _____
10	Vertical Log Pilings Installation	\$ _____
11	Salvaged Trees with Rootwads	\$ _____
12	Temporary Cofferdams	\$ _____
	<u>SUB TOTAL</u>	\$ _____
	<u>Sales Tax 8.4%</u>	\$ _____
	<u>Lump Sum Contract Price TOTAL</u>	\$ _____